

DATE IN 4/7/00	SUSPENSE 4/27/00	ENGINEER DC	LOGGED KW	TYPE DHC
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ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION  
- Engineering Bureau -

2721

ADMINISTRATIVE APPLICATION COVERSHEET

THIS COVERSHEET IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS

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]

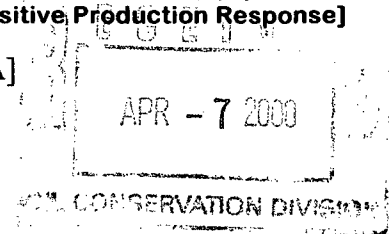
[1] TYPE OF APPLICATION - Check Those Which Apply for [A]

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

Check One Only for [B] and [C]

[B] Commingling - Storage - Measurement  
X DHC CTB PLC PC OLS OLM

[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] X 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 - Statement of Understanding

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, information or notification is cause to have the application package returned with no action taken.

Note: Statement must be completed by an individual with supervisory capacity.

Peggy Cole

Print or Type Name

Signature

Regulatory/Compliance Administrator

Title

Date

DISTRICT I  
1825 N. French Dr., Hobbs, NM 88240  
DISTRICT II  
811 South First St., Artesia, NM 88210  
DISTRICT III  
1000 Rio Brazos Rd, Aztec, NM 87410  
DISTRICT IV  
2040 S. Pacheco, Santa Fe, NM 87505

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  
Revised March 17, 1999

APPROVAL PROCESS:

☒ Administrative ☐ Hearing

EXISTING WELLBORE

☒ YES ☐ NO

APPLICATION FOR DOWNHOLE COMMINGLING

BURLINGTON RESOURCES OIL & GAS COMPANY PO Box 4289, Farmington, NM 87499  
Operator Address

Grenier A 8M M, Sec 35, T30N, 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 18531 API NO. 30-045-24489 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	Blanco Mesa Verde - 72319		Basin Dakota - 71599
2. Top and Bottom of Pay Section (Perforations)	4278' - 4947'		6941' - 7166'
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: Gas & Oil - Flowing: All Gas Zones: Estimated Current Measured Current Estimated Or Measured Original	(Current) a. 126 psia @ 4613' (Original) b. 1152 psia @ 4613'	a.  b.	a. 255 psia @ 7054'  b. 1177 psia @ 7054'
6. Oil Gravity (EAPI) or Gas BTU Content	1259 BTU		1134 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: 08/31/95 Rates: 131 MCFD, 0.5 BOD, 0 BWD
* If Producing, give date and oil/gas/water rates of recent test (within 60 days)	Date: 01/31/00 Rates: 6 MCFD 0 BOD, 0 BWD	Date: Rates:	Date: Rates:
8. Fixed Percentage Allocation Formula - % for each zone (total of %'s to equal 100%)	Oil: Gas: Will supply for commingling	Oil: % Gas: %	Oil: Gas: Will supply for commingling

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

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. 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.
- \* 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 TITLE Operations Engineer DATE 04/05/00

TYPE OR PRINT NAME Joe A. Michetti TELEPHONE NO. (505) 326-9700

nco nco

All distances must be from the outer boundaries of the Section

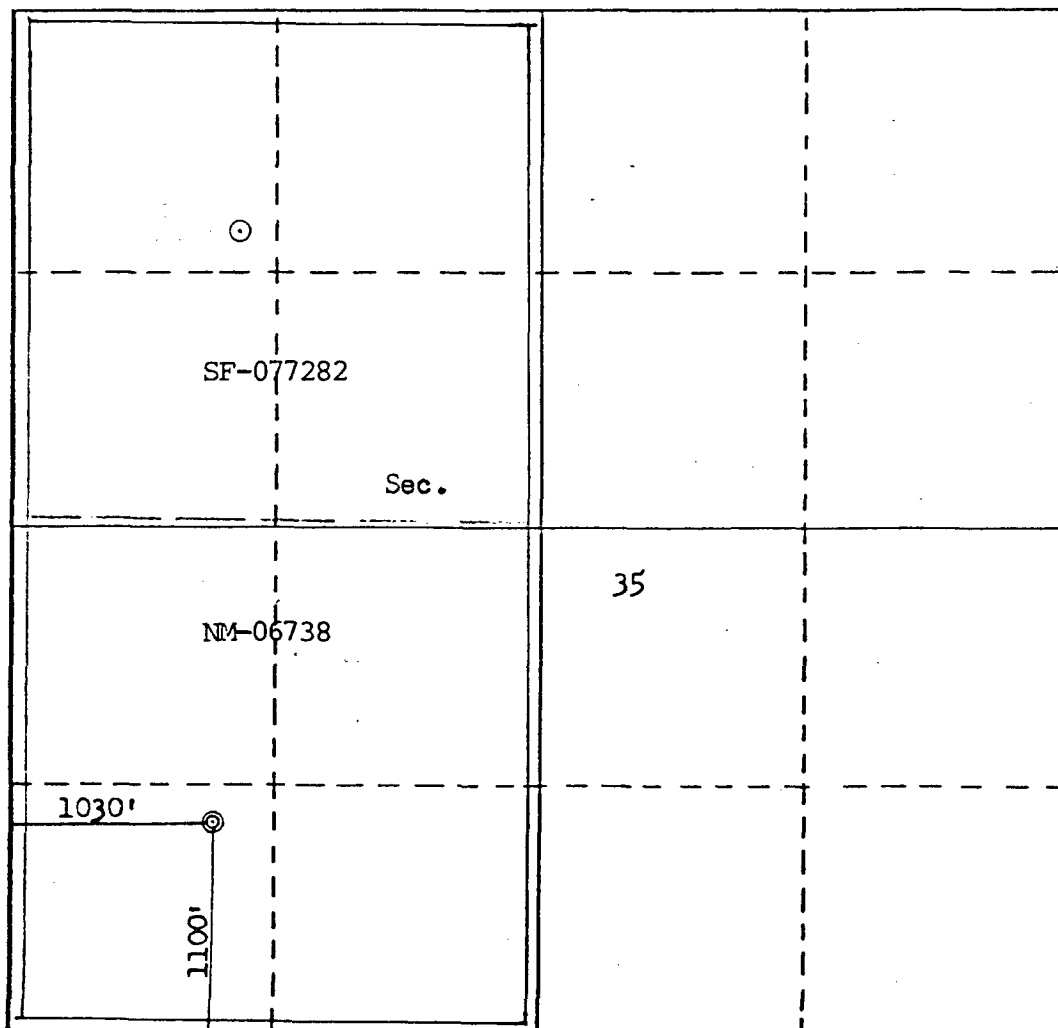
SOUTH LAND ROYALTY COMPANY			Lease GRENIER "A"		Well No. 8-M
Unit Letter M	Section 35	Township 30N	Range 10W	County San Juan	
Actual Footage Location of Well: 1100 feet from the South line and 1030 feet from the West line					
Ground Level Elev. 6089	Producing Formation Dakota - Mesa Verde		Pool Basin - Blanco		Dedicated Acreage: 320 - 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 Communitized

