

TOTAL

4-1 2 11 10 5 0 1 1

10727 *LN*

TOTAL MINATOME CORPORATION

May 23, 1997

Burlington Resources, Inc.
3535 East 30th St.
P.O. Box 4289
Farmington, New Mexico 87499-4289
Attention: James J. Strickler

MAY 30 1997

PRODUCTION ACCTG.

Re: Marcotte #2
Pennsylvanian formation
Section 8, T31N-R10W
San Juan County, New Mexico

Gentlemen:

Total Minatome Corporation (TMC) agrees to participate in the above referenced well per the terms and conditions of the Farmout and Operating Agreement dated November 27, 1951, between Brookhaven Oil Company and San Juan Production Company, as amended and supplemented.

Enclosed is one fully executed copy of your participation letter dated April 22, 1997 on behalf of TMC.

Sincerely,



Deborah J. Gilchrist
Landman

NMOCD Case No. 11808
NMOCD Case No. 11809
Exhibit No. 6
Submitted by: Total Minatome Corp.
July 10, 1997



1pc 6/9/97

BURLINGTON RESOURCES

SAN JUAN DIVISION

April 22, 1997

LB 4-25
PS

CERTIFIED MAIL-RETURN RECEIPT

RECEIVED

APR 25 1997

To Working Interest Owners
(see list below)

LAND ADMINISTRATION

RE: Marcotte #2 Well
Pennsylvanian formation
Proposed depth 14,000'
ALL Section 8, T31N-R10W
639.78 acres, more or less
San Juan County, New Mexico

Gentlemen:

Burlington Resources Oil & Gas Company (Burlington) proposed to drill and complete the captioned well in the Pennsylvanian formation. The approximate location is 1540' FSL, 935' FEL (NE/SE) Section 8, T31N-R10W, with a proposed depth of 14,000'. Attached for your consideration and approval is one (1) copy of our Well Cost Estimate to drill and complete the subject well for \$2,316,973.00. Our records indicate the ownership of the well and AFE share to be as follows:

| <u>Company</u> | <u>GW</u> | <u>AFE Share</u> |
|---|--------------------|-----------------------|
| Burlington | 9.310450% | \$ 215,721.00 |
| Conoco Inc. | 9.310450% | \$ 215,720.00 |
| Amoco Production Company | 68.073400% | \$1,577,242.00 |
| Total Minatome Corp. | 4.652200% | \$ 107,790.00 |
| Cross Timbers Oil Co., LP | 3.374700% | \$ 78,191.00 |
| Lee Wayne Moore and JoAnn Montgomery Moore, Trustees | 2.251700% | \$ 52,171.00 |
| George William Umbach | 1.416600% | \$ 32,822.00 |
| Robert Warren Umbach | 1.416600% | \$ 32,822.00 |
| Lowell White Family Trust | .048460% | \$ 1,123.00 |
| Walter A. Steele | .048460% | \$ 1,123.00 |
| Estate of G. W. Hannett | .040380% | \$ 936.00 |
| T. G. Cornish | .032300% | \$ 748.00 |
| Patricia Hueter | .008100% | \$ 188.00 |
| Mary Emily Voller | .008100% | \$ 188.00 |
| A. T. Hannett | .008100% | \$ 188.00 |
| | <u>100.000000%</u> | <u>\$2,316.973.00</u> |

Working Interest Owners
April 22, 1997
Page 2

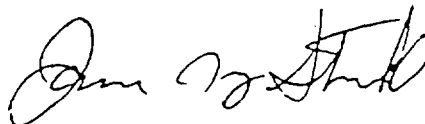
An Operating Agreement is enclosed for your review and approval.

If you wish to participate in the drilling of the above referenced well, please verify your interest and return the following within thirty (30) days to the undersigned:

1. One (1) executed copy of this letter
2. One (1) executed copy of the Well Cost Estimate
3. One (1) executed signature page for the Operating Agreement dated April 1, 1997

Your prompt attention to this proposal is requested as we plan to begin operations in the near future. Please advise in writing if you do not wish to participate.

Very truly yours,



James R. J. Strickler, CPL
Senior Staff Landman
(505) 326-9756

JRS:ll

The undersigned hereby elects this 23 day of MAY, 1997, to participate in ~~and pay its proportionate share of the well costs for the drilling and completion of the Marcotte #2, as correctly shown above,~~ under the terms of the Farmout and Operating Agreement dated November 27, 1951, between Brookhaven Oil Company and San Juan Production Company as amended and supplemented.

COMPANY/OWNER: TOTAL MINATOMI CORPORATION

BY: 

TITLE: Vice President 

Meridian Oil Inc.
Facilities Estimate

Well Name: Marcotte #2
Location: Sec 8, T31N R10W
AFE Type: 01-Exploration
Formation: Pennsylvanian

Prepared By: C.E. Lane *CRZ*
Date: 3/17/97
Approved By: _____
Date: _____

Tangible Costs

| Account Number | Estimated Days: | Total Estimated Cost |
|---------------------|---|----------------------------|
| 247 | | |
| 02 | Labor-Contract. Roustabout, Consultants | 15,000 |
| 03 | Company Vehicles | 0 |
| 08 | Location, Roads & Canals | 0 |
| 12 | Overhead | 0 |
| 17 | Damages, Property Losses | 0 |
| 20 | Equip. Coating and Insulation | 0 |
| 26 | SWD Filtering | 0 |
| 27 | Separators | 0 |
| 28 | Gas Sweetening | 0 |
| 29 | Pumping Units | 0 |
| 31 | Prime Mover | 0 |
| 32 | Tanks | 9,500 |
| 33 | Metering Equipment | 15,000 |
| 34 | Flow Line | 0 |
| 35 | Compressors | 0 |
| 36 | Building | 0 |
| 39 | Flowlines, Piping, Valves & Fittings | 11,000 |
| 43 | Safety | 0 |
| 44 | Technical Contract Svc. | 0 |
| 47 | Rental Compressors & Maintenance | 0 |
| 48 | Rental Equipment | 0 |
| 49 | Cathodic Protection | 12,000 |
| 50 | Right Of Way | 2,500 |
| 51 | Minor Pipelines | 0 |
| 53 | Surface Pumps | 0 |
| 54 | Electrical Accessories | 0 |
| 55 | Miscellaneous-Facility Expense | 0 |
| 57 | Pulling Unit Costs | 0 |
| 60 | Oper. Owned Equip/Facilities | 0 |
| 62 | Env. Compliance-Assessment | 0 |
| 63 | Env. Compliance (Remediation) | 0 |
| 68 | Direct Labor | 0 |
| 69 | Benefits | 0 |
| 70 | Payroll Taxes and Insurance | 0 |
| 72 | Overhead (Contingency 5%) | 0 |
| 73 | Freight/Transportation | 0 |
| 81 | Tubing | 0 |
| 82 | Rods | 0 |
| 83 | Downhole Pumps | 0 |
| 84 | Alternative Artificial Lift Equip. | 0 |
| 86 | Convent Artificial Lift Wellhead Equip. | 0 |
| 88 | Communication Systems | 0 |
| 95 | Employee Meals | 0 |
| 96 | Gas Dehydrator | 54,000 |
| Total Facility Cost | | 119,000 |

