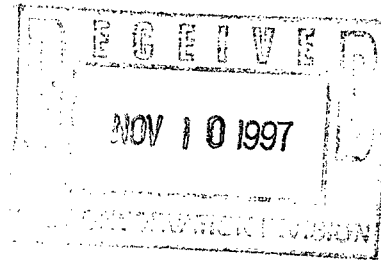


MERRION

OIL & GAS



November 7, 1997

Mr. David Catanach
New Mexico Oil Conservation Division
2040 S. Pacheco
Santa Fe, New Mexico 87505

**Re: Application for Administrative Approval
Downhole Commingling
Basin Dakota and Devils Fork Gallup Pools
Canada Mesa 3E
Section 14, T24N, R6W
Rio Arriba County, New Mexico**

Dear Mr. Catanach:

Merrion requests approval for downhole commingling the Basin Dakota and Devils Fork Gallup zones in the subject well. The following information is provided in support of this application.

I. Supporting Data Enclosed

- * C-107 A
- * Exhibit 1 - Lease Plat & Offset Operator Plat
- * Exhibit 2 - C102 for Devils Fork Gallup
- * Exhibit 3 - C102 for Basin Dakota
- * Exhibit 4 - Gallup Production Plot
- * Exhibit 5 - Dakota Production Plot
- * Exhibit 6 - Offset Operators Notified

II. Justification

- 1.) The subject well was dually completed in 1983 in the Gallup and Dakota zones. Production has declined since that time to where the Gallup is making around 3 BOPD and 30 MCFD and the Dakota 1 BOPD and 120 MCFD. It is felt that both zones would perform better by combining them and installing some form of artificial lift, be it a pumping unit or piston lift. The dual completion makes this impossible to do.

Page Two
November 7, 1997

By commingling the zones, we feel we can dramatically improve production and increase recoverable reserves from both zones to the benefit of all working interest, override, and royalty owners in the well.

- 2.) The pressures are such that crossflow should not be a concern.
- 3.) The fluids are compatible.

III. Allocation Methodology

The following fixed rate split is recommended for allocation of production.

| | <u>Gallup</u> | <u>Dakota</u> |
|--------------------|---------------|---------------|
| Oil Rate (BOPD) | 3.3 | 0.9 |
| Oil Allocation % | 79% | 21% |
| Gas Rate (MCFD) | 31 | 119 |
| Gas Allocation % | 21% | 79% |
| Water Allocation % | 50% | 50% |

IV. Notification

Ownership in the Gallup and Dakota zones is identical. Therefore, no additional notification was required to working interest, royalty, or override owners. Exhibit 6 is a list of offset operators who received copies of this application through certified mail.

V. Summary

Production from the two zones is becoming increasingly marginal. Commingling the zones will allow us to optimize artificial lift. This will maximize recoverable reserves and protect correlative rights. Therefore, we request your prompt approval of this application.

Please call me with questions at (505) 327-9801, ext. 114.

Sincerely,



George F. Sharpe
Manager - Oil & Gas Investments

xc: BLM - Farmington
OCD - Aztec

Application for Canada Mesa 3E Commingling
Notification to Interest Owners and Offset Operators

Any objections to this application must be made in writing to the Oil Conservation Division within twenty days of the above date.

If you have no objection to this application, please sign the waiver below and return to my attention by November 28, 1997. If you have any questions, please feel free to contact me at the number listed above.

WAIVER

_____ hereby waives objection to this application.
Company

Name _____ Date _____

DISTRICT I
P.O. Box 1980, Hobbs, NM 88241-1980

DISTRICT II
611 South First St., Artesia, NM 88210-2835

DISTRICT III
1000 Rio Brazos Rd, Artesia, NM 87410-1693

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

2040 S. Pacheco
Santa Fe, New Mexico 87505-6429

Form C-107-A
New 3-12-96

APPROVAL PROCESS:

