

DISTRICT I

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

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

DISTRICT II

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

DISTRICT III

1000 Rio Brazos Rd, Aztec, NM 87410-1693

Burlington Resources Oil & Gas Company

PO Box 4289, Farmington, NM 87499

Operator

Grenier A

3

Address

G 34-30N-10W

San Juan

Lease

Well No.

Unit Ltr. - Sec - Twp - Rge

County

Spacing Unit Lease Types: (check 1 or more)

OGRID NO. 14538 Property Code 18531 API NO. 30-045-10878 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	Mesaverde - 72319		Basin Dakota - 71599
2. Top and Bottom of Pay Section (Perforations)	4173' - 4236'		6852' - 6960'
3. Type of production (Oil or Gas)	Gas		Gas
4. Method of Production (Flowing or Artificial Lift)	Flowing		Flowing
5. Bottomhole Pressure Oil Zones - Artificial Lift: Estimated Current Gas & Oil - Flowing: Measured Current All Gas Zones: Estimated or Measured Original	(Current) Est. a. 621 (Original) Est. b. 1111		a. 804 b. 2429
6. Oil Gravity ($^{\circ}$ API) or Gas BTU Content	BTU (Est.) 1166	Btu (Est)	BTU 1070
7. Producing or Shut-In?	Shut-In		Producing
Production Marginal? (yes or no)	Yes		No
* If Shut-In 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: 3/93 Rates: 21 MCF/D	Date: n/a Rates:	Date: n/a Rates:
* If Producing, give data and oil/gas/water of recent test (within 60 days)	Date: n/a Rates: n/a	Date: n/a Rates: n/a	Date: n/a Rates: 183 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: % will be supplied upon completion	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 07-29-99
TYPE OR PRINT NAME Mike Pippin TELEPHONE NO. (505) 326-9700

Date **February 10, 1964**

1. Is the Operator the only owner* in the dedicated acreage outlined on the plat below? Yes X No _____
2. If the answer to question One is "No," have the interests of all the owners been consolidated by communitization agreement or otherwise? Yes _____ No _____. If answer is "Yes," Type of Consolidation _____

3. If the answer to question Two is "No," list all the owners and their respective interests below:

LAND DESCRIPTION

1510

1620

ORIGINAL

S. e. c.

3 4

RECEIVED
AUG 19 1999
OIL CON. DIV.
DIST. 3

(OPERATOR)

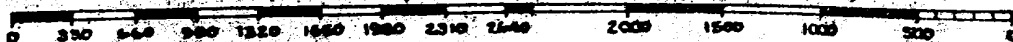
ORIGINAL SIGNED BY JOE C. SALMON JOE C, SALMON
(REPRESENTATIVE)

(ADDRESS)

