

DATE IN 1/16/04	SUSPENSE	ENGINEER <i>DRS</i>	LOGGED IN <i>LP</i>	TYPE <i>DH L</i>	APP NO. <i>PLR0402129337</i>
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ABOVE THIS LINE FOR DIVISION USE ONLY

**NEW MEXICO OIL CONSERVATION DIVISION**  
 - Engineering Bureau -  
 1220 South St. Francis Drive, Santa Fe, NM 87505



*3239*

**ADMINISTRATIVE APPLICATION CHECKLIST**

THIS CHECKLIST IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

**Application Acronyms:**

**[NSL-Non-Standard Location] [NSP-Non-Standard Proration Unit] [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 - Simultaneous Dedication  
☐ NSL ☐ NSP ☐ SD

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
- [D] Other: Specify \_\_\_\_\_

- [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] **SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED ABOVE.**

- [4] **CERTIFICATION:** I hereby certify that the information submitted with this application for administrative approval is **accurate** and **complete** to the best of my knowledge. I also understand that **no action** will be taken on this application until the required information and notifications are submitted to the Division.

Note: Statement must be completed by an individual with managerial and/or supervisory capacity.

Mary Corley  
 Print or Type Name

*Mary Corley*  
 Signature

Sr. Regulatory Analyst 01/13/2004  
 Title Date  
corleyml@bp.com  
 e-mail Address

**RECEIVED**  
 JAN 16 2004  
 Oil Conservation Division  
 1220 S. St. Francis Drive  
 Santa Fe, NM 87505

District I  
1625 N. French Drive, Hobbs, NM 88240  
2000  
District II  
811 South First Street, Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
Pools  
District IV  
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-107A  
Revised May 15,

OIL CONSERVATION DIVISION

2040 South Pacheco  
Santa Fe, New Mexico 87505

APPLICATION TYPE

☒ Single Well

☐ Establish Pre-Approved

EXISTING WELLBORE

☒ Yes ☐ No

APPLICATION FOR DOWNHOLE COMMINGLING

BP America Production Company P. O. Box 3092 Houston, TX 77253

Operator Address  
Florance C LS 5 Unit H Section 30 T28N, R08W San Juan  
Lease Well No. Unit Letter-Section-Township-Range County  
OGRID No. 000778 Property Code 000527 API No. 30-045-07167 Lease Type: ☒ Federal ☐ State ☐ Fee

DATA ELEMENT	UPPER ZONE	INTERMEDIATE ZONE	LOWER ZONE
Pool Name	Blanco Pictured Cliffs S.	Otero Chacra	Blanco Mesaverde
Pool Code	72439	82329	72319
Top & Bottom of Pay Section (Perforated or Open-Hole Interval)	2262' - 2314'	3224' - 3379	4054' - 4716'
Method of Production (Flowing or Artificial Lift)	Flowing	Flowing	Flowing
Bottomhole Pressure	280	430	490
Oil Gravity or Gas BTU (Degree API or Gas BTU)	1290	1210	1258
Producing, Shut-In or New Zone	Producing	New Zone	Producing
Date and Oil/Gas/Water Rates of Last Production.	Date: Rates:	Date: Rates:	Date: Rates:
Fixed Allocation Percentage	Oil % Gas %	Oil % Gas %	Oil % Gas %

ADDITIONAL DATA

Are all working, royalty and overriding royalty interests identical in all commingled zones? Yes ☒ No ☐  
If not, have all working, royalty and overriding royalty interest owners been notified by certified mail? Yes ☐ No ☐  
Are all produced fluids from all commingled zones compatible with each other? Yes ☒ No ☐  
Will commingling decrease the value of production? Yes ☐ No ☒  
If this well is on, or communitized with, state or federal lands, has either the Commissioner of Public Lands or the United States Bureau of Land Management been notified in writing of this application? Yes ☐ No ☐  
NMOCD Reference Case No. applicable to this well: \_\_\_\_\_

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 working, royalty and overriding royalty interests for uncommon interest cases.  
Any additional statements, data or documents required to support commingling.

