

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

IDENTIFICATION INFORMATION

| | | | |
|---------------------------|--|---------|-----------------|
| Assessment Geologist:... | <u>L.O. Anna</u> | Date: | <u>8/6/2002</u> |
| Region:..... | <u>North America</u> | Number: | <u>5</u> |
| Province:..... | <u>Powder River Basin</u> | Number: | <u>5033</u> |
| Total Petroleum System:.. | <u>Cretaceous Biogenic Gas</u> | Number: | <u>503304</u> |
| Assessment Unit:..... | <u>Shallow Continuous Biogenic Gas</u> | Number: | <u>50330461</u> |
| Based on Data as of:..... | <u>PI/Dwights 2001</u> | | |
| Notes from Assessor:..... | <u>West Short Pine Hills Field as analog</u> | | |

Future success ratio: 40%

CHARACTERISTICS OF ASSESSMENT UNIT

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

What is the minimum total recovery per cell?... 0.01 (mmbob for oil A.U.; bcfg for gas A.U.)

Number of tested cells:..... 0

Number of tested cells with total recovery per cell \geq minimum: 0

Established (>24 cells \geq min.) Frontier (1-24 cells) Hypothetical (no cells) X

Median total recovery per cell (for cells \geq min.): (mmbob for oil A.U.; bcfg for gas A.U.)

| | | | | | |
|--------------------|-----------------------------|---------|-----------------------------|---------|-----------------------------|
| 1st 3rd discovered | <u> </u> | 2nd 3rd | <u> </u> | 3rd 3rd | <u> </u> |
|--------------------|-----------------------------|---------|-----------------------------|---------|-----------------------------|

Assessment-Unit Probabilities:

| Attribute | Probability of occurrence (0-1.0) |
|---|-----------------------------------|
| 1. CHARGE: Adequate petroleum charge for an untested cell with total recovery \geq minimum | <u>1.0</u> |
| 2. ROCKS: Adequate reservoirs, traps, seals for an untested cell with total recovery \geq minimum. | <u>1.0</u> |
| 3. TIMING: Favorable geologic timing for an untested cell with total recovery \geq minimum..... | <u>1.0</u> |

Assessment-Unit GEOLOGIC Probability (Product of 1, 2, and 3):..... 1.0

4. **ACCESS:** Adequate location for necessary petroleum-related activities for an untested cell with total recovery \geq minimum 1.0

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 | <u>18,726,000</u> | median | <u>19,712,000</u> | maximum | <u>20,698,000</u> |
|---------|-------------------|--------|-------------------|---------|-------------------|

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

| | | | | | |
|---------|-----------|--------|------------|---------|------------|
| minimum | <u>40</u> | median | <u>160</u> | maximum | <u>320</u> |
|---------|-----------|--------|------------|---------|------------|

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

| | | | | | |
|---------|------------|--------|------------|---------|------------|
| minimum | <u>100</u> | median | <u>100</u> | maximum | <u>100</u> |
|---------|------------|--------|------------|---------|------------|

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 \geq minimum)
(uncertainty of a fixed value)

| | | | | | |
|---------|----------|--------|----------|---------|-------------|
| minimum | <u>1</u> | median | <u>5</u> | maximum | <u>12.5</u> |
|---------|----------|--------|----------|---------|-------------|

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 0.01 median 0.08 maximum 1.5

AVERAGE COPRODUCT RATIOS FOR UNTESTED CELLS, TO ASSESS COPRODUCTS

(uncertainty of fixed but unknown values)

| <u>Oil assessment unit:</u> | minimum | median | maximum |
|--------------------------------|---------------------------|---------------------------|---------------------------|
| Gas/oil ratio (cfg/bo)..... | <u> </u> | <u> </u> | <u> </u> |
| NGL/gas ratio (bnl/mmcfg)..... | <u> </u> | <u> </u> | <u> </u> |

| <u>Gas assessment unit:</u> | minimum | median | maximum |
|-------------------------------------|--------------|--------------|--------------|
| Liquids/gas ratio (bliq/mmcfg)..... | <u> 0 </u> | <u> 0 </u> | <u> 0 </u> |

