

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

1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-103

Revised March 25, 1999

WELL API NO. 30-045-23697
5. Indicate Type of Lease STATE FEE
6. State Oil & Gas Lease No.
7. Lease Name or Unit Agreement Name: Riddle F LS (Also filed on BLM Form 3160-5 Federal Lease SF - 080112)
8. Well No. 3A
9. Pool name or Wildcat Blanco Mesaverde & Otero Chacra
10. Elevation (Show whether DR, RKB, RT, GR, etc.) 5734' GR

SUNDRY NOTICES AND REPORTS ON WELLS
(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.)

1. Type of Well:
Oil Well ☐ Gas Well ☒ Other

2. Name of Operator
BP America Production Company Attn: **Mary Corley**

3. Address of Operator
P.O. Box 3092 Houston, TX 77253

4. Well Location
Unit Letter **F** **1825** feet from the **North** line and **1625** feet from the **West** line
Section **20** Township **28N** Range **08W** NMPM **San Juan** County

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

NOTICE OF INTENTION TO:	SUBSEQUENT REPORT OF:
PERFORM REMEDIAL WORK ☐	REMEDIAL WORK ☐
PLUG AND ABANDON ☐	ALTERING CASING ☐
TEMPORARILY ABANDON ☐	COMMENCE DRILLING OPNS. ☐
CHANGE PLANS ☐	PLUG AND ABANDONMENT ☐
PULL OR ALTER CASING ☐	CASING TEST AND CEMENT JOB ☐
MULTIPLE COMPLETION ☐	OTHER: ☐
OTHER: Downhole Commingle ☒	

12. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

BP America Production Company request permission to recomplate the subject well into the Otero Chacra and commingle production Downhole with the existing Blanco Mesaverde as per the attached procedure.

The Blanco Mesaverde (72319) & Otero Chacra (82329) Pools are Pre-Approved Pools for Downhole Commingling per NMOC order R-11363.

The working and overriding royalty interest owners in the proposed commingled pools are identical, therefore no further notification of this application is required.

Production is proposed to be allocated based on the subtraction method using the projected future decline for production from the Mesaverde. That production shall serve as a base for production subtracted from the total production for the commingled well. The balance of the production will be attributed to the Chacra. Attached is the future production decline estimates for the Mesaverde.

Commingling Production Downhole in the subject well from the proposed Pools with not reduce the value of the total remaining production.

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SJ Basin Well Work Procedure

Riddle F LS 003A

Sec 20, T28N, R08W

API# 30045023697

1. Check anchors. MIRU workover rig.
2. Blow down well. Kill with 2% KCL water ONLY if necessary. ND WH and NU BOP's.
3. TOH with 2-3/8" string set at 4742'.
4. Clean out to PBTD at 4792'.
5. RIH and set CIBP at 3400'.
6. RIH w/ GR log.
7. RIH with 3-1/8" casing guns 2 SPF 120 deg phasing with Schlumberger's Prospector, select-fire charge. Perforate Chacra (correlate to GR log).
8. RU frac equipment. Use 2% KCL-N2 foam in fracture stimulation.
9. Frac Chacra down casing according to pump schedule.
10. Flowback frac fluid immediately.
11. RIH with work string and bit. Drill out CIBP set at 3400'. Continue clean out hole to PBTD at 4792'. Blow well dry with air package at PBTD. POH with work string.
12. Rabbit tubing and RIH with 2-3/8" production tubing (with X-nipple and plug on bottom). Replace any joints that fail the pressure test.
13. Land 2-3/8" production tubing at 4730'.
14. Swab water from tubing with the sandline.
15. RU slickline unit. Run gauge ring for 2-3/8" tubing. Pull plug. RD slickline unit.
16. ND BOP's. NU WH. Test well for air. Return well to production.

RiddleF LS 003A

Sec 20, T28N, R8W

API #: 3004523697

GL: 5734'

