

DATE IN	8/3/99	SUSPENSE	8/23/99	ENGINEER	DC	LOGGED BY	KV	TYPE	DHC
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ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION

- Engineering Bureau -

2040 South Pacheco, Santa Fe, NM 87505



2442

ADMINISTRATIVE APPLICATION COVERSHEET

THIS COVERSHEET IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATION FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

Application Acronyms:

[NSP-Non-Standard Proration Unit] [NSL-Non-Standard Location]
 [DD-Directional Drilling] [SD-Simultaneous Dedication]
 [DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]
 [PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]
 [WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]
 [SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]
 [EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]

[1] TYPE OF APPLICATION - Check Those Which Apply for [A]

[A] Location - Spacing Unit - Directional Drilling
☐ NSL ☐ NSP ☐ DD ☐ SD

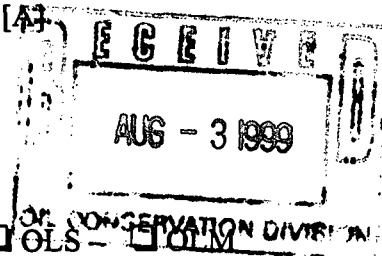
Check One Only for [B] or [C]

[B] Commingling - Storage - Measurement

☒ DHC ☐ CTB ☐ PLC ☐ PC

[C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery

☐ WFX ☐ PMX ☐ SWD ☐ IPI ☐ EOR ☐ PPR



[2] NOTIFICATION REQUIRED TO: - Check Those Which Apply, or ☐ Does Not Apply

[A] ☐ Working, Royalty or Overriding Royalty Interest Owners

[B] ☐ Offset Operators, Leaseholders or Surface Owner

[C] ☐ Application is One Which Requires Published Legal Notice

[D] ☐ Notification and/or Concurrent Approval by BLM or SLO

U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office

[E] ☐ For all of the above, Proof of Notification or Publication is Attached, and/or,

[F] ☐ Waivers are Attached

[3] INFORMATION / DATA SUBMITTED IS COMPLETE - Certification

I hereby certify that I, or personnel under my supervision, have read and complied with all applicable Rules and Regulations of the Oil Conservation Division. Further, I assert that the attached application for administrative approval is accurate and complete to the best of my knowledge and where applicable, verify that all interest (WI, RI, ORRI) is common. I understand that any omission of data (including API numbers, pool codes, etc.), pertinent information and any required notification is cause to have the application package returned with no action taken.

Note: Statement must be completed by an individual with managerial and/or supervisory capacity.

Print or Type Name

Signature

Title

Date

DISTRICT I

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

DISTRICT II

811 South First St., Artesia, NM 88210-2835

DISTRICT III

1000 Rio Brazos Rd, Aztec, NM 87410-1693

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

2040 S. Pacheco
Santa Fe, New Mexico 87505-6429Form C-107-A
New 3-12-96

APPROVAL PROCESS :

☒ Administrative
☐ Hearing

APPLICATION FOR DOWNHOLE COMMINGLING

EXISTING WELLBORE

☒ YES ☐ NO

Burlington Resources Oil & Gas Company

PO Box 4289, Farmington, NM 87499

Operator

Address

FEUILLE A

5E

K 4-T29N-R10W

SAN JUAN

Lease

Well No.

Unit Ltr. - Sec - Twp - Rge

County

Spacing Unit Lease Types: (check 1 or more)

OGRID NO. 14538 Property Code 7015 API NO. 30-45-2624900 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	MESA VERDE - 72319		DAKOTA - 71599
2. Top and Bottom of Pay Section (Perforations)	4028' - 4524', 4583'-4785'		6679'-6773'
3. Type of production (Oil or Gas)	gas		Gas
4. Method of Production (Flowing or Artificial Lift)	flowing		Flowing
5. Bottomhole Pressure	(Current) Est. a. 424.2	a.	a. 432.2
Oil Zones - Artificial Lift: Estimated Current			
Gas & Oil - Flowing: Measured Current	(Original) Est. b. 1323.8	b.	b. 1347.8
All Gas Zones: Estimated or Measured Original			
6. Oil Gravity (°API) or Gas BTU Content	BTU 1230		BTU 1106
7. Producing or Shut-In?	Not yet completed		Producing
Production Marginal? (yes or no)	Yes		Yes
* If Shut-In and oil/gas/water rates of last production	Date: n/a Rates:	Date: Rates:	Date: n/a Rates:
Note: For new zones with no production history, applicant shall be required to attach production estimates and supporting data			
* If Producing, give data and oil/gas/water of recent test (within 60 days)	Date: n/a Rates: n/a	Date: Rates:	Date: n/a Rates: 102 MCF/D
8. Fixed Percentage Allocation Formula - % for each zone (total of %'s to equal 100%)	Oil: % Gas: % will be supplied upon completion	Oil: % Gas: %	Oil: % Gas: % will be supplied upon completion

