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To Appropriate  
District Office  
**DISTRICT I**  
P.O. Box 1980, Hobbs, NM 88240

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-103  
Revised 1-1-89

## OIL CONSERVATION DIVISION

2040 South Pacheco  
Santa Fe, NM 87505

**DISTRICT II**  
811 South First, Artesia NM 88210

**DISTRICT III**  
1000 Rio Brazos Rd., Aztec, NM 87410

<b>SUNDRY NOTICES AND REPORTS ON WELLS</b> (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS)		WELL API NO. 30-045-32024
1. Type of Well: Oil Well <input type="checkbox"/> Gas Well <input checked="" type="checkbox"/> Other		5. Indicate Type of Lease STATE <input type="checkbox"/> FEE <input checked="" type="checkbox"/>
2. Name of Operator WILLIAMS PRODUCTION COMPANY		6. State Oil & Gas Lease No. E-504
3. Address of Operator P O BOX 3102, MS 25-4, TULSA, OK 74101		7. Lease Name or Unit Agreement Name: NEW MEXICO 32-11 COM
4. Well Location (Surface) Unit letter <u>J</u> : 1820 feet from the <u>SOUTH</u> line & 2380 feet from the <u>EAST</u> line Sec 20-32N-R11W SAN JUAN, NM		8. Well No. #1B
10. Elevation (Show whether DF, RKB, RT, GR, etc. 6628' GR		9. Pool name or Wildcat BLANCO MV, BASIN DK

Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

### NOTICE OF INTENTION TO:

### SUBSEQUENT REPORT OF:

PERFORM REMEDIAL  
WORK

PLUG AND ABANDON

REMEDIAL WORK

ALTERING CASING

TEMPORARILY ABANDON

CHANGE PLANS

COMMENCE DRILLING OPNS.

PLUG AND  
ABANDONMENT

PULL OR ALTER CASING

CASING TEST AND CEMENT JOB

X OTHER: C/O & COMMUNICATION REPAIR

OTHER: \_\_\_\_\_

1. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). Data below to satisfy NM OCD Rule 303.C.3 (b) (i)-(vii)

**OBJECTIVE:** Repair hole in long string tubing. Increase size of tubing for commingle.

- 1) MIRU, kill, ND tree, & NU BOP's.
- 2) Clean out from top of packer.
- 3) POOH with tubing on both strings.
- 4) Drop sand to top of liner.
- 5) Mill out packer.
- 6) Clean out fill to PBTD @ 8,062' MD.
- 7) RIH and hang off tubing for commingle with EOT @ 7,500' MD.
- 8) ND BOP's & NU tree.
- 9) TEST WELL TO MAKE CERTAIN TUBING IS NOT PLUGGED.
- 10) Release rig.
- 11) Return to production.

RCVD APR 2 '08

OIL CONS. DIV.

DIST. 3

See support information for commingle on next page and in attachments.

*Handwritten:* DHC 2838A2

DATA ELEMENT	UPPER ZONE	INTERMEDIATE ZONE	LOWER ZONE
Division Order; pre-approved pool or area	R -11363		R-11363
Pool Name	Blanco M/V		Basin DK
Pool Code	72319		71599
Top and Bottom of Pay Section (Perforated or Open-Hole Interval)	5,582' & 5,914' .		7,792' & 8,005'
Fixed Allocation Percentage (Note: If allocation is based upon something other than current or past production, supporting data or explanation will be required.)	Oil Gas NA % 66 %	Oil Gas % %	Oil Gas NA % 34 %

- i) The proposed commingle will not reduce the value of the total remaining production.
- ii) Ownership or percentages between the pools to be commingled are **not** identical and Williams did send a notice to all interest owners in the spacing unit by certified mail (return receipt) of its intent to apply for downhole commingling and there was no objection received within 20 days of sending this notice.
- iii) Williams sent a copy of the division form C-103 to the commissioner of public lands for the state of New Mexico for wells in spacing units containing state lands.

**Please see attached sheets regarding the method to determine allocation.**

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

SIGNATURE Michael Coker TITLE: Engineer DATE: March 26, 2008

Type or print name Michael Coker

Telephone No: (918) 573-0888

(This space for State use) APPROVED

BY H. Villanueva TITLE

**Deputy Oil & Gas Inspector,  
District #3**

DATE

Conditions of approval, if any:

**APR 03 2008**



Exploration & Production

## **NEW MEXICO COM 32-11 (MV/DK)**

API No. 30-045-32024  
T32N, R11W, Sect. 20 (J)  
Blanco MV/Basin DK Field, San Juan County, New Mexico  
09-MAY-06

### **WELL CLEANOUT & COMMINGLING PROCEDURE**

**AFE No:** \_\_\_\_\_

**ELEVATION:** 6,628' GR

**TD:** 8,062' MD

**OBJECTIVE:** Cleanout DK completion, convert to single tubing string and commingle zones.

1. MIRU, kill, ND tree, & NU BOP's.
2. POOH with short string tubing & lay down.
3. POOH with long string tubing & lay down.
4. P/U work string, mill & pluck Model D packer.
5. Clean out fill to TD.
6. RIH w/2-1/16" below packer and 2-3/8" J-55 eue 8rd on top of packer.
7. Hang off tubing.
8. ND BOP's & NU tree.
9. Return to production.