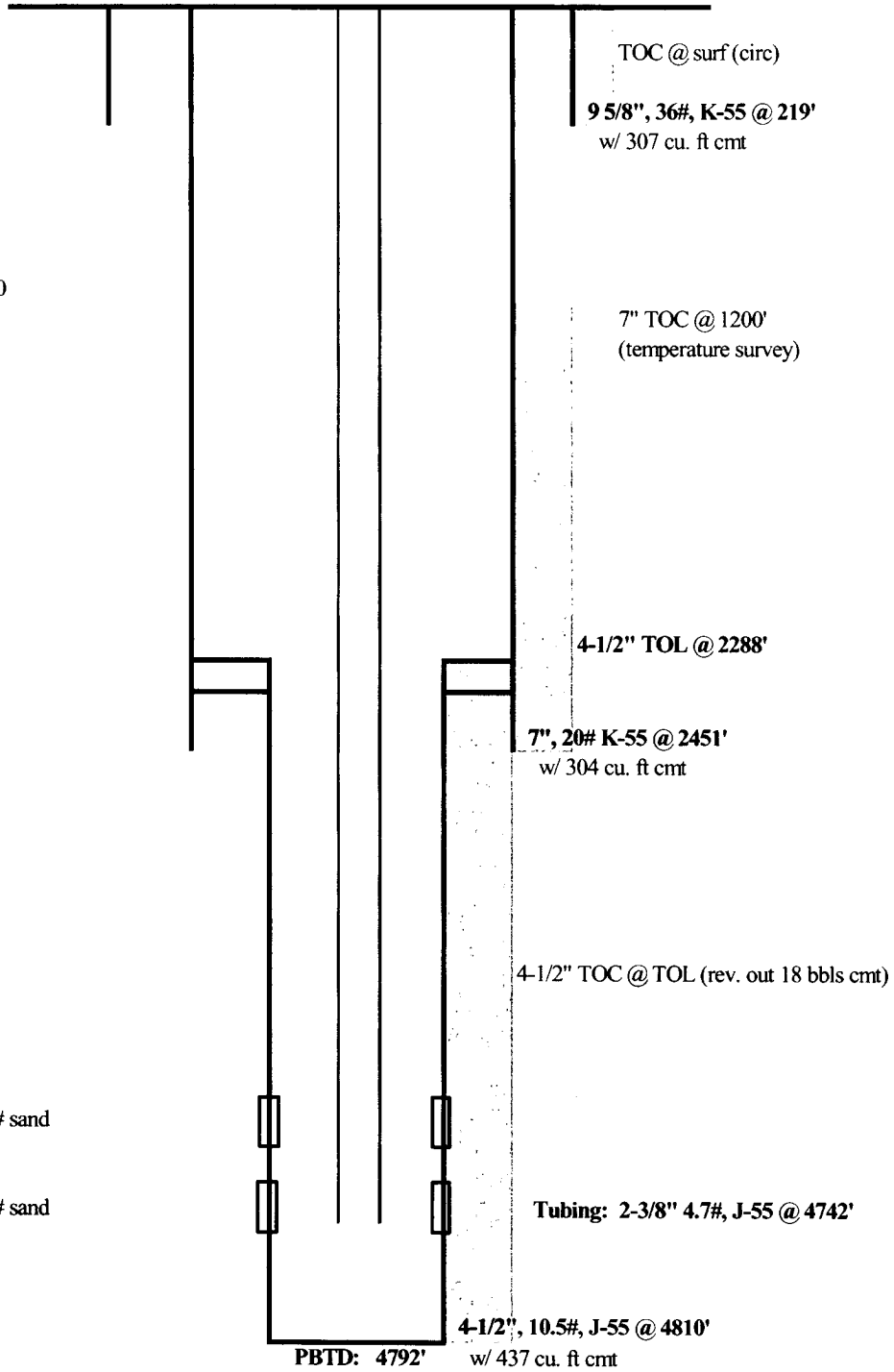
History:

- Drilled and completed in 1980

MV perforations

3456' - 4172', frac'd w/ 65,500# sand

4266' - 4760', frac'd w/ 80,500# sand



TD: 4810'

updated: 04/07/03 az

Riddle F LS 3A

Future Production Decline Estimate Mesaverde (Monthly Factor .0265)

Month.	Gas Volume
Jan-2002	149
Feb-2002	161
Mar-2002	147
Apr-2002	151
May-2002	151
Jun-2002	124
Jul-2002	233
Aug-2002	173
Sep-2002	191
Oct-2002	174
Nov-2002	166
Dec-2002	166
Jan-2003	166
Feb-2003	166
Mar-2003	166
Apr-2003	166
May-2003	166
Jun-2003	166
Jul-2003	166
Aug-2003	166
Sep-2003	166
Oct-2003	165
Nov-2003	165
Dec-2003	165
Jan-2004	165
Feb-2004	165
Mar-2004	165
Apr-2004	165
May-2004	165
Jun-2004	165
Jul-2004	165
Aug-2004	165
Sep-2004	165
Oct-2004	165
Nov-2004	165
Dec-2004	165