PRE-APPROVED POOLS

If application is to establish Pre-Approved Pools, the following additional information will be required:

List of other orders approving downhole commingling within the proposed Pre-Approved Pools  
List of all operators within the proposed Pre-Approved Pools  
Proof that all operators within the proposed Pre-Approved Pools were provided notice of this application.  
Bottomhole pressure data.

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

SIGNATURE Mary Corley TITLE Sr. Regulatory Analyst DATE 01/13/2004  
TYPE OR PRINT NAME Mary Corley TELEPHONE NO. ( 281 ) 366-4491

**Florance C LS 5**  
**Recomplete to Chacra formation, downhole commingle Pictured Cliffs, Chacra and Mesaverde**

**Procedure:**

1. Check anchors. MIRU workover rig.
2. Check and record tubing, casing, and bradenhead pressures.
3. Blow down well. Kill with 2% KCL water ONLY if necessary.
4. Nipple down WH. NU BOPs and diversion spool with 3" outlets and 3" pipe to the blow tank. Pressure test BOPs to 500 psi. Monitor flowing casing pressure with gauge (with casing flowing to blow tank) throughout workover.
5. RU slickline unit or wireline unit. RIH and set plug (CIBP, tbg collar stop, or plug set in nipple) for isolation.
6. POOH w/ production tubing set at 4674'.
7. TIH with bit and scraper for 5-1/2" casing to PBTD at 4744'. Work casing scraper across Mesaverde perforations (4054' – 4716') and new Chacra interval (3224' – 3379').
8. RU WL unit. RIH with 5-1/2" CIBP. Set CIBP at 3500'.
9. Run CBL from 3500' to top of liner to confirm that top of cement is above 3,150'. If cement is not above 3,150' block squeeze at 3,150'.
10. RIH with 3-1/8" casing guns. Perforate Chacra formation (correlate to GR log) w/ 2 SPF (27 shots, 54 holes) at: 3379, 3377, 3375, 3373, 3363, 3361, 3359, 3357, 3355, 3350, 3348, 3346, 3344, 3342, 3340, 3338, 3244, 3242, 3240, 3238, 3236, 3234, 3232, 3230, 3228, 3226, 3224.
11. RIH with 2-7/8" X 3-1/2" tapered frac string and 5-1/2" packer. Set packer at 2400'.
12. Spearhead 500 gal 15% HCL, establish injection rate, and proceed with fracture stimulation according to Schlumberger schedule. Maintain surface pressures  $\leq$  3500 psi during frac job to stay within 80% of 5-1/2" casing burst rating. Flush frac with foam. Fill out GWSI scorecard.
13. Flowback frac immediately.
14. TIH with tubing and bit. Cleanout fill and drill bridge plug set at 3500'. Cleanout fill to PBTD. Blow well dry at PBTD.
15. Rabbit tubing and RIH with 2-3/8" production tubing (with a muleshoe and X-nipple with blanking plug). Fill tubing with KCL water while RIH.

16. Land 2-3/8" production tubing at 4674'.
17. Pressure test tubing to 500 psi with rig pumps.
18. Swab down tubing with sandline.
19. RU SL unit. Run gauge ring for 2-3/8" tubing. Pull plug and set tubing stop for plunger.  
RD slickline unit.
20. ND BOP's. NU WH. Test well for air. Return well to production and downhole commingle  
Chacra and Mesaverde production.

# Florance C LS 005 PC/MV

API# 3004507167

Sec 30, T28N, R8W

GL: 5971'

