

DATE IN 04/10/13	SUSPENSE	ENGINEER PG	LOGGED IN 04/11/13	TYPE DHC	APP NO. PPRG1310135417
------------------	----------	-------------	--------------------	----------	------------------------

ABOVE THIS LINE FOR DIVISION USE ONLY

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



30-015-37696
 Sedona #51
 LRE operating

SEDONA #1 -- 30-015-37696

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.

Mike Pippin	<i>Mike Pippin</i>	Petroleum Engineer	April 9, 2013
Print or Type Name	Signature	Title	Date
		mike@pippinllc.com	
		e-mail Address	

RECEIVED OGD
 2013 APR 10 P 12:37

District I
1625 N. French Drive, Hobbs, NM 88240

District II
1301 W. Grand Avenue, Artesia, NM 88210

District III
1000 Rio Brazos Road, Aztec, NM 87410

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

State of New Mexico
Energy, Minerals and Natural Resources Department

Oil Conservation Division

1220 South St. Francis Dr.
Santa Fe, New Mexico 87505

Form C-107A
Revised June 10, 2003

APPLICATION TYPE

☒ Single Well
☐ Establish Pre-Approved Pools
EXISTING WELLBORE
☒ Yes ☐ No

APPLICATION FOR DOWNHOLE COMMINGLING

LRE OPERATING, LLC c/o Mike Pippin LLC (agent), 3104 N. Sullivan, Farmington, NM 87401
Operator Address

SEDONA #1 **P SEC. 21 T17S R28E** **Eddy**
Lease Well No. Unit Letter-Section-Township-Range County

OGRID No. 281994 Property Code 309879 API No. 30-015-37696 Lease Type: ☐ Federal ☒ State ☐ Fee

DATA ELEMENT	UPPER ZONE	INTERMEDIATE ZONE	LOWER ZONE
Pool Name	RED LAKE; Queen-Grayburg-San Andres		ARTESIA; Glorieta-Yesq
Pool Code	51300		96830
Top and Bottom of Pay Section (Perforated or Open-Hole Interval)	2296'-2570'		3394'-3502'
Method of Production (Flowing or Artificial Lift)	Pumping		Plan to Pump
Bottomhole Pressure (Note: Pressure data will not be required if the bottom perforation in the lower zone is within 150% of the depth of the top perforation in the upper zone)	690 psi		851 psi
Oil Gravity or Gas BTU (Degree API or Gas BTU)	34.8		38.32
Producing, Shut-In or New Zone	Producing		SI (Below RBP @ 2650')
Date and Oil/Gas/Water Rates of Last Production. (Note: For new zones with no production history, applicant shall be required to attach production estimates and supporting data.)	Date: January 2013 RATES: 4.4 BOPD 14.4 MCF/D	Date: Rates:	Date: August 2011 Rates: 2.6 BOPD 5.7 MCF/D
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 63% 72%	Oil Gas % %	Oil Gas 37% 28%

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 ☐

NMOC 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 Mike Pippin TITLE Petroleum Engineer - Agent DATE April 9, 2013

TYPE OR PRINT NAME Mike Pippin TELEPHONE NO. (505) 327-4573

E-MAIL ADDRESS mike@pippinllc.com

SEDONA #1

Current

ARTESIA; Glorieta-Yeso
RED LAKE; Queen-Grayburg-San Andres

(P) Section 21, T-17-S, R-287-E, Eddy County, NM

Today's Date: 4/9/13
Spud: 10/2/10
Completed Yeso: 11/16/10
Completed SA: 11/20/12

Elevation: 3639' GL

API#: 30-015-37696

12-1/4" hole

8-5/8" 24# Csg @ 433'
Cmt w/300 sx
Circ Cmt to Surface

2-7/8" tubing @ 2579'

Queen @ 1251'

Grayburg @ 1676'

San Andres @ 1990'

Top Perf, $2296' \times 1.5 = 3444'$
 $3444' < 3502'$ (bottom zone - lowest perf)
 $0.433 \text{ psi} \times 3502' = 1516 \text{ psi max}$
 $0.65 \times 2296' = 1492 \text{ psi}$
Pressure data provide

Red Lake; Queen-Grayburg-San Andres
Existing Perfs: 2296'-2570'

RBP @ 2650'

Glorieta @ 3392'

Yeso @ 3509'

Artesia; Glorieta-Yeso
Existing Perfs: 3394'-3502'

PBTD 3584'

7-7/8" hole

TD 3643'

5-1/2" 17# Csg @ 3627'
Cmt with 775 sx
Circ Cmt to Surface

Mike Pippin

LRE OPERATING, LLC
SEDONA #1
Artesia; Glorieta-Yeso & Red Lake, Queen-Grayburg-San Andres
P Section 21 T17S R28E
4/9/2013 – Mike Pippin
API#: 30-015-37696

Commingle Allocation Calculations

In January 2013, the upper zone (San Andres) averaged 4.4 BOPD & 14.4 MCF/D from San Andres perfs 2296'-3570'.

