

U.S. DEPARTMENT OF THE INTERIOR

U.S. GEOLOGICAL SURVEY

**Estimates of Technically Recoverable Natural Gas Resources
for Continuous-Type (Unconventional) Plays in Coal Beds
on Federal Lands of the Conterminous United States**

by

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This report is preliminary and has not been reviewed for conformity with U.S. Geological Survey editorial standards and stratigraphic nomenclature.

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INTRODUCTION

This report gives estimates of technically recoverable natural gas resources for continuous-type (unconventional) plays in coal beds on Federal Lands of the conterminous United States. Continuous-type accumulations may have spatial dimensions approaching those of plays and cannot be represented in terms of discrete, countable entities delineated by downdip hydrocarbon/water contacts, as are conventional accumulations. Continuous-type gas and oil plays in sandstones, shales, and chinks on Federal Lands are treated in a separate report (Crovelli and Schmoker, 1997). For the purposes of this report, Federal Lands are considered to be surface or subsurface lands owned or managed by Federal agencies, or in cooperation with State or private interests. This specifically excludes Indian and Native lands, even where administered in trust by the United States. The Federal Lands estimates herein are derived as a portion of the coalbed-gas plays assessed in the USGS 1995 National Assessment (Gautier and others, 1995; U.S. Geological Survey National Oil and Gas Resource Assessment Team, 1995).

The U.S. Geological Survey periodically makes appraisals of the oil and gas resources of the Nation. In its 1995 National Assessment the onshore areas and adjoining State waters of the Nation were assessed. The basic assessment unit was the play. Thirty-nine coalbed-gas plays were assessed as part of the 1995 National Assessment (Crovelli and Balay, 1995; Rice and others, 1995). A fractal lognormal percentage assessment was also made of these plays (Crovelli and others, 1995).

ASSESSMENT

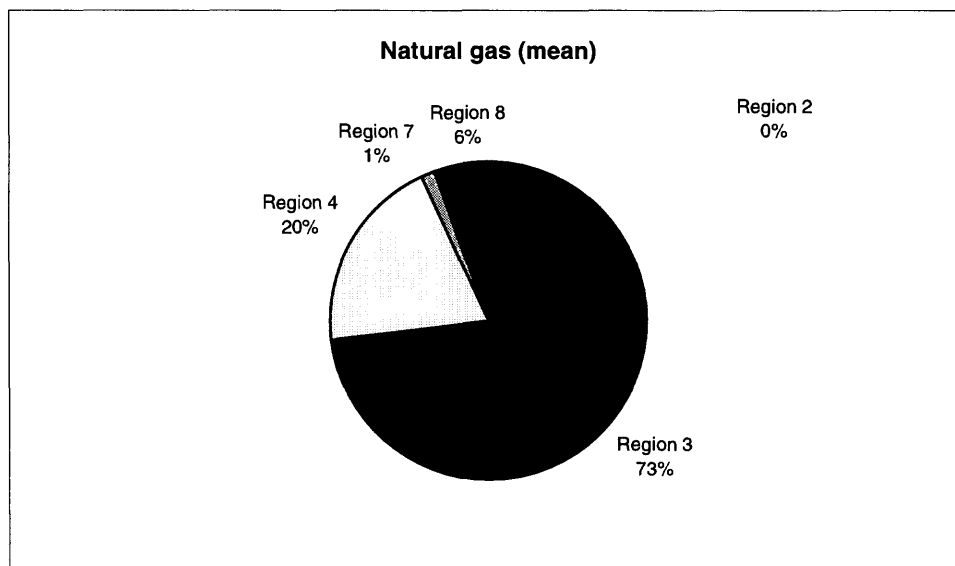
Federal Lands percentages were estimated for the 39 assessed coalbed plays (Appendix A). This was done by overlaying the coalbed-gas plays as described in the 1995 National Assessment on maps of Federal Lands. These land percentages were assumed to represent the fractions of coalbed-gas resources which are on Federal Lands. Ten of the coalbed plays contained no Federal Lands.

A summary of estimates of technically recoverable natural gas resources for continuous-type (unconventional) plays in coal beds on Federal Lands of the conterminous United States for the regions and nation is given in table 1 with corresponding embedded pie chart. The UNCLE (unconventional energy) system (Crovelli and Balay, 1995) was used to calculate estimates of technically recoverable natural gas resources in those parts of the coalbed plays on Federal Lands. The UNCLE system is an analytic probabilistic methodology developed for assessing unconventional petroleum resources. The 29 non-zero percentages were applied to their respective coalbed play estimates using the UNCLE computer program (Appendix B). The play estimates were aggregated to obtain megaplay estimates (Appendix C), megaplay estimates were aggregated for province estimates (Appendix D), province estimates were aggregated for region estimates (Appendix E), and region estimates were aggregated for nation estimates (Appendix F). All of the coalbed-gas aggregations were performed with the UNCLE-AG computer

Table 1. Estimates of technically recoverable natural gas resources for continuous-type (unconventional) plays in coal beds on Federal Lands of the conterminous United States for the regions and nation.

[Fractile values (F95, F5) are not additive. F95 represents a 19 in 20 chance and F5 represents a 1 in 20 chance of the occurrence of at least the amount tabulated.]

Area	Natural gas (trillion cubic feet)		
	Mean	F95	F5
Region 2--Pacific Coast	0.06	0.02	0.1
Region 3--Colorado Plateau and Basin and Range	11.69	9.6	14.04
Region 4--Rocky Mountains and Northern Great Plains	3.2	1.39	6.04
Region 7--Midcontinent	0.23	0.16	0.31
Region 8--Eastern	0.9	0.66	1.19
Nation	16.08	12.97	19.63



program. The aggregation scheme for aggregating the various levels is displayed in Appendix G. The play names and numbers are given in Appendix H.

ACKNOWLEDGMENT

The authors wish to gratefully acknowledge Richard H. Balay at Metropolitan State College of Denver for assisting in a printing modification of the UNCLE software system.

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- Rice, D.D., Young, G.B.C., and Paul, G.W., 1995, Methodology for assessment of technically recoverable resources of coalbed gas, *in* Gautier, D.L., Dolton, G.L., Takahashi, K.I., and Varnes, K.L., eds., 1995 National Assessment of United States oil and gas resources - Results, methodology, and supporting data: U.S. Geological Survey Digital Data Series DDS-30 [CD-ROM].
- U.S. Geological Survey National Oil and Gas Resource Assessment Team, 1995, 1995 National Assessment of United States oil and gas resources: U.S. Geological Survey Circular 1118, 20 p.

APPENDIX A

Percentage of Federal land in the coalbed-gas plays of the USGS 1995 National Assessment

Percentage of Federal land in the coalbed-gas plays of the USGS 1995 National Assessment.
 Play names are provided in Appendix H; abbreviated play names are used in Appendix B.

Region; (Province)	Play No.	% Federal Land
Region 2--Pacific Coast		
(Western Oregon-Wash.)	450	1
	451	10
	452	4
Region 3--Colorado Plateau and Basin and Range		
(Uinta-Piceance Basin)	2050	50
	2051	60
	2052	90
	2053	85
	2054	80
	2055	50
	2056	80
	2057	85
(San Juan Basin)	2250	55
	2252	50
	2253	35
Region 4--Rocky Mountains and Northern Great Plains		
(Powder River Basin)	3350	95
	3351	85
(Wind River Basin)	3550	40
(S.W. Wyoming)	3750	65
	3751	35
	3752	25
	3753	70
	3754	70
	3755	70
(Raton Basin-Sierra Grande	4150	10
Uplift)	4151	0
	4152	0
Region 7--Midcontinent		
(Forest City Basin)	5650	0
(Cherokee Platform)	6050	0
(Arkoma Basin)	6250	0
	6251	10
Region 8--Eastern		
(Illinois Basin)	6450	0
(Black Warrior Basin)	6550	0
	6551	0
	6552	3
	6553	2
(Appalachian Basin)	6750	0
	6751	7
	6752	5
	6753	0

APPENDIX B

Play estimates of technically recoverable natural gas resources for continuous-type (unconventional) plays in coal beds on Federal Lands of the conterminous United States.

[Printouts are arranged by play number. The first page of a play printout consists of the geologic data input, including abbreviated play names and numbers that correspond to Appendix A, play type (gas in all cases), play probability (0-1), success ratio (0-1), scenario (well spacing), geologic variables (EUR and number of untested cells distributions), and estimated percent of resource in subplay (Federal land). Full play names and numbers are given in Appendix H. The second page of the printout consists of the output of estimated gas resources for the Federal land (mean, standard deviation, and fractiles).]

I N P U T S U M M A R Y

Play Name	Province Name	Province #	Evaluator	Assessment Date
Bellingham basin, 0450	West Washington	04	Rice/Johnson	8/4/94

Play Type	Play Probability	Success Ratio	Scenario
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Gas	0.700	0.500	320 acres
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Geologic Variables	F100	F95	F75	F50	F25	F05	F0	Cutoff
Oil EUR* (10 ⁶ BBL)	0.00000	(0.00000)	(0.00000)	0.00000	(0.00000)	(0.00000)	0.00000	0.00000
NA Gas EUR* (10 ⁹ CF)	0.02000	0.06500	0.16000	0.30000	0.55000	1.10000	1.30000	0.02000
Oil Cells Depth (10 ³ Ft)	0.00000	(0.00000)	(0.00000)	0.00000	(0.00000)	(0.00000)	0.00000	0.00000
Gas Cells Depth (10 ³ Ft)	1.70000	(2.03333)	(2.36666)	2.70000	(3.03333)	(3.36666)	3.70000	0.00000
Number of Untested Cells	100	(150)	(200)	250	(338)	(483)	600	

* EUR = Estimated Ultimate Recovery

Gas-Oil Ratio	Expected Liquids/Gas Ratio	Estimated % of resource in subplay
CF/BBL	BBL/10 ⁶ CF	
0.000000	0.0000	1.000000

G E O L O G I C V A R I A B L E S and P R O B A B I L I T I E S O F O C C U R R E N C E

Cond. # Cells	# Cells	Mean	Std. Dev.	Resource					NGL		
				Oil	NA Gas	AD Gas	Gas/HC	NA Gas	AD Gas	Total	
279.675	108.210										
195.772	156.915										
0.00000	0.00000	0.00000	Prob. Untested Cell has	0.0000	0.5000	0.0000	0.5000	0.0000	0.0000	0.0000	0.0000
2.70000	0.43885	0.43885	Cond. Play Prob.	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000	0.0000	0.0000
			Uncond. Play Prob.	0.0000	0.7000	0.0000	0.7000	0.0000	0.0000	0.0000	0.0000
			Prob. Exceed Cutoff	0.0000	1.0000						
			Play Potential Cutoffs	0.0000	0.0002	0.0000	0.0002	0.0000	0.0000	0.0000	0.0000

	Mean	Std. Dev.	F95	F75	F50	F25	F05

OIL							
(10^6 BBL)							

No. Prod. Untested Cells	0.00000	0.00000	0	0	0	0	0
Est. Ultimate Recovery	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Cond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Uncond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
NONASSOCIATED GAS							
(10^9 CF)							

No. Prod. Untested Cells	139.838	54.7476	.....	.....	.....	.....	.....
Est. Ultimate Recovery	0.00413	0.00325	.....	.....	.....	.....	.....
Cond. Play Potential	0.57805	0.22954	0.28631	0.41503	0.53723	0.69543	1.00821
Uncond. Play Potential	0.40464	0.32719	0.00000	0.00000	0.43259	0.61823	0.94194
ASSOCIATED-DISSOLVED GAS							
(10^9 CF)							

No. Prod. Untested Cells	0.00000	0.00000	0	0	0	0	0
Est. Ultimate Recovery	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Cond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Uncond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
TOTAL GAS							
(10^9 CF)							

No. Prod. Untested Cells	139.838	54.7476	.....	.....	.....	.....	.....
Est. Ultimate Recovery	0.00413	0.00325	.....	.....	.....	.....	.....
Cond. Play Potential	0.57805	0.22954	0.28631	0.41503	0.53723	0.69543	1.00821
Uncond. Play Potential	0.40464	0.32719	0.00000	0.00000	0.43259	0.61823	0.94194
LIQUIDS in NONASSOC. GAS							
(10^6 BBL)							

No. Prod. Untested Cells	0.00000	0.00000	0	0	0	0	0
Est. Ultimate Recovery	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Cond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Uncond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

I N P U T S U M M A R Y

Play Name	Province Name	Province #	Evaluator	Assessment Date
Western Cascades, 0451	West Washington	04	Rice/Johnson	8/4/94

Play Type	Play Probability	Success Ratio	Scenario
Gas	0.900	0.400	320 acres

Geologic Variables	F100	F95	F75	F50	F25	F05	F0	Cutoff
Oil EUR* (10^6 BBL)	0.00000	(0.00000)	(0.00000)	0.00000	(0.00000)	(0.00000)	0.00000	0.00000
NA Gas EUR* (10^9 CF)	0.01000	0.05000	0.23000	0.65000	1.80000	4.80000	7.00000	0.01000
Oil Cells Depth (10^3 Ft)	0.00000	(0.00000)	(0.00000)	0.00000	(0.00000)	(0.00000)	0.00000	0.00000
Gas Cells Depth (10^3 Ft)	0.50000	(1.40000)	(2.30000)	3.20000	(4.90000)	(7.73333)	10.0000	10.0000
Number of Untested Cells	500	(667)	(833)	1000	(1250)	(1667)	2000	

* EUR = Estimated Ultimate Recovery

Gas-Oil Ratio	Expected Liquids/Gas Ratio	Estimated % of resource in subplay
CF/BBL	BBL/10^6 CF	
0.000000	0.0000	10.00000

G E O L O G I C V A R I A B L E S and P R O B A B I L I T I E S O F O C C U R R E N C E

Mean		Std. Dev.		Resource				NGL	
Cond. #	Cells	1072.42	322.651	Oil	NA Gas	AD Gas	Gas/HC	NA Gas	AD Gas
#	Cells	965.182	444.074						
Oil Cell Depth	0.00000	0.00000	Prob. Untested Cell has	0.0000	0.4000	0.0000	0.4000	0.0000	0.0000
Gas Cell Depth	3.82416	2.06318	Cond. Play Prob.	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000
			Uncond. Play Prob.	0.0000	0.9000	0.0000	0.9000	0.0000	0.0000
			Prob. Exceed Cutoff	0.0000	1.0000				
			Play Potential Cutoffs	0.0000	0.0010	0.0000	0.0010	0.0000	0.0000

	Mean	Std. Dev.	F95	F75	F50	F25	F05

OIL							
(10^6 BBL)							

No. Prod. Untested Cells	0.00000	0.00000	0	0	0	0	0
Est. Ultimate Recovery	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Cond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Uncond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
NONASSOCIATED GAS							
(10^9 CF)							

No. Prod. Untested Cells	428.970	130.054	.....	.....	.....	.....	.....
Est. Ultimate Recovery	0.14008	0.16081	.....	.....	.....	.....	.....
Cond. Play Potential	60.0880	18.5193	34.9845	46.8641	57.4225	70.3598	94.2522
Uncond. Play Potential	54.0792	25.1718	0.00000	42.8946	55.0591	68.5907	92.8094
ASSOCIATED-DISSOLVED GAS							
(10^9 CF)							

No. Prod. Untested Cells	0.00000	0.00000	0	0	0	0	0
Est. Ultimate Recovery	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Cond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Uncond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
TOTAL GAS							
(10^9 CF)							

No. Prod. Untested Cells	428.970	130.054	.....	.....	.....	.....	.....
Est. Ultimate Recovery	0.14008	0.16081	.....	.....	.....	.....	.....
Cond. Play Potential	60.0880	18.5193	34.9845	46.8641	57.4225	70.3598	94.2522
Uncond. Play Potential	54.0792	25.1718	0.00000	42.8946	55.0591	68.5907	92.8094
LIQUIDS in NONASSOC. GAS							
(10^6 BBL)							

No. Prod. Untested Cells	0.00000	0.00000	0	0	0	0	0
Est. Ultimate Recovery	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Cond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Uncond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

I N P U T S U M M A R Y

Play Name	Province Name	Province #	Evaluator	Assessment Date
Southern Puget Lowlands, 0452	West Washington	04	Rice/Johnson	8/4/94

Play Type	Play Probability	Success Ratio	Scenario
Gas	0.600	0.500	320 acres

Geologic Variables	F100	F95	F75	F50	F25	F05	F0	Cutoff
Oil EUR* (10^6 BBL)	0.00000	(0.00000)	(0.00000)	0.00000	(0.00000)	(0.00000)	0.00000	0.00000
NA Gas EUR* (10^9 CF)	0.01000	0.02500	0.09000	0.25000	0.65000	1.70000	2.20000	0.01000
Oil Cells Depth (10^3 Ft)	0.00000	(0.00000)	(0.00000)	0.00000	(0.00000)	(0.00000)	0.00000	0.00000
Gas Cells Depth (10^3 Ft)	0.50000	(1.50000)	(2.50000)	3.50000	(4.33333)	(5.16666)	6.00000	0.00000
Number of Untested Cells	200	(400)	(650)	800	(933)	(1067)	1200	

* EUR = Estimated Ultimate Recovery

Gas-Oil Ratio	Expected Liquids/Gas Ratio	Estimated % of resource in subplay
CF/BBL	BBL/10^6 CF	
0.000000	0.0000	4.000000

G E O L O G I C V A R I A B L E S and P R O B A B I L I T I E S O F O C C U R R E N C E

	Mean	Std. Dev.	Oil	NA Gas	AD Gas	Gas/HC	NA Gas	AD Gas	Total
Cond. # Cells	774.050	213.233							
# Cells	464.430	413.615							
Oil Cell Depth	0.00000	0.00000	0.0000	0.5000	0.0000	0.5000	0.0000	0.0000	0.0000
Gas Cell Depth	3.40833	1.20835	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000	0.0000
			Uncond. Play Prob.	0.0000	0.0000	0.6000	0.0000	0.0000	0.0000
			Prob. Exceed Cutoff	0.0000	1.0000				
			Play Potential Cutoffs	0.0000	0.0004	0.0000	0.0000	0.0000	0.0000

OIL						
(10^6 BBL)						
Mean	Std. Dev.	F95	F75	F50	F25	F05

NONASSOCIATED GAS						
(10^9 CF)						
No. Prod. Untested Cells	0.00000	0	0	0	0	0
Est. Ultimate Recovery	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Cond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Uncond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
ASSOCIATED-DISSOLVED GAS						
(10^9 CF)						
No. Prod. Untested Cells	387.025	107.521	.....	.....	.....	.....
Est. Ultimate Recovery	0.02000	0.02185	.....	.....	.....	.....
Cond. Play Potential	7.73856	2.19241	4.71402	6.17308	7.44551	8.98025
Uncond. Play Potential	4.64314	4.15409	0.00000	0.00000	5.68911	7.89416
TOTAL GAS						
(10^9 CF)						
No. Prod. Untested Cells	0.00000	0.00000	0	0	0	0
Est. Ultimate Recovery	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Cond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Uncond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
LIQUIDS in NONASSOC. GAS						
(10^6 BBL)						
No. Prod. Untested Cells	0.00000	0.00000	0	0	0	0
Est. Ultimate Recovery	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Cond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Uncond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

I N P U T S U M M A R Y

Play Name	Province Name	Province #	Evaluator	Assessment Date
Uinta Book Cliffs, 2050	Uinta-Piceance	20	Rice/Finn	8/2/94

Play Type	Play Probability	Success Ratio	Scenario
Gas	1.000	0.800	160 acres

Geologic Variables	F100	F95	F75	F50	F25	F05	F0	Cutoff
Oil EUR* (10^6 BBL)	0.00000	(0.00000)	(0.00000)	0.00000	(0.00000)	(0.00000)	0.00000	0.00000
NA Gas EUR* (10^9 CF)	0.02000	0.15000	0.43000	0.90000	1.80000	4.00000	6.00000	0.02000
Oil Cells Depth (10^3 Ft)	0.00000	(0.00000)	(0.00000)	0.00000	(0.00000)	(0.00000)	0.00000	0.00000
Gas Cells Depth (10^3 Ft)	0.50000	(1.41666)	(2.33333)	3.25000	(4.16666)	(5.08333)	6.00000	0.00000
Number of Untested Cells	650	(1033)	(1512)	1800	(2033)	(2267)	2500	

* EUR = Estimated Ultimate Recovery

Gas-Oil Ratio CF/BBL	Expected Liquids/Gas Ratio BBL/10^6 CF	Estimated % of resource in subplay
0.000000	0.0000	50.00000