## History:

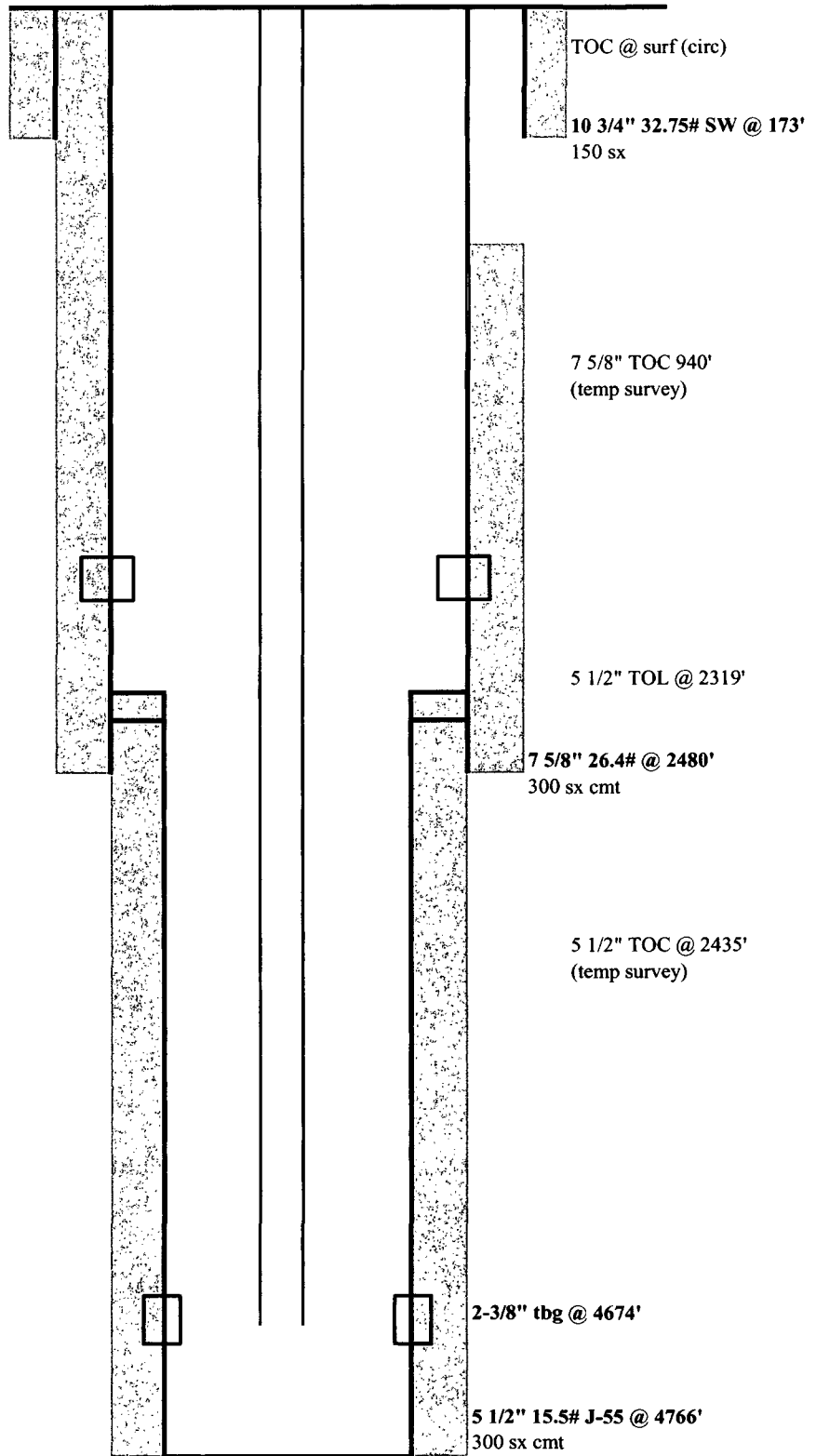
- Drilled & completed in 1957  
DHCM and added MF in 7/03

## PC Perforation

2262' - 2314', 40 klbs sand

## Mesaverde perforations:

4054' - 4378', frac'd w/ 84 klbs sand  
4462' - 4716', frac'd w/ 60 klbs sand



PBTD: 4744'

TD: 4770'

updated: 10/17/03 CFR

**District I**  
1625 N. French Dr., Hobbs, NM 88240

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

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

**District IV**  
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico  
Energy, Minerals & Natural Resources Department

