

DATE IN 10/21/97	SUSPENSE 11/10/97	ENGINEER DC	LOGGED MN	TYPE DHC
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ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION
- Engineering Bureau -

1723

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]

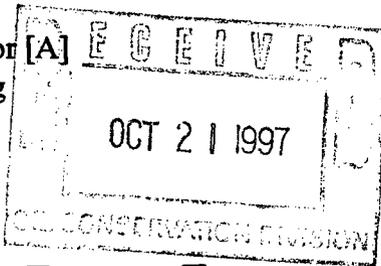
[1] TYPE OF APPLICATION - Check Those Which Apply for [A]

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

Check One Only for [B] and [C]

- [B] Commingling - Storage - Measurement
 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 - 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 Bradfield
 Print or Type Name Peggy Bradfield Signature

Regulatory/Compliance Administrator
 Title

10-20-97
 Date

BURLINGTON RESOURCES

SAN JUAN DIVISION

October 20, 1997

Mr. William LeMay
New Mexico Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505

Re: Allison Unit #38M
1170'FNL, 820'FEL Section 17, T-32-N, R-06-W, San Juan County, NM
API #30-045-29484

Dear Mr. LeMay:

This is a request for administrative approval for downhole commingling the Blanco Mesa Verde and Basin Dakota pools in the subject well. This is a new drill Mesa Verde/Dakota well for the 1998 Program.

To comply with the New Mexico Oil Conservation Division rules, Burlington Resources Oil & Gas Company is submitting the following for your approval of this commingling:

1. Form C107A - Application for Downhole Commingling;
2. C-102 plat for each zone showing its spacing unit and acreage dedication;
3. Anticipated production curve for the Mesa Verde and Dakota for at least year;
4. Notification list of offset operators - Burlington is the operator of the unit;
5. Shut in wellhead pressure and calculated down hole pressure of surrounding wells;
6. Nine-section plats for the Mesa Verde and Dakota.

Notification of Mesa Verde and Dakota interest owners is covered under Order R-9918 dated July 6, 1993.

We will consult with the Supervisor of the Aztec District Office of the New Mexico Oil Conservation Division to establish an allocation formula.

Please let me know if you require additional data.

Sincerely,



Peggy Bradfield
Regulatory/Compliance Administrator

Xc: Bureau of Land Management - Farmington
NMOCD - Aztec
Offset operators

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 87505-6429

Form C-107-A New 3-12-96

APPROVAL PROCESS :

X Administrative Hearing

APPLICATION FOR DOWNHOLE COMMINGLING

EXISTING WELLBORE

YES NO

Burlington Resources Oil & Gas Company

PO Box 4289, Farmington, NM 87499

Operator

Address

ALLISON UNIT

38M

A 17-32N-6W

San Juan

Lease

Well No.

Unit Ltr. - Sec - Twp - Rge

County

Spacing Unit Lease Types: (check 1 or more)

OGRID NO. 14538 Property Code 6785 API NO. 30-045- 29484 Federal X State (and/or) Fee

Table with 4 columns: The following facts are submitted in support of downhole commingling, Upper Zone, Intermediate Zone, Lower Zone. Rows include Pool Name and Pool Code, Top and Bottom of Pay Section (Perforations), Type of production (Oil or Gas), Method of Production (Flowing or Artificial Lift), Bottomhole Pressure, Oil Zones - Artificial Lift: Estimated Current Gas & Oil - Flowing: Measured Current All Gas Zones: Estimated or Measured Original, Oil Gravity (°API) or Gas BTU Content, Producing or Shut-In?, Production Marginal? (yes or no), * If Shut-In and oil/gas/water rates of last production, * If Producing, give data and oil/gas/water water of recent test (within 60 days), 8. Fixed Percentage Allocation Formula - % for each zone (total of %'s to equal 100%)

- 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 X No
11. Will cross-flow occur? X Yes No
12. Are all produced fluids from all commingled zones compatible with each other? X Yes No
13. Will the value of production be decreased by commingling? Yes X No
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. X Yes No
15. NMOCD Reference Cases for Rule 303(D) Exceptions: ORDER NO(S). R-9918
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 Sean Woolverton TITLE Production Engineer DATE 10-17-97