Four States Engineering Co.
FARMINGTON, NEW MEXICO

Paul H. E. H. H. H.
REGISTERED ENGINEER OR
LAND SURVEYOR

Certificate No. 3602



**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.

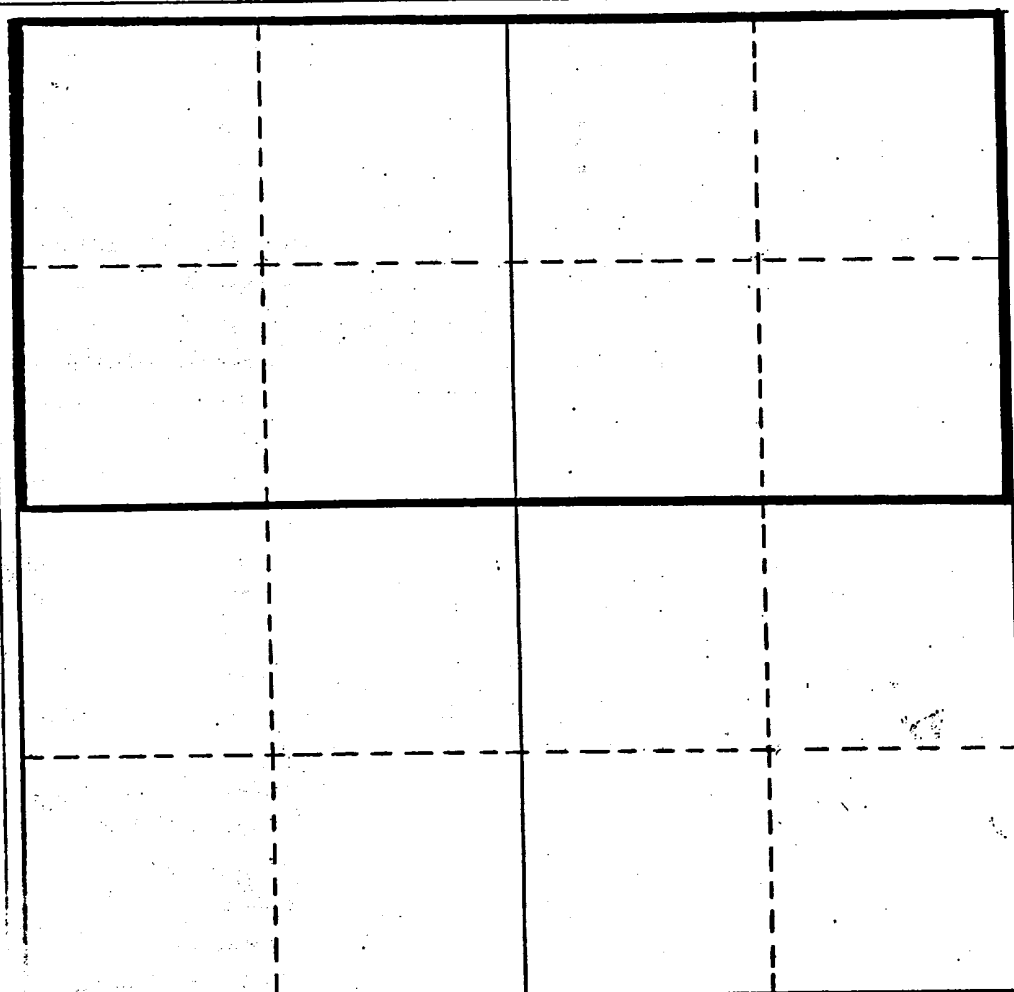
Operator <i>Aztec Oil & Gas Company</i>			Lease <i>Grenier "A"</i>		Well No. <i>#3</i>
Unit Letter <i>G</i>	Section <i>34</i>	Township <i>30 North</i>	Range <i>10 West</i>	County <i>San Juan</i>	
Actual Footage Location of Well: <i>1510</i> feet from the <i>North</i> line and <i>1620</i> feet from the <i>East</i> line					
Ground Level Elev: <i>5974 Gr</i>	Producing Formation <i>Dakota</i>		Pool <i>Basin</i>	Dedicated Acreage <i>318.34</i> 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.