G E O L O G I C V A R I A B L E S a n d P R O B A B I L I T I E S O F O C C U R R E N C E

Cond. # Cells	Mean	Std. Dev.	Resource				NGL	
			Oil	NA Gas	AD Gas	Gas/HC	NA Gas	AD Gas	Total
1738.37	1738.37	395.455	0.0000	0.8000	0.0000	0.8000	0.0000	0.0000
1738.37	1738.37	395.455	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000
0.00000	0.00000	0.00000	0.0000	0.8000	0.0000	0.8000	0.0000	0.0000
1.20684	1.20684	1.20684	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000
3.25000	3.25000	3.25000	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000
1.20684	1.20684	1.20684	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000
3.25000	3.25000	3.25000	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000
1.20684	1.20684	1.20684	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000
3.25000	3.25000	3.25000	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000
1.20684	1.20684	1.20684	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000
3.25000	3.25000	3.25000	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000
1.20684	1.20684	1.20684	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000
3.25000	3.25000	3.25000	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000
1.20684	1.20684	1.20684	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000
3.25000	3.25000	3.25000	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000
1.20684	1.20684	1.20684	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000
3.25000	3.25000	3.25000	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000
1.20684	1.20684	1.20684	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000
3.25000	3.25000	3.25000	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000
1.20684	1.20684	1.20684	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000
3.25000	3.25000	3.25000	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000
1.20684	1.20684	1.20684	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000
3.25000	3.25000	3.25000	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000
1.20684	1.20684	1.20684	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000
3.25000	3.25000	3.25000	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000
1.20684	1.20684	1.20684	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000
3.25000	3.25000	3.25000	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000
1.20684	1.20684	1.20684	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000
3.25000	3.25000	3.25000	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000
1.20684	1.20684	1.20684	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000
3.25000	3.25000	3.25000	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000
1.20684	1.20684	1.20684	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000
3.25000	3.25000	3.25000	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000
1.20684	1.20684	1.20684	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000
3.25000	3.25000	3.25000	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000
1.20684	1.20684	1.20684	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000
3.25000	3.25000	3.25000	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000
1.20684	1.20684	1.20684	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000
3.25000	3.25000	3.25000	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000
1.20684	1.20684	1.20684	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000
3.25000	3.25000	3.25000	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000
1.20684	1.20684	1.20684	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000
3.25000	3.25000	3.25000	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000
1.20684	1.20684	1.20684	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000
3.25000	3.25000	3.25000	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000
1.20684	1.20684	1.20684	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000
3.25000	3.25000	3.25000	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000
1.20684	1.20684	1.20684	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000
3.25000	3.25000	3.25000	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000
1.20684	1.20684	1.20684	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000
3.25000	3.25000	3.25000	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000
1.20684	1.20684	1.20684	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000
3.25000	3.25000	3.25000	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000
1.20684	1.20684	1.20684	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000
3.25000	3.25000	3.25000	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000
1.20684	1.20684	1.20684	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000
3.25000	3.25000	3.25000	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000
1.20684	1.20684	1.20684	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000
3.25000	3.25000	3.25000	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000
1.20684	1.20684	1.20684	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000
3.25000	3.25000	3.25000	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000
1.20684	1.20684	1.20684	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000
3.25000	3.25000	3.25000	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000
1.20684	1.20684	1.20684	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000
3.25000	3.25000	3.25000	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000
1.20684	1.20684	1.20684	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000
3.25000	3.25000	3.25000	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000
1.20684	1.20684	1.20684	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000
3.25000	3.25000	3.25000	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000
1.20684	1.20684	1.20684	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000
3.25000	3.25000	3.25000	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000
1.20684	1.20684	1.20684	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000
3.25000	3.25000	3.25000	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000
1.20684	1.20684	1.20684	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000
3.25000	3.25000	3.25000	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000
1.20684	1.20684	1.20684	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000
3.25000	3.25000	3.25000	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000
1.20684	1.20684	1.20684	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000
3.25000	3.25000	3.25000	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000
1.20684	1.20684	1.20684	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000
3.25000	3.25000	3.25000	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000
1.20684	1.20684	1.20684	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000
3.25000	3.25000	3.25000	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000
1.20684	1.20684	1.20684	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000
3.25000	3.25000	3.25000	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000
1.20684	1.20684	1.20684	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000
3.25000	3.25000	3.25000	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000
1.20684	1.20684	1.20684	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000
3.25000	3.25000	3.25000	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000
1.20684	1.20684	1.20684	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000
3.25000	3.25000	3.25000	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000

	Mean	Std. Dev.	F95	F75	F50	F25	F05

OIL

(10^6 BBL)

No. Prod. Untested Cells	0.00000	0.00000	0	0	0	0	0
Est. Ultimate Recovery	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Cond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Uncond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

NONASSOCIATED GAS

(10^9 CF)

No. Prod. Untested Cells	1390.70	316.803	.....	.....	.....	.....	.....
Est. Ultimate Recovery	0.69800	0.64937	.....	.....	.....	.....	.....
Cond. Play Potential	970.709	222.451	652.150	812.274	946.182	1102.16	1372.78
Uncond. Play Potential	970.709	222.451	652.150	812.274	946.182	1102.16	1372.78

ASSOCIATED-DISSOLVED GAS

(10^9 CF)

No. Prod. Untested Cells	0.00000	0.00000	0	0	0	0	0
Est. Ultimate Recovery	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Cond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Uncond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

TOTAL GAS

(10^9 CF)

No. Prod. Untested Cells	1390.70	316.803	.....	.....	.....	.....	.....
Est. Ultimate Recovery	0.69800	0.64937	.....	.....	.....	.....	.....
Cond. Play Potential	970.709	222.451	652.150	812.274	946.182	1102.16	1372.78
Uncond. Play Potential	970.709	222.451	652.150	812.274	946.182	1102.16	1372.78

LIQUIDS in NONASSOC. GAS

(10^6 BBL)

No. Prod. Untested Cells	0.00000	0.00000	0	0	0	0	0
Est. Ultimate Recovery	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Cond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Uncond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

I N P U T S U M M A R Y

Play Name	Province Name	Province #	Evaluator	Assessment Date
Uinta Sego, 2051	Uinta-Piceance	20	Rice/Finn	8/2/94

Play Type	Play Probability	Success Ratio	Scenario
Gas	0.800	0.500	160 acres

Geologic Variables	F100	F95	F75	F50	F25	F05	F0	Cutoff
Oil EUR* (10^6 BBL)	0.00000	(0.00000)	(0.00000)	0.00000	(0.00000)	(0.00000)	0.00000	0.00000
NA Gas EUR* (10^9 CF)	0.05000	0.16000	0.33000	0.55000	0.82000	1.20000	1.70000	0.05000
Oil Cells Depth (10^3 Ft)	0.00000	(0.00000)	(0.00000)	0.00000	(0.00000)	(0.00000)	0.00000	0.00000
Gas Cells Depth (10^3 Ft)	0.50000	(1.41666)	(2.33333)	3.25000	(4.16666)	(5.08333)	6.00000	0.00000
Number of Untested Cells	500	(1000)	(1500)	2000	(2625)	(3667)	4500	

* EUR = Estimated Ultimate Recovery

Gas-Oil Ratio	Expected Liquids/Gas Ratio
CF/BBL	BBL/10^6 CF
0.000000	0.0000
	60.00000

G E O L O G I C V A R I A B L E S and P R O B A B I L I T I E S O F O C C U R R E N C E

	Mean	Std. Dev.		Oil	NA Gas	AD Gas	Gas/HC	NA Gas	AD Gas	Total
Cond. # Cells	2136.00	855.152								
# Cells	1708.80	1146.74								
Oil Cell Depth	0.00000	0.00000	Prob. Untested Cell has	0.0000	0.5000	0.0000	0.5000	0.0000	0.0000	0.0000
Gas Cell Depth	3.25000	1.20684	Cond. Play Prob.	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000	0.0000
			Uncond. Play Prob.	0.0000	0.8000	0.0000	0.8000	0.0000	0.0000	0.0000
			Prob. Exceed Cutoff	0.0000	1.0000					
			Play Potential Cutoffs	0.0000	0.0300	0.0000	0.0300	0.0000	0.0000	0.0000

	Mean	Std. Dev.	F95	F75	F50	F25	F05

OIL							
(10^6 BBL)							

No. Prod. Untested Cells	0.00000	0.00000	0	0	0	0	0
Est. Ultimate Recovery	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Cond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Uncond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
NONASSOCIATED GAS							
(10^9 CF)							

No. Prod. Untested Cells	1068.00	428.200	.....	.....	.....	.....	.....
Est. Ultimate Recovery	0.36600	0.20941	.....	.....	.....	.....	.....
Cond. Play Potential	390.888	156.871	192.116	279.530	362.764	470.784	685.014
Uncond. Play Potential	312.710	210.080	0.00000	200.427	320.737	438.236	656.830
ASSOCIATED-DISSOLVED GAS							
(10^9 CF)							

No. Prod. Untested Cells	0.00000	0.00000	0	0	0	0	0
Est. Ultimate Recovery	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Cond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Uncond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
TOTAL GAS							
(10^9 CF)							

No. Prod. Untested Cells	1068.00	428.200	.....	.....	.....	.....	.....
Est. Ultimate Recovery	0.36600	0.20941	.....	.....	.....	.....	.....
Cond. Play Potential	390.888	156.871	192.116	279.530	362.764	470.784	685.014
Uncond. Play Potential	312.710	210.080	0.00000	200.427	320.737	438.236	656.830
LIQUIDS in NONASSOC. GAS							
(10^6 BBL)							

No. Prod. Untested Cells	0.00000	0.00000	0	0	0	0	0
Est. Ultimate Recovery	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Cond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Uncond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

I N P U T S U M M A R Y

Play Name	Province Name	Province #	Evaluator	Assessment Date
Uinta Emery, 2052	Uinta-Piceance	20	Rice/Finn	11/1/94

Play Type	Play Probability	Success Ratio	Scenario
Gas	1.000	0.700	160 acres

Geologic Variables	F100	F95	F75	F50	F25	F05	F0	Cutoff
Oil EUR* (10^6 BBL)	0.00000	(0.00000)	(0.00000)	0.00000	(0.00000)	(0.00000)	0.00000	0.00000
NA Gas EUR* (10^9 CF)	0.05000	0.19000	0.41000	0.70000	1.20000	2.10000	3.70000	0.05000
Oil Cells Depth (10^3 Ft)	0.00000	(0.00000)	(0.00000)	0.00000	(0.00000)	(0.00000)	0.00000	0.00000
Gas Cells Depth (10^3 Ft)	0.50000	(0.80000)	(1.10000)	1.40000	(2.55000)	(4.46666)	6.00000	0.00000
Number of Untested Cells	500	(800)	(1050)	1200	(1317)	(1433)	1550	

* EUR = Estimated Ultimate Recovery

Gas-Oil Ratio	Expected Liquids/Gas Ratio
CF/BBL	BBL/10^6 CF
0.000000	90.00000

G E O L O G I C V A R I A B L E S a n d P R O B A B I L I T I E S O F O C C U R R E N C E

Cond. # Cells	Mean	Std. Dev.	Resource					NGL	
			Oil	NA Gas	AD Gas	Gas/HC	NA Gas	AD Gas	Total
1164.95	1164.95	203.249	0.0000	0.7000	0.0000	0.7000	0.0000	0.0000	0.0000
203.249	203.249	203.249	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000	0.0000
0.00000	0.00000	0.00000	Prob. Untested Cell has	0.0000	0.7000	0.0000	0.7000	0.0000	0.0000
1.99208	1.99208	1.23790	Cond. Play Prob.	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000
			Uncond. Play Prob.	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000
			Prob. Exceed Cutoff	0.0000	1.0000				
			Play Potential Cutoffs	0.0000	0.0450	0.0000	0.0450	0.0000	0.0000

	Mean	Std. Dev.	F95	F75	F50	F25	F05

OIL							
(10^6 BBL)							

No. Prod. Untested Cells	0.00000	0.00000	0	0	0	0	0
Est. Ultimate Recovery	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Cond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Uncond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
NONASSOCIATED GAS							
(10^9 CF)							

No. Prod. Untested Cells	815.465	143.132	.....	.....	.....	.....	.....
Est. Ultimate Recovery	0.82553	0.62160	.....	.....	.....	.....	.....
Cond. Play Potential	673.187	119.485	496.114	588.586	662.827	746.432	885.566
Uncond. Play Potential	673.187	119.485	496.114	588.586	662.827	746.432	885.566
ASSOCIATED-DISSOLVED GAS							
(10^9 CF)							

No. Prod. Untested Cells	0.00000	0.00000	0	0	0	0	0
Est. Ultimate Recovery	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Cond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Uncond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
TOTAL GAS							
(10^9 CF)							

No. Prod. Untested Cells	815.465	143.132	.....	.....	.....	.....	.....
Est. Ultimate Recovery	0.82553	0.62160	.....	.....	.....	.....	.....
Cond. Play Potential	673.187	119.485	496.114	588.586	662.827	746.432	885.566
Uncond. Play Potential	673.187	119.485	496.114	588.586	662.827	746.432	885.566
LIQUIDS in NONASSOC. GAS							
(10^6 BBL)							

No. Prod. Untested Cells	0.00000	0.00000	0	0	0	0	0
Est. Ultimate Recovery	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Cond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Uncond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

I N P U T S U M M A R Y

Play Name	Province Name	Province #	Evaluator	Assessment Date
White River Dome, 2053	Uinta-Piceance	20	Rice/Johnson/Finn	8/2/94

Play Type	Play Probability	Success Ratio	Scenario
Gas	1.000	0.700	160 acres

Geologic Variables	F100	F95	F75	F50	F25	F05	F0	Cutoff
Oil EUR* (10^6 BBL)	0.00000	(0.00000)	(0.00000)	0.00000	(0.00000)	(0.00000)	0.00000	0.00000
NA Gas EUR* (10^9 CF)	0.02000	0.11000	0.30000	0.60000	1.20000	2.60000	5.00000	0.02000
Oil Cells Depth (10^3 Ft)	0.00000	(0.00000)	(0.00000)	0.00000	(0.00000)	(0.00000)	0.00000	0.00000
Gas Cells Depth (10^3 Ft)	0.50000	(1.66666)	(2.83333)	4.00000	(5.16666)	(6.33333)	7.50000	0.00000
Number of Untested Cells	250	(333)	(438)	500	(567)	(633)	700	

* EUR = Estimated Ultimate Recovery

Gas-Oil Ratio	Expected Liquids/Gas Ratio
CF/BBL	BBL/10^6 CF
0.000000	85.00000

G E O L O G I C V A R I A B L E S a n d P R O B A B I L I T I E S O F O C C U R R E N C E

Cond. # Cells	495.125	95.7116					NGL			
# Cells	495.125	95.7116					Total			
Oil Cell Depth	0.00000	0.00000	Prob. Untested Cell has	0.0000	0.7000	0.0000	0.0000	0.0000	0.0000	0.0000
Gas Cell Depth	4.00000	1.53598	Cond. Play Prob.	0.0000	1.0000	0.0000	0.0000	0.0000	0.0000	0.0000
			Uncond. Play Prob.	0.0000	1.0000	0.0000	0.0000	0.0000	0.0000	0.0000
			Prob. Exceed Cutoff	0.0000	1.0000					
			Play Potential Cutoffs	0.0000	0.0170	0.0000	0.0170	0.0000	0.0000	0.0000

	Mean	Std. Dev.	F95	F75	F50	F25	F05

OIL

(10^6 BBL)

No. Prod. Untested Cells	0.00000	0.00000	0	0	0	0	0
Est. Ultimate Recovery	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Cond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Uncond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

NONASSOCIATED GAS

(10^9 CF)

No. Prod. Untested Cells	346.588	67.7697	.....	.....	.....	.....	.....
Est. Ultimate Recovery	0.80899	0.79127	.....	.....	.....	.....	.....
Cond. Play Potential	280.385	56.7694	197.622	240.058	274.808	314.590	382.145
Uncond. Play Potential	280.385	56.7694	197.622	240.058	274.808	314.590	382.145

ASSOCIATED-DISSOLVED GAS

(10^9 CF)

No. Prod. Untested Cells	0.00000	0.00000	0	0	0	0	0
Est. Ultimate Recovery	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Cond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Uncond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

TOTAL GAS

(10^9 CF)

No. Prod. Untested Cells	346.588	67.7697	.....	.....	.....	.....	.....
Est. Ultimate Recovery	0.80899	0.79127	.....	.....	.....	.....	.....
Cond. Play Potential	280.385	56.7694	197.622	240.058	274.808	314.590	382.145
Uncond. Play Potential	280.385	56.7694	197.622	240.058	274.808	314.590	382.145

LIQUIDS in NONASSOC. GAS

(10^6 BBL)

No. Prod. Untested Cells	0.00000	0.00000	0	0	0	0	0
Est. Ultimate Recovery	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Cond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Uncond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

I N P U T S U M M A R Y

Play Name	Province Name	Province #	Evaluator	Assessment Date
Western basin margin, 2054	Uinta-Piceance	20	Rice/Johnson/Finn	8/2/94

Play Type	Play Probability	Success Ratio	Scenario
Gas	1.000	0.700	160 acres

Geologic Variables	F100	F95	F75	F50	F25	F05	F0	Cutoff
Oil EUR* (10^6 BBL)	0.00000	(0.00000)	(0.00000)	0.00000	(0.00000)	(0.00000)	0.00000	0.00000
NA Gas EUR* (10^9 CF)	0.03000	0.15000	0.45000	0.95000	2.00000	4.50000	7.00000	0.03000
Oil Cells Depth (10^3 Ft)	0.00000	(0.00000)	(0.00000)	0.00000	(0.00000)	(0.00000)	0.00000	0.00000
Gas Cells Depth (10^3 Ft)	0.50000	(1.50000)	(2.50000)	3.50000	(4.75000)	(6.83333)	8.50000	0.00000
Number of Untested Cells	4000	(4667)	(5333)	6000	(6667)	(7333)	8000	

* EUR = Estimated Ultimate Recovery

Gas-Oil Ratio	Expected Liquids/Gas Ratio	Estimated % of resource in subplay
CF/BBL	BBL/10^6 CF	
0.000000	0.0000	80.00000

G E O L O G I C V A R I A B L E S a n d P R O B A B I L I T I E S O F O C C U R R E N C E

Cond. # Cells	Mean	Std. Dev.	Resource				NGL	
			Oil	NA Gas	AD Gas	Gas/HC	NA Gas	AD Gas	Total
5999.50	877.703							
# Cells 5999.50	877.703							
Oil Cell Depth 0.00000	0.00000	Prob. Untested Cell has	0.0000	0.7000	0.0000	0.7000	0.0000	0.0000
Gas Cell Depth 3.77291	1.71017	Cond. Play Prob.	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000
		Uncond. Play Prob.	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000
		Prob. Exceed Cutoff	0.0000	1.0000				
		Play Potential Cutoffs	0.0000	0.0240	0.0000	0.0240	0.0000	0.0000

OIL						
(10^6 BBL)						
Mean	Std. Dev.	F95	F75	F50	F25	F05

NONASSOCIATED GAS						
(10^9 CF)						

No. Prod. Untested Cells	0.00000	0	0	0	0	0
Est. Ultimate Recovery	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Cond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Uncond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

ASSOCIATED-DISSOLVED GAS						
(10^9 CF)						

No. Prod. Untested Cells	4199.65	615.417	.....	.....	.....	.....
Est. Ultimate Recovery	1.23660	1.19225	.....	.....	.....	.....
Cond. Play Potential	5193.29	764.936	4037.54	4654.43	5137.85	5671.49
Uncond. Play Potential	5193.29	764.936	4037.54	4654.43	5137.85	5671.49

TOTAL GAS						
(10^9 CF)						

No. Prod. Untested Cells	4199.65	615.417	.....	.....	.....	.....
Est. Ultimate Recovery	1.23660	1.19225	.....	.....	.....	.....
Cond. Play Potential	5193.29	764.936	4037.54	4654.43	5137.85	5671.49
Uncond. Play Potential	5193.29	764.936	4037.54	4654.43	5137.85	5671.49

LIQUIDS in NONASSOC. GAS						
(10^6 BBL)						

No. Prod. Untested Cells	0.00000	0.00000	0	0	0	0
Est. Ultimate Recovery	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Cond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Uncond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

I N P U T S U M M A R Y

Play Name	Province Name	Province #	Evaluator	Assessment Date
Grand Hogback, 2055	Uinta-Piceance	20	Rice/Johanson/Finn	7/19/94

Play Type	Play Probability	Success Ratio	Scenario
Gas	0.800	0.500	160 acres

Geologic Variables	F100	F95	F75	F50	F25	F05	F0	Cutoff
Oil EUR* (10^6 BBL)	0.00000	(0.00000)	(0.00000)	0.00000	(0.00000)	(0.00000)	0.00000	0.00000
NA Gas EUR* (10^9 CF)	0.05000	0.35000	0.72000	1.20000	1.80000	2.70000	3.50000	0.05000
Oil Cells Depth (10^3 Ft)	0.00000	(0.00000)	(0.00000)	0.00000	(0.00000)	(0.00000)	0.00000	0.00000
Gas Cells Depth (10^3 Ft)	0.50000	(1.33333)	(2.16666)	3.00000	(4.00000)	(5.00000)	6.00000	0.00000
Number of Untested Cells	50	(133)	(217)	300	(600)	(1100)	1500	

* EUR = Estimated Ultimate Recovery

Gas-Oil Ratio	Expected Liquids/Gas Ratio	Estimated % of resource in subplay
CF/BBL	BBL/10^6 CF	
0.000000	0.0000	50.00000

G E O L O G I C V A R I A B L E S a n d P R O B A B I L I T I E S O F O C C U R R E N C E

Cond. # Cells	Mean	Std. Dev.	Resource					NGL			
			Oil	NA Gas	AD Gas	Gas/HC	NA Gas	AD Gas	Total		
451.200	325.329										
# Cells 360.960	342.409										
Oil Cell Depth 0.00000	0.00000	Prob. Untested Cell has	0.0000	0.5000	0.0000	0.5000	0.0000	0.0000	0.0000	0.0000	0.0000
Gas Cell Depth 3.09166	1.20835	Cond. Play Prob.	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000	0.0000	0.0000	0.0000
		Uncond. Play Prob.	0.0000	0.8000	0.0000	0.8000	0.0000	0.0000	0.0000	0.0000	0.0000
		Prob. Exceed Cutoff	0.0000	1.0000							
		Play Potential Cutoffs	0.0000	0.0250	0.0000	0.0250	0.0000	0.0000	0.0000	0.0000	0.0000

OIL						
(10^6 BBL)						
Mean	Std. Dev.	F95	F75	F50	F25	F05

NONASSOCIATED GAS						
(10^9 CF)						

No. Prod. Untested Cells	0.00000	0	0	0	0	0
Est. Ultimate Recovery	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Cond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Uncond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
ASSOCIATED-DISSOLVED GAS						
(10^9 CF)						

No. Prod. Untested Cells	225.600	163.011	109.125	122.181	189.267	355.287
Est. Ultimate Recovery	0.66850	0.38363	0.20278	0.38363	0.20278	0.38363
Cond. Play Potential	150.814	109.125	42.0278	122.181	189.267	355.287
Uncond. Play Potential	120.651	114.742	0.00000	99.3737	167.829	331.150
TOTAL GAS						
(10^9 CF)						

