

BURLINGTON RESOURCES

SAN JUAN DIVISION

October 11, 1996

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

RECEIVED
OCT 15 1996
OIL CON. DIV.
DIST. 3

Re: Culpepper Martin #15 ^H
1760'FNL, 990'FEL Section 21, T-32-N, R-12-W, San Juan County, NM
API #30-045-11752

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 currently a dual Mesa Verde/Dakota well.

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. Production curve for both the Dakota and Mesa Verde for at least one year;
4. Notification list of offset operators;
5. Shut in wellhead pressure and calculated down hole pressure;
6. Nine-section plats for the Mesa Verde and Dakota.

The ownership for both the Mesa Verde and Dakota are common in this well. No notification to interest owners is required.

The allocation formula is included, showing 86% from the Mesa Verde and 14% from the Dakota formation.

Please let me know if you require additional data.

Sincerely,



Peggy Bradfield
Regulatory/Compliance Administrator

encs.

DISTRICT I

P.O. Box 1980, Hobbs, NM 88241-1980

DISTRICT II

311 South First St., Artesia, NM 88210-2835

DISTRICT III

1000 Rio Brazos Rd, Aztec, NM 87410-1693

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

2040 S. Pacheco
Santa Fe, New Mexico 87505-6429Form C-107-A
New 3-12-96

APPROVAL PROCESS :

☒ Administrative
☐ Hearing

APPLICATION FOR DOWNHOLE COMMINGLING

EXISTING WELLBORE

☒ YES ☐ NO

Burlington Resources Oil & Gas Company

PO Box 4289, Farmington, NM 87499

Operator

Address

Culpepper Martin

15

H-21-32N-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 6935 API NO. 30-045-11752 Federal , State , (and/or) Fee X

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		Basin Dakota - 71599
2. Top and Bottom of Pay Section (Perforations)	4846-4897'		7060-7214'
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: Estimated Current Gas & Oil - Flowing: Measured Current All Gas Zones: Estimated or Measured Original	(Current) a. 524 psi (see attachment) (Original) b. 1004 psi (see attachment)	a. b.	a. 840 psi (see attachment) b. 2070 psi (see attachment)
6. Oil Gravity (°API) or Gas BTU Content	BTU 1197		BTU 1185
7. Producing or Shut-In?	Producing		Producing
Production Marginal? (yes or no)	no		yes
* If Shut-In 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: 8-98 Rates: 57 MCF/D, 0.18 BOPD	Date: Rates:	Date: 8-98 Rates: 9 MCF/D
* If Producing, give data and oil/gas/water water of recent test (within 60 days)	Date: Rates:	Date: Rates:	Date: Rates:
8. Fixed Percentage Allocation Formula -% for each zone (total of %'s to equal 100%)	Will be supplied upon completion		Will be supplied upon completion

9. If allocation formula is based upon something other than current or past production, or is based upon some other method, submit attachments with supporting data and/or explaining method and providing rate projections or other required data.

10. Are all working, overriding, and royalty interests identical in all commingled zones?

☒ Yes ☐ No

If not, have all working, overriding, and royalty interests been notified by certified mail?

☒ Yes ☐ No

Have all offset operators been given written notice of the proposed downhole commingling?

☒ Yes ☐ 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 ☐ 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.
- * 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.

