

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 and Gas**

Operator **Rattlesnake Canyon** #1 Address **N-32-T32N-R8W** County **San Juan**

Lease Well No. Unit Ltr. - Sec - Twp - Rge Spacing Unit Lease Types: (check 1 or more)

OGRID NO. 14538 Property Code 18605 API NO. 30-045-20515 Federal ☐ , State ☒ , Fee ☐

The following facts are submitted in support of downhole commingling:	Upper Zone	Intermediate Zone	Lower Zone
1. Pool Name and Pool Code	Pump Mesa Fruitland Sand		Blanco Mesaverde
2. Top and Bottom of Pay Section (Perforations)	3280'-3300'		5576'-5988'
3. Type of production (Oil or Gas)	Gas		Gas
4. Method of Production (Flowing or Artificial Lift)	Flowing		Flowing
5. Bottomhole Pressure	(Current) a. 250 psi (see attachment)		a. 275 psi (see attachment)
Oil Zones - Artificial Lift: Estimated Current	(Original) b. 1421 psi (see attachment)		b. 1031 psi (see attachment)
Gas & Oil - Flowing: Measured			
Current All Gas Zones: Estimated or Measured			
6. Oil Gravity (°API) or Gas BTU Content	BTU 946		BTU 1015
7. Producing or Shut-In?	Producing		Producing
Production Marginal? (yes or no)	Yes		Yes
* If Shut-In and oil/gas/water rates of last production	Date: N/A 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: 3/31/99 Rates: 30 mcf/d 0.0 bopd		Date: 3/31/99 Rates: 48 mcf/d 0.0 bopd
8. Fixed Percentage Allocation Formula - % for each zone (total of %'s to equal 100%)	Will be supplied upon completion.		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 ☐ 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

* 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 commoningling.

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

SIGNATURE: Mike Haddenham TITLE Production Engineer DATE 6/14/99

TYPE OR PRINT NAME Mike Haddenham TELEPHONE NO. (505) 326-9700

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.

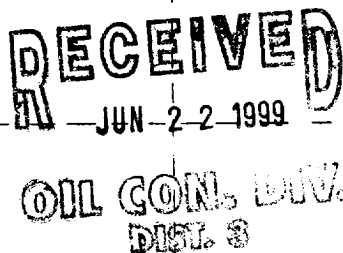
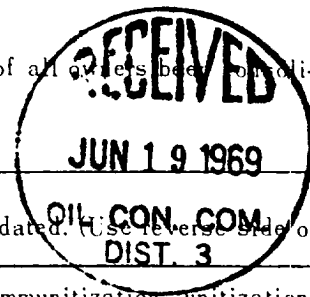
Operator Aztec Oil & Gas Company			Lease		Well No.
Unit Letter N	Section 32	Township 32N	Range 8W	County San Juan	
Actual Footage Location of Well: 820 feet from the South line and 1680 feet from the West line					
Ground Level Elev. 6646	Producing Formation Dakota		Pool	Dedicated Acreage: Acres	

- Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below.
- If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
- 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?

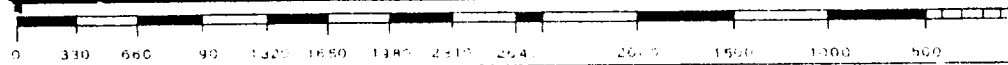
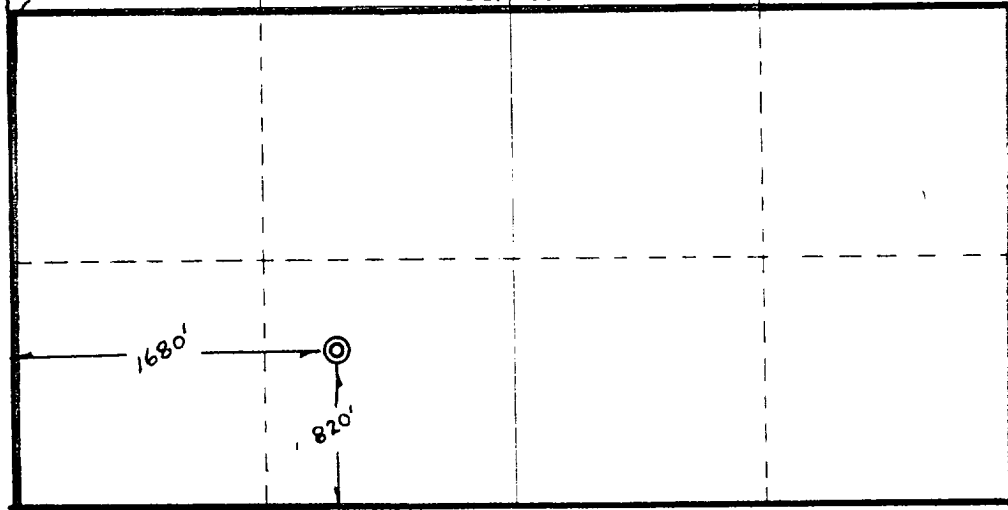
☐ Yes ☐ No If answer is "yes," type of consolidation _____