**WELL HISTORY:** This well was sidetracked around a fish when drilled. from 7667' (bottom of whipstock window) to 8062' (TD). On 7/24//2005, the well was re-entered and cleaned out to 8062' to run a 3-1/2" liner across the Graneros Sh.-Dakota intervals.

The MV zone was completed on 9/2/05 and was IP tested at 259 Mcfd on 9/15/05. First production was on 16-SEP-05, The MV has a cum of 2.6 MMcf with projected remaining reserves of 1075 MMcf and is currently averaging 400 Mcfd.

The DK was IP tested making 1,520 Mcfd from the open hole interval 7,667'-8,062' on 5/18/04. DK first delivery was on 6/14/04 and has a cum of 115.4 MMcf with projected remaining reserves of 432 MMcf.

Currently the well is plugged off due to sand obstruction.

**LAST WORKOVER:** 09/02/05; MV recompletion.

## **SAFETY NOTICE**

**PERSONNEL SAFETY IS THE NUMBER ONE JOB.  
NO EXCEPTIONS!!!**

### **Prior To Primary Job**

- 1) Acquire wellhead and convert from dual tubing string to a single, 2-3/8" tubing string.
- 2) Acquire 2-3/8", 4.7 #/ft eue 8rd K-55 tubing (H-40 preferred, J-55 OK).
- 3) Test rig anchors.
- 4) Acquire work string.
- 5) Verify location is OK for rig operations.
- 6) Ensure JSA, ECP's and lockout procedures are in place for the flowline and other energized piping or equipment.

### **Procedure:**

**Note:** A safety meeting shall be held each morning before work and subsequent "tailgate" safety meetings are to be held during the day when operation objectives shift in nature and intent (i.e. beginning/ending fishing operations, squeeze jobs, rigging down, etc.)

1. Spot equipment, MIRU.
2. Blow down gas on well as possible to kill.
3. Pump into both string tubing stings and backside to load well with filtered FLSW + 2% KCl as necessary to kill well.

**Note:** Steps 2 & 3 are to be performed each day before work begins and as necessary throughout the workday (with expected departure(s) when tubing is out of the hole).

4. ND tree and NU BOP's (blind & pipe rams {annular prevent can be used instead pipe ram} for 2-1/16", 3.25#/ft tbg.).
5. Test BOP's for operation and have shop test report for pressure on location.

**Note:** Step 5 is to be performed each time BOP stack is nipped up.

6. P/U a 5 or 6 joints of 2-7/8" work string and stand back.
7. P/U a joint of short string (MV side using up to 40,000 #'s pull) and crossover to 2-7/8" work string.
8. RIH with 2-1/16" short sting on 2-7/8" work string and cleanout any fill from on top of Model D packer set at 6,000'.
9. After cleanout, POOH with short string (using up to 40,000 #'s pull).

10. Lay down pipe (2-7/8" work string and 185 jt. 2-1/16" 3.25# J-55). Make visual inspection of pipe to determine if testing is necessary.