Joe C. Salmon
Name

Joe C. Salmon
Position

District Superintendent
Company

Aztec Oil & Gas Company
Date

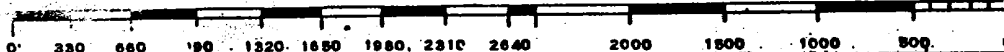
February 3, 1970

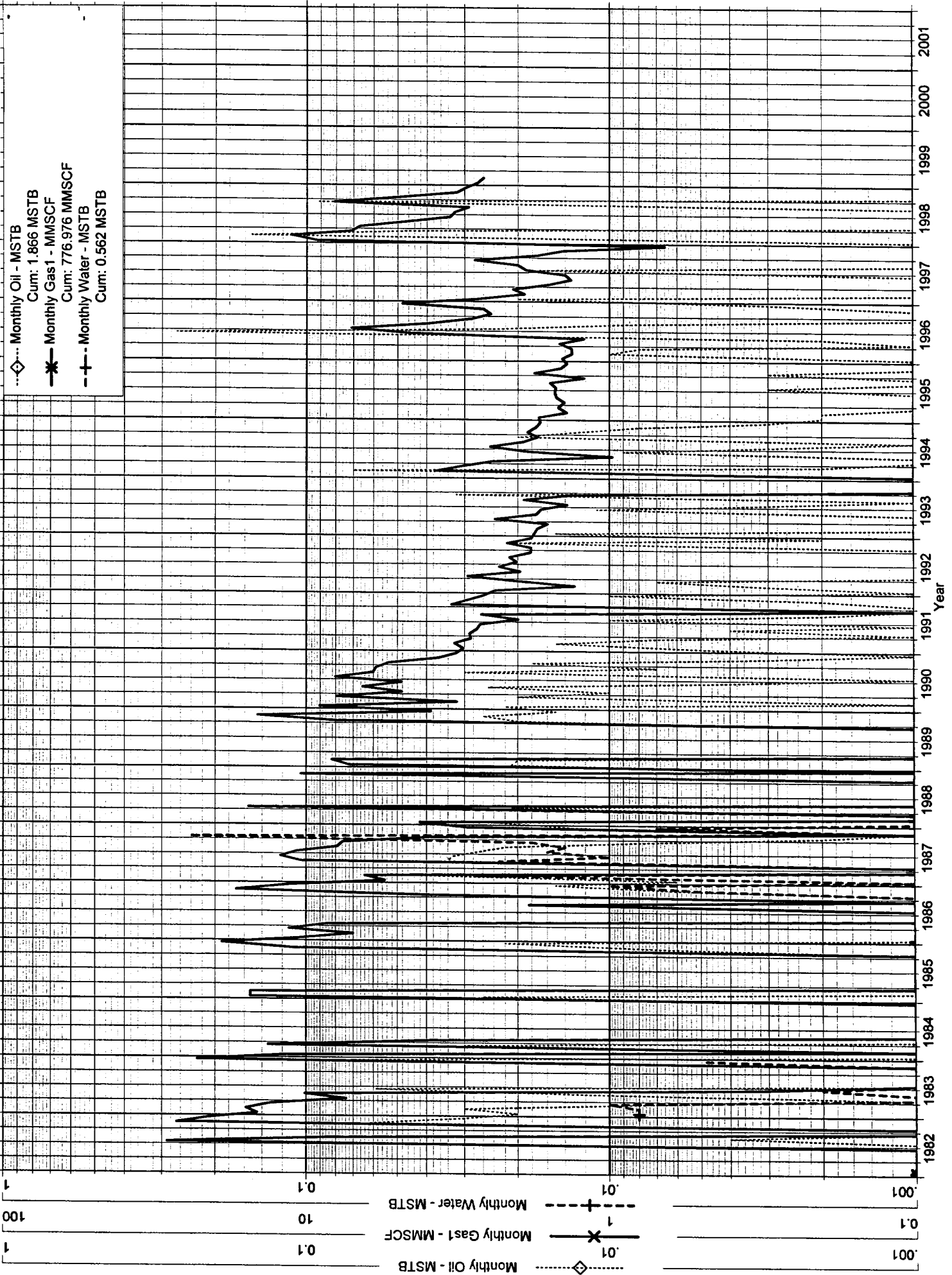
I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed

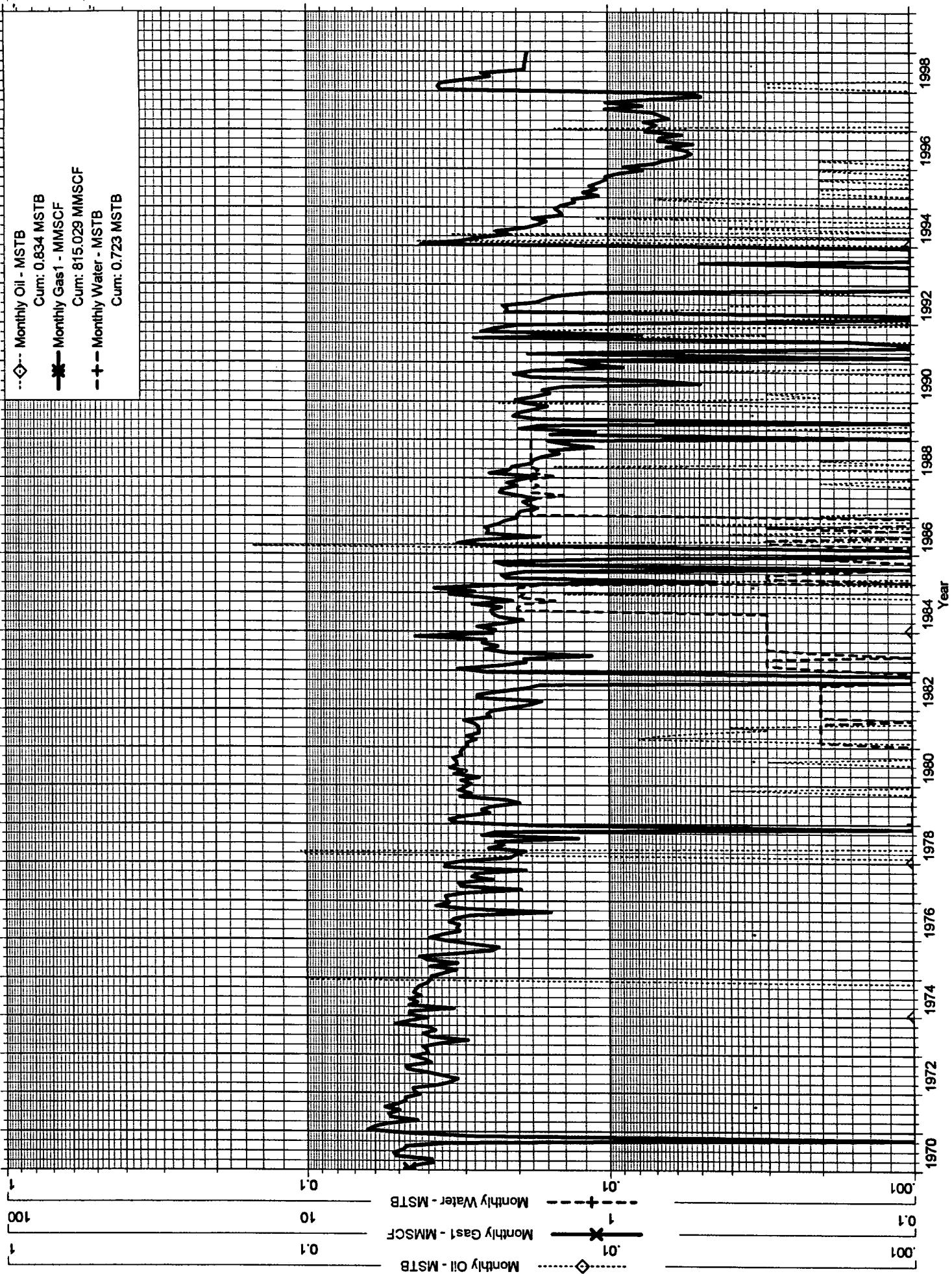
Registered Professional Engineer
and/or Land Surveyor

Certificate No.





DP



DK

BTU 1070

meter no: 32757

Page No.: 1
Print Time: Tue Mar 09 15:42:45 1999
Property ID: 615
Property Name: GRENIER A | 3 | 25652-1
Table Name: K:\ARIES\RR99PDP\TEST.DBF

--DATE--	--CUM OIL--	---CUM GAS--	M SIWHP	C SIWHP
.....	Bbl.....	Mcf.....	Psi.....	
03/31/64		0	2011.0	
04/17/70		415768	740.0	
04/18/71		468589	725.0	
04/18/72		524736	612.0	
09/26/73		591991	563.0	
08/02/75		686183	591.0	
04/17/77		747255	592.0	
05/16/79		809314	464.0	
09/01/81		890531	625.0	
05/02/83		927719	755.0	
10/03/84		970314	722.0	
07/25/85		991848	740.0	
01/13/88		1046856	747.0	
06/08/90		1093708	648.0	
04/28/92		1119155	678.0	

17V

BTU 1166

meter no: 34352

Page No.: 1
Print Time: Wed Mar 10 06:51:07 1999
Property ID: 476
Property Name: GRENIER A | 3 | 25653-1
Table Name: K:\ARIES\RR99WW\TEST.DBF

--DATE--	--CUM OIL--	---CUM GAS--	M SIWHP	C SIWHP
.....	Bbl.....	Mcf.....	Psi.....	

10/04/70		0	907.0	
01/03/71		3778	688.0	
09/26/73		33197	738.0	
08/02/74		41633	630.0	
08/02/76		54056	290.0	
06/08/82		84343	794.0	
04/04/84		88947	759.0	
09/17/86		95308	747.0	
05/10/89		105526	754.0	
06/17/91		110021	514.0	