Meridian Oil Inc.
Completion Estimate

Well Name: Marquette #2
Location: 31N-10W-See 8
AFE Type: New Drill - 01
Formation: Pennsylvanian

Prepared By: C. E. Lane
Date: 3/17/97
Approved By: _____
Date: _____

C E Lane

Intangible Costs

| Account Number | Estimated Days: 15 | Total Estimated Cost |
|-----------------------|---|----------------------|
| 219 | | |
| C2 | Location, Roads or Canals | \$100 |
| C3 | Construction and Maintenance | \$5,000 |
| C4 | Surface Restoration | \$9,000 |
| C5 | Move-in, Move-out | \$6,250 |
| C6 | Fees of Contractor - Footage | \$0 |
| C7 | Fees of Contractor - Daywork | \$39,950 |
| C8 | Fire and Safety Equip. | \$8,500 |
| C9 | Drilling Fluid System - Liquids | |
| C0 | Gas and Air Drilling | \$25,000 |
| C1 | | |
| C2 | Specialty Fluids and Chemicals | \$500 |
| C4 | Salt/Brine Water | \$2,500 |
| C5 | Onsite Disposal Svc. | |
| C6 | Fresh Water | \$15,000 |
| C7 | Bits | \$750 |
| C8 | Primary Cement & Svc's | \$0 |
| C9 | Remedial Cementing | \$2,000 |
| C3 | Fuel / Electricity | \$2,250 |
| C4 | BOP & Wellhead Rentals(Surface) | \$6,000 |
| C5 | Drill Work String Rentals | \$1,500 |
| C6 | Fishing Tool Rentals | \$0 |
| C7 | Tank Rentals | \$4,000 |
| C8 | Other Rental | \$3,500 |
| C9 | Transportation | \$2,250 |
| C0 | Offsite Disposal Service | |
| C3 | Tubular Inspection | \$1,000 |
| C4 | Cased Hole Services | \$30,000 |
| C6 | Production Testing | |
| C7 | Swabbing & Coiled Tubing | |
| C8 | Stimulation | \$10,000 |
| C9 | Fracturing | \$50,000 |
| C0 | Casing Crews and Laydown | |
| C1 | Gravel Pack/Sand Control | |
| C2 | BOP Testing | |
| C3 | Consultants | \$10,650 |
| C4 | Technical Contract Svc. | |
| C5 | Roustabout Labor | \$3,000 |
| C6 | Miscellaneous | \$450 |
| C8 | Communication Systems | \$500 |
| C9 | Packer Rental | \$2,200 |
| C0 | Pumping Charges | |
| C6 | Oper. Owned Equip/Facilities | |
| C2 | Env. Compliance-Assessment | |
| C3 | Env. Compliance (Remediation) | |
| C5 | Company Vehicles | |
| C8 | Direct Labor | |
| C9 | Benefits | |
| C0 | Payroll Taxes and Insurance | |
| C2 | Company Supervisor | |
| C4 | Employee Expense | |
| C9 | Employee Meals | |
| | Total Intangibles | \$261,850 |
| | Tangible Costs | |
| C0 | Casing | \$0 |
| C1 | Tubing and Tiebacks | \$72,223 |
| C2 | Packers and Bridge Plugs | \$25,000 |
| C4 | Casing/Liner Equipment | |
| C5 | Tubing Equipment | \$3,000 |
| C6 | Wellhead Equipment & Tree Tbg spool, flange, and tree | \$45,000 |
| | Total Tangibles | \$145,223 |
| Total Completion Cost | | \$407,073 |

EL

~ VICTIMIST

Paris - FBI
was done 6/2/97 see

Burlington Resources, Inc.
3535 East 30th St.
P.O. Box 4289
Farmington, New Mexico 87499-4289
Attention: James J. Strickler

Gentlemen:

Enclosed is one fully executed copy of your participation letter dated April 29, 1997 on behalf of TMC.

Sincerely,


Deborah J. Gilchrist
Landman

NMOCD Case No. 11808
NMOCD Case No. 11809
Exhibit No. 7
Submitted by: Total Minatome Corp.
July 10, 1997



SAN JUAN DIVISION

April 29, 1997

CERTIFIED MAIL-RETURN RECEIPT

To Working Interest Owners
(see attached Exhibit "A")

RE: Scott # 24 Well
Pennsylvanian formation
Proposed depth 14,000'
ALL Section 9, T31N-R10W
636.01 acres, more or less
San Juan County, New Mexico

Gentlemen:

Burlington Resources Oil & Gas Company (Burlington) proposed to drill and complete the captioned well in the Pennsylvanian formation at a legal location in the NW/4 (SE/4 NW/4) of Section 9, T31N-R10W, with a proposed depth of 14,000'. Attached for your consideration and approval is one (1) copy of our Well Cost Estimate to drill and complete the subject well for \$2,316,973.00.

The ownership schedule for the subject well is listed on the attached Exhibit "A".

An Operating Agreement is enclosed for your review and approval.

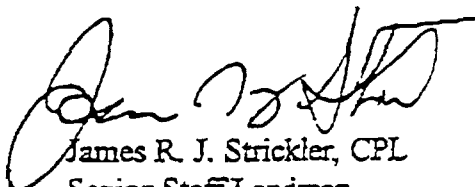
If you wish to participate in the drilling of the above referenced well, please verify your interest and return the following within thirty (30) days to the undersigned:

1. One (1) executed copy of this letter
2. One (1) executed copy of the Well Cost Estimate
3. One (1) executed signature page for the Operating Agreement dated April 1, 1997.