No. Prod. Untested Cells	225.600	163.011	109.125	122.181	189.267	355.287
Est. Ultimate Recovery	0.66850	0.38363	0.20278	0.38363	0.20278	0.38363
Cond. Play Potential	150.814	109.125	42.0278	122.181	189.267	355.287
Uncond. Play Potential	120.651	114.742	0.00000	99.3737	167.829	331.150
LIQUIDS in NONASSOC. GAS						
(10^6 BBL)						

No. Prod. Untested Cells	0.00000	0.00000	0	0	0	0
Est. Ultimate Recovery	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Cond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Uncond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

I N P U T S U M M A R Y

Play Name	Province Name	Province #	Evaluator	Assessment Date
Divide Creek Anticline, 2056	Uinta-Piceance	20	Rice/Johanson/Finn	8/2/94

Play Type	Play Probability	Success Ratio	Scenario
Gas	1.000	0.500	160 acres

Geologic Variables	F100	F95	F75	F50	F25	F05	F0	Cutoff
Oil EUR* (10^6 BBL)	0.00000	(0.00000)	(0.00000)	0.00000	(0.00000)	(0.00000)	0.00000	0.00000
NA Gas EUR* (10^9 CF)	0.03000	0.17000	0.55000	1.20000	2.60000	5.50000	9.00000	0.03000
Oil Cells Depth (10^3 Ft)	0.00000	(0.00000)	(0.00000)	0.00000	(0.00000)	(0.00000)	0.00000	0.00000
Gas Cells Depth (10^3 Ft)	0.50000	(1.66666)	(3.12500)	4.00000	(4.66666)	(5.33333)	6.00000	0.00000
Number of Untested Cells	50	(167)	(233)	400	(533)	(667)	800	

* EUR = Estimated Ultimate Recovery

Gas-Oil Ratio	Expected Liquids/Gas Ratio
CF/BBL	BBL/10^6 CF
0.000000	80.00000

Estimated % of resource in subplay

G E O L O G I C V A R I A B L E S a n d P R O B A B I L I T I E S O F O C C U R R E N C E

	Mean	Std. Dev.	Oil	NA Gas	AD Gas	Gas/HC	NA Gas	AD Gas	NGL	Total
Cond. # Cells	408.600	164.684								
# Cells	408.600	164.684								
Oil Cell Depth	0.00000	0.00000	0.0000	0.5000	0.0000	0.5000	0.0000	0.0000	0.0000	0.0000
Gas Cell Depth	3.79062	1.17740	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000	0.0000	0.0000
			Prob. Untested Cell has							
			Cond. Play Prob.							
			Uncond. Play Prob.							
			Prob. Exceed Cutoff							
			Play Potential Cutoffs	0.0000	0.0240	0.0000	0.0240	0.0000	0.0000	0.0000

	Mean	Std. Dev.	F95	F75	F50	F25	F05
OIL							
(10^6 BBL)							
No. Prod. Untested Cells	0.00000	0.00000	0	0	0	0	0
Est. Ultimate Recovery	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Cond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Uncond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
NONASSOCIATED GAS							
(10^9 CF)							
No. Prod. Untested Cells	204.300	82.9601	.....	.....	.....	.....	.....
Est. Ultimate Recovery	1.55460	1.49582	.....	.....	.....	.....	.....
Cond. Play Potential	317.605	130.730	153.207	224.912	293.697	383.519	563.035
Uncond. Play Potential	317.605	130.730	153.207	224.912	293.697	383.519	563.035
ASSOCIATED-DISSOLVED GAS							
(10^9 CF)							
No. Prod. Untested Cells	0.00000	0.00000	0	0	0	0	0
Est. Ultimate Recovery	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Cond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Uncond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
TOTAL GAS							
(10^9 CF)							
No. Prod. Untested Cells	204.300	82.9601	.....	.....	.....	.....	.....
Est. Ultimate Recovery	1.55460	1.49582	.....	.....	.....	.....	.....
Cond. Play Potential	317.605	130.730	153.207	224.912	293.697	383.519	563.035
Uncond. Play Potential	317.605	130.730	153.207	224.912	293.697	383.519	563.035
LIQUIDS in NONASSOC. GAS							
(10^6 BBL)							
No. Prod. Untested Cells	0.00000	0.00000	0	0	0	0	0
Est. Ultimate Recovery	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Cond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Uncond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

I N P U T S U M M A R Y

Play Name	Province Name	Province #	Evaluator	Assessment Date
Igneous Intrusion, 2057	Uinta-Piceance	20	Rice/Johnson/Finn	8/22/94

Play Type	Play Probability	Success Ratio	Scenario
Gas	0.600	1.000	Delphi

Geologic Variables	F100	F95	F75	F50	F25	F05	F0	Cutoff
Oil EUR* (10^6 BBL)	0.00000	(0.00000)	(0.00000)	0.00000	(0.00000)	(0.00000)	0.00000	0.00000
NA Gas EUR* (10^9 CF)	7.50000	(26.0634)	(37.7537)	50.0000	(67.2032)	(104.801)	200.000	7.50000
Oil Cells Depth (10^3 Ft)	0.00000	(0.00000)	(0.00000)	0.00000	(0.00000)	(0.00000)	0.00000	0.00000
Gas Cells Depth (10^3 Ft)	0.50000	(0.66666)	(0.83333)	1.00000	(1.50000)	(2.33333)	3.00000	0.00000
Number of Untested Cells	1	1	1	1	1	1	1	1

* EUR = Estimated Ultimate Recovery

Gas-Oil Ratio	Expected Liquids/Gas Ratio	Estimated % of resource in subplay
CF/BBL	BBL/10^6 CF	
0.000000	0.0000	85.00000

G E O L O G I C V A R I A B L E S a n d P R O B A B I L I T I E S O F O C C U R R E N C E

Cond. # Cells	Mean	Std. Dev.	Resource				NGL	
			Oil	NA Gas	AD Gas	Gas/HC	NA Gas	AD Gas	Total
0.00000	1.00000	0.00000	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000
# Cells - 0.60000	0.48989		0.0000	1.0000	0.0000	1.0000	0.0000	0.0000
Oil Cell Depth 0.00000	0.00000	Prob. Untested Cell has	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000
Gas Cell Depth 1.23750	0.55576	Cond. Play Prob.	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000
		Uncond. Play Prob.	0.0000	0.6000	0.0000	0.6000	0.0000	0.0000
		Prob. Exceed Cutoff	0.0000	1.0000				
		Play Potential Cutoffs	0.0000	6.3750	0.0000	6.3750	0.0000	0.0000

	Mean	Std. Dev.	F95	F75	F50	F25	F05

OIL
(10^6 BBL)

No. Prod. Untested Cells	0.00000	0.00000	0	0	0	0	0
Est. Ultimate Recovery	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Cond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Uncond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

NONASSOCIATED GAS
(10^9 CF)

No. Prod. Untested Cells	1.00000	0.00000	.....	.....	.....	.....	.....
Est. Ultimate Recovery	49.0118	26.1665	.....	.....	.....	.....	.....
Cond. Play Potential	49.0118	26.1665	20.7122	31.1926	42.7141	59.5846	98.4801
Uncond. Play Potential	29.4071	31.4218	0.00000	0.00000	27.3977	47.3118	85.8683

ASSOCIATED-DISSOLVED GAS
(10^9 CF)

No. Prod. Untested Cells	0.00000	0.00000	0	0	0	0	0
Est. Ultimate Recovery	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Cond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Uncond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

TOTAL GAS
(10^9 CF)

No. Prod. Untested Cells	1.00000	0.00000	.....	.....	.....	.....	.....
Est. Ultimate Recovery	49.0118	26.1665	.....	.....	.....	.....	.....
Cond. Play Potential	49.0118	26.1665	20.7122	31.1926	42.7141	59.5846	98.4801
Uncond. Play Potential	29.4071	31.4218	0.00000	0.00000	27.3977	47.3118	85.8683

LIQUIDS in NONASSOC. GAS
(10^6 BBL)

No. Prod. Untested Cells	0.00000	0.00000	0	0	0	0	0
Est. Ultimate Recovery	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Cond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Uncond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

I N P U T S U M M A R Y

Play Name	Province Name	Province #	Evaluator	Assessment Date
Overpressured, 2250	San Juan	22	Rice/Finn	8/2/94

Play Type	Play Probability	Success Ratio	Scenario
Gas	1.000	0.800	320 acres

Geologic Variables	F100	F95	F75	F50	F25	F05	F0	Cutoff
Oil EUR* (10^6 BBL)	0.00000	(0.00000)	(0.00000)	0.00000	(0.00000)	(0.00000)	0.00000	0.00000
NA Gas EUR* (10^9 CF)	0.07000	0.43000	1.25000	2.50000	5.20000	11.0000	20.0000	0.07000
Oil Cells Depth (10^3 Ft)	0.00000	(0.00000)	(0.00000)	0.00000	(0.00000)	(0.00000)	0.00000	0.00000
Gas Cells Depth (10^3 Ft)	0.50000	(1.33333)	(2.37500)	3.00000	(3.40000)	(3.80000)	4.20000	0.00000
Number of Untested Cells	900	(1033)	(1167)	1300	(1433)	(1567)	1700	0.00000

* EUR = Estimated Ultimate Recovery

Gas-Oil Ratio	Expected Liquids/Gas Ratio
CF/BBL	BBL/10^6 CF
0.000000	55.00000

G E O L O G I C V A R I A B L E S and P R O B A B I L I T I E S O F O C C U R R E N C E

Mean		Std. Dev.		Resource				NGL	
Cond. # Cells	1299.50	175.545		Oil	NA Gas	AD Gas	Gas/HC	NA Gas	AD Gas / Total
Cond. # Cells	1299.50	175.545							
Oil Cell Depth	0.00000	0.00000	Prob. Untested Cell has	0.0000	0.8000	0.0000	0.8000	0.0000	0.0000
Gas Cell Depth	2.80854	0.79695	Cond. Play Prob.	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000
			Uncond. Play Prob.	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000
			Prob. Exceed Cutoff	0.0000	1.0000				
			Play Potential Cutoffs	0.0000	0.0385	0.0000	0.0385	0.0000	0.0000

	Mean	Std. Dev.	F95	F75	F50	F25	F05
OIL							
(10^6 BBL)							
No. Prod. Untested Cells	0.00000	0.00000	0	0	0	0	0
Est. Ultimate Recovery	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Cond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Uncond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
NONASSOCIATED GAS							
(10^9 CF)							
No. Prod. Untested Cells	1039.60	141.175	.....	.....	.....	.....	.....
Est. Ultimate Recovery	2.20371	2.12328	.....	.....	.....	.....	.....
Cond. Play Potential	2290.98	318.552	1807.18	2066.93	2269.15	2491.15	2849.21
Uncond. Play Potential	2290.98	318.552	1807.18	2066.93	2269.15	2491.15	2849.21
ASSOCIATED-DISSOLVED GAS							
(10^9 CF)							
No. Prod. Untested Cells	0.00000	0.00000	0	0	0	0	0
Est. Ultimate Recovery	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Cond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Uncond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
TOTAL GAS							
(10^9 CF)							
No. Prod. Untested Cells	1039.60	141.175	.....	.....	.....	.....	.....
Est. Ultimate Recovery	2.20371	2.12328	.....	.....	.....	.....	.....
Cond. Play Potential	2290.98	318.552	1807.18	2066.93	2269.15	2491.15	2849.21
Uncond. Play Potential	2290.98	318.552	1807.18	2066.93	2269.15	2491.15	2849.21
LIQUIDS in NONASSOC. GAS							
(10^6 BBL)							
No. Prod. Untested Cells	0.00000	0.00000	0	0	0	0	0
Est. Ultimate Recovery	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Cond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Uncond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

I N P U T S U M M A R Y

Play Name	Province Name	Province #	Evaluator	Assessment Date
Underpressured discharge, 2252	San Juan	22	Rice/Finn	8/2/94

Play Type	Play Probability	Success Ratio	Scenario
Gas	1.000	0.600	320 acres

Geologic Variables	F100	F95	F75	F50	F25	F05	F0	Cutoff
Oil EUR* (10^6 BBL)	0.00000	(0.00000)	(0.00000)	0.00000	(0.00000)	(0.00000)	0.00000	0.00000
NA Gas EUR* (10^9 CF)	0.10000	0.50000	1.00000	1.50000	2.40000	4.00000	5.50000	0.10000
Oil Cells Depth (10^3 Ft)	0.00000	(0.00000)	(0.00000)	0.00000	(0.00000)	(0.00000)	0.00000	0.00000
Gas Cells Depth (10^3 Ft)	0.50000	(0.66666)	(0.83333)	1.00000	(1.75000)	(3.00000)	4.00000	0.00000
Number of Untested Cells	1300	(1533)	(1825)	2000	(2100)	(2200)	2300	

* EUR = Estimated Ultimate Recovery

Gas-Oil Ratio CF/BBL	Expected Liquids/Gas Ratio BBL/10^6 CF	Estimated % of resource in subplay
0.000000	0.0000	50.00000

G E O L O G I C V A R I A B L E S a n d P R O B A B I L I T I E S O F O C C U R R E N C E

Cond. # Cells	Mean	Std. Dev.	Resource					NGL		
			Oil	NA Gas	AD Gas	Gas/HC	NA Gas	AD Gas	Total	
1939.25	216.489									
Cells - 1939.25	216.489									
Oil Cell Depth 0.00000	0.00000	Prob. Untested Cell has	0.0000	0.6000	0.0000	0.6000	0.0000	0.0000	0.0000	0.0000
Gas Cell Depth 1.40208	0.79379	Cond. Play Prob.	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000	0.0000	0.0000
		Uncond. Play Prob.	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000	0.0000	0.0000
		Prob. Exceed Cutoff	0.0000	1.0000						
		Play Potential Cutoffs	0.0000	0.0500	0.0000	0.0500	0.0000	0.0000	0.0000	0.0000

	Mean	Std. Dev.	F95	F75	F50	F25	F05

OIL							
(10^6 BBL)							

No. Prod. Untested Cells	0.00000	0.00000	0	0	0	0	0
Est. Ultimate Recovery	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Cond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Uncond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
NONASSOCIATED GAS							
(10^9 CF)							

No. Prod. Untested Cells	1163.55	131.673	.....	.....	.....	.....	.....
Est. Ultimate Recovery	0.92125	0.57414	.....	.....	.....	.....	.....
Cond. Play Potential	1071.92	122.875	882.474	985.958	1064.95	1150.26	1285.15
Uncond. Play Potential	1071.92	122.875	882.474	985.958	1064.95	1150.26	1285.15
ASSOCIATED-DISSOLVED GAS							
(10^9 CF)							

No. Prod. Untested Cells	0.00000	0.00000	0	0	0	0	0
Est. Ultimate Recovery	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Cond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Uncond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
TOTAL GAS							
(10^9 CF)							

No. Prod. Untested Cells	1163.55	131.673	.....	.....	.....	.....	.....
Est. Ultimate Recovery	0.92125	0.57414	.....	.....	.....	.....	.....
Cond. Play Potential	1071.92	122.875	882.474	985.958	1064.95	1150.26	1285.15
Uncond. Play Potential	1071.92	122.875	882.474	985.958	1064.95	1150.26	1285.15
LIQUIDS in NONASSOC. GAS							
(10^6 BBL)							

No. Prod. Untested Cells	0.00000	0.00000	0	0	0	0	0
Est. Ultimate Recovery	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Cond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Uncond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

I N P U T S U M M A R Y

Play Name	Province Name	Province #	Evaluator	Assessment Date
Underpressured, 2253	San Juan	22	Rice/Finn	8/3/94

Play Type	Play Probability	Success Ratio	Scenario
Gas	1.000	0.500	320 acres

Geologic Variables	F100	F95	F75	F50	F25	F05	F0	Cutoff
Oil EUR* (10^6 BBL)	0.00000	(0.00000)	(0.00000)	0.00000	(0.00000)	(0.00000)	0.00000	0.00000
NA Gas EUR* (10^9 CF)	0.09000	0.31000	0.60000	0.95000	1.40000	2.30000	3.00000	0.09000
Oil Cells Depth (10^3 Ft)	0.00000	(0.00000)	(0.00000)	0.00000	(0.00000)	(0.00000)	0.00000	0.00000
Gas Cells Depth (10^3 Ft)	0.50000	(1.16666)	(2.00000)	2.50000	(3.00000)	(3.50000)	4.00000	0.00000
Number of Untested Cells	1000	(1367)	(1733)	2100	(2625)	(3500)	4200	

* EUR = Estimated Ultimate Recovery

Gas-Oil Ratio CF/BBL	Expected Liquids/Gas Ratio BBL/10^6 CF	Estimated % of resource in subplay
0.000000	0.0000	35.00000

G E O L O G I C V A R I A B L E S a n d P R O B A B I L I T I E S O F O C C U R R E N C E

Cond. # Cells	Mean	Std. Dev.	Resource				NGL	
			Oil	NA Gas	AD Gas	Gas/HC	NA Gas	AD Gas	Total
2243.42	687.007							
# Cells - 2243.42	687.007							
Oil Cell Depth 0.00000	0.00000	Prob. Untested Cell has	0.0000	0.5000	0.0000	0.5000	0.0000	0.0000
Gas Cell Depth 2.44583	0.74494	Cond. Play Prob.	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000
		Uncond. Play Prob.	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000
		Prob. Exceed Cutoff	0.0000	1.0000				
		Play Potential Cutoffs	0.0000	0.0315	0.0000	0.0315	0.0000	0.0000

	Mean	Std. Dev.	F95	F75	F50	F25	F05

OIL

(10^6 BBL)

No. Prod. Untested Cells	0.00000	0.00000	0	0	0	0	0
Est. Ultimate Recovery	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Cond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Uncond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

NONASSOCIATED GAS

(10^9 CF)

No. Prod. Untested Cells	1121.71	344.319	.....	.....	.....	.....	.....
Est. Ultimate Recovery	0.38185	0.22356	.....	.....	.....	.....	.....
Cond. Play Potential	428.326	131.691	249.721	334.290	409.411	501.415	671.230
Uncond. Play Potential	428.326	131.691	249.721	334.290	409.411	501.415	671.230

ASSOCIATED-DISSOLVED GAS

(10^9 CF)

No. Prod. Untested Cells	0.00000	0.00000	0	0	0	0	0
Est. Ultimate Recovery	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Cond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Uncond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

TOTAL GAS

(10^9 CF)

No. Prod. Untested Cells	1121.71	344.319	.....	.....	.....	.....	.....
Est. Ultimate Recovery	0.38185	0.22356	.....	.....	.....	.....	.....
Cond. Play Potential	428.326	131.691	249.721	334.290	409.411	501.415	671.230
Uncond. Play Potential	428.326	131.691	249.721	334.290	409.411	501.415	671.230

LIQUIDS in NONASSOC. GAS

(10^6 BBL)

No. Prod. Untested Cells	0.00000	0.00000	0	0	0	0	0
Est. Ultimate Recovery	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Cond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Uncond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

I N P U T S U M M A R Y

Play Name	Province Name	Province #	Evaluator	Assessment Date
Shallow mine-related, 3350	Powder River	33	Rice/Finn	8/2/94

Play Type	Play Probability	Success Ratio	Scenario
Gas	1.000	0.500	40 acres

Geologic Variables	F100	F95	F75	F50	F25	F05	F0	Cutoff
Oil EUR* (10^6 BBL)	0.00000	(0.00000)	(0.00000)	0.00000	(0.00000)	(0.00000)	0.00000	0.00000
NA Gas EUR* (10^9 CF)	0.02000	0.07500	0.14000	0.21000	0.31000	0.50000	0.60000	0.02000
Oil Cells Depth (10^3 Ft)	0.00000	(0.00000)	(0.00000)	0.00000	(0.00000)	(0.00000)	0.00000	0.00000
Gas Cells Depth (10^3 Ft)	0.20000	(0.33333)	(0.46666)	0.60000	(0.73333)	(0.86666)	1.00000	1.00000
Number of Untested Cells	500	(2167)	(3833)	5500	(7125)	(9833)	12000	

* EUR = Estimated Ultimate Recovery

Gas-Oil Ratio	Expected Liquids/Gas Ratio	Estimated % of resource in subplay
CF/BBL	BBL/10^6 CF	
0.000000	0.0000	95.00000

G E O L O G I C V A R I A B L E S a n d P R O B A B I L I T I E S O F O C C U R R E N C E

	Mean	Std. Dev.							
Cond. # Cells	5652.55	2446.96							
# Cells	5652.55	2446.96							

Oil Cell Depth	0.00000	0.00000	Prob. Untested Cell has	0.0000	0.5000	0.0000	0.5000	0.0000	0.0000
Gas Cell Depth	0.60000	0.17554	Cond. Play Prob.	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000
			Uncond. Play Prob.	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000
			Prob. Exceed Cutoff	0.0000	1.0000				
			Play Potential Cutoffs	0.0000	0.0190	0.0000	0.0190	0.0000	0.0000

OIL						
(10^6 BBL)						
Mean	Std. Dev.	F95	F75	F50	F25	F05

NONASSOCIATED GAS						
(10^9 CF)						

No. Prod. Untested Cells	0.00000	0	0	0	0	0
Est. Ultimate Recovery	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Cond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Uncond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

ASSOCIATED-DISSOLVED GAS						
(10^9 CF)						

No. Prod. Untested Cells	2826.28	1224.06	.....	.....	.....	.....
Est. Ultimate Recovery	0.22907	0.12677	.....	.....	.....	.....
Cond. Play Potential	647.411	280.475	300.291	449.098	594.058	785.810
Uncond. Play Potential	647.411	280.475	300.291	449.098	594.058	785.810

TOTAL GAS						
(10^9 CF)						