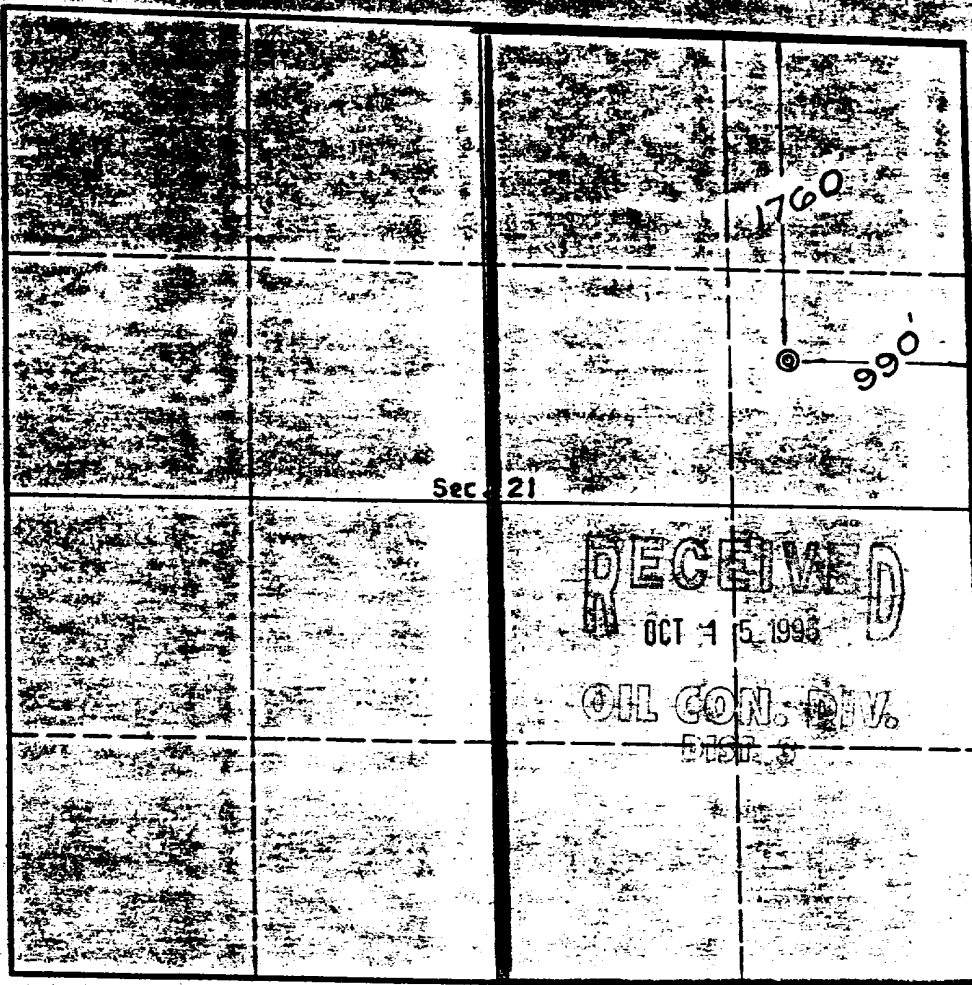
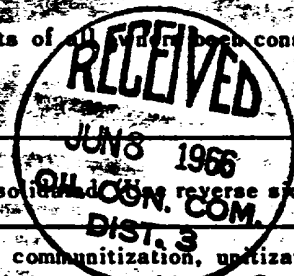
SIGNATURE Peggy Bradfield TITLE Regulatory Administrator DATE 10-11-96TYPE OR PRINT NAME Peggy Bradfield TELEPHONE NO. (505) 326-9700

**MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT**

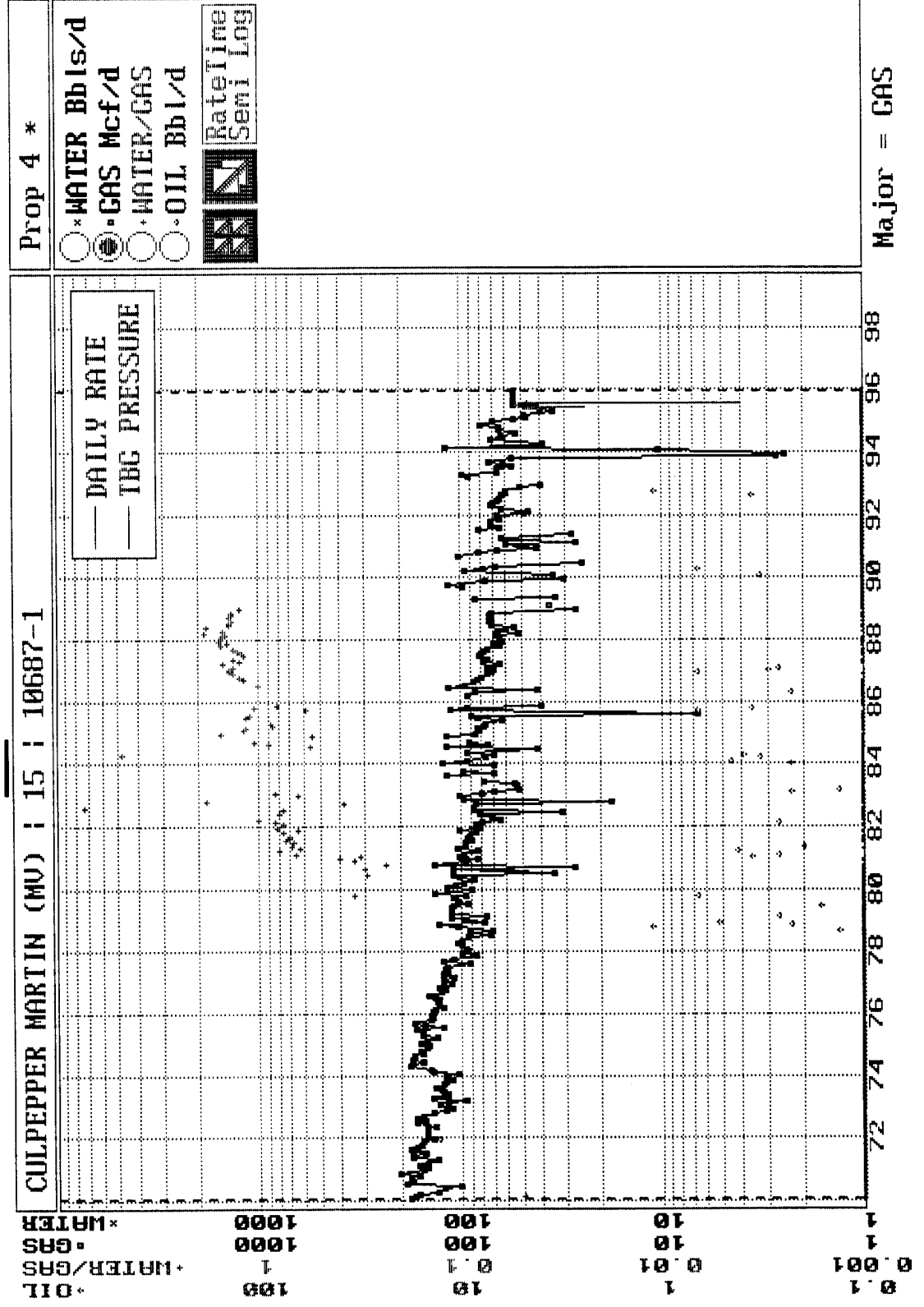
Form C-102
Supersedes C-128
Effective 1-4-65

