FORSPAN ASSESSMENT MODEL FOR CONTINUOUS ACCUMULATIONS--BASIC INPUT DATA FORM (NOGA, Version 7, 6-30-00)

IDENTIFICATION INFORMATION

Assessment Geologist:…	T.M. Finn and R.C. Johnson	Date:	8/26/2002
Region:……	North America	Number:	5
Province:…….	Southwestern Wyoming	Number:	5037
Total Petroleum System:.	Niobrara	Number:	503703
Assessment Unit:…….	Niobrara Continuous Gas	Number:	50370362
Based on Data as of:……			
Notes from Assessor…..	Not quantitatively assessed.		

CHARACTERISTICS OF ASSESSMENT UNIT

Assessment-Unit type: **Oil** (<20,000 cfg/bo) **or** **Gas** (≥20,000 cfg/bo) _____

What is the minimum total recovery per cell?… _____ (mmbo for oil A.U.; bcfg for gas A.U.)

Number of tested cells:…… _____

Number of tested cells with total recovery per cell ≥ minimum: …….. _____

Established (>24 cells ≥ min.) _____ Frontier (1-24 cells) _____ Hypothetical (no cells) _____

Median total recovery per cell (for cells ≥ min.): (mmbo for oil A.U.; bcfg for gas A.U.)

1st 3rd discovered _____ 2nd 3rd _____ 3rd 3rd _____

Assessment-Unit Probabilities:

Attribute	Probability of occurrence (0-1.0)
1. **CHARGE:** Adequate petroleum charge for an untested cell with total recovery ≥ minimum ……	_____
2. **ROCKS:** Adequate reservoirs, traps, seals for an untested cell with total recovery ≥ minimum.	_____
3. **TIMING:** Favorable geologic timing for an untested cell with total recovery ≥ minimum……..	_____

Assessment-Unit GEOLOGIC Probability (Product of 1, 2, and 3):…….....……. _____

4. **ACCESS:** Adequate location for necessary petroleum-related activities for an untested cell with total recovery ≥ minimum …… _____

NO. OF UNTESTED CELLS WITH POTENTIAL FOR ADDITIONS TO RESERVES IN THE NEXT 30 YEARS

1. Total assessment-unit area (acres): (uncertainty of a fixed value)
   minimum _____ median _____ maximum _____

2. Area per cell of untested cells having potential for additions to reserves in next 30 years (acres):
   (values are inherently variable) minimum _____ median _____ maximum _____

3. Percentage of total assessment-unit area that is untested (%): (uncertainty of a fixed value)
   minimum _____ median _____ maximum _____

4. Percentage of untested assessment-unit area that has potential for additions to reserves in next 30 years (%): (a necessary criterion is that total recovery per cell ≥ minimum)
   (uncertainty of a fixed value) minimum _____ median _____ maximum _____

Assessment Unit (name, no.)
Niobrara Continuous Gas, Assessment Unit 50370362

TOTAL RECOVERY PER CELL

Total recovery per cell for untested cells having potential for additions to reserves in next 30 years:
(values are inherently variable)
(mmbo for oil A.U.; bcfg for gas A.U.) minimum _____ median _____ maximum _____

AVERAGE COPRODUCT RATIOS FOR UNTESTED CELLS, TO ASSESS COPRODUCTS

(uncertainty of fixed but unknown values)

Oil assessment unit:	minimum	median	maximum
Gas/oil ratio (cfg/bo)……..…….	_____	_____	_____
NGL/gas ratio (bngl/mmcfg)…….….	_____	_____	_____
Gas assessment unit:			
Liquids/gas ratio (bliq/mmcfg)….……..……	_____	_____	_____

SELECTED ANCILLARY DATA FOR UNTESTED CELLS

(values are inherently variable)

Oil assessment unit:	minimum	median	maximum
API gravity of oil (degrees)…….…….	_____	_____	_____
Sulfur content of oil (%)……...…	_____	_____	_____
Drilling depth (m) ……...…….……	_____	_____	_____
Depth (m) of water (if applicable)……	_____	_____	_____
Gas assessment unit:			
Inert-gas content (%)……....…..	_____	_____	_____
CO_2 content (%)……..…..	_____	_____	_____
Hydrogen-sulfide content (%)……...……	_____	_____	_____
Drilling depth (m)…….	_____	_____	_____
Depth (m) of water (if applicable)……	_____	_____	_____