☒ Administrative ☐ Hearing

EXISTING WELLBORE

☒ YES ☐ NO

APPLICATION FOR DOWNHOLE COMMINGLING

Operator Merriam Oil & Gas Corporation Address 610 Reilly Avenue, Farmington, NM 87401-2634

Lease Canada Mesa Well No. 3E Unit Ltr. - Sec. - Twp. - Rge. D 14-24N-06W County Rio Arriba

OGRID NO. 014634 Property Code 007748 API NO. 30-039-23687 Spacing Unit Lease Types: (check 1 or more) Federal ☒ State ☐ (and/or) Fee ☐

| The following facts are submitted in support of downhole commingling: | Upper Zone | Intermediate Zone | Lower Zone |
|--|---|-------------------|---|
| 1. Pool Name and Pool Code | Devils Fork Gallup (17610) | | Basin Dakota (71599) |
| 2. Top and Bottom of Pay Section (Perforations) | 5296'-6126' | | 6690'-6743' |
| 3. Type of production (Oil or Gas) | Oil | | Gas |
| 4. Method of Production (Flowing or Artificial Lift) | Flowing | | Flowing |
| 5. Bottomhole Pressure Oil Zones - Artificial Lift: Gas & Oil - Flowing: All Gas Zones: Estimated Current Measured Current Estimated Or Measured Original | a. (Current) 930 psig b. (Original) 1250 psig (ISDP) | a. b. | a. 1238 psig b. 2650 psig (ISDP) |
| 6. Oil Gravity (°API) or Gas BTU Content | 42° API 1290 BTU | | 59° API 1193 BTU |
| 7. Producing or Shut-In? | Producing | | Producing |
| Production Marginal? (yes or no) | Yes | | Yes |
| * If Shut-In, give date and oil/gas/water rates of last production Note: For new zones with no production history, applicant shall be required to attach production estimates and supporting data | Date: Rates: | Date: Rates: | Date: Rates: |
| * If Producing, give date and oil/gas/water rates of recent test (within 60 days) | Date: 9/97 Rates: 3.3 BOPD; 31 MCFD; 0 BWD | Date: Rates: | Date: 9/97 Rates: 0.9 BOPD; 119 MCFD; 0 BWD |
| 8. Fixed Percentage Allocation Formula - % for each zone | Oil: 79 % Gas: 21 % | Oil: % Gas: % | Oil: 21 % Gas: 79 % |

9. If allocation formula is based upon something other than current or past production, or is based upon some other method, submit attachments with supporting data and/or explaining method and providing rate projections or other required data.

10. Are all working, overriding, and royalty interests identical in all commingled zones? ☒ Yes ☐ No
If not, have all working, overriding, and royalty interests been notified by certified mail? ☒ Yes ☐ No
Have all offset operators been given written notice of the proposed downhole commingling? ☒ Yes ☐ No

11. Will cross-flow occur? ☐ Yes ☒ No If yes, are fluids compatible, will the formations not be damaged, will any cross-flowed production be recovered, and will the allocation formula be reliable. ☐ Yes ☐ No (If No, attach explanation)

12. Are all produced fluids from all commingled zones compatible with each other? ☒ Yes ☐ No

13. Will the value of production be decreased by commingling? ☐ Yes ☒ No (If Yes, attach explanation)

14. If this well is on, or communitized with, state or federal lands, either the Commissioner of Public Lands or the United States Bureau of Land Management has been notified in writing of this application. ☒ Yes ☐ No

15. NMOC Reference Cases for Rule 303(D) Exceptions: ORDER NO(S). R-10786

16. ATTACHMENTS:

- * C-102 for each zone to be commingled showing its spacing unit and acreage dedication.
- * Production curve for each zone for at least one year. (If not available, attach explanation.)
- * For zones with no production history, estimated production rates and supporting data.
- * Data to support allocation method or formula.
- * Notification list of all offset operators.
- * Notification list of working, overriding, and royalty interests for uncommon interest cases.
- * Any additional statements, data, or documents required to support commingling.

