

DATE IN 12/16/98	SUSPENSE 1/5/99	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



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

DEC 16 1998

Check One Only for [B] or [C]

[B] Commingling - Storage - Measurement

☒ 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] ☐ 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

EXISTING WELLBORE

☒ YES ☐ NO

APPLICATION FOR DOWNHOLE COMMINGLING

Burlington Resources Oil & Gas Company

PO Box 4289, Farmington, NM 87499

Operator

Address

Newberry (note: DHC-1855 issued for MV&Dk) 12M

P 04-31N-12W

San Juan

Lease

Well No.

Unit Ltr. - Sec - Twp - Rge

County

Spacing Unit Lease Types: (check 1 or more)

OGRID NO. 14538 Property Code 7360 API NO. 30-045-29568 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 Mesaverde - 72319	Wildcat Mancos	Basin Dakota - 71599
2. Top and Bottom of Pay Section (Perforations)	will be supplied upon completion	5728-5812'	7052-7220'
3. Type of production (Oil or Gas)	gas	Oil/gas	gas
4. Method of Production (Flowing or Artificial Lift)	flowing	pumping	flowing
5. Bottomhole Pressure	(Current) a. 551 psi (see attachment)	a. 1100 psi (see attachment)	a. 853 psi (see attachment)
Oil Zones - Artificial Lift: Estimated Current Gas & Oil - Flowing: Measured Current All Gas Zones: Estimated or Measured Original	(Original) b. 1244 psi (see attachment)	b. 1100 psi (see attachment)	b. 2531 psi (see attachment)
6. Oil Gravity (API) or Gas BTU Content	BTU 1227	46° API @ 62°	BTU 1161
7. Producing or Shut-In?	shut in	producing	shut in
Production Marginal? (yes or no)	no	yes	yes
* If Shut-In and oil/gas/water rates of last production	Date: n/a Rates:	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: n/a Rates:	Date: 11/23/98 Rates: 138 MCFD/20 BOPD/2 BWPD	Date: n/a Rates:
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 ☐ No15. NMOCD Reference Cases for Rule 303(D) Exceptions: ORDER NO(S). ☐ Reference Order ☐ attached

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 _____ TITLE: Production Engineer DATE: 12-15-98

TYPE OR PRINT NAME Jennifer Dobson TELEPHONE NO. (505) 326-9700

II
Lower DD, Artesia, NM 88211-0719OIL CONSERVATION DIVISION
PO Box 2088
Santa Fe, NM 87504-2088District III
1000 Rio Brazos Rd., Aztec, NM 87410District IV
PO Box 2088, Santa Fe, NM 87504-2088☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-045-29568		*Pool Code 72319/71599	*Pool Name Blanco Mesaverde/Wildcat Mancos/Basin Dakota
*Property Code 7360	*Property Name NEWBERRY		*Well Number 12M
*OGRID No. 14538	*Operator Name BURLINGTON RESOURCES OIL & GAS COMPANY		*Elevation 6104'

¹⁰ Surface Location

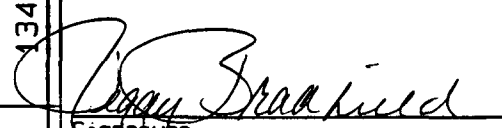
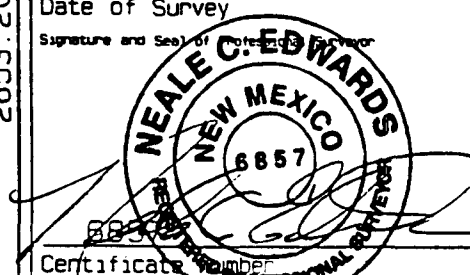
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	4	31N	12W		970	South	1125	East	SAN JUAN

¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

¹² Dedicated Acres MV-S/320, Man-160 DK-E/320.37	¹³ Joint or Infill 160	¹⁴ Consolidation Code	¹⁵ Order No.
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NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

¹⁶ 2640.66' 1269.84' 4 3 2 1 1345.74' 1326.60' 1302.84' FEE SF-078120A FEE SF-078120A FEE AMOCO AMOCO 5288.58' 2605.68' 1125' 970' 2653.20'		¹⁷ OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.  Signature Peggy Bradfield Printed Name Regulatory Administrator Title 6-23-98 Date ¹⁸ SURVEYOR CERTIFICATION 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 belief. DECEMBER 10, 1997 Date of Survey  Signature and Seal of Registered Surveyor NEALE C. EDWARDS NEW MEXICO 6857 Certificate Number
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Definition of Terms Used in Analysis and Plots