SELECTED ANCILLARY DATA FOR UNTESTED CELLS

(values are inherently variable)

| <u>Oil assessment unit:</u> | minimum | median | maximum |
|---|---------------------------|---------------------------|---------------------------|
| API gravity of oil (degrees)..... | <u> </u> | <u> </u> | <u> </u> |
| Sulfur content of oil (%)..... | <u> </u> | <u> </u> | <u> </u> |
| Drilling depth (m) | <u> </u> | <u> </u> | <u> </u> |
| Depth (m) of water (if applicable)..... | <u> </u> | <u> </u> | <u> </u> |

| <u>Gas assessment unit:</u> | minimum | median | maximum |
|---|---------------------------|---------------------------|---------------------------|
| Inert-gas content (%)..... | <u> </u> | <u> </u> | <u> </u> |
| CO ₂ content (%)..... | <u> 0.00 </u> | <u> 0.20 </u> | <u> 0.30 </u> |
| Hydrogen-sulfide content (%)..... | <u> 0.00 </u> | <u> 0.00 </u> | <u> 0.00 </u> |
| Drilling depth (m)..... | <u> 200 </u> | <u> 600 </u> | <u> 1040 </u> |
| Depth (m) of water (if applicable)..... | <u> </u> | <u> </u> | <u> </u> |

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

| | | | |
|---|------------|--------------|--------------------------------|
| 1. <u>Montana</u> | represents | <u>50.29</u> | areal % of the assessment unit |
| <u>Oil in oil assessment unit:</u> | | | |
| | minimum | median | maximum |
| Volume % in entity..... | | | |
| Portion of volume % that is offshore (0-100%).. | | | |
| <u>Gas in gas assessment unit:</u> | | | |
| Volume % in entity..... | | <u>50.29</u> | |
| Portion of volume % that is offshore (0-100%).. | | <u>0</u> | |
| | | | |
| 2. <u>Wyoming</u> | represents | <u>49.70</u> | areal % of the assessment unit |
| <u>Oil in oil assessment unit:</u> | | | |
| | minimum | median | maximum |
| Volume % in entity..... | | | |
| Portion of volume % that is offshore (0-100%).. | | | |
| <u>Gas in gas assessment unit:</u> | | | |
| Volume % in entity..... | | <u>49.70</u> | |
| Portion of volume % that is offshore (0-100%).. | | <u>0</u> | |
| | | | |
| 3. _____ | represents | | areal % of the assessment unit |
| <u>Oil in oil assessment unit:</u> | | | |
| | minimum | median | maximum |
| Volume % in entity..... | | | |
| Portion of volume % that is offshore (0-100%).. | | | |
| <u>Gas in gas assessment unit:</u> | | | |
| Volume % in entity..... | | | |
| Portion of volume % that is offshore (0-100%).. | | | |
| | | | |
| 4. _____ | represents | | areal % of the assessment unit |
| <u>Oil in oil assessment unit:</u> | | | |
| | minimum | median | maximum |
| Volume % in entity..... | | | |
| Portion of volume % that is offshore (0-100%).. | | | |
| <u>Gas in gas assessment unit:</u> | | | |
| Volume % in entity..... | | | |
| Portion of volume % that is offshore (0-100%).. | | | |

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5. _____ represents _____ areal % of the assessment unit

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

| | | | |
|---|--|--|--|
| <u>Gas in gas assessment unit:</u> | | | |
| Volume % in entity..... | | | |
| Portion of volume % that is offshore (0-100%).. | | | |

6. _____ represents _____ areal % of the assessment unit

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

| | | | |
|---|--|--|--|
| <u>Gas in gas assessment unit:</u> | | | |
| Volume % in entity..... | | | |
| Portion of volume % that is offshore (0-100%).. | | | |