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 ☐ No11. 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 ☐ No13. 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. NMOCD Reference Cases for Rule 303(D) Exceptions: ORDER NO(S). _____

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 Mike Pippin TITLE Production Engineer DATE 07-28-99TYPE OR PRINT NAME Mike Pippin TELEPHONE NO. (505) 326-9700

OIL CONSERVATION DI' SION

STATE OF NEW MEXICO

P. O. BOX 2008

Form C-107
Revised 10-1

ENERGY AND MINERALS DEPARTMENT

SANTA FE, NEW MEXICO 87501

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

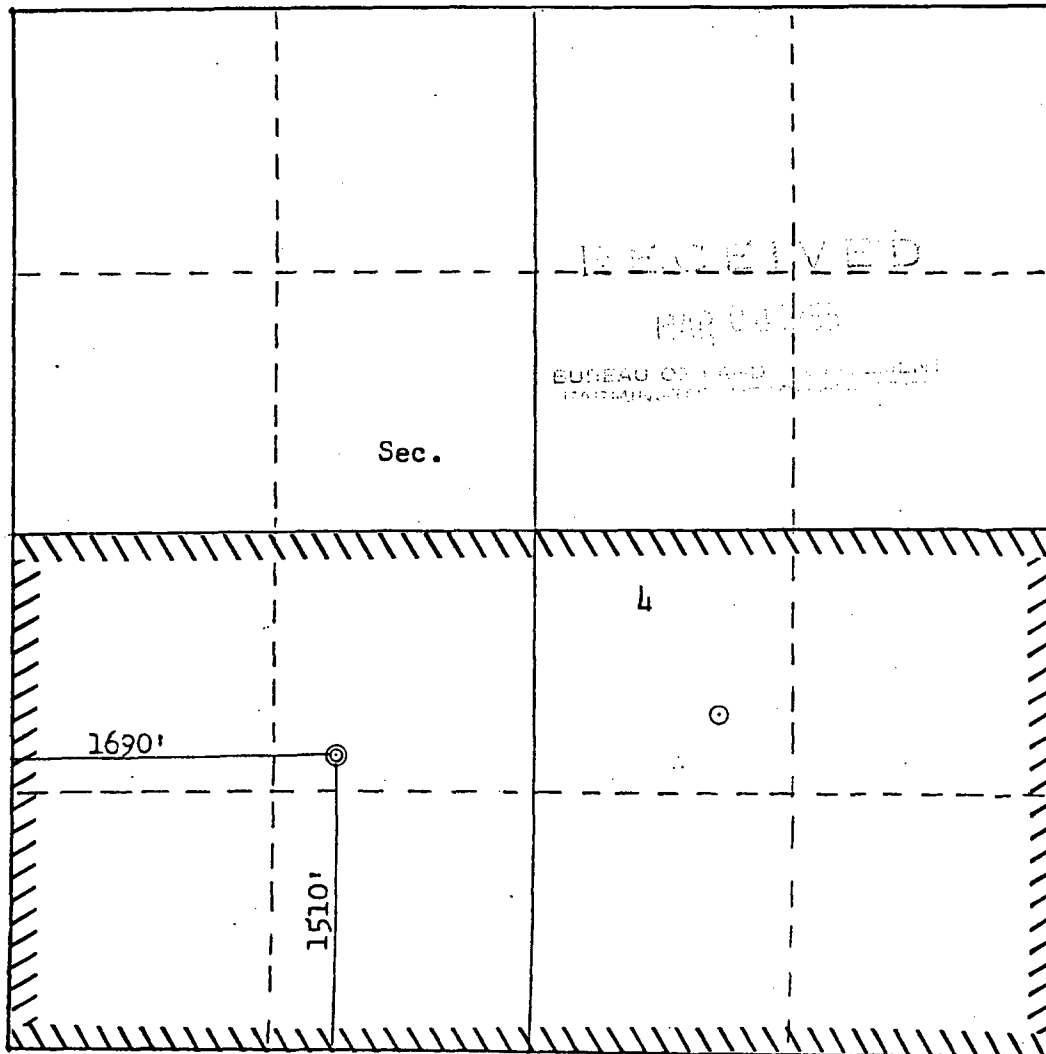
Operator EL PASO NATURAL GAS COMPANY			Lease FEUILLE "A" (SF 078197)		Well No. 5E
Unit Letter K	Section 4	Township 29N	Range 10W	County San Juan	
Actual Footage Location of Well: 1510 feet from the South line and 1690 feet from the West line					
Ground Level Elev: 5892	Producing Formation Dakota		Pool Basin	Dedicated Acreage: 292.04 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 communization, 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.