STP	Surface treating pressures (psi)
HESBHP	Service company calculated bottomhole treating pressures (psi)
TASBHP	ProTechnics bottomhole pressures recorded in tool memory (psi)
TASSurfBHP	ProTechnics bottomhole pressures transmitted to the surface (psi)
TASBHT	ProTechnics bottomhole temperatures recorded in tool memory (degF)
TASSurfBHT	ProTechnics bottomhole temperatures transmitted to the surface (degF)
SL/Rate	Service company surface slurry injection rate (bpm)

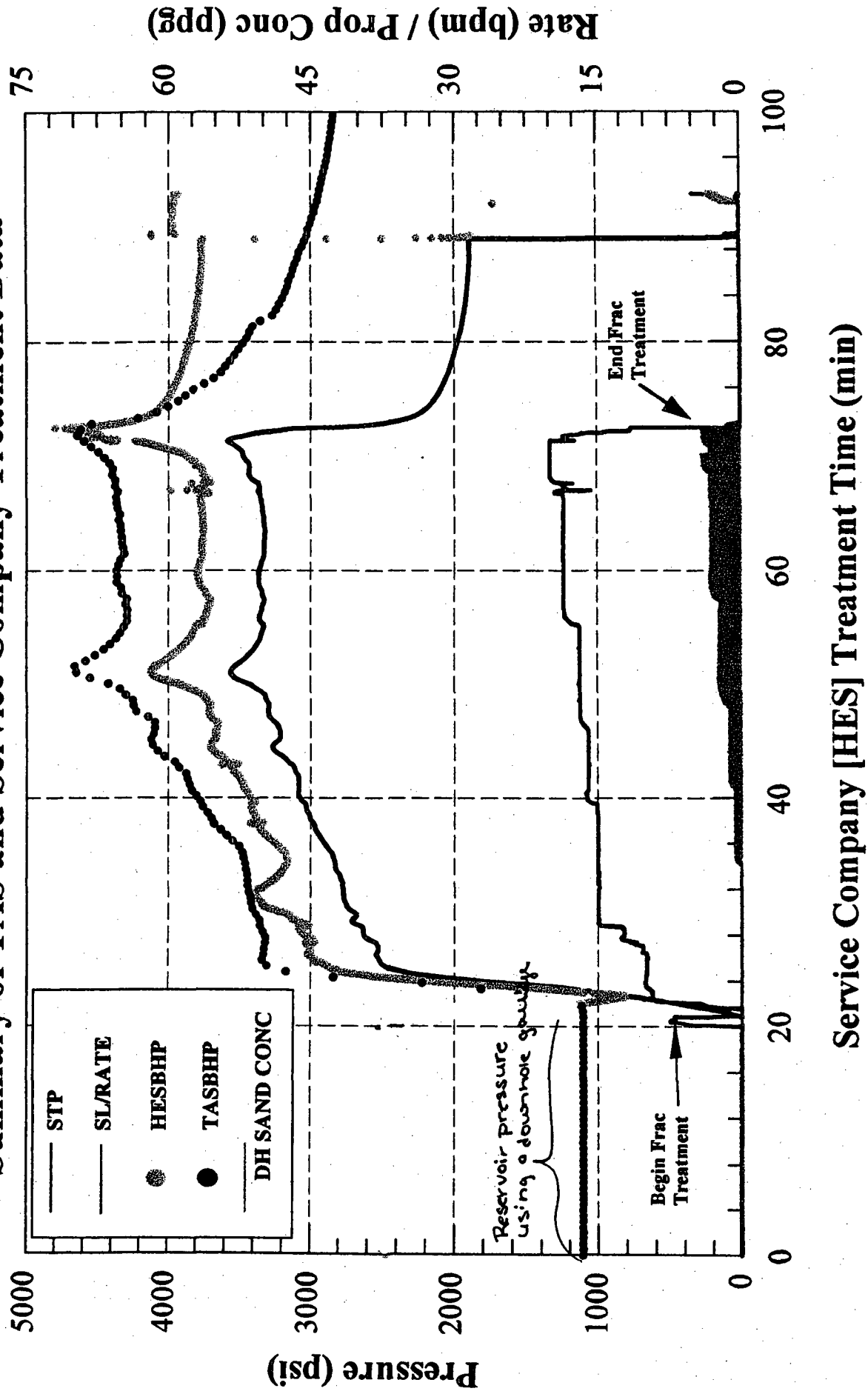
Interpretation of TAS Data and Analysis of Test

1. Bottomhole pressure and temperature data transmitted to the surface were consistent with those stored downhole in TAS tool memory.
2. Based on the shut-in prior to the frac treatment, static reservoir pressure and reservoir temperature at a sensor depth of 5,721 ft were approximately 1,100 psi and 170° F, respectively.
3. The service company calculated bottomhole pressures were consistently lower than the TAS measured bottomhole pressures, ostensibly due to high estimated friction pressures.
4. The service company calculated bottomhole pressures near the end of the treatment suggest that a screenout was imminent, while the TAS measured bottomhole pressures do not indicate an imminent screenout.
5. The ascending TAS measured bottomhole pressures up through the middle of the proppant ramp suggest high near-wellbore friction.