**Note:** This well should be dead and the BOP's shall be closed and locked at the end of daily operations.

11. Spear or screw in and POOH with 2-16", 3.25 #/ft DK (long string) string using straight pull to pull out of Model D packer seal assembly up to 40,000 #'s.
12. POOH with lay down tubing (189± jts. 2-1/16" 3.25# J-55) and seal assembly.
13. NU additional pipe ram for work string or replace pipe ram with annular preventer.
14. Pick up 2-7/8" N-80, eue 8rd work string.
15. Pick up Model D packer miller & pulling tool, using DC's and assembly as necessary and RIH on work string to mill over Model D packer @ 6,000 ft MD and RIH on 2-7/8", 6.5 #/ft, N-80 (2-3/8", 4.70 #/ft, N-80 is OK) work string. If work string not inspected prior to work do not exceed 70% of joint strength of the work string pipe when pulling.
16. Miller and attempt to pluck Model D packer at 6,000 ft MD noting weight of string to be approximately 6,500 #'s plus weight for sand fill and note that the tubing below the packer may be stuck. If using 4.7 #/ft work string weight of string above packer is 28k #'s and if 6.5 #/ft work string weight will be 39k #'s. When attempting to pull packer and tail pipe determine work string weight and do not pull more than 45k #'s (considering packer weight and tail pipe strength) at the plucker to avoid parting tail pipe.
17. POOH with packer and tail pipe (64± jts. 2-1/16" 3.25# J-55) and lay down.
18. Stand back work string and tail pipe, laying down seal assembly, and make visual inspection to determine if testing is necessary.
19. RIH with 550' to 600' of 2-1/16", 3.25#/ft, J-55, tubing on bottom crossing over to work string (work string pipe must stay above whipstock and TOL) and RIH to cleaning out as necessary to TOL at 7,526'.
20. Circulate 2 bottoms up from 7,526'.
21. When returns clean up, clean out slowly inside of 3-1/2" liner casing to TD at 8,061' MD.
22. POOH laying down work string and most 2-1/16" tubing, standing back 200± ft. of 2-1/16".

#### **ATTENTION**

Only use pipe dope on the pins. Do not dope the couplings. If pipe dope gets on the exterior of the couplings or pipe it should be wiped clean from the pipe or coupling. Do not use excess pipe dope and only dope the threads on the pins.

23. P/U 200± ft of 2-1/16", 3.25#/ft, J-55 pipe, and RIH with mule shoe as tail pipe and run on bottom on Baker Model 'R' type packer with 1 jt. of 2-3/8" eue 8rd J-5 pipe on top, with sliding sleeve on top of joint # 1 that was run on top of packer, then remainder of completion string (2-3/8" eue 8rd J-55) on top of sliding sleeve and set packer top @ 7,600 ft. MD with approximately 10 points in compression on the packer.
24. POOH and lay down work string.

25. Pick up new string of 2-3/8", 4.70 #/ft, eue 8rd, H or J grade tubing and RIH and hang off with EOT 1 joint above top of on-off tool.
26. N/D BOP's and N/U wellhead.
27. Return well to production.
28. R/D, move off location.



## Exploration & Production

### FORMATION TOPS:

Fruitland	2870'	Point Lookout	5538'
Pictured Cliffs	3290'	Mancos	5926'
Cliff House	5058'	Dakota	5812'
Menefee	5220'		

### CASING RECORD:

<u>CASING TYPE</u>	<u>HOLE SIZE</u>	<u>DEPTH</u>	<u>CASING SIZE</u>	<u>WT. &amp; GRADE</u>
Surface	13-3/4"	348'	10-3/4"	40.5# J-55 ST&C
Intermediate	9-7/8"	2794'	7-5/8"	26.4# N-80
Production	6-1/4"	7,660'	5-1/2"	17# N-80
Liner	4-3/4"	7,526" - 8,024'	3-1/2"	9.3# N-80

### WELLHEAD EQUIPMENT:

Casinghead:	no record in file	Tubinghead:	no record in file
Spool:	no record in file	Bonnet:	no record in file

### TUBING EQUIPMENT:

#### **MV:**

186 jts. 2-1/16", 3.25#, J-55 IJ tbg with 6' orange peeled perforated sub on bottom and 1.25" ID SN @ 5916.84'. Landed at 5923.1'.

#### **Dakota:**

Model "D" Packer. Set at 6000' with 250 jts. 2-1/16", 3.25#/ft, J-55 integral joint set with seals (6' seal assy.) in packer seal bore @ 6010.59' Below packer hanging 2-1/16" 3.25#/ft, J-ff FL4S with a 1.5" SN @ 7,959.3' MD and a mule shoe landed bottom @ 7978.14'.

### LOGGING RECORD:

HRI/SDL/DSN/GR and TMDL

### STIMULATION:

Cliff House: 4822'-5206', Bullhead 1000 gal 15% HCL acid, 71568 gal of slickwater, 10660 lbs of LiteProp 125 14/30 sand and 4300 lbs of 20/40 Brown Sand.

Menefee: 5234'-5499', Fraced w/76,696 gal of slickwater, 10,440 lbs of LiteProp 125, 14/30 and 4240 lbs of Brown sand, 20/40.

Point Lookout: 5582'-5914', Fraced w/98,406 gal slickwater and 9440 lbs of LiteProp 125, 14/30 and 4240 lbs of brown sand, 20/40.