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.



Sec. 32



CERTIFICATION

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

Name
Position
Company
Date

June 10, 1969

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
Plotted by

June 10, 1969

John B. Herr Jr.

3950

Submit to Appropriate
District Office
State Lease - 4 copies
Fee Lease - 3 copies

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised 1-1-89

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

DISTRICT I
P.O. Box 1980, Hobbs, NM 88240

DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

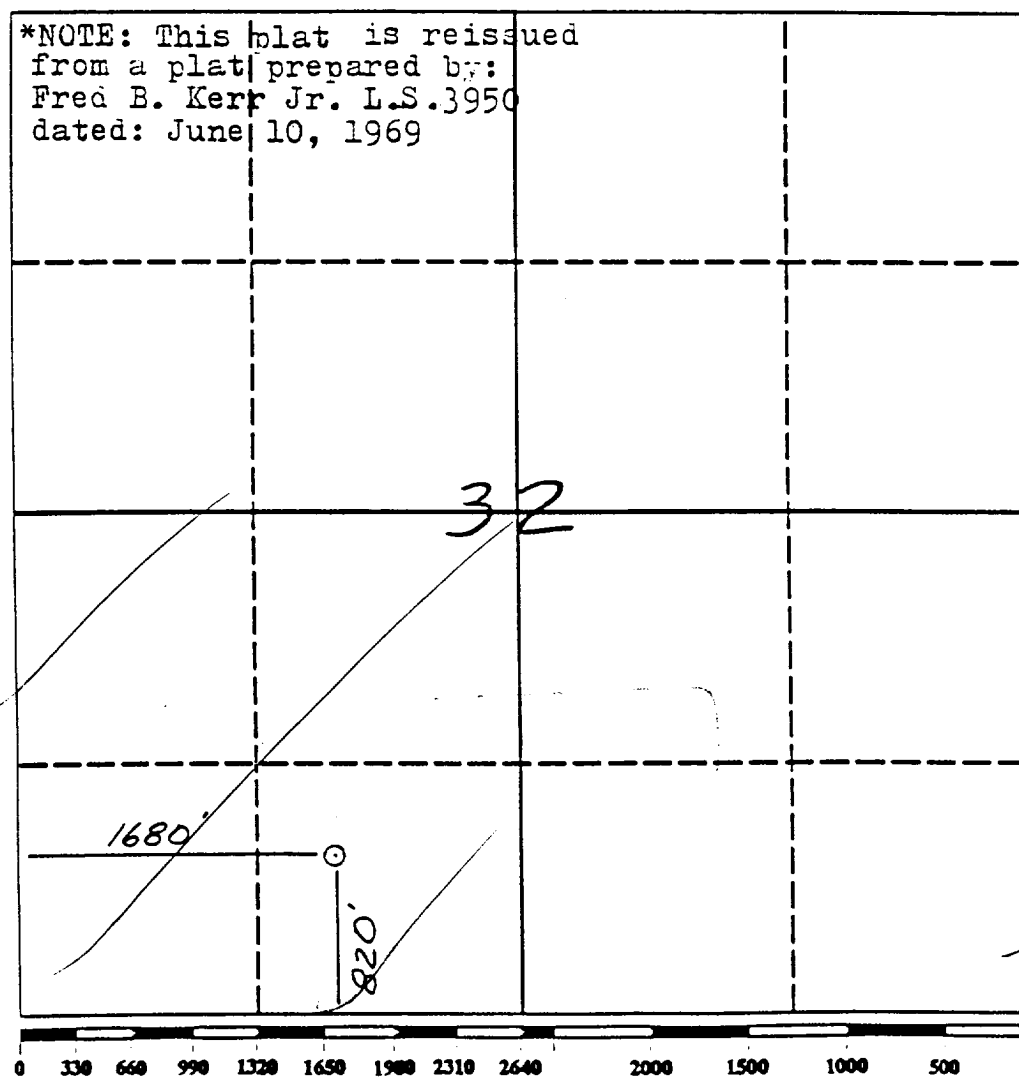
WELL LOCATION AND ACREAGE DEDICATION PLAT

All Distances must be from the outer boundaries of the section

Operator Southland Royalty Company		Lease Rattlesnake Canyon		Well No. 1
Unit Letter N	Section 32	Township 32 North	Range 8 West	County San Juan
Actual Footage Location of Well: 820 feet from the South line and 1680 feet from the West line				
Ground level Elev. 6646'	Producing Formation Fruitland Sand	Pool Pump Mesa Fruitland Sand	Dedicated Acreage: 160 Acres	

1. Outline the acreage dedicated to the subject well by colored pencil or hatchure 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 interest 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 interest, has been approved by the Division.