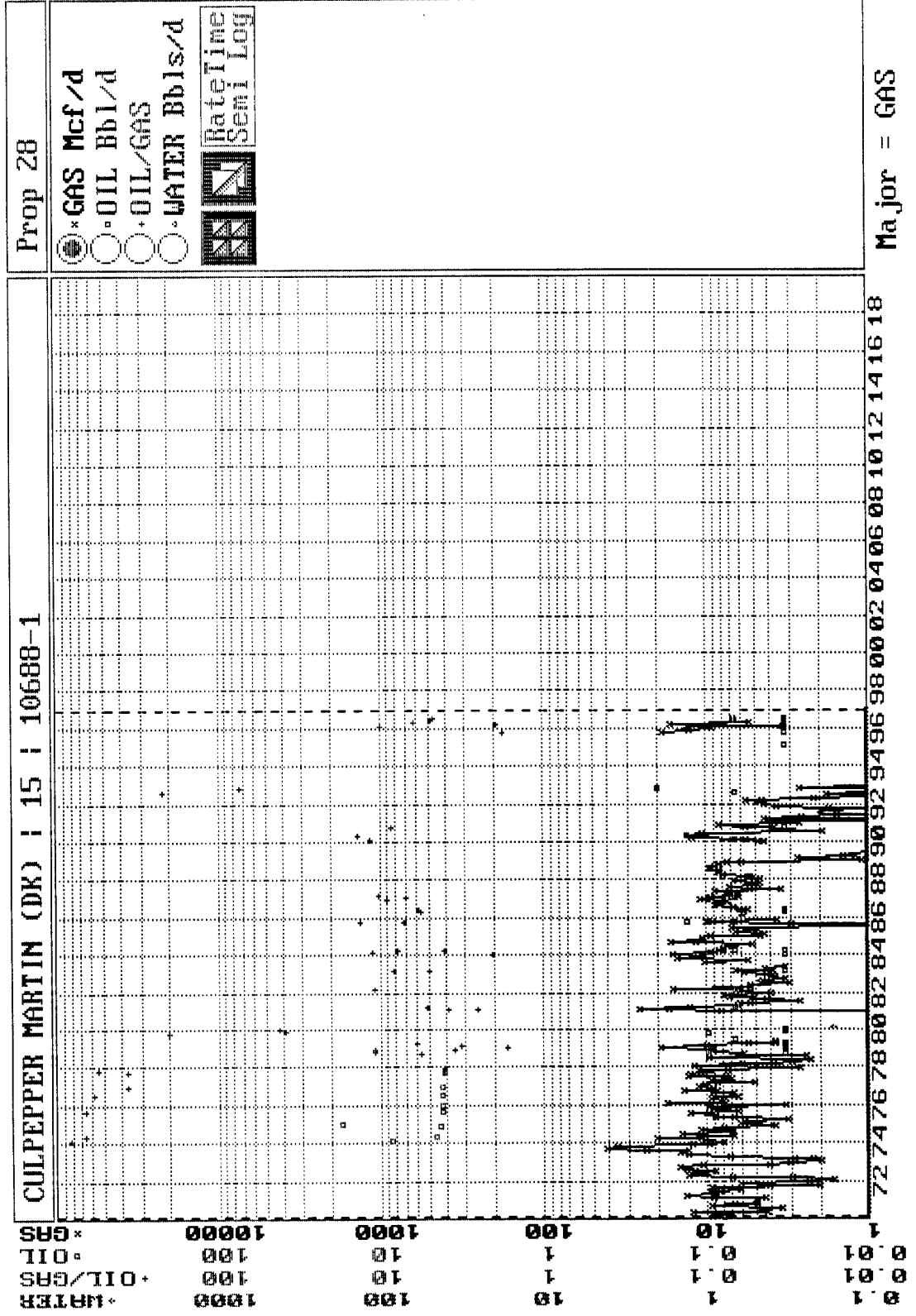
All distances must be from the outer boundaries of the Section.

Operator AZTEC OIL & GAS COMPANY			Lease Outigger Martin		Well No. 15
Unit Letter H	Section 21	Township 32 North	Range 12 West	County San Juan	
Actual Footage Location of Well: 1760 feet from the North line and 990 feet from the East line					
Ground Level Elev. 6056	Producing Formation Dakota-McGoverde	Pool Alamo McGoverde Basin Dakota		Dedicated Acreage 380 Acres	
1. Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below. 2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty). 3. If more than one lease of different ownership is dedicated to the well, have the interests of all of them been consolidated by communitization, unitization, force-pooling, etc? ☐ Yes ☐ No If answer is "yes," type of consolidation _____ If answer is "no," list the owners and tract descriptions which have actually been consolidated on 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.
ORIGINAL SIGNED BY JOE C. SALMON
Name Joe C. Salmon
Position District Superintendent
Company Aztec Oil and Gas
Date June 7, 1966
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.
EST. V. ECHOHAWK
Date Surveyed May 26, 1966
Registered Professional Engineer and/or Land Surveyor C. V. Echohawk
Certificate No. 3602



