Form 3160-5
(August 1999)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB NO. 1004-0135
Expires: November 30, 2000

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE - Other instructions on reverse side.

5. Lease Serial No.
NMNM04208

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.

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

8. Well Name and No.
MCCULLEY LS 2

2. Name of Operator
BP AMERICA PRODUCTION CO

Contact: MARY CORLEY
E-Mail: corleym@bp.com

9. API Well No.
30-045-07443-00-C1

3a. Address
P. O. BOX 3092
HOUSTON, TX 77253

3b. Phone No. (include area code)
Ph: 281.366.4491
Fx: 281.366.0700

10. Field and Pool, or Exploratory
AZTEC PC/ BLANCO MV
OTERO CHACRA

4. Location of Well *(Footage, Sec., T., R., M., or Survey Description)*
Sec 14 T28N R9W NWSW 1850FSL 1090FWL
36.65971 N Lat, 107.76270 W Lon

11. County or Parish, and State
SAN JUAN COUNTY, NM

JUN 2004 RECEIVED OIL CONS. DIV. DIST. 3

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other Subsurface Commingling
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

BP America Production Company request permission to complete the subject well into the Otero Chacra and trimingle production downhole with the existing Aztec Pictured Cliffs and Blanco Mesaverde Pools as per the attached procedure. Application also submitted to NMOCD s Santa Fe Office for approval (copy attached).
The interest owners are identical between these three Pools, therefore, no additional notification is required prior to downhole commingling approval.
Production is proposed to be allocated based on the subtraction method using the projected future decline for production from the Pictured Cliffs and Mesaverde Pools. This 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 are the future production decline estimates for the Pictured Cliffs & Mesaverde Pools.
Commingling Production Downhole in the subject well from the proposed pools with not reduce the

No order - 6-14-04

14. I hereby certify that the foregoing is true and correct.
Electronic Submission #29895 verified by the BLM Well Information System
For BP AMERICA PRODUCTION CO, sent to the Farmington
Committed to AFMSS for processing by MATTHEW HALBERT on 05/25/2004 (04MXH1669SE)

Name *(Printed/Typed)* MARY CORLEY — Title AUTHORIZED REPRESENTATIVE

Signature (Electronic Submission) — Date 04/22/2004

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by CONDITIONS OF APPROVAL Adhere to previously issued stipulations. — Title Pet. Eng. — Date 6/3/04

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office NMOCD

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

**** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ****

Additional data for EC transaction #29895 that would not fit on the form

32. Additional remarks, continued

value of the total remaining production.

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

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, New Mexico 87505

APPLICATION FOR DOWNHOLE COMMINGLING

Form C-107A
Revised May 15, 2000

APPLICATION TYPE
_X_ Single Well
___ Establish Pre-Approved Pools
EXISTING WELLBORE
_X_ Yes ___ No

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

McCulley LS **2** **Unit L Section 14 T28N, R09W** **San Juan**
Lease Well No. Unit Letter-Section-Township-Range County

OGRID No. **000778** Property Code **000911** API No. **30-045-07443** Lease Type: **X** Federal ___ State ___ Fee

DATA ELEMENT	UPPER ZONE	INTERMEDIATE ZONE	LOWER ZONE
Pool Name	**Aztec Pictured Cliffs**	**Otero Chacra**	**Blanco Mesaverde**
Pool Code	**71280**	**82329**	**72319**
Top & Bottom of Pay Section (Perforated or Open-Hole Interval)	**2244' – 2302'**	**3210' - 3380**	**4875' – 5068'**
Method of Production (Flowing or Artificial Lift)	**Artificial Lift**	**Artificial Lift**	**Artificial Lift**
Bottomhole Pressure	**280**	**430**	**490**
Oil Gravity or Gas BTU (Degree API or Gas BTU)	**1267**	**1210**	**1267**
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 **X** 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 **X** No____

Will commingling decrease the value of production? Yes____ No **X**

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_____ TITLE **Sr. Regulatory Analyst** DATE **04/22/2004**

