DATE IN 11/20/03	SUSPENSE	ENGINEER WNJ	LOGGED IN LIC	TYPE DHC	APP NO. PLR0332850754

RECEIVED

ABOVE THIS LINE FOR DIVISION USE ONLY

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

NOV 2 0 2003
OIL CONSERVATION DIVISION

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	Mary Corley	Sr. Regulatory Analyst	11/17/2003
Print or Type Name	Signature	Title	Date

corleyml@bp.com
e-mail Address

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
_X_ Single Well
___ Establish Pre-Approved

EXISTING WELLBORE
_X_ Yes ___ No

APPLICATION FOR DOWNHOLE COMMINGLING

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

Dryden LS	**3**	**Unit M Section 21 T28N, R08W**	**San Juan**
Lease	Well No.	Unit Letter-Section-Township-Range	County

OGRID No. **000778** Property Code **000432** API No. **30-045-07244** Lease Type: **X** Federal ___ State ____ Fee

DATA ELEMENT	UPPER ZONE (Pro. Gas)	INTERMEDIATE ZONE (Wildcat)	LOWER ZONE (Pro Gas)
Pool Name	**Blanco Pictured Cliffs S.**	~~Otero~~ **Chacra** (Gas)	**Blanco Mesaverde**
Pool Code	**72439**	~~82329~~	**72319**
Top & Bottom of Pay Section (Perforated or Open-Hole Interval)	**2192' – 223'**	**3121' - 3300**	**3818' – 4600'**
Method of Production (Flowing or Artificial Lift)	**Flowing**	**Flowing**	**Flowing**
Bottomhole Pressure	**270**	**425**	**499**
Oil Gravity or Gas BTU (Degree API or Gas BTU)	**1294**	**1202.6**	**1256**
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_X_ 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 **11/17/2003**

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

Dryden LS 3
API #: 30-045-07244
Frac Menefee, Add ChacraCompletion, and Trimingle Production

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 plugs (CIBP, tbg collar stop, or plug set in nipple) for isolation.

6. Tally OH with both strings and packer. Visually inspect tbg while POOH.

   Contingency: If the2-3/8" tubing is in poor condition, replace entire tubing string.

7. RIH w/ bit and scraper for 5-1/2" casing to PBTD at 4602'.

8. RIH with 5-1/2" CIBP and set at 4400'.

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

   Menefee perforations, **2 spf** (15 shots/ 30 holes):
   4004, 4023, 4052, 4072, 4112, 4148, 4157, 4216, 4285, 4290, 4324, 4350, 4358, 4377, 4382

10. RIH w/ tapered 3-1/2 X 2-7/8 frac string and 5-1/2" packer. Set packer at 3950'.

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. Release packer and POOH w/ frac string and packer.

13. RIH with 5-1/2" CIBP. Set CIBP at 3400'.

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

    Chacra Perforations, **2 spf** (20 shots/ 40 holes):
    3121' – 3126' (5')
    3150' – 3155' (5')
    3235' – 3239' (4')
    3262' – 3265' (3')
    3297' – 3300' (3')

15. RIH with 2-7/8" X 3-1/2" tapered frac string and 5-1/2" packer. Set packer at 2500'

16. 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.

17. Flowback frac immediately.

18. Release packer and TOH with frac string and packer. LD frac string.

19. TIH with tubing and bit. Cleanout fill and drill bridge plugs set at 3300 and 4400'. C/O to PBTD at 4602'. Blow well dry at PBTD.

20. 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.