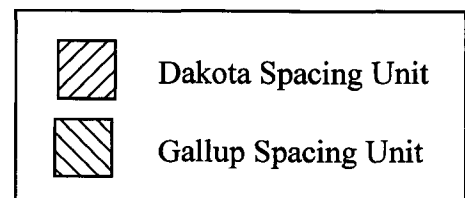
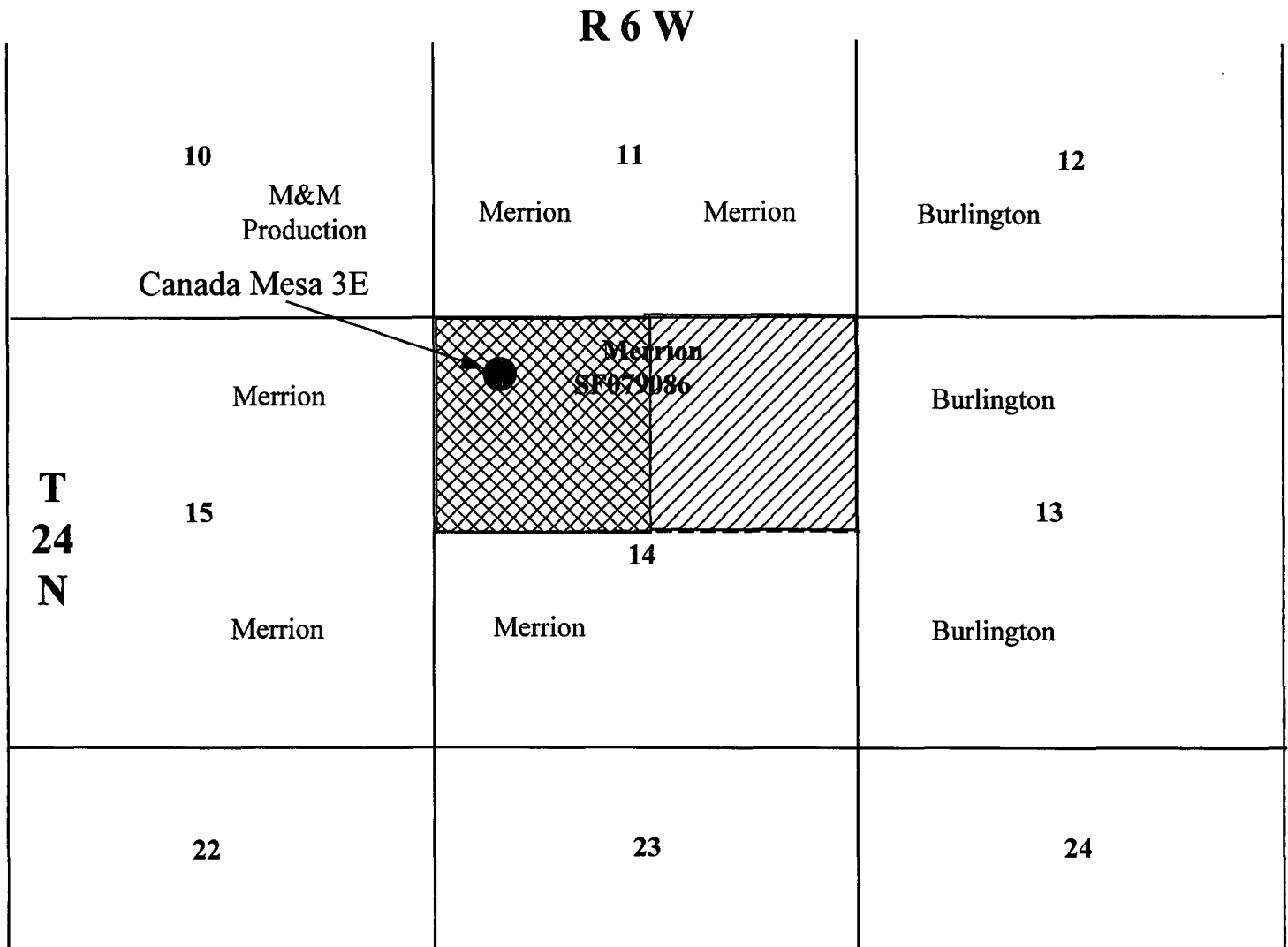
I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE George Sharpe TITLE Pet. Engineer DATE 11/6/97