Assessment Unit (name, no.)
Niobrara Continuous Gas, Assessment Unit 50370362

ALLOCATIONS OF POTENTIAL ADDITIONS TO RESERVES TO STATES
Surface Allocations (uncertainty of a fixed value)

1. Colorado represents 34.80 areal % of the assessment unit

Oil in oil assessment unit:	minimum	median	maximum
Volume % in entity……			
Portion of volume % that is offshore (0-100%)..			
Gas in gas assessment unit:			
Volume % in entity……			
Portion of volume % that is offshore (0-100%)..			

2. Wyoming represents 65.20 areal % of the assessment unit

Oil in oil assessment unit:	minimum	median	maximum
Volume % in entity……			
Portion of volume % that is offshore (0-100%)..			
Gas in gas assessment unit:			
Volume % in entity……			
Portion of volume % that is offshore (0-100%)..			

3. _____ represents _____ areal % of the assessment unit

Oil in oil assessment unit:	minimum	median	maximum
Volume % in entity……			
Portion of volume % that is offshore (0-100%)..			
Gas in gas assessment unit:			
Volume % in entity……			
Portion of volume % that is offshore (0-100%)..			

4. _____ represents _____ areal % of the assessment unit

Oil in oil assessment unit:	minimum	median	maximum
Volume % in entity……			
Portion of volume % that is offshore (0-100%)..			
Gas in gas assessment unit:			
Volume % in entity……			
Portion of volume % that is offshore (0-100%)..			

Assessment Unit (name, no.)
Niobrara Continuous Gas, Assessment Unit 50370362

5. _____ represents _____ areal % of the assessment unit

Oil in oil assessment unit:	minimum	median	maximum
Volume % in entity……	_____	_____	_____
Portion of volume % that is offshore (0-100%)..	_____	_____	_____

Gas in gas assessment unit:			
Volume % in entity……	_____	_____	_____
Portion of volume % that is offshore (0-100%)..	_____	_____	_____

6. _____ represents _____ areal % of the assessment unit

Oil in oil assessment unit:	minimum	median	maximum
Volume % in entity……	_____	_____	_____
Portion of volume % that is offshore (0-100%)..	_____	_____	_____

Gas in gas assessment unit:			
Volume % in entity……	_____	_____	_____
Portion of volume % that is offshore (0-100%)..	_____	_____	_____

7. _____ represents _____ areal % of the assessment unit

Oil in oil assessment unit:	minimum	median	maximum
Volume % in entity……	_____	_____	_____
Portion of volume % that is offshore (0-100%)..	_____	_____	_____

Gas in gas assessment unit:			
Volume % in entity……	_____	_____	_____
Portion of volume % that is offshore (0-100%)..	_____	_____	_____

8. _____ represents _____ areal % of the assessment unit

Oil in oil assessment unit:	minimum	median	maximum
Volume % in entity……	_____	_____	_____
Portion of volume % that is offshore (0-100%)..	_____	_____	_____

Gas in gas assessment unit:			
Volume % in entity……	_____	_____	_____
Portion of volume % that is offshore (0-100%)..	_____	_____	_____

Assessment Unit (name, no.)
Niobrara Continuous Gas, Assessment Unit 50370362

ALLOCATIONS OF POTENTIAL ADDITIONS TO RESERVES TO LAND ENTITIES
Surface Allocations (uncertainty of a fixed value)

1. Federal Lands represents 71.78 areal % of the assessment unit

Oil in oil assessment unit:	minimum	median	maximum
Volume % in entity……			
Portion of volume % that is offshore (0-100%)..			
Gas in gas assessment unit:			
Volume % in entity……			
Portion of volume % that is offshore (0-100%)..			

2. Private Lands represents 24.26 areal % of the assessment unit

Oil in oil assessment unit:	minimum	median	maximum
Volume % in entity……			
Portion of volume % that is offshore (0-100%)..			
Gas in gas assessment unit:			
Volume % in entity……			
Portion of volume % that is offshore (0-100%)..			