21. Land 2-3/8" production tubing at 4500'.

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

23. Swab down tubing with sandline.

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

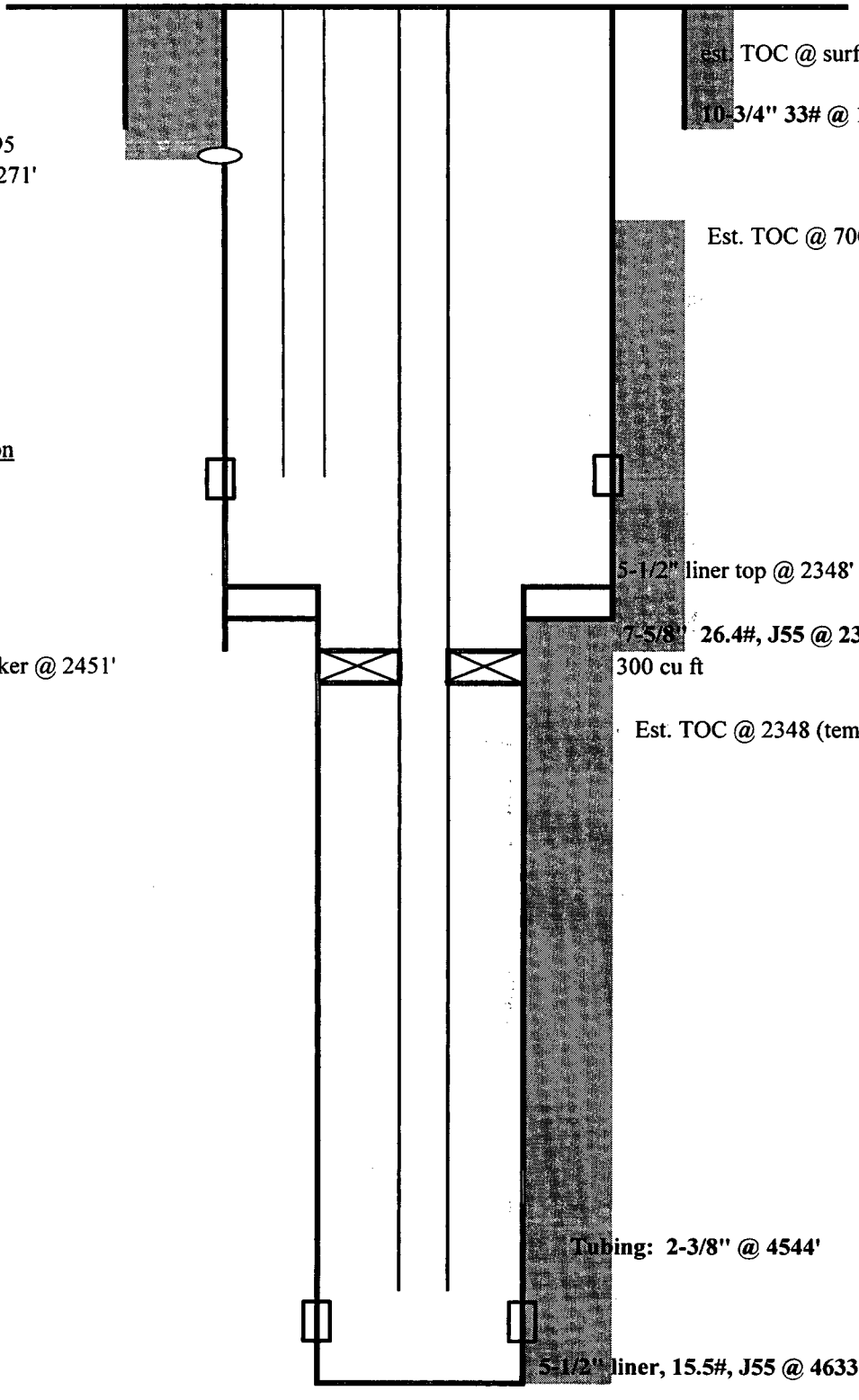
25. ND BOP's. NU WH. Test well for air. Return well to production.

Dryden LS 3

Sec 21, T28N, R8W

API # 30-045-07244

GL: 5779'



est. TOC @ surface (circ)

10-3/4" 33# @ 175'

Bradenhead repair in 3/95
Squeeze holes at 270' & 271'

Est. TOC @ 700' (temp surv)

1-1/4" tbg @ 2251'

Pictured Cliffs Perforation
2192' - 2234'

5-1/2" liner top @ 2348' squeezed w/ 250 sx

7-5/8" 26.4#, J55 @ 2389'

5-1/2" Baker 'EGJ' packer @ 2451'

300 cu ft

Est. TOC @ 2348 (temp surv)

Tubing: 2-3/8" @ 4544'

Mesaverde Perforations
3818' - 3902'
4420' - 4600'

5-1/2" liner, 15.5#, J55 @ 4633'

PBTD: 4602'

updated: 10/3/03 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

[1] API Number	[2] Pool Code	[3] Pool Name
30-045-07244	82329	Otero Chacra

[4] Property Code	[5] Property Name	[6] Well Number
000432	Dryden LS	3

[7] OGRID No.	[8] Operator Name	[9] Elevation
000778	BP America Production Company	5779' GR