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.

*Curtis C. Parsons*

Name  
Curtis C. Parsons  
Position  
District Engineer  
Company  
Southland Royalty Company  
Date  
April 18, 1980

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  
February 29, 1980  
Registered Professional Engineer  
and/or Land Surveyor  
*Fred B. Kerr Jr.*  
Certification No. 3950  
FRED B. KERR, JR.

OIL CONSERVATION DIVISION

API # 30-045-24489

Page 1  
Revised 10/01/78

This form is not to  
be used for reporting  
packer leakage tests  
in Southeast New Mexico

NORTHWEST NEW MEXICO PACKER-LEAKAGE TEST

Operator BURLINGTON RESOURCES OIL & GAS CO. Lease GRENIER A Well No. 8M

Location  
of Well: Unit M Sect 35 Twp. 030N Rge. 010W County SAN JUAN

	NAME OF RESERVOIR OR POOL	TYPE OF PROD. (Oil or Gas)	METHOD OF PROD. (Flow or Art. Lift)	PROD. MEDIUM (Tbg. or Csg.)
Upper Completion	MESAVERDE	Gas	Artificial	Tubing
Lower Completion	DAKOTA	Gas	Artificial	Tubing

PRE-FLOW SHUT-IN PRESSURE DATA

Upper Completion	Hour, date shut-in 04/16/1999	Length of time shut-in 72 Hours	SI press. psig 378	Stabilized? (Yes or No)
Lower Completion	04/16/1999	120 Hours	376	

FLOW TEST NO. 1

Commenced at (hour,date)*		04/19/1999		Zone producing (Upper or Lower)	UPPER
TIME (hour,date)	LAPSED TIME SINCE*	PRESSURE		PROD. ZONE	REMARKS
		Upper Completion	Lower Completion	TEMP	
4/20/199	96 Hours	75	221		
4/21/199	120 Hours	112	218		Current

Production rate during test

Oil: BOPD based on Bbls. in Hours. Grav. GOR

Gas: MCFPD; Tested thru (Orifice or Meter):

MID-TEST SHUT-IN PRESSURE DATA

Upper Completion	Hour, date shut-in	Length of time shut-in	SI press. psig	Stabilized? (Yes or No)
Lower Completion	Hour, date shut-in	Length of time shut-in	SI press. psig	Stabilized? (Yes or No)

(Continue on reverse side)

MAR 6 1988 Revised 10-1-78

## NORTHWEST NEW MEXICO PACKER-LEAKAGE TEST FARMINGTON DISTRICT

Operator Southland Royalty Company Lease Grenier "A" Well No. 8M  
 Location of Well: Unit M Sec. 35 Twp. 30N Rge. 10W County San Juan

Name of Reservoir or Pool Type of Prod. Method of Prod. Prod. Medium  
 (Oil or Gas) (Flow or Art. Lift) (Tbg. or Csg.)

Upper Completion	Blanco Mesaverde	Gas	Flow	Tbg.
Lower Completion	Basin Dakota	Gas	Flow	Tbg.

PRE-FLOW SHUT-IN PRESSURE DATA *Original*

Upper Compl	Hour, date 10:15 a.m.	Length of time shut-in 168 Hrs.	SI press. T. 1004 psig C. 1002	Stabilized? (Yes or No)
Lower Compl	Hour, date 10:15 a.m.	Length of time shut-in 168 Hrs.	SI press. psig T. 986	Stabilized? (Yes or No)

## FLOW TEST NO. 1

Commenced at (hour, date)\* 9:30 a.m. 2-6-81 Zone producing (Upper ~~xxxxxxx~~: Upper

Time (hour, date)	Lapsed time since*	Pressure		Prod. Zone Temp.	Remarks
		Upper Compl.	Lower Compl.		
9:45 a.m. 2-6-81	15 min.	T. 267 C. 877	T. 987		
10:00 a.m. 2-6-81	30 min.	T. 256 C. 807	T. 990		
10:15 a.m. 2-6-81	45 min.	T. 220 C. 757	T. 994		
10:30 a.m. 2-6-81	60 min.	T. 202 C. 718	T. 996		
11:30 a.m. 2-6-81	120 min.	T. 121 C. 680	T. 1001		
12:30 p.m. 2-6-81	180 min.	T. 119 C. 672	T. 1004		

Production rate during test

Oil: \_\_\_\_\_ BOPD based on \_\_\_\_\_ Bbls. in \_\_\_\_\_ Hrs. \_\_\_\_\_ Grav. \_\_\_\_\_ GOR \_\_\_\_\_  
 Gas: \_\_\_\_\_ MCFPD; Tested thru (Orifice or Meter): \_\_\_\_\_

## MID-TEST SHUT-IN PRESSURE DATA

Upper Compl	Hour, date 12:30 p.m.	Length of time shut-in 168 Hrs.	SI press. T. 1013 psig C. 1018	Stabilized? (Yes or No)
Lower Compl	Hour, date 10:15 a.m.	Length of time shut-in 336 Hrs.	SI press. psig T. 1209	Stabilized? (Yes or No)