ProTechnics, a Core Laboratories Company, does not warrant the accuracy of any interpretation or conclusions based on the data contained herein. ProTechnics will not be liable for direct or indirect losses as a result of the use of the data or interpretation in this report.

This report is based on the pressure and temperature data recorded by ProTechnics's Telemetry Acquisition System. All well and treatment information was supplied by the operator or service company.

Burlington Resources Newberry #12M Summary of TAS and Service Company Treatment Data



DATE: December 14, 1998
NAME: NEWBERRY 12M
FORM: GALLUP

LOCATION
UNIT: P
SEC: 4
TWN: 31N
RNG: 12W

T 32
N

T 31
N

[32]	[33]	[34]
[5]	[4] * Newberry 12M	[3]
[8]	[9]	[10]

R-12-W

LEGEND

COMPLETION DATE

WELL NAME

MCF/D-CUM(MMF)

BOP/D-CUM(MBO)

Conoco Inc.

Attn: Lori Thorpe

10 Desta Drive, Suite 100W

Midland, TX 79705

Cross Timbers Oil Company

Attn: Vaughn Vennerberg

810 Houston Street, Suite 2000

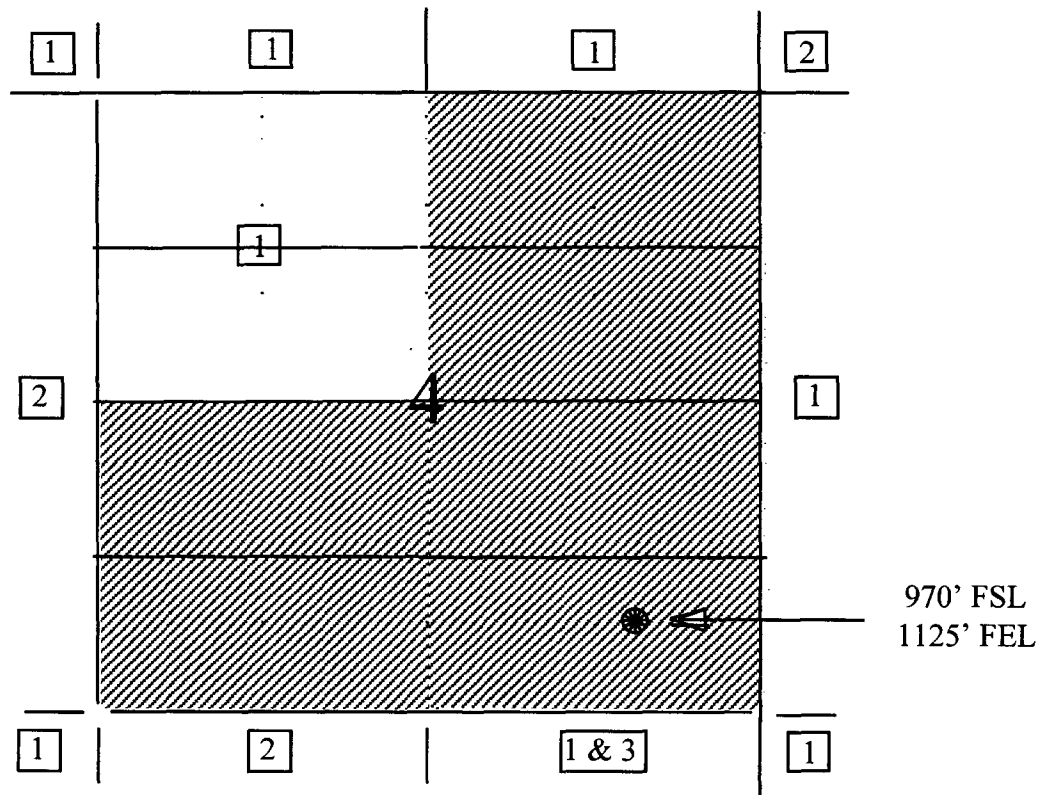
Fort Worth, TX 76102-6298

BURLINGTON RESOURCES OIL AND GAS COMPANY

**Newberry #12M
OFFSET OPERATOR \ OWNER PLAT
Downhole Commingle**

**Mesaverde (S/2) / Mancos (SE/4) / Dakota (E/2)
Formations Well**

Township 31 North, Range 12 West



1) Burlington Resources

2) Amoco Production Company
c/o Bruce Zimney
PO Box 800
Denver, CO 80201

3) Conoco Inc.
10 Desta Drive, Suite 100 W
Midland, TX 79705-4500