FARMINGTON

1998 MONTHLY PRODUCTION FOR 25652

PHS030M1

GRENIER A 3

BASIN DAKOTA (PRORATED GAS) FIELD

DAKOTA ZONE

DAYS =====				OIL =====		=====		GAS =====						
MO	T	S	ON	PC	PROD	GRV	PC	PROD	ON	BTU	PRESS	WATER	PROD	C
1	2	F	31	02			01	3572	31	1067	15.025			
2	2	F	28	02	3		01	3646	28	1067	15.025			
3	2	F	31	02	3		01	3581	31	1067	15.025			
4	2	F	27	02			01	2964	27	1067	15.025			
5	2	F	31	02	1		01	2453	31	1067	15.025			
6	2	F	30	02	1		01	2612	30	1067	15.025			
7	2	F	31	02			01	2632	31	1068	15.025			
8	2	F	31	02			01	2298	31	1068	15.025			
9	2	F	30	02			01	2095	30	1068	15.025			
10	2	S	12	02			01	640	12	1068	15.025			
11	2	F					01	2829		1068	15.025			
12								183						

PF6 - RETURNS TO ANNUAL DISPLAY
 PF10 - HELP INFORMATION

PF3 - TRANSFER TO UPDATE
 PF9 - DISPLAY MONTHLY INJECTION
 PRS 01/06/99

00/00/00 00:00:00:0

FARMINGTON

1998 MONTHLY PRODUCTION FOR 25653

PHS030M1

GRENIER A 3

BLANCO MESAVERDE (PRORATED GAS FIELD

MESAVERDE ZONE

DAYS =====			OIL =====			=====			GAS =====					
MO	T	S	ON	PC	PROD	GRV	PC	PROD	ON	BTU	PRESS	WATER	PROD	C
1	2	F	31	02			01		31		15.025		9	
2	2	F	28	02			01		28		15.025		9	
3	2	F	31	02			01		31		15.025		9	
4	2	F	25	02			01		25		15.025		9	
5	2	S	12	02			01		12		15.025		9	
6	2	F	1	02			01		1		15.025		9	
7	2	F	31	02			01		31		15.025		9	
8	2	S	1	02			01		1		15.025			
9	2	S		02			01				15.025			
10	2	S		02			01				15.025			
11	2	S					01				15.025			
12														

PF6 - RETURNS TO ANNUAL DISPLAY
 PF10 - HELP INFORMATION

PF3 - TRANSFER TO UPDATE
 PF9 - DISPLAY MONTHLY INJECTION
 PRS 01/06/99

00/00/00 00:00:00:0

OPR008M2 472B

0008 CHROMATOGRAPH GAS SAMPLE DETAIL

08:20:27.7 03/18/99

DK

	MOL %	(AT 14.73)	GPM
HYDROGEN	_____		
HELIUM	_____		
NITROGEN	___0.23	N ²	
OXYGEN	_____		
HYDROGEN SULFIDE	_____		
CARBON DIOXIDE	___1.91	CO ₂	
METHANE	___90.77		
ETHANE	___4.68	1.2519	
PROPANE	___1.13	0.3114	
ISO-BUTANE	___0.25	0.0818	
N-BUTANE	___0.25	0.0788	
ISO-PENTANE	___0.13	0.0476	
N-PENTANE	___0.08	0.0290	
HEXANE	_____		
HEXANE PLUS	___0.57	0.2487	
HEPTANE PLUS	_____		
TOTALS	100.00	2.0492	

** DATA AT 14.730 PSIG UNLESS NOTED **

MP NUMBER 32757
EFFECTIVE DATE 19980701

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

----- SPECIFIC GRAVITY -----
CALCULATED _0.6350
MEASURED _____

SULPHUR GRAINS / 100 CU FT _____

03=MAIN SCREEN

24=HELP

PA1=TERMINATE

Grenier A #3
Bottom Hole Pressures
Flowing and Static BHP
Cullender and Smith Method
Version 1.0 3/13/94