Scott #24 Well
April 29, 1997
Page 2

Your prompt attention to this proposal is requested as we plan to begin operations in the near future. Please advise in writing if you do not wish to participate.

Very truly yours,


James R. J. Strickler, CPL
Senior Staff Landman
(505) 326-9756

JRS:dg
scott24

The undersigned hereby elects this 30 day of MAY, 1997, to participate in and pay its proportionate share of the actual well costs for the drilling and completion of the Scott #24, as correctly shown on Exhibit "A". subject to the terms of the November 27, 1951 Farmout and Operating Agreement by and between Brookhaven Oil Company and San Juan Production Company as amended and supplemented.

COMPANY/OWNER: _____

BY: _____

TITLE: _____

BURLINGTON RESOURCES

May 22, 1997

RECEIVED

MAY 27 1997

SAN JUAN DIVISION

VIA FACSIMILE

LAND ADMINISTRATION

Total Minatome Corporation
Attn: Ms. Deborah Gilchrist, Land Manager
2 Houston Center, Suite 2000
P.O. Box 4326
Houston, TX 77210-4326

RE: GLA-46 - AMENDMENT
MARCOTTE 2
SECTION 8, T32N, R10W
ARCH ROCK PROSPECT
SAN JUAN COUNTY, NEW MEXICO

Dear Ms. Gilchrist:

This is in reference to Burlington Resources Oil & Gas Company's (Burlington) acreage support request letter to Total Minatome Corporation (Total), dated February 7, 1997, and GLA-46 amendment letter dated April 1, 1997. So far, GLA-46 owners, with the exception of Total, have agreed to support the subject well by either farming out their interest or participating and executing our proposed JOA. Burlington requests that Total proceed along with the other GLA-46 owners to either:

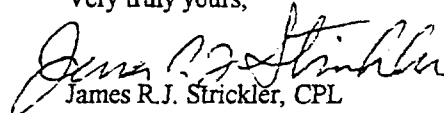
1. Participate in the subject well and execute our proposed JOA submitted to you on April 1, 1997, said JOA shall be limited in depths below the Dakota formation, or
2. Farmout your interest in the Arch Rock prospect as outlined in Exhibit "A" to the April 1, 1997 letter.

Historically, it is clear the November 27, 1951, farmout/operating agreement, known as GLA-46, covered the Pictured Cliffs and Mesaverde formations. All other formations were handled by amendment on a Ad Hoc basis. This agreement was never intended to cover deep gas exploration as indicated by past experience. The agreement incidentally has been amended over thirty (30) times to illustrate this point. Burlington and the other GLA-46 owners consistent with a spirit of cooperation and historic practice have amended the GLA accordingly.

Burlington does not agree with your interpretation of the agreement which allows you to be carried or effectively bring down the project on the subject well. A reasonable industry participation is evidenced by the 81.25% of the GLA-46 owners who have entered the amendment to the agreement. Burlington has worked diligently for over one year in putting together this extremely complex land area to drill this well. We hope that your management will support us in the drilling of a very speculative and expensive project by agreeing to either options one or two above.

We look forward to hearing from you soon, since time is of the essence to go forward with the drilling of this well. If you should have any questions, please call me at (505) 326-9756.

Very truly yours,


James R.J. Strickler, CPL
Senior Staff Landman

JRS:mt
Total_2.doc

NMOCD Case No. 11808
NMOCD Case No. 11809
Exhibit No. 8
Submitted by: Total Minatome Corp.
July 10, 1997

BURLINGTON RESOURCES

SAN JUAN DIVISION

April 1, 1997

Total Minatome Corporation
Attn: Ms. Deborah Gilchrist, Land Manager
2 Houston Center, Suite 2000
P.O. Box 4326
Houston, TX 77210-4326

E C E I V E D

APR 1 1997

LAND ADMINISTRATION

**RE: GLA-46
Amendment
San Juan County, New Mexico**

Dear Ms. Gilchrist:

On November 27, 1951, Brookhaven Oil Company and San Juan Production Company entered into an Operating Agreement pertaining to certain lands in San Juan County, New Mexico. Said Agreement, as amended, provided for the drilling of Mesaverde wells by San Juan Production Company and the recovery of Brookhaven's share of the cost of drilling such wells subject to the limitations and in accordance with the provisions of said Agreement.

Total Minatome Corporation (Total) in consideration for Burlington Resources Oil & Gas Company (Burlington) showing Total proprietary geology, 2D and 3D seismic for the purpose of exploring and drilling for a deep gas Pennsylvanian well located in the SE/4 of Section 8, T31N, R10W, (Arch Rock Prospect) San Juan County, New Mexico, agrees to amend the November 27, 1951 Operating Agreement. Total and Burlington shall set a mutually agreeable time and place to show Total management the Arch Rock prospect geology and seismic which will include a data and well package, on or before April 19, 1997. Total, after said prospect review shall have a fifteen (15) day election period to either 1) participate in the drilling and completion of a Pennsylvanian well in Section 8, T31N, R10W, San Juan County, New Mexico, or 2) Farmout its interest in the Arch Rock Prospect on those certain terms and conditions outlined on Exhibit "A" to this Letter Agreement.

By this Letter Total Minatome Corporation as successors in interest to Lear Petroleum Partners Operating Company, L.P. (formerly Brookhaven Oil Company) and Burlington Resources Oil & Gas Company (formerly El Paso Gas Company) as successor in interest to San Juan Production Company, do hereby evidence the Amendment to the Operating Agreement dated November 27, 1951 as amended to provide for the following:

NMOCD Case No. 11808

NMOCD Case No. 11809

Exhibit No. 9

Submitted by: Total Minatome Corp.

Total Minatome
April 1, 1997
Page 2

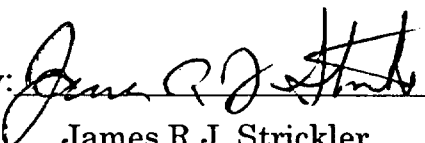
Total agrees to amend the Operating Agreement dated November 27, 1951, by deleting paragraphs 5-14, Exhibit "C" (Accounting Procedure) and the August 8, 1986 Letter Agreement (Gas Balancing Agreement) in its entirety, and replacing with the attached Exhibit "B", AAPL Model Form 610 1982 Operating Agreement. Said Operating Agreement provides among other things with the following:

1. 400% Non-Consent Penalty
2. \$25,000 Limitation of Expenditure
3. 1984 COPAS Accounting Procedure
4. The Preferential Right to Purchase Provision deleted
5. Gas Balancing Agreement.
6. Effective Date, April 1, 1997

Please evidence your acceptance of the foregoing by signing and returning a copy of this letter to the undersigned within fifteen (15) days of your receipt.