## FLOW TEST NO. 2

Commenced at (hour, date)\*\* 1:15 p.m. 2-13-81 Zone producing (~~xxxxxxx~~ Lower): Lower

Time (hour, date)	Lapsed time since **	Pressure		Prod. Zone Temp.	Remarks
		Upper Compl.	Lower Compl.		
1:30 p.m. 2-13-81	15 min.	T. 1013 C. 1018	T. 415		
1:45 p.m. 2-13-81	30 min.	T. 1013 C. 1018	T. 133		
2:00 p.m. 2-13-81	45 min.	T. 1013 C. 1018	T. 122		
2:15 p.m. 2-13-81	60 min.	T. 1013 C. 1018	T. 86		
3:15 p.m. 2-13-81	120 min.	T. 1013 C. 1018	T. 37		
4:15 p.m. 2-13-81	180 min.	T. 1013 C. 1018	T. 18		

Production rate during test

Oil: \_\_\_\_\_ BOPD based on \_\_\_\_\_ Bbls. in \_\_\_\_\_ Hrs. \_\_\_\_\_ Grav. \_\_\_\_\_ GOR \_\_\_\_\_  
 Gas: \_\_\_\_\_ MCFPD; Tested thru (Orifice or Meter): \_\_\_\_\_

**Grenier A 8M**  
**Bottom Hole Pressures**  
**Flowing and Static BHP**  
**Cullender and Smith Method**  
Version 1.0 3/13/94

<b>Mesaverde</b>		<b>Dakota</b>	
<b><u>MV-Current</u></b>		<b><u>DK-Current</u></b>	
GAS GRAVITY	0.726	GAS GRAVITY	0.672
COND. OR MISC. (C/M)	M	COND. OR MISC. (C/M)	M
%N2	0.27	%N2	0.25
%CO2	1.2	%CO2	1.85
%H2S	0	%H2S	0
DIAMETER (IN)	4.95	DIAMETER (IN)	4.95
DEPTH (FT)	4613	DEPTH (FT)	7054
SURFACE TEMPERATURE (DEG F)	60	SURFACE TEMPERATURE (DEG F)	60
BOTTOMHOLE TEMPERATURE (DEG F)	140	BOTTOMHOLE TEMPERATURE (DEG F)	183
FLOWRATE (MCFPD)	0	FLOWRATE (MCFPD)	0
SURFACE PRESSURE (PSIA)	112	SURFACE PRESSURE (PSIA)	218
BOTTOMHOLE PRESSURE (PSIA)	125.6	BOTTOMHOLE PRESSURE (PSIA)	255.4
<b><u>MV-Original</u></b>		<b><u>DK-Original</u></b>	
GAS GRAVITY	0.726	GAS GRAVITY	0.672
COND. OR MISC. (C/M)	M	COND. OR MISC. (C/M)	M
%N2	0.27	%N2	0.25
%CO2	1.2	%CO2	1.85
%H2S	0	%H2S	0
DIAMETER (IN)	4.95	DIAMETER (IN)	4.95
DEPTH (FT)	4613	DEPTH (FT)	7054
SURFACE TEMPERATURE (DEG F)	60	SURFACE TEMPERATURE (DEG F)	60
BOTTOMHOLE TEMPERATURE (DEG F)	140	BOTTOMHOLE TEMPERATURE (DEG F)	183
FLOWRATE (MCFPD)	0	FLOWRATE (MCFPD)	0
SURFACE PRESSURE (PSIA)	1004	SURFACE PRESSURE (PSIA)	986
BOTTOMHOLE PRESSURE (PSIA)	1152.2	BOTTOMHOLE PRESSURE (PSIA)	1177.1

# Cumulative Monthly Well Report

February 1997 -- February 2000

Select By : Completions  
Sort By :

Page No : 1  
Report Number : R\_290  
Last Update :  
Print Date : 02/14/2000, 9:06:39

Completion	Date	Cur Oil	Cum Oil	Cur Gas	Cum Gas	Cur Wat	Cum Wat
GRENIER A 8M MV	10/31/1998	202.78	202.78	0.00	0.00	0.00	0.00
	11/30/1998	7.90	210.68	4,512.65	4,512.65	0.00	0.00
	12/31/1998	34.43	245.11	3,592.06	8,104.71	0.00	0.00
	01/31/1999	23.43	268.55	3,159.72	11,264.43	0.00	0.00
	02/28/1999	4.99	273.54	3,298.93	14,563.36	0.00	0.00
	03/31/1999	78.82	352.36	7,368.43	21,931.79	0.00	0.00
	04/30/1999	54.11	406.47	5,134.18	27,065.97	0.00	0.00
	05/31/1999	0.00	406.47	4,010.68	31,076.65	0.00	0.00
	06/30/1999	0.00	406.47	3,141.09	34,217.74	0.00	0.00
	07/31/1999	0.00	406.47	3,442.07	37,659.81	0.00	0.00
	08/31/1999	0.00	406.47	6,089.05	43,748.86	0.00	0.00
	09/30/1999	0.00	406.47	879.39	44,628.25	0.00	0.00
	10/31/1999	0.58	407.05	771.55	45,399.80	0.00	0.00
	11/30/1999	0.00	407.05	686.26	46,086.06	0.00	0.00
	12/31/1999	0.00	407.05	472.54	46,558.60	0.00	0.00
	01/31/2000	3.85	410.90	182.35	46,740.95	0.00	0.00
	02/29/2000	0.00	410.90	0.00	46,740.95	0.00	0.00

Cumulative Monthly Well Report

February 1997 -- February 2000

Select By : Completions  
Sort By :

Page No : 1  
Report Number : R\_290  
Last Update :  
Print Date : 02/14/2000, 9:08:04