In August 2011, the lower zone (Yeso) averaged 2.6 BOPD & 5.7 MCF/D from Yeso perfs 3394'-3502'.

Therefore, the total oil should be: $4.4 + 2.6 = 7.0$ BOPD.

The total gas should be $14.4 + 5.7 = 20.1$ MCF/D.

RECOMMENDED NEW OIL ALLOCATION

$$\% \text{ Lower Zone} = \frac{2.6}{7.0} = \underline{37\%}$$

$$\% \text{ Upper Zone} = \frac{4.4}{7.0} = \underline{63\%}$$

RECOMMENDED NEW GAS ALLOCATION

$$\% \text{ Lower Zone} = \frac{5.7}{20.1} = \underline{28\%}$$

$$\% \text{ Upper Zone} = \frac{14.4}{20.1} = \underline{72\%}$$

Submit 3 Copies To Appropriate District
Office
District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Ave., 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

Form C-103
June 19, 2008

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

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.)		WELL API NO. 30-015-37696
1. Type of Well: Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/>		5. Indicate Type of Lease STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>
2. Name of Operator LRE OPERATING, LLC.		6. State Oil & Gas Lease No.
3. Address of Operator c/o Mike Pippin LLC, 3104 N. Sullivan, Farmington, NM 87401		7. Lease Name or Unit Agreement Name SEDONA
4. Well Location Unit Letter <u>P</u> : <u>990</u> feet from the <u>SOUTH</u> line and <u>330</u> feet from the <u>EAST</u> line Section <u>21</u> Township <u>17-S</u> Range <u>28-E</u> NMPM <u>Eddy</u> County		8. Well Number <u>#1</u>
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 3639' GL		9. OGRID Number <u>281994</u>
		10. Pool name or Wildcat: Red Lake, Queen-Grayburg-San Andres (51300) Artesia, Glorieta-Yeso (96830)

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

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK <input type="checkbox"/>	PLUG AND ABANDON <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	COMMENCE DRILLING OPNS. <input type="checkbox"/>	P AND A <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	MULTIPLE COMPL <input type="checkbox"/>	CASING/CEMENT JOB <input type="checkbox"/>	
DOWNHOLE COMMINGLE <input type="checkbox"/>			
OTHER: Remove RBP & Commingle <input checked="" type="checkbox"/>		OTHER: <input type="checkbox"/>	

13. 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.

LRE OPERATING, LLC would like to remove the RBP @ 2650' & commingle the existing, producing San Andres perfs (2296'-2570') with the Yeso perfs (3394'-3502'), which are currently shut-in below the RBP. A C-107A commingle application has been filed with the Santa Fe NMOCD office.

Spud Date: 10/2/10 Drilling Rig Release Date: 10/12/10

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

SIGNATURE Mike Pippin TITLE Petroleum Engineer - Agent DATE 4/9/13

Type or print name Mike Pippin E-mail address: mike@pippinllc.com PHONE: 505-327-4573
For State Use Only

APPROVED BY: _____ TITLE _____ DATE _____
Conditions of Approval (if any): _____

DISTRICT I
1625 N. FRENCH DR., HOBBBS, NM 88240

DISTRICT II
1301 W. GRAND AVENUE, ARTESIA, NM 88210

DISTRICT III
1000 RIO BRAZOS RD., AZTEC, NM 87410

DISTRICT IV
11885 S. ST. FRANCIS DR., SANTA FE, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION
11885 SOUTH ST. FRANCIS DR.
Santa Fe, New Mexico 87505

Form C-102

Revised October 12, 2005

Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number 30-015-37696	Pool Code 96830	Pool Name Artesia ; GL-Yeso
Property Code 305456	Property Name SEDONA	Well Number 1
OGRID No. 255333	Operator Name LIME ROCK RESOURCES A, L.P.	Elevation 3639'