Dakota: 7792'-8005', 60,000# of 20/40 Carbolite and 539 bbls water w/60Q foam



Exploration & Production

## C-107A SUPPORT DOCUMENTATION AND PRODUCTION ALLOCATION RECOMMENDATION

### *NM 32-11 COM #1B (MV/DK)*

<b>WELLNAME:</b>	NM 32-11 COM 1B	<b>FIELD:</b>	Rosa DK & Blanco MV
<b>LOCATION:</b>	NW/4 SE/4 Sec.20J, T32N,R11W	<b>COUNTY:</b>	Rio Arriba, NM
<b>API No.:</b>	30-045-32024	<b>Date:</b>	30-MAY-06

**Current Status:** The NM 32-11 COM 1B is a dual completion well that was producing from the Dakota and Mesaverde formations. The Dakota formation has sanded up and requires cleanout.

**Commingle Explanation:** Attached are production curves for both zones in the well. The Mesaverde production is over 1 year in length; however production from the DK zone is less because of sand obstructing flow. Charts are attached showing each zones' production, one being in greater detail (less time shown) to demonstrate stability of flow in both zones. Commingling procedure will include cleanout of DK production zone.

**Allocation Method:** Based upon consideration of historic production from 02-Jul-05 to 24-JUL-05 in the Dakota zone and 02-Jul-05 to 31-DEC-05 in the Mesaverde zone allocation is 34% Dakota and 66% Mesaverde. This time period comparison shows representative producing times from both zones, with stability (see attached charts) from both zones during the time in which each zone is compared. Though the comparison time between the two is short, it is stable and the longer time period observation (Mesaverde) further demonstrates zonal stability. A satisfactory comparison of data, based upon cumulative volumes from 02-JUL-05 through 25-JUL-05, demonstrates a portion of from of the total stream to be 34% Dakota flow and 66% Mesaverde flow.

Comparison time period of simultaneous flow.

Total Production from well	=	8,772,442 cf
Total Production from DK	=	2,983,903 cf
Total Production from MV	=	5,793,539 cf

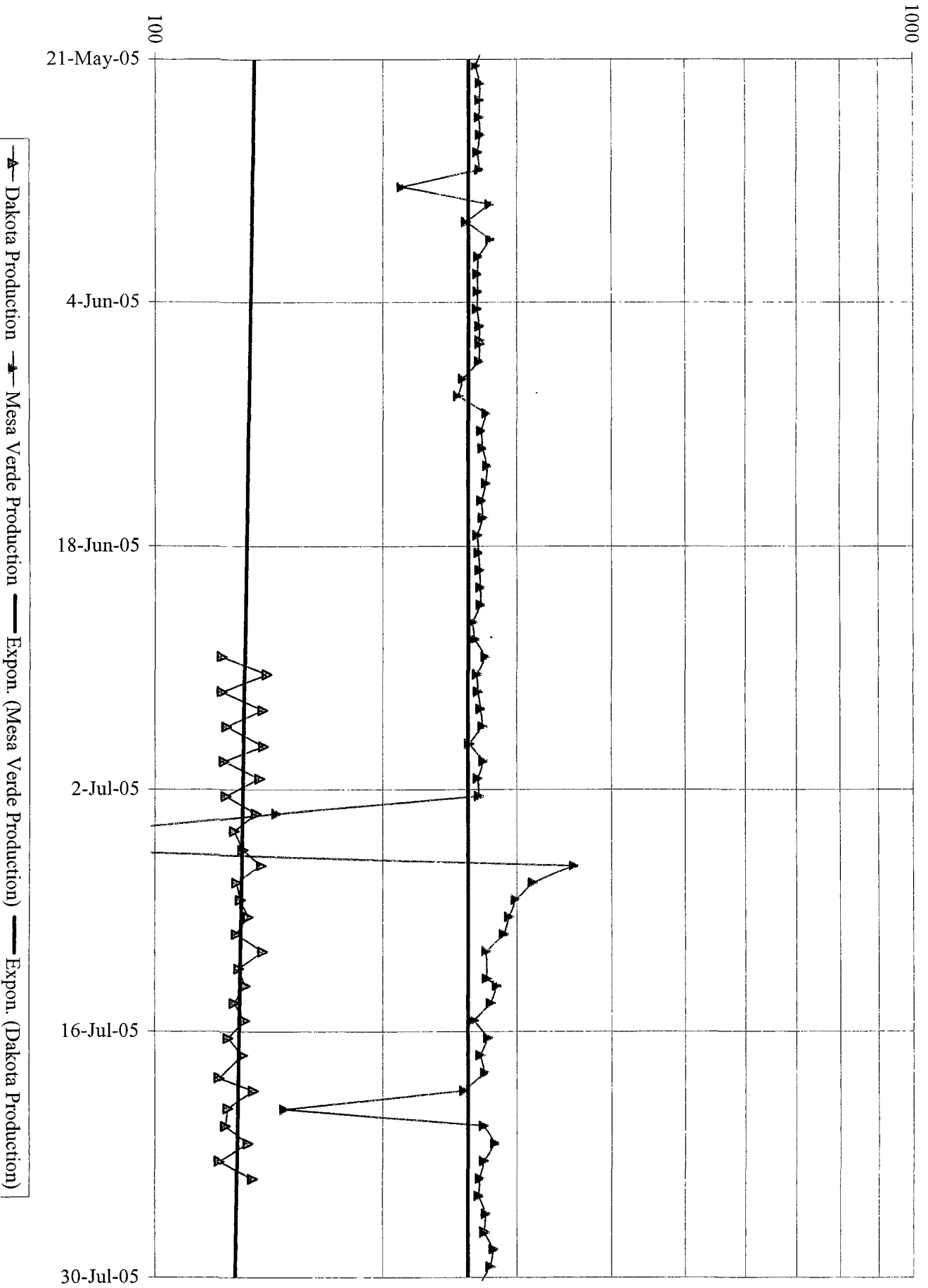
DK allocation =  $\text{DK CUM production} \div \text{Total Well CUM Production} = 34.00\%$