Name

Drilling Clerk

Position

El Paso Natural Gas Co.

Company

March 1, 1985

Date

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

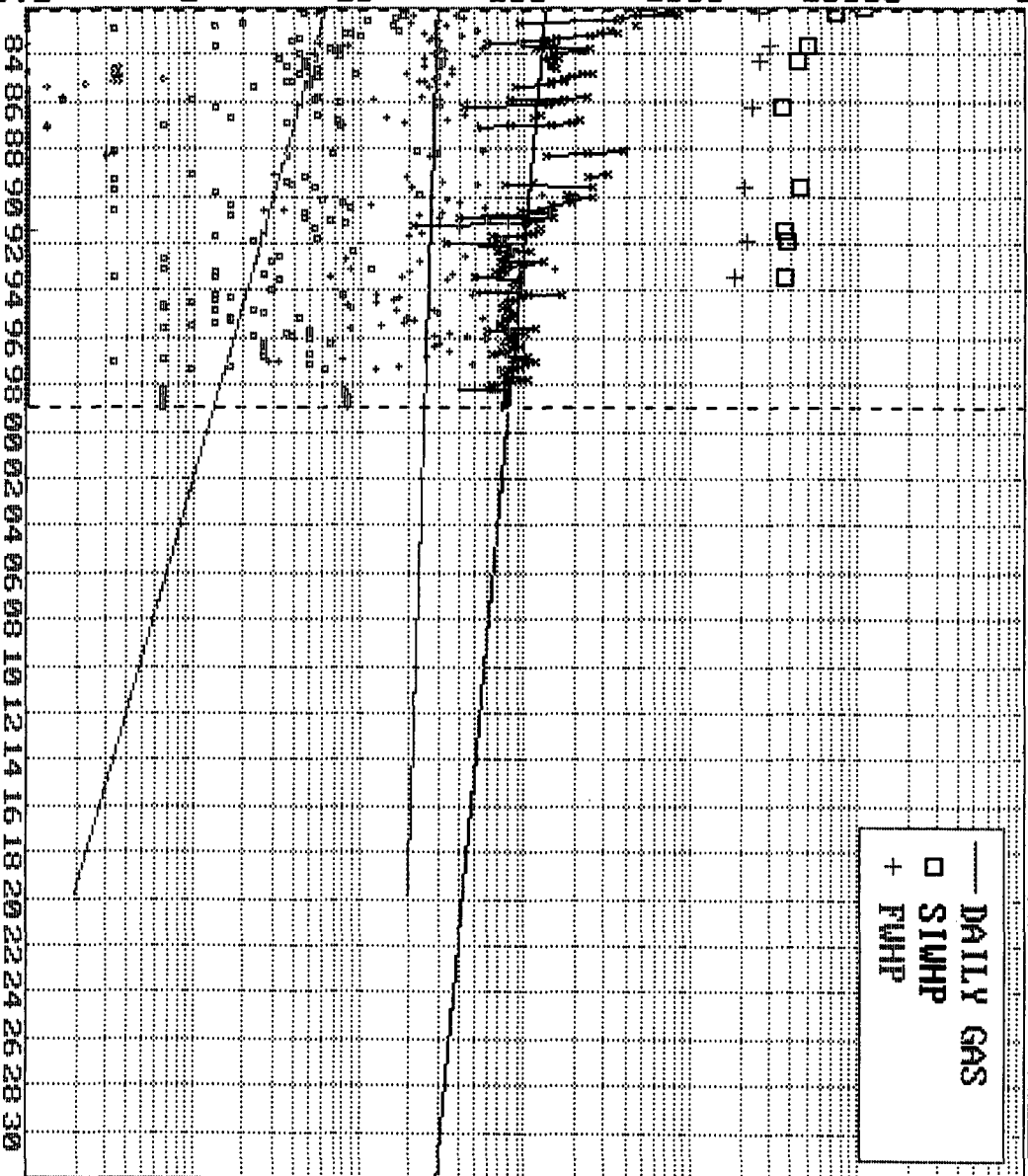
REGISTERED LAND SURVEYOR
1985
Registered Professional Engineer
and Land Surveyor
Fred E. Kerr
JAN 10 1985