TYPE OR PRINT NAME George F. Sharpe TELEPHONE NO. (505) 327-9801

EXHIBIT 1
CANADA MESA #3E LEASE PLAT
OFFSET OWNERSHIP PLAT

T24N, R6W
Rio Arriba County, NM



NEW MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102
Supersedes C-128
Effective 1-1-65

All distances must be from the outer boundaries of the Section.

| | | | | | |
|---|--------------------------------------|------------------------|-----------------------------------|-----------------------------|---------------------------------------|
| Operator MERRION OIL & GAS CORPORATION | | | Lease CANADA MESA | | Well No. 3E |
| Unit Letter D | Section 14 | Township 24N | Range 6W | County Rio Arriba | |
| Actual Footage Location of Well: 790 feet from the North line and 1190 feet from the West line | | | | | |
| Ground Level Elev. 6666 | Producing Formation Gallup | | Pool Devils Fork Gallup | | Dedicated Acreage 160 Acres |

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling, etc?

☐ Yes ☐ No If answer is "yes," type of consolidation _____

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) _____

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.

Scale: 1"=1000'

CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Steve S. Dunn
Steve S. Dunn

Position
Operations Manager

Company
Merrion Oil & Gas Corporation

Date
4/2/85

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed
March 28, 1985

Registered Professional Engineer
and Land Surveyor

Fred B. Kerr Jr.
Fred B. Kerr Jr.

Certificate No. 4888
2050

**NEW MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT**

Form C-102
Supersedes C-128
Effective 1-1-65

All distances must be from the outer boundaries of the Section.

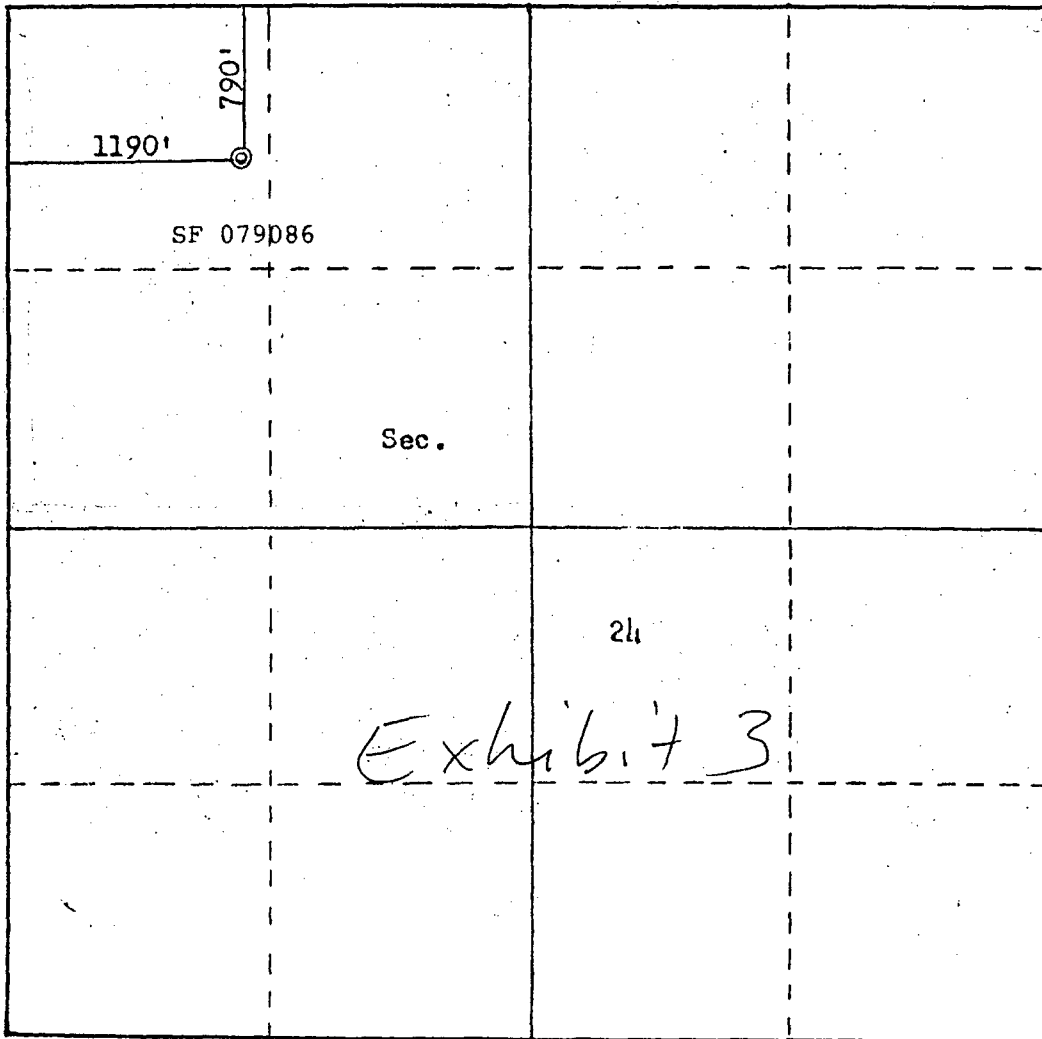
| | | | | | |
|---|--------------------------------------|------------------------|-----------------------------|--|-----------------------|
| Operator MERRION OIL & GAS CORPORATION | | | Lease CANADA MESA | | Well No. 3E |
| Unit Letter D | Section 14 | Township 24N | Range 6W | County Rio Arriba | |
| Actual Footage Location of Well: 790 feet from the North line and 1190 feet from the West line | | | | | |
| Ground Level Elev. 6666 | Producing Formation Dakota | | Pool Basin Dakota | Dedicated Acreage: 320 Acres | |