DK data is abbreviated due to sanded up perfs, but there is a high confidence in performance due to nearby DK producer performance and short term performance in this wellbore.

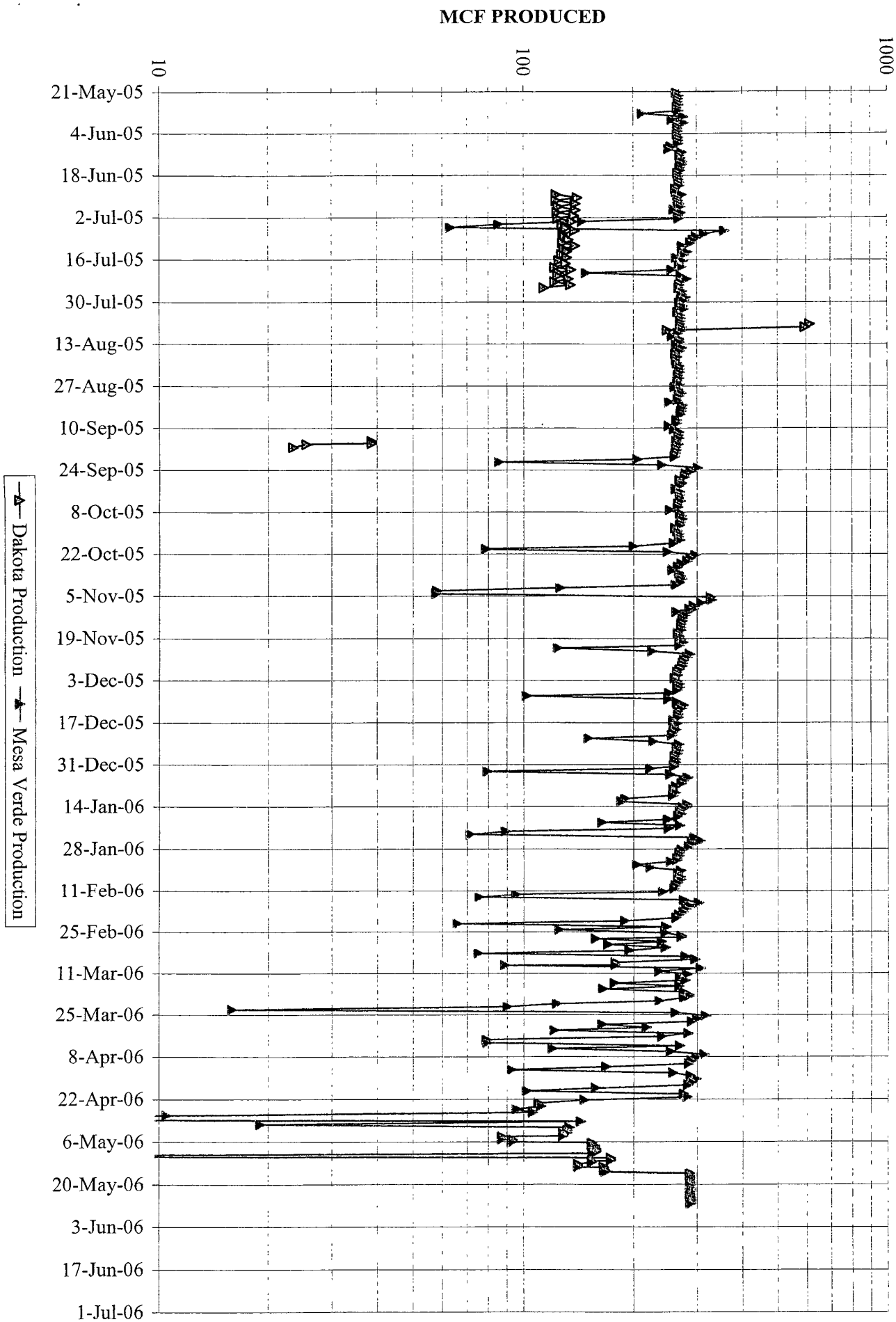


# NM 32-11 COM # 1B --- PRODUCTION COMPARISON PERIOD

MCF PRODUCED



NM 32-11 COM # 1B --- PRODUCTION COMPARISON PERIOD



# NM 32-11 COM # 1B

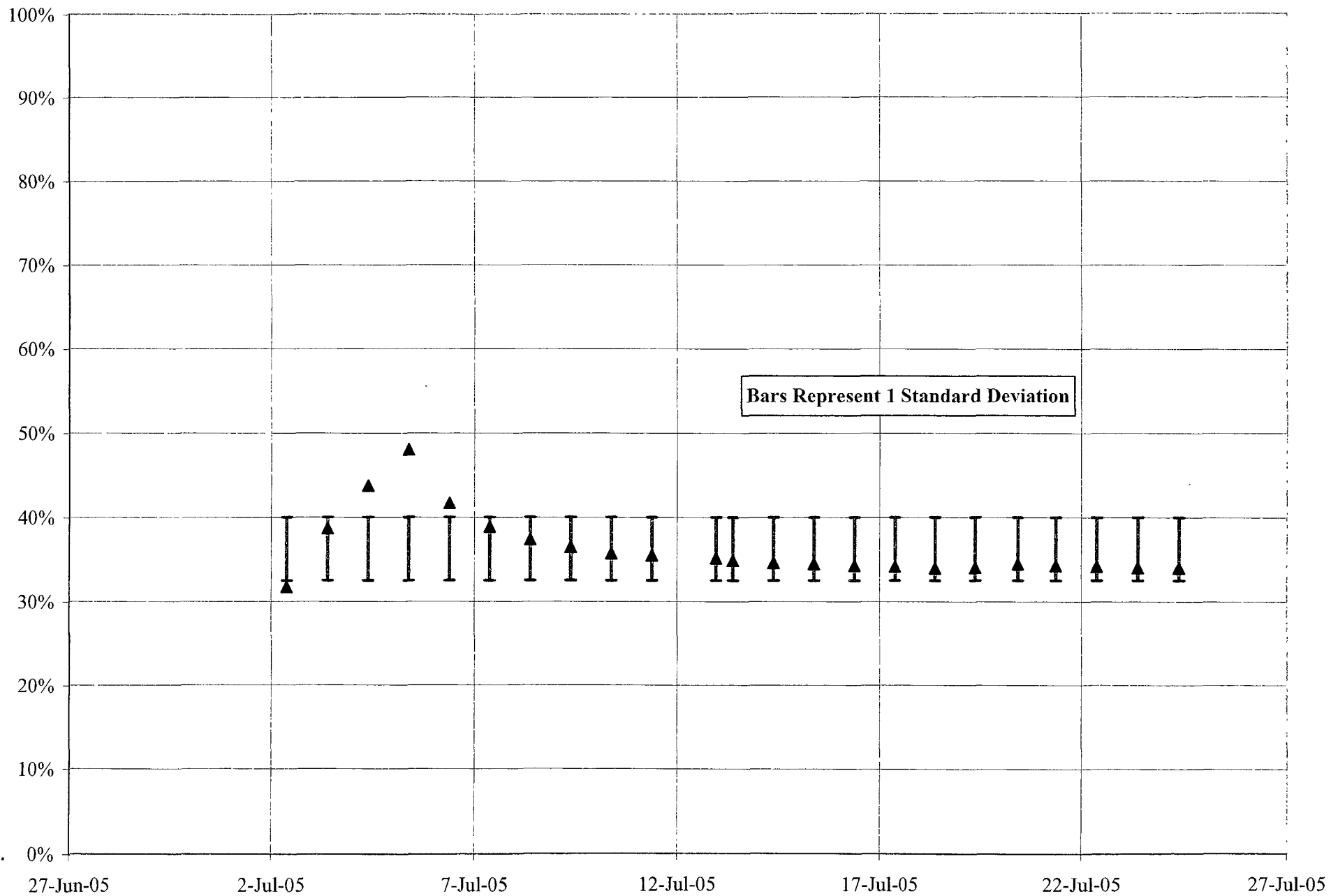
## Comparison Period

Mesa Verde		
Date	MCF	CUM MCF
2-Jul-05	267.511	267.511
3-Jul-05	144.788	412.299
4-Jul-05	85.5267	497.8257
5-Jul-05	63.1933	561.019
6-Jul-05	357.208	918.227
7-Jul-05	315.04	1233.267
8-Jul-05	298.968	1532.235
9-Jul-05	292.873	1825.108
10-Jul-05	288.253	2113.361
11-Jul-05	273.458	2386.819
12-Jul-05	273.8	2660.619
13-Jul-05	282.191	2942.81
14-Jul-05	277.121	3219.931
15-Jul-05	263.002	3482.933
16-Jul-05	274.888	3757.821
17-Jul-05	268.294	4026.115
18-Jul-05	272.1	4298.215
19-Jul-05	255.613	4553.828
20-Jul-05	148.254	4702.082
21-Jul-05	271.226	4973.308
22-Jul-05	280.718	5254.026
23-Jul-05	271.287	5525.313
24-Jul-05	268.226	5793.539

Dakota		
Date	MCF	CUM MCF
2-Jul-05	124.198	124.198
3-Jul-05	136.068	260.266
4-Jul-05	127.357	387.623
5-Jul-05	130.716	518.339
6-Jul-05	138.077	656.416
7-Jul-05	128.251	784.667
8-Jul-05	129.774	914.441
9-Jul-05	132.87	1047.311
10-Jul-05	128.17	1175.481