TYPE OR PRINT NAME Sean C. Woolverton TELEPHONE NO. (505) 326-9700

District I
 PO Box 1980, Hobbs, NM 88241-1980
 District II
 PO Drawer DD, Artesia, NM 88211-0719
 District III
 1000 Rio Brazos Rd., Aztec, NM 87410
 District IV
 PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico
 Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
 PO Box 2088
 Santa Fe, NM 87504-2088

Form C-10
 Revised February 21, 1999
 Instructions on back
 Submit to Appropriate District Office
 State Lease - 4 Copies
 Fee Lease - 3 Copies

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-045-		Pool Code 72319-71599		Pool Name Blanco Mesaverde/Basin Dakota	
Property Code 6784		Property Name Allison Unit			Well Number 38M
OGRID No. 14538		Operator Name BURLINGTON RESOURCES OIL & GAS COMPANY			Elevation 6490'

10 Surface Location

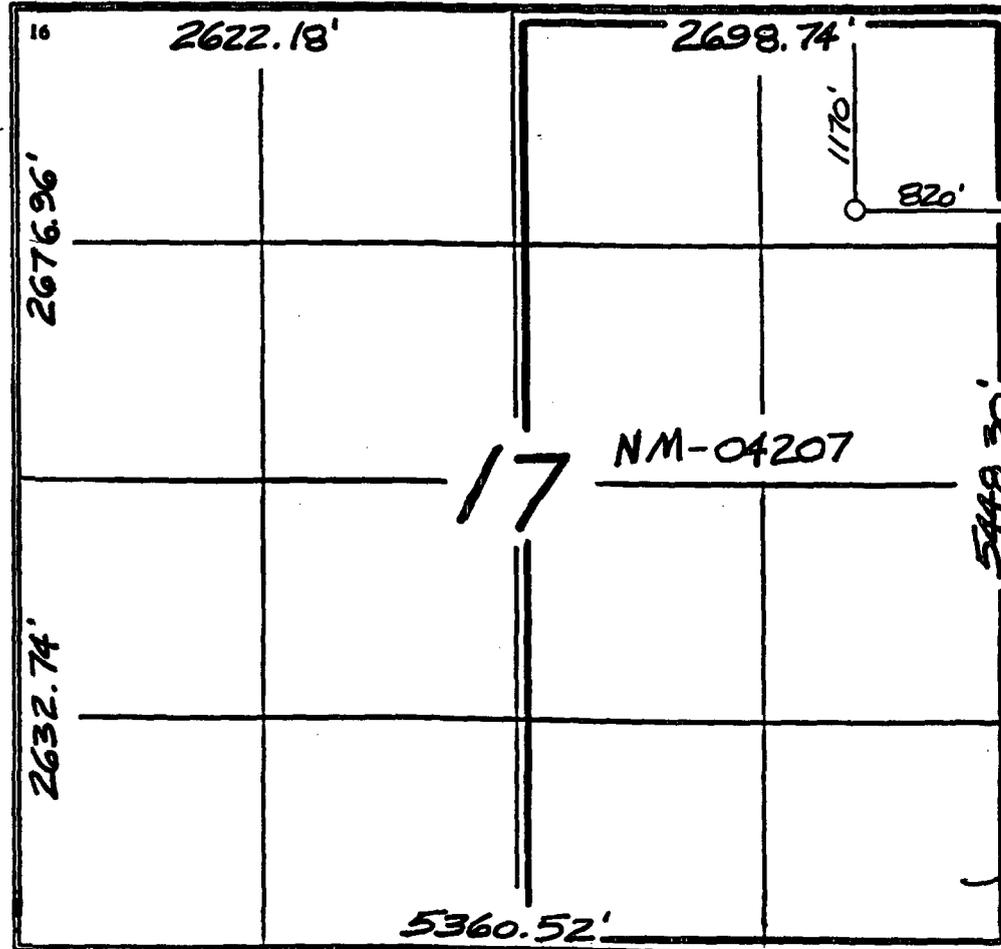
UL or lot no.	Section	Township	Range	Lot Ida	Feet from the	North/South line	Feet from the	East/West line	County
A	17	32-N	6-W		1170	North	820	East	S.J.