7. _____ represents _____ areal % of the assessment unit

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

| | | | |
|---|--|--|--|
| <u>Gas in gas assessment unit:</u> | | | |
| Volume % in entity..... | | | |
| Portion of volume % that is offshore (0-100%).. | | | |

8. _____ represents _____ areal % of the assessment unit

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

| | | | |
|---|--|--|--|
| <u>Gas in gas assessment unit:</u> | | | |
| Volume % in entity..... | | | |
| Portion of volume % that is offshore (0-100%).. | | | |

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

| | | | |
|---|------------|--------------|--------------------------------|
| 1. <u>Federal Lands</u> | represents | <u>18.76</u> | areal % of the assessment unit |
| <u>Oil in oil assessment unit:</u> | | | |
| | minimum | median | maximum |
| Volume % in entity..... | | | |
| Portion of volume % that is offshore (0-100%).. | | | |
| <u>Gas in gas assessment unit:</u> | | | |
| Volume % in entity..... | | <u>18.76</u> | |
| Portion of volume % that is offshore (0-100%).. | | <u>0</u> | |
| | | | |
| 2. <u>Private Lands</u> | represents | <u>66.46</u> | areal % of the assessment unit |
| <u>Oil in oil assessment unit:</u> | | | |
| | minimum | median | maximum |
| Volume % in entity..... | | | |
| Portion of volume % that is offshore (0-100%).. | | | |
| <u>Gas in gas assessment unit:</u> | | | |
| Volume % in entity..... | | <u>66.46</u> | |
| Portion of volume % that is offshore (0-100%).. | | <u>0</u> | |
| | | | |
| 3. <u>Tribal Lands</u> | represents | <u>7.96</u> | areal % of the assessment unit |
| <u>Oil in oil assessment unit:</u> | | | |
| | minimum | median | maximum |
| Volume % in entity..... | | | |
| Portion of volume % that is offshore (0-100%).. | | | |
| <u>Gas in gas assessment unit:</u> | | | |
| Volume % in entity..... | | <u>7.96</u> | |
| Portion of volume % that is offshore (0-100%).. | | <u>0</u> | |
| | | | |
| 4. <u>Other Lands</u> | represents | <u>0.20</u> | areal % of the assessment unit |
| <u>Oil in oil assessment unit:</u> | | | |
| | minimum | median | maximum |
| Volume % in entity..... | | | |
| Portion of volume % that is offshore (0-100%).. | | | |
| <u>Gas in gas assessment unit:</u> | | | |
| Volume % in entity..... | | <u>0.20</u> | |
| Portion of volume % that is offshore (0-100%).. | | <u>0</u> | |

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| | | | |
|---|------------|--------|--------------------------------|
| 5. <u>MT State Lands</u> | represents | 2.46 | areal % of the assessment unit |
| <u>Oil in oil assessment unit:</u> | | | |
| | minimum | median | maximum |
| Volume % in entity..... | | | |
| Portion of volume % that is offshore (0-100%).. | | | |
| <u>Gas in gas assessment unit:</u> | | | |
| Volume % in entity..... | | 2.46 | |
| Portion of volume % that is offshore (0-100%).. | | 0 | |
| 6. <u>WY State Lands</u> | represents | 4.13 | areal % of the assessment unit |
| <u>Oil in oil assessment unit:</u> | | | |
| | minimum | median | maximum |
| Volume % in entity..... | | | |
| Portion of volume % that is offshore (0-100%).. | | | |
| <u>Gas in gas assessment unit:</u> | | | |
| Volume % in entity..... | | 4.13 | |
| Portion of volume % that is offshore (0-100%).. | | 0 | |
| 7. _____ | represents | | areal % of the assessment unit |
| <u>Oil in oil assessment unit:</u> | | | |
| | minimum | median | maximum |
| Volume % in entity..... | | | |
| Portion of volume % that is offshore (0-100%).. | | | |
| <u>Gas in gas assessment unit:</u> | | | |
| Volume % in entity..... | | | |
| Portion of volume % that is offshore (0-100%).. | | | |
| 8. _____ | represents | | areal % of the assessment unit |
| <u>Oil in oil assessment unit:</u> | | | |
| | minimum | median | maximum |
| Volume % in entity..... | | | |
| Portion of volume % that is offshore (0-100%).. | | | |
| <u>Gas in gas assessment unit:</u> | | | |
| Volume % in entity..... | | | |
| Portion of volume % that is offshore (0-100%).. | | | |