Completion	Date	Cur Oil	Cum Oil	Cur Gas	Cum Gas	Cur Wat	Cum Wat
GRENIER A 8M DK	10/31/1998	16.00	16.00	0.00	0.00	0.00	0.00
	11/30/1998	0.00	16.00	0.00	0.00	0.00	0.00
	12/31/1998	0.00	16.00	0.00	0.00	0.00	0.00
	01/31/1999	0.00	16.00	0.00	0.00	0.00	0.00
	02/28/1999	0.00	16.00	0.00	0.00	0.00	0.00
	03/31/1999	0.00	16.00	0.00	0.00	0.00	0.00
	04/30/1999	0.00	16.00	0.00	0.00	0.00	0.00
	05/31/1999	0.00	16.00	0.00	0.00	0.00	0.00
	06/30/1999	0.00	16.00	0.00	0.00	0.00	0.00
	07/31/1999	0.00	16.00	0.00	0.00	0.00	0.00
	08/31/1999	0.00	16.00	0.00	0.00	0.00	0.00
	09/30/1999	0.00	16.00	0.00	0.00	0.00	0.00
	10/31/1999	0.00	16.00	0.00	0.00	0.00	0.00
	11/30/1999	0.00	16.00	0.00	0.00	0.00	0.00
	12/31/1999	0.00	16.00	0.00	0.00	0.00	0.00
	01/31/2000	0.00	16.00	0.00	0.00	0.00	0.00
	02/29/2000	0.00	16.00	0.00	0.00	0.00	0.00



**Grenier A 8M**  
**Unit M, Sec. 35, T30N R10W**  
**San Juan County, New Mexico**

**Production Allocation Based On Cumulative Production Through 12/93**  
 (Last year both formations were productive together)

	Cumulative Production		% Allocation	
	MCF	Bbl Oil	% Gas	% Oil
Mesa Verde	471,744	6,153	55%	60%
Dakota	382,326	4,146	45%	40%
Total	854,070	10,299	100%	100%

**Gas Allocation:**

**Mesa Verde**      (Total Mesa Verde Production)      471,744 MCF  
 -----  
 (Total Combined Production)      854,070 MCF      = 55%

**Dakota**      (Total Dakota Production)      382,326 MCF  
 -----  
 (Total Combined Production)      854,070 MCF      = 45%

**Oil Allocation:**

**Mesa Verde**      (Total Mesa Verde Production)      6,153 Bbl Oil  
 -----  
 (Total Combined Production)      10,299 Bbl Oil      = 60%

**Dakota**      (Total Dakota Production)      4,146 Bbl Oil  
 -----  
 (Total Combined Production)      10,299 Bbl Oil      = 40%

# WellView - Schematic

GRENIER A 8M

Asset # 2567700

Operator <b>BURLINGTON RESOURCES OIL GAS CO</b>	Division <b>SJD</b>	API Number <b>3004524489</b>	Property Number <b>00202360A</b>	Spud Date <b>9/26/80</b>
Field Name <b>PBTD = 7170'</b>	Area <b>SAN JUAN AREA</b>	KB Elev (ft) <b>6101.00</b>	Ground Elev (ft) <b>6089.00</b>	County <b>SAN JUAN</b>
				State <b>NM</b>

Main Hole: 8/26/95 (KB-Grd: 12.0ft)		Group/History List					
ftKB (MD)	Schematic - Actual	Group List - Actual					
		SURFACE CASING					
		No.	Des	OD	ID	Top (MD)	Len
0		1.2	Casing	10 3/4	10.192	12.0	215.0
		1.1	Casing shoe	10 3/4	10.192	227.0	1.0
		INTERMEDIATE CASING					
		No.	Des	OD	ID	Top (MD)	Len
500		2.6	Casing	7 5/8	6.969	12.0	2,678.9
		2.5	Stage collar	7 5/8	6.969	2,690.9	3.0
		2.4	Casing	7 5/8	6.969	2,693.9	1,787.1
		2.3	Float collar	7 5/8	6.969	4,481.0	1.0
		2.2	Casing	7 5/8	6.969	4,482.0	83.0
		2.1	Casing shoe	7 5/8	6.969	4,565.0	1.0
		Liner					
		No.	Des	OD	ID	Top (MD)	Len
1000		3.5	Casing hanger	7 5/8	4.950	4,399.5	8.0
		3.4	Casing	5 1/2	4.950	4,407.5	2,720.0
		3.3	Float collar	5 1/2	4.950	7,127.5	1.0
		3.2	Casing	5 1/2	4.950	7,128.5	40.5
		3.1	Casing shoe	5 1/2	4.950	7,169.0	1.0
		SHORT STRING					
		No.	Des	OD	ID	Top (MD)	Len
2000		6.3	Tubing	1.900	1.610	12.0	4,915.0
		6.2	Seating nipple	1.900	1.375	4,927.0	0.8
		6.1	Gas anchor	1.900		4,927.9	15.0
		LONG STRING					
		No.	Des	OD	ID	Top (MD)	Len
2500		7.32	Tubing	1.900	1.610	33.3	32.7
		7.31	PUP JOINT	1.900	1.610	66.0	10.1
		7.30	Tubing	1.900	1.610	76.1	4,194.3
		7.29	Blast joint	2 1/16	1.610	4,270.4	9.8
		7.28	Blast joint	2 1/16	1.610	4,280.2	19.8
		7.27	Blast joint	2 1/16	1.610	4,300.0	19.9
		7.26	Blast joint	2 1/16	1.610	4,319.9	19.8
3000		7.25	Tubing	1.900	1.610	4,339.7	191.7
		7.24	PUP JOINT	1.900	1.610	4,531.4	24.3
		7.23	Blast joint	2 1/16	1.610	4,555.7	9.8
		7.22	Blast joint	2 1/16	1.610	4,565.5	19.9
		7.21	PUP JOINT	1.900	1.610	4,585.4	22.3
3500		7.20	Blast joint	2 1/16	1.610	4,607.8	9.8
		7.19	Blast joint	2 1/16	1.610	4,617.5	20.0
		7.18	Tubing	1.900	1.610	4,637.5	61.2
		7.17	PUP JOINT	1.900	1.610	4,698.7	18.2
		7.16	Blast joint	2 1/16	1.610	4,716.9	20.0
4000		7.15	Tubing	1.900	1.610	4,736.9	96.3
		7.14	PUP JOINT	1.900	1.610	4,833.2	6.1
		7.13	Blast joint	2 1/16	1.610	4,839.3	20.0
		7.12	PUP JOINT	1.900	1.610	4,859.3	16.2
		7.11	Blast joint	2 1/16	1.610	4,875.5	20.0
		7.10	Blast joint	2 1/16	1.610	4,895.5	19.9
		7.9	Blast joint	2 1/16	1.610	4,915.4	20.0
		7.8	Blast joint	2 1/16	1.610	4,935.3	20.0
		7.7	Tubing	1.900	1.610	4,955.3	63.3
		7.6	PUP JOINT	1.900	1.610	5,018.6	22.3
5000		7.5	MODEL R	1.900	1.610	5,040.9	13.5
		7.4	Tubing	1.900	1.610	5,054.4	2,047.5
		7.3	Seating nipple	1.900	1.610	7,102.0	1.0
		7.2	Tubing	1.900	1.610	7,103.0	32.3
		7.1	EXPENDABLE CHECK	1.900	1.610	7,135.3	0.7
		Perforations					
		Des	Int (MD)	Date			
		Perforation	4,278.0-4,686.0	1/20/81			
		Perforation	4,730.0-4,947.0	1/20/81			
		Perforation	6,941.0-7,166.0	1/20/81			
		Cement					
		Des	Int (MD)	Date			
		PRIMARY	0.0-228.0	9/27/80			
		PRIMARY (LEAD)	3,800.0-4,566.0	10/5/80			
		CMT SQUEEZED	4,422.0-4,900.0	1/19/81			
		PRIMARY	4,900.0-7,170.0	10/9/80			
		Wellbore					
		Des	OD	Int (MD)			
		Main Hole	13 3/4	12.0-228.0			
		Main Hole	9 7/8	236.0-4,566.0			
		Main Hole	6 3/4	4,566.0-7,192.0			
		Stims & Treatments					
		Des	Int (MD)	Date			
		Stimulation	4,278.0-4,686.0	1/21/81			
		Stimulation	4,730.0-4,947.0	1/21/81			
		Stimulation	6,941.0-7,166.0	1/20/81			