No. Prod. Untested Cells	2826.28	1224.06	.....	.....	.....	.....
Est. Ultimate Recovery	0.22907	0.12677	.....	.....	.....	.....
Cond. Play Potential	647.411	280.475	300.291	449.098	594.058	785.810
Uncond. Play Potential	647.411	280.475	300.291	449.098	594.058	785.810

LIQUIDS in NONASSOC. GAS						
(10^6 BBL)						

No. Prod. Untested Cells	0.00000	0.00000	0	0	0	0
Est. Ultimate Recovery	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Cond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Uncond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

I N P U T S U M M A R Y

Play Name	Province Name	Province #	Evaluator	Assessment Date
Central basin, 3351	Powder River	33	Rice/Finn	8/2/94

Play Type	Play Probability	Success Ratio	Scenario
Gas	0.500	0.400	40 acres

Geologic Variables	F100	F95	F75	F50	F25	F05	F0	Cutoff
Oil EUR* (10^6 BBL)	0.00000	(0.00000)	(0.00000)	0.00000	(0.00000)	(0.00000)	0.00000	0.00000
NA Gas EUR* (10^9 CF)	0.02000	0.06500	0.16000	0.30000	0.55000	1.00000	1.20000	0.02000
Oil Cells Depth (10^3 Ft)	0.00000	(0.00000)	(0.00000)	0.00000	(0.00000)	(0.00000)	0.00000	0.00000
Gas Cells Depth (10^3 Ft)	0.50000	(0.73333)	(0.96666)	1.20000	(1.52500)	(2.06666)	2.50000	0.00000
Number of Untested Cells	500	(1333)	(2167)	3000	(7250)	(14333)	20000	

* EUR = Estimated Ultimate Recovery

Gas-Oil Ratio	Expected Liquids/Gas Ratio	Estimated % of resource in subplay
CF/BBL	BBL/10^6 CF	
0.000000	0.0000	85.00000

G E O L O G I C V A R I A B L E S and P R O B A B I L I T I E S O F O C C U R R E N C E

Cond. # Cells	Mean	Std. Dev.	Resource					NGL		
			Oil	NA Gas	AD Gas	Gas/HC	NA Gas	AD Gas	Total	
5339.07	4447.40									
# Cells 2669.53	4125.06									
Oil Cell Depth 0.00000	0.00000	Prob. Untested Cell has	0.0000	0.4000	0.0000	0.4000	0.0000	0.0000	0.0000	0.0000
Gas Cell Depth 1.28562	0.42896	Cond. Play Prob.	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000	0.0000	0.0000
		Uncond. Play Prob.	0.0000	0.5000	0.0000	0.5000	0.0000	0.0000	0.0000	0.0000
		Prob. Exceed Cutoff	0.0000	1.0000						
		Play Potential Cutoffs	0.0000	0.0170	0.0000	0.0170	0.0000	0.0000	0.0000	0.0000

	Mean	Std. Dev.	F95	F75	F50	F25	F05

OIL

(10^6 BBL)

No. Prod. Untested Cells	0.00000	0.00000	0	0	0	0	0
Est. Ultimate Recovery	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Cond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Uncond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

NONASSOCIATED GAS

(10^9 CF)

No. Prod. Untested Cells	2135.63	1779.32	.....	.....	.....	.....	.....
Est. Ultimate Recovery	0.33862	0.25263	.....	.....	.....	.....	.....
Cond. Play Potential	723.164	602.625	168.249	340.415	555.553	906.663	1834.51
Uncond. Play Potential	361.582	558.856	0.00000	0.00000	0.01700	555.553	1410.46

ASSOCIATED-DISSOLVED GAS

(10^9 CF)

No. Prod. Untested Cells	0.00000	0.00000	0	0	0	0	0
Est. Ultimate Recovery	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Cond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Uncond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

TOTAL GAS

(10^9 CF)

No. Prod. Untested Cells	2135.63	1779.32	.....	.....	.....	.....	.....
Est. Ultimate Recovery	0.33862	0.25263	.....	.....	.....	.....	.....
Cond. Play Potential	723.164	602.625	168.249	340.415	555.553	906.663	1834.51
Uncond. Play Potential	361.582	558.856	0.00000	0.00000	0.01700	555.553	1410.46

LIQUIDS in NONASSOC. GAS

(10^6 BBL)

No. Prod. Untested Cells	0.00000	0.00000	0	0	0	0	0
Est. Ultimate Recovery	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Cond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Uncond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

I N P U T S U M M A R Y

Play Name	Province Name	Province #	Evaluator	Assessment Date
Mesaverde, 3550	Wind River	35	Rice/Johnson/Finn	8/2/94

Play Type	Play Probability	Success Ratio	Scenario
Gas	1.000	0.600	320 acres

Geologic Variables	F100	F95	F75	F50	F25	F05	F0	Cutoff
Oil EUR* (10^6 BBL)	0.00000	(0.00000)	(0.00000)	0.00000	(0.00000)	(0.00000)	0.00000	0.00000
NA Gas EUR* (10^9 CF)	0.03000	0.20000	0.57000	1.20000	2.50000	4.60000	5.50000	0.03000
Oil Cells Depth (10^3 Ft)	0.00000	(0.00000)	(0.00000)	0.00000	(0.00000)	(0.00000)	0.00000	0.00000
Gas Cells Depth (10^3 Ft)	0.50000	(1.41666)	(2.33333)	3.25000	(4.16666)	(5.08333)	6.00000	0.00000
Number of Untested Cells	100	(200)	(300)	400	(500)	(667)	800	

* EUR = Estimated Ultimate Recovery

Gas-Oil Ratio	Expected Liquids/Gas Ratio
CF/BBL	BBL/10^6 CF
0.000000	40.00000

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G E O L O G I C V A R I A B L E S a n d P R O B A B I L I T I E S O F O C C U R R E N C E

	Mean	Std. Dev.	Resource				NGL	
			Oil	NA Gas	AD Gas	Gas/HC	NA Gas	AD Gas / Total
Cond. # Cells	410.375	149.049						
# Cells	410.375	149.049						
Oil Cell Depth	0.00000	0.00000	0.0000	0.6000	0.0000	0.6000	0.0000	0.0000
Gas Cell Depth	3.25000	1.20684	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000
			Uncond. Play Prob.	0.0000	0.0000	1.0000	0.0000	0.0000
			Prob. Exceed Cutoff	0.0000	1.0000			
			Play Potential Cutoffs	0.0000	0.0120	0.0000	0.0000	0.0000

OIL									
(10^6 BBL)									

No. Prod. Untested Cells	0.00000	0.00000	0	0	0	0	0	0	0
Est. Ultimate Recovery	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Cond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Uncond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
NONASSOCIATED GAS									
(10^9 CF)									

No. Prod. Untested Cells	246.225	89.9786	.....	.....	.....	.....	.....	.....	.....
Est. Ultimate Recovery	0.69160	0.56719	.....	.....	.....	.....	.....	.....	.....
Cond. Play Potential	170.289	62.8625	88.7367	125.529	159.751	203.304	287.605		
Uncond. Play Potential	170.289	62.8625	88.7367	125.529	159.751	203.304	287.605		
ASSOCIATED-DISSOLVED GAS									
(10^9 CF)									

No. Prod. Untested Cells	0.00000	0.00000	0	0	0	0	0	0	0
Est. Ultimate Recovery	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Cond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Uncond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
TOTAL GAS									
(10^9 CF)									

No. Prod. Untested Cells	246.225	89.9786	.....	.....	.....	.....	.....	.....	.....
Est. Ultimate Recovery	0.69160	0.56719	.....	.....	.....	.....	.....	.....	.....
Cond. Play Potential	170.289	62.8625	88.7367	125.529	159.751	203.304	287.605		
Uncond. Play Potential	170.289	62.8625	88.7367	125.529	159.751	203.304	287.605		
LIQUIDS in NONASSOC. GAS									
(10^6 BBL)									

No. Prod. Untested Cells	0.00000	0.00000	0	0	0	0	0	0	0
Est. Ultimate Recovery	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Cond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Uncond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

I N P U T S U M M A R Y

Play Name	Province Name	Province #	Evaluator	Assessment Date
Rock Springs, 3750	SW WY	37	Law/Rice	8/4/94

Play Type	Play Probability	Success Ratio	Scenario
Gas	0.900	0.700	320 acres

Geologic Variables	F100	F95	F75	F50	F25	F05	F0	Cutoff
Oil EUR* (10^6 BBL)	0.00000	(0.00000)	(0.00000)	0.00000	(0.00000)	(0.00000)	0.00000	0.00000
NA Gas EUR* (10^9 CF)	0.05000	0.33000	0.70000	1.20000	2.00000	3.40000	4.50000	0.05000
Oil Cells Depth (10^3 Ft)	0.00000	(0.00000)	(0.00000)	0.00000	(0.00000)	(0.00000)	0.00000	0.00000
Gas Cells Depth (10^3 Ft)	0.50000	(1.25000)	(2.00000)	2.75000	(3.56250)	(4.91666)	6.00000	0.00000
Number of Untested Cells	650	(667)	(683)	700	(775)	(900)	1000	

* EUR = Estimated Ultimate Recovery

Gas-Oil Ratio	Expected Liquids/Gas Ratio	Estimated % of resource in subplay
CF/BBL	BBL/10^6 CF	
0.000000	0.0000	65.00000

G E O L O G I C V A R I A B L E S a n d P R O B A B I L I T I E S O F O C C U R R E N C E

Cond. # Cells	Mean	Std. Dev.	Resource					NGL			
			Oil	NA Gas	AD Gas	Gas/HC	NA Gas	AD Gas	Total		
739.675	739.675	79.3954									
# Cells	665.707	234.337									
Oil Cell Depth	0.00000	0.00000	Prob. Untested Cell has	0.0000	0.7000	0.0000	0.7000	0.0000	0.0000	0.0000	0.0000
Gas Cell Depth	2.87239	1.17196	Cond. Play Prob.	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000	0.0000	0.0000
			Uncond. Play Prob.	0.0000	0.9000	0.0000	0.9000	0.0000	0.0000	0.0000	0.0000
			Prob. Exceed Cutoff	0.0000	1.0000						
			Play Potential Cutoffs	0.0000	0.0325	0.0000	0.0325	0.0000	0.0000	0.0000	0.0000

	Mean	Std. Dev.	F95	F75	F50	F25	F05

OIL							
(10^6 BBL)							

No. Prod. Untested Cells	0.00000	0.00000	0	0	0	0	0
Est. Ultimate Recovery	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Cond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Uncond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
NONASSOCIATED GAS							
(10^9 CF)							

No. Prod. Untested Cells	517.773	56.9571	.....	.....	.....	.....	.....
Est. Ultimate Recovery	0.96688	0.65156	.....	.....	.....	.....	.....
Cond. Play Potential	500.621	57.0312	412.653	460.729	497.404	536.998	599.562
Uncond. Play Potential	450.559	159.635	0.00000	445.601	489.573	531.863	596.082
ASSOCIATED-DISSOLVED GAS							
(10^9 CF)							

No. Prod. Untested Cells	0.00000	0.00000	0	0	0	0	0
Est. Ultimate Recovery	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Cond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Uncond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
TOTAL GAS							
(10^9 CF)							

No. Prod. Untested Cells	517.773	56.9571	.....	.....	.....	.....	.....
Est. Ultimate Recovery	0.96688	0.65156	.....	.....	.....	.....	.....
Cond. Play Potential	500.621	57.0312	412.653	460.729	497.404	536.998	599.562
Uncond. Play Potential	450.559	159.635	0.00000	445.601	489.573	531.863	596.082
LIQUIDS in NONASSOC. GAS							
(10^6 BBL)							

No. Prod. Untested Cells	0.00000	0.00000	0	0	0	0	0
Est. Ultimate Recovery	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Cond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Uncond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

UNCONVENTIONAL RESOURCES for Iles, 3751 C:\UNCONV\FEDCOALB\SW-WY\3751.LIS Crovelli & Balay

	Mean	Std. Dev.	F95	F75	F50	F25	F05
OIL							
(10^6 BBL)							
No. Prod. Untested Cells	0.00000	0.00000	0	0	0	0	0
Est. Ultimate Recovery	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Cond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Uncond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
NONASSOCIATED GAS							
(10^9 CF)							
No. Prod. Untested Cells	533.400	224.937	.....	.....	.....	.....	.....
Est. Ultimate Recovery	0.35368	0.29297	.....	.....	.....	.....	.....
Cond. Play Potential	188.650	79.8418	89.1026	132.121	173.731	228.446	338.744
Uncond. Play Potential	132.055	109.252	0.00000	0.00000	138.060	201.639	315.181
ASSOCIATED-DISSOLVED GAS							
(10^9 CF)							
No. Prod. Untested Cells	0.00000	0.00000	0	0	0	0	0
Est. Ultimate Recovery	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Cond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Uncond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
TOTAL GAS							
(10^9 CF)							
No. Prod. Untested Cells	533.400	224.937	.....	.....	.....	.....	.....
Est. Ultimate Recovery	0.35368	0.29297	.....	.....	.....	.....	.....
Cond. Play Potential	188.650	79.8418	89.1026	132.121	173.731	228.446	338.744
Uncond. Play Potential	132.055	109.252	0.00000	0.00000	138.060	201.639	315.181
LIQUIDS in NONASSOC. GAS							
(10^6 BBL)							
No. Prod. Untested Cells	0.00000	0.00000	0	0	0	0	0
Est. Ultimate Recovery	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Cond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Uncond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

I N P U T S U M M A R Y

Play Name	Province Name	Province #	Evaluator	Assessment Date
Williams Fork, 3752	SW WY	37	Law/Rice	8/5/94

Play Type	Play Probability	Success Ratio	Scenario
Gas	1.000	0.700	320 acres

Geologic Variables	F100	F95	F75	F50	F25	F05	F0	Cutoff
Oil EUR* (10 ⁶ BBL)	0.00000	(0.00000)	(0.00000)	0.00000	(0.00000)	(0.00000)	0.00000	0.00000
NA Gas EUR* (10 ⁹ CF)	0.05000	0.31000	0.80000	1.50000	2.80000	6.20000	8.00000	0.05000
Oil Cells Depth (10 ³ Ft)	0.00000	(0.00000)	(0.00000)	0.00000	(0.00000)	(0.00000)	0.00000	0.00000
Gas Cells Depth (10 ³ Ft)	0.50000	(1.25000)	(2.00000)	2.75000	(3.56250)	(4.91666)	6.00000	0.00000
Number of Untested Cells	300	(500)	(700)	900	(1100)	(1300)	1500	

* EUR = Estimated Ultimate Recovery

Gas-Oil Ratio	Expected Liquids/Gas Ratio	Estimated % of resource in subplay
CF/BBL	BBL/10 ⁶ CF	
0.000000	0.0000	25.00000

G E O L O G I C V A R I A B L E S and P R O B A B I L I T I E S O F O C C U R R E N C E

Cond. # Cells	Mean	Std. Dev.	Resource				NGL	
			Oil	NA Gas	AD Gas	Gas/HC	NA Gas	AD Gas	Total
263.312	899.500	263.312	0.0000	0.7000	0.0000	0.7000	0.0000	0.0000
263.312	899.500	263.312	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000
0.00000	0.00000	0.00000	Prob. Untested Cell has	0.0000	0.7000	0.0000	0.0000	0.0000
2.87239	1.17196	1.17196	Cond. Play Prob.	0.0000	1.0000	0.0000	0.0000	0.0000
			Uncond. Play Prob.	0.0000	1.0000	0.0000	0.0000	0.0000
			Prob. Exceed Cutoff	0.0000	1.0000	0.0000	0.0000	0.0000
			Play Potential Cutoffs	0.0000	0.0125	0.0000	0.0125	0.0000
								0.0000

	Mean	Std. Dev.	F95	F75	F50	F25	F05
OIL							
(10^6 BBL)							
No. Prod. Untested Cells	0.00000	0.00000	0	0	0	0	0
Est. Ultimate Recovery	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Cond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Uncond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
NONASSOCIATED GAS							
(10^9 CF)							
No. Prod. Untested Cells	629.650	184.830	.....	.....	.....	.....	.....
Est. Ultimate Recovery	0.55000	0.47010	.....	.....	.....	.....	.....
Cond. Play Potential	346.308	102.339	206.332	273.226	332.109	403.683	534.562
Uncond. Play Potential	346.308	102.339	206.332	273.226	332.109	403.683	534.562
ASSOCIATED-DISSOLVED GAS							
(10^9 CF)							
No. Prod. Untested Cells	0.00000	0.00000	0	0	0	0	0
Est. Ultimate Recovery	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Cond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Uncond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
TOTAL GAS							
(10^9 CF)							
No. Prod. Untested Cells	629.650	184.830	.....	.....	.....	.....	.....
Est. Ultimate Recovery	0.55000	0.47010	.....	.....	.....	.....	.....
Cond. Play Potential	346.308	102.339	206.332	273.226	332.109	403.683	534.562
Uncond. Play Potential	346.308	102.339	206.332	273.226	332.109	403.683	534.562
LIQUIDS in NONASSOC. GAS							
(10^6 BBL)							
No. Prod. Untested Cells	0.00000	0.00000	0	0	0	0	0
Est. Ultimate Recovery	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Cond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Uncond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

I N P U T S U M M A R Y

Play Name	Province Name	Province #	Evaluator	Assessment Date
Almond, 3753	SW WY	37	Law/Rice	8/4/94

Play Type	Play Probability	Success Ratio	Scenario
Gas	0.900	0.500	320 acres

Geologic Variables	F100	F95	F75	F50	F25	F05	F0	Cutoff
Oil EUR* (10^6 BBL)	0.00000	(0.00000)	(0.00000)	0.00000	(0.00000)	(0.00000)	0.00000	0.00000
NA Gas EUR* (10^9 CF)	0.02000	0.13000	0.32000	0.70000	1.10000	2.10000	2.50000	0.02000
Oil Cells Depth (10^3 Ft)	0.00000	(0.00000)	(0.00000)	0.00000	(0.00000)	(0.00000)	0.00000	0.00000
Gas Cells Depth (10^3 Ft)	0.50000	(1.25000)	(2.00000)	2.75000	(3.56250)	(4.91666)	6.00000	0.00000
Number of Untested Cells	100	(733)	(1367)	2000	(2700)	(3867)	4800	

* EUR = Estimated Ultimate Recovery

Gas-Oil Ratio	Expected Liquids/Gas Ratio
CF/BBL	BBL/10^6 CF
0.000000	70.00000

G E O L O G I C V A R I A B L E S a n d P R O B A B I L I T I E S O F O C C U R R E N C E

	Mean	Std. Dev.	Oil	NA Gas	AD Gas	Gas/HC	NA Gas	AD Gas	Total
Cond. # Cells	2112.07	1001.92							
# Cells	1900.86	1142.34							
Oil Cell Depth	0.00000	0.00000	0.0000	0.5000	0.0000	0.5000	0.0000	0.0000	0.0000
Gas Cell Depth	2.87239	1.17196	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000	0.0000
			0.0000	0.9000	0.0000	0.9000	0.0000	0.0000	0.0000
			0.0000	1.0000					
			0.0000	0.0140	0.0000	0.0140	0.0000	0.0000	0.0000

UNCONVENTIONAL RESOURCES for Almond, 3753 C:\UNCONV\FEDCOALB\SW-WY\3753.LIS Crovelli & Balay

	Mean	Std. Dev.	F95	F75	F50	F25	F05

OIL							
(10^6 BBL)							

No. Prod. Untested Cells	0.00000	0.00000	0	0	0	0	0
Est. Ultimate Recovery	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Cond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Uncond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
NONASSOCIATED GAS							
(10^9 CF)							

No. Prod. Untested Cells	1056.04	501.489	.....	.....	.....	.....	.....
Est. Ultimate Recovery	0.58538	0.43119	.....	.....	.....	.....	.....
Cond. Play Potential	618.178	293.894	265.688	411.747	558.295	757.002	1173.17
Uncond. Play Potential	556.360	334.857	0.00000	360.631	524.258	728.682	1146.39
ASSOCIATED-DISSOLVED GAS							
(10^9 CF)							

No. Prod. Untested Cells	0.00000	0.00000	0	0	0	0	0
Est. Ultimate Recovery	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Cond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Uncond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
TOTAL GAS							
(10^9 CF)							

No. Prod. Untested Cells	1056.04	501.489	.....	.....	.....	.....	.....
Est. Ultimate Recovery	0.58538	0.43119	.....	.....	.....	.....	.....
Cond. Play Potential	618.178	293.894	265.688	411.747	558.295	757.002	1173.17
Uncond. Play Potential	556.360	334.857	0.00000	360.631	524.258	728.682	1146.39
LIQUIDS in NONASSOC. GAS							
(10^6 BBL)							

No. Prod. Untested Cells	0.00000	0.00000	0	0	0	0	0
Est. Ultimate Recovery	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Cond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Uncond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

I N P U T S U M M A R Y

Play Name	Province Name	Province #	Evaluator	Assessment Date
Lance, 3754	SW WY	37	Law/Rice	8/5/94

Play Type	Play Probability	Success Ratio	Scenario
Gas	0.500	0.500	320 acres

Geologic Variables	F100	F95	F75	F50	F25	F05	F0	Cutoff
Oil EUR* (10^6 BBL)	0.00000	(0.00000)	(0.00000)	0.00000	(0.00000)	(0.00000)	0.00000	0.00000
NA Gas EUR* (10^9 CF)	0.01000	0.03000	0.06500	0.20000	0.65000	1.90000	3.00000	0.01000
Oil Cells Depth (10^3 Ft)	0.00000	(0.00000)	(0.00000)	0.00000	(0.00000)	(0.00000)	0.00000	0.00000
Gas Cells Depth (10^3 Ft)	0.50000	(1.25000)	(2.00000)	2.75000	(3.56250)	(4.91666)	6.00000	6.00000
Number of Untested Cells	600	(900)	(1200)	1500	(2125)	(3167)	4000	

* EUR = Estimated Ultimate Recovery

Gas-Oil Ratio	Expected Liquids/Gas Ratio
CF/BBL	BBL/10^6 CF
0.000000	0.0000
	70.00000