*NOTE: This plat is reissued
from a plat prepared by:
Fred B. Kerp Jr. L.S.3950
dated: June 10, 1969



OPERATOR CERTIFICATION

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

Signature
Printed Name
Peggy Bradfield
Position
Regulatory Affairs
Company
Southland Royalty Co.
Date
March 1, 1989

SURVEYOR CERTIFICATION

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

Date Surveyed
Neale C. Edwards
Signature & Seal of
Professional Surveyor

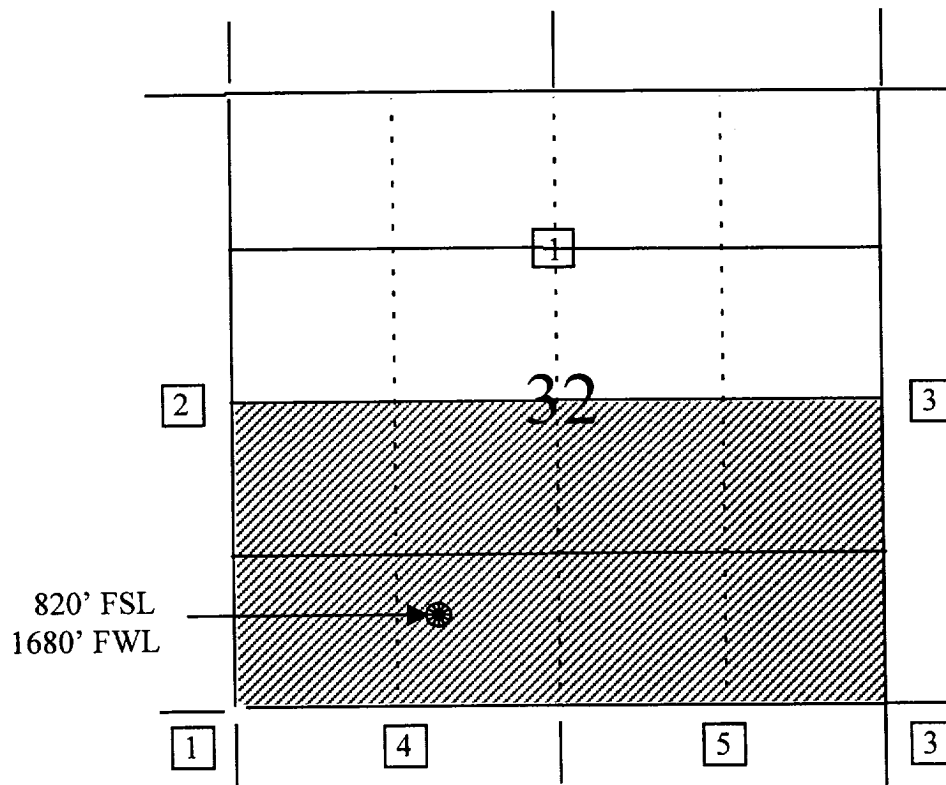
Certificate No. 6857

BURLINGTON RESOURCES OIL AND GAS COMPANY

Rattlesnake Canyon #1 OFFSET OPERATOR / OWNER PLAT Downhole Commingle

Fruitland Sand / Mesaverde Formations Well

Township 32 North, Range 8 West



- | | |
|--|--|
| 1) Burlington Resources | 4) Four Star Oil & Gas Company
c/o Texaco Exploration & Production Inc.
Attn: Rocky D. Holly
Post Office Box 2100
Denver, CO 80201 |
| 2) Koch Exploration
c/o Koch Producer Services
20 E Greenway Plaza
Houston, TX 77046 | 5) Vastar Resources
Attn: Michael Rodgers
15375 Memorial Drive
Houston, TX 77069 |
| 3) Phillips Petroleum Company
Attn: Mr. Scott Prather
5525 Hwy. 64, NBU 3004
Farmington, NM 87401 | |