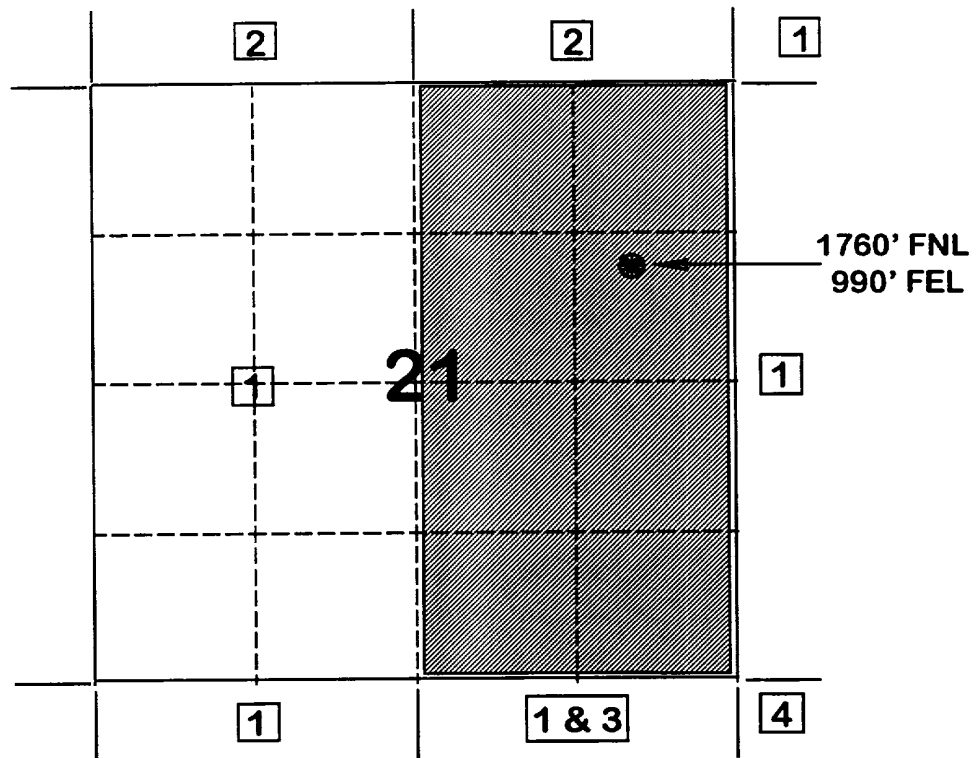


BURLINGTON RESOURCES OIL AND GAS COMPANY

**Culpepper Martin #15
OFFSET OPERATOR \ OWNER PLAT**

Mesaverde/Dakota Formations Commingle Well

Township 32 North, Range 12 West



- 1) Burlington Resources Oil and Gas Company Successor to Meridian Oil Inc.
- 2) Dugan Production Corp.
P.O. Box 420
709 E. Murray Drive
Farmington, NM 87499
- 3) Amoco Production Company
Bruce Zimney
P.O. Box 800
Denver, CO 80201
- 4) Kimbark Oil & Gas Company
1660 Lincoln, St #2700
Denver, CO 80264

**FLOWING AND STATIC BHP
CULLENDER AND SMITH METHOD**

VERSION 1.0 3/13/94

GAS GRAVITY	0.7
COND. OR MISC. (C/M)	C
%N2	0.29
%CO2	0.75
%H2S	0
DIAMETER (IN)	2.5
DEPTH (FT)	4897
SURFACE TEMPERATURE (DEG F)	60
BOTTOMHOLE TEMPERATURE (DEG F)	150
FLOWRATE (MCFPD)	0
SURFACE PRESSURE (PSIA)	463
BOTTOMHOLE PRESSURE (PSIA)	523.9

CULPEPPER MARTIN #15 MESAVERDE - (CURRENT)

FLOWING AND STATIC BHP
CULLENDER AND SMITH METHOD
VERSION 1.0 3/13/94

GAS GRAVITY	0.7
COND. OR MISC. (C/M)	C
%N2	0.29
%CO2	0.75
%H2S	0
DIAMETER (IN)	2.5
DEPTH (FT)	4897
SURFACE TEMPERATURE (DEG F)	60
BOTTOMHOLE TEMPERATURE (DEG F)	150
FLOWRATE (MCFPD)	0
SURFACE PRESSURE (PSIA)	879
BOTTOMHOLE PRESSURE (PSIA)	1004.0

CULPEPPER MARTIN #15 MESAVERDE - (ORIGINAL)

COMMAND ==> SCROLL ==> PAGE

State: 30	Lease Name: CULPEPPER MARTIN	
Prod: 2	County Name: SAN JUAN	
Ident: 32N12W21H00MV	Reservoir Name: MESAVERDE	
District: 4	Operator Name: MERIDIAN OIL INC	
Location: 21H 32N 12W	Field Name: BLANCO (MESAVERDE)	
Retrieval code: 251,045,32N12W21H00MV	Well: 000015	Total Depth: 7240
Gas Gath: WFS	Status: ACT	Upper Perf: 4846
API No: 1175200	Comp Date: 196606	Lower Perf: 4897