G E O L O G I C V A R I A B L E S and P R O B A B I L I T I E S O F O C C U R R E N C E

Cond. # Cells	1746.00	741.949							
# Cells	873.000	1018.51							
Oil Cell Depth	0.00000	Prob. Untested Cell has	0.0000	0.5000	0.0000	0.5000	0.0000	0.0000	0.0000
Gas Cell Depth	2.87239	1.17196	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000	0.0000
		Uncond. Play Prob.	0.0000	0.5000	0.0000	0.5000	0.0000	0.0000	0.0000
		Prob. Exceed Cutoff	0.0000	1.0000					
		Play Potential Cutoffs	0.0000	0.0070	0.0000	0.0070	0.0000	0.0000	0.0000

	Mean	Std. Dev.	F95	F75	F50	F25	F05

OIL							
(10^6 BBL)							

No. Prod. Untested Cells	0.00000	0.00000	0	0	0	0	0
Est. Ultimate Recovery	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Cond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Uncond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
NONASSOCIATED GAS							
(10^9 CF)							

No. Prod. Untested Cells	873.000	371.563	.....	.....	.....	.....	.....
Est. Ultimate Recovery	0.36916	0.46054	.....	.....	.....	.....	.....
Cond. Play Potential	322.279	137.840	150.986	224.744	296.313	390.675	581.529
Uncond. Play Potential	161.139	188.324	0.00000	0.00000	0.00700	296.313	501.301
ASSOCIATED-DISSOLVED GAS							
(10^9 CF)							

No. Prod. Untested Cells	0.00000	0.00000	0	0	0	0	0
Est. Ultimate Recovery	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Cond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Uncond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
TOTAL GAS							
(10^9 CF)							

No. Prod. Untested Cells	873.000	371.563	.....	.....	.....	.....	.....
Est. Ultimate Recovery	0.36916	0.46054	.....	.....	.....	.....	.....
Cond. Play Potential	322.279	137.840	150.986	224.744	296.313	390.675	581.529
Uncond. Play Potential	161.139	188.324	0.00000	0.00000	0.00700	296.313	501.301
LIQUIDS in NONASSOC. GAS							
(10^6 BBL)							

No. Prod. Untested Cells	0.00000	0.00000	0	0	0	0	0
Est. Ultimate Recovery	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Cond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Uncond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

I N P U T S U M M A R Y

Play Name	Province Name	Province #	Evaluator	Assessment Date
Fort Union, 3755	SW WY	37	Law/Rice	8/5/94

Play Type	Play Probability	Success Ratio	Scenario
Gas	0.500	0.500	320 acres

Geologic Variables	F100	F95	F75	F50	F25	F05	F0	Cutoff
Oil EUR* (10^6 BBL)	0.00000	(0.00000)	(0.00000)	0.00000	(0.00000)	(0.00000)	0.00000	0.00000
NA Gas EUR* (10^9 CF)	0.01000	0.03000	0.06500	0.20000	0.65000	1.90000	3.00000	0.01000
Oil Cells Depth (10^3 Ft)	0.00000	(0.00000)	(0.00000)	0.00000	(0.00000)	(0.00000)	0.00000	0.00000
Gas Cells Depth (10^3 Ft)	0.50000	(1.25000)	(2.00000)	2.75000	(3.56250)	(4.91666)	6.00000	6.00000
Number of Untested Cells	800	(1367)	(1933)	2500	(3875)	(6167)	8000	

* EUR = Estimated Ultimate Recovery

Gas-Oil Ratio	Expected Liquids/Gas Ratio	Estimated % of resource in subplay
CF/BBL	BBL/10^6 CF	
0.000000	0.0000	70.00000

G E O L O G I C V A R I A B L E S and P R O B A B I L I T I E S O F O C C U R R E N C E

Cond. # Cells	3093.05	1583.22							
# Cells	1546.52	1909.19							
Oil Cell Depth	0.00000	0.00000	Prob. Untested Cell has	0.0000	0.5000	0.0000	0.5000	0.0000	0.0000
Gas Cell Depth	2.87239	1.17196	Cond. Play Prob.	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000
			Uncond. Play Prob.	0.0000	0.5000	0.0000	0.5000	0.0000	0.0000
			Prob. Exceed Cutoff	0.0000	1.0000				
			Play Potential Cutoffs	0.0000	0.0070	0.0000	0.0070	0.0000	0.0000

	Mean	Std. Dev.	F95	F75	F50	F25	F05

OIL							
(10^6 BBL)							

No. Prod. Untested Cells	0.00000	0.00000	0	0	0	0	0
Est. Ultimate Recovery	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Cond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Uncond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
NONASSOCIATED GAS							
(10^9 CF)							

No. Prod. Untested Cells	1546.53	792.102	.....	.....	.....	.....	.....
Est. Ultimate Recovery	0.36916	0.46054	.....	.....	.....	.....	.....
Cond. Play Potential	570.919	292.975	229.303	366.596	507.942	703.788	1125.18
Uncond. Play Potential	285.460	352.710	0.00000	0.00000	0.00700	507.942	944.457
ASSOCIATED-DISSOLVED GAS							
(10^9 CF)							

No. Prod. Untested Cells	0.00000	0.00000	0	0	0	0	0
Est. Ultimate Recovery	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Cond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Uncond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
TOTAL GAS							
(10^9 CF)							

No. Prod. Untested Cells	1546.53	792.102	.....	.....	.....	.....	.....
Est. Ultimate Recovery	0.36916	0.46054	.....	.....	.....	.....	.....
Cond. Play Potential	570.919	292.975	229.303	366.596	507.942	703.788	1125.18
Uncond. Play Potential	285.460	352.710	0.00000	0.00000	0.00700	507.942	944.457
LIQUIDS in NONASSOC. GAS							
(10^6 BBL)							

No. Prod. Untested Cells	0.00000	0.00000	0	0	0	0	0
Est. Ultimate Recovery	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Cond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Uncond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

I N P U T S U M M A R Y

Play Name	Province Name	Province #	Evaluator	Assessment Date
Northern basin, 4150	Raton basin	41	Rice/Finn	8/3/94

Play Type	Play Probability	Success Ratio	Scenario
Gas	1.000	0.800	320 acres

Geologic Variables	F100	F95	F75	F50	F25	F05	F0	Cutoff
Oil EUR* (10^6 BBL)	0.00000	(0.00000)	(0.00000)	0.00000	(0.00000)	(0.00000)	0.00000	0.00000
NA Gas EUR* (10^9 CF)	0.03000	0.16000	0.47000	1.00000	2.20000	4.50000	8.00000	0.03000
Oil Cells Depth (10^3 Ft)	0.00000	(0.00000)	(0.00000)	0.00000	(0.00000)	(0.00000)	0.00000	0.00000
Gas Cells Depth (10^3 Ft)	0.50000	(1.10000)	(1.70000)	2.30000	(2.90000)	(3.50000)	4.10000	0.00000
Number of Untested Cells	550	(600)	(650)	700	(750)	(800)	850	0.00000

* EUR = Estimated Ultimate Recovery

Gas-Oil Ratio CF/BBL	Expected Liquids/Gas Ratio BBL/10^6 CF	Estimated % of resource in subplay
0.000000	0.0000	10.00000

G E O L O G I C V A R I A B L E S a n d P R O B A B I L I T I E S O F O C C U R R E N C E

Cond. # Cells	Mean	Std. Dev.	Resource					NGL	Total
			Oil	NA Gas	AD Gas	Gas/HC	NA Gas		
699.500	65.8274	65.8274	0.0000	0.8000	0.0000	0.8000	0.0000	0.0000	0.0000
Oil Cell Depth 0.00000	0.00000	0.00000	0.0000	0.8000	0.0000	0.8000	0.0000	0.0000	0.0000
Gas Cell Depth 2.30000	0.78993	0.78993	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000	0.0000
	Uncond. Play Prob.		0.0000	1.0000	0.0000	1.0000	0.0000	0.0000	0.0000
	Prob. Exceed Cutoff		0.0000	1.0000					
	Play Potential Cutoffs		0.0000	0.0030	0.0000	0.0030	0.0000	0.0000	0.0000

UNCONVENTIONAL RESOURCES for Northern basin, 4150 C:\UNCONV\FEDCOALB\RATON\4150.LIS Crovelli & Balay

	Mean	Std. Dev.	F95	F75	F50	F25	F05

OIL							
(10^6 BBL)							

No. Prod. Untested Cells	0.00000	0.00000	0	0	0	0	0
Est. Ultimate Recovery	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Cond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Uncond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
NONASSOCIATED GAS							
(10^9 CF)							

No. Prod. Untested Cells	559.600	53.7141	.....	.....	.....	.....	.....
Est. Ultimate Recovery	0.16340	0.15811	.....	.....	.....	.....	.....
Cond. Play Potential	91.4386	9.54056	76.6372	84.7807	90.9449	97.5573	107.924
Uncond. Play Potential	91.4386	9.54056	76.6372	84.7807	90.9449	97.5573	107.924
ASSOCIATED-DISSOLVED GAS							
(10^9 CF)							

No. Prod. Untested Cells	0.00000	0.00000	0	0	0	0	0
Est. Ultimate Recovery	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Cond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Uncond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
TOTAL GAS							
(10^9 CF)							

No. Prod. Untested Cells	559.600	53.7141	.....	.....	.....	.....	.....
Est. Ultimate Recovery	0.16340	0.15811	.....	.....	.....	.....	.....
Cond. Play Potential	91.4386	9.54056	76.6372	84.7807	90.9449	97.5573	107.924
Uncond. Play Potential	91.4386	9.54056	76.6372	84.7807	90.9449	97.5573	107.924
LIQUIDS in NONASSOC. GAS							
(10^6 BBL)							

No. Prod. Untested Cells	0.00000	0.00000	0	0	0	0	0
Est. Ultimate Recovery	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Cond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Uncond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

INPUT SUMMARY

Play Name	Province Name	Province #	Evaluator	Assessment Date
Syncline, 6251	Arkona	62	Rice/Finn	8/1/94

Play Type	Play Probability	Success Ratio	Scenario
Gas	1.000	0.600	80 acres
Geologic Variables		F100	F95 F75 F50 F25 F05 F0 Cutoff
Oil EUR* (10^6 BBL)		0.00000	(0.00000) (0.00000) (0.00000) (0.00000) (0.00000) (0.00000)
NA Gas EUR* (10^9 CF)		0.05000	0.13000 0.25000 0.38000 0.57500 0.95000 1.50000
Oil Cells Depth (10^3 Ft)		0.00000	(0.00000) (0.00000) (0.00000) (0.00000) (0.00000) (0.00000)
Gas Cells Depth (10^3 Ft)		0.50000	(1.00000) (1.50000) (2.00000) (2.75000) (4.00000) 5.00000
Number of Untested Cells		5000	(6000) (7000) (8000) (9250) (11333) 13000

* EUR = Estimated Ultimate Recovery

Gas-Oil Ratio CF/BBL	Expected Liquids/Gas Ratio BBL/10 ⁶ CF	Estimated % of resource in subplay
0.000000	0.0000	10.00000

GEOLOGIC VARIABLES and PROBABILITIES OF OCCURRENCE

		Mean	Std. Dev.							
		-----	-----							
Cond.	# Cells	8272.37	1710.11							
	# Cells	8272.37	1710.11							
				Resource			NGL			
				Oil	NA Gas	AD Gas	Gas/HC	NA Gas	AD Gas	Total
				-----	-----	-----	-----	-----	-----	-----
Oil Cell Depth	Depth	0.00000	0.00000	0.0000	0.6000	0.0000	0.6000	0.0000	0.0000	0.0000
	Gas Cell Depth	2.21875	0.96774	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000	0.0000
				0.0000	1.0000	0.0000	1.0000	0.0000	0.0000	0.0000
				0.0000	1.0000					
Play Potential Cutoffs				0.0000	0.0050	0.0000	0.0050	0.0000	0.0000	0.0000

	Mean	Std. Dev.	F95	F75	F50	F25	F05

OIL							
(10^6 BBL)							

No. Prod. Untested Cells	0.00000	0.00000	0	0	0	0	0
Est. Ultimate Recovery	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Cond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Uncond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
NONASSOCIATED GAS							
(10^9 CF)							

No. Prod. Untested Cells	4963.43	1027.04	.....	.....	.....	.....	.....
Est. Ultimate Recovery	0.04544	0.02816	.....	.....	.....	.....	.....
Cond. Play Potential	225.526	46.7081	157.640	192.328	220.839	253.576	309.375
Uncond. Play Potential	225.526	46.7081	157.640	192.328	220.839	253.576	309.375
ASSOCIATED-DISSOLVED GAS							
(10^9 CF)							

No. Prod. Untested Cells	0.00000	0.00000	0	0	0	0	0
Est. Ultimate Recovery	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Cond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Uncond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
TOTAL GAS							
(10^9 CF)							

No. Prod. Untested Cells	4963.43	1027.04	.....	.....	.....	.....	.....
Est. Ultimate Recovery	0.04544	0.02816	.....	.....	.....	.....	.....
Cond. Play Potential	225.526	46.7081	157.640	192.328	220.839	253.576	309.375
Uncond. Play Potential	225.526	46.7081	157.640	192.328	220.839	253.576	309.375
LIQUIDS in NONASSOC. GAS							
(10^6 BBL)							

No. Prod. Untested Cells	0.00000	0.00000	0	0	0	0	0
Est. Ultimate Recovery	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Cond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Uncond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

I N P U T S U M M A R Y

Play Name	Province Name	Province #	Evaluator	Assessment Date
Coastal Plain, 6552	Black Warrior	65	Rice/Finn	7/18/94

Play Type	Play Probability	Success Ratio	Scenario
Gas	1.000	0.700	80 acres

Geologic Variables	F100	F95	F75	F50	F25	F05	F0	Cutoff
Oil EUR* (10 ⁶ BBL)	0.00000	(0.00000)	(0.00000)	0.00000	(0.00000)	(0.00000)	0.00000	0.00000
NA Gas EUR* (10 ⁹ CF)	0.05000	0.12000	0.28000	0.53000	0.74000	1.10000	1.30000	0.00000
Oil Cells Depth (10 ³ Ft)	0.00000	(0.00000)	(0.00000)	0.00000	(0.00000)	(0.00000)	0.00000	0.00000
Gas Cells Depth (10 ³ Ft)	0.50000	(1.16666)	(2.00000)	2.50000	(3.00000)	(3.50000)	4.00000	0.00000
Number of Untested Cells	500	(933)	(1367)	1800	(2200)	(2600)	3000	

* EUR = Estimated Ultimate Recovery

Gas-Oil Ratio	Expected Liquids/Gas Ratio	Estimated % of resource in subplay
CF/BBL	BBL/10 ⁶ CF	
0.000000	0.0000	3.000000

G E O L O G I C V A R I A B L E S and P R O B A B I L I T I E S O F O C C U R R E N C E

Cond. # Cells	Mean	Std. Dev.	Resource				NGL	
			Oil	NA Gas	AD Gas	Gas/HC	NA Gas	AD Gas	Total
1781.20	1781.20	548.702	0.0000	0.7000	0.0000	0.7000	0.0000	0.0000
548.702	548.702	548.702	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000
Oil Cell Depth 0.00000	0.00000	Prob. Untested Cell has	0.0000	0.7000	0.0000	0.7000	0.0000	0.0000
Gas Cell Depth 2.44583	0.74494	Cond. Play Prob.	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000
		Uncond. Play Prob.	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000
		Prob. Exceed Cutoff	0.0000	1.0000	0.0000	1.0000	0.0000	0.0000
		Play Potential Cutoffs	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

	Mean	Std. Dev.	F95	F75	F50	F25	F05

OIL							
(10^6 BBL)							

No. Prod. Untested Cells	0.00000	0.00000	0	0	0	0	0
Est. Ultimate Recovery	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Cond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Uncond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
NONASSOCIATED GAS							
(10^9 CF)							

No. Prod. Untested Cells	1246.84	384.579	.....	.....	.....	.....	.....
Est. Ultimate Recovery	0.01645	0.00929	.....	.....	.....	.....	.....
Cond. Play Potential	20.5074	6.33386	11.9256	15.9847	19.5941	24.0186	32.1937
Uncond. Play Potential	20.5074	6.33386	11.9256	15.9847	19.5941	24.0186	32.1937
ASSOCIATED-DISSOLVED GAS							
(10^9 CF)							

No. Prod. Untested Cells	0.00000	0.00000	0	0	0	0	0
Est. Ultimate Recovery	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Cond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Uncond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
TOTAL GAS							
(10^9 CF)							

No. Prod. Untested Cells	1246.84	384.579	.....	.....	.....	.....	.....
Est. Ultimate Recovery	0.01645	0.00929	.....	.....	.....	.....	.....
Cond. Play Potential	20.5074	6.33386	11.9256	15.9847	19.5941	24.0186	32.1937
Uncond. Play Potential	20.5074	6.33386	11.9256	15.9847	19.5941	24.0186	32.1937
LIQUIDS in NONASSOC. GAS							
(10^6 BBL)							

No. Prod. Untested Cells	0.00000	0.00000	0	0	0	0	0
Est. Ultimate Recovery	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Cond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Uncond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

I N P U T S U M M A R Y

Play Name	Province Name	Province #	Evaluator	Assessment Date
Central & Western Basin, 6553	Black Warrior	65	Rice/Finn	7/18/94

Play Type	Play Probability	Success Ratio	Scenario
Gas	0.500	0.500	80 acres

Geologic Variables	F100	F95	F75	F50	F25	F05	F0	Cutoff
Oil EUR* (10^6 BBL)	0.00000	(0.00000)	(0.00000)	0.00000	(0.00000)	(0.00000)	0.00000	0.00000
NA Gas EUR* (10^9 CF)	0.01500	0.03500	0.07000	0.12500	0.21500	0.36000	0.50000	0.00000
Oil Cells Depth (10^3 Ft)	0.00000	(0.00000)	(0.00000)	0.00000	(0.00000)	(0.00000)	0.00000	0.00000
Gas Cells Depth (10^3 Ft)	0.50000	(0.93333)	(1.36666)	1.80000	(2.35000)	(3.26666)	4.00000	0.00000
Number of Untested Cells	100	(400)	(700)	1000	(2000)	(3667)	5000	

* EUR = Estimated Ultimate Recovery

Gas-Oil Ratio	Expected Liquids/Gas Ratio	Estimated % of resource in subplay
CF/BBL	BBL/10^6 CF	
0.000000	0.0000	2.000000

G E O L O G I C V A R I A B L E S a n d P R O B A B I L I T I E S O F O C C U R R E N C E

Cond. # Cells	Mean	Std. Dev.	Resource				NGL	
			Oil	NA Gas	AD Gas	Gas/HC	NA Gas	AD Gas	Total
1492.87	1492.87	1095.25	0.0000	0.0000	0.0000	0.5000	0.0000	0.0000
746.437	746.437	1075.62	0.0000	0.5000	0.0000	0.0000	0.0000	0.0000
Oil Cell Depth	0.00000	0.00000	Prob. Untested Cell has	0.0000	0.5000	0.0000	0.0000	0.0000
Gas Cell Depth	1.92375	0.74852	Cond. Play Prob.	0.0000	1.0000	0.0000	0.0000	0.0000
			Uncond. Play Prob.	0.0000	0.5000	0.0000	0.0000	0.0000
			Prob. Exceed Cutoff	0.0000	1.0000			
			Play Potential Cutoffs	0.0000	0.0000	0.0000	0.0000	0.0000

	Mean	Std. Dev.	F95	F75	F50	F25	F05
OIL							
(10^6 BBL)							
No. Prod. Untested Cells	0.00000	0.00000	0	0	0	0	0
Est. Ultimate Recovery	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Cond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Uncond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
NONASSOCIATED GAS							
(10^9 CF)							
No. Prod. Untested Cells	746.438	547.969	.....	.....	.....	.....	.....
Est. Ultimate Recovery	0.00315	0.00217	.....	.....	.....	.....	.....
Cond. Play Potential	2.35314	1.72849	0.64367	1.21767	1.89649	2.95374	5.58775
Uncond. Play Potential	1.17657	1.69652	0.00000	0.00000	0.00000	1.89649	4.40514
ASSOCIATED-DISSOLVED GAS							
(10^9 CF)							
No. Prod. Untested Cells	0.00000	0.00000	0	0	0	0	0
Est. Ultimate Recovery	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Cond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Uncond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
TOTAL GAS							
(10^9 CF)							
No. Prod. Untested Cells	746.438	547.969	.....	.....	.....	.....	.....
Est. Ultimate Recovery	0.00315	0.00217	.....	.....	.....	.....	.....
Cond. Play Potential	2.35314	1.72849	0.64367	1.21767	1.89649	2.95374	5.58775
Uncond. Play Potential	1.17657	1.69652	0.00000	0.00000	0.00000	1.89649	4.40514
LIQUIDS in NONASSOC. GAS							
(10^6 BBL)							
No. Prod. Untested Cells	0.00000	0.00000	0	0	0	0	0
Est. Ultimate Recovery	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Cond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Uncond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

I N P U T S U M M A R Y

Play Name	Province Name	Province #	Evaluator	Assessment Date
Northern/Syncline, 6751	Appalachian	67	Rice/Finn	7/15/94

Play Type	Play Probability	Success Ratio	Scenario
Gas	1.000	0.700	40 acres

Geologic Variables	F100	F95	F75	F50	F25	F05	F0	Cutoff
Oil EUR* (10^6 BBL)	0.00000	(0.00000)	(0.00000)	0.00000	(0.00000)	(0.00000)	0.00000	0.00000
NA Gas EUR* (10^9 CF)	0.02000	0.03500	0.08000	0.15000	0.28000	0.54000	1.00000	0.00000
Oil Cells Depth (10^3 Ft)	0.00000	(0.00000)	(0.00000)	0.00000	(0.00000)	(0.00000)	0.00000	0.00000
Gas Cells Depth (10^3 Ft)	0.30000	(0.53333)	(0.76666)	1.00000	(1.25000)	(1.66666)	2.00000	0.00000
Number of Untested Cells	30000	(43333)	(60000)	70000	(80000)	(90000)	100000	