Mesaverde (Offset)		Dakota	
<u>MV-Current</u>		<u>DK-Current</u>	
GAS GRAVITY	0.715	GAS GRAVITY	0.635
COND. OR MISC. (C/M)	C	COND. OR MISC. (C/M)	C
%N2	0.42	%N2	0.23
%CO2	0.69	%CO2	1.91
%H2S	0	%H2S	0
DIAMETER (IN)	1.5	DIAMETER (IN)	1.5
DEPTH (FT)	7200	DEPTH (FT)	7120
SURFACE TEMPERATURE (DEG F)	60	SURFACE TEMPERATURE (DEG F)	60
BOTTOMHOLE TEMPERATURE (DEG F)	149	BOTTOMHOLE TEMPERATURE (DEG F)	148
FLOWRATE (MCFPD)	0	FLOWRATE (MCFPD)	183
SURFACE PRESSURE (PSIA)	514	SURFACE PRESSURE (PSIA)	678
BOTTOMHOLE PRESSURE (PSIA)	620.6	BOTTOMHOLE PRESSURE (PSIA)	803.9
<u>MV-Original</u>		<u>DK-Original</u>	
GAS GRAVITY	0.715	GAS GRAVITY	0.635
COND. OR MISC. (C/M)	C	COND. OR MISC. (C/M)	C
%N2	0.42	%N2	0.23
%CO2	0.69	%CO2	1.91
%H2S	0	%H2S	0
DIAMETER (IN)	1.5	DIAMETER (IN)	1.5
DEPTH (FT)	7200	DEPTH (FT)	7120
SURFACE TEMPERATURE (DEG F)	60	SURFACE TEMPERATURE (DEG F)	60
BOTTOMHOLE TEMPERATURE (DEG F)	149	BOTTOMHOLE TEMPERATURE (DEG F)	148
FLOWRATE (MCFPD)	0	FLOWRATE (MCFPD)	183
SURFACE PRESSURE (PSIA)	907	SURFACE PRESSURE (PSIA)	2011
BOTTOMHOLE PRESSURE (PSIA)	1111.1	BOTTOMHOLE PRESSURE (PSIA)	2429.2

DATE: January 18, 1988

NAME: GRENIER A #3

FORM: MESAVERDE

LOCATION

UNIT: G

SEC: 34

TWN: 30N

RNG: 10W

T
30
N

10/86 Stewart LS #3M Stewart LS #3 132/134 mm 28/244 mm 3/86 [26] Stewart LS #4 88/1081 mm	P&A 11/82 Riddle B #1 0356 mm 8/85 Riddle B #1R 187/883 mm 3/81 [27] Schoon LS #1R 66/818 mm 5/78 Riddle B #1A 119/1446 mm	10/78 Grenier A #1A 77/1110 mm 1/84 Surrey F #1 60/2178 mm 1261 2/81 Surrey F #1A 102/1055 mm 11/81 Grenier A #1 53/710 mm
10/80 Trieb Federal #2E 44/368 mm 4/80 Basest B #1 135/775 mm 12/82 Basest B #1M 53/617 mm 1/88 [33] Trieb Federal Com #2 120/28 mm	Feb-84 Grenier A #3M 78/483 mm 10/86 Sanchez #3A 112/482 mm INA 10/70 Grenier A #3 0/112 (95) 7/82 Sanchez #3E 198/782 mm 1341	9/87 Kelly #2 60/1117 mm 10/80 Grenier A #8 88/1083 mm [36] 2/80 Kelly #2A 281/1743 mm 1/81 Grenier A #8M 183/619 mm
7/81 Grenier B #4A 73/663 mm 4/73 Grenier B #4 90/678 mm [4]	INA 9/72 Here #15 0/85 #11 9/71 Here #16 38/497 mm 12	5/70 State Gas Com BQ #1 68/678 mm [2]

LEGEND

COMPLETION DATE

WELL NAME

MCF/D-CUM(MMF)

BOF/D-CUM(MBO)

R-10-W

DATE: February 25, 1999

NAME: GRENIER A 3

FORM: DAKOTA

LOCATION

UNIT: G

SEC: 34

TWN: 30N

RNG: 10W

LEGEND

COMPLETION DATE

WELL NAME

MCF/D-CUM(MMF)

BOP/D-CUM(MBO)