[10] Surface Location

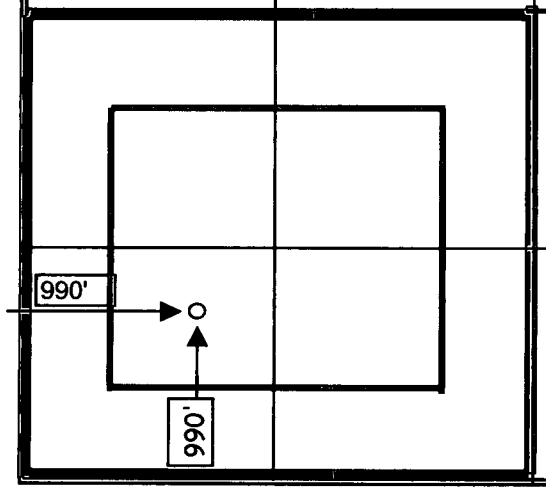
UL or lot no.	Section	Township	Range	Lot Idn	Feet from	North/South	Feet from	East/West	County
Unit M	21	28N	08W		990'	South	990'	West	San Juan

[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

11/17/2003

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.

00/00/1957

Date of Survey

Signature and Seal of Professional Surveyor:

On File

Certificate Number

Allocation Method
Dryden LS 3

BP America Production Company request permission to complete the subject well into the Otero Chacra and tri-mingle production downhole with the existing Blanco South Pictured Cliffs and Blanco Mesaverde Pools as per the attached procedure.

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 value of the total remaining production.

Application has also been submitted to BLM on Form 3160-5, Federal Lease No. NM - 012200.

Pre Approved Pools:
Blanco-Mesaverde (72319) & South Blanco-Pictured Cliffs (72439) Pools
Blanco-Mesaverde (72319) & Otero-Chacra (82329) Pools
South Blanco-Pictured Cliffs (72439) & Otero-Chacra (82329) Pools

Dryden LS 3

11/18/2003

Future Production Decline Estimate

Pictured Cliffs Daily Rates

Month	Gas Volume
Jan-2002	**5**
Feb-2002	**3**
Mar-2002	**4**
Apr-2002	**4**
May-2002	**5**
Jun-2002	**1**
Jul-2002	**0**
Aug-2002	**0**
Sep-2002	**2**
Oct-2002	**6**
Nov-2002	**5**
Dec-2002	**6**
Jan-2003	**2**
Feb-2003	**2**
Mar-2003	**4**
Apr-2003	**1**
May-2003	**1**
Jun-2003	**0**
Jul-2003	**0**
Aug-2003	**0**
Sep-2003	**0**
Oct-2003	0
Nov-2003	0
Dec-2003	0
Jan-2004	0
Feb-2004	0
Mar-2004	0
Apr-2004	0
May-2004	0
Jun-2004	0
Jul-2004	0
Aug-2004	0
Sep-2004	0
Oct-2004	0
Nov-2004	0
Dec-2004	0

ln(Qf/Qi) = -dt

Qf=	1
Qi=	2
rate=	1
time=	4
dt=	-0.693147181
decline=	-0.173286795

Month	Gas Volume
Jan-2005	0
Feb-2005	0
Mar-2005	0
Apr-2005	0
May-2005	0
Jun-2005	0
Jul-2005	0
Aug-2005	0
Sep-2005	0
Oct-2005	0
Nov-2005	0
Dec-2005	0
Jan-2006	0
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

Month	Gas Volume
Feb-2008	0
Mar-2008	0
Apr-2008	0
May-2008	0
Jun-2008	0
Jul-2008	0
Aug-2008	0
Sep-2008	0
Oct-2008	0
Nov-2008	0
Dec-2008	0
Jan-2009	0
Feb-2009	0
Mar-2009	0
Apr-2009	0
May-2009	0
Jun-2009	0
Jul-2009	0
Aug-2009	0
Sep-2009	0
Oct-2009	0
Nov-2009	0
Dec-2009	0
Jan-2010	0
Feb-2010	0
Mar-2010	0
Apr-2010	0
May-2010	0
Jun-2010	0
Jul-2010	0
Aug-2010	0
Sep-2010	0
Oct-2010	0
Nov-2010	0
Dec-2010	0
Jan-2011	0