0.1	1	10	100	1000	10000	WATER
0.01	0.1	1	10	100	1000	OIL/GAS
0.01	0.1	1	10	100	1000	OIL
0.1	1	10	100	1000	10000	GAS

GRENIER B : 4A : 25683-1

Offset mV

— DAILY GAS
□ SIWHP
+ FUHP



Prop 2811 *

● GAS Mcf/d
○ OIL Bbl/d
○ OIL/GAS
○ WATER Bbls/d

RateTime
Semi Log

EUR 1,463,226

Cum 672,793

Rem 790,433

Rem% 54.0%

Yrs 55.41

Date 1/1/1999

Act 0

Qmo 2,507

Q 81

n 0

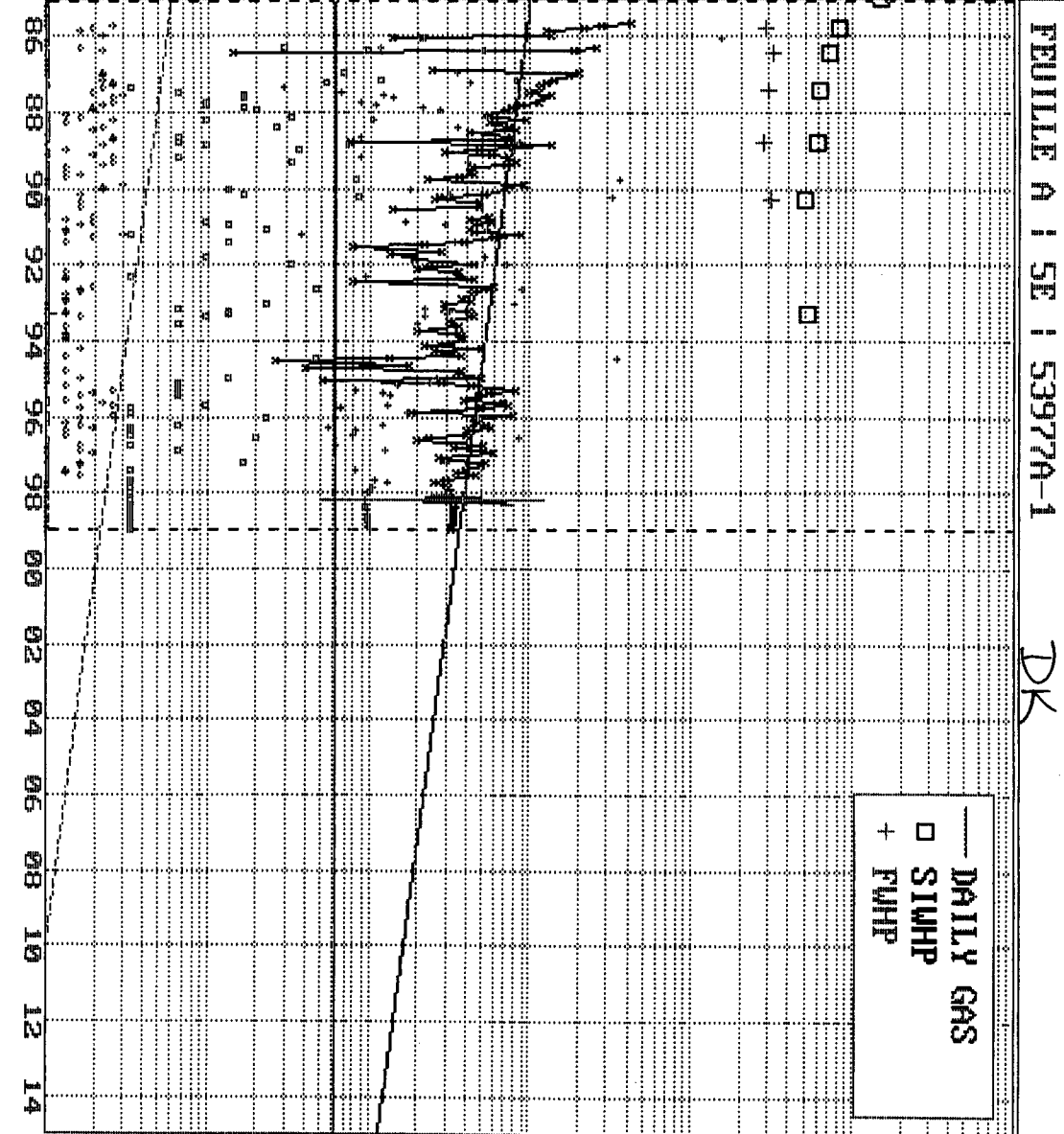
De 3

Qab 15

GetQual 99PDP

Major = GAS

0.1	1	10	100	1000	10000	WATER
0.01	0.1	1	10	100	1000	OIL/GAS
0.01	0.1	1	10	100	1000	OIL
0.1	1	10	100	1000	10000	GAS



FEUILLE A : SE : 53977A-1		DK	Prop 10095 *
● GAS Mcf/d ○ OIL Bbl/d ○ OIL/GAS ○ WATER Bbls/d	— DAILY GAS □ SIWHP + FWHP	RateTime Semi Log	EUR 402,981 Cum 266,108 Rem 136,873 Rem% 34.0% Yrs 18.33 Date 1/1/1999 Act 0 Qmo 1,139 Q 36.9 n 0 De 6.947 Qab 10 GetQual 99PDP

Major = GAS

OFFSET MV

Page No.: 1