3. Tribal Lands represents _____ areal % of the assessment unit

Oil in oil assessment unit:	minimum	median	maximum
Volume % in entity……			
Portion of volume % that is offshore (0-100%)..			
Gas in gas assessment unit:			
Volume % in entity……			
Portion of volume % that is offshore (0-100%)..			

4. Other Lands represents _____ areal % of the assessment unit

Oil in oil assessment unit:	minimum	median	maximum
Volume % in entity……			
Portion of volume % that is offshore (0-100%)..			
Gas in gas assessment unit:			
Volume % in entity……			
Portion of volume % that is offshore (0-100%)..			

Assessment Unit (name, no.)
Niobrara Continuous Gas, Assessment Unit 50370362

5. CO State Lands represents 2.62 areal % of the assessment unit

Oil in oil assessment unit:	minimum	median	maximum
Volume % in entity……			
Portion of volume % that is offshore (0-100%)..			

Gas in gas assessment unit:			
Volume % in entity……			
Portion of volume % that is offshore (0-100%)..			

6. WY State Lands represents 1.34 areal % of the assessment unit

Oil in oil assessment unit:	minimum	median	maximum
Volume % in entity……			
Portion of volume % that is offshore (0-100%)..			

Gas in gas assessment unit:			
Volume % in entity……			
Portion of volume % that is offshore (0-100%)..			

7. _____ represents _____ areal % of the assessment unit

Oil in oil assessment unit:	minimum	median	maximum
Volume % in entity……			
Portion of volume % that is offshore (0-100%)..			

Gas in gas assessment unit:			
Volume % in entity……			
Portion of volume % that is offshore (0-100%)..			

8. _____ represents _____ areal % of the assessment unit

Oil in oil assessment unit:	minimum	median	maximum
Volume % in entity……			
Portion of volume % that is offshore (0-100%)..			

Gas in gas assessment unit:			
Volume % in entity……			
Portion of volume % that is offshore (0-100%)..			

Assessment Unit (name, no.)
Niobrara Continuous Gas, Assessment Unit 50370362

9. _____ represents _____ areal % of the assessment unit

Oil in oil assessment unit:	minimum	median	maximum
Volume % in entity……	_____	_____	_____
Portion of volume % that is offshore (0-100%)..	_____	_____	_____
Gas in gas assessment unit:			
Volume % in entity……	_____	_____	_____
Portion of volume % that is offshore (0-100%)..	_____	_____	_____

10. _____ represents _____ areal % of the assessment unit

Oil in oil assessment unit:	minimum	median	maximum
Volume % in entity……	_____	_____	_____
Portion of volume % that is offshore (0-100%)..	_____	_____	_____
Gas in gas assessment unit:			
Volume % in entity……	_____	_____	_____
Portion of volume % that is offshore (0-100%)..	_____	_____	_____

11. _____ represents _____ areal % of the assessment unit

Oil in oil assessment unit:	minimum	median	maximum
Volume % in entity……	_____	_____	_____
Portion of volume % that is offshore (0-100%)..	_____	_____	_____
Gas in gas assessment unit:			
Volume % in entity……	_____	_____	_____
Portion of volume % that is offshore (0-100%)..	_____	_____	_____

12. _____ represents _____ areal % of the assessment unit

Oil in oil assessment unit:	minimum	median	maximum
Volume % in entity……	_____	_____	_____
Portion of volume % that is offshore (0-100%)..	_____	_____	_____
Gas in gas assessment unit:			
Volume % in entity……	_____	_____	_____
Portion of volume % that is offshore (0-100%)..	_____	_____	_____

Assessment Unit (name, no.)
Niobrara Continuous Gas, Assessment Unit 50370362

ALLOCATIONS OF POTENTIAL ADDITIONS TO RESERVES TO FEDERAL LAND SUBDIVISIONS
Surface Allocations (uncertainty of a fixed value)

1. Bureau of Land Management (BLM) represents 71.78 areal % of the assessment unit

Oil in oil assessment unit:	minimum	median	maximum
Volume % in entity……			
Portion of volume % that is offshore (0-100%)..			
Gas in gas assessment unit:			
Volume % in entity……			
Portion of volume % that is offshore (0-100%)..			