Date	Cum to Test	WHSIP	BHP	P/Z	BDWtr	BDCnd	WHFlw	Poten	MC	Pt	Z FA
19660622	0	879	997	1114	0	0	0	7481	C	4	95.00
19660719	276,251	0	0	0	0	0	0	7481		2	0.00
19700618	302,129	538	606	649	0	0	465	208	C	2	34.00
19710717	368,357	535	603	646	0	0	447	183	C	2	34.00
19720718	425,736	523	589	629	0	0	423	204	C	2	36.00
19730618	469,890	548	617	661	0	0	408	132	C	2	33.00
19740602	517,263	499	562	599	0	0	342	195	C	2	38.00
19760618	629,693	466	524	556	0	0	358	138	C	2	42.00
F1=HELP	F2=SPLIT	F3=END		F4=RETURN		F5=RFIND		F6=RCHANGE			
F7=UP	F8=DOWN	F9=SWAP		F10=LEFT		F11=RIGHT		F12=RETRIEVE			
B MY JOB			LU #13								

COMMAND ==> SCROLL ==> PAGE

State: 30	Lease Name: CULPEPPER MARTIN	
Prod: 2	County Name: SAN JUAN	
Ident: 32N12W21H00MV	Reservoir Name: MESAVERDE	
District: 4	Operator Name: MERIDIAN OIL INC	
Location: 21H 32N 12W	Field Name: BLANCO (MESAVERDE)	
Retrieval code: 251,045,32N12W21H00MV	Well: 000015	Total Depth: 7240
Gas Gath: WFS	Status: ACT	Upper Perf: 4846
API No: 1175200	Comp Date: 196606	Lower Perf: 4897

Date	Cum to Test	WHSIP	BHP	P/Z	BDWtr	BDCnd	WHFlw	Poten	MC	Pt	Z	FA
19800908	794,269	496	558	594	0	0	446	118	C	2	39.00	
19820408	846,551	459	516	547	0	0	383	91	C	2	43.00	
19840822	909,456	481	541	576	0	0	422	96	C	2	40.00	
19860422	948,637	723	817	896	0	0	422	38	C	2	12.00	
19890411	1,020,871	472	531	564	0	0	340	112	C	2	41.00	
19910608	1,058,625	481	541	576	0	0	394	78	C	2	40.00	
19930729	1,104,273	463	521	553	0	0	377	58	C	2	0.94	
***** BOTTOM OF DATA *****												
F1=HELP	F2=SPLIT	F3=END	F4=RETURN			F5=RFIND		F6=RCHANGE				
F7=UP	F8=DOWN	F9=SWAP	F10=LEFT			F11=RIGHT		F12=RETRIEVE				
B MY JOB			LU #13									

**FLOWING AND STATIC BHP
CULLENDER AND SMITH METHOD**
VERSION 1.0 3/13/94

GAS GRAVITY	0.7
COND. OR MISC. (C/M)	C
%N2	0.29
%CO2	1.29
%H2S	0
DIAMETER (IN)	2.5
DEPTH (FT)	7214
SURFACE TEMPERATURE (DEG F)	60
BOTTOMHOLE TEMPERATURE (DEG F)	200
FLOWRATE (MCFPD)	0
SURFACE PRESSURE (PSIA)	702
BOTTOMHOLE PRESSURE (PSIA)	840.0

CULPEPPER MARTIN #15 DAKOTA - (CURRENT)

**FLOWING AND STATIC BHP
CULLENDER AND SMITH METHOD**

VERSION 1.0 3/13/94

GAS GRAVITY	0.7
COND. OR MISC. (C/M)	C
%N2	0.29
%CO2	1.29
%H2S	0
DIAMETER (IN)	2.5
DEPTH (FT)	7214
SURFACE TEMPERATURE (DEG F)	60
BOTTOMHOLE TEMPERATURE (DEG F)	200
FLOWRATE (MCFPD)	0
SURFACE PRESSURE (PSIA)	1692
BOTTOMHOLE PRESSURE (PSIA)	2070.0