4A ⊗	233 30 [*] 239 [*] 47 [⊗]	29 2 [*] 208 [⊗]	230 [*] 231 [*] 28
63 ⊗ [*] 228 63A ⊗	2 [⊗] 31 3 [⊗] 3A [⊗]	101 [*] 2 [⊗] 32 [*] 1A [⊗]	40A ⊗ 25 [⊗] 33 [*] 203 250 [*] 40 [⊗]
7 [⊗] 710 [*] 7A ⊗	1 [⊗] 331 6 [*] 1A [⊗]	2 [*] 1 [⊗] 5 1A [⊗] 8 [⊗] 330 [*]	20A ⊗ 22 [⊗] 20 ⊗ 4
4 [⊗]	2 [⊗]	1A [⊗] 333 [*] 3 [⊗]	222 [⊗] 33

Rattlesnake Canyon #1
Sec. 32, T32N, R8W
FTS/MV

RATTLESNAKE CANYON : 1 : 65885-1

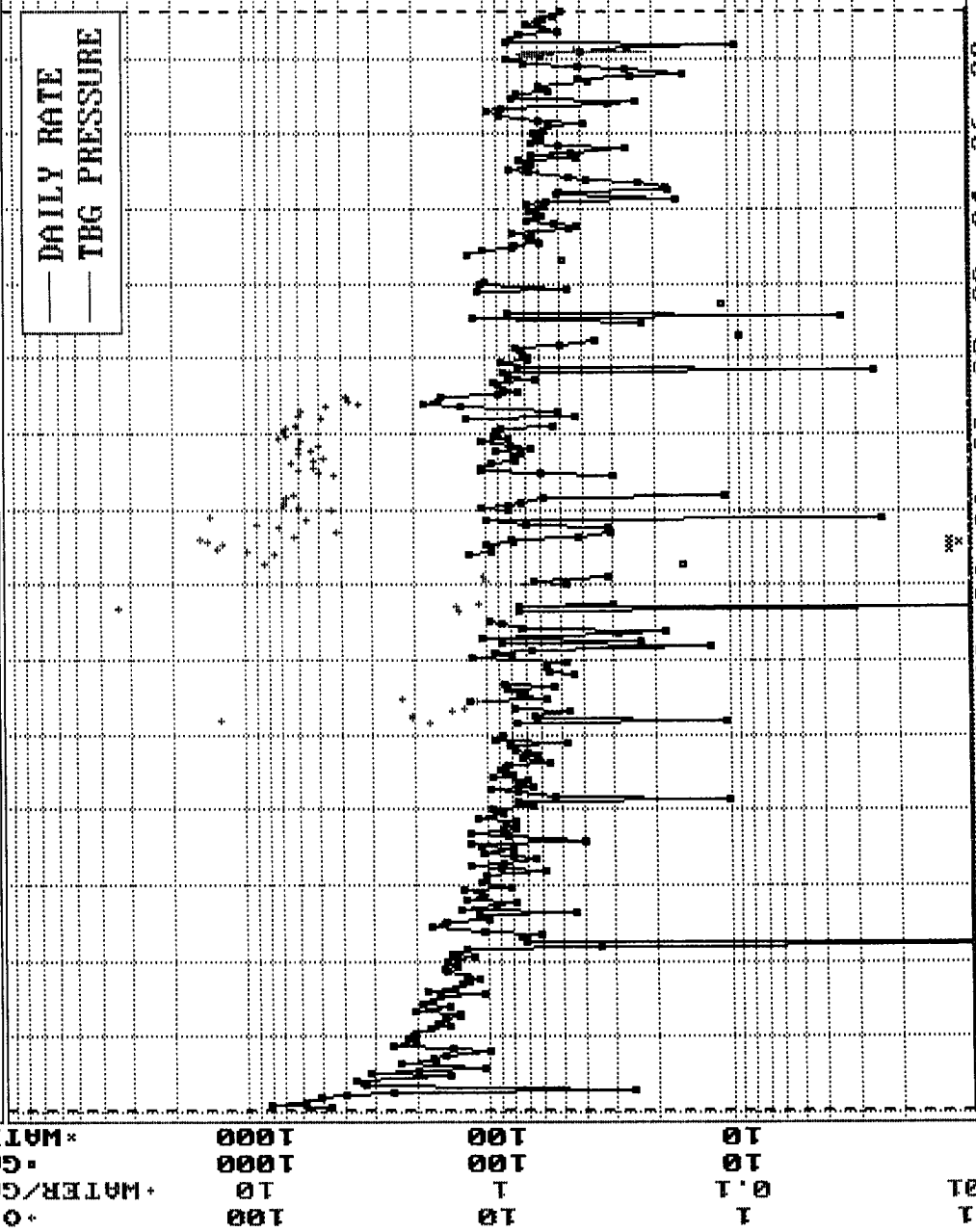
• OIL
• WATER/GAS
• GAS
• WATER

— DAILY RATE
— TBG PRESSURE

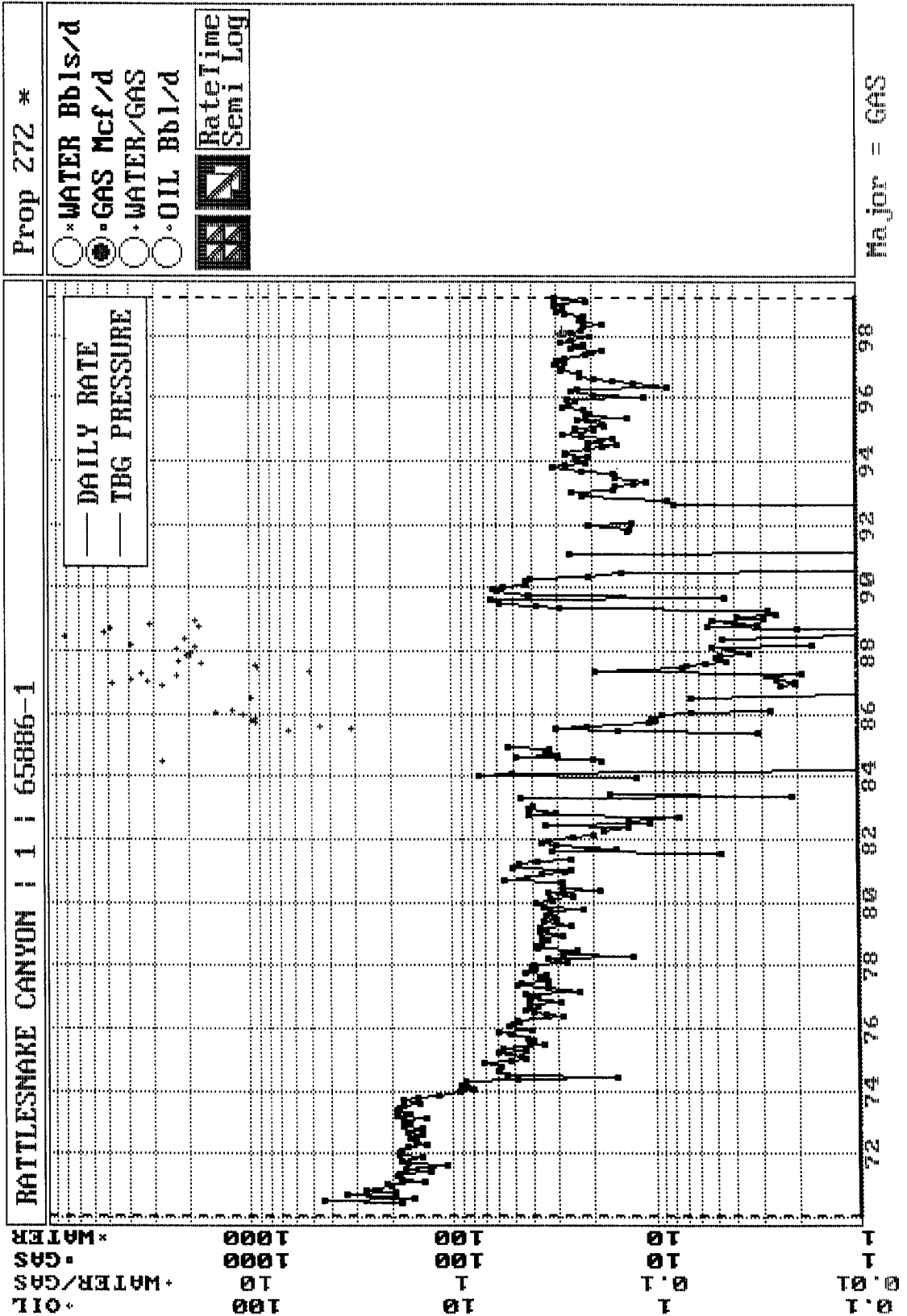
Prop 271 *

- WATER Bbls/d
- GAS Mcf/d
- WATER/GAS
- OIL Bbl/d

RateTime
Semi Log



Major = GAS



Rattlesnake Canyon #1
Bottom Hole Pressures
Flowing and Static BHP
Cullender and Smith Method