$\ln(Q_f/Q_i) = -dt$
 $Q_i = 173 \text{ MCFD (08/2002)}$
 $Q_f = 166 \text{ MCFD (12/2002)}$
 $t = 4 \text{ months (.33333 yrs)}$
 $d = 0.32 \text{ annual decline}$
 $0.027 \text{ monthly decline (0.32/12)}$

Corrected Volumes

$114/124 = .93293$
 $.93293 * .33333 = .319843$
 0.02665

Month	Gas Volume
Jan-2005	164
Feb-2005	164
Mar-2005	164
Apr-2005	164
May-2005	164
Jun-2005	164
Jul-2005	164
Aug-2005	164
Sep-2005	164
Oct-2005	164
Nov-2005	164
Dec-2005	164
Jan-2006	164
Feb-2006	164
Mar-2006	164
Apr-2006	164
May-2006	163
Jun-2006	163
Jul-2006	163
Aug-2006	163
Sep-2006	163
Oct-2006	163
Nov-2006	163
Dec-2006	163
Jan-2007	163
Feb-2007	163
Mar-2007	163
May-2007	163
Jun-2007	163
Jul-2007	163
Aug-2007	163
Sep-2007	163
Oct-2007	163
Nov-2007	163
Dec-2007	163
Jan-2008	163

Month.	Gas Volume
Feb-2008	162
Mar-2008	161
Apr-2008	161
May-2008	160
Jun-2008	160
Jul-2008	159
Aug-2008	159
Sep-2008	158
Oct-2008	158
Nov-2008	157
Dec-2008	156
Jan-2009	156
Feb-2009	155
Mar-2009	155
Apr-2009	154
May-2009	154
Jun-2009	153
Jul-2009	153
Aug-2009	152
Sep-2009	152
Oct-2009	151
Nov-2009	151
Dec-2009	150
Jan-2010	150
Feb-2010	149
Mar-2010	149
Apr-2010	148
May-2010	148
Jun-2010	147
Jul-2010	147
Aug-2010	146
Sep-2010	145
Oct-2010	145
Nov-2010	144
Dec-2010	144
Jan-2011	143

Riddle F LS 3A
Future Production Decline Estimate Mesaverde
(Monthly Factor .0265)

Month	Gas Volume
Feb-2011	143
Mar-2011	143
Apr-2011	142
May-2011	142
Jun-2011	141
Jul-2011	141
Aug-2011	140
Sep-2011	140
Oct-2011	139
Nov-2011	139
Dec-2011	138
Jan-2012	138
Feb-2012	137
Mar-2012	137
Apr-2012	136
May-2012	136
Jun-2012	135
Jul-2012	135
Aug-2012	134
Sep-2012	134
Oct-2012	133
Nov-2012	133
Dec-2012	133
Jan-2013	132
Feb-2013	132
Mar-2013	131
Apr-2013	131
May-2013	130
Jun-2013	130
Jul-2013	129
Aug-2013	129
Sep-2013	128
Oct-2013	128
Nov-2013	128
Dec-2013	127
Jan-2014	127

Month	Gas Volume
Feb-2014	126
Mar-2014	126
Apr-2014	126
May-2014	125
Jun-2014	125
Jul-2014	124
Aug-2014	124
Sep-2014	124
Oct-2014	123
Nov-2014	123
Dec-2014	123
Jan-2015	122
Feb-2015	122
Mar-2015	121
Apr-2015	121
May-2015	121
Jun-2015	120
Jul-2015	120
Aug-2015	120
Sep-2015	119
Oct-2015	119
Nov-2015	119
Dec-2015	118
Jan-2016	118
Feb-2016	118
Mar-2016	117
Apr-2016	117
May-2016	116
Jun-2016	116
Jul-2016	116
Aug-2016	115
Sep-2016	115
Oct-2016	115
Nov-2016	114
Dec-2016	114
Jan-2017	114

Month	Gas Volume
Feb-2017	113
Mar-2017	113
Apr-2017	113
May-2017	112
Jun-2017	112
Jul-2017	112
Aug-2017	111
Sep-2017	111
Oct-2017	111
Nov-2017	110
Dec-2017	110
Jan-2018	110
Feb-2018	109
Mar-2018	109
Apr-2018	109
May-2018	108
Jun-2018	108
Jul-2018	108
Aug-2018	107
Sep-2018	107
Oct-2018	107
Nov-2018	106
Dec-2018	106
Jan-2019	106
Feb-2019	105
Mar-2019	105
Apr-2019	105
May-2019	105
Jun-2019	104
Jul-2019	104
Aug-2019	104
Sep-2019	103
Oct-2019	103
Nov-2019	103
Dec-2019	102
Jan-2020	102