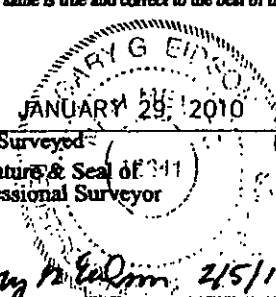
Surface Location

UL or lot No. P	Section 21	Township 17-S	Range 28-E	Lot Idn	Feet from the 990	North/South line SOUTH	Feet from the 330	East/West line EAST	County EDDY
---------------------------	----------------------	-------------------------	----------------------	---------	-----------------------------	----------------------------------	-----------------------------	-------------------------------	-----------------------

Bottom Hole Location If Different From Surface

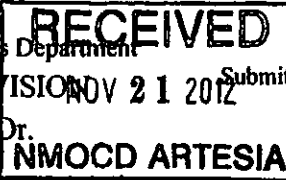
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Dedicated Acres 40	Joint or Infill	Consolidation Code	Order No.						

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

<p>GEODETIC COORDINATES NAD 27 NME SURFACE LOCATION Y=660375.0 N X=549297.4 E LAT.=32.815356° N LONG.=104.172871° W</p>				<p>OPERATOR CERTIFICATION</p> <p>I hereby certify that the information herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.</p> <p><u>George R. Smith</u> 3/10/10 Signature Date George R. Smith, POA agent Printed Name</p>	
				<p>SURVEYOR CERTIFICATION</p> <p>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.</p> <p> Date Surveyed Signature & Seal of Professional Surveyor <u>Gary G. Edson</u> 2/5/10 10.11.0116</p>	
<p>Certificate No. GARY G. EDSON 12641 RONALD J. EDSON 3239</p>					

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, 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 & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505



Form C-102
Revised October 12, 2005
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-015-37696		² Pool Code 51300		³ Pool Name RED LAKE, Queen-Grayburg-San Andres	
⁴ Property Code 309879		⁵ Property Name SEDONA			⁶ Well Number 1
⁷ OGRID No. 281994		⁸ Operator Name LRE OPERATING, LLC.			⁹ Elevation 3639' GL

¹⁰ Surface Location

UL or lot no. P	Section 21	Township 17-S	Range 28-E	Lot Idn	Feet from the 990	North/South line SOUTH	Feet from the 330	East/West line EAST	County EDDY
--------------------	---------------	------------------	---------------	---------	----------------------	---------------------------	----------------------	------------------------	----------------

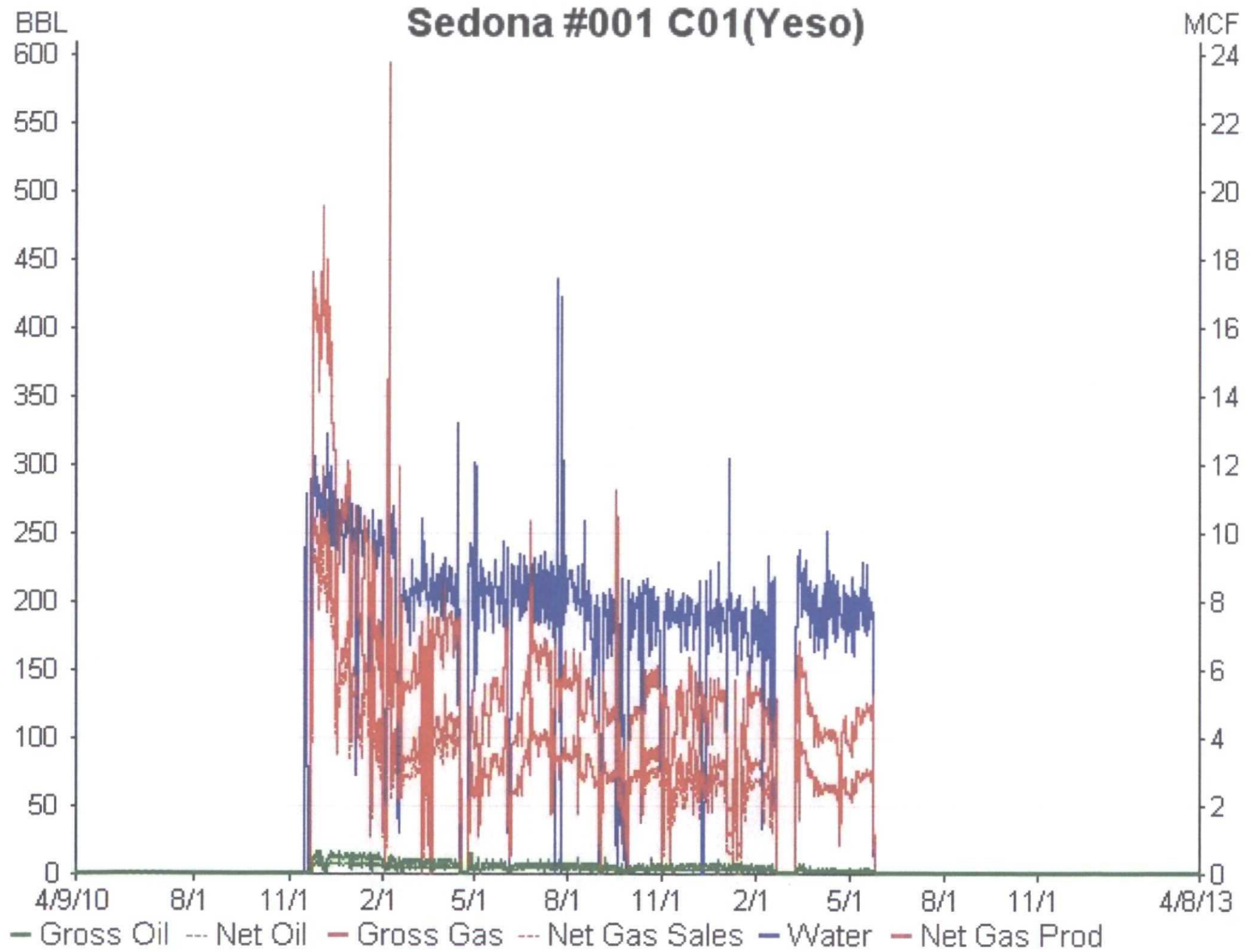
¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
¹² Dedicated Acres 40		¹³ Joint or Infill		¹⁴ Consolidation Code		¹⁵ Order No.			

