

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
OMB No. 1004-0135  
Expires July 31, 1996

**RECEIVED**  
MAY 12 2014  
NIMOOD ARTESIA

**SUNDRY NOTICES AND REPORTS ON WELLS**  
*Do not use this form for proposals to drill or reenter an abandoned well. Use Form 3160-3 (APD) for such proposals.*

5. Lease Serial No.  
NMLC 046250B

6. If Indian, Allottee or Tribe Name

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

8. Well Name and No.  
**WILLIAMS B FEDERAL #5**

9. API Well No.  
30-015-35545

10. Field and Pool, or Exploratory Area  
Artesia: Glorieta-Yeso (96830)  
Red Lake, San Andres (97253)  
AND  
Eddy County, New Mexico

**SUBMIT IN TRIPLICATE - Other instructions on reverse side**

1. Type of Well  
 Oil Well  Gas Well  Other

2. Name of Operator  
**LRE OPERATING, LLC**

3a. Address c/o Mike Pippin LLC  
3104 N. Sullivan, Farmington, NM 87401

3b. Phone No. (include area code)  
505-327-4573

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)  
1980' FNL & 2230' FEL Unit G  
Sec. 29, T17S, R28E

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

TYPE OF SUBMISSION	TYPE OF ACTION
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize <input type="checkbox"/> Deepen <input type="checkbox"/> Production (Start/Resume) <input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing <input type="checkbox"/> Fracture Treat <input type="checkbox"/> Reclamation <input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair <input type="checkbox"/> New Construction <input type="checkbox"/> Recomplete <input checked="" type="checkbox"/> Other <u>Drill CBP &amp; DHC</u>
	<input type="checkbox"/> Change Plans <input type="checkbox"/> Plug and Abandon <input type="checkbox"/> Temporarily Abandon
	<input type="checkbox"/> Convert to Injection <input type="checkbox"/> Plug Back <input type="checkbox"/> Water Disposal

13. Describe Proposed or Completed Operations (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.)

LRE would like to DHC this well as follows: TOH w/all production equipment. Drill out 5-1/2" CBP @ 3250' & CO to ~PBTD3535', & land 2-7/8" tbg @ ~ 3500'. Run pump & rods & release rig. SA perfs: 1932'-3176'. Yeso perfs: 3291'-3502'.

LRE requests administrative approval to downhole commingle the existing Artesia, Glorieta-Yeso (96830) and the existing Red Lake, San Andres (97253). Both intervals have common ownership (Category 1), we have not experienced any significant cross flows, & all the fluids are compatible. Downhole commingling will maximize the ultimate recovery of oil & gas, eliminate redundant surface equipment, & maximize productivity. Notice has been filed concurrently on form C-107A with the State. The production allocation will be calculated by subtracting the total well production after about two months of commingled production from the current (Yeso) production of 4 BOPD and 34 MCF/D. We plan to submit these calculations and the resulting allocation to your office after the well has been on line for about 2 months. Any well flowback will be through a closed loop system.

**SUBJECT TO LIKE** Accepted for record  
**APPROVAL BY STATE** NIMOOD 5-14-14

14. I hereby certify that the foregoing is true and correct

Name (Printed/Typed) Mike Pippin Title Petroleum Engineer (Agent)

Signature *Mike Pippin* Date July 30, 2013

THIS SPACE FOR FEDERAL OR STATE USE

Approved by \_\_\_\_\_ Title \_\_\_\_\_ Date \_\_\_\_\_

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 \_\_\_\_\_

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

**SEE ATTACHED FOR  
CONDITIONS OF APPROVAL**

**APPROVED**  
MAY 6 2014  
BUREAU OF LAND MANAGEMENT  
CARLSBAD FIELD

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

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-107A  
Revised June 10, 2003

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

**Oil Conservation Division**  
1220 South St. Francis Dr.  
Santa Fe, New Mexico 87505

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

District III  
1000 Rio Estero Road, Aztec, NM 87410

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

**APPLICATION FOR DOWNHOLE COMMINGLING**

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

WILLIAMS B FEDERAL #5 G SEC. 29 T17S R28E Eddy  
Lease Well No. Unit Letter-Section-Township-Range County

OGRID No. 281994 Property Code 309867 API No. 30-015-35545 Lease Type:  Federal  State  Fee

DATA ELEMENT	UPPER ZONE	INTERMEDIATE ZONE	LOWER ZONE
Pool Name	<b>RED LAKE; -San Andres</b>		<b>ARTESIA: Glorieta-Yeso</b>
Pool Code	97253		96830
Top and Bottom of Pay Section (Perforated or Open-Hole Interval)	1932'-3176'		3291'-3502'
Method of Production (Flowing or Artificial Lift)	Plan to Pump		Pumping
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	New Zone		Producing
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: RATES:	Date: RATES:	Date: 8/6/12 Rates: 4 BOPD 34 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	Oil Gas	Oil Gas
		% %	

**ADDITIONAL DATA**

Are all working, royalty and overriding royalty interests identical in all commingled zones?  
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 Mike Pippin TITLE Petroleum Engineer - Agent DATE July 30, 2013

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

E-MAIL ADDRESS mike@pippinllc.com

# WILLIAMS B FEDERAL #5

Current 7/30/13

Red Lake; Glorieta-Yeso

Red Lake; San Andres

API#: 30-015-35545

(G) Section 29, T-17-S, R-28-E, Eddy County, NM

Spud: 6/11/07

12-1/4" hole

Yeso Completed: 7/13/07

San Andres Completed: 7/10/13

Yate @ 680'

7 Rivers @ 940'

Queen @ 1244'