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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%).. | | | |

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

| | | | |
|---|------------|--------------|--------------------------------|
| 1. <u>Bureau of Land Management (BLM)</u> | represents | <u>10.48</u> | areal % of the assessment unit |
| <u>Oil in oil assessment unit:</u> | | | |
| | minimum | median | maximum |
| Volume % in entity..... | | | |
| Portion of volume % that is offshore (0-100%).. | | | |
| <u>Gas in gas assessment unit:</u> | | | |
| Volume % in entity..... | | <u>10.48</u> | |
| Portion of volume % that is offshore (0-100%).. | | <u>0</u> | |
| | | | |
| 2. <u>BLM Wilderness Areas (BLMW)</u> | represents | | areal % of the assessment unit |
| <u>Oil in oil assessment unit:</u> | | | |
| | minimum | median | maximum |
| Volume % in entity..... | | | |
| Portion of volume % that is offshore (0-100%).. | | | |
| <u>Gas in gas assessment unit:</u> | | | |
| Volume % in entity..... | | | |
| Portion of volume % that is offshore (0-100%).. | | | |
| | | | |
| 3. <u>BLM Roadless Areas (BLMR)</u> | represents | | areal % of the assessment unit |
| <u>Oil in oil assessment unit:</u> | | | |
| | minimum | median | maximum |
| Volume % in entity..... | | | |
| Portion of volume % that is offshore (0-100%).. | | | |
| <u>Gas in gas assessment unit:</u> | | | |
| Volume % in entity..... | | | |
| Portion of volume % that is offshore (0-100%).. | | | |
| | | | |
| 4. <u>National Park Service (NPS)</u> | represents | <u>0.02</u> | areal % of the assessment unit |
| <u>Oil in oil assessment unit:</u> | | | |
| | minimum | median | maximum |
| Volume % in entity..... | | | |
| Portion of volume % that is offshore (0-100%).. | | | |
| <u>Gas in gas assessment unit:</u> | | | |
| Volume % in entity..... | | <u>0.02</u> | |
| Portion of volume % that is offshore (0-100%).. | | <u>0</u> | |

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| | | | |
|---|------------|--------|--------------------------------|
| <u>5. NPS Wilderness Areas (NPSW)</u> | represents | _____ | areal % of the assessment unit |
| <u>Oil in oil assessment unit:</u> | | | |
| | minimum | median | maximum |
| Volume % in entity..... | _____ | _____ | _____ |
| Portion of volume % that is offshore (0-100%).. | _____ | _____ | _____ |
| <u>Gas in gas assessment unit:</u> | | | |
| Volume % in entity..... | _____ | _____ | _____ |
| Portion of volume % that is offshore (0-100%).. | _____ | _____ | _____ |
| | | | |
| <u>6. NPS Protected Withdrawals (NPSP)</u> | represents | _____ | areal % of the assessment unit |
| <u>Oil in oil assessment unit:</u> | | | |
| | minimum | median | maximum |
| Volume % in entity..... | _____ | _____ | _____ |
| Portion of volume % that is offshore (0-100%).. | _____ | _____ | _____ |
| <u>Gas in gas assessment unit:</u> | | | |
| Volume % in entity..... | _____ | _____ | _____ |
| Portion of volume % that is offshore (0-100%).. | _____ | _____ | _____ |
| | | | |
| <u>7. US Forest Service (USFS)</u> | represents | 7.85 | areal % of the assessment unit |
| <u>Oil in oil assessment unit:</u> | | | |
| | minimum | median | maximum |
| Volume % in entity..... | _____ | _____ | _____ |
| Portion of volume % that is offshore (0-100%).. | _____ | _____ | _____ |
| <u>Gas in gas assessment unit:</u> | | | |
| Volume % in entity..... | _____ | 7.85 | _____ |
| Portion of volume % that is offshore (0-100%).. | _____ | 0 | _____ |
| | | | |
| <u>8. USFS Wilderness Areas (USFSW)</u> | represents | _____ | areal % of the assessment unit |
| <u>Oil in oil assessment unit:</u> | | | |
| | minimum | median | maximum |
| Volume % in entity..... | _____ | _____ | _____ |
| Portion of volume % that is offshore (0-100%).. | _____ | _____ | _____ |
| <u>Gas in gas assessment unit:</u> | | | |
| Volume % in entity..... | _____ | _____ | _____ |
| Portion of volume % that is offshore (0-100%).. | _____ | _____ | _____ |