Print Time: Tue Feb 09 10:57:13 1999
Property ID: 2811
Property Name: GRENIER B | 4A | 25683-1
Table Name: K:\ARIES\RR99PDP\TEST.DBF

--DATE--	PHA M FWHP-	M FBHP-	M SIWHP	M SIBHP
■■■■■■■■■■	■■■ Psi■■■	■■■ Psi■■■	■■■ Psi■■■	■■■ Psi■■■
07/05/81	0.0		1117.0	0.0
03/24/82	260.0		743.0	0.0
08/24/83	294.0		515.0	0.0
04/04/84	255.0		443.0	0.0
03/12/86	235.0		352.0	0.0
08/30/89	205.0		458.0	0.0
06/19/91			366.0	
11/12/91	213.0		378.0	0.0
05/31/93	178.0		366.0	0.0

Page No.: 1
Print Time: Tue Feb 09 10:58:27 1999
Property ID: 10095
Property Name: FEUILLE A | 5E | 53977A-1
Table Name: K:\ARIES\RR99PDP\TEST.DBF

DK

--DATE-- PHA M FWHP- M FBHP- M SIWHP M SIBHP
■■■■■■■■■■ ■■■■ ■■■■ Psi ■■■■ Psi ■■■■ Psi ■■■■ Psi

07/05/84		1540.0	
10/11/85	283.0	840.0	0.0
06/03/86	320.0	726.0	0.0
06/02/87	300.0	637.0	0.0
10/14/88	278.0	605.0	0.0
04/09/90	310.0	504.0	0.0
04/15/93		516.0	