Yours very truly,

Burlington Resources Oil & Gas Company

By: 

James R.J. Strickler
Senior Staff Landman

JRS/dg
amend_27

Agreed to and Accepted this _____ day of _____, 1997.

TOTAL MINATOME CORPORATION

By: _____

Title: _____

EXHIBIT "A"

**TOTAL MINATOME CORPORATION
ARCH ROCK PROSPECT**

| | GROSS ACRES | NET ACRES |
|--|---------------------------|----------------------|
| <u>Township 31 North, Range 10 West, N.M.P.M.</u> | | |
| Section 3: Lot 4 North and West of River | 1.00 | 0.429 |
| Lot 4 South and East of River | 39.00 | 6.673 |
| Lots 5 thru 9, S/2 NW/4 | 259.51 | 48.658 |
| Section 4: Lot 5, E/2 SW/4, | 118.64 | 22.245 |
| NW/4 SW/4 and Part SW/4 NW/4 | 50.00 | 8.856 |
| Section 8: Lots 1,2,4 and 5 | 158.74 | 29.764 |
| Section 9: Lots 1,2, NE/4 NW/4 | 120.55 | 22.603 |
| Section 13: Lots 3 and 4 | 69.21 | 11.537 |
| Section 14: Lot 10, | 40.51 | 6.753 |
| SW/4 NW/4, NW/4 SW/4, E/2SW/4 | 160.00 | 30.000 |
| Section 15: SE/4 NW/4 | 40.00 | 7.500 |
| Section 16: NW/4 NE/4, SE/4 NE/4, SE/4 NW/4 | 280.00 | 47.836 |
| NW/4 SW/4, SE/4 SW/4, NW/4 SE/4, | | |
| SE/4 SE/4, | | |
| SW/4 SE/4, | | |
| SW/4 SE/4 | 40.00 | 40.00 |
| Section 17: Lots 1 thru 10 | 404.63 | 75.868 |
| Section 23: NW/4 NE/4, | 40.00 | 14.835 |
| NE/4 NW/4, | 40.00 | 6.834 |
| NE/4 SE/4 | 40.00 | 7.500 |
| Section 24: NW/4 SW/4 | 40.00 | 7.500 |
| <u>Township 31 North, Range 11 West, N.M.P.M.</u> | | |
| Section 2: SE/4 SW/4 | 40.00 | 10.000 |
| <u>Township 32 North, Range 10 West, N.M.P.M.</u> | | |
| Section 31: Lots 5,6,11,12,13,14,19 and 20 | 318.46 | 59.711 |
| San Juan County, New Mexico | | |
| Total Gross Acres | 2,300.25 | |
| | Gross Acres, More or Less | |
| Total Net Acres | 429.102 | |
| | Net Acres, More or Less | |

*Insofar and only insofar as said lands and leases covers depths below the base of the Mesaverde Formation.

*It is the intent of Total Minatome Corporation (Total) to Farmout all their Leasehold, Right, Title and interest of Total's in the described Lands and Leases in this Exhibit "A", whether such Exhibit "A" fails to include or inaccurately sets forth the description of Lands or interest under the subject Lands and Leases.

MV - 36002

RECEIVED
NOS Format

PICE OF STAKING
(Not to be used in place of
Application for Permit to Drill Form 3160-3)

97 FEB 21 PM 1:28

Lease Number
SF-078604

070 FARMINGTON, NM

If Indian, Allottee or
Tribe Name

1. Oil Well () Gas Well (X) Other ()
Specify

2. Name of Operator
MERIDIAN OIL INC.

8. Unit Agreement Name

3. Name of Specific Contact Person
Peggy Bradfield

9. Farm or Lease Name
Marcotte

4. Address & Phone No. of Operator or Agent
PO Box 4289, Farmington, NM 87499 (505) 326-9727

10. Well No.
2

5. Surface Location of Well
SE/4

11. Field or Wildcat Name

Attach a) Sketch showing road entry onto
pad, pad dimensions, and reserve
pit.
b) Topographical or other accept-
able map showing location, access
road, and leases boundaries.


12. Sec., T--N, R--W
Sec 8, T-31-N, R-10-W

15. Formation Objective

16. Estimated Well
Depth

13. County 14. State
San Juan NM

17. Additional Information (as appropriate; must include surface owners name, address
and telephone number) - Bureau of Land Management

18. Signed  Title: Regulatory Admin. Date: 02-21-97

Note: Upon receipt of this Notice, the Bureau of Land Management (BLM) will schedule the date of the on
predrill inspection and notify you accordingly. The location must be staked and access road must
flagged prior to the onsite.

Operators must consider the following prior to the onsite:

- a) H₂S potential
- b) Cultural Resources (archaeology)
- c) Federal Right of Way or Special Use Permit

Special lease stipulations, as applicable, are available elsewhere in this office and will be made
available upon request.

FARMINGTON COPY

NMOCD Case No. 11808

NMOCD Case No. 11809

Exhibit No. 11

Submitted by: Total Minatome Corp.

July 10, 1997

Project Location: Numerous wellties within the Ratherford Unit

EA Log # NM-070-97-3112

Lease/Serial # SF-078604

File Code _____

FINDING OF NO SIGNIFICANT IMPACT AND DECISION OF RECORD

Project: Deen Drilling Test of the Pennsylvania/Mississippian Formations

Applicant: Burlington Resources

Address: P.O. Box 4289 Farmington, NM 87499

BLM Office Farmington District Office Phone # (505) 599-8900

FINDING OF NO SIGNIFICANT IMPACT

Impact identification and analysis of approving the project and/or alternative(s) have been completed. A complete and comprehensive environmental analysis has been conducted. Completion of the environmental assessment, and the implementation of required stipulations and/or mitigating measures will result in (projected) impacts to resource values being restored to pre-project conditions and/or acceptable post-project standards. Further analysis in an environmental impact statement is not needed at this time. Prior to full field development, an environmental impact statement may be required.

RECORD OF DECISION

DECISION: Based upon the analysis, it is my decision to approve the proposed action for Burlington Resources to build a well pad, drill and complete the Marcotte # 2 gas well. This decision incorporates mitigation and stipulations as addressed in the Environmental Analysis which will mitigate unavoidable long and short term impacts of this action.