Version 1.0 1/14/98

Mesaverde		Fruitland Sand	
<u>MV-Current</u>		<u>FTS-Current</u>	
GAS GRAVITY	<u>0.586</u>	GAS GRAVITY	<u>0.642</u>
COND. OR MISC. (C/M)	<u>C</u>	COND. OR MISC. (C/M)	<u>C</u>
%N2	<u>0</u>	%N2	<u>0.00</u>
%CO2	<u>0.02</u>	%CO2	<u>0.07</u>
%H2S	<u>0</u>	%H2S	<u>0</u>
DIAMETER (IN)	<u>1.9</u>	DIAMETER (IN)	<u>7.625</u>
DEPTH (FT)	<u>5782</u>	DEPTH (FT)	<u>3290</u>
SURFACE TEMPERATURE (DEG F)	<u>60</u>	SURFACE TEMPERATURE (DEG F)	<u>60</u>
BOTTOMHOLE TEMPERATURE (DEG F)	<u>150</u>	BOTTOMHOLE TEMPERATURE (DEG F)	<u>111</u>
FLOWRATE (MCFPD)	<u>0</u>	FLOWRATE (MCFPD)	<u>0</u>
SURFACE PRESSURE (PSIA)	<u>275</u>	SURFACE PRESSURE (PSIA)	<u>250</u>
BOTTOMHOLE PRESSURE (PSIA)	<u>309.1</u>	BOTTOMHOLE PRESSURE (PSIA)	<u>269.7</u>