## WellView - Casing and Liner Report

GRENIER A 8M

Asset # 2567700

Operator BURLINGTON RESOURCES OIL GAS CO	Division SJD	API Number 3004524489	Property Number 00202360A	Spud Date 9/26/80
Field Name PBTD = 7170'	Area SAN JUAN AREA	KB Elev (ft) 6101.00	Ground Elev (ft) 6089.00	County SAN JUAN
				State NM

## Casing Strings: SURFACE CASING, 9/27/80 , 228.0 ft

Run Date	9/27/80	Bottom or Set Depth (ft)	228.0	Hole	Main Hole	Centralizers/Scratchers		
Comment								
Jts	Item Des	OD (in)	Wt/Len (lbs/ft)	Gr	Conn	ID (in)	Drift (in)	Len (ft)
5	Casing	10 3/4	32.75	H-40		10.192		215.00
1	Casing shoe	10 3/4				10.192		1.00

## Casing Strings: INTERMEDIATE CASING, 10/4/80 , 4,566.0 ft

Run Date	10/4/80	Bottom or Set Depth (ft)	4,566.0	Hole	Centralizers/Scratchers			
Comment								
Jts	Item Des	OD (in)	Wt/Len (lbs/ft)	Gr	Conn	ID (in)	Drift (in)	Len (ft)
67	Casing	7 5/8	26.40	K-55		6.969		2678.89
1	Stage collar	7 5/8				6.969		3.00
45	Casing	7 5/8	26.40	K-55		6.969		1787.08
1	Float collar	7 5/8				6.969		1.00
2	Casing	7 5/8	26.40	K-55		6.969		83.03
1	Casing shoe	7 5/8				6.969		1.00

## Casing Strings: Liner, 10/9/80 , 7,170.0 ft

Run Date	10/9/80	Bottom or Set Depth (ft)	7,170.0	Hole		Centralizers/Scratchers		
Comment								
4400-7170'								
Jts	Item Des	OD (in)	Wt/Len (lbs/ft)	Gr	Conn	ID (in)	Drift (in)	Len (ft)
1	Casing hanger	7 5/8				4.950		8.00
63	Casing	5 1/2	15.50	K-55		4.950		2720.04
1	Float collar	5 1/2				4.950		1.00
1	Casing	5 1/2	15.50	K-55		4.950		40.51
1	Casing shoe	5 1/2				4.950		1.00

## WellView - Cementing Report

GRENIER A 8M

Asset # 2567700

Operator	BURLINGTON RESOURCES OIL GAS CO	Division	SJD	API Number	3004524489	Property Number	00202360A	Spud Date	9/26/80		
Field Name	PBTD = 7170'	Area	SAN JUAN AREA	KB Elev (ft)	6101.00	Ground Elev (ft)	6089.00	County	SAN JUAN	State	NM

## Cement: SURFACE CEMENT, casing, 9/27/80

Stage No	Type	casing	Hole	Main Hole	String	SURFACE CASING, 9/27/80 , 228.0 ft
Objective	Cementing Company	Start	9/27/80	End	9/27/80	
Avg Feed Rate (bbl/min)	Max Feed Rate (bbl/min)	Min Feed Rate (bbl/min)	Max Pres (psi)	Vol Return (bbl)	Lost Volume (bbl)	
Pipe Reciprocated?	Recip. Stroke Length (ft)	Pipe Rotated?	Pipe RPM (rpm)	Plug Bumped?		
Depth tagged (ft)	Date Tagged	Tag Method	Drilled Out	Drill Out Dia (in)		
Comment						

## Cement Slurry: PRIMARY, 0.0 ft, 228.0 ft

Slurry Description	PRIMARY	Top (ft)	0.0	Bottom (ft)	228.0	Class	B	Amount (sacks)	135
Mix Water (gal/sack)	Yield (ft³/sack)	Vol Pumped (bbl)	Excess (%)	Density (lb/gal)	Plastic Viscosity (cp)				
Analysis Descr	Fluid Descr		Additives		1/4# GEL-FLAKE/SK 3% CACL				
Comment									