11-Jul-05	138.681	1314.162
12-Jul-05	129.179	1443.341
13-Jul-05	131.71	1575.051
14-Jul-05	127.317	1702.368
15-Jul-05	131.545	1833.913
16-Jul-05	125.038	1958.951
17-Jul-05	130.554	2089.505
18-Jul-05	121.634	2211.139
19-Jul-05	134.857	2345.996
20-Jul-05	124.901	2470.897
21-Jul-05	124.052	2594.949
22-Jul-05	132.761	2727.71
23-Jul-05	121.624	2849.334
24-Jul-05	134.569	2983.903

$\Sigma DK / (\Sigma DK + \Sigma MV)$	
CUM % Dakota of CUM Total Flow	
2-Jul-05	31.71%
3-Jul-05	38.70%
4-Jul-05	43.78%
5-Jul-05	48.02%
6-Jul-05	41.69%
7-Jul-05	38.88%
8-Jul-05	37.37%
9-Jul-05	36.46%
10-Jul-05	35.74%
11-Jul-05	35.51%
12-Jul-05	35.17%
13-Jul-05	34.86%
14-Jul-05	34.58%
15-Jul-05	34.49%
16-Jul-05	34.27%
17-Jul-05	34.17%
18-Jul-05	33.97%
19-Jul-05	34.00%
20-Jul-05	34.45%
21-Jul-05	34.29%
22-Jul-05	34.17%
23-Jul-05	34.02%
24-Jul-05	34.00%

**NM 32-11 COM # 1B --- CUM % Dakota of Total Flow**  
**i.e., CUM Dakota Flow Divided by SUM of CUM Dakota and CUM MV Flow**





Exploration & Production

## Production Allocation Recommendation NM 32-11 COM #1B (MV/DK)

**WELLNAME:** NM 32-11 COM 1B  
**LOCATION:** NW/4 SE/4 Sec.20J, T32N,R11W  
**API No.:** 30-045-32024

**FIELD:** Rosa DK & Blanco MV  
**COUNTY:** Rio Arriba, NM  
**Date:** 30-MAY-06

**Current Status:** The NM 32-11 COM 1B is a dual completion well that was producing from