<u>MV-Original</u>		<u>FTS-Original</u>	
GAS GRAVITY	<u>0.586</u>	GAS GRAVITY	<u>0.642</u>
COND. OR MISC. (C/M)	<u>C</u>	COND. OR MISC. (C/M)	<u>C</u>
%N2	<u>0</u>	%N2	<u>0.00</u>
%CO2	<u>0.02</u>	%CO2	<u>0.07</u>
%H2S	<u>0</u>	%H2S	<u>0</u>
DIAMETER (IN)	<u>1.9</u>	DIAMETER (IN)	<u>7.625</u>
DEPTH (FT)	<u>5782</u>	DEPTH (FT)	<u>3290</u>
SURFACE TEMPERATURE (DEG F)	<u>60</u>	SURFACE TEMPERATURE (DEG F)	<u>60</u>
BOTTOMHOLE TEMPERATURE (DEG F)	<u>150</u>	BOTTOMHOLE TEMPERATURE (DEG F)	<u>111</u>
FLOWRATE (MCFPD)	<u>0</u>	FLOWRATE (MCFPD)	<u>0</u>
SURFACE PRESSURE (PSIA)	<u>1031</u>	SURFACE PRESSURE (PSIA)	<u>1421</u>
BOTTOMHOLE PRESSURE (PSIA)	<u>1172.7</u>	BOTTOMHOLE PRESSURE (PSIA)	<u>1557.2</u>