RATIONAL: This determination is made considering the following factors:

1. The effects on the human environment have not been controversial in the past and the public has not voiced opposition to new wells being drilled in this area. There is a high probability of encountering H2S during the drilling and completion of the well, which will be mitigated according to Oil and Gas Order #6.
2. Cumulative or secondary effects on soil erosion, cultural resources, wildlife resources and habitat, air quality, and visual impacts were considered and found acceptable with mitigation. Partial reclamation will occur during the production phase of this well. If the well proves to be productive, full reclamation will occur after final abandonment.
3. Federal and State of New Mexico Threatened and Endangered species have been considered. There are no known Federal or State listed species in the area of the proposed action.
4. A cultural and historic resource level 3 inventory has been conducted on the area that was identified as the proposed action. Impacts to cultural and historic resources will be avoided and/or mitigated. This will be done under the direction of the Farmington District's Cultural Resources Staff.

5. The scope of this action, alternatives, and impacts have been considered in relation to 40 CFR 1508.25. The direct, indirect, and cumulative impacts have been considered in relation to 40 CFR 1508.8 and will not affect the quality of the human environment.

Reviewed by Don Ellsworth Date 6/2/97
Senior Technical Specialist, Environmental Compliance

Approved by John K. Dunning Date 4/3/97
Associate DM for L&RR

FIELD INSPECTION SHEET

Operator Burlington
 Well Name & # W-2
 Lease # SF-078604
 OIL GAS CO2 WC DEV
 Formation PCMA
 Pool 14000 Depth 14000
 Circulation Med. (mud) Gas Air)
 Road Length N/A
 Width Cut
 NEW REHAB W/W P/L
 New Road on lease length
 New Road off lease R/W length
 Existing Road R/W Needed?
 Length
 Inspected P/L on lease: Yes (No)
 Length Width
 SURFACE UNDERGROUND
 HIGH LOW pressure
 Inspected off Lease/Unit Pipeline: Yes No
 Length Width
 Surface Ownership B/M
 Topography Rolling hills
 Existing Vegetation PI, Sage
galleta
 Soil clay
 Slope North and west
 Drainage North and west
 Land Use Grazing & minerals
 Special Stipulations:

Date 3-2-97
 By DE
 CER 97-291
 County, State San Juan NM
 Location 1540 FSL 935 FEL
 S. 8 T. 31 N. R. 10 W.
 Location moved? Yes (No)
 From: To:
 Laydown S 22° E Pit East
 Pad Size 400' x 310'
 Paint Green Seed II
 Start Date 5/1/97 Drill Time 2nd
 CUT 8' DIRECTION SE
 FILL 23' DIRECTION East
 WATER SOURCE Graves Affiliated
 DWELLING None
 WELL Scott #14

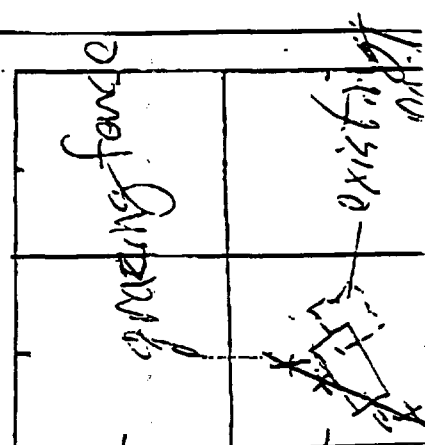
UTILITY ROW
 WATER
 APCH PALEO
 RMP T&E
 SMA

NAMES OF INDIVIDUALS ON JOINT INSPECTION
Mike Fitzgerald - Eco sphere

Compact in 1 foot lifts for
 fill material
 Stockpile trees to cut and chip,
 use for fill rehab, terrace slope.
 Re-route fence
 Construct pit, then determine how
 to seal bottom
 Barricade existing well
 Stockpile six inches of top soil
 for rehab

48 hour notification for
 construction

check w/ Terry for
 storm water
 discharge
 OK



BLM CONDITIONS OF APPROVALOperator Burlington Resources O&G Co.Well Name 2 MarcotteLegal Location 1540' FSL/ 935' FELSec. 8 T. 31 N. R. 10 W.Lease Number SF-078604Field Inspection Date 3/3/97

The following conditions of approval will apply to this well unless a particular Surface Managing Agency or private surface owner has supplied to BLM and the operator a contradictory environmental stipulation. The failure of the operator to comply with these requirements may result in the assessment of liquidated damages or penalties pursuant to 43 CFR 3163.1 or 3163.2. A copy of these conditions of approval shall be present on the location during construction, drilling and reclamation activity.

An agreement between operator and fee land owner will take precedence over BLM surface stipulations unless (In reference to 43 CFR Part 3160) 1) BLM determines that the operator's actions will affect adjacent Federal or Indian surface, or 2) the operator does not maintain well area and lease premises in a workmanlike manner with due regard for safety, conservation and appearance, or 3) no such agreement exists, or 4) in the event of well abandonment, minimal Federal restoration requirements will be required.

1. Upgrade existing access road leading to proposed well pad.
2. Cut and chip all trees to be used as mulch for the fill slope rehab.
3. The reserve pit will be constructed then it will be determined how to line this pit.
4. The allotment boundary fence will be rerouted around the pad on the west side, this will be constructed on the top of the fill slope.
5. The operator or his contractor will contact the BLM Farmington District Office, Environmental Compliance Staff, at (505) 599-8900, approximately 48 hours prior to construction activities.
6. The top 6 inches of soil material will be stripped and stockpiled on the *north side* of the location for reserve pit reclamation.
7. Pits and/or pad will be constructed long and narrow, or to conform to natural contour of terrain, so as to *avoid the hill side on the east* and the hazard of pit failure.
8. The final cut slope shall not exceed a *3:1 ratio*. The final fill slope shall not exceed a *2:1 ratio*. *The fill slope on the west side will be terraced and compacted in one foot lifts*. To obtain this ratio, pits and slopes shall be backsloped into the pad upon completion of drilling and prior to setting production equipment. Construction slopes can be much steeper during drilling, but will be contoured to the above final slopes upon reclamation.
9. All above ground structures shall be painted to blend with the natural color of the landscape. The paint used shall be: *Federal 595a-34127 (Juniper Green)*.