**OIL CONSERVATION DIVISION**  
2040 South Pacheco  
Santa Fe, NM 87505

Form C-102  
Revised August 15, 2000

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

**AMENDED REPORT**

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

<sup>1</sup> API Number <b>30-045-07167</b>	<sup>2</sup> Pool Code <b>82329</b>	<sup>3</sup> Pool Name <b>Otero Chacra</b>
<sup>4</sup> Property Code <b>000326</b>	<sup>5</sup> Property Name <b>Florance C LS</b>	
<sup>7</sup> OGRID No. <b>000778</b>	<sup>8</sup> Operator Name <b>BP America Production Company</b>	
		<sup>6</sup> Well Number <b>5</b>
		<sup>9</sup> Elevation <b>5981' GR</b>

**<sup>10</sup> Surface Location**

UL or lot no.	Section	Township	Range	Lot Idn	Feet from	North/South	Feet from	East/West	County
<b>Unit H</b>	<b>30</b>	<b>28N</b>	<b>08W</b>		<b>1735'</b>	<b>North</b>	<b>890'</b>	<b>East</b>	<b>San Juan</b>

**<sup>11</sup> Bottom Hole Location If Different From Surface**

UL or lot no.	Section	Township	Range	Lot Idn	Feet from	North/South	Feet	East/West	County
<sup>12</sup> Dedicated Acres <b>160</b>		<sup>13</sup> Joint or Infill		<sup>14</sup> Consolidation Code			<sup>15</sup> Order No.		

**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**

	<b><sup>17</sup> OPERATOR CERTIFICATION</b> I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief. <i>Mary Corley</i> Signature <b>Mary Corley</b> Printed Name <b>Sr. Regulatory Analyst</b> Title <b>01/13/2004</b> Date	
	<b><sup>18</sup> SURVEYOR CERTIFICATION</b> 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. <b>3/7/1957</b> Date of Survey Signature and Seal of Professional Surveyor: <b>E O Walker</b> Certificate Number	

# **Future Production Decline Estimate** **Mesaverde Daily Rates**

Month	Gas Volume
Jan-2002	91
Feb-2002	90
Mar-2002	88
Apr-2002	87
May-2002	84
Jun-2002	61
Jul-2002	90
Aug-2002	80
Sep-2002	89
Oct-2002	84
Nov-2002	90
Dec-2002	91
Jan-2003	43
Feb-2003	70
Mar-2003	92
Apr-2003	76
May-2003	85
Jun-2003	59
Jul-2003	36
Aug-2003	57
Sep-2003	80
Oct-2003	77
Nov-2003	77
Dec-2003	76
Jan-2004	75
Feb-2004	75
Mar-2004	74
Apr-2004	73
May-2004	72
Jun-2004	72
Jul-2004	71
Aug-2004	70
Sep-2004	70
Oct-2004	69
Nov-2004	68
Dec-2004	68

$$\ln(Q_f/Q_i) = -dt$$

$$Q_f = 85$$

$$Q_i = 90$$

$$\text{rate} = 85$$

$$\text{time} = 7$$

$$dt = -0.057158414$$

$$\text{decline} = -0.694066454$$

Month	Gas Volume
Jan-2005	67
Feb-2005	66
Mar-2005	65
Apr-2005	65
May-2005	64
Jun-2005	63
Jul-2005	63
Aug-2005	62
Sep-2005	61
Oct-2005	61
Nov-2005	60
Dec-2005	59
Jan-2006	59
Feb-2006	58
Mar-2006	57
Apr-2006	56
May-2006	56
Jun-2006	55
Jul-2006	54
Aug-2006	54
Sep-2006	53
Oct-2006	52
Nov-2006	52
Dec-2006	51
Jan-2007	50
Feb-2007	50
Mar-2007	49
May-2007	48
Jun-2007	47
Jul-2007	47
Aug-2007	46
Sep-2007	45
Oct-2007	45
Nov-2007	44
Dec-2007	43
Jan-2008	43