TYPE OR PRINT NAME **Mary Corley** TELEPHONE NO. **(281) 366-4491**

McCulley LS 2

Future Production Decline Estimate

Mesaverde Daily Rates

4/22/2004

Month	Gas Volume
Jan-2003	**137**
Feb-2003	**165**
Mar-2003	**171**
Apr-2003	**145**
May-2003	**149**
Jun-2003	**148**
Jul-2003	**160**
Aug-2003	**151**
Sep-2003	**144**
Oct-2003	**150**
Nov-2003	**139**
Dec-2003	**147**
Jan-2004	**126**
Feb-2004	125
Mar-2004	125
Apr-2004	125
May-2004	125
Jun-2004	124
Jul-2004	124
Aug-2004	124
Sep-2004	124
Oct-2004	123
Nov-2004	123
Dec-2004	123
Jan-2005	123
Feb-2005	122
Mar-2005	122
Apr-2005	122
May-2005	122
Jun-2005	121
Jul-2005	121
Aug-2005	121
Sep-2005	121
Oct-2005	121
Nov-2005	120
Dec-2005	120

	ln(Qf/Qi) =	-dt
	Qf=	147
	Qi=	149
	rate=	147
**	time=	8
	dt=	-0.013513719
	decline=	-0.24831459
**		

Month	Gas Volume
Jan-2006	120
Feb-2006	120
Mar-2006	119
Apr-2006	119
May-2006	119
Jun-2006	119
Jul-2006	118
Aug-2006	118
Sep-2006	118
Oct-2006	118
Nov-2006	117
Dec-2006	117
Jan-2007	117
Feb-2007	117
Mar-2007	116
Apr-2007	116
May-2007	116
Jun-2007	116
Jul-2007	115
Aug-2007	115
Sep-2007	115
Oct-2007	115
Nov-2007	114
Dec-2007	114
Jan-2008	114
Feb-2008	114
Mar-2008	113
Apr-2008	113
May-2008	113
Jul-2008	113
Aug-2008	112
Sep-2008	112
Oct-2008	112
Nov-2008	112
Dec-2008	111
Jan-2009	111

Month	Gas Volume
Feb-2009	111
Mar-2009	111
Apr-2009	110
May-2009	110
Jun-2009	110
Jul-2009	110
Aug-2009	109
Sep-2009	109
Oct-2009	109
Nov-2009	109
Dec-2009	108
Jan-2010	108
Feb-2010	108
Mar-2010	108
Apr-2010	107
May-2010	107
Jun-2010	107
Jul-2010	107
Aug-2010	106
Sep-2010	106
Oct-2010	106
Nov-2010	106
Dec-2010	105
Jan-2011	105
Feb-2011	105
Mar-2011	105
Apr-2011	104
May-2011	104
Jun-2011	104
Jul-2011	104
Aug-2011	103
Sep-2011	103
Oct-2011	103
Nov-2011	103
Dec-2011	102
Jan-2012	102