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling, etc?

☐ Yes ☐ No If answer is "yes," type of consolidation _____

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) _____

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.



CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Steve S. Dunn

Position
Operations Manager

Company
Merrion Oil & Gas Corporation

Date
4/2/85

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

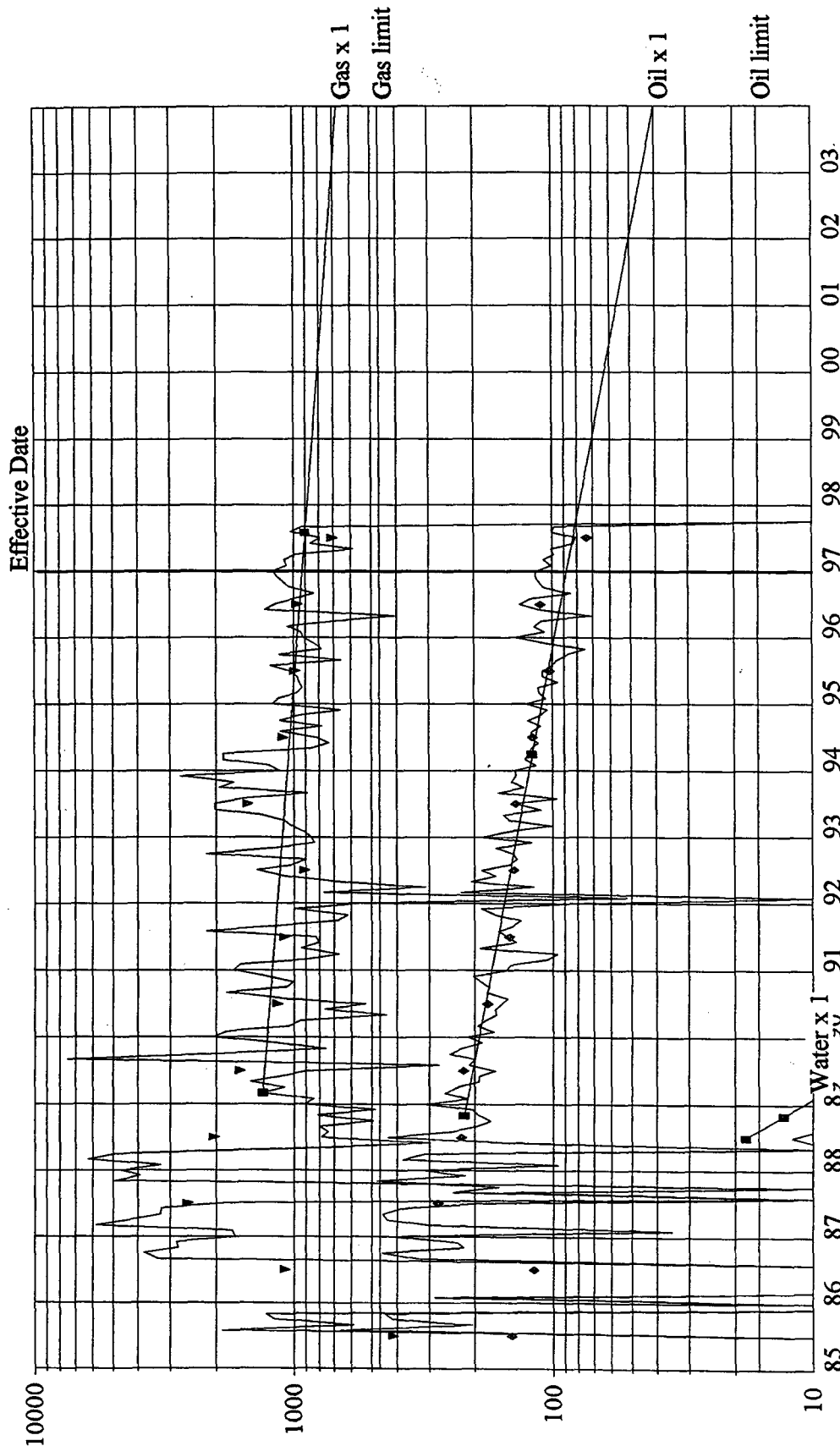
Date Surveyed
March 28, 1985
Registered Professional Engineer and Land Surveyor

Fred B. Kery Jr.
Fred B. Kery Jr.

Certificate No. 2, KERN, N.M.
3950

Scale: 1"=1000'