CULPEPPER MARTIN #15 DAKOTA - (ORIGINAL)

State: 30 Lease Name: CULPEPPER MARTIN
Prod: 2 County Name: SAN JUAN
Ident: 32N12W21H00DK Reservoir Name: DAKOTA
District: 4 Operator Name: MERIDIAN OIL INC
Location: 21H 32N 12W Field Name: BASIN (DAKOTA)
Retrieval code: 251,045,32N12W21H00DK Well: 000015 Total Depth: 7240
Gas Gath: WFS Status: ACT Upper Perf: 7060
API No: 1175200 Comp Date: 196606 Lower Perf: 7214

Date	Cum to Test	WHSIP	BHP	P/Z	BDWtr	BDCnd	WHFlw	Poten	MC	Pt	Z	FAC
19660622	0	1692	2064	2386	0	0	0	1723	C	4	65.000	
19660719	52,469	0	0	0	0	0	0	1723		2	0.000	
19690618	52,469	744	889	962	0	0	472	7	C	2	24.000	
19730618	61,725	1010	1215	1349	0	0	408	20	C	2	1.000	
19750418	70,116	866	1038	1137	0	0	416	15	C	2	13.000	
19770517	76,890	833	997	1088	0	0	314	7	C	2	16.000	
19830609	89,105	716	855	922	0	0	439	7	C	2	27.000	
19850403	94,859	717	856	923	0	0	370	8	C	2	27.000	
F1=HELP	F2=SPLIT	F3=END		F4=RETURN		F5=RFIND		F6=RCHANGE				
F7=UP	F8=DOWN	F9=SWAP		F10=LEFT		F11=RIGHT		F12=RETRIEVE				

B MY JOB LU #13

State: 30 Lease Name: CULPEPPER MARTIN
Prod: 2 County Name: SAN JUAN
Ident: 32N12W21H00DK Reservoir Name: DAKOTA
District: 4 Operator Name: MERIDIAN OIL INC
Location: 21H 32N 12W Field Name: BASIN (DAKOTA)
Retrieval code: 251,045,32N12W21H00DK Well: 000015 Total Depth: 7240
Gas Gath: WFS Status: ACT Upper Perf: 7060
API No: 1175200 Comp Date: 196606 Lower Perf: 7214