McCulley LS 2

Future Production Decline Estimate

Mesaverde Daily Rates

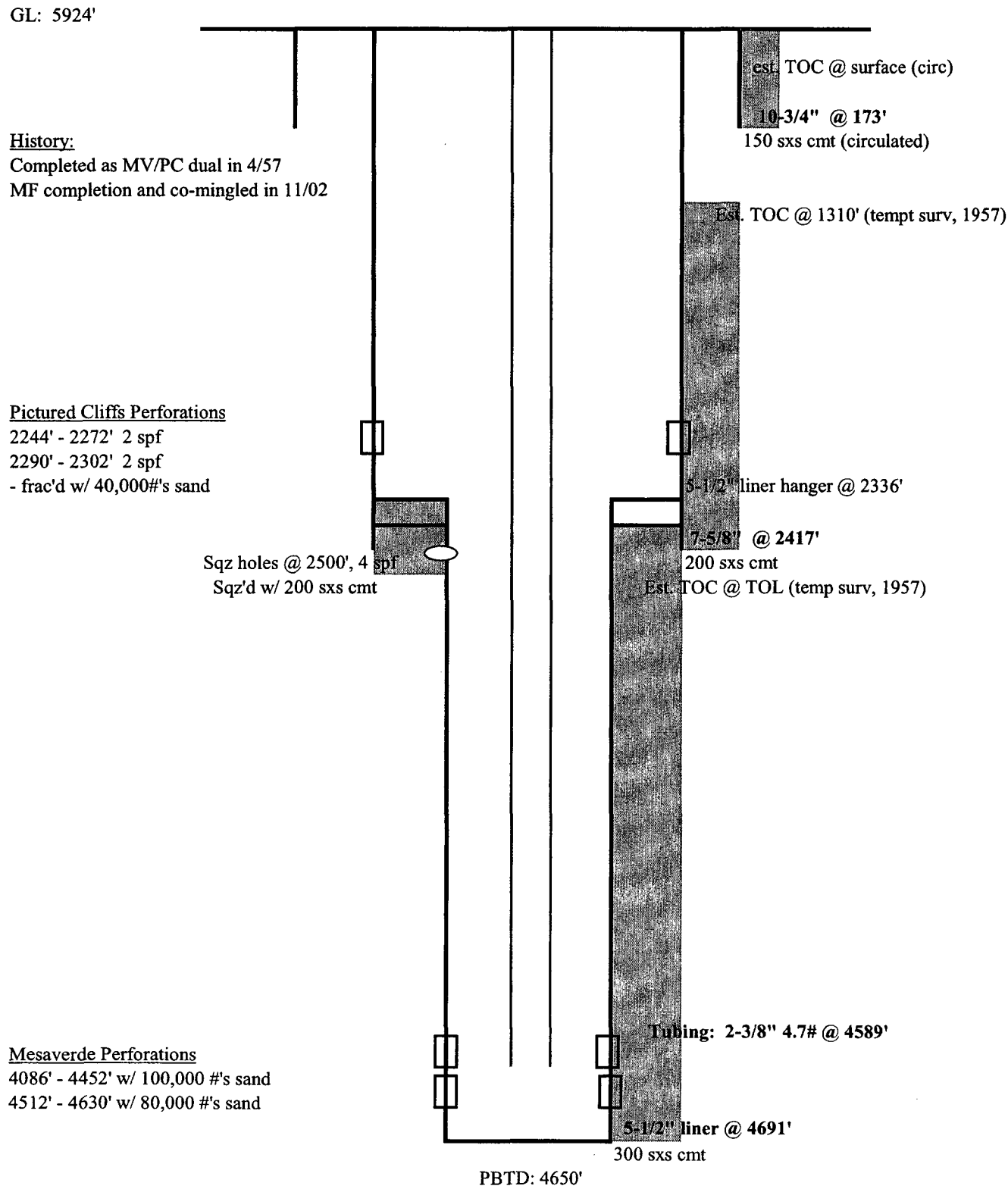
Month	Gas Volume
Feb-2012	102
Mar-2012	102
Apr-2012	102
May-2012	102
Jun-2012	101
Jul-2012	101
Aug-2012	101
Sep-2012	101
Oct-2012	101
Nov-2012	101
Dec-2012	101
Jan-2013	100
Feb-2013	100
Mar-2013	100
Apr-2013	100
May-2013	100
Jun-2013	100
Jul-2013	100
Aug-2013	99
Sep-2013	99
Oct-2013	99
Nov-2013	99
Dec-2013	99
Jan-2014	99
Feb-2014	99
Mar-2014	98
Apr-2014	98
May-2014	98
Jun-2014	98
Jul-2014	98
Aug-2014	98
Sep-2014	98
Oct-2014	97
Nov-2014	97
Dec-2014	97
Jan-2015	97

Month	Gas Volume
Feb-2015	97
Mar-2015	97
Apr-2015	97
May-2015	96
Jun-2015	96
Jul-2015	96
Aug-2015	96
Sep-2015	96
Oct-2015	96
Nov-2015	96
Dec-2015	95
Jan-2016	95
Feb-2016	95
Mar-2016	95
Apr-2016	95
May-2016	95
Jun-2016	95
Jul-2016	94
Aug-2016	94
Sep-2016	94
Oct-2016	94
Nov-2016	94
Dec-2016	94
Jan-2017	94
Feb-2017	93
Mar-2017	93
Apr-2017	93
May-2017	93
Jun-2017	93
Jul-2017	93
Aug-2017	93
Sep-2017	92
Oct-2017	92
Nov-2017	92
Dec-2017	92
Jan-2018	92