LOCATION AND ACCESS ROAD

1. Well area and lease premises will be maintained in a workmanlike manner with due regard to safety, conservation and appearance. All liquid waste, completion fluids and drilling products associated

#2 Marcotte Gas Well/SF-078604

2

with oil and gas operations will be contained and then buried in place, or removed and deposited in an approved disposal site.

2. Surface disturbance and vehicular traffic will be limited to the approved location and approved access road.

3. Mud pits and blow pits will be constructed so as not to leak, break or allow discharge of liquids or produced solids. At least half of the capacity of the reserve pit must be in cut. The top of the outside wall of reserve pit should be smoothed-off with a minimum of one blade width. The pit should have adequate capacity to maintain 2 feet of free board. Pits are not to be located in natural drainages. Pit walls are to be "walked down" by a crawler type tractor following construction and prior to usage. Any plastic material used to line pits must be removed to below-ground level before pits are covered. The final grade of reserve pit (after reclamation) shall allow for drainage away from pit area.

4. All unguarded pits (reserve/production/blow pits) containing liquids will be fenced with woven wire. Drilling pits will be fenced on three sides and once the rig leaves location, the fourth side will be fenced. All fencing must be a legal fence in accordance with New Mexico State Law. Liquids in pits will be allowed to evaporate, or be properly disposed of, before pits are filled and recontoured. (This office will be notified 24 hours prior to fluid hauling). Under no circumstances will pits be cut and drained. Aeration of pit fluids must be confined within pit area. Upon completion of the well the reserve pit will be covered with screening or netting and remained covered until the pit is reclaimed. All production pits 16 feet in diameter or larger will be covered with screening or netting.

5. No gravel or other related minerals from new or existing pits on Federal land will be used in construction of roads, well sites, etc., without prior approval from the Surface Managing Agency.

6. Berms or firewalls will be constructed around all storage facilities sufficient in size to contain the storage capacity of tanks, or the combined capacity of tanks if a rupture could drain more than one tank. Berm walls will be compacted with appropriate equipment to assure proper construction.

7. All roads on public land must be maintained in good passable condition.

8. Use of pesticides and herbicides shall comply with the applicable Federal and State laws. Pesticides and herbicides shall be used only in accordance with their registered uses and within limitations imposed by the Secretary of the Interior. Prior to the use of pesticides, Holder shall obtain from the Authorized Officer (AO) written approval of a plan showing the type and quantity of material to be used, pest(s) to be controlled, method of application, location of storage and disposal of containers, and any other information deemed necessary by the AO. Emergency use of pesticides shall be approved in writing by the AO prior to use.

9. Holder shall be responsible for weed control on disturbed areas within the limits of the well pad and associated road. Holder is responsible for consultation with the AO and/or local authorities for acceptable weed control methods within limits imposed in the conditions of approval.

II. CULTURAL RESOURCES (ARCHAEOLOGY)

1. **DISCOVERY OF CULTURAL RESOURCES IN THE ABSENCE OF MONITORING:** If, in its operations, operator/holder discovers any previously unidentified historic or prehistoric cultural resources, then work in the vicinity of the discovery will be suspended and the discovery promptly reported to BLM District Manager. BLM will then specify what action is to be taken. If there is an approved "discovery

plan" in place for the project, then the plan will be executed. In the absence of an approved plan, BLM will evaluate the significance of the discovery and consult with the State Historic Preservation Officer in accordance with 36 CFR Section 800.11. Minor recordation, stabilization, or data recovery may be performed by BLM or a permitted cultural resources consultant. If warranted, more extensive treatment by a permitted cultural resources consultant may be required of the *operator/holder* prior to allowing the project to proceed. Further damage to significant cultural resources will not be allowed until any required treatment is completed. Failure to notify the BLM about a discovery may result in civil or criminal penalties in accordance with the Archeological Resources Protection Act of 1979 (as amended).

2. **DISCOVERY OF CULTURAL RESOURCES DURING MONITORING:** If monitoring confirms the presence of previously unidentified cultural resources, then work in the vicinity of the discovery will be suspended and the monitor will promptly report the discovery to BLM District Manager. BLM will then specify what action is to be taken. If there is an approved "discovery plan" in place for the project, then the plan will be executed. In the absence of an approved plan, BLM will evaluate the significance of the discovery and consult with State Historic Preservation Officer in accordance with 36 CFR Section 800.11. Minor recordation, stabilization, or data recovery may be performed by BLM or a permitted cultural resources consultant. If warranted, more extensive treatment by a permitted cultural resources consultant may be required of *operator/holder* prior to allowing the project to proceed. Further damage to significant cultural resources will not be allowed until any required treatment is completed.

3. **DAMAGE TO SITES:** If, in its operations, *operator/holder* damages, or is found to have damaged any previously documented or undocumented historic or prehistoric cultural resources, excluding "discoveries" as noted above, the *operator/holder* agrees at his/her expense to have a permitted cultural resources consultant prepare and have executed a BLM approved data recovery plan. Damage to cultural resources may result in civil or criminal penalties in accordance with the Archeological Resources Protection Act of 1979 (as amended).

III. RESEEDING AND ABANDONMENT

SEED MIX NO. 2--BLM

| | |
|---|-------|
| Crested Wheatgrass(<u>Agropyron desertorum</u>) | 3 lbs |
| Fourwing Saltbush (dewinged)(<u>Atriplex canescens</u>) | 2 lbs |
| Russian Wildrye (<u>Elymus junceus</u>) | 2 lbs |
| Indian Ricegrass(<u>Oryzopsis hymenoides</u>) | 2 lbs |
| Western Wheatgrass(<u>Agropyron smithii</u>) | 2 lbs |

Species shall be planted in pounds of pure live seed per acre:

Present Pure Live Seed (PLS) = Purity X Germination/100

Two lots of seed can be compared on the basis of PLS as follows:

| <u>Source No. One (poor quality)</u> | | <u>Source No. two (better quality)</u> | |
|---|------------|---|------------|
| Purity | 50 percent | Purity | 80 percent |
| Germination | 40 percent | Germination | 63 percent |
| Percent PLS | 20 percent | Percent PLS | 50 percent |
| 5 lb. bulk seed required to make 1 lb. PLS. | | 2 lb. bulk seed required to make 1 lb. PLS. | |

The seed mixture used must be *certified*. There shall be NO primary or secondary noxious weeds in the seed mixture.

Seed labels from each bag shall be available for inspection while seeding is being accomplished.