FDG055M4 3035

WELL PRODUCTION 8/8'S VOLUME

02/09/99 11:54:08

END OF DATA

DP NO: 25683_

DATE: 990103 (YYMMDD FORMAT)

GRENIER B

4A SCROLL FORWARD BY DATE: _

S

E	DATE	HOURS	-OIL PRODN-	-GAS PRODN-	-WATER PRODN-
L PRODUCED	ON	(BOPD	BOPM)	(MCFD MCFM)	(BWPD BWPM)
01/03/99	0.0	0.24	0.72	77 231	0.00 0.00
01/04/99	0.0	0.24	0.96	77 308	0.00 0.00
01/05/99	0.0	0.24	1.20	77 385	0.00 0.00
01/06/99	0.0	0.24	1.44	77 462	0.00 0.00
01/07/99	0.0	0.24	1.68	77 539	0.00 0.00
01/08/99	0.0	0.24	1.92	77 616	0.00 0.00
01/09/99	0.0	0.24	2.16	77 693	0.00 0.00
01/10/99	0.0	0.24	2.40	77 770	0.00 0.00
01/11/99	0.0	0.24	2.64	77 847	0.00 0.00
01/12/99	0.0	0.24	2.88	77 924	0.00 0.00
01/13/99	0.0	0.24	3.12	77 1001	0.00 0.00

ENTER I UNDER SEL FOR MAINTENANCE

PF6=NRI PF10=BROWSE MENU PF11=INQ/UPDATE MENU
PF12=MAIN MENU ENTER=BACKWARDS PF24=HELP

FDG055M4 3029

WELL PRODUCTION 8/8'S VOLUME

02/09/99 12:00:48

END OF DATA

DP NO: 53977A

DATE: 990103 (YYMMDD FORMAT)

FEUILLE A

5E SCROLL FORWARD BY DATE: _

S

E	DATE	HOURS	-OIL PRODN-	-GAS PRODN-	-WATER PRODN-			
L PRODUCED	ON	(BOPD	BOPM)	(MCFD	MCFM)	(BWPD	BWPM)	
_	01/03/99	0.0	0.00	0.00	23	69	0.00	0.00
_	01/04/99	0.0	0.00	0.00	23	92	0.00	0.00
_	01/05/99	0.0	0.00	0.00	23	115	0.00	0.00
_	01/06/99	0.0	0.00	0.00	23	138	0.00	0.00
_	01/07/99	0.0	0.00	0.00	23	161	0.00	0.00
_	01/08/99	0.0	0.00	0.00	23	184	0.00	0.00
_	01/09/99	0.0	0.00	0.00	23	207	0.00	0.00
_	01/10/99	0.0	0.00	0.00	23	230	0.00	0.00
_	01/11/99	0.0	0.00	0.00	23	253	0.00	0.00
_	01/12/99	0.0	0.00	0.00	23	276	0.00	0.00
_	01/13/99	0.0	0.00	0.00	23	299	0.00	0.00

ENTER I UNDER SEL FOR MAINTENANCE

PF12=MAIN MENU

PF6=NRI PF10=BROWSE MENU
ENTER=BACKWARDSPF11=INQ/UPDATE MENU
PF24=HELP

OFFSET M.V.

OPR008M2 3035

0008 CHROMATOGRAPH GAS SAMPLE DETAIL

11:55:03.8 02/09/99

	MOL %	GPM (AT 14.73)
HYDROGEN	_____	
HELIUM	_____	
NITROGEN	___0.31	
OXYGEN	_____	
HYDROGEN SULFIDE	_____	
CARBON DIOXIDE	___0.59	
METHANE	___82.17	
ETHANE	___9.89	2.6456
PROPANE	___4.06	1.1189
ISO-BUTANE	___0.70	0.2290
N-BUTANE	___1.01	0.3185
ISO-PENTANE	___0.37	0.1354
N-PENTANE	___0.28	0.1014
HEXANE	_____	
HEXANE PLUS	___0.62	0.2705
HEPTANE PLUS	_____	
TOTALS	100.00	4.8193