Month	Gas Volume
Feb-2011	0
Mar-2011	0
Apr-2011	0
May-2011	0
Jun-2011	0
Jul-2011	0
Aug-2011	0
Sep-2011	0
Oct-2011	0
Nov-2011	0
Dec-2011	0
Jan-2012	0
Feb-2012	0
Mar-2012	0
Apr-2012	0
May-2012	0
Jun-2012	0
Jul-2012	0
Aug-2012	0
Sep-2012	0
Oct-2012	0
Nov-2012	0
Dec-2012	0
Jan-2013	0
Feb-2013	0
Mar-2013	0
Apr-2013	0
May-2013	0
Jun-2013	0
Jul-2013	0
Aug-2013	0
Sep-2013	0
Oct-2013	0
Nov-2013	0
Dec-2013	0
Jan-2014	0

Dryden LS 3

Future Production Decline Estimate

Mesaverde Daily Rates

11/18/2003

Month	Gas Volume
Jan-2002	**115**
Feb-2002	**112**
Mar-2002	**99**
Apr-2002	**90**
May-2002	**87**
Jun-2002	**59**
Jul-2002	**90**
Aug-2002	**78**
Sep-2002	**82**
Oct-2002	**83**
Nov-2002	**82**
Dec-2002	**84**
Jan-2003	**75**
Feb-2003	**74**
Mar-2003	**80**
Apr-2003	**71**
May-2003	**81**
Jun-2003	**58**
Jul-2003	**66**
Aug-2003	**72**
Sep-2003	**65**
Oct-2003	65
Nov-2003	64
Dec-2003	64
Jan-2004	63
Feb-2004	62
Mar-2004	62
Apr-2004	61
May-2004	61
Jun-2004	60
Jul-2004	59
Aug-2004	59
Sep-2004	58
Oct-2004	58
Nov-2004	57
Dec-2004	56

ln(Qf/Qi) = -dt
Qf= 80
Qi= 83
rate= 80
time= 5
dt= -0.036813973
decline= -0.58902357

Month	Gas Volume
Jan-2005	56
Feb-2005	55
Mar-2005	55
Apr-2005	54
May-2005	54
Jun-2005	53
Jul-2005	52
Aug-2005	52
Sep-2005	51
Oct-2005	51
Nov-2005	50
Dec-2005	49
Jan-2006	49
Feb-2006	48
Mar-2006	48
Apr-2006	47
May-2006	46
Jun-2006	46
Jul-2006	45
Aug-2006	45
Sep-2006	44
Oct-2006	44
Nov-2006	43
Dec-2006	42
Jan-2007	42
Feb-2007	41
Mar-2007	41
May-2007	40
Jun-2007	39
Jul-2007	39
Aug-2007	38
Sep-2007	38
Oct-2007	37
Nov-2007	36
Dec-2007	36
Jan-2008	35

Month	Gas Volume
Feb-2008	35
Mar-2008	34
Apr-2008	34
May-2008	33
Jun-2008	32
Jul-2008	32
Aug-2008	31
Sep-2008	31
Oct-2008	30
Nov-2008	29
Dec-2008	29
Jan-2009	28
Feb-2009	28
Mar-2009	27
Apr-2009	26
May-2009	26
Jun-2009	25
Jul-2009	25
Aug-2009	24
Sep-2009	23
Oct-2009	23
Nov-2009	22
Dec-2009	22
Jan-2010	21
Feb-2010	21
Mar-2010	20
Apr-2010	19
May-2010	19
Jun-2010	18
Jul-2010	18
Aug-2010	17
Sep-2010	16
Oct-2010	16
Nov-2010	15
Dec-2010	15
Jan-2011	14

Month	Gas Volume
Feb-2011	13
Mar-2011	13
Apr-2011	12
May-2011	12
Jun-2011	11
Jul-2011	11
Aug-2011	10
Sep-2011	9
Oct-2011	9
Nov-2011	8
Dec-2011	8
Jan-2012	7
Feb-2012	6
Mar-2012	6
Apr-2012	5
May-2012	5
Jun-2012	4
Jul-2012	3
Aug-2012	3
Sep-2012	2
Oct-2012	2
Nov-2012	1
Dec-2012	1
Jan-2013	0
Feb-2013	0
Mar-2013	0
Apr-2013	0
May-2013	0
Jun-2013	0
Jul-2013	0
Aug-2013	0
Sep-2013	0
Oct-2013	0
Nov-2013	0
Dec-2013	0
Jan-2014	0