Seeding shall be accomplished between July 1 and September 15 (later date may be extended on a case-by-case basis with Authorized Officer approval). Seeding shall be repeated if a satisfactory stand is not obtained as determined by the Authorized Officer upon evaluation after the second growing season.

Compacted areas shall be ripped to a depth of *12 inches* and disked to a depth of six inches before seeding. Seed with a disk-type drill with two boxes for various seed sizes. Drill rows shall be eight to ten inches apart. Seed shall be planted at not less than one-half inch deep or more than one inch deep. Seeder shall be followed with a drag, packer, or roller to ensure uniform coverage of the seed, and adequate compaction. Drilling shall be done on the contour where possible, not up and down the slope.

Where slopes are too steep for contour drilling a "cyclone" hand seeder or similar broadcast seeder shall be used. Seed shall then be covered to the depth described above by whatever means is practical, i.e. hand raked. If the seed is not covered, the prescribed seed mixture amount (pounds/acre/PLS) will be doubled.

If, upon abandonment of wells, the retention of access road is not considered necessary for the management and multiple use of the natural resources, it will be ripped a minimum of 12" in depth. After ripping, water bars will be installed. All ripped surfaces are to be protected from vehicular travel by construction of a dead end ditch and earthen barricade at the entrance to these ripped areas. (Reseeding of affected areas may be required.)

1/93

BLM REPORT NO: 97(III) 071F
JOB CODE: 1310UNITED STATES
DEPARTMENT OF THE INTERIOR
FARMINGTON DISTRICTRECORD OF REVIEW - CULTURAL RESOURCE REPORT COVER SHEET(The National Historic Preservation Act of 1966, as amended)
(The National Environmental Policy Act of 1969, as amended)
(The Federal Land Policy and Management Act of 1976)1. Description of Report:

Date of Inventory 2/16/97 Institution Arboles
 Date of Report 2/21/97 Institution Ref. # 1037
 Date Received by BLM 6/3/97 Antiquities Permit # 97-2920-96-G
 Author John Kershner Project Sponsor Burlington

Undertaking (list each action with T, R, Sec., Map, report recommendations, etc.)

Marcott #2Cedar HillSec 8, T31N R10W1540 FSL 935 FELArea Surveyed: 620 x 700'No cultural resourcesReport Summary:

Acres Inventoried
 Sites Recorded
 Prev. Recorded Sites
 Sites Avoided
 Sites Treated

BLM Land

10
 /
 /
 /
 /

Other

/
 /
 /
 /
 /

Total

10
 /
 /
 /
 /

1/93

BLM Report No. 97(111) 021E

2. Results of Review: Reviewer: Capeland
 Field Check: Date _____ Results: _____

Date Accepted by BLM 6/3/97 Date Not Accepted by BLM _____
 Date Revisions Accepted _____ Date Recommendations Changed _____

3. Consultation with Multiple Use Staff

Specialist _____ Date _____

4. Consultation with the State Historic Preservation Officer

SHPO Comments: _____

5. Action Summary

Stipulations attached ☐

PROCEED with action ☒

WITHOLD action until: ☐

applicant responds to changes ☐
 non-Federal lands are surveyed ☐
 SHPO comments are received ☐

APPLICANT abandoned project ☐

6. Capeland Date 6/3/97
 Archeologist

7. David A. ... Date 6/3/97
 District Manager

8. _____ Date _____
 State Historic Preservation Officer



United States Department of the Interior

BLM

FISH AND WILDLIFE SERVICE

97 APR 21 1997
New Mexico Ecological Services Field Office
2105 Osuna NE

070 FARMINGTON, NM
Albuquerque, New Mexico 87113
Phone: (505) 761-4525 Fax: (505) 761-4542

April 17, 1997

Cons. #2-22-97-I-214

Mike Fitzgerald, Projects Manager
Ecosphere Environmental Services, Inc.
5850 East Main Street, Suite B
Farmington, New Mexico 87402

Dear Mr. Fitzgerald:

This responds to your March 17, 1997, letter requesting a species list for the Burlington Resources proposed Marcotte #2 Natural Gas Well Pad Project in San Juan County, New Mexico. The proposed project involves construction of a well pad on 4.59 acres in an area adjacent to an existing well pad site, on public lands managed by the Bureau of Land Management, Farmington District. Due to staffing constraints, we are unable to provide a species list specific to your immediate project area. However, a list of endangered, threatened, and candidate species, and species of concern that may be found in San Juan County where the proposed project is located is enclosed. Under the Endangered Species Act (Act), it is the responsibility of the Federal action agency or its designated representative to determine whether the proposed action "may affect" any listed or proposed species.

Candidates are those species for which the U.S Fish and Wildlife Service (Service) has sufficient information on their biological status and threats to propose them as endangered or threatened, but for which issuance of a proposed rule is precluded by work on higher priority species. Species of concern include those for which further biological research and field study are needed to resolve their conservation status. Candidate species and species of concern have no legal protection under the Act and are included in this document for planning purposes only. However, the Service is concerned and would appreciate receiving any status information that is available or gathered on these species.

Wetlands, riparian vegetation, and the above listed species' sensitive habitats on or near the site should be protected. If adverse impacts cannot be avoided, we would appreciate discussing your project in more detail. We suggest you contact the New Mexico Department of Game and Fish and the New Mexico Energy, Minerals, and Natural Resources Department, Forestry and Resources Conservation Division for information concerning fish, wildlife, and plants of State concern.



United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Farmington District Office
1235 La Plata Highway
Farmington, New Mexico 87401

TAKE
PRIDE IN
AMERICA
IN REPLY REFER TO:
3162.3-1 (070)

Burlington Resources O&G Company
2 Marcotte
Santa Fe 078604
NE1/4SE1/4 Sec. 8, T. 31 N., R. 10 W.
San Juan County, New Mexico

Above Data Required on Well Sign

GENERAL REQUIREMENTS FOR OIL AND GAS OPERATIONS ON FEDERAL AND INDIAN LEASES

In addition to those requirements set forth in the laws, regulations and Onshore Orders, these requirements apply generally to all oil and gas operations on Federal and Indian leases. They apply specifically to the above-described well. Special requirements that apply and are effective for this well, if any, are check-marked in Section VII of these General Requirements. The failure of the operator to comply with these requirements and the filing of required reports will result in strict enforcement of 43 CFR 3163.1 or 3163.2.