Month	Gas Volume
Feb-2008	42
Mar-2008	42
Apr-2008	42
May-2008	41
Jun-2008	41
Jul-2008	41
Aug-2008	41
Sep-2008	41
Oct-2008	41
Nov-2008	40
Dec-2008	40
Jan-2009	40
Feb-2009	40
Mar-2009	40
Apr-2009	40
May-2009	39
Jun-2009	39
Jul-2009	39
Aug-2009	39
Sep-2009	39
Oct-2009	39
Nov-2009	38
Dec-2009	38
Jan-2010	38
Feb-2010	38
Mar-2010	38
Apr-2010	37
May-2010	37
Jun-2010	37
Jul-2010	37
Aug-2010	37
Sep-2010	37
Oct-2010	36
Nov-2010	36
Dec-2010	36
Jan-2011	36

Future Production Decline Estimate

Mesaverde Daily Rates

Month	Gas Volume
Feb-2011	35
Mar-2011	35
Apr-2011	34
May-2011	33
Jun-2011	32
Jul-2011	32
Aug-2011	31
Sep-2011	30
Oct-2011	30
Nov-2011	29
Dec-2011	28
Jan-2012	28
Feb-2012	27
Mar-2012	26
Apr-2012	26
May-2012	25
Jun-2012	24
Jul-2012	23
Aug-2012	23
Sep-2012	22
Oct-2012	21
Nov-2012	21
Dec-2012	20
Jan-2013	19
Feb-2013	19
Mar-2013	18
Apr-2013	17
May-2013	17
Jun-2013	16
Jul-2013	15
Aug-2013	14
Sep-2013	14
Oct-2013	13
Nov-2013	12
Dec-2013	12
Jan-2014	11

Month	Gas Volume
Feb-2014	10
Mar-2014	10
Apr-2014	9
May-2014	8
Jun-2014	8
Jul-2014	7
Aug-2014	6
Sep-2014	5
Oct-2014	5
Nov-2014	4
Dec-2014	3
Jan-2015	3
Feb-2015	2
Mar-2015	1
Apr-2015	1
May-2015	0
Jun-2015	0
Jul-2015	0
Aug-2015	0
Sep-2015	0
Oct-2015	0
Nov-2015	0
Dec-2015	0
Jan-2016	0
Feb-2016	0
Mar-2016	0
Apr-2016	0
May-2016	0
Jun-2016	0
Jul-2016	0
Aug-2016	0
Sep-2016	0
Oct-2016	0
Nov-2016	0
Dec-2016	0
Jan-2017	0



**Future Production Decline Estimate**  
**Pictured Cliffs Daily Rates**

Month	Gas Volume
Jan-2002	9
Feb-2002	9
Mar-2002	11
Apr-2002	8
May-2002	12
Jun-2002	6
Jul-2002	0
Aug-2002	3
Sep-2002	7
Oct-2002	7
Nov-2002	9
Dec-2002	10
Jan-2003	3
Feb-2003	1
Mar-2003	4
Apr-2003	0
May-2003	5
Jun-2003	1
Jul-2003	0
Aug-2003	6
Sep-2003	8
Oct-2003	8
Nov-2003	7
Dec-2003	7
Jan-2004	7
Feb-2004	7
Mar-2004	6
Apr-2004	6
May-2004	6
Jun-2004	6
Jul-2004	5
Aug-2004	5
Sep-2004	5
Oct-2004	5
Nov-2004	4
Dec-2004	4

$\ln(Q_f/Q_i) = -dt$   
 $Q_f = 10$   
 $Q_i = 12$   
 $rate = 10$   
 $time = 7$   
 $dt = -0.182321557$   
 $decline = -0.260459367$

Month	Gas Volume
Jan-2005	4
Feb-2005	3
Mar-2005	3
Apr-2005	3
May-2005	3
Jun-2005	2
Jul-2005	2
Aug-2005	2
Sep-2005	2
Oct-2005	1
Nov-2005	1
Dec-2005	1
Jan-2006	1
Feb-2006	0
Mar-2006	0
Apr-2006	0
May-2006	0
Jun-2006	0
Jul-2006	0
Aug-2006	0
Sep-2006	0
Oct-2006	0
Nov-2006	0
Dec-2006	0
Jan-2007	0
Feb-2007	0
Mar-2007	0
May-2007	0
Jun-2007	0
Jul-2007	0
Aug-2007	0
Sep-2007	0
Oct-2007	0
Nov-2007	0
Dec-2007	0
Jan-2008	0