* EUR = Estimated Ultimate Recovery

Gas-Oil Ratio	Expected Liquids/Gas Ratio	Estimated % of resource in subplay
CF/BBL	BBL/10^6 CF	
0.000000	0.0000	7.000000

G E O L O G I C V A R I A B L E S and P R O B A B I L I T I E S O F O C C U R R E N C E

Cond. # Cells	Mean	Std. Dev.	Resource				NGL	
			Oil	NA Gas	AD Gas	Gas/HC	NA Gas	AD Gas	Total
68916.1	14898.8							
68916.1	14898.8							
Oil Cell Depth	0.00000	0.00000	Prob. Untested Cell has	0.0000	0.7000	0.0000	0.7000	0.0000
Gas Cell Depth	1.03625	0.36217	Cond. Play Prob.	0.0000	1.0000	0.0000	1.0000	0.0000
			Uncond. Play Prob.	0.0000	1.0000	0.0000	1.0000	0.0000
			Prob. Exceed Cutoff	0.0000	1.0000			
			Play Potential Cutoffs	0.0000	0.0000	0.0000	0.0000	0.0000

OIL						
(10^6 BBL)						
Mean	Std. Dev.	F95	F75	F50	F25	F05

NONASSOCIATED GAS						
(10^9 CF)						

No. Prod. Untested Cells	0.00000	0	0	0	0	0
Est. Ultimate Recovery	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Cond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Uncond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

TOTAL GAS						
(10^9 CF)						

No. Prod. Untested Cells	0.00000	0	0	0	0	0
Est. Ultimate Recovery	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Cond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Uncond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

LIQUIDS in NONASSOC. GAS						
(10^6 BBL)						

No. Prod. Untested Cells	0.00000	0	0	0	0	0
Est. Ultimate Recovery	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Cond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Uncond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

I N P U T S U M M A R Y

Play Name	Province Name	Province #	Evaluator	Assessment Date
Central Appalachian Central basin, 6752	Appalachian	67	Rice/Finn	8/2/94

Play Type	Play Probability	Success Ratio	Scenario
Gas	1.000	0.700	80 acres

Geologic Variables	F100	F95	F75	F50	F25	F05	F0	Cutoff
Oil EUR* (10^6 BBL)	0.00000	(0.00000)	(0.00000)	0.00000	(0.00000)	(0.00000)	0.00000	0.00000
NA Gas EUR* (10^9 CF)	0.05000	0.15000	0.27500	0.44000	0.65000	1.10000	1.80000	0.05000
Oil Cells Depth (10^3 Ft)	0.00000	(0.00000)	(0.00000)	0.00000	(0.00000)	(0.00000)	0.00000	0.00000
Gas Cells Depth (10^3 Ft)	0.50000	(0.73333)	(0.96666)	1.20000	(1.52500)	(2.06666)	2.50000	0.00000
Number of Untested Cells	4000	(5333)	(6667)	8000	(9750)	(12667)	15000	

* EUR = Estimated Ultimate Recovery

Gas-Oil Ratio	Expected Liquids/Gas Ratio	Estimated % of resource in subplay
CF/BBL	BBL/10^6 CF	
0.000000	0.0000	5.000000

G E O L O G I C V A R I A B L E S a n d P R O B A B I L I T I E S O F O C C U R R E N C E

Cond. # Cells	Mean	Std. Dev.	Resource				NGL	
			Oil	NA Gas	AD Gas	Gas/HC	NA Gas	AD Gas	Total
8418.32	8418.32	2354.87						
2354.87								
Oil Cell Depth 0.00000	0.00000	0.00000	Prob. Untested Cell has	0.0000	0.7000	0.0000	0.0000	0.0000
Gas Cell Depth 1.28562	0.42896	0.42896	Cond. Play Prob.	0.0000	1.0000	0.0000	0.0000	0.0000
			Uncond. Play Prob.	0.0000	1.0000	0.0000	0.0000	0.0000
			Prob. Exceed Cutoff	0.0000	1.0000			
			Play Potential Cutoffs	0.0000	0.0025	0.0000	0.0025	0.0000

	Mean	Std. Dev.	F95	F75	F50	F25	F05
OIL							
(10^6 BBL)							
No. Prod. Untested Cells	0.00000	0.00000	0	0	0	0	0
Est. Ultimate Recovery	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Cond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Uncond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
NONASSOCIATED GAS							
(10^9 CF)							
No. Prod. Untested Cells	5892.83	1648.95	.....	.....	.....	.....	.....
Est. Ultimate Recovery	0.02603	0.01659	.....	.....	.....	.....	.....
Cond. Play Potential	153.398	42.9430	94.0154	122.736	147.718	177.786	232.098
Uncond. Play Potential	153.398	42.9430	94.0154	122.736	147.718	177.786	232.098
ASSOCIATED-DISSOLVED GAS							
(10^9 CF)							
No. Prod. Untested Cells	0.00000	0.00000	0	0	0	0	0
Est. Ultimate Recovery	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Cond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Uncond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
TOTAL GAS							
(10^9 CF)							
No. Prod. Untested Cells	5892.83	1648.95	.....	.....	.....	.....	.....
Est. Ultimate Recovery	0.02603	0.01659	.....	.....	.....	.....	.....
Cond. Play Potential	153.398	42.9430	94.0154	122.736	147.718	177.786	232.098
Uncond. Play Potential	153.398	42.9430	94.0154	122.736	147.718	177.786	232.098
LIQUIDS in NONASSOC. GAS							
(10^6 BBL)							
No. Prod. Untested Cells	0.00000	0.00000	0	0	0	0	0
Est. Ultimate Recovery	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Cond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Uncond. Play Potential	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

APPENDIX C

Geographic aggregations – megaplay estimates of technically recoverable natural gas resources for continuous-type (unconventional) plays in coal beds on Federal Lands of the conterminous United States.

[The first page of an aggregation printout consists of the components to be aggregated (play estimates). The second page of the printout consists of the estimated gas resources for the aggregation (mean, standard deviation, and fractiles). Components are in the numerical order, as far as possible, of the plays from which they were derived.]

I N P U T S U M M A R Y Project : Coalbed Gas Assessment Dependency = 1.0000

Component	Resource	U.P.P.	Cutoff	Mean	S.D.	F95	F75	F50	F25	F05	Units
Bellingham basin, 04-50	Oil	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^6 BBL
	NA-Gas	0.70000	0.00020	0.40463	0.32719	0.00000	0.00000	0.43259	0.61822	0.94194	10^9 CF
	AD-Gas	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^9 CF
(..\west-wa\0450.agg-	Gas	0.70000	0.00020	0.40463	0.32719	0.00000	0.00000	0.43259	0.61822	0.94194	10^9 CF
)	NA-Gas-Liq	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^6 BBL
Bellingham	Oil	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^6 BBL
	NA-Gas	0.70000	0.00020	0.40463	0.32719	0.00000	0.00000	0.43259	0.61822	0.94194	10^9 CF
	AD-Gas	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^9 CF
	Gas	0.70000	0.00020	0.40463	0.32719	0.00000	0.00000	0.43259	0.61822	0.94194	10^9 CF
	NA-Gas-Liq	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^6 BBL

E S T I M A T E D R E S O U R C E S f o r B e l l i n g h a m C : \ U N C O N V \ F E D C O A L B \ A G G R E G A T \ B E L L I N G H . A G L C r o v e l l i & B a l a y

	Mean	Std Dev	F95	F75	F50	F25	F05

Oil							
(10^9 BBL)							

Cond Aggregate Potential	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Uncond Aggregate Potential	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Nonassociated Gas							
(10^12 CF)							

Cond Aggregate Potential	0.000578	0.000230	0.000286	0.000415	0.000537	0.000695	0.001008
Uncond Aggregate Potential	0.000405	0.000327	0.000000	0.000000	0.000433	0.000618	0.000942
Associated-Dissolved Gas							
(10^12 CF)							

Cond Aggregate Potential	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Uncond Aggregate Potential	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Total Gas							
(10^12 CF)							

Cond Aggregate Potential	0.000578	0.000230	0.000286	0.000415	0.000537	0.000695	0.001008
Uncond Aggregate Potential	0.000405	0.000327	0.000000	0.000000	0.000433	0.000618	0.000942
Nonassoc. Gas Liquids							
(10^9 BBL)							

Cond Aggregate Potential	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Uncond Aggregate Potential	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

I N P U T S U M M A R Y Project : Coalbed Gas Assessment Dependency = 1.0000

Component	Resource	U.P.P.	Cutoff	Mean	S.D.	F95	F75	F50	F25	F05	Units
Western Cascades, 04-51	Oil	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^6 BBL
	NA-Gas	0.90000	0.00100	54.0791	25.1717	0.00000	42.8946	55.0590	68.5907	92.8094	10^9 CF
	AD-Gas	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^9 CF
(..\west-wa\0451.agg-)	Gas	0.90000	0.00100	54.0791	25.1717	0.00000	42.8946	55.0590	68.5907	92.8094	10^9 CF
	NA-Gas-Liq	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^6 BBL
Southern Puget Lowlands, 0452	Oil	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^6 BBL
	NA-Gas	0.60000	0.00040	4.64313	4.15409	0.00000	0.00000	5.68911	7.89415	10.9382	10^9 CF
	AD-Gas	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^9 CF
(..\west-wa\0452.agg-)	Gas	0.60000	0.00040	4.64313	4.15409	0.00000	0.00000	5.68911	7.89415	10.9382	10^9 CF
	NA-Gas-Liq	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^6 BBL
West Cascade - SPL	Oil	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^6 BBL
	NA-Gas	0.90000	0.00100	58.7223	29.3258	0.00000	42.8946	60.7481	76.4848	103.747	10^9 CF
	AD-Gas	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^9 CF
	Gas	0.90000	0.00100	58.7223	29.3258	0.00000	42.8946	60.7481	76.4848	103.747	10^9 CF
	NA-Gas-Liq	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^6 BBL

	Mean	Std Dev	F95	F75	F50	F25	F05
Oil							
(10^9 BBL)							
Cond Aggregate Potential	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Uncond Aggregate Potential	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Nonassociated Gas							
(10^12 CF)							
Cond Aggregate Potential	0.065247	0.023018	0.035027	0.048838	0.061530	0.077520	0.108087
Uncond Aggregate Potential	0.058722	0.029326	0.000000	0.042895	0.060748	0.076485	0.103748
Associated-Dissolved Gas							
(10^12 CF)							
Cond Aggregate Potential	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Uncond Aggregate Potential	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Total Gas							
(10^12 CF)							
Cond Aggregate Potential	0.065247	0.023018	0.035027	0.048838	0.061530	0.077520	0.108087
Uncond Aggregate Potential	0.058722	0.029326	0.000000	0.042895	0.060748	0.076485	0.103748
Nonassoc. Gas Liquids							
(10^9 BBL)							
Cond Aggregate Potential	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Uncond Aggregate Potential	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

UNCLE-AG 97.1 Crovelli & Balay C:\UNCONV\FEDCOAL\AGGREGAT\UINTA.AGL (from UINTA.AGC) 9-Jul-1997 15:47:54 Run No. 1

Project : Coalbed Gas Assessment					Dependency = 1.0000						
Component	Resource	U.P.P.	Cutoff	Mean	S.D.	F95	F75	F50	F25	F05	Units

Uinta Book Cliffs, 2-050 (..\uinta\2050.agg)	Oil	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^6 BBL
	NA-Gas	1.00000	0.01000	970.708	222.450	652.150	812.273	946.181	1102.16	1372.78	10^9 CF
	AD-Gas	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^9 CF
	Gas	1.00000	0.01000	970.708	222.450	652.150	812.273	946.181	1102.16	1372.78	10^9 CF
	NA-Gas-Liq	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^6 BBL

Uinta Sego, 2051 (..\uinta\2051.agg)	Oil	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^6 BBL
	NA-Gas	0.80000	0.03000	312.710	210.080	0.00000	200.427	320.736	438.236	656.830	10^9 CF
	AD-Gas	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^9 CF
	Gas	0.80000	0.03000	312.710	210.080	0.00000	200.427	320.736	438.236	656.830	10^9 CF
	NA-Gas-Liq	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^6 BBL

Uinta Emery, 2052 (..\uinta\2052.agg)	Oil	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^6 BBL
	NA-Gas	1.00000	0.04500	673.186	119.484	496.113	588.586	662.826	746.431	885.565	10^9 CF
	AD-Gas	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^9 CF
	Gas	1.00000	0.04500	673.186	119.484	496.113	588.586	662.826	746.431	885.565	10^9 CF
	NA-Gas-Liq	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^6 BBL

Uinta	Oil	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^6 BBL
	NA-Gas	1.00000	0.05500	1956.60	552.015	1148.26	1601.28	1929.74	2286.83	2915.17	10^9 CF
	AD-Gas	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^9 CF
	Gas	1.00000	0.05500	1956.60	552.015	1148.26	1601.28	1929.74	2286.83	2915.17	10^9 CF
	NA-Gas-Liq	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^6 BBL

E S T I M A T E D R E S O U R C E S f o r U i n t a C : \ U N C O N V \ F E D C O A L B \ A G G R E G A T \ U I N T A . A G L C r o v e l l i & B a l a y

	Mean	Std Dev	F95	F75	F50	F25	F05

Oil							
(10^9 BBL)							

Cond Aggregate Potential	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Uncond Aggregate Potential	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Nonassociated Gas							
(10^12 CF)							

Cond Aggregate Potential	1.956606	0.552015	1.148264	1.601287	1.929745	2.286833	2.915179
Uncond Aggregate Potential	1.956606	0.552015	1.148264	1.601287	1.929745	2.286833	2.915179
Associated-Dissolved Gas							
(10^12 CF)							

Cond Aggregate Potential	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Uncond Aggregate Potential	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Total Gas							
(10^12 CF)							

Cond Aggregate Potential	1.956606	0.552015	1.148264	1.601287	1.929745	2.286833	2.915179
Uncond Aggregate Potential	1.956606	0.552015	1.148264	1.601287	1.929745	2.286833	2.915179
Nonassoc. Gas Liquids							
(10^9 BBL)							

Cond Aggregate Potential	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Uncond Aggregate Potential	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

I N P U T S U M M A R Y Project : Coalbed Gas Assessment Dependency = 1.0000

Component	Resource	U.P.P.	Cutoff	Mean	S.D.	F95	F75	F50	F25	F05	Units
White River Dome, 20-53	Oil	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10 ⁶ BBL
	NA-Gas	1.00000	0.01700	280.384	56.7594	197.622	240.057	274.808	314.590	382.144	10 ⁹ CF
	AD-Gas	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10 ⁹ CF
(..\uinta\2053.agg)	Gas	1.00000	0.01700	280.384	56.7594	197.622	240.057	274.808	314.590	382.144	10 ⁹ CF
	NA-Gas-Liq	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10 ⁶ BBL
Western basin margin- , 2054	Oil	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10 ⁶ BBL
	NA-Gas	1.00000	0.02400	5193.28	764.936	4037.54	4654.42	5137.85	5671.49	6538.01	10 ⁹ CF
	AD-Gas	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10 ⁹ CF
(..\uinta\2054.agg)	Gas	1.00000	0.02400	5193.28	764.936	4037.54	4654.42	5137.85	5671.49	6538.01	10 ⁹ CF
	NA-Gas-Liq	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10 ⁶ BBL
Grand Hogback, 2055	Oil	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10 ⁶ BBL
	NA-Gas	0.80000	0.02500	120.650	114.742	0.00000	45.1331	99.3736	167.828	331.150	10 ⁹ CF
	AD-Gas	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10 ⁹ CF
(..\uinta\2055.agg)	Gas	0.80000	0.02500	120.650	114.742	0.00000	45.1331	99.3736	167.828	331.150	10 ⁹ CF
	NA-Gas-Liq	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10 ⁶ BBL
Divide Creek Anticline, 2056	Oil	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10 ⁶ BBL
	NA-Gas	1.00000	0.02400	317.604	130.730	153.206	224.912	293.696	383.519	563.034	10 ⁹ CF
	AD-Gas	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10 ⁹ CF
(..\uinta\2056.agg)	Gas	1.00000	0.02400	317.604	130.730	153.206	224.912	293.696	383.519	563.034	10 ⁹ CF
	NA-Gas-Liq	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10 ⁶ BBL
Igneous Intrusion, 2-057	Oil	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10 ⁶ BBL
	NA-Gas	0.60000	6.37500	29.4070	31.4218	0.00000	0.00000	27.3977	47.3117	85.8683	10 ⁹ CF
	AD-Gas	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10 ⁹ CF
(..\uinta\2057.agg)	Gas	0.60000	6.37500	29.4070	31.4218	0.00000	0.00000	27.3977	47.3117	85.8683	10 ⁹ CF
	NA-Gas-Liq	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10 ⁶ BBL
Piceance	Oil	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10 ⁶ BBL
	NA-Gas	1.00000	0.06500	5941.33	1098.59	4388.37	5154.52	5833.12	6584.74	7900.21	10 ⁹ CF
	AD-Gas	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10 ⁹ CF
	Gas	1.00000	0.06500	5941.33	1098.59	4388.37	5154.52	5833.12	6584.74	7900.21	10 ⁹ CF
	NA-Gas-Liq	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10 ⁶ BBL

	Mean	Std Dev	F95	F75	F50	F25	F05

Oil							
(10^9 BBL)							

Cond Aggregate Potential	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Uncond Aggregate Potential	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Nonassociated Gas							
(10^12 CF)							

Cond Aggregate Potential	5.941335	1.098600	4.388374	5.164529	5.833129	6.584740	7.900214
Uncond Aggregate Potential	5.941335	1.098600	4.388374	5.164529	5.833129	6.584740	7.900214
Associated-Dissolved Gas							
(10^12 CF)							

Cond Aggregate Potential	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Uncond Aggregate Potential	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Total Gas							
(10^12 CF)							

Cond Aggregate Potential	5.941335	1.098600	4.388374	5.164529	5.833129	6.584740	7.900214
Uncond Aggregate Potential	5.941335	1.098600	4.388374	5.164529	5.833129	6.584740	7.900214
Nonassoc. Gas Liquids							
(10^9 BBL)							

Cond Aggregate Potential	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Uncond Aggregate Potential	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

I N P U T S U M M A R Y Project : Coalbed Gas Assessment Dependency = 1.0000

Component	Resource	U.P.P.	Cutoff	Mean	S.D.	F95	F75	F50	F25	F05	Units
Overpressured, 2250	Oil	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^6 BBL
	NA-Gas	1.00000	0.03850	2290.97	318.552	1807.18	2066.93	2269.14	2491.14	2849.21	10^9 CF
	AD-Gas	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^9 CF
(..\san-juan\2250.ag-g)	Gas	1.00000	0.03850	2290.97	318.552	1807.18	2066.93	2269.14	2491.14	2849.21	10^9 CF
	NA-Gas-Liq	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^6 BBL
Underpressured disch- arge, 2252	Oil	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^6 BBL
	NA-Gas	1.00000	0.05000	1071.92	122.874	882.473	985.958	1064.94	1150.26	1285.15	10^9 CF
	AD-Gas	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^9 CF
(..\san-juan\2252.ag-g)	Gas	1.00000	0.05000	1071.92	122.874	882.473	985.958	1064.94	1150.26	1285.15	10^9 CF
	NA-Gas-Liq	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^6 BBL
Underpressured, 2253	Oil	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^6 BBL
	NA-Gas	1.00000	0.03150	428.325	131.691	249.721	334.289	409.410	501.414	671.230	10^9 CF
	AD-Gas	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^9 CF
(..\san-juan\2253.ag-g)	Gas	1.00000	0.03150	428.325	131.691	249.721	334.289	409.410	501.414	671.230	10^9 CF
	NA-Gas-Liq	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^6 BBL
San Juan	Oil	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^6 BBL
	NA-Gas	1.00000	0.12000	3791.22	573.117	2939.37	3387.18	3743.50	4142.82	4805.59	10^9 CF
	AD-Gas	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^9 CF
	Gas	1.00000	0.12000	3791.22	573.117	2939.37	3387.18	3743.50	4142.82	4805.59	10^9 CF
	NA-Gas-Liq	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^6 BBL

E S T I M A T E D R E S O U R C E S for San Juan C:\UNCONV\FEDCOALB\AGGREGAT\SAN-JUAN.AGL Crovelli & Balay

	Mean	Std Dev	F95	F75	F50	F25	F05

Oil							
(10^9 BBL)							

Cond Aggregate Potential	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Uncond Aggregate Potential	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Nonassociated Gas							
(10^12 CF)							

Cond Aggregate Potential	3.791226	0.573118	2.939376	3.387183	3.743506	4.142823	4.805592
Uncond Aggregate Potential	3.791226	0.573118	2.939376	3.387183	3.743506	4.142823	4.805592
Associated-Dissolved Gas							
(10^12 CF)							

Cond Aggregate Potential	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Uncond Aggregate Potential	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Total Gas							
(10^12 CF)							

Cond Aggregate Potential	3.791226	0.573118	2.939376	3.387183	3.743506	4.142823	4.805592
Uncond Aggregate Potential	3.791226	0.573118	2.939376	3.387183	3.743506	4.142823	4.805592
Nonassoc. Gas Liquids							
(10^9 BBL)							

Cond Aggregate Potential	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Uncond Aggregate Potential	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