8/60 Stewart LS 8 61/1071(ee) 0/1 [28] 8/61 Stewart LS 8 50/1261(ee) 0/1 10/96 Stewart LS 6M 137/109(ee) 0/0	12/64 Riddle B 10 110/1497(ee) [27] 0/0 6/61 Schoen LS 2 85/1834(ee) 0/0 9/85 Riddle B 10E 23/264(ee) 0/0	5/81 Grenier A 4E 59/488(ee) 0/0 [26] 4/64 Grenier A 4 10/1783(ee) 0/3
INA 10/62 Bassett Com 1 3/681(ee) 0/1 12/82 Bassett Com 1M 69/285(ee) 0/1 10/80 Trieb Federal 2E 48/340(ee) 0/0 [33] 8/62 Trieb Federal 2 152/941(ee) 0/2	SIGW 2/84 Grenier A 3M 82/332(ee) 0/0 12/63 Sanchez 3 71/1300(ee) 0/1 3/64 Grenier A 3 87/1213(ee) [34] 0/1 9/81 Sanchez 3E 99/812(ee) 0/3	10/78 Grenier A 8 101/778(ee) 0/3 [36] 1/81 Grenier A 8M 124/473(ee) 0/5 P&A 5/64 Kelly 4 0/1331(ee) 0/4
2/97 Grenier B 4E 140/109(ee) 0/0 7/85 Feuille A 5E 33/265(ee) 0/0 4/62 Feuille A 5 70/1769(ee) 0/3 SIGW 4/62 Grenier B 4 51/1093(ee) [4] 0/0 12/62 Feuille A 5 70/1769(ee) 0/3	5/62 Hare 16 71/654(ee) 0/12 SIGW 2/81 Hare 15M 2/51(ee) 0/0 4/62 Hare 15 103/1896(ee) 0/20 [3]	10/81 State Gas Com BR 1 25/394(ee) 0/3 10/87 State Gas Com BR 1E 66/344(ee) 0/3 [2]

T 30
N

T 29
N

R-10-W

Pertinent Data Sheet – GRENIER A #3 MV-DK

G 34 30 10

Location: 1510' FNL 1620' FEL, Unit G, Section 34, T30N, R10W, San Juan County, New Mexico

Field: Blanco Mesaverde
Basin Dakota

Elevation: 5978' GL
KB=12'

TD: 7120'

PBTD: 7086'

Lease#: Fed. SF-077282

DP #: DK: 25652. MV: 25653

BRGWI: 25.00%

BRNRI: 21.00%

Spud Date: 2/21/64

Completion Date: 3/25/64 SRC Trust = 100%

Casing Record:

<u>Hole Size</u>	<u>Csg Size</u>	<u>Wt. & Grade</u>	<u>Depth Set</u>	<u>Cement</u>	<u>Cement (Top)</u>
12-1/4"	8-5/8"	24#	308'	250 sx	Circ Cmt
6-3/4"	4-1/2"	9.5&10.5#	7118'	200 sx	6590' - Survey
		Stage Tool @	5065'	150 sx	4850' - CBL
		Stage Tool @	2649'	100 sx	3000' - CBL **

****NOTE:** Depth of upper DV tool and cmt top do not concur.

Tubing Record:

1/1-2"	2.9# EUE	6650'	211 Jts
	Model "D" Pkr @	6650'	
	S.N. @	6649'	
	Sliding Sleeve @	6619'	
	Blast jts across MV @	~4170'~4240'	

Initial Potential

1964 DK: AOF=1,896 MCF/D; Q=1,796 MCF/D; SICP=1,978 PSI

1970 DK: AOF=953 MCF/D; Q=869 MCF/D; SICP=781 PSI

1970 MV: AOF=1,243 MCF/D; Q=1,225 MCF/D; SICP=894 PSI

Formation Tops:

Ojo Alamo:	1245'	Menefee	4253'
Kirtland Shale:	1389'	Point Lookout	4747'
Fruitland:	2080'	Gallup	5993'
Pictured Cliffs:	2476'	Dakota	6930'
Cliffhouse	4026'		

Logging Record: : 1964: Induction, GR, Survey. 1970: Csg Insp., CBL, GR.

Stimulation: Perf DK w/4 spf @ 6852'-6862', 6932'-60', 7006'-14', 7036'-44' & fraced w/80,000# sand in water.

Workover History: 10/70: Set cmt ret @ 6982' & sq lower DK perfs (7006'-14' & 7036'-44') w/50 sx cmt. Refraced upper DK perfs (6852'-6960') w/50,000# sand in water.

Perfed MV (Cliffhouse) w/2 spf @ 4173'-80', 4200'-36' & fraced w/60,000# sand in water. Completed as a dual MV/DK.

Production History: MV Cum = 77 MMCF w/present capacity of 0 MCF/D. MV last produced gas in 3/93. DK Cum = 1,214 MMCF & 1,361 BO w/present capacity of about 60 MCF/D. See attached production curves. The current line pressure is 80 psi. 5/19/88: Surface liquid commingling approved, PC-746. The MV gas has about 10 PPM of H2S.

Pipeline: Williams Gathering

GRENIER A #3 MV-DK

UNIT G SECTION 34 T30N R10W
SAN JUAN COUNTY, NEW MEXICO