** DATA AT 14.730 PSIG UNLESS NOTED **

MP NUMBER 39303
EFFECTIVE DATE 19980101

-- GASOLINE CONTENT (GPM) --
26/70 GASOLINE _____
100% PROPANE _____
EXCESS BUTANES _____
TOTAL _____

----- SPECIFIC GRAVITY -----
CALCULATED _0.7040
MEASURED _____

SULPHUR GRAINS / 100 CU FT _____

03=MAIN SCREEN

24=HELP

PA1=TERMINATE

BTu 1230

OPR008M2 4732

FEUILLE A SE DK

0008 CHROMATOGRAPH GAS SAMPLE DETAIL

16:03:54.7 02/08/99

GPM

** DATA AT 14.730 PSIG UNLESS NOTED **

MOL % (AT 14.73)

HYDROGEN	_____	
HELIUM	_____	
NITROGEN	___0.51	
OXYGEN	_____	
HYDROGEN SULFIDE	_____	
CARBON DIOXIDE	___0.77	
METHANE	___86.16	
ETHANE	___7.10	1.8993
PROPANE	___3.08	0.8488
ISO-BUTANE	___0.59	0.1930
N-BUTANE	___0.79	0.2491
ISO-PENTANE	___0.31	0.1134
N-PENTANE	___0.22	0.0797
HEXANE	_____	
HEXANE PLUS	___0.47	0.2051
HEPTANE PLUS	_____	
TOTALS	100.00	3.5884

MP NUMBER 95349

EFFECTIVE DATE 19930401

-- GASOLINE CONTENT (GPM) --

26/70 GASOLINE _____

100% PROPANE _____

EXCESS BUTANES _____

TOTAL

----- SPECIFIC GRAVITY -----

CALCULATED _0.6730

MEASURED _____

SULPHUR GRAINS / 100 CU FT _____

03=MAIN SCREEN

24=HELP

PA1=TERMINATE

BTu 1106.806

FEUILLE A #5E

Bottom Hole Pressures

Flowing and Static BHP

Cullender and Smith Method

Version 1.0 3/13/94

Mesaverde		Dakota	
<u>MV-Current</u>		<u>DK-Current</u>	
GAS GRAVITY	0.704	GAS GRAVITY	0.673
COND. OR MISC. (C/M)	C	COND. OR MISC. (C/M)	C
%N2	0.31	%N2	0.51
%CO2	0.59	%CO2	0.77
%H2S	0	%H2S	0
DIAMETER (IN)	2	DIAMETER (IN)	2
DEPTH (FT)	5811	DEPTH (FT)	6975
SURFACE TEMPERATURE (DEG F)	60	SURFACE TEMPERATURE (DEG F)	60
BOTTOMHOLE TEMPERATURE (DEG F)	134	BOTTOMHOLE TEMPERATURE (DEG F)	147
FLOWRATE (MCFPD)	0	FLOWRATE (MCFPD)	0
SURFACE PRESSURE (PSIA)	366	SURFACE PRESSURE (PSIA)	366
BOTTOMHOLE PRESSURE (PSIA)	424.2	BOTTOMHOLE PRESSURE (PSIA)	432.2
<u>MV-Original</u>		<u>DK-Original</u>	
GAS GRAVITY	0.704	GAS GRAVITY	0.673
COND. OR MISC. (C/M)	C	COND. OR MISC. (C/M)	C
%N2	0.31	%N2	0.51
%CO2	0.59	%CO2	0.77
%H2S	0	%H2S	0
DIAMETER (IN)	2	DIAMETER (IN)	2
DEPTH (FT)	5811	DEPTH (FT)	6975
SURFACE TEMPERATURE (DEG F)	60	SURFACE TEMPERATURE (DEG F)	60
BOTTOMHOLE TEMPERATURE (DEG F)	134	BOTTOMHOLE TEMPERATURE (DEG F)	147
FLOWRATE (MCFPD)	0	FLOWRATE (MCFPD)	0
SURFACE PRESSURE (PSIA)	1117	SURFACE PRESSURE (PSIA)	1117
BOTTOMHOLE PRESSURE (PSIA)	1323.8	BOTTOMHOLE PRESSURE (PSIA)	1347.8