Month	Gas Volume
Feb-2020	102
Mar-2020	101
Apr-2020	101
May-2020	100
Jun-2020	100
Jul-2020	99
Aug-2020	99
Sep-2020	98
Oct-2020	98
Nov-2020	97
Dec-2020	97
Jan-2021	96
Feb-2021	96
Mar-2021	95
Apr-2021	95
May-2021	94
Jun-2021	94
Jul-2021	93
Aug-2021	93
Sep-2021	92
Oct-2021	92
Nov-2021	91
Dec-2021	91
Jan-2022	90
Feb-2022	90
Mar-2022	90
Apr-2022	89
May-2022	89
Jun-2022	88
Jul-2022	88
Aug-2022	87
Sep-2022	87
Oct-2022	86
Nov-2022	86
Dec-2022	86
Jan-2023	85

Riddle F LS 3A
Future Production Decline Estimate Mesaverde
(Monthly Factor .0265)

Month	Gas Volume
Feb-2023	85
Mar-2023	84
Apr-2023	84
May-2023	84
Jun-2023	83
Jul-2023	83
Aug-2023	82
Sep-2023	82
Oct-2023	81
Nov-2023	81
Dec-2023	81
Jan-2024	80
Feb-2024	80
Mar-2024	79
Apr-2024	79
May-2024	79
Jun-2024	78
Jul-2024	78
Aug-2024	77
Sep-2024	77
Oct-2024	77
Nov-2024	76
Dec-2024	76
Jan-2025	76
Feb-2025	75
Mar-2025	75
Apr-2025	74
May-2025	74
Jun-2025	74
Jul-2025	73
Aug-2025	73
Sep-2025	73
Oct-2025	72
Nov-2025	72
Dec-2025	71
Jan-2026	71

Month	Gas Volume
Feb-2026	71
Mar-2026	70
Apr-2026	70
May-2026	70
Jun-2026	69
Jul-2026	69
Aug-2026	69
Sep-2026	68
Oct-2026	68
Nov-2026	68
Dec-2026	67
Jan-2027	67
Feb-2027	67
Mar-2027	66
Apr-2027	66
May-2027	66
Jun-2027	65
Jul-2027	65
Aug-2027	65
Sep-2027	64
Oct-2027	64
Nov-2027	64
Dec-2027	63
Jan-2028	63
Feb-2028	63
Mar-2028	62
Apr-2028	62
May-2028	62
Jun-2028	62
Jul-2028	61
Aug-2028	61
Sep-2028	61
Oct-2028	60
Nov-2028	60
Dec-2028	60
Jan-2029	59

Month	Gas Volume
Feb-2029	59
Mar-2029	59
Apr-2029	59
May-2029	58
Jun-2029	58
Jul-2029	58
Aug-2029	57
Sep-2029	57
Oct-2029	57
Nov-2029	56
Dec-2029	56
Jan-2030	56
Feb-2030	56
Mar-2030	55
Apr-2030	55
May-2030	55
Jun-2030	55
Jul-2030	54
Aug-2030	54
Sep-2030	54
Oct-2030	53
Nov-2030	53
Dec-2030	53
Jan-2031	53
Feb-2031	52
Mar-2031	52
Apr-2031	52
May-2031	52
Jun-2031	51
Jul-2031	51
Aug-2031	51
Sep-2031	51
Oct-2031	50
Nov-2031	50
Dec-2031	50
Jan-2032	50

Month	Gas Volume
Feb-2032	49
Mar-2032	49
Apr-2032	49
May-2032	48
Jun-2032	48
Jul-2032	48
Aug-2032	48
Sep-2032	47
Oct-2032	47
Nov-2032	47
Dec-2032	47
Jan-2033	47
Feb-2033	46
Mar-2033	46
Apr-2033	46
May-2033	46
Jun-2033	45
Jul-2033	45
Aug-2033	45
Sep-2033	45
Oct-2033	44
Nov-2033	44
Dec-2033	44
Jan-2034	44
Feb-2034	44
Mar-2034	43
Apr-2034	43
May-2034	43
Jun-2034	43
Jul-2034	42
Aug-2034	42
Sep-2034	42
Oct-2034	42
Nov-2034	42
Dec-2034	41
Jan-2035	41