McCulley LS #2

Sec 14, T28N, R9W

API # 30-045-07443



updated: 4/6/04 CFR

16. Pressure test tubing to 500 psi with rig pumps.

17. Swab down tubing with sandline.

18. RU SL unit. Run gauge ring for 2-3/8" tubing. Pull plug and set tubing stop for plunger. RD slickline unit.

19. ND BOP's. NU WH. Test well for air. Return well to production and downhole tri-mingle PC, Chacra, and Mesaverde.

McCulley LS 2
Complete into the Chacra, Downhole Tri-mingle Pictured Cliffs, Chacra, & Mesaverde

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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. TOH with 2-3/8" production tubing currently set at 4589'.

   Contingency: If the tubing is in poor condition, replace entire tubing string.

7. TIH w/ bit and scraper for 4-1/2" casing to PBTD at 4650'. Work casing scraper across Mesaverde perforations from 4086' - 4630' and proposed Chacra interval from 3200 - 3400'.

8. RU WL unit. RIH with 4-1/2" CIBP. Set CIBP at 3900'.

9. RIH with 3-1/8" casing guns. Perforate Chacra formation (correlate to GR log).

   Chacra perforations, 2 **spf** (15 shots/ 30 holes):
   3210, 3212, 3214, 3216, 3236, 3237, 3238, 3321, 3325, 3331, 3340, 3348, 3360, 3375, 3380'.

10. TIH w/ 4-1/2" packer and frac string. Set packer at 2400'.

11. Spearhead 500 gal 15% HCL, establish injection rate, and proceed with fracture stimulation according to Schlumberger schedule. Maintain surface pressures ≤ 5500 psi during frac job. Flush frac with foam. Fill out GWSI scorecard.

12. Flowback frac immediately.

13. TIH with tubing and bit for 4-1/2" casing. Cleanout fill and drill bridge plug set at 3900'. Cleanout to PBTD at 4650'. Blow well dry.

14. 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.

15. Land 2-3/8" production tubing at 4580'.

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

[1] API Number	[2] Pool Code	[3] Pool Name
30-045-07443	82329	Otero Chacra

[4] Property Code	[5] Property Name	[6] Well Number
000911	McCulley LS	2

[7] OGRID No.	[8] Operator Name	[9] Elevation
000778	BP America Production Company	5924' GR

[10] Surface Location

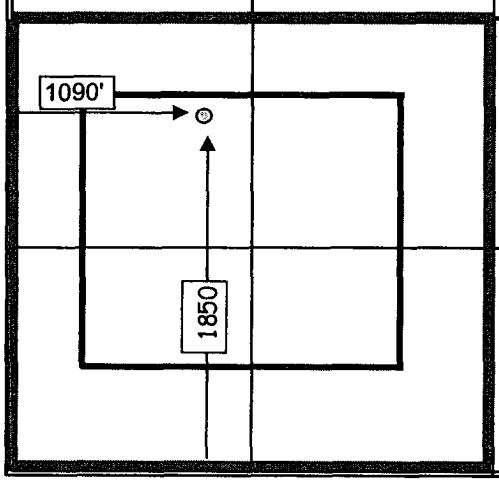
UL or lot no.	Section	Township	Range	Lot Idn	Feet from	North/South	Feet from	East/West	County
Unit L	14	28N	09W		1850'	South	1090'	West	San Juan

[11] Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from	North/South	Feet	East/West	County

[12] Dedicated Acres	[13] Joint or Infill	[14] Consolidation Code	[15] Order No.
160			

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.

Mary Corley

Signature

Mary Corley

Printed Name

Sr. Regulatory Analyst

Title

04/22/2004

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.