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| | | | |
|---|-----------------------------|-----------------------------|--------------------------------|
| <u>9. USFS Roadless Areas (USFSR)</u> | represents | <u> </u> | areal % of the assessment unit |
| <u>Oil in oil assessment unit:</u> | | | |
| | minimum | median | maximum |
| Volume % in entity..... | <u> </u> | <u> </u> | <u> </u> |
| Portion of volume % that is offshore (0-100%).. | <u> </u> | <u> </u> | <u> </u> |
| <u>Gas in gas assessment unit:</u> | | | |
| Volume % in entity..... | <u> </u> | <u> </u> | <u> </u> |
| Portion of volume % that is offshore (0-100%).. | <u> </u> | <u> </u> | <u> </u> |
| <u>10. USFS Protected Withdrawals (USFSP)</u> | represents | <u> </u> | areal % of the assessment unit |
| <u>Oil in oil assessment unit:</u> | | | |
| | minimum | median | maximum |
| Volume % in entity..... | <u> </u> | <u> </u> | <u> </u> |
| Portion of volume % that is offshore (0-100%).. | <u> </u> | <u> </u> | <u> </u> |
| <u>Gas in gas assessment unit:</u> | | | |
| Volume % in entity..... | <u> </u> | <u> </u> | <u> </u> |
| Portion of volume % that is offshore (0-100%).. | <u> </u> | <u> </u> | <u> </u> |
| <u>11. US Fish and Wildlife Service (USFWS)</u> | represents | <u> </u> | areal % of the assessment unit |
| <u>Oil in oil assessment unit:</u> | | | |
| | minimum | median | maximum |
| Volume % in entity..... | <u> </u> | <u> </u> | <u> </u> |
| Portion of volume % that is offshore (0-100%).. | <u> </u> | <u> </u> | <u> </u> |
| <u>Gas in gas assessment unit:</u> | | | |
| Volume % in entity..... | <u> </u> | <u> </u> | <u> </u> |
| Portion of volume % that is offshore (0-100%).. | <u> </u> | <u> </u> | <u> </u> |
| <u>12. USFWS Wilderness Areas (USFWSW)</u> | represents | <u> </u> | areal % of the assessment unit |
| <u>Oil in oil assessment unit:</u> | | | |
| | minimum | median | maximum |
| Volume % in entity..... | <u> </u> | <u> </u> | <u> </u> |
| Portion of volume % that is offshore (0-100%).. | <u> </u> | <u> </u> | <u> </u> |
| <u>Gas in gas assessment unit:</u> | | | |
| Volume % in entity..... | <u> </u> | <u> </u> | <u> </u> |
| Portion of volume % that is offshore (0-100%).. | <u> </u> | <u> </u> | <u> </u> |