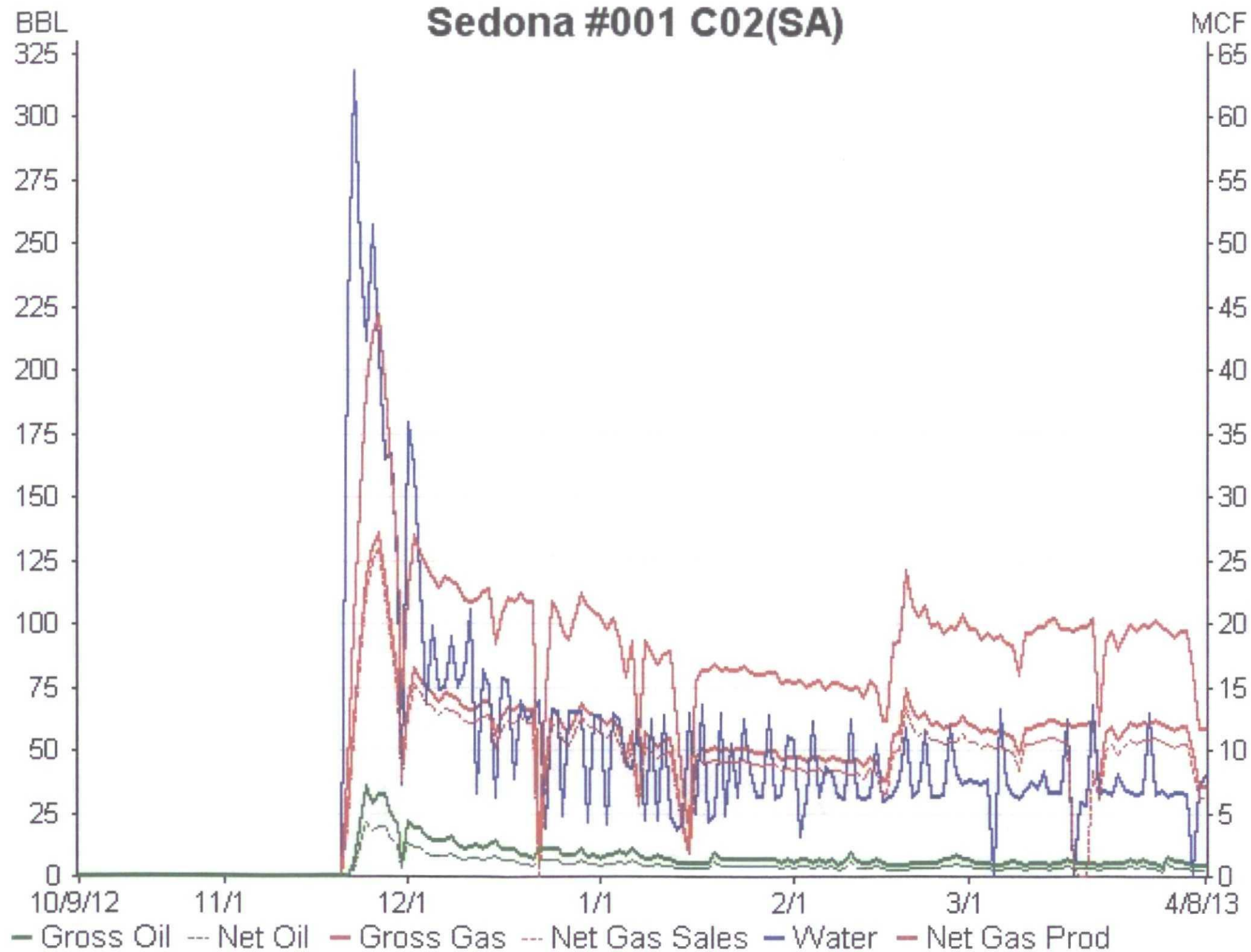
No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