DATE: February 04, 1999
NAME: FEUILLE A NO. 5E
FORM: MESAVERDE

LOCATION
UNIT: K
SEC: 4
TWN: 29N
RNG: 10W

[32] INA 3/57 Stewart A Com A LS2 0/462 (97) 0/0	10/80 Trieb Federal 2E 34/361 (98) 0/1 [33] 10/80 Bassett B 1 164/764 (98) 0/2 12/82 Bassett B 1 M 104/509 (98) 0/1 1/98 Trieb Federal Com 2 147/117 (98) 0/0	8/84 Grenier A 3M 78/444 (98) 0/1 10/70 INA 0/112 (93) [34] 0/0 7/82 Sanchez 3E 282/738 (98) 1/1 9/87 Sanchez 3A 113/468 (98) 0/1
8/62 Ludwick LS 13 63/1256 (98) [5] 0/0 P&A (71) 3/62 Grenier B 3 10/81 Grenier B 3E 103/977 (98) 0/3	7/81 Grenier B 4A 65/653 (98) 0/1 4/73 Grenier B 4 108/569 (98) [4] 0/1 Feuille A 5E	9/71 Hare 16 T 42/493 (98) 1/4 N [3] 10/81 Hare 15M 69/504 (98) 0/3 INA 3/72 Hare 15 0/98 (91) 0/0
12/96 Nye Federal 2 264/175 (98) [8] 0/0	3/62 Nye Federal Com 3 100/574 (98) 0/22 [9]	4/98 Hare 14A 203/6 (98) 1/0 10/71 Hare 18 123/673 (98) 0/2 9/70 [10] Hare 14 67/1019 (98) 0/0 4/82 Hare 18M 137/649 (98) 0/2

LEGEND
COMPLETION DATE
WELL NAME
MCF/D - CUM(MMF)
BOP/D - CUM(MBO)

DATE: February 08, 1999
 NAME: FEUILLE A #5E
 FORM: DAKOTA

LOCATION
 UNIT: K
 SEC: 4
 TWN: 29N
 RNG: 10W

LEGEND
 COMPLETION DATE
 WELL NAME
 MCF/D-CUM(MMF)
 BOP/D-CUM(MBO)

10/63 Shelly Gas Com #1 74/3262 (98) 0/74 5/81 Keys Com #1E 107/525 (98) 0/4 4/63 Keys Com #1 Shelly Gas Com #1E 108/3950 (98) 0/21 1/81 29/435 (98) 0/2 9/61 Ludwick LS #19 53/720 (98) 0/4 12/90 Grenier B #3E 0/0 (98) 0/0 [32]	9/81 Zachry #15E 63/429 (98) 0/4 12/61 Zachry #15 121/4178 (98) 0/23 12/61 Zachry #16E 63/309 (98) 0/1 12/61 Zachry #16 116/4339 (98) 0/30 10/81 Zachry #16E 63/309 (98) 0/1 1/60 Zachry Fed #1 57/4310 (98) 0/34 [33]	12/61 Zachry #16 116/4339 (98) 0/30 10/81 Zachry #16E 63/309 (98) 0/1 1/60 Zachry Fed #1 57/4310 (98) 0/34 [34]
2/97 Grenier B #4E 146/103 (98) 0/0 11/62 Feuille A #5E Feuille A #5 33/277 (98) 70/1762 (98) 0/0 0/2 8/85 Feuille A #5E Feuille A #5 33/277 (98) 70/1762 (98) 0/0 0/2 [4] 5/62 Hare #16 82/950 (98) 0/6 [3]	2/97 Grenier B #4E 146/103 (98) 0/0 11/62 Feuille A #5E Feuille A #5 33/277 (98) 70/1762 (98) 0/0 0/2 8/85 Feuille A #5E Feuille A #5 33/277 (98) 70/1762 (98) 0/0 0/2 [4] 5/62 Hare #16 82/950 (98) 0/6 [3]	4/62 Hare #15 106/1893 (98) 0/18 106/1893 (98) 0/18 [3]
1/61 Nye Fed #2 0/1579 (98) 0/12 1/61 Nye Fed #1 71/1824 (98) 0/15 [8]	2/65 Rock Island Fed #1 72/1894 (98) 0/12 [9]	6/62 Hare #18 22/1257 (98) 0/8 4/82 Hare #18M 31/212 (98) 0/2 [10]