

ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION
 - Engineering Bureau -
 2040 South Pacheco, Santa Fe, NM 87505



2156

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 - 8

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.

[Handwritten Signature]

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 87505-6429

APPLICATION FOR DOWNHOLE COMMINGLING

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

APPROVAL PROCESS :

Administrative Hearing

EXISTING WELLBORE

YES NO

Burlington Resources Oil & Gas Company

PO Box 4289, Farmington, NM 87499

Operator

Address

Allison Unit

39M

J 18-32N-06W

San Juan

Lease

Well No.

Unit Ltr. - Sec - Twp - Rge

County

Spacing Unit Lease Types: (check 1 or more)

OGRID NO. 14538 Property Code 6784 API NO. 30-045-29653 Federal State 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, Pay Section, Type of production, Method of Production, Bottomhole Pressure, Oil Gravity, Producing or Shut-In, Production Marginal, Allocation Formula, etc.

- 9. If allocation formula is based upon something other than current or past production...
10. Are all working, overriding, and royalty interests identical in all commingled zones?
11. Will cross-flow occur?
12. Are all produced fluids from all commingled zones compatible with each other?
13. Will the value of production be decreased by commingling?
14. If this well is on, or communitized with, state or federal lands...
15. NMOCD Reference Cases for Rule 303(D) Exceptions:
16. ATTACHMENTS:

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

SIGNATURE: Kenneth Collins TITLE: Production Engineer DATE: 12-07-98

TYPE OR PRINT NAME: Ken Collins TELEPHONE NO.: (505) 326-9700

District I
PO Box 1980, Hobbs, NM 88241-1980

State of New Mexico
Energy, Minerals & Natural Resources Department

Form C-102
Revised February 21, 1994

District II
PO Drawer DD, Artesia, NM 88211-0719

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

Instructions on back
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

District III
2000 Rio Brazos Rd., Aztec, NM 87410

AMENDED REPORT

District IV
PO Box 2088, Santa Fe, NM 87504-2088

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-045-		² Pool Code 71599/72319		³ Pool Name Basin Dakota/Blanco Mesaverde	
⁴ Property Code 6784		⁵ Property Name ALLISON UNIT			⁶ Well Number 39M
⁷ OGRID No. 14538		⁸ Operator Name BURLINGTON RESOURCES OIL & GAS COMPANY			⁹ Elevation 6505'

¹⁰ Surface Location

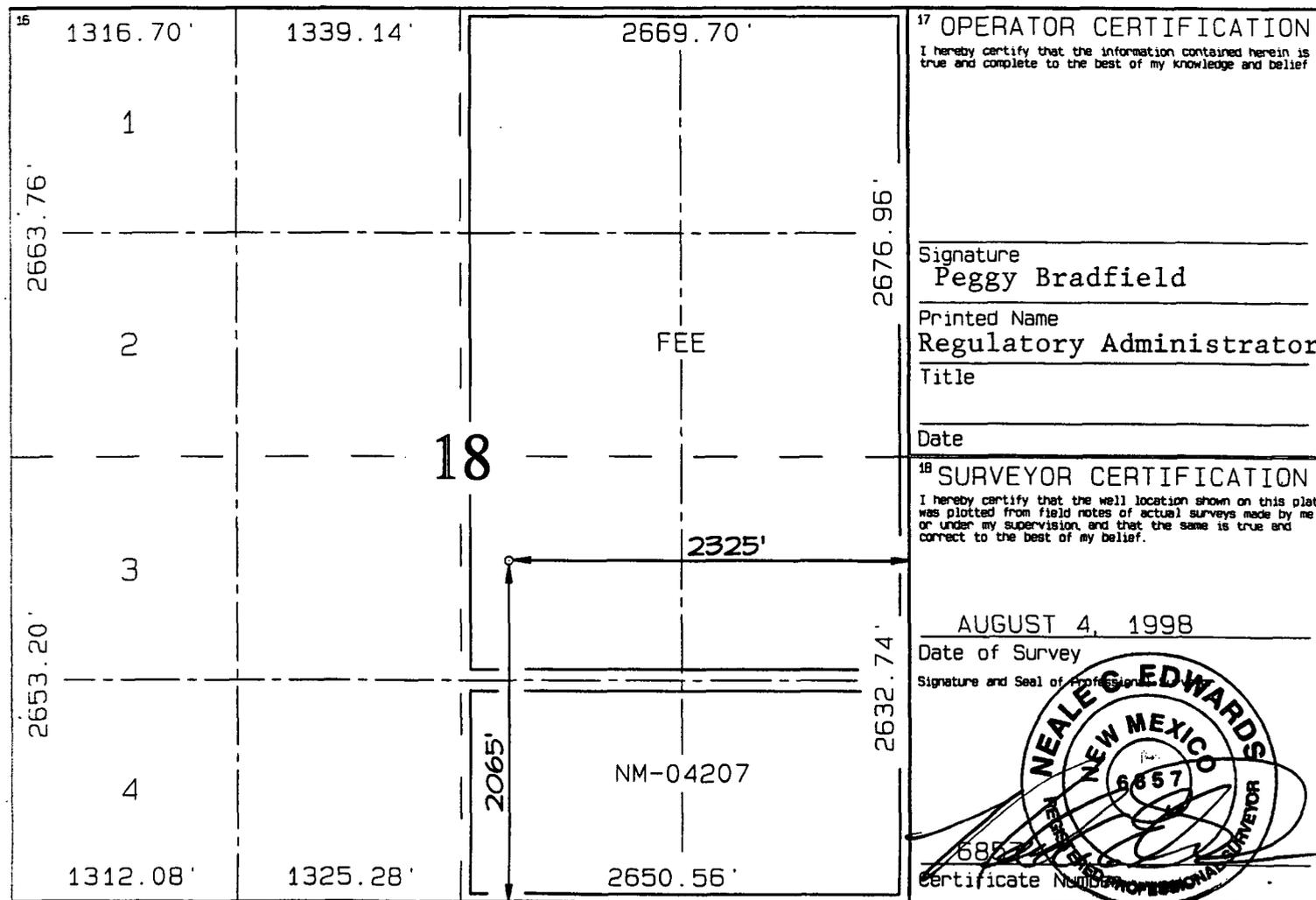
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
J	18	32N	6W		2065	SOUTH	2325	EAST	SAN JUAN