2. BLM Wilderness Areas (BLMW) represents _____ areal % of the assessment unit

Oil in oil assessment unit:	minimum	median	maximum
Volume % in entity……			
Portion of volume % that is offshore (0-100%)..			
Gas in gas assessment unit:			
Volume % in entity……			
Portion of volume % that is offshore (0-100%)..			

3. BLM Roadless Areas (BLMR) represents _____ areal % of the assessment unit

Oil in oil assessment unit:	minimum	median	maximum
Volume % in entity……			
Portion of volume % that is offshore (0-100%)..			
Gas in gas assessment unit:			
Volume % in entity……			
Portion of volume % that is offshore (0-100%)..			

4. National Park Service (NPS) represents _____ areal % of the assessment unit

Oil in oil assessment unit:	minimum	median	maximum
Volume % in entity……			
Portion of volume % that is offshore (0-100%)..			
Gas in gas assessment unit:			
Volume % in entity……			
Portion of volume % that is offshore (0-100%)..			

Assessment Unit (name, no.)
Niobrara Continuous Gas, Assessment Unit 50370362

5. NPS Wilderness Areas (NPSW) represents _____ areal % of the assessment unit

Oil in oil assessment unit:	minimum	median	maximum
Volume % in entity……	_____	_____	_____
Portion of volume % that is offshore (0-100%)..	_____	_____	_____
Gas in gas assessment unit:			
Volume % in entity……	_____	_____	_____
Portion of volume % that is offshore (0-100%)..	_____	_____	_____

6. NPS Protected Withdrawals (NPSP) represents _____ areal % of the assessment unit

Oil in oil assessment unit:	minimum	median	maximum
Volume % in entity……	_____	_____	_____
Portion of volume % that is offshore (0-100%)..	_____	_____	_____
Gas in gas assessment unit:			
Volume % in entity……	_____	_____	_____
Portion of volume % that is offshore (0-100%)..	_____	_____	_____

7. US Forest Service (USFS) represents _____ areal % of the assessment unit

Oil in oil assessment unit:	minimum	median	maximum
Volume % in entity……	_____	_____	_____
Portion of volume % that is offshore (0-100%)..	_____	_____	_____
Gas in gas assessment unit:			
Volume % in entity……	_____	_____	_____
Portion of volume % that is offshore (0-100%)..	_____	_____	_____

8. USFS Wilderness Areas (USFSW) represents _____ areal % of the assessment unit

Oil in oil assessment unit:	minimum	median	maximum
Volume % in entity……	_____	_____	_____
Portion of volume % that is offshore (0-100%)..	_____	_____	_____
Gas in gas assessment unit:			
Volume % in entity……	_____	_____	_____
Portion of volume % that is offshore (0-100%)..	_____	_____	_____

Assessment Unit (name, no.)
Niobrara Continuous Gas, Assessment Unit 50370362

9. USFS Roadless Areas (USFSR) represents _____ areal % of the assessment unit

Oil in oil assessment unit:	minimum	median	maximum
Volume % in entity……			
Portion of volume % that is offshore (0-100%)..			
Gas in gas assessment unit:			
Volume % in entity……			
Portion of volume % that is offshore (0-100%)..			

10. USFS Protected Withdrawals (USFSP) represents _____ areal % of the assessment unit

Oil in oil assessment unit:	minimum	median	maximum
Volume % in entity……			
Portion of volume % that is offshore (0-100%)..			
Gas in gas assessment unit:			
Volume % in entity……			
Portion of volume % that is offshore (0-100%)..			

11. US Fish and Wildlife Service (USFWS) represents _____ areal % of the assessment unit

Oil in oil assessment unit:	minimum	median	maximum
Volume % in entity……			
Portion of volume % that is offshore (0-100%)..			
Gas in gas assessment unit:			
Volume % in entity……			
Portion of volume % that is offshore (0-100%)..			

12. USFWS Wilderness Areas (USFWSW) represents _____ areal % of the assessment unit

Oil in oil assessment unit:	minimum	median	maximum
Volume % in entity……			
Portion of volume % that is offshore (0-100%)..			
Gas in gas assessment unit:			
Volume % in entity……			
Portion of volume % that is offshore (0-100%)..			