## Cement: PRIMARY, casing, 10/5/80

Stage No	Type	casing	Hole	Main Hole	String	INTERMEDIATE CASING, 10/4/80 , 4,566.0 ft
Objective	Cementing Company	Start	10/5/80	End	10/5/80	
Avg Feed Rate (bbl/min)	Max Feed Rate (bbl/min)	Min Feed Rate (bbl/min)	Max Pres (psi)	Vol Return (bbl)	Lost Volume (bbl)	
Pipe Reciprocated?	Recip. Stroke Length (ft)	Pipe Rotated?	Pipe RPM (rpm)	Plug Bumped?		
Depth tagged (ft)	Date Tagged	Tag Method	Drilled Out	Drill Out Dia (in)		
Comment						

CMT TOP BY CBL ON 1/17/81 @ 3800'

## Cement Slurry: PRIMARY (LEAD), 3,800.0 ft, 4,566.0 ft

Slurry Description	PRIMARY (LEAD)	Top (ft)	3,800.0	Bottom (ft)	4,566.0	Class	B	Amount (sacks)	62
Mix Water (gal/sack)	Yield (ft³/sack)	Vol Pumped (bbl)	Excess (%)	Density (lb/gal)	Plastic Viscosity (cp)				
Analysis Descr	Fluid Descr	Additives	50/50 POZ W/ 6% GEL						
Comment	CMT TOP BY CBL ON 1/17/81 @ 3800'								

## Cement Slurry: PRIMARY (TAIL)

Slurry Description	PRIMARY (TAIL)	Top (ft)		Bottom (ft)		Class	B	Amount (sacks)	50
Mix Water (gal/sack)	Yield (ft³/sack)		Vol Pumped (bbl)	Excess (%)		Density (lb/gal)		Plastic Viscosity (cp)	
Analysis Descr			Fluid Descr			Additives	NEAT		
Comment									

## Cement Slurry: PRIMARY (LEAD)

Slurry Description	PRIMARY (LEAD)		Top (ft)	Bottom (ft)		Class	B	Amount (sacks)	335
Mix Water (gal/sack)	Yield (ft³/sack)		Vol Pumped (bbl)		Excess (%)	Density (lb/gal)	Plastic Viscosity (cp)		
Analysis Descr			Fluid Descr		Additives		50/50 POZ W/ 6% GEL		
Comment									

## Cement Slurry: PRIMARY (TAIL)

Slurry Description	PRIMARY (TAIL)	Top (ft)	Bottom (ft)	Class	B	Amount (sacks)	70
Mix Water (gal/sack)	Yield (ft³/sack)	Vol Pumped (bbl)	Excess (%)	Density (lb/gal)		Plastic Viscosity (cp)	
Analysis Descr		Fluid Descr		Additives	2% CACL		
Comment							

## Cement: LINER, squeeze, 10/9/80

Stage No	Type	squeeze	Hole	Main Hole	String	Liner, 10/9/80 , 7,170.0 ft
Objective	Cementing Company	Start	10/9/80	End	10/9/80	
Avg Feed Rate (bbl/min)	Max Feed Rate (bbl/min)	Min Feed Rate (bbl/min)	Max Pres (psi)	Vol Return (bbl)	Lost Volume (bbl)	
Pipe Reciprocated?	Recip. Stroke Length (ft)	Pipe Rotated?	Pipe RPM (rpm)	Plug Bumped?		
Depth tagged (ft)	Date Tagged	Tag Method	Drilled Out	Drill Out Dia (in)		
Comment						

CMT TOP BY CBL ON 1/17/81 @ 4900'

Operator BURLINGTON RESOURCES OIL GAS CO	Division SJD	API Number 3004524489	Property Number 00202360A	Spud Date 9/26/80
Field Name PBTD = 7170'	Area SAN JUAN AREA	KB Elev (ft) 6101.00	Ground Elev (ft) 6089.00	County SAN JUAN
				State NM

**Tubing Strings: SHORT STRING, 1/26/81 , 4,943.6 ft**

Tubing Description SHORT STRING	Run Date 1/26/81	Pull Date 8/16/95	Hole	Bottom Depth (ft) 4,943.6	Set Tension (lb)
Pull Reason	Comment TOH W/ MV TUBING , BTM 16 JTS SHOWED SCALE.				

**String Components**

Jts	Item Des	OD (in)	Wt/Len (lbs/ft)	Gr	ID (in)	Drift (in)	Make	Mdl	Coating	Len (ft)	Conn
156	Tubing	1.9	2.90	J-55	1.610	1.516				4915.73	
	1 Seating nipple	1.9			1.375					0.90	
	1 Gas anchor	1.9			1.610					14.95	

**Tubing Strings: LONG STRING, 1/26/81 , 7,140.6 ft**

Tubing Description LONG STRING	Run Date 1/26/81	Pull Date 8/17/95	Hole	Bottom Depth (ft) 7,140.6	Set Tension (lb)
Pull Reason	Comment TUBING SHOWED HEAVY SCALE. PACKER @ 4981.38'				