<div style="text-align: center; font-size: 2em;">21</div>				¹⁷ OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or undivided mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division. Signature: <u>Mike Pippin</u> Date: <u>11/20/12</u> Printed Name: <u>Mike Pippin</u>	
				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. Date of Survey: <u>1/29/10</u> Signature and Seal of Professional Surveyor: <u>Gary G. Eidson</u> Certificate Number: <u>12641</u>	
				<div style="text-align: center;"> <div style="display: inline-block; transform: rotate(-90deg);">990'</div> <div style="display: inline-block; transform: rotate(-90deg);">330'</div> </div>	

Sedona #001 C01(Yeso)



Sedona #001 C02(SA)



— Gross Oil --- Net Oil — Gross Gas --- Net Gas Sales — Water — Net Gas Prod

LRE OPERATING, LLC
Mike Pippin
3104 N. Sullivan Avenue
Farmington, NM 87401
505-327-4573 (phone) mike@pippinllc.com

April 9, 2013

New Mexico Commissioner of Public Lands
Attention: Pete Martinez
310 Old Santa Fe Trail
PO Box 1148
Santa Fe, NM 87504-1148

RE: Notification of Downhole Commingling
SEDONA #1 – API#: 30-015-37696
Unit Letter "P" Section 21 T17S R28E
Eddy County, New Mexico

Dear Mr. Martinez:

Lime Rock would like to commingle the existing, producing Red Lake, Queen-Grayburg-San Andres interval with the existing Artesia, Glorieta-Yeso interval, which is currently shut-in below a retrievable bridge plug. The designated acreage for the proposed commingle will be the southeast quarter of the southeast quarter of section 21.

This letter is to notify you that we have submitted the necessary application and supporting data to the New Mexico Oil Conservation Division. A check for \$30 is enclosed with this notification along with a copy of the State application.

Please contact me at 505-327-4573 should you have any questions.

Very truly yours,



Mike Pippin
Petroleum Engineer

LRE OPERATING, LLC
Mike Pippin
3104 N. Sullivan Avenue
Farmington, NM 87401
505-327-4573 (phone) mike@pippinllc.com

April 9, 2013

NMOCD
Attention: David Brooks
1220 South St. Francis Drive
Santa Fe, NM 87505

RE: C-107A TO COMMINGLE TWO POOLS
SEDONA #1 – API#: 30-015-37696
Unit Letter "P" Section 21 T17S R28E
Eddy County, New Mexico

Dear Mr. Brooks,

The referenced oil well was completed in the Artesia, Glorieta-Yeso (96830) on 11/16/10. On 11/20/12, the well was recompleted into the Red Lake, Queen-Grayburg-San Andres (51300) with the Yeso perms shut-in below a RBP at 2650'. See the attached wellbore diagram. Lime Rock would like to remove the RBP and commingle the two pools.

Lime Rock is requesting approval to commingle these two pools upon completion of rig operations to remove the RBP. The production allocation was calculated using recent average production from the upper zone and the average production from the lower zone before the recompletion. The upper zone allocation is, oil - 63% & gas - 72% with the lower zone, oil - 37% & gas - 28%. See the attached calculations, C-107A, and supporting data.

Please contact me at 505-327-4573 should you have any questions.

Very truly yours,



Mike Pippin

Petroleum Engineer