1/15/1957

Date of Survey

Signature and Seal of Professional Surveyor:

E S Oberly

Certificate Number

McCulley LS 2

4/22/2004

Future Production Decline Estimate

Pictured Cliffs Daily Rates

Month	Gas Volume
Jan-2003	**116**
Feb-2003	**140**
Mar-2003	**146**
Apr-2003	**128**
May-2003	**127**
Jun-2003	**126**
Jul-2003	**137**
Aug-2003	**129**
Sep-2003	**127**
Oct-2003	**127**
Nov-2003	**119**
Dec-2003	**125**
Jan-2004	**107**
Feb-2004	107
Mar-2004	107
Apr-2004	106
May-2004	106
Jun-2004	106
Jul-2004	106
Aug-2004	105
Sep-2004	105
Oct-2004	105
Nov-2004	105
Dec-2004	104
Jan-2005	104
Feb-2005	104
Mar-2005	104
Apr-2005	103
May-2005	103
Jun-2005	103
Jul-2005	103
Aug-2005	102
Sep-2005	102
Oct-2005	102
Nov-2005	102
Dec-2005	101

	ln(Qf/Qi) =	-dt
	Qf=	125
	Qi=	127
	rate=	125
**	time=	8
	dt=	-0.015873349
	decline=	-0.248021081
**		

Month	Gas Volume
Jan-2006	101
Feb-2006	101
Mar-2006	101
Apr-2006	100
May-2006	100
Jun-2006	100
Jul-2006	100
Aug-2006	99
Sep-2006	99
Oct-2006	99
Nov-2006	99
Dec-2006	98
Jan-2007	98
Feb-2007	98
Mar-2007	98
Apr-2007	97
May-2007	97
Jun-2007	97
Jul-2007	97
Aug-2007	96
Sep-2007	96
Oct-2007	96
Nov-2007	96
Dec-2007	95
Jan-2008	95
Feb-2008	95
Mar-2008	95
Apr-2008	94
May-2008	94
Jul-2008	94
Aug-2008	94
Sep-2008	93
Oct-2008	93
Nov-2008	93
Dec-2008	93
Jan-2009	92

Month	Gas Volume
Feb-2009	92
Mar-2009	92
Apr-2009	92
May-2009	91
Jun-2009	91
Jul-2009	91
Aug-2009	91
Sep-2009	90
Oct-2009	90
Nov-2009	90
Dec-2009	90
Jan-2010	89
Feb-2010	89
Mar-2010	89
Apr-2010	89
May-2010	88
Jun-2010	88
Jul-2010	88
Aug-2010	88
Sep-2010	87
Oct-2010	87
Nov-2010	87
Dec-2010	87
Jan-2011	86
Feb-2011	86
Mar-2011	86
Apr-2011	86
May-2011	85
Jun-2011	85
Jul-2011	85
Aug-2011	85
Sep-2011	84
Oct-2011	84
Nov-2011	84
Dec-2011	84
Jan-2012	83

McCulley LS 2

Future Production Decline Estimate

Pictured Cliffs Daily Rates

Month	Gas Volume
Feb-2012	83
Mar-2012	83
Apr-2012	83
May-2012	83
Jun-2012	83
Jul-2012	83
Aug-2012	82
Sep-2012	82
Oct-2012	82
Nov-2012	82
Dec-2012	82
Jan-2013	82
Feb-2013	82
Mar-2013	81
Apr-2013	81
May-2013	81
Jun-2013	81
Jul-2013	81
Aug-2013	81
Sep-2013	81
Oct-2013	80
Nov-2013	80
Dec-2013	80
Jan-2014	80
Feb-2014	80
Mar-2014	80
Apr-2014	80
May-2014	79
Jun-2014	79
Jul-2014	79
Aug-2014	79
Sep-2014	79
Oct-2014	79
Nov-2014	79
Dec-2014	78
Jan-2015	78

Month	Gas Volume
Feb-2015	78
Mar-2015	78
Apr-2015	78
May-2015	78
Jun-2015	78
Jul-2015	77
Aug-2015	77
Sep-2015	77
Oct-2015	77
Nov-2015	77
Dec-2015	77
Jan-2016	77
Feb-2016	76
Mar-2016	76
Apr-2016	76
May-2016	76
Jun-2016	76
Jul-2016	76
Aug-2016	76
Sep-2016	75
Oct-2016	75
Nov-2016	75
Dec-2016	75
Jan-2017	75
Feb-2017	75
Mar-2017	75
Apr-2017	74
May-2017	74
Jun-2017	74
Jul-2017	74
Aug-2017	74
Sep-2017	74
Oct-2017	74
Nov-2017	74
Dec-2017	73
Jan-2018	73