**String Components**

Jts	Item Des	OD (in)	Wt/Len (lbs/ft)	Gr	ID (in)	Drift (in)	Make	Mdl	Coating	Len (ft)	Conn
131	Tubing	1.9	2.75	J-55	1.610	1.516				4261.05	
4	Blast joint	2 1/16			1.610					58.81	
7	Tubing	1.9	2.90	J-55	1.610	1.516				230.21	
1	Blast joint	2 1/16			1.610					19.95	
1	Tubing	1.9	2.90	J-55	1.610	1.516				31.81	
1	Blast joint	2 1/16			1.610					19.87	
2	TUBING SUBS	1.9			1.610					16.17	
2	Blast joint	2 1/16			1.610					39.94	
1	Tubing	1.9	2.90	J-55	1.610	1.516				32.83	
1	Blast joint	2 1/16			1.610					9.88	
2	TUBING SUBS	1.9			1.610					16.15	
3	Tubing	1.9	2.90	J-55	1.610	1.516				98.03	
1	Blast joint	2 1/16			1.610					9.92	
4	TUBING SUBS	1.9			1.610					25.98	
2	Blast joint	2 1/16			1.610					39.88	
2	TUBING SUBS	1.9		J-55	1.610					16.11	
1	Blast joint	2 1/16			1.610					9.89	
1	Tubing	1.9	2.90	J-55	1.610	1.516				32.90	
1	Packer 1	1.9			1.610					6.90	
65	Tubing	1.9	2.90	J-55	1.610	1.516				2118.97	
	1 Seating nipple	1.9			1.610					0.90	
	1 Tubing	1.9	2.90	J-55	1.375	1.516				32.46	

**Tubing Strings: SHORT STRING, 8/26/95 , 4,942.8 ft**

Tubing Description SHORT STRING	Run Date 8/26/95	Pull Date	Hole	Bottom Depth (ft) 4,942.8	Set Tension (lb)
Pull Reason	Comment				

**String Components**

Jts	Item Des	OD (in)	Wt/Len (lbs/ft)	Gr	ID (in)	Drift (in)	Make	Mdl	Coating	Len (ft)	Conn
157	Tubing	1.9	2.90		1.610					4915.00	
	1 Seating nipple	1.9			1.375					0.85	
	1 Gas anchor	1.9								14.95	

**Tubing Strings: LONG STRING, 8/26/95 , 7,136.0 ft**

Tubing Description LONG STRING	Run Date 8/26/95	Pull Date	Hole	Bottom Depth (ft) 7,136.0	Set Tension (lb)
Pull Reason	Comment MODEL R PACKER AT 5043'				

Operator	BURLINGTON RESOURCES OIL GAS CO	Division	SJD	API Number	3004524489	Property Number	00202360A	Spud Date	9/26/80		
Field Name	PBTD = 7170'	Area	SAN JUAN AREA	KB Elev (ft)	6101.00	Ground Elev (ft)	6089.00	County	SAN JUAN	State	NM

## String Components

Jts	Item Des	OD (in)	Wt/Len (lbs/ft)	Gr	ID (in)	Drift (in)	Make	Mdl	Coating	Len (ft)	Conn
1	Tubing	1.9	2.90		1.610					32.72	
1	PUP JOINT	1.9			1.610					10.10	
127	Tubing	1.9			1.610					4194.33	
1	Blast joint	2 1/16			1.610					9.80	
1	Blast joint	2 1/16			1.610					19.80	
1	Blast joint	2 1/16			1.610					19.90	
1	Blast joint	2 1/16			1.610					19.80	
6	Tubing	1.9	2.90		1.610					191.68	
3	PUP JOINT	1.9			1.610					24.30	
1	Blast joint	2 1/16			1.610					9.80	
1	Blast joint	2 1/16			1.610					19.90	
3	PUP JOINT	1.9			1.610					22.35	
1	Blast joint	2 1/16			1.610					9.75	
1	Blast joint	2 1/16			1.610					19.95	
2	Tubing	1.9	2.90		1.610					61.24	
2	PUP JOINT	1.9			1.610					18.20	
1	Blast joint	2 1/16			1.610					19.95	
3	Tubing	1.9	2.90		1.610					96.34	
1	PUP JOINT	1.9			1.610					6.10	
1	Blast joint	2 1/16			1.610					19.95	
3	PUP JOINT	1.9			1.610					16.20	
1	Blast joint	2 1/16			1.610					20.00	
1	Blast joint	2 1/16			1.610					19.90	
1	Blast joint	2 1/16			1.610					19.95	
1	Blast joint	2 1/16			1.610					19.95	
2	Tubing	1.9	2.90		1.610					63.34	
3	PUP JOINT	1.9	2.90		1.610					22.35	
1	MODEL R	1.9			1.610					13.50	
61	Tubing	1.9	2.90		1.610					2047.51	
1	Seating nipple	1.9			1.610					1.00	
1	Tubing	1.9	2.90	J-55	1.610	1.516				32.30	
1	EXPENDABLE CHECK	1.9			1.610					0.75	

# OIL CONSERVATION DIVISION

API # 30-045-24489

Page 1  
Revised 10/01/78

## NORTHWEST NEW MEXICO PACKER-LEAKAGE TEST

Operator BURLINGTON RESOURCES OIL & GAS CO. Lease GRENIER A Well No. 8M

Location

of Well: Unit M Sect 35 Twp. 030N Rge. 010W County SAN JUAN

	NAME OF RESERVOIR OR POOL	TYPE OF PROD. (Oil or Gas)	METHOD OF PROD. (Flow or Art. Lift)	PROD. MEDIUM (Tbg. or Csg.)
Upper Completion	MESAVERDE	Gas	Artificial	Tubing
Lower Completion	DAKOTA	Gas	Artificial	Tubing

### PRE-FLOW SHUT-IN PRESSURE DATA

Upper Completion	Hour, date shut-in 4/16/99	Length of time shut-in 72 Hours	SI press. psig 378	Stabilized? (Yes or No)
Lower Completion	4/16/99	120 Hours	376	

### FLOW TEST NO. 1

Commenced at (hour,date)* 4/19/99		Zone producing (Upper or Lower) UPPER	
TIME (hour,date)	LAPSED TIME SINCE*	PRESSURE	
		Upper Completion	Lower Completion
4/20/99	96 Hours	75	221
4/21/99	120 Hours	112	218

Production rate during test

Oil: \_\_\_\_\_ BOPD based on \_\_\_\_\_ Bbls. in \_\_\_\_\_ Hours. \_\_\_\_\_ Grav. \_\_\_\_\_ GOR \_\_\_\_\_