the Dakota and Mesaverde formations. The Dakota formation has sanded up and requires cleanout. The Production Optimization and Enhancement Team recommends commingling when this well is worked over to cleanout the Dakota perfs.

### Commingle Procedure:

1. MIRU, kill, ND tree, & NU BOP's.
2. POOH with short string tubing & lay down.
3. POOH with long string tubing & lay down.
4. P/U work string, mill & pluck Model D packer.
5. Clean out fill to TD.
6. RIH w/new 2-3/8" J-55 eue 8rd tubing to top of packer.
7. Hang off tubing.
8. ND BOP's & NU tree.
9. Return to production.

**Allocation Method:** Based upon consideration of historic production from 02-Jul-05 to 24-JUL-05 in the Dakota zone and 02-Jul-05 to 31-DEC-05 in the Mesaverde zone allocation is 34% Dakota and 66% Mesaverde. This time period comparison shows representative producing times from both zones, with stability (see attached charts) from both zones during the time in which each zone is compared. Though the comparison time between the two is short, it is stable and the longer time period observation (Mesaverde) further demonstrates zonal stability. A satisfactory comparison of data, based upon cumulative volumes from 02-JUL-05 through 25-JUL-05, demonstrates a portion of from of the total stream to be 34% Dakota flow and 66% Mesaverde flow.