I N P U T S U M M A R Y Project : Coalbed Gas Assessment Dependency = 1.0000

Component	Resource	U.P.P.	Cutoff	Mean	S.D.	F95	F75	F50	F25	F05	Units
Shallow mine-related- , 3350	Oil	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^6 BBL
	NA-Gas	1.00000	0.01900	647.411	280.474	300.290	449.098	594.058	785.810	1175.22	10^9 CF
	AD-Gas	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^9 CF
(..\powder-r\3350.ag- g)	Gas	1.00000	0.01900	647.411	280.474	300.290	449.098	594.058	785.810	1175.22	10^9 CF
	NA-Gas-Liq	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^6 BBL
Central basin, 3351	Oil	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^6 BBL
	NA-Gas	0.50000	0.01700	361.582	558.855	0.00000	0.00000	0.01700	555.553	1410.46	10^9 CF
	AD-Gas	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^9 CF
(..\powder-r\3351.ag- g)	Gas	0.50000	0.01700	361.582	558.855	0.00000	0.00000	0.01700	555.553	1410.46	10^9 CF
	NA-Gas-Liq	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^6 BBL
Powder River	Oil	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^6 BBL
	NA-Gas	1.00000	0.01900	1008.99	839.330	300.290	449.098	594.075	1341.36	2585.69	10^9 CF
	AD-Gas	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^9 CF
	Gas	1.00000	0.01900	1008.99	839.330	300.290	449.098	594.075	1341.36	2585.69	10^9 CF
	NA-Gas-Liq	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^6 BBL

	Mean	Std Dev	F95	F75	F50	F25	F05

Oil							
(10^9 BBL)							

Cond Aggregate Potential	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Uncond Aggregate Potential	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Nonassociated Gas							
(10^12 CF)							

Cond Aggregate Potential	1.008993	0.839330	0.300291	0.449098	0.594075	1.341364	2.585694
Uncond Aggregate Potential	1.008993	0.839330	0.300291	0.449098	0.594075	1.341364	2.585694
Associated-Dissolved Gas							
(10^12 CF)							

Cond Aggregate Potential	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Uncond Aggregate Potential	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Total Gas							
(10^12 CF)							

Cond Aggregate Potential	1.008993	0.839330	0.300291	0.449098	0.594075	1.341364	2.585694
Uncond Aggregate Potential	1.008993	0.839330	0.300291	0.449098	0.594075	1.341364	2.585694
Nonassoc. Gas Liquids							
(10^9 BBL)							

Cond Aggregate Potential	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Uncond Aggregate Potential	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

UNCLE-AG 97.1 Crovelli & Balay C:\UNCONV\FEDCOALB\AGGREGAT\WIND-RIV.AGL (from WIND-RIV.AGC) 9-Jul-1997 16:15:08 Run No. 1

I N P U T S U M M A R Y Project : Coalbed Gas Assessment Dependency = 1.0000

Component	Resource	U.P.P.	Cutoff	Mean	S.D.	F95	F75	F50	F25	F05	Units
Mesaverde, 3550	Oil	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^6 BBL
	NA-Gas	1.00000	0.01200	170.289	62.8624	88.7366	125.529	159.751	203.303	287.605	10^9 CF
	AD-Gas	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^9 CF
(..\wind-riv\3550.ag-	Gas	1.00000	0.01200	170.289	62.8624	88.7366	125.529	159.751	203.303	287.605	10^9 CF
g)	NA-Gas-Liq	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^6 BBL
Wind River	Oil	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^6 BBL
	NA-Gas	1.00000	0.01200	170.289	62.8624	88.7366	125.529	159.751	203.303	287.605	10^9 CF
	AD-Gas	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^9 CF
	Gas	1.00000	0.01200	170.289	62.8624	88.7366	125.529	159.751	203.303	287.605	10^9 CF
	NA-Gas-Liq	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^6 BBL

	Mean	Std Dev	F95	F75	F50	F25	F05

Oil							
(10^9 BBL)							

Cond Aggregate Potential	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Uncond Aggregate Potential	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Nonassociated Gas							
(10^12 CF)							

Cond Aggregate Potential	0.170289	0.062862	0.088737	0.125529	0.159751	0.203304	0.287605
Uncond Aggregate Potential	0.170289	0.062862	0.088737	0.125529	0.159751	0.203304	0.287605
Associated-Dissolved Gas							
(10^12 CF)							

Cond Aggregate Potential	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Uncond Aggregate Potential	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Total Gas							
(10^12 CF)							

Cond Aggregate Potential	0.170289	0.062862	0.088737	0.125529	0.159751	0.203304	0.287605
Uncond Aggregate Potential	0.170289	0.062862	0.088737	0.125529	0.159751	0.203304	0.287605
Nonassoc. Gas Liquids							
(10^9 BBL)							

Cond Aggregate Potential	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Uncond Aggregate Potential	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

I N P U T S U M M A R Y Project : Coalbed Gas Assessment Dependency = 1.0000

Component	Resource	U.P.P.	Cutoff	Mean	S.D.	F95	F75	F50	F25	F05	Units
Rock Springs, 3750	Oil	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10 ⁶ BBL
	NA-Gas	0.90000	0.03250	450.559	159.634	0.00000	445.601	489.572	531.862	596.081	10 ⁹ CF
	AD-Gas	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10 ⁹ CF
(..\sw-wy\3750.agg)	Gas	0.90000	0.03250	450.559	159.634	0.00000	445.601	489.572	531.862	596.081	10 ⁹ CF
	NA-Gas-Liq	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10 ⁶ BBL
Iles, 3751	Oil	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10 ⁶ BBL
	NA-Gas	0.70000	0.00700	132.055	109.251	0.00000	0.00000	138.060	201.639	315.181	10 ⁹ CF
	AD-Gas	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10 ⁹ CF
(..\sw-wy\3751.agg)	Gas	0.70000	0.00700	132.055	109.251	0.00000	0.00000	138.060	201.639	315.181	10 ⁹ CF
	NA-Gas-Liq	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10 ⁶ BBL
Williams Fork, 3752	Oil	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10 ⁶ BBL
	NA-Gas	1.00000	0.01250	346.307	102.338	206.332	273.225	332.109	403.683	534.562	10 ⁹ CF
	AD-Gas	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10 ⁹ CF
(..\sw-wy\3752.agg)	Gas	1.00000	0.01250	346.307	102.338	206.332	273.225	332.109	403.683	534.562	10 ⁹ CF
	NA-Gas-Liq	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10 ⁶ BBL
Almond, 3753	Oil	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10 ⁶ BBL
	NA-Gas	0.90000	0.01400	556.360	334.856	0.00000	360.631	524.257	728.681	1146.38	10 ⁹ CF
	AD-Gas	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10 ⁹ CF
(..\sw-wy\3753.agg)	Gas	0.90000	0.01400	556.360	334.856	0.00000	360.631	524.257	728.681	1146.38	10 ⁹ CF
	NA-Gas-Liq	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10 ⁶ BBL
Lance, 3754	Oil	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10 ⁶ BBL
	NA-Gas	0.50000	0.00700	161.139	188.323	0.00000	0.00000	0.00700	296.313	501.300	10 ⁹ CF
	AD-Gas	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10 ⁹ CF
(..\sw-wy\3754.agg)	Gas	0.50000	0.00700	161.139	188.323	0.00000	0.00000	0.00700	296.313	501.300	10 ⁹ CF
	NA-Gas-Liq	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10 ⁶ BBL
Fort Union, 3755	Oil	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10 ⁶ BBL
	NA-Gas	0.50000	0.00700	285.459	352.709	0.00000	0.00000	0.00700	507.942	944.456	10 ⁹ CF
	AD-Gas	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10 ⁹ CF
(..\sw-wy\3755.agg)	Gas	0.50000	0.00700	285.459	352.709	0.00000	0.00000	0.00700	507.942	944.456	10 ⁹ CF
	NA-Gas-Liq	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10 ⁶ BBL
SW Wyoming	Oil	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10 ⁶ BBL
	NA-Gas	1.00000	0.01250	1931.88	1247.11	206.332	1079.45	1484.01	2670.12	4037.96	10 ⁹ CF
	AD-Gas	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10 ⁹ CF
	Gas	1.00000	0.01250	1931.88	1247.11	206.332	1079.45	1484.01	2670.12	4037.96	10 ⁹ CF
	NA-Gas-Liq	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10 ⁶ BBL

	Mean	Std Dev	F95	F75	F50	F25	F05

Oil							
(10^9 BBL)							

Cond Aggregate Potential	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Uncond Aggregate Potential	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Nonassociated Gas							
(10^12 CF)							

Cond Aggregate Potential	1.931881	1.247116	0.206332	1.079458	1.484014	2.670123	4.037969
Uncond Aggregate Potential	1.931881	1.247116	0.206332	1.079458	1.484014	2.670123	4.037969
Associated-Dissolved Gas							
(10^12 CF)							

Cond Aggregate Potential	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Uncond Aggregate Potential	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Total Gas							
(10^12 CF)							

Cond Aggregate Potential	1.931881	1.247116	0.206332	1.079458	1.484014	2.670123	4.037969
Uncond Aggregate Potential	1.931881	1.247116	0.206332	1.079458	1.484014	2.670123	4.037969
Nonassoc. Gas Liquids							
(10^9 BBL)							

Cond Aggregate Potential	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Uncond Aggregate Potential	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

I N P U T S U M M A R Y Project : Coalbed Gas Assessment Dependency = 1.0000

Component	Resource	U.P.P.	Cutoff	Mean	S.D.	F95	F75	F50	F25	F05	Units
Northern basin, 4150	Oil	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^6 BBL
	NA-Gas	1.00000	0.00300	91.4386	9.54055	76.6371	84.7807	90.9449	97.5573	107.923	10^9 CF
	AD-Gas	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^9 CF
(..\raton\4150.agg)	Gas	1.00000	0.00300	91.4386	9.54055	76.6371	84.7807	90.9449	97.5573	107.923	10^9 CF
	NA-Gas-Liq	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^6 BBL
Raton	Oil	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^6 BBL
	NA-Gas	1.00000	0.00300	91.4386	9.54055	76.6371	84.7807	90.9449	97.5573	107.923	10^9 CF
	AD-Gas	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^9 CF
	Gas	1.00000	0.00300	91.4386	9.54055	76.6371	84.7807	90.9449	97.5573	107.923	10^9 CF
	NA-Gas-Liq	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^6 BBL

	Mean	Std Dev	F95	F75	F50	F25	F05

Oil							
(10^9 BBL)							

Cond Aggregate Potential	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Uncond Aggregate Potential	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Nonassociated Gas							
(10^12 CF)							

Cond Aggregate Potential	0.091439	0.009541	0.076637	0.084781	0.090945	0.097557	0.107924
Uncond Aggregate Potential	0.091439	0.009541	0.076637	0.084781	0.090945	0.097557	0.107924
Associated-Dissolved Gas							
(10^12 CF)							

Cond Aggregate Potential	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Uncond Aggregate Potential	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Total Gas							
(10^12 CF)							

Cond Aggregate Potential	0.091439	0.009541	0.076637	0.084781	0.090945	0.097557	0.107924
Uncond Aggregate Potential	0.091439	0.009541	0.076637	0.084781	0.090945	0.097557	0.107924
Nonassoc. Gas Liquids							
(10^9 BBL)							

Cond Aggregate Potential	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Uncond Aggregate Potential	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

I N P U T S U M M A R Y Project : Coalbed Gas Assessment Dependency = 1.0000

Component	Resource	U.P.P.	Cutoff	Mean	S.D.	F95	F75	F50	F25	F05	Units
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Syncline, 6251	Oil	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^6 BBL
	NA-Gas	1.00000	0.00500	225.525	46.7080	157.640	192.328	220.838	253.576	309.375	10^9 CF
	AD-Gas	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^9 CF
(..\arkoma\6251.agg)	Gas	1.00000	0.00500	225.525	46.7080	157.640	192.328	220.838	253.576	309.375	10^9 CF
	NA-Gas-Liq	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^6 BBL
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Arkoma	Oil	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^6 BBL
	NA-Gas	1.00000	0.00500	225.525	46.7080	157.640	192.328	220.838	253.576	309.375	10^9 CF
	AD-Gas	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^9 CF
	Gas	1.00000	0.00500	225.525	46.7080	157.640	192.328	220.838	253.576	309.375	10^9 CF
	NA-Gas-Liq	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^6 BBL

	Mean	Std Dev	F95	F75	F50	F25	F05

Oil							
(10^9 BBL)							

Cond Aggregate Potential	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Uncond Aggregate Potential	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Nonassociated Gas							
(10^12 CF)							

Cond Aggregate Potential	0.225526	0.046708	0.157640	0.192328	0.220839	0.253576	0.309375
Uncond Aggregate Potential	0.225526	0.046708	0.157640	0.192328	0.220839	0.253576	0.309375
Associated-Dissolved Gas							
(10^12 CF)							

Cond Aggregate Potential	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Uncond Aggregate Potential	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Total Gas							
(10^12 CF)							

Cond Aggregate Potential	0.225526	0.046708	0.157640	0.192328	0.220839	0.253576	0.309375
Uncond Aggregate Potential	0.225526	0.046708	0.157640	0.192328	0.220839	0.253576	0.309375
Nonassoc. Gas Liquids							
(10^9 BBL)							

Cond Aggregate Potential	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Uncond Aggregate Potential	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

I N P U T S U M M A R Y Project : Coalbed Gas Assessment Dependency = 1.0000

Component	Resource	U.P.P.	Cutoff	Mean	S.D.	F95	F75	F50	F25	F05	Units
Coastal Plain, 6552	Oil	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^6 BBL
	NA-Gas	1.00000	0.00000	20.5074	6.33385	11.9256	15.9847	19.5941	24.0185	32.1937	10^9 CF
	AD-Gas	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^9 CF
(..\black-wa\6552.ag-g)	Gas	1.00000	0.00000	20.5074	6.33385	11.9256	15.9847	19.5941	24.0185	32.1937	10^9 CF
	NA-Gas-Liq	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^6 BBL
Central & Western Basin, 6553	Oil	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^6 BBL
	NA-Gas	0.50000	0.00000	1.17657	1.69651	0.00000	0.00000	0.00000	1.89648	4.40514	10^9 CF
	AD-Gas	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^9 CF
(..\black-wa\6553.ag-g)	Gas	0.50000	0.00000	1.17657	1.69651	0.00000	0.00000	0.00000	1.89648	4.40514	10^9 CF
	NA-Gas-Liq	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^6 BBL
Black Warrior	Oil	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^6 BBL
	NA-Gas	1.00000	0.00000	21.6839	8.03037	11.9256	15.9847	19.5941	25.9150	36.5988	10^9 CF
	AD-Gas	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^9 CF
	Gas	1.00000	0.00000	21.6839	8.03037	11.9256	15.9847	19.5941	25.9150	36.5988	10^9 CF
	NA-Gas-Liq	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^6 BBL

	Mean	Std Dev	F95	F75	F50	F25	F05

Oil							
(10^9 BBL)							

Cond Aggregate Potential	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Uncond Aggregate Potential	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Nonassociated Gas							
(10^12 CF)							

Cond Aggregate Potential	0.021684	0.008030	0.011926	0.015985	0.019594	0.025915	0.036599
Uncond Aggregate Potential	0.021684	0.008030	0.011926	0.015985	0.019594	0.025915	0.036599
Associated-Dissolved Gas							
(10^12 CF)							

Cond Aggregate Potential	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Uncond Aggregate Potential	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Total Gas							
(10^12 CF)							

Cond Aggregate Potential	0.021684	0.008030	0.011926	0.015985	0.019594	0.025915	0.036599
Uncond Aggregate Potential	0.021684	0.008030	0.011926	0.015985	0.019594	0.025915	0.036599
Nonassoc. Gas Liquids							
(10^9 BBL)							

Cond Aggregate Potential	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Uncond Aggregate Potential	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

I N P U T S U M M A R Y Project : Coalbed Gas Assessment Dependency = 1.0000

Component	Resource	U.P.P.	Cutoff	Mean	S.D.	F95	F75	F50	F25	F05	Units
Northern/Syncline, 6-751	Oil	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^6 BBL
	NA-Gas	1.00000	0.00000	728.986	157.634	501.272	616.843	712.518	823.032	1012.78	10^9 CF
	AD-Gas	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^9 CF
(..\appalach\6751.ag-g)	Gas	1.00000	0.00000	728.986	157.634	501.272	616.843	712.518	823.032	1012.78	10^9 CF
	NA-Gas-Liq	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^6 BBL

North Appalachian	Oil	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^6 BBL
	NA-Gas	1.00000	0.00000	728.986	157.634	501.272	616.843	712.518	823.032	1012.78	10^9 CF
	AD-Gas	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^9 CF
	Gas	1.00000	0.00000	728.986	157.634	501.272	616.843	712.518	823.032	1012.78	10^9 CF
	NA-Gas-Liq	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^6 BBL

	Mean	Std Dev	F95	F75	F50	F25	F05

Oil							
(10^9 BBL)							

Cond Aggregate Potential	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Uncond Aggregate Potential	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Nonassociated Gas							
(10^12 CF)							

Cond Aggregate Potential	0.728986	0.157635	0.501272	0.616844	0.712518	0.823032	1.012787
Uncond Aggregate Potential	0.728986	0.157635	0.501272	0.616844	0.712518	0.823032	1.012787
Associated-Dissolved Gas							
(10^12 CF)							

Cond Aggregate Potential	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Uncond Aggregate Potential	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Total Gas							
(10^12 CF)							

Cond Aggregate Potential	0.728986	0.157635	0.501272	0.616844	0.712518	0.823032	1.012787
Uncond Aggregate Potential	0.728986	0.157635	0.501272	0.616844	0.712518	0.823032	1.012787
Nonassoc. Gas Liquids							
(10^9 BBL)							

Cond Aggregate Potential	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Uncond Aggregate Potential	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

I N P U T S U M M A R Y Project : Coalbed Gas Assessment Dependency = 1.0000

Component	Resource	U.P.P.	Cutoff	Mean	S.D.	F95	F75	F50	F25	F05	Units
Central Appalachian -	Oil	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^6 BBL
Central basin, 6752	NA-Gas	1.00000	0.00250	153.397	42.9430	94.0153	122.735	147.718	177.786	232.098	10^9 CF
(..\appalach\6752.ag-	AD-Gas	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^9 CF
g)	Gas	1.00000	0.00250	153.397	42.9430	94.0153	122.735	147.718	177.786	232.098	10^9 CF
	NA-Gas-Liq	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^6 BBL

Central Appalachian	Oil	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^6 BBL
	NA-Gas	1.00000	0.00250	153.397	42.9430	94.0153	122.735	147.718	177.786	232.098	10^9 CF
	AD-Gas	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^9 CF
	Gas	1.00000	0.00250	153.397	42.9430	94.0153	122.735	147.718	177.786	232.098	10^9 CF
	NA-Gas-Liq	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^6 BBL

	Mean	Std Dev	F95	F75	F50	F25	F05
Oil							
(10^9 BBL)							
Cond Aggregate Potential	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Uncond Aggregate Potential	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Nonassociated Gas							
(10^12 CF)							
Cond Aggregate Potential	0.153398	0.042943	0.094015	0.122736	0.147718	0.177786	0.232098
Uncond Aggregate Potential	0.153398	0.042943	0.094015	0.122736	0.147718	0.177786	0.232098
Associated-Dissolved Gas							
(10^12 CF)							
Cond Aggregate Potential	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Uncond Aggregate Potential	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Total Gas							
(10^12 CF)							
Cond Aggregate Potential	0.153398	0.042943	0.094015	0.122736	0.147718	0.177786	0.232098
Uncond Aggregate Potential	0.153398	0.042943	0.094015	0.122736	0.147718	0.177786	0.232098
Nonassoc. Gas Liquids							
(10^9 BBL)							
Cond Aggregate Potential	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Uncond Aggregate Potential	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

APPENDIX D

Geographic aggregation – province estimates of technically recoverable natural gas resources for continuous-type (unconventional) plays in coal beds on Federal Lands of the conterminous United States.

[The first page of an aggregation printout consists of the components to be aggregated (megaplay estimates). The second page of the printout consists of the estimated gas resources for the aggregation (mean, standard deviation, and fractiles). Components are in the numerical order, as far as possible, of the plays from which they were derived.]

I N P U T S U M M A R Y Project : Coalbed Gas Assessment Dependency = 1.0000

Component	Resource	U.P.P.	Cutoff	Mean	S.D.	F95	F75	F50	F25	F05	Units

Uinta	Oil	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^6 BBL
	NA-Gas	1.00000	0.05500	1956.60	552.015	1148.26	1601.28	1929.74	2286.83	2915.17	10^9 CF
	AD-Gas	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^9 CF
	Gas	1.00000	0.05500	1956.60	552.015	1148.26	1601.28	1929.74	2286.83	2915.17	10^9 CF
	NA-Gas-Liq	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^6 BBL

Piceance	Oil	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^6 BBL
	NA-Gas	1.00000	0.06500	5941.33	1098.59	4388.37	5164.52	5833.12	6584.74	7900.21	10^9 CF
	AD-Gas	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^9 CF
	Gas	1.00000	0.06500	5941.33	1098.59	4388.37	5164.52	5833.12	6584.74	7900.21	10^9 CF

(piceance.agg)	NA-Gas-Liq	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^6 BBL
	Oil	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^6 BBL
	NA-Gas	1.00000	0.12000	7897.94	1650.61	5536.63	6765.81	7762.87	8871.57	10815.3	10^9 CF
	AD-Gas	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^9 CF

Uinta-Piceance	Gas	1.00000	0.12000	7897.94	1650.61	5536.63	6765.81	7762.87	8871.57	10815.3	10^9 CF
	NA-Gas-Liq	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^6 BBL
	Oil	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^6 BBL
	NA-Gas	1.00000	0.12000	7897.94	1650.61	5536.63	6765.81	7762.87	8871.57	10815.3	10^9 CF

	Mean	Std Dev	F95	F75	F50	F25	F05

Oil							
(10^9 BBL)							

Cond Aggregate Potential	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Uncond Aggregate Potential	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Nonassociated Gas							
(10^12 CF)							

Cond Aggregate Potential	7.897941	1.650615	5.536638	6.765816	7.762873	8.871573	10.81539
Uncond Aggregate Potential	7.897941	1.650615	5.536638	6.765816	7.762873	8.871573	10.81539
Associated-Dissolved Gas							
(10^12 CF)							

Cond Aggregate Potential	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Uncond Aggregate Potential	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Total Gas							
(10^12 CF)							

Cond Aggregate Potential	7.897941	1.650615	5.536638	6.765816	7.762873	8.871573	10.81539
Uncond Aggregate Potential	7.897941	1.650615	5.536638	6.765816	7.762873	8.871573	10.81539
Nonassoc. Gas Liquids							
(10^9 BBL)							

Cond Aggregate Potential	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Uncond Aggregate Potential	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

APPENDIX E

Geographic aggregations – region estimates of technically recoverable natural gas resources for continuous-type (unconventional) plays in coal beds on Federal Lands of the conterminous United States.