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| | | | |
|---|------------|--------|--------------------------------|
| <u>13. USFWS Protected Withdrawals (USFWSP)</u> | represents | _____ | areal % of the assessment unit |
| <u>Oil in oil assessment unit:</u> | | | |
| | minimum | median | maximum |
| Volume % in entity..... | _____ | _____ | _____ |
| Portion of volume % that is offshore (0-100%).. | _____ | _____ | _____ |
| <u>Gas in gas assessment unit:</u> | | | |
| Volume % in entity..... | _____ | _____ | _____ |
| Portion of volume % that is offshore (0-100%).. | _____ | _____ | _____ |
| | | | |
| <u>14. Wilderness Study Areas (WS)</u> | represents | _____ | areal % of the assessment unit |
| <u>Oil in oil assessment unit:</u> | | | |
| | minimum | median | maximum |
| Volume % in entity..... | _____ | _____ | _____ |
| Portion of volume % that is offshore (0-100%).. | _____ | _____ | _____ |
| <u>Gas in gas assessment unit:</u> | | | |
| Volume % in entity..... | _____ | _____ | _____ |
| Portion of volume % that is offshore (0-100%).. | _____ | _____ | _____ |
| | | | |
| <u>15. Department of Energy (DOE)</u> | represents | _____ | areal % of the assessment unit |
| <u>Oil in oil assessment unit:</u> | | | |
| | minimum | median | maximum |
| Volume % in entity..... | _____ | _____ | _____ |
| Portion of volume % that is offshore (0-100%).. | _____ | _____ | _____ |
| <u>Gas in gas assessment unit:</u> | | | |
| Volume % in entity..... | _____ | _____ | _____ |
| Portion of volume % that is offshore (0-100%).. | _____ | _____ | _____ |
| | | | |
| <u>16. Department of Defense (DOD)</u> | represents | 0.05 | areal % of the assessment unit |
| <u>Oil in oil assessment unit:</u> | | | |
| | minimum | median | maximum |
| Volume % in entity..... | _____ | _____ | _____ |
| Portion of volume % that is offshore (0-100%).. | _____ | _____ | _____ |
| <u>Gas in gas assessment unit:</u> | | | |
| Volume % in entity..... | _____ | 0.05 | _____ |
| Portion of volume % that is offshore (0-100%).. | _____ | 0 | _____ |

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| | | | |
|---|------------|-------------|--------------------------------|
| <u>17. Bureau of Reclamation (BOR)</u> | represents | <u>0.07</u> | areal % of the assessment unit |
| <u>Oil in oil assessment unit:</u> | | | |
| | minimum | median | maximum |
| Volume % in entity..... | _____ | _____ | _____ |
| Portion of volume % that is offshore (0-100%).. | _____ | _____ | _____ |
| <u>Gas in gas assessment unit:</u> | | | |
| Volume % in entity..... | _____ | 0.07 | _____ |
| Portion of volume % that is offshore (0-100%).. | _____ | 0 | _____ |
| <u>18. Tennessee Valley Authority (TVA)</u> | represents | _____ | areal % of the assessment unit |
| <u>Oil in oil assessment unit:</u> | | | |
| | minimum | median | maximum |
| Volume % in entity..... | _____ | _____ | _____ |
| Portion of volume % that is offshore (0-100%).. | _____ | _____ | _____ |
| <u>Gas in gas assessment unit:</u> | | | |
| Volume % in entity..... | _____ | _____ | _____ |
| Portion of volume % that is offshore (0-100%).. | _____ | _____ | _____ |
| <u>19. Other Federal</u> | represents | <u>0.29</u> | areal % of the assessment unit |
| <u>Oil in oil assessment unit:</u> | | | |
| | minimum | median | maximum |
| Volume % in entity..... | _____ | _____ | _____ |
| Portion of volume % that is offshore (0-100%).. | _____ | _____ | _____ |
| <u>Gas in gas assessment unit:</u> | | | |
| Volume % in entity..... | _____ | 0.29 | _____ |
| Portion of volume % that is offshore (0-100%).. | _____ | 0 | _____ |
| <u>20. _____</u> | represents | _____ | areal % of the assessment unit |
| <u>Oil in oil assessment unit:</u> | | | |
| | minimum | median | maximum |
| Volume % in entity..... | _____ | _____ | _____ |
| Portion of volume % that is offshore (0-100%).. | _____ | _____ | _____ |
| <u>Gas in gas assessment unit:</u> | | | |
| Volume % in entity..... | _____ | _____ | _____ |
| Portion of volume % that is offshore (0-100%).. | _____ | _____ | _____ |