Comparison time period of simultaneous flow.

Total Production from well = 8,772,442 cf

Total Production from DK = 2,983,903 cf

Total Production from MV = 5,793,539 cf

DK allocation =  $\text{DK CUM production} \div \text{Total Well CUM Production} = 34.00\%$

DK data is abbreviated due to sanded up perfs, but there is a high confidence in performance due to nearby DK producer performance and short term performance in this wellbore.

# NEW MEXICO 32-11 COM #1B BASIN DAKOTA

## Location:

1820' FSL and 2380' FEL  
NW/4 SE/4 Sec 20(J), T32N R11W  
San Juan, New Mexico  
Elevation: 6628' GR

API: 30-045-32024

Spud: 03/30/04

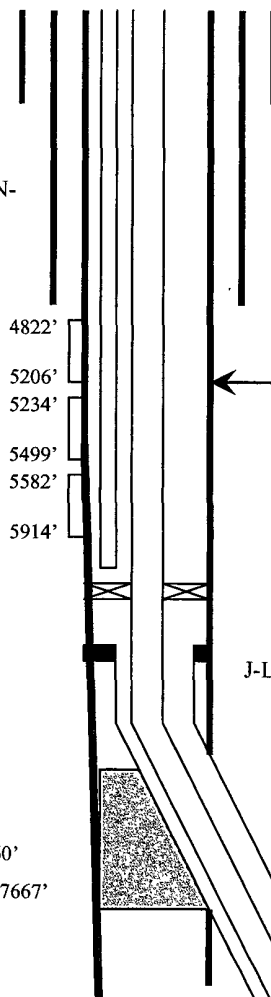
Completed: 04/30/04

Re-completed MV/DK: 9/2/2005

1st Delivery: 06/14/04

**7-5/8" Casing:** 66 jts, 26.4#, J-55, N-80 csg. Landed @ 2794'.

Top	Depth
Fruitland	2870
Pictured Cliffs	3290'
Cliff House	5058'
Menefee	5220'
Point Lookout	5600'
Mancos	5926'
Dakota	7788'



8 jts 10-3/4", 40.5#, J-55, ST&C csg.  
Landed @ 348'.

**MV tubing:** 186 jts 2-1/16", 3.25#, J-55 IJ tbg with 6' orange peeled perforated sub on bottom and 1.25" ID SN @ 5917'. Landed tbg @ 5923'.

Production packer model "D" packer @ 6010

**DK tubing:** 250 jts 2-1/16", 3.25#, J-55, IJ with 6' seal assembly set @ 6010.59', ran mule shoe on bottom, and 1.50" ID seating nipple @ 7959'. Landed tbg @ 7978'. 189 jts including 6' tbg pup above packer. 64 jts including 6' tbg pup below packer.

J-LNR Hgr 3-1/2" x 5-1/2" w/ packoff @ 7526'

Top of Whipstock @ 7660'  
Bottom of Whipstock @ 7667'

Perforated intervals 7792' - 8005' with 3 spf, 0.32" dia, 24.68" penetration w/ 120 deg phasing.

**5-1/2" Casing:** 186 jts, 17#, N-80 csg with 6-1/4" bit and X over on bottom. Set @ 7723'.

**Liner Casing:** 17 jts 3-1/2", 9.3#, FL4S, ran guide shoe, 9.7' shoe jt., float collar. Set @ 7526'-8024'.

## Stimulation:

Dakota; frac with 60,000 lbs 20/40 carbolite in 539 bbls 60Q foam

Point Lookout: frac with 9440 lbs liteprop 125 and 4240 lbs 20/40 brown in 98,406 gals slickwater

Menefee: frac with 10440 lbs liteprop 125 and 4240 lbs 20/40 brown in 76,696 gals slickwater

Cliff House; frac with 10660 lbs liteprop 125 and 4300 lbs 20/40 brown in 71,568 gals slickwater

## Sidetrack

Lost Hammer bit & retaining rings in hole when drilling 3-3/4" hole out of 5-1/2" casing. Set whipstock and sidetracked.

Hole Size	Casing	Cement	Volume
14-3/4"	10-3/4", 40.5#	280 sx	252.7 cu. ft.
9-7/8"	7-5/8", 26.4#	480 sx	937.6 cu. ft.
6-3/4"	5-1/2", 15.5#	270 sx	602 cu. Ft.
4-3/4"	3-1/2", 9.3#	50 sx	106 cu. ft.