Gas: \_\_\_\_\_ MCFPD; Tested thru (Orifice or Meter): \_\_\_\_\_

### MID-TEST SHUT-IN PRESSURE DATA

Upper Completion	Hour, date shut-in	Length of time shut-in	SI press. psig	Stabilized? (Yes or No)
Lower Completion	Hour, date shut-in	Length of time shut-in	SI press. psig	Stabilized? (Yes or No)

(Continue on reverse side)

*Mike Gold*  
*Steve Jorg*  
*M-*

## NORTHWEST NEW MEXICO PACKER-LEAKAGE TEST

Page 2

## FLOW TEST NO. 2

Commenced at (hour, date)**		Zone producing (Upper or Lower):			
TIME (hour, date)	LAPSED TIME SINCE **	PRESSURE		PROD. ZONE TEMP.	REMARKS
		Upper Completion	Lower Completion		

Production rate during test

Oil: \_\_\_\_\_ BOPD based on \_\_\_\_\_ Bbls. in \_\_\_\_\_ Hours \_\_\_\_\_ Grav. \_\_\_\_\_ GOR \_\_\_\_\_

Gas: \_\_\_\_\_ MCFPD: Tested thru (Orifice or Meter): \_\_\_\_\_

Remarks: \_\_\_\_\_

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

Approved \_\_\_\_\_ 19 \_\_\_\_\_

New Mexico Oil Conservation Division

Operator Burlington ResourcesBy *Adrian Ray*

By \_\_\_\_\_

Title Operations Associate

Title \_\_\_\_\_

Date Tuesday, June 15, 1999

## NORTHWEST NEWMEXICO PACKER LEAKAGE TEST INSTRUCTIONS

1. A packer leakage test shall be commenced on each multiply completed well within seven days after actual completion of the well, and annually thereafter as prescribed by the order authorizing the multiple completion. Such tests shall also be commenced on all multiple completions within seven days following recompletion and/or chemical or fracture treatment, and whenever remedial work has been done on a well during which the packer or the tubing have been disturbed. Tests shall also be taken at any time that communication is suspected or when requested by the Division.

2. At least 72 hours prior to the commencement of any packer leakage test, the operator shall notify the Division in writing of the exact time the test is to be commenced. Offset operators shall also be so notified.

3. The packer leakage test shall commence when both zones of the dual completion are shut-in for pressure stabilization. Both zones shall remain shut-in until the well-head pressure in each has stabilized, provided however, that they need not remain shut-in more than seven days.

4. For Flow Test No. 1, one zone of the dual completion shall be produced at the normal rate of production while the other zone remains shut-in. Such test shall be continued for seven days in the case of a gas well and for 24 hours in the case of an oil well. Note: if, on an initial packer leakage test, a gas well is being flowed to the atmosphere due to lack of a pipeline connection the flow period shall be three hours.

5. Following completion of Flow Test No. 1, the well shall again be shut-in, in accordance with Paragraph 3 above.

6. Flow Test No. 2 shall be conducted even though no leak was indicated during Flow Test No. 1. Procedure for Flow Test No. 2 is to be the same as for Flow Test No. 1 except

that the previously produced zone shall remain shut-in while the zone which was previously shut-in is produced.

7. Pressures for gas-zone tests must be measured on each zone with a deadweight pressure gauge at time intervals as follows: 3 hours tests: immediately prior to the beginning of each flow period, at fifteen-minute intervals during the first hour thereof, and at hourly intervals thereafter, including one pressure measurement immediately prior to the conclusion of each flow period. 7-day tests: immediately prior to the beginning of each flow period, at least one time during each flow period (at approximately the midway point) and immediately prior to the conclusion of each flow period. Other pressures may be taken as desired, or may be requested on wells which have previously shown questionable test data.

24-hour oil zone tests: all pressures, throughout the entire test, shall be continuously measured and recorded with recording pressure gauges the accuracy of which must be checked at least twice, once at the beginning and once at the end of each test, with a deadweight pressure gauge. If a well is a gas-oil or an oil-gas dual completion, the recording gauge shall be required on the oil zone only, with deadweight pressures as required above being taken on the gas zone.

8. The results of the above-described tests shall be filed in triplicate within 15 days after completion of the test. Tests shall be filed with the Aztec District Office of the New Mexico Oil Conservation Division on Northwest New Mexico Packer Leakage Test Form Revised 10-01-78 with all deadweight pressures indicated thereon as well as the flowing temperatures (gas zones only) and gravity and GOR (oil zones only).



# Burlington Resources Wireline Report

AIN 2567701

Date 11/5/98

Well Name Well No.  
GRENIER A 8M

Wireline Company Expert Downhole Services,

Wireline Operator

Tubing Size

Formation MV

Slickline Total Depth 7151 feet

Spud Date: 9/26/80

Measured from 0 feet above GL

Top Perf 4282

Fluid Level 0 feet

Bottom Perf 4947

Casing psi 0

PBTD 7170

Tubing psi 0

Foreman STEVE FLOREZ

Area 2

Reason for running wireline

Lease Operator MIKE GOULD

Lease Run 327

Well head info

## Report

ran 1.5 guage ring to tight spot @ 7030'. During POH found tubing has suspected corkscrew to it made pulling out of hole slow and hard , ran tool string to TD of 7151'. Ran 1.40 impression impression block to seat nipple @ 7120'.

Monday, January 31, 2000

# Burlington Resources Wireline Report

AIN 2567701

Date 10/15/98

Well Name Well No.  
GRENIER A 8M

Wireline Company Expert Downhole Services,

Wireline Operator

Tubing Size

Formation MV

Slickline Total Depth 4922 feet

Spud Date: 9/26/80

Measured from 0 feet above GL

Top Perf 4282

Fluid Level 0 feet

Bottom Perf 4947

PBTD 7170

Casing psi 0

Foreman STEVE FLOREZ

Tubing psi 0

Area 2

Lease Operator MIKE GOULD

Reason for running wireline

Lease Run 327

Well head info

## Report

Ran 1.51 swedge to 4922'. Tight spots @ 2456,4360,4484,4574'. Swedge out all these spots. Ran 1.470 guage ring to varify tubing . Installed bumper spring chased down hole to 4921'.

Monday, January 31, 2000