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 DK: E/320 MV: E/320	¹³ Joint or Infill	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



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

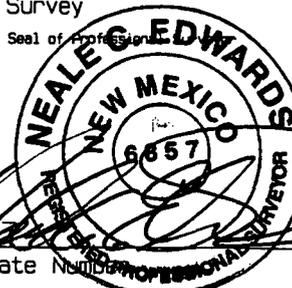
Date

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.

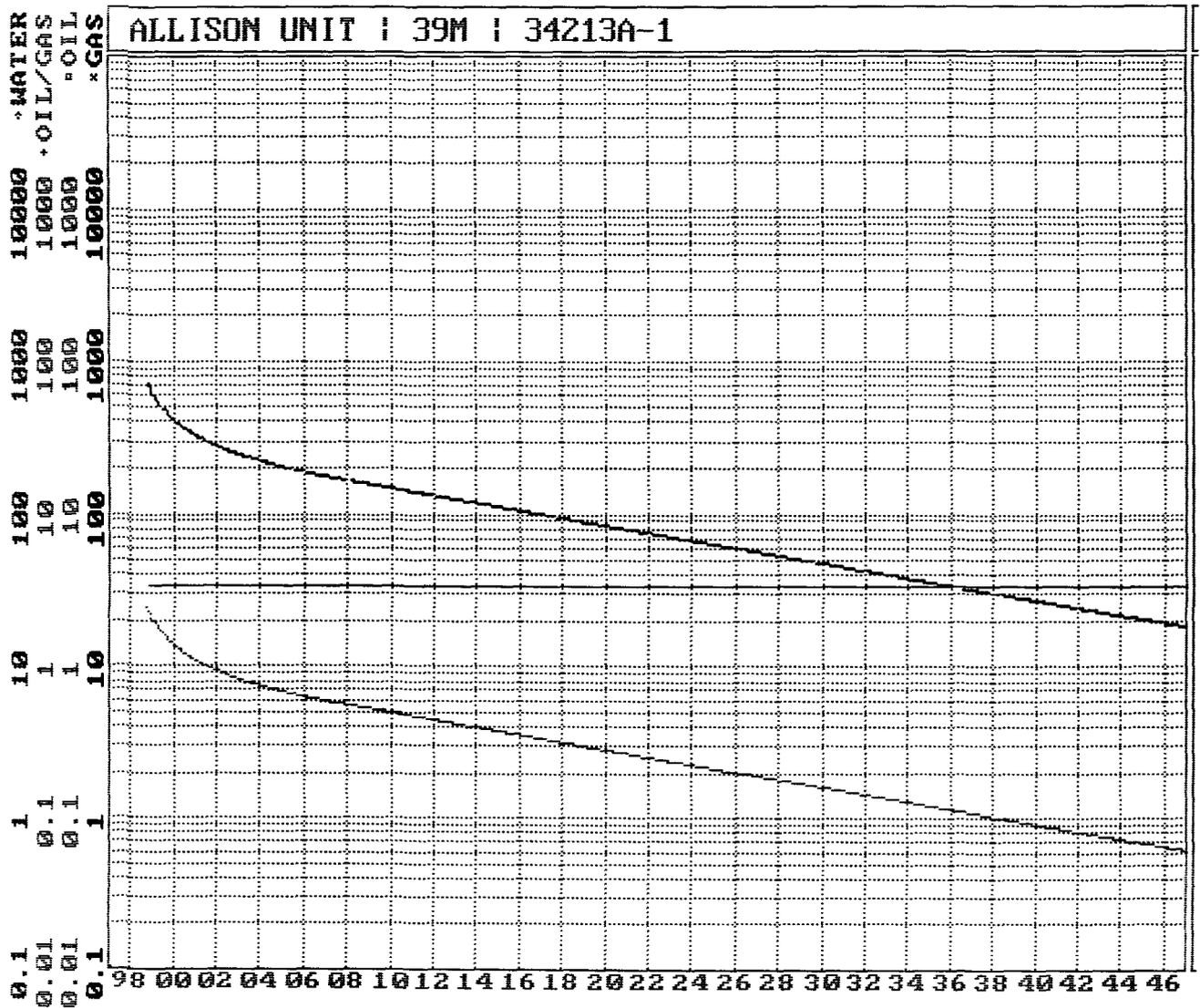
AUGUST 4, 1998
Date of Survey

Signature and Seal of Professional Surveyor

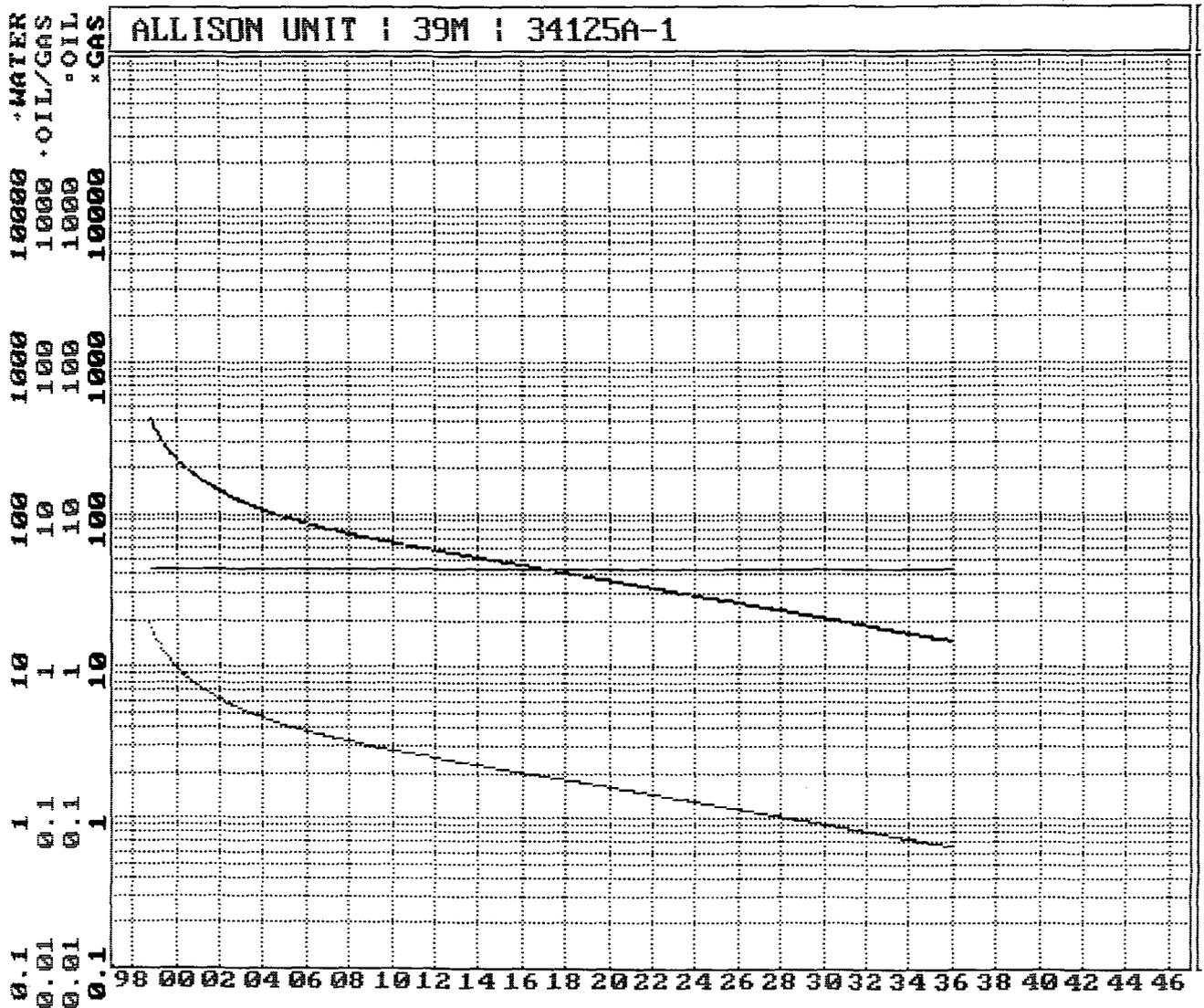


Certificate Number

Allison Unit #39M
Blanco Mesaverde
Expected Production Curve



Allison Unit #39M
 Basin Dakota
 Expected Production Curve



Page No.: 1

Print Time: Wed Nov 25 07:01:18 1998

Property ID: 37

Property Name: ALLISON UNIT | 20 | 52930B-1

Table Name: Q:\PUBLIC\GENTITY\GDPNOS\TEST.DBF

--DATE-- ---CUM_GAS-- M SIWHP