Canada Mesa 3E GLP (00003E - 100%), Dev Fk GLP

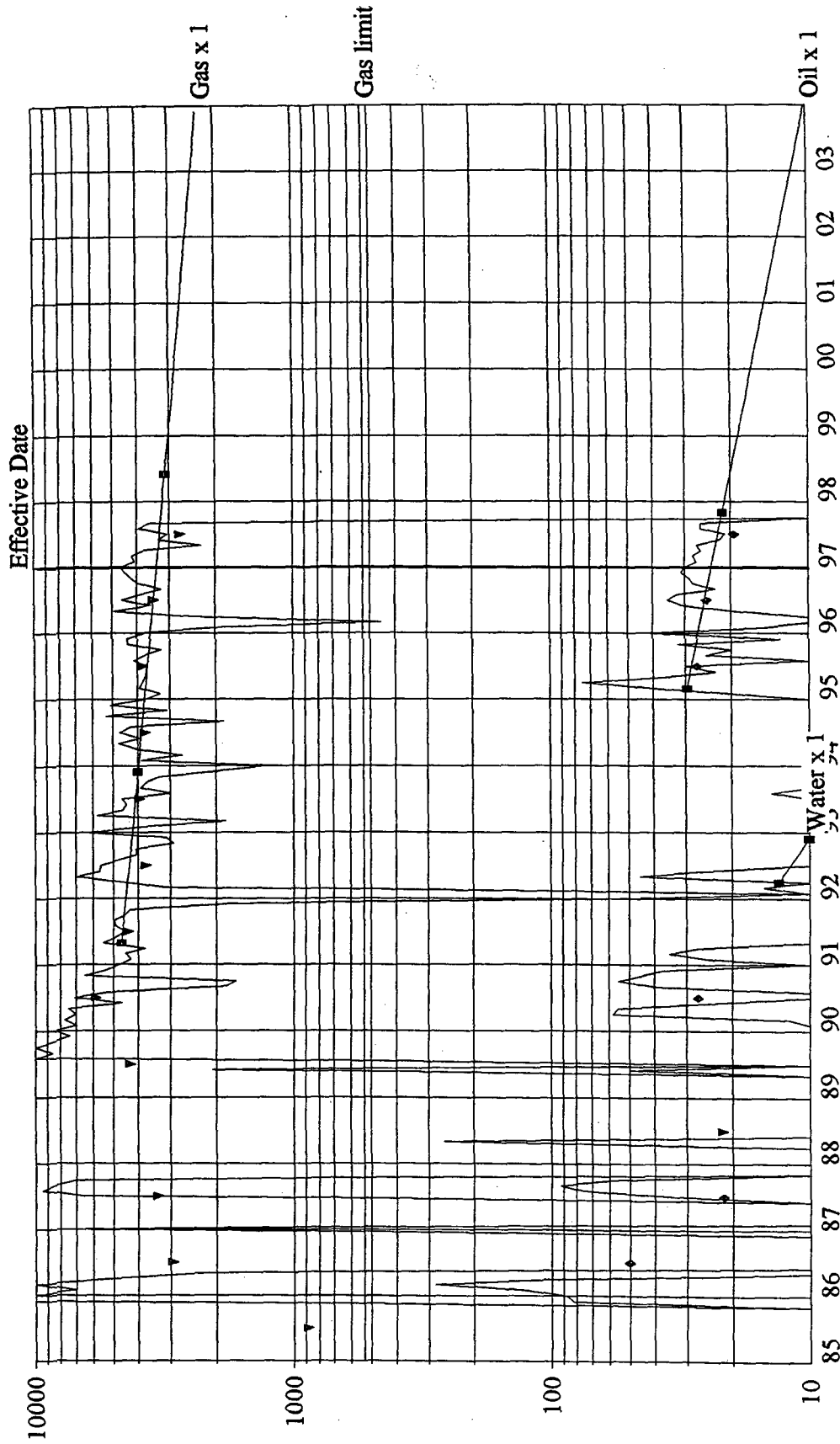


| Canada Mesa 3E GLP (00003E - 100%) Dev Fk GLP FH Rio Arriba, NM | | [3003923687] 14D 24N 6W | | Cumulative: Remaining: Ultimate: | | Oil (bbl) | | Gas (mcf) | | Water (bbl) | |
|--|--|----------------------------|--|--|--|-----------|--|-----------|--|-------------|--|
| | | | | | | 24,038 | | 193,602 | | 12 | |
| | | | | | | 7,637 | | 121,043 | | 0 | |
| | | | | | | 31,675 | | 314,645 | | 12 | |

Exhibit 4

PRODUCTION GRAPH

Canada Mesa 3E DK (00003E - 100%), Basin DK



| | Oil (bbl) | Gas (mcf) | Water (bbl) |
|-------------|-----------|-----------|-------------|
| Cumulative: | 2,413 | 516,193 | 30 |
| Remaining: | 2,322 | 719,303 | 53 |
| Ultimate: | 4,735 | 1,235,496 | 83 |

[3003923687]

14D 24N 6W

Canada Mesa 3E DK (00003E - 100%)

Basin DK

FH

Rio Arriba, NM

Exhibit 75

Exhibit 6
Notification of Offset Operators

The following operators received copies of this application via certified mail:

Burlington Resources
P.O. Box 4289
Farmington, New Mexico 87499

M & M Production & Operation Inc.
P.O. Box 175
Counselor, New Mexico 87018