11 Bottom Hole Location If Different From Surface

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

Dedicated Acres MV-E/320 DK-E/320		Joint or infill		Consolidation Code		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



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
 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.

Date of Survey
 6/18/97
 Signature and Seal of Professional Surveyor

6852
 Certificate Number

EXPECTED PRODUCTION CURVE

ALLISON UNIT : 38M : 35684A

Mesaverde

• OIL
• WATER/GRS
• GRS
• WATER

— DAILY RATE
— TBG PRESSURE

100
1000
1000

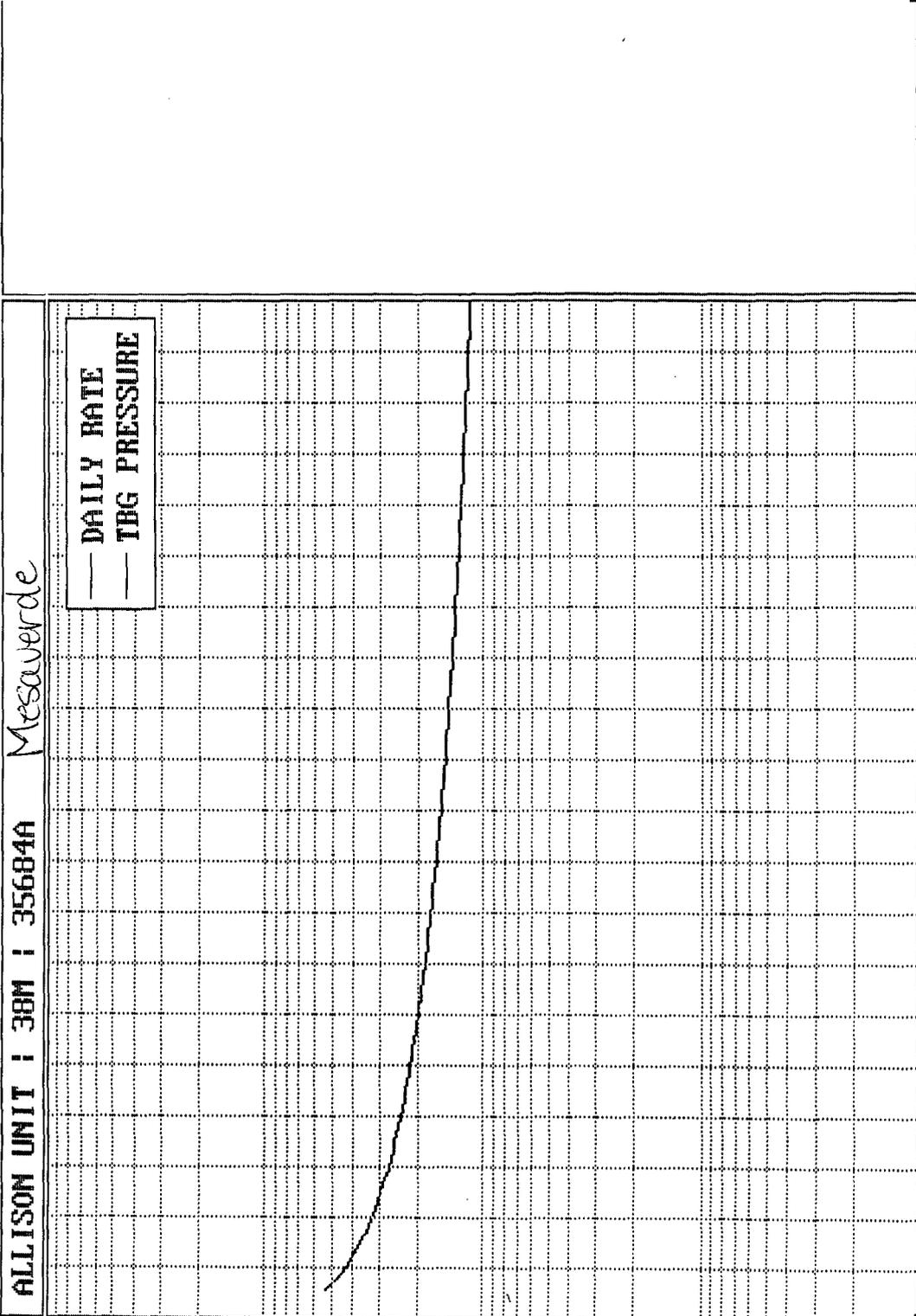
10
100
100

1
10
10

1
10
100

Major = GAS

97 | 98 | 99 | 00 | 01 | 02 | 03 | 04 | 05 | 06 | 07



EXPECTED PRODUCTION CURVE

ALLISON UNIT : 38M : 35684A-2 Dakota

• OIL
• WATER/GPS
• GPS
• WATER

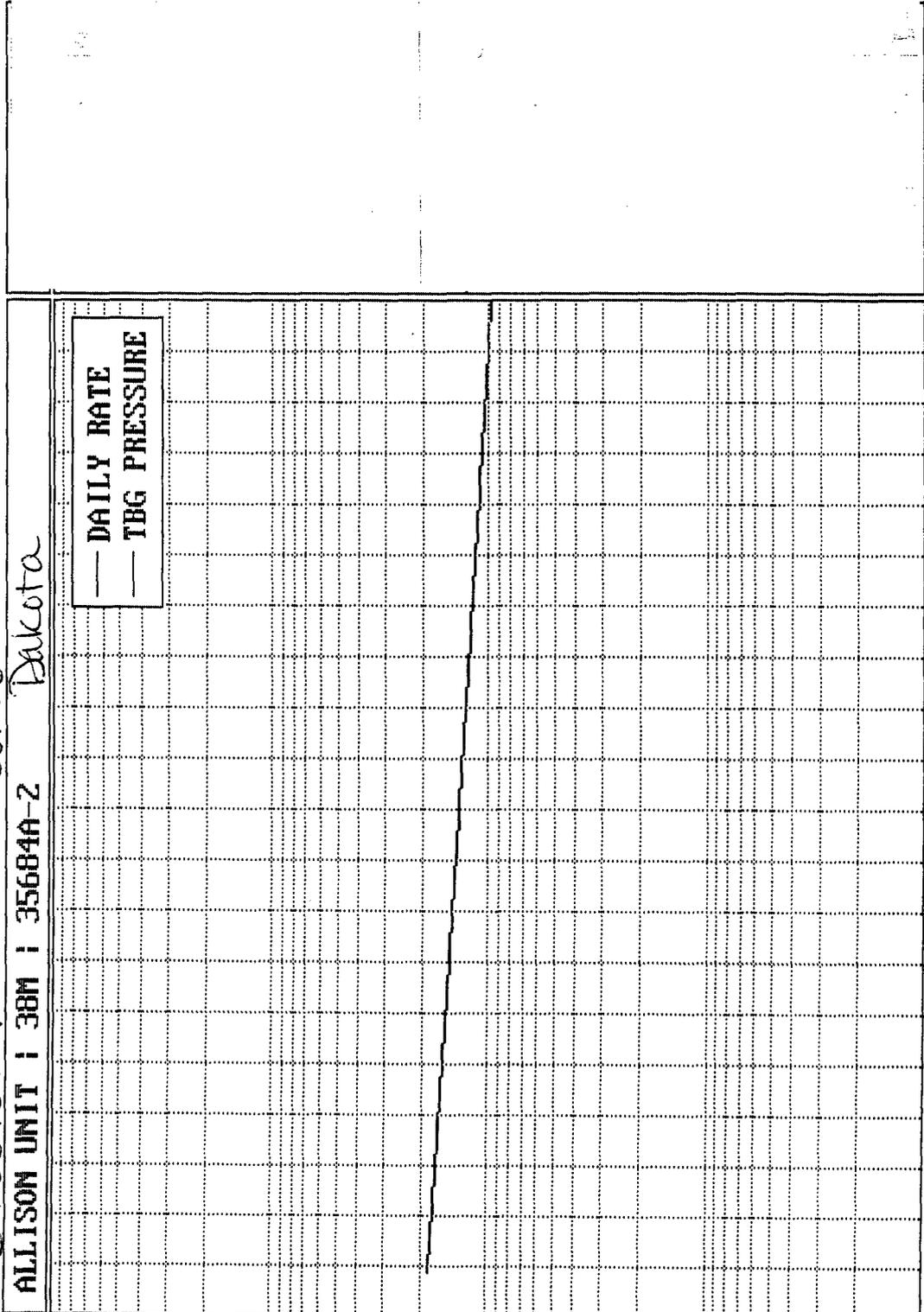
100
1000
1000
1000

10
100
100
100

1
10
10
10

1
10
100
1000

— DAILY RATE
— TBG PRESSURE



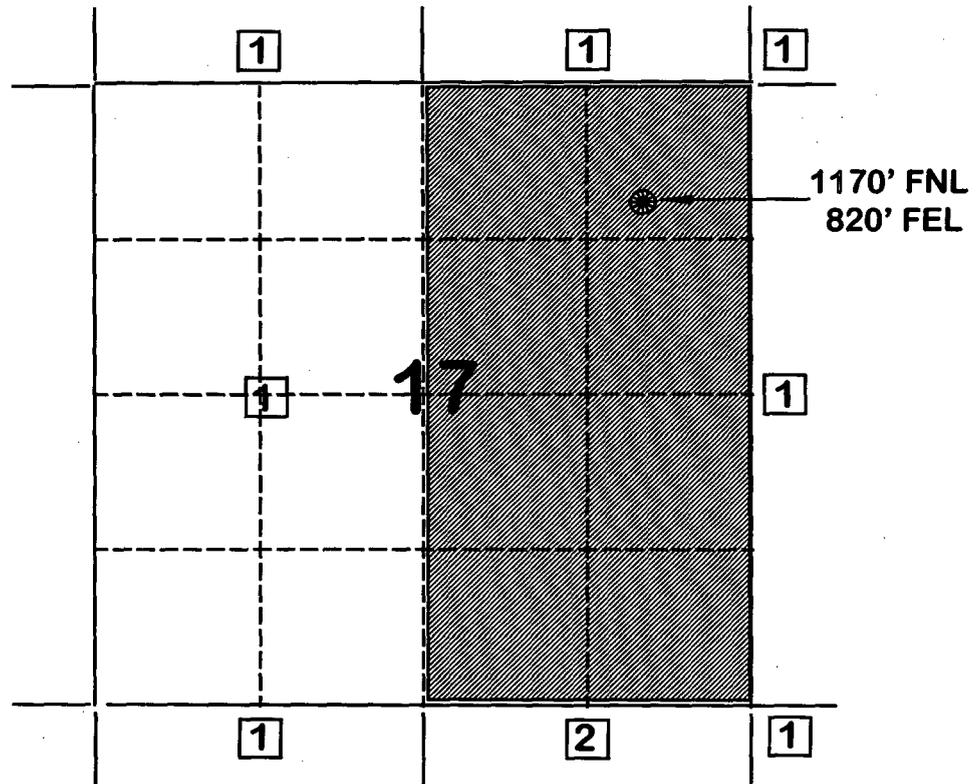
Major = GAS

BURLINGTON RESOURCES OIL AND GAS COMPANY

**Allison Unit #38M
OFFSET OPERATOR \ OWNER PLAT**

Mesaverde/Dakota Formations Commingle Well

Township 32 North, Range 6 West



- 1) Burlington Resources Oil and Gas Company
- 2) Conoco Inc.
10 Desta Drive, Suite 100W
Midland, TX 79705-4500

Page No.: 2

Print Time: Wed Sep 10 15:26:07 1997

Property ID: 4044

Property Name: ALLISON UNIT | 27 | 52925B-1

Table Name: K:\ARIES\MESA\TEST.DBF

Allison Unit #38M
Mesaverde Offset

--DATE-- ---CUM GAS-- M SIWHP
Mcf Psi

09/20/65	0	1190.0	→ Original
09/27/65	424119	0.0	
10/15/70	478955	753.0	
08/31/71	555204	692.0	
06/22/72	643058	546.0	
07/03/73	737358	560.0	
05/03/74	812126	514.0	
06/01/76	984099	477.0	
08/02/78	1149129	550.0	
06/04/80	1264815	588.0	
05/03/82	1373803	632.0	
05/17/84	1445681	722.0	
03/17/86	1504946	726.0	
05/23/89	1642590	676.0	
07/14/91	1716572	661.0	
05/04/93	1783853	662.0	→ Current

Page No.: 2

Print Time: Fri Aug 15 14:27:55 1997

Property ID: 13

Property Name: ALLISON UNIT | 13 | 53296B-1

Table Name: K:\ARIES\RR98PDP\TEST.DBF

Allison Unit # 38m
Dakota Offset

--DATE-- ---CUM GAS-- M SIWHP
Mcf Psi

03/31/58	0	2428.0	-original
07/29/59	80000	1732.0	
07/29/60	165000	1678.0	
07/28/61	225000	1617.0	
09/09/62	281000	1540.0	
05/06/63	323000	1413.0	
04/22/64	374000	1357.0	
05/03/65	417000	1493.0	
02/23/66	448000	1474.0	
03/06/67	488000	1439.0	
03/08/68	536000	1216.0	
06/02/70	641967	956.0	
08/10/72	709249	1173.0	
04/29/75	853176	862.0	
08/08/77	955904	891.0	
08/07/79	1030920	934.0	
05/15/81	1076326	982.0	
05/02/85	1129312	939.0	-current

Allison Unit #38M
 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	0.589	GAS GRAVITY	0.597
COND. OR MISC. (C/M)	C	COND. OR MISC. (C/M)	C
%N2	0.14	%N2	0.06
%CO2	1.93	%CO2	4.12
%H2S	0	%H2S	0
DIAMETER (IN)	1.25	DIAMETER (IN)	1.25
DEPTH (FT)	5682	DEPTH (FT)	8007
SURFACE TEMPERATURE (DEG F)	60	SURFACE TEMPERATURE (DEG F)	60
BOTTOMHOLE TEMPERATURE (DEG F)	137	BOTTOMHOLE TEMPERATURE (DEG F)	198
FLOWRATE (MCFPD)	0	FLOWRATE (MCFPD)	0
SURFACE PRESSURE (PSIA)	662	SURFACE PRESSURE (PSIA)	939
BOTTOMHOLE PRESSURE (PSIA)	748.5	BOTTOMHOLE PRESSURE (PSIA)	1112.0
<u>MV-Original</u>		<u>DK-Original</u>	
GAS GRAVITY	0.589	GAS GRAVITY	0.597
COND. OR MISC. (C/M)	C	COND. OR MISC. (C/M)	C
%N2	0.14	%N2	0.06
%CO2	1.93	%CO2	4.12
%H2S	0	%H2S	0
DIAMETER (IN)	1.25	DIAMETER (IN)	1.25
DEPTH (FT)	5682	DEPTH (FT)	8007
SURFACE TEMPERATURE (DEG F)	60	SURFACE TEMPERATURE (DEG F)	60
BOTTOMHOLE TEMPERATURE (DEG F)	137	BOTTOMHOLE TEMPERATURE (DEG F)	198
FLOWRATE (MCFPD)	0	FLOWRATE (MCFPD)	0
SURFACE PRESSURE (PSIA)	1190	SURFACE PRESSURE (PSIA)	2428
BOTTOMHOLE PRESSURE (PSIA)	1355.9	BOTTOMHOLE PRESSURE (PSIA)	2905.6

STATE OF NEW MEXICO
ENERGY, MINERALS, AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
DIVISION FOR THE PURPOSE OF
CONSIDERING:

CASE NO. 10743
Order No. R-9918

APPLICATION OF MERIDIAN OIL INC.
FOR DOWNHOLE COMMINGLING AND FOR
AN ADMINISTRATIVE DOWNHOLE COMMINGLING
PROCEDURE WITHIN THE ALLISON UNIT
AREA, SAN JUAN COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on June 17, 1993, at Santa Fe, New Mexico, before Examiner David R. Catanach.

NOW, on this 6th day of July, 1993, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS THAT:

- (1) Due public notice having been given as required by law, the Division has jurisdiction of this cause and the subject matter thereof.
- (2) The applicant, Meridian Oil Inc., seeks approval to commingle gas production from the Blanco-Mesaverde and Basin-Dakota Pools within the Allison Unit Well No. 9R located 1720 feet from the North line and 1655 feet from the East line (Unit G) of Section 13, Township 32 North, Range 7 West, NMPM, San Juan County, New Mexico.
- (3) The applicant further seeks the adoption of an administrative procedure for authorizing the downhole commingling of Blanco-Mesaverde and Basin-Dakota Pool production within certain existing and subsequently drilled wells in its Allison Unit Area, San Juan County, New Mexico, without additional notice to each affected interest owner within the Unit Area.

(4) The Allison Unit Well No. 9R is to be drilled as a replacement well for the Allison Unit Well No. 9 which is located 1765 feet from the North line and 1500 feet from the East line (Unit G) of Section 13 and which is currently completed in and producing from the Basin-Dakota Pool.

(5) The Allison Unit Well No. 9 was drilled in 1955 and has cumulatively recovered some 4.4 BCF of gas from the Basin-Dakota Pool.

(6) Due to the age and mechanical condition of the Allison Unit Well No. 9, the applicant has estimated that it will not recover some 1.7 BCF of gas in the Basin-Dakota Pool underlying the E/2 of Section 13.

(7) Applicant's testimony indicates that due to economics, the Allison Unit Well No. 9R cannot be drilled solely to recover gas reserves in the Basin-Dakota Pool.

(8) The applicant expects to encounter marginal production only from the Blanco-Mesaverde Pool.

(9) The proposed downhole commingling is necessary in order for the applicant to economically recover Basin-Dakota and Blanco-Mesaverde Pool reserves underlying the E/2 of Section 13.

(10) The Allison Unit is a Federal exploratory unit initially comprising some 11,705 acres in New Mexico and some 2,069 acres in Colorado. Within New Mexico, the unit comprises portions of Township 32 North, Ranges 6 and 7 West, NMPM, San Juan County. The unit was formed in 1950 and is currently operated by Meridian Oil Inc.

(11) The evidence and testimony presented indicates that the Basin-Dakota and Blanco-Mesaverde Pools have both been substantially developed within the Allison Unit.

(12) The applicant has identified numerous Mesaverde and Dakota well locations within the Allison Unit which by virtue of marginal gas reserves and resulting poor economics cannot be economically drilled and produced as stand alone units.

(13) The current well economics and projected Dakota and Mesaverde gas reserves underlying these respective tracts virtually assure that these wells must be downhole commingled in order to meet the economic criteria for drilling.

(14) The applicant expects initial producing rates from both the Mesaverde and Dakota formations to be fairly marginal in nature.

(15) The applicant further demonstrated through its evidence and testimony that within the wells it proposes or will propose to commingle within the Unit Area:

- a) there will be no crossflow between the two commingled pools;
- b) neither commingled zone exposes the other to damage by produced liquids;
- c) the fluids from each zone are compatible with the other;
- d) the bottomhole pressure of the lower pressure zone should not be less than 50 percent of the bottomhole pressure of the higher pressure zone adjusted to a common datum; and,
- e) the value of the commingled production is not less than the sum of the values of the individual production.

(16) The Dakota and Mesaverde Participating Areas within the Allison Unit are not common.

(17) By virtue of different Participating Areas, the interest ownership between the Dakota and Mesaverde formations within any given wellbore is not common.

(18) Applicant's Exhibit No. 2 in this case is a list of three hundred and fifty four (354) interest owners in the Dakota and Mesaverde Participating Areas within the Allison Unit. All such interest owners were notified of the application in this case.

(19) Rule No. 303(C) of the Division Rules and Regulations provides that administrative approval for downhole commingling may be granted provided that the interest ownership, including working, royalty and overriding royalty interest, is common among the commingled zones.

(20) Applicant's proposed administrative procedure would provide for Division approval to downhole commingle wells in the Allison Unit Area without hearing, and without the requirement that each interest owner in the Dakota and Mesaverde Participating Areas be notified of such commingling.

(21) The downhole commingling of wells within the Allison Unit Area will benefit working, royalty and overriding royalty interest owners. In addition, the downhole commingling of wells within the Allison Unit Area should not violate the correlative rights of any interest owner.

(22) Evidence in this case indicates that . . . to each interest owner within the Dakota and Mesaverde Participating Areas of subsequently downhole comminglings within the Allison Unit is unnecessary and is an excessive burden on the applicant.

(23) No interest owner and/or offset operator appeared at the hearing in opposition to the application.

(24) An administrative procedure should be established within the Allison Unit for obtaining approval for subsequently downhole commingled wells without notice to Unit interest owners and hearing, provided however that, all provisions contained within Rule No. 303(C) of the Division Rules and Regulations, with the exception of Part 1 (b)(v), are fully complied with.

(25) The proposed administrative procedure for obtaining approval for downhole commingling will allow the applicant the opportunity to recover additional gas reserves from the Allison Unit Area which may otherwise not be recovered, thereby preventing waste, and will not violate correlative rights.

(26) In the interest of prevention of waste and protection of correlative rights, the proposed downhole commingling within the Allison Unit Well No. 9R should be approved.

(27) The applicant should consult with the supervisor of the Aztec District Office of the Division subsequent to the completion of the subject well in order to determine a proper allocation of production.

(28) The operator should immediately notify the supervisor of the Aztec district office of the Division any time the subject well has been shut-in for seven consecutive days and shall concurrently present, to the Division, a plan for remedial action.

IT IS THEREFORE ORDERED THAT:

(1) The applicant, Meridian Oil Inc., is hereby authorized to commingle gas production from the Blanco-Mesaverde and Basin-Dakota Pools within the Allison Unit Well No. 9R located 1720 feet from the North line and 1655 feet from the East line (Unit G) of Section 13, Township 32 North, Range 7 West, NMPM, San Juan County, New Mexico.

(2) The applicant shall consult with the supervisor of the Aztec district office of the Division subsequent to the completion of the subject well in order to determine a proper allocation of production.

JUL - 7 - 93 WED 12:47 OIL CONSERVATION DIV P. 8

(3) The operator shall immediately notify the supervisor of the Aztec district office of the Division any time the subject well has been shut-in for seven consecutive days and shall concurrently present, to the Division, a plan for remedial action.

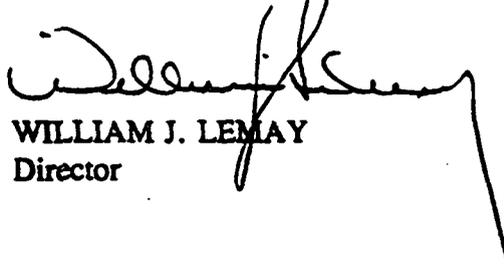
(4) An administrative procedure for obtaining approval to downhole commingle wells within the Allison Unit, located in portions of Township 32 North, Ranges 6 and 7 West, NMPM, San Juan County, New Mexico, is hereby established.

(5) In order to obtain Division authorization to downhole commingle wells within the Allison Unit, the applicant shall file an application with the Santa Fe and Aztec Offices of the Division. Such application shall contain all of the information required under Rule No. 303(C) of the Division Rules and Regulations, provided however that the applicant shall not be required to provide notice to all interest owners within the Dakota and Mesaverde Participating Areas in the Allison Unit of such proposed commingling. In addition, the application shall contain evidence that all offset operators and the United States Bureau of Land Management (BLM) have been notified of the proposed commingling.

(6) Jurisdiction is hereby retained for the entry of such further orders as the Division may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION


WILLIAM J. LEMAY
Director

S E A L