Assessment Unit (name, no.)
Niobrara Continuous Gas, Assessment Unit 50370362

13. USFWS Protected Withdrawals (USFWSP) represents _____ areal % of the assessment unit

Oil in oil assessment unit:	minimum	median	maximum
Volume % in entity……			
Portion of volume % that is offshore (0-100%)..			
Gas in gas assessment unit:			
Volume % in entity……			
Portion of volume % that is offshore (0-100%)..			

14. Wilderness Study Areas (WS) represents _____ areal % of the assessment unit

Oil in oil assessment unit:	minimum	median	maximum
Volume % in entity……			
Portion of volume % that is offshore (0-100%)..			
Gas in gas assessment unit:			
Volume % in entity……			
Portion of volume % that is offshore (0-100%)..			

15. Department of Energy (DOE) represents _____ areal % of the assessment unit

Oil in oil assessment unit:	minimum	median	maximum
Volume % in entity……			
Portion of volume % that is offshore (0-100%)..			
Gas in gas assessment unit:			
Volume % in entity……			
Portion of volume % that is offshore (0-100%)..			

16. Department of Defense (DOD) represents _____ areal % of the assessment unit

Oil in oil assessment unit:	minimum	median	maximum
Volume % in entity……			
Portion of volume % that is offshore (0-100%)..			
Gas in gas assessment unit:			
Volume % in entity……			
Portion of volume % that is offshore (0-100%)..			

Assessment Unit (name, no.)
Niobrara Continuous Gas, Assessment Unit 50370362

17. Bureau of Reclamation (BOR) represents _____ areal % of the assessment unit

Oil in oil assessment unit:	minimum	median	maximum
Volume % in entity……			
Portion of volume % that is offshore (0-100%)..			
Gas in gas assessment unit:			
Volume % in entity……			
Portion of volume % that is offshore (0-100%)..			

18. Tennessee Valley Authority (TVA) represents _____ areal % of the assessment unit

Oil in oil assessment unit:	minimum	median	maximum
Volume % in entity……			
Portion of volume % that is offshore (0-100%)..			
Gas in gas assessment unit:			
Volume % in entity……			
Portion of volume % that is offshore (0-100%)..			

19. Other Federal represents _____ areal % of the assessment unit

Oil in oil assessment unit:	minimum	median	maximum
Volume % in entity……			
Portion of volume % that is offshore (0-100%)..			
Gas in gas assessment unit:			
Volume % in entity……			
Portion of volume % that is offshore (0-100%)..			

20. _____ represents _____ areal % of the assessment unit

Oil in oil assessment unit:	minimum	median	maximum
Volume % in entity……			
Portion of volume % that is offshore (0-100%)..			
Gas in gas assessment unit:			
Volume % in entity……			
Portion of volume % that is offshore (0-100%)..			

Assessment Unit (name, no.)
Niobrara Continuous Gas, Assessment Unit 50370362

ALLOCATIONS OF POTENTIAL ADDITIONS TO RESERVES TO ECOSYSTEMS
Surface Allocations (uncertainty of a fixed value)

1. Central Basin and Hills (CNBH) represents 1.55 areal % of the assessment unit

Oil in oil assessment unit:	minimum	median	maximum
Volume % in entity……			
Portion of volume % that is offshore (0-100%)..			
Gas in gas assessment unit:			
Volume % in entity……			
Portion of volume % that is offshore (0-100%)..			

2. Greater Green River Basin (GGRV) represents 93.09 areal % of the assessment unit

Oil in oil assessment unit:	minimum	median	maximum
Volume % in entity……			
Portion of volume % that is offshore (0-100%)..			
Gas in gas assessment unit:			
Volume % in entity……			
Portion of volume % that is offshore (0-100%)..			

3. Uinta Mountains (UTMT) represents 5.37 areal % of the assessment unit

Oil in oil assessment unit:	minimum	median	maximum
Volume % in entity……			
Portion of volume % that is offshore (0-100%)..			
Gas in gas assessment unit:			
Volume % in entity……			
Portion of volume % that is offshore (0-100%)..			

4. _____ represents _____ areal % of the assessment unit

Oil in oil assessment unit:	minimum	median	maximum
Volume % in entity……			
Portion of volume % that is offshore (0-100%)..			
Gas in gas assessment unit:			
Volume % in entity……			
Portion of volume % that is offshore (0-100%)..			