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

| | | | |
|---|------------|-------------|--------------------------------|
| 1. <u>Bighorn Basin (BHBA)</u> | represents | <u>0.22</u> | areal % of the assessment unit |
| <u>Oil in oil assessment unit:</u> | | | |
| | minimum | median | maximum |
| Volume % in entity..... | | | |
| Portion of volume % that is offshore (0-100%).. | | | |
| <u>Gas in gas assessment unit:</u> | | | |
| Volume % in entity..... | | <u>0.22</u> | |
| Portion of volume % that is offshore (0-100%).. | | <u>0</u> | |
| | | | |
| 2. <u>Bighorn Mountains (BHMT)</u> | represents | <u>8.99</u> | areal % of the assessment unit |
| <u>Oil in oil assessment unit:</u> | | | |
| | minimum | median | maximum |
| Volume % in entity..... | | | |
| Portion of volume % that is offshore (0-100%).. | | | |
| <u>Gas in gas assessment unit:</u> | | | |
| Volume % in entity..... | | <u>8.99</u> | |
| Portion of volume % that is offshore (0-100%).. | | <u>0</u> | |
| | | | |
| 3. <u>Black Hills (BLKH)</u> | represents | <u>1.42</u> | areal % of the assessment unit |
| <u>Oil in oil assessment unit:</u> | | | |
| | minimum | median | maximum |
| Volume % in entity..... | | | |
| Portion of volume % that is offshore (0-100%).. | | | |
| <u>Gas in gas assessment unit:</u> | | | |
| Volume % in entity..... | | <u>1.42</u> | |
| Portion of volume % that is offshore (0-100%).. | | <u>0</u> | |
| | | | |
| 4. <u>Central Basin and Hills (CNBH)</u> | represents | <u>1.21</u> | areal % of the assessment unit |
| <u>Oil in oil assessment unit:</u> | | | |
| | minimum | median | maximum |
| Volume % in entity..... | | | |
| Portion of volume % that is offshore (0-100%).. | | | |
| <u>Gas in gas assessment unit:</u> | | | |
| Volume % in entity..... | | <u>1.21</u> | |
| Portion of volume % that is offshore (0-100%).. | | <u>0</u> | |

Assessment Unit (name, no.)
Shallow Continuous Biogenic Gas, 50330461

5. Northern Parks and Ranges (NPRN) represents 2.85 areal % of the assessment unit

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

| | | | |
|---|--|------|--|
| <u>Gas in gas assessment unit:</u> | | | |
| Volume % in entity..... | | 2.85 | |
| Portion of volume % that is offshore (0-100%).. | | 0 | |

6. Northwestern Great Plains (NWGP) represents 31.13 areal % of the assessment unit

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

| | | | |
|---|--|-------|--|
| <u>Gas in gas assessment unit:</u> | | | |
| Volume % in entity..... | | 31.13 | |
| Portion of volume % that is offshore (0-100%).. | | 0 | |

7. Powder River Basin (PRBA) represents 54.18 areal % of the assessment unit

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

| | | | |
|---|--|-------|--|
| <u>Gas in gas assessment unit:</u> | | | |
| Volume % in entity..... | | 54.18 | |
| Portion of volume % that is offshore (0-100%).. | | 0 | |

8. _____ represents _____ areal % of the assessment unit

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

| | | | |
|---|--|--|--|
| <u>Gas in gas assessment unit:</u> | | | |
| Volume % in entity..... | | | |
| Portion of volume % that is offshore (0-100%).. | | | |

Assessment Unit (name, no.)
Shallow Continuous Biogenic Gas, 50330461

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%).. | _____ | _____ | _____ |