[The first page of an aggregation printout consists of the components to be aggregated (province estimates). The second page of the printout consists of the estimated gas resources for the aggregation (mean, standard deviation, and fractiles). Components are in the numerical order, as far as possible, of the plays from which they were derived.]

I N P U T S U M M A R Y Project : Coalbed Gas Assessment Dependency = 0.0000

Component	Resource	U.P.P.	Cutoff	Mean	S.D.	F95	F75	F50	F25	F05	Units
Bellingham	Oil	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^6 BBL
	NA-Gas	0.70000	0.00020	0.40463	0.32719	0.00000	0.00000	0.43259	0.61822	0.94194	10^9 CF
(bellingham.agg)	AD-Gas	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^9 CF
	Gas	0.70000	0.00020	0.40463	0.32719	0.00000	0.00000	0.43259	0.61822	0.94194	10^9 CF
	NA-Gas-Liq	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^6 BBL
West Cascade - SPL	Oil	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^6 BBL
	NA-Gas	0.90000	0.00100	58.7223	29.3258	0.00000	42.8946	60.7481	76.4848	103.747	10^9 CF
	AD-Gas	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^9 CF
(wcas-spl.agg)	Gas	0.90000	0.00100	58.7223	29.3258	0.00000	42.8946	60.7481	76.4848	103.747	10^9 CF
	NA-Gas-Liq	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^6 BBL
Region 2: Pacific Coast	Oil	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^6 BBL
	NA-Gas	0.97000	0.00020	59.1269	29.3276	22.7739	42.8946	54.5275	73.6372	104.689	10^9 CF
	AD-Gas	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^9 CF
	Gas	0.97000	0.00020	59.1269	29.3276	22.7739	42.8946	54.5275	73.6372	104.689	10^9 CF
	NA-Gas-Liq	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^6 BBL

	Mean	Std Dev	F95	F75	F50	F25	F05

Oil							
(10^9 BBL)							

Cond Aggregate Potential	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Uncond Aggregate Potential	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Nonassociated Gas							
(10^12 CF)							

Cond Aggregate Potential	0.060956	0.027843	0.027094	0.042895	0.055445	0.074367	0.113465
Uncond Aggregate Potential	0.059127	0.029328	0.022774	0.042895	0.054528	0.073637	0.104690
Associated-Dissolved Gas							
(10^12 CF)							

Cond Aggregate Potential	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Uncond Aggregate Potential	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Total Gas							
(10^12 CF)							

Cond Aggregate Potential	0.060956	0.027843	0.027094	0.042895	0.055445	0.074367	0.113465
Uncond Aggregate Potential	0.059127	0.029328	0.022774	0.042895	0.054528	0.073637	0.104690
Nonassoc. Gas Liquids							
(10^9 BBL)							

Cond Aggregate Potential	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Uncond Aggregate Potential	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

I N P U T S U M M A R Y Project : Coalbed Gas Assessment

Dependency = 0.0000

Component	Resource	U.P.P.	Cutoff	Mean	S.D.	F95	F75	F50	F25	F05	Units

Unta	Oil	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^6 BBL
	NA-Gas	1.00000	0.05500	1956.60	552.015	1148.26	1601.28	1929.74	2286.83	2915.17	10^9 CF
	AD-Gas	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^9 CF
	Gas	1.00000	0.05500	1956.60	552.015	1148.26	1601.28	1929.74	2286.83	2915.17	10^9 CF
	NA-Gas-Liq	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^6 BBL

Piceance	Oil	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^6 BBL
	NA-Gas	1.00000	0.06500	5941.33	1098.59	4388.37	5164.52	5833.12	6584.74	7900.21	10^9 CF
	AD-Gas	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^9 CF
	Gas	1.00000	0.06500	5941.33	1098.59	4388.37	5164.52	5833.12	6584.74	7900.21	10^9 CF
	NA-Gas-Liq	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^6 BBL

San Juan	Oil	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^6 BBL
	NA-Gas	1.00000	0.12000	3791.22	573.117	2939.37	3387.18	3743.50	4142.82	4805.59	10^9 CF
	AD-Gas	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^9 CF
	Gas	1.00000	0.12000	3791.22	573.117	2939.37	3387.18	3743.50	4142.82	4805.59	10^9 CF
	NA-Gas-Liq	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^6 BBL

Region 3: Colorado Plateau - BR	Oil	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^6 BBL
	NA-Gas	1.00000	0.24000	11689.1	1356.50	9599.52	10739.8	11611.2	12553.3	14044.5	10^9 CF
	AD-Gas	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^9 CF
	Gas	1.00000	0.24000	11689.1	1356.50	9599.52	10739.8	11611.2	12553.3	14044.5	10^9 CF
	NA-Gas-Liq	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^6 BBL

	Mean	Std Dev	F95	F75	F50	F25	F05
Oil (10^9 BBL)							
Cond Aggregate Potential	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Uncond Aggregate Potential	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Nonassociated Gas (10^12 CF)							
Cond Aggregate Potential	11.68917	1.356505	9.599520	10.73985	11.61124	12.55334	14.04456
Uncond Aggregate Potential	11.68917	1.356505	9.599520	10.73985	11.61124	12.55334	14.04456
Associated-Dissolved Gas (10^12 CF)							
Cond Aggregate Potential	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Uncond Aggregate Potential	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Total Gas (10^12 CF)							
Cond Aggregate Potential	11.68917	1.356505	9.599520	10.73985	11.61124	12.55334	14.04456
Uncond Aggregate Potential	11.68917	1.356505	9.599520	10.73985	11.61124	12.55334	14.04456
Nonassoc. Gas Liquids (10^9 BBL)							
Cond Aggregate Potential	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Uncond Aggregate Potential	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

Project : Coalbed Gas Assessment											
Dependency = 0.0000											
Component	Resource	U.P.P.	Cutoff	Mean	S.D.	F95	F75	F50	F25	F05	Units
Powder River											
	Oil	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^6 BBL
	NA-Gas	1.00000	0.01900	1008.99	839.330	300.290	449.098	594.075	1341.36	2585.69	10^9 CF
	AD-Gas	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^9 CF
(powder-r.agg)											
	Gas	1.00000	0.01900	1008.99	839.330	300.290	449.098	594.075	1341.36	2585.69	10^9 CF
	NA-Gas-Liq	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^6 BBL
SW Wyoming											
	Oil	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^6 BBL
	NA-Gas	1.00000	0.01250	1931.88	1247.11	206.332	1079.45	1484.01	2670.12	4037.96	10^9 CF
	AD-Gas	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^9 CF
(sw-wy.agg)											
	Gas	1.00000	0.01250	1931.88	1247.11	206.332	1079.45	1484.01	2670.12	4037.96	10^9 CF
	NA-Gas-Liq	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^6 BBL
Wind River											
	Oil	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^6 BBL
	NA-Gas	1.00000	0.01200	170.289	62.8624	88.7366	125.529	159.751	203.303	287.605	10^9 CF
	AD-Gas	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^9 CF
	Gas	1.00000	0.01200	170.289	62.8624	88.7366	125.529	159.751	203.303	287.605	10^9 CF
(wind-riv.agg)											
	NA-Gas-Liq	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^6 BBL
Raton											
	Oil	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^6 BBL
	NA-Gas	1.00000	0.00300	91.4386	9.54055	76.6371	84.7807	90.9449	97.5573	107.923	10^9 CF
	AD-Gas	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^9 CF
	Gas	1.00000	0.00300	91.4386	9.54055	76.6371	84.7807	90.9449	97.5573	107.923	10^9 CF
(raton.agg)											
	NA-Gas-Liq	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^6 BBL
Region 4: Rocky Mountain/NGP											
	Oil	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^6 BBL
	NA-Gas	1.00000	0.04650	3202.60	1504.59	1390.43	2144.75	2898.64	3917.54	6042.85	10^9 CF
	AD-Gas	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^9 CF
	Gas	1.00000	0.04650	3202.60	1504.59	1390.43	2144.75	2898.64	3917.54	6042.85	10^9 CF
	NA-Gas-Liq	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^6 BBL

	Mean	Std Dev	F95	F75	F50	F25	F05

Oil							
(10^9 BBL)							

Cond Aggregate Potential	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Uncond Aggregate Potential	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Nonassociated Gas							
(10^12 CF)							

Cond Aggregate Potential	3.202602	1.504598	1.390438	2.144751	2.898645	3.917544	6.042858
Uncond Aggregate Potential	3.202602	1.504598	1.390438	2.144751	2.898645	3.917544	6.042858
Associated-Dissolved Gas							
(10^12 CF)							

Cond Aggregate Potential	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Uncond Aggregate Potential	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Total Gas							
(10^12 CF)							

Cond Aggregate Potential	3.202602	1.504598	1.390438	2.144751	2.898645	3.917544	6.042858
Uncond Aggregate Potential	3.202602	1.504598	1.390438	2.144751	2.898645	3.917544	6.042858
Nonassoc. Gas Liquids							
(10^9 BBL)							

Cond Aggregate Potential	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Uncond Aggregate Potential	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

I N P U T S U M M A R Y Project : Coalbed Gas Assessment Dependency = 0.0000

Component	Resource	U.P.P.	Cutoff	Mean	S.D.	F95	F75	F50	F25	F05	Units
Arkoma	Oil	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^6 BBL
	NA-Gas	1.00000	0.00500	225.525	46.7080	157.640	192.328	220.838	253.576	309.375	10^9 CF
	AD-Gas	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^9 CF
	Gas	1.00000	0.00500	225.525	46.7080	157.640	192.328	220.838	253.576	309.375	10^9 CF
(arkoma.agg)	NA-Gas-Liq	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^6 BBL

Region 7: Mid-Continent	Oil	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^6 BBL
	NA-Gas	1.00000	0.00500	225.525	46.7080	157.640	192.328	220.838	253.576	309.375	10^9 CF
	AD-Gas	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^9 CF
	Gas	1.00000	0.00500	225.525	46.7080	157.640	192.328	220.838	253.576	309.375	10^9 CF
	NA-Gas-Liq	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10^6 BBL

	Mean	Std Dev	F95	F75	F50	F25	F05

Oil							
(10^9 BBL)							

Cond Aggregate Potential	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Uncond Aggregate Potential	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Nonassociated Gas							
(10^12 CF)							

Cond Aggregate Potential	0.225526	0.046708	0.157640	0.192328	0.220839	0.253576	0.309375
Uncond Aggregate Potential	0.225526	0.046708	0.157640	0.192328	0.220839	0.253576	0.309375
Associated-Dissolved Gas							
(10^12 CF)							

Cond Aggregate Potential	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Uncond Aggregate Potential	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Total Gas							
(10^12 CF)							

Cond Aggregate Potential	0.225526	0.046708	0.157640	0.192328	0.220839	0.253576	0.309375
Uncond Aggregate Potential	0.225526	0.046708	0.157640	0.192328	0.220839	0.253576	0.309375
Nonassoc. Gas Liquids							
(10^9 BBL)							

Cond Aggregate Potential	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Uncond Aggregate Potential	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

I N P U T S U M M A R Y

Project : Coalbed Gas Assessment

Dependency = 0.0000

Component	Resource	U.P.P.	Cutoff	Mean	S.D.	F95	F75	F50	F25	F05	Units

North Appalachian											
	Oil	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10 ⁶ BBL
	NA-Gas	1.00000	0.00000	728.986	157.634	501.272	616.843	712.518	823.032	1012.78	10 ⁹ CF
	AD-Gas	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10 ⁹ CF
(no-appal.agg)											
	Gas	1.00000	0.00000	728.986	157.634	501.272	616.843	712.518	823.032	1012.78	10 ⁹ CF
	NA-Gas-Liq	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10 ⁶ BBL
Central Appalachian											
	Oil	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10 ⁶ BBL
	NA-Gas	1.00000	0.00250	153.397	42.9430	94.0153	122.735	147.718	177.786	232.098	10 ⁹ CF
	AD-Gas	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10 ⁹ CF
(cent-app.agg)											
	Gas	1.00000	0.00250	153.397	42.9430	94.0153	122.735	147.718	177.786	232.098	10 ⁹ CF
	NA-Gas-Liq	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10 ⁶ BBL
Black Warrior											
	Oil	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10 ⁶ BBL
	NA-Gas	1.00000	0.00000	21.6839	8.03037	11.9256	15.9847	19.5941	25.9150	36.5988	10 ⁹ CF
	AD-Gas	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10 ⁹ CF
(black-wa.agg)											
	Gas	1.00000	0.00000	21.6839	8.03037	11.9256	15.9847	19.5941	25.9150	36.5988	10 ⁹ CF
	NA-Gas-Liq	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10 ⁶ BBL
Region 8: East Interior											
	Oil	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10 ⁶ BBL
	NA-Gas	1.00000	0.00250	904.067	163.576	662.191	788.190	889.623	1004.10	1195.16	10 ⁹ CF
	AD-Gas	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10 ⁹ CF
	Gas	1.00000	0.00250	904.067	163.576	662.191	788.190	889.623	1004.10	1195.16	10 ⁹ CF
	NA-Gas-Liq	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10 ⁶ BBL

	Mean	Std Dev	F95	F75	F50	F25	F05

Oil							
(10^9 BBL)							

Cond Aggregate Potential	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Uncond Aggregate Potential	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Nonassociated Gas							
(10^12 CF)							

Cond Aggregate Potential	0.904068	0.163577	0.662192	0.788190	0.889623	1.004110	1.195167
Uncond Aggregate Potential	0.904068	0.163577	0.662192	0.788190	0.889623	1.004110	1.195167
Associated-Dissolved Gas							
(10^12 CF)							

Cond Aggregate Potential	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Uncond Aggregate Potential	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Total Gas							
(10^12 CF)							

Cond Aggregate Potential	0.904068	0.163577	0.662192	0.788190	0.889623	1.004110	1.195167
Uncond Aggregate Potential	0.904068	0.163577	0.662192	0.788190	0.889623	1.004110	1.195167
Nonassoc. Gas Liquids							
(10^9 BBL)							

Cond Aggregate Potential	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Uncond Aggregate Potential	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

APPENDIX F

Geographic aggregation – nation estimates of technically recoverable natural gas resources for continuous-type (unconventional) plays in coal beds on Federal Lands of the conterminous United States.

[The first page of the aggregation printout consists of the components to be aggregated (region estimates). The second page of the printout consists of the estimated gas resources for the aggregation (mean, standard deviation, and fractiles). Components are in the numerical order, as far as possible, of the plays from which they were derived.]

I N P U T S U M M A R Y					Project : Coalbed Gas Assessment					Dependency = 0.0000				
Component	Resource	U.P.P.	Cutoff	Mean	S.D.	F95	F75	F50	F25	F05	Units			
Region 2: Pacific Coast	Oil	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10 ⁶ BBL			
	NA-Gas	0.97000	0.00020	59.1269	29.3276	22.7739	42.8946	54.5275	73.6372	104.689	10 ⁹ CF			
	AD-Gas	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10 ⁹ CF			
	Gas	0.97000	0.00020	59.1269	29.3276	22.7739	42.8946	54.5275	73.6372	104.689	10 ⁹ CF			
	NA-Gas-Liq	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10 ⁶ BBL			
Region 3: Colorado Plateau - BR	Oil	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10 ⁶ BBL			
	NA-Gas	1.00000	0.24000	11689.1	1356.50	9599.52	10739.8	11611.2	12553.3	14044.5	10 ⁹ CF			
	AD-Gas	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10 ⁹ CF			
	Gas	1.00000	0.24000	11689.1	1356.50	9599.52	10739.8	11611.2	12553.3	14044.5	10 ⁹ CF			
	NA-Gas-Liq	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10 ⁶ BBL			
Region 4: Rocky Mountain/NGP	Oil	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10 ⁶ BBL			
	NA-Gas	1.00000	0.04650	3202.60	1504.59	1390.43	2144.75	2898.64	3917.54	6042.85	10 ⁹ CF			
	AD-Gas	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10 ⁹ CF			
	Gas	1.00000	0.04650	3202.60	1504.59	1390.43	2144.75	2898.64	3917.54	6042.85	10 ⁹ CF			
	NA-Gas-Liq	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10 ⁶ BBL			
Region 7: Mid-Continent	Oil	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10 ⁶ BBL			
	NA-Gas	1.00000	0.00500	225.525	46.7080	157.640	192.328	220.838	253.576	309.375	10 ⁹ CF			
	AD-Gas	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10 ⁹ CF			
	Gas	1.00000	0.00500	225.525	46.7080	157.640	192.328	220.838	253.576	309.375	10 ⁹ CF			
	NA-Gas-Liq	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10 ⁶ BBL			
Region 8: East Interior	Oil	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10 ⁶ BBL			
	NA-Gas	1.00000	0.00250	904.067	163.576	662.191	788.190	889.623	1004.10	1195.16	10 ⁹ CF			
	AD-Gas	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10 ⁹ CF			
	Gas	1.00000	0.00250	904.067	163.576	662.191	788.190	889.623	1004.10	1195.16	10 ⁹ CF			
	NA-Gas-Liq	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10 ⁶ BBL			
Nation	Oil	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10 ⁶ BBL			
	NA-Gas	1.00000	0.29400	16080.4	2033.15	12968.3	14654.2	15953.4	17367.8	19625.7	10 ⁹ CF			
	AD-Gas	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10 ⁹ CF			
	Gas	1.00000	0.29400	16080.4	2033.15	12968.3	14654.2	15953.4	17367.8	19625.7	10 ⁹ CF			
	NA-Gas-Liq	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	10 ⁶ BBL			

	Mean	Std Dev	F95	F75	F50	F25	F05

Oil							
(10^9 BBL)							

Cond Aggregate Potential	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Uncond Aggregate Potential	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Nonassociated Gas							
(10^12 CF)							

Cond Aggregate Potential	16.08049	2.033156	12.96838	14.65430	15.95348	17.36784	19.62571
Uncond Aggregate Potential	16.08049	2.033156	12.96838	14.65430	15.95348	17.36784	19.62571
Associated-Dissolved Gas							
(10^12 CF)							

Cond Aggregate Potential	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Uncond Aggregate Potential	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Total Gas							
(10^12 CF)							

Cond Aggregate Potential	16.08049	2.033156	12.96838	14.65430	15.95348	17.36784	19.62571
Uncond Aggregate Potential	16.08049	2.033156	12.96838	14.65430	15.95348	17.36784	19.62571
Nonassoc. Gas Liquids							
(10^9 BBL)							

Cond Aggregate Potential	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Uncond Aggregate Potential	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

APPENDIX G

**Aggregation scheme for continuous-type (unconventional) plays in coal beds on
Federal Lands of the conterminous United States.**

Appendix G
Aggregation scheme for coalbed gas, Federal Lands

		Percent	App.B Play	App.C Megaplay	App.D Province		AppE Region		App.F Nation	
Reg. No.	Play No.	Federal	Estimates	Estimates	Estimates		Estimates		Estimates	
		Lands			Input	Output	Input	Output	Input	Output

APPENDIX H

**Play names and numbers for continuous-type (unconventional) plays in coal beds on
Federal Lands of the conterminous United States.**

Appendix H
Coalbed Gas Plays
by
Region, Province, and Number

Reg. No.	Prov. No.	Play No.	Play Name
2	4	450	Western Washington - Bellingham Basin
2	4	451	Western Washington - Western Cascade Mountains
2	4	452	Western Washington - Southern Puget Lowlands
3	20	2050	Uinta Basin - Book Cliffs
3	20	2051	Uinta Basin - Sego
3	20	2052	Uinta Basin - Emery
3	20	2053	Piceance Basin - White River Dome
3	20	2054	Piceance Basin - Western Basin Margin
3	20	2055	Piceance Basin - Grand Hogback
3	20	2056	Piceance Basin - Divide Creek Anticline
3	20	2057	Piceance Basin - Igneous Intrusion
3	22	2250	San Juan Basin - Overpressured
3	22	2252	San Juan Basin - Underpressured Discharge
3	22	2253	San Juan Basin - Underpressured
4	33	3350	Powder River Basin - Shallow Mining-Related
4	33	3351	Powder River Basin - Central Basin
4	35	3550	Wind River Basin - Mesaverde
4	37	3750	Greater Green River Basin - Rock Springs
4	37	3751	Greater Green River Basin - Iles
4	37	3752	Greater Green River Basin - Williams Fork
4	37	3753	Greater Green River Basin - Almond
4	37	3754	Greater Green River Basin - Lance
4	37	3755	Greater Green River Basin - Fort Union
4	41	4150	Northern Raton Basin
4	41	4151	Raton Basin - Purgatoire River
4	41	4152	Southern Raton Basin
7	56	5650	Forest City Basin - Central Basin
7	60	6050	Cherokee Platform - Central Basin
7	62	6250	Arkoma Basin - Anticline
7	62	6251	Arkoma Basin - Syncline
8	64	6450	Illinois Basin - Central Basin
8	65	6550	Black Warrior Basin Recharge
8	65	6551	Black Warrior Basin - Southeastern Basin
8	65	6552	Black Warrior Basin - Coastal Plain
8	65	6553	Black Warrior Basin - Central and Western Basin
8	67	6750	Northern Appalachian Basin - Anticline
8	67	6751	Northern Appalachian Basin - Syncline
8	67	6752	Central Appalachian Basin - Central Basin
8	67	6753	Cahaba Coal Field