Assessment Unit (name, no.)
Niobrara Continuous Gas, Assessment Unit 50370362

5. _____ represents _____ areal % of the assessment unit

Oil in oil assessment unit:	minimum	median	maximum
Volume % in entity……	_____	_____	_____
Portion of volume % that is offshore (0-100%)..	_____	_____	_____
Gas in gas assessment unit:			
Volume % in entity……	_____	_____	_____
Portion of volume % that is offshore (0-100%)..	_____	_____	_____

6. _____ represents _____ areal % of the assessment unit

Oil in oil assessment unit:	minimum	median	maximum
Volume % in entity……	_____	_____	_____
Portion of volume % that is offshore (0-100%)..	_____	_____	_____
Gas in gas assessment unit:			
Volume % in entity……	_____	_____	_____
Portion of volume % that is offshore (0-100%)..	_____	_____	_____

7. _____ represents _____ areal % of the assessment unit

Oil in oil assessment unit:	minimum	median	maximum
Volume % in entity……	_____	_____	_____
Portion of volume % that is offshore (0-100%)..	_____	_____	_____
Gas in gas assessment unit:			
Volume % in entity……	_____	_____	_____
Portion of volume % that is offshore (0-100%)..	_____	_____	_____

8. _____ represents _____ areal % of the assessment unit

Oil in oil assessment unit:	minimum	median	maximum
Volume % in entity……	_____	_____	_____
Portion of volume % that is offshore (0-100%)..	_____	_____	_____
Gas in gas assessment unit:			
Volume % in entity……	_____	_____	_____
Portion of volume % that is offshore (0-100%)..	_____	_____	_____

Assessment Unit (name, no.)
Niobrara Continuous Gas, Assessment Unit 50370362

9. _____ represents _____ areal % of the assessment unit

Oil in oil assessment unit:	minimum	median	maximum
Volume % in entity……	_____	_____	_____
Portion of volume % that is offshore (0-100%)..	_____	_____	_____
Gas in gas assessment unit:			
Volume % in entity……	_____	_____	_____
Portion of volume % that is offshore (0-100%)..	_____	_____	_____

10. _____ represents _____ areal % of the assessment unit

Oil in oil assessment unit:	minimum	median	maximum
Volume % in entity……	_____	_____	_____
Portion of volume % that is offshore (0-100%)..	_____	_____	_____
Gas in gas assessment unit:			
Volume % in entity……	_____	_____	_____
Portion of volume % that is offshore (0-100%)..	_____	_____	_____

11. _____ represents _____ areal % of the assessment unit

Oil in oil assessment unit:	minimum	median	maximum
Volume % in entity……	_____	_____	_____
Portion of volume % that is offshore (0-100%)..	_____	_____	_____
Gas in gas assessment unit:			
Volume % in entity……	_____	_____	_____
Portion of volume % that is offshore (0-100%)..	_____	_____	_____

12. _____ represents _____ areal % of the assessment unit

Oil in oil assessment unit:	minimum	median	maximum
Volume % in entity……	_____	_____	_____
Portion of volume % that is offshore (0-100%)..	_____	_____	_____
Gas in gas assessment unit:			
Volume % in entity……	_____	_____	_____
Portion of volume % that is offshore (0-100%)..	_____	_____	_____

Assessment Unit (name, no.)
Niobrara Continuous Gas, Assessment Unit 50370362

ALLOCATIONS OF POTENTIAL ADDITIONS TO RESERVES TO LAND ENTITIES
Subsurface Allocations (uncertainty of a fixed value)

Based on Data as of: _____

1. All Federal Subsurface represents _____ areal % of the assessment unit

Oil in oil assessment unit:	minimum	median	maximum
Volume % in entity……			
Portion of volume % that is offshore (0-100%)..			

Gas in gas assessment unit:			
Volume % in entity……			
Portion of volume % that is offshore (0-100%)..			

2. Other Subsurface represents _____ areal % of the assessment unit

Oil in oil assessment unit:	minimum	median	maximum
Volume % in entity……			
Portion of volume % that is offshore (0-100%)..			

Gas in gas assessment unit:			
Volume % in entity……			
Portion of volume % that is offshore (0-100%)..			

Click here to return to
Chapter 28