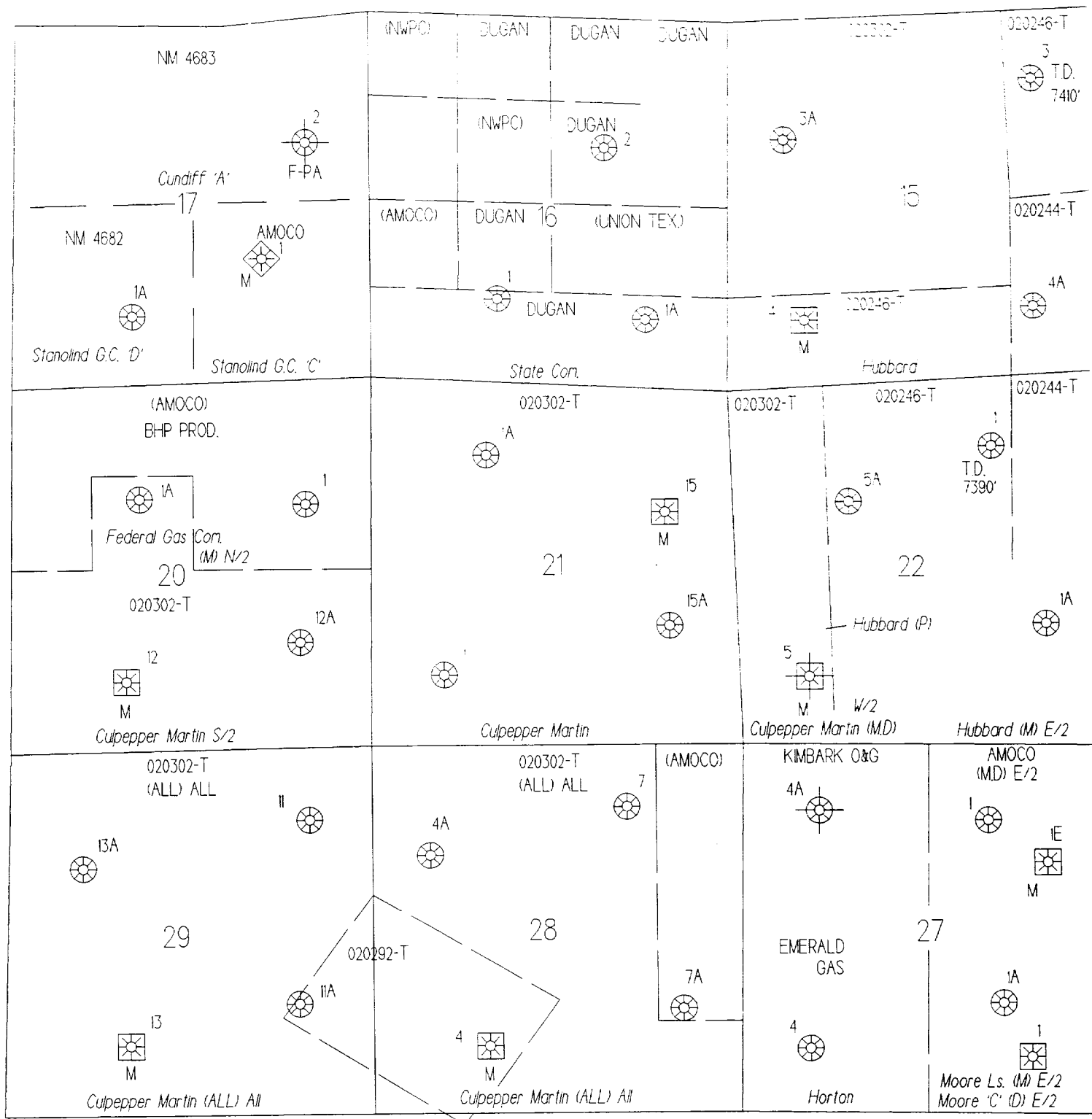
Date	Cum to Test	WHSIP	BHP	P/Z	BDWtr	BDCnd	WHFlw	Poten	MC	Pt	Z	FAC
19690618	52,469	744	889	962	0	0	472	7	C	2	24.000	
19730618	61,725	1010	1215	1349	0	0	408	20	C	2	1.000	
19750418	70,116	866	1038	1137	0	0	416	15	C	2	13.000	
19770517	76,890	833	997	1088	0	0	314	7	C	2	16.000	
19830609	89,105	716	855	922	0	0	439	7	C	2	27.000	
19850403	94,859	717	856	923	0	0	370	8	C	2	27.000	
19900608	105,342	702	838	902	0	0	333	25	C	2	29.000	

***** BOTTOM OF DATA *****

F1=HELP F2=SPLIT F3=END F4=RETURN F5=RFIND F6=RCHANGE
F7=UP F8=DOWN F9=SWAP F10=LEFT F11=RIGHT F12=RETRIEVE

Job #3369 is spooled to Laser8@OPRENG@FAR.

CULPEPPER MARTIN #15 BLANCO MESAVERDE/BASIN DAKOTA SECTION 21, T32N, R12W



PRODUCTION ALLOCATION FORMULA METHOD

Culpepper Martin #15
(Mesaverde/Dakota) Commingle
Unit H, NE/4, 21-T32N-R12W
San Juan County, New Mexico

Allocation Formula Method:

Current Production from Mesaverde formation = 55 MCFD

Current Production from Dakota formation = 9 MCFD

$$\frac{[(MV \& DK) 64 \text{ MCFD} - (MV) 55 \text{ MCFD}]}{(MV \& DK) 64 \text{ MCFD}} = (DK) \% \text{ Dakota 14\%}$$

$$\frac{[(MV \& DK) 64 \text{ MCFD} - (DK) 9 \text{ MCFD}]}{(MV \& DK) 64 \text{ MCFD}} = (MV) \% \text{ Mesaverde 86\%}$$