Page No.: 1

Print Time: Fri Jun 04 09:42:40 1999

Property ID: 271

Property Name: RATTLESNAKE CANYON | 1 | 65885-1 M V

Table Name: S:\KELLY\MIKEH\PROJ1\TEST.DBF

--DATE--	--CUM OIL-- Bbl	---CUM GAS-- Mcf	M SIWHP Psi	
08/18/69		0	1031.0	ORIGINAL
03/17/70		38374	770.0	
08/11/71		172116	514.0	
08/21/72		237979	428.0	
04/18/73		277679	383.0	
00/10/74		310549	433.0	
00/10/74		310549	433.0	
00/10/74		310549	433.0	
10/10/74		337035	433.0	
02/02/76		391792	342.0	
07/06/77		438182	383.0	
08/02/78		468676	327.0	
10/02/80		516452	327.0	
05/03/82		550507	333.0	
11/05/84		583323	473.0	
03/19/86		612979	380.0	
09/08/89		703039	321.0	
03/18/91		728388	397.0	
04/02/91		728389	409.0	
08/30/93		765035	389.0	
03/01/99		874193	275.0	CURRENT

Page No.: 1

Print Time: Fri Jun 04 09:42:07 1999

Property ID: 272

Property Name: RATTLESNAKE CANYON | 1 | 65886-1 FS

Table Name: S:\KELLY\MIKEH\PROJ1\TEST.DBF

<u>--DATE--</u>	<u>--CUM_OIL--</u> Bbl	<u>---CUM_GAS---</u> Mcf	<u>M SIWHP</u> Psi	
08/18/69		0	1421.0	ORIGINAL
10/19/70		39867	768.0	
08/11/71		95089	684.0	
08/21/72		155260	609.0	
04/18/73		195834	566.0	
09/03/75		267860	394.0	
07/06/77		295930	381.0	
11/05/84		369124	467.0	CURRENT
03/01/99		450832	250.0	

Monthly Prod History (DM)

Wednesday, April 01, 1998 Through Wednesday, June 30, 1999

Select By : Completions

Pressure Base : None
Units :
Rounded (y/n) : No

Page No : 1
Report Number : R_027
Print Date : 06/04/1999, 10:49:51 A

Sort By :

PROD		TY		ST	PM	DAYS	OIL		SOL	GAS		PROD	INJ	PROD	WATER		SUPP
MO.						ON	PROD			SOLD					INJ		
Well: RATTLESNAKE CANYON 1																	
11/98	PG	P	FL			0	0.00		0.00		0	2,084		0			0.00
12/98	PG	P	FL			31	0.00		0.00		0	1,863		0			0.00
Totals :	1998						0.00		0.00		0.00	3,946.15		0.00			0.00
01/99	PG	P	FL			31	0.00		0.00		0	1,767		0			0.00
02/99	PG	P	FL			28	0.00		0.00		0	1,607		0			0.00
03/99	PG	P	FL			31	0.00		0.00		0	1,494		0			0.00
04/99	PG	P	FL			30	0.00		0.00		0	0		0			0.00
05/99	PG	P	FL			31	0.00		0.00		0	0		0			0.00
06/99	PG	P	FL			30	0.00		0.00		0	0		0			0.00
Totals :	1999						0.00		0.00		0.00	4,867.32		0.00			0.00
Totals	RATTLESNAKE CANYON						0.00		0.00		0.00	8,813.47		0.00			0.00

Monthly Prod History (DM)

Wednesday, April 01, 1998 Through Wednesday, June 30, 1999

Select By : Completions

Pressure Base : None
Units :
Rounded (y/n) : No

Page No : 1

Report Number : R_027

Print Date : 06/04/1999, 10:51:43 A

Sort By :

PROD MO.	TY	ST	PM	DAYS ON	OIL		GAS		WATER		
					PROD	SOL	PROD	SOLD	INJ	SUPP	
Well: RATTLESNAKE CANYON					1						
11/98	PG	P	FL	0	0.00	0.00	842	0	0		0.00
12/98	PG	P	FL	31	0.00	0.00	929	0	0		0.00
Totals :	1998				0.00	0.00	1,770.51	0.00	0.00		0.00
01/99	PG	P	FL	31	0.00	0.00	925	0	0		0.00
02/99	PG	P	FL	28	0.00	0.00	652	0	0		0.00
03/99	PG	P	FL	31	0.00	0.00	923	0	0		0.00
04/99	PG	P	FL	30	0.00	0.00	0	0	0		0.00
05/99	PG	P	FL	31	0.00	0.00	0	0	0		0.00
06/99	PG	P	FL	30	0.00	0.00	0	0	0		0.00
Totals :	1999				0.00	0.00	2,500.26	0.00	0.00		0.00
Totals	RATTLESNAKE CANYON				0.00	0.00	4,270.77	0.00	0.00		0.00

FS