I. GENERAL

- A. Full compliance with all applicable laws, regulations, and Onshore Orders, with the approved Permit to Drill, and with the approved Surface Use and Operations Plan is required. Lessees and/or operators are fully accountable for the actions of their contractors and subcontractors.
- B. Each well shall have a well sign in legible condition from spud date to final abandonment. The sign should show the operator's name, lease serial number, or unit name, well number, location of the well, and whether lease is Tribal or allotted, (see 43 CFR 3162.6(b)).
- C. A complete copy of the approved Application for Permit to Drill, along with any conditions of approval, shall be available to authorized personnel at the drill site whenever active drilling operations are under way.
- D. For Wildcat wells only, a drilling operations progress report is to be submitted, to the BLM-District Office, weekly from the spud date until the well is completed and the Well Completion Report (Form 3160-4) is filed. The report should be on 8 1/2 x 11 inch paper, and each page should identify the well by; operator's name, well number, location and lease number.
- E. As soon as practical, notice is required of all blowouts, fires and accidents involving life-threatening injuries or loss of life. (See NTL-3A).

F. Prior approval by the BLM-Authorized Officer (Drilling and Production Section) is required for variance from the approved drilling program and before commencing plugging operations, plug back work, casing repair work, corrective cementing operations, or suspending drilling operations indefinitely. Emergency approval may be obtained orally, but such approval is contingent upon filing of a notice of intent (on a Sundry Notice, Form 3160-5) within three business days (original and three copies on Federal leases and an original and four copies on Indian leases).

G. The Area Manager's Office (Inspection and Enforcement Section, phone number (505) 599-8907) is to be notified at least 24 hours in advance of any cementing or plugging operations so that a BLM representative may witness the operations.

H. Unless drilling operations are commenced within one year, approval of the Application for Permit to Drill will expire. A written request for a six month extension may be granted if submitted prior to expiration.

I. From the time drilling operations are initiated and until drilling operations are completed, a member of the drilling crew or the toolpusher shall maintain rig surveillance at all times, unless the well is secured with blowout preventers or cement plugs.

II. REPORTING REQUIREMENTS

A. For reporting purposes, all leases, communitization agreements or unit agreements are to be referenced by the numbers and prefixes affixed to the respective contract documents by the issuing agency at the time of issue.

B. The following reports shall be filed with the BLM-Authorized Officer within 30 days after the work is completed:

1. Original and three copies on Federal and Original and four copies on Indian leases of Sundry Notice (Form 3160-5), giving complete information concerning:

a. Setting of each string of casing. Show size and depth of hole, grade and weight of casing, depth set, depth of any and all cementing tools that are used, amount (in cubic feet) and types of cement used, whether cement circulated to surface and all cement tops in the casing annulus, casing test method and results, and the date work was done. Show spud date on first report submitted.

b. Intervals tested, perforated (include: size, number and location of perforations), acidized, or fractured; and results obtained. Show date work was done (a Sundry Notice is not required if a Completion Report is submitted within 30 days of the operation).

c. Subsequent Report of Abandonment, showing the manner in which the well was plugged, including depths where casing was cut and pulled, intervals (by depths) where cement plugs were placed, and dates of the operations.

2. Well Completion Report (Form 3160-4) will be submitted within 30 days after well has been completed.

a. Initial Bottom Hole Pressure (BHP) for the producing formations. Show the BHP on the completion report. The pressure may be: 1) measured with a bottom hole bomb, or; 2) calculated based on shut in surface pressures (minimum seven day buildup) and fluid level shot.

3. A cement evaluation log if cement is not circulated to surface.

III. DRILLER'S LOG

A. The following shall be entered in the daily driller's log: 1) Blowout preventer pressure tests, including test pressures and results. 2) Blowout preventer tests for proper functioning. 3) Blowout prevention drills conducted. 4) Casing run, including size, grade, weight, and depth set. 5) How pipe was cemented, including amount of cement, type, whether cement circulated to surface, location of cementing tools, etc.. 6) Waiting on cement time for each casing string. 7) Casing pressure tests after cementing, including test pressure and results and 8) Estimated amounts of oil and gas recovered and/or produced during drillstem tests.

IV. GAS FLARING

A. Gas produced from this well may not be vented or flared beyond an initial, authorized test period of * days or 50 MMcf following its (completion) (recompletion), whichever first occurs, without the prior, written approval of the authorized officer. Should gas be vented or flared without approval beyond the test period authorized above, you may be directed to shut-in the well until the gas can be captured or approval to continue venting or flaring as uneconomic is granted, and you shall be required to compensate the lessor for that portion of the gas vented or flared without approval which is determined to have been avoidably lost.

* 30 days, unless a longer test period specifically is approved by the authorized officer. The 30-day period begins when the casing is first perforated for cased holes, and when Total Depth (TD) is reached for open hole completion.

V. SAFETY

- A. All rig heating stoves are to be of the explosion-proof type.
- B. Rig safety lines are to be installed.
- C. Hard hats must be utilized.

VI. CHANGE OF PLANS OR ABANDONMENT

A. Any change of plans required in order to mitigate unanticipated conditions encountered during drilling operations, will require approval as set forth in Section I.F..

B. If the well is dry it is to be plugged in accord with 43 CFR 3162.3-4, approval of the proposed plugging program is required as set forth in Section I.F.. The report should show the total depth reached, the reason for plugging, and the proposed intervals, by depths, where cement plugs are to be placed, type of plugging mud, etc. A Subsequent Report of Abandonment is required as set forth in Section II.B.1.c..

C. Unless a well has been properly cased and cemented, or properly plugged, the drilling rig must not be moved from the drillsite without prior approval from the BLM-Authorized Officer

VII. SPECIAL STIPULATIONS

The following special requirements apply and are effective when checked:

☐ A. A Communitization Agreement covering the acreage dedicated to the well must be filed for approval with the Bureau of Land Management, Farmington District Office, Branch of Reservoir Management, 1235 La Plara Highway, Farmington, New Mexico 87401. The effective date of the agreement must be Prior to any sales.

☐ B. The Branch Chief for the FDO Branch Of Drilling & Production (the Authorized Officer) requires testing all components of well control systems at the pressure requirements set forth in Onshore Oil and Gas Order No. 2, Section III. A. 1., plus a 30% safety factor, and does not elect to utilize the discretionary authority for requiring the testing of selected components at the A. P. L. working pressures.

☒ C. Note Attachments.

Please Note: The BOP AND RELATED EQUIPMENT CHECK LISTS for the required items that were omitted in the drilling plan.