Mcf Psi

05/23/59	0	2691.0	-original
06/01/59	0	2690.0	
02/22/60	235000	2121.0	
07/28/61	818000	1868.0	
04/25/62	1024000	1777.0	
05/06/63	1116000	1948.0	
04/22/64	1218000	1936.0	
05/03/65	1409000	1788.0	
02/23/66	1556000	1722.0	
03/06/67	1788000	1643.0	
03/08/68	2354000	1585.0	
04/16/69	2353404	1521.0	
06/20/70	2516933	1477.0	
07/19/71	2718492	1882.0	
02/15/72	2898250	1404.0	
00/04/73	3082901	860.0	
00/04/73	3082901	860.0	
00/04/73	3082901	860.0	
10/04/73	3218836	860.0	
04/29/75	3565124	1277.0	
08/08/77	4081212	1257.0	
06/04/79	4507878	1172.0	
05/15/81	4933240	1167.0	
04/25/83	5178660	1139.0	
05/02/85	5344856	1337.0	
08/16/88	5607227	1306.0	
04/22/90	5895576	1147.0	
03/29/92	6140656	1050.0	
03/01/94	6272083	709.0	-current

Allison Unit #39M

Dakota Offset

Page No.: 1

Print Time: Wed Nov 25 06:59:09 1998

Property ID: 2397

Property Name: ALLISON UNIT | 10 | 52995B-1

Table Name: K:\ARIES\RR99PDP\TEST.DBF

--DATE--	---CUM_GAS--	M SIWHP
.....Mcf.....Psi.....

04/05/56	0	1167.0
07/23/56	35000	819.0
06/07/57	149000	672.0
11/14/58	255000	749.0
07/29/59	310000	787.0
07/29/60	372000	702.0
07/28/61	428000	685.0
04/25/62	470000	694.0
04/29/63	515000	741.0
04/29/64	575000	718.0
05/10/65	635000	649.0
04/19/66	701000	775.0
05/16/67	772000	598.0
05/02/68	836000	593.0
06/29/69	907891	599.0
11/09/70	945021	633.0
08/31/71	981281	647.0
06/22/72	1021091	643.0
04/18/74	1105130	637.0
06/02/76	1212501	647.0
08/03/78	1317379	636.0
06/05/80	1400083	632.0
05/03/82	1465206	612.0
05/17/84	1509086	670.0
03/17/86	1555096	653.0
05/23/89	1648631	615.0
03/18/91	1706025	559.0
08/13/91	1723876	571.0
05/04/93	1785206	581.0

-original

Allison Unit #39M

Mesaverde Offset

-current

Allison Unit #39M
 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	0.591	GAS GRAVITY	0.606
COND. OR MISC. (C/M)	C	COND. OR MISC. (C/M)	C
%N2	0.89	%N2	0.46
%CO2	1.81	%CO2	4.78
%H2S	0	%H2S	0
DIAMETER (IN)	2	DIAMETER (IN)	2.375
DEPTH (FT)	7170	DEPTH (FT)	8097
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)	581	SURFACE PRESSURE (PSIA)	709
BOTTOMHOLE PRESSURE (PSIA)	677.8	BOTTOMHOLE PRESSURE (PSIA)	840.1
<u>MV-Original</u>		<u>DK-Original</u>	
GAS GRAVITY	0.591	GAS GRAVITY	0.606
COND. OR MISC. (C/M)	C	COND. OR MISC. (C/M)	C
%N2	0.89	%N2	0.46
%CO2	1.81	%CO2	4.78
%H2S	0	%H2S	0
DIAMETER (IN)	2	DIAMETER (IN)	2.375
DEPTH (FT)	7170	DEPTH (FT)	8097
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)	1167	SURFACE PRESSURE (PSIA)	2691
BOTTOMHOLE PRESSURE (PSIA)	1376.3	BOTTOMHOLE PRESSURE (PSIA)	3232.7

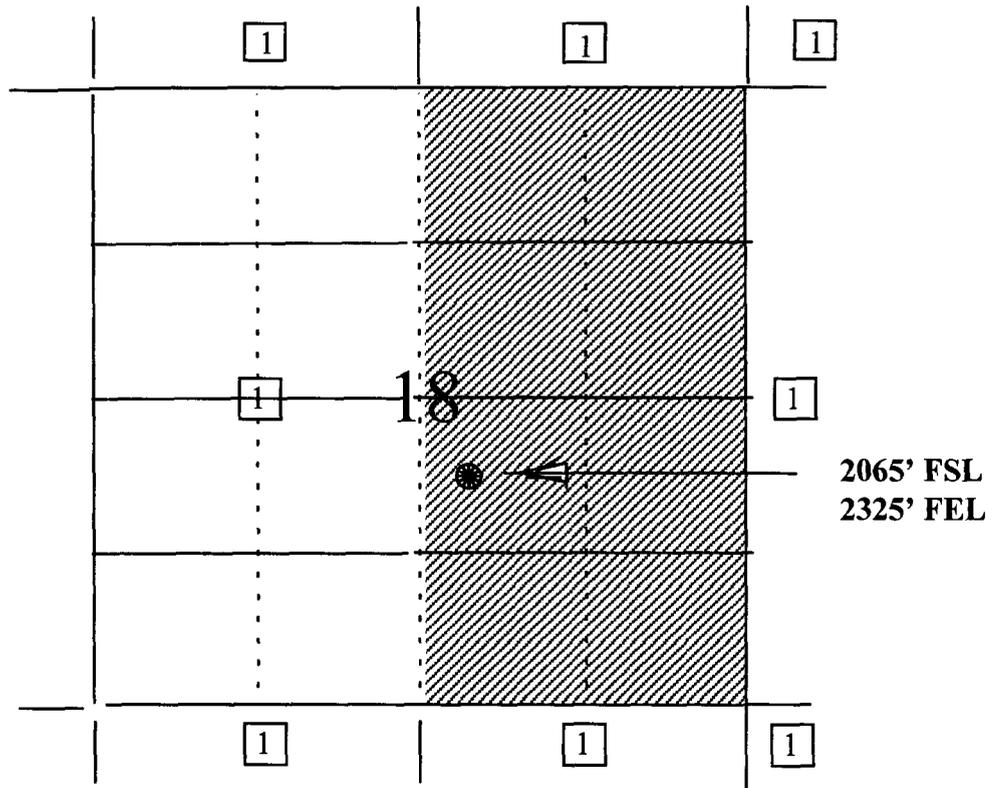
BURLINGTON RESOURCES OIL AND GAS COMPANY

Allison Unit #39M

**OFFSET OPERATOR \ OWNER PLAT
Downhole Commingle**

Mesaverde / Dakota Formations Well

Township 32 North, Range 6 West



1) Burlington Resources

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.

JL - 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.

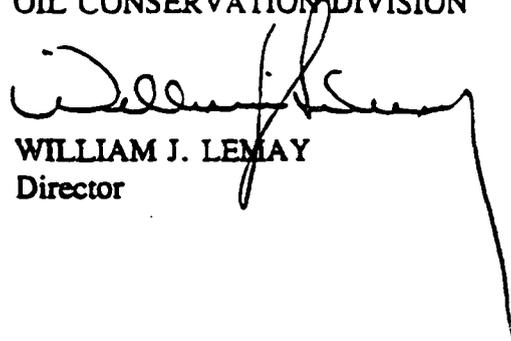
(4) An administrative procedure for obtaining approval to downhole commingle wells within the Allison Unit, located in portions of Township 32 North, Ranges 6 and 7 West, NMPM, San Juan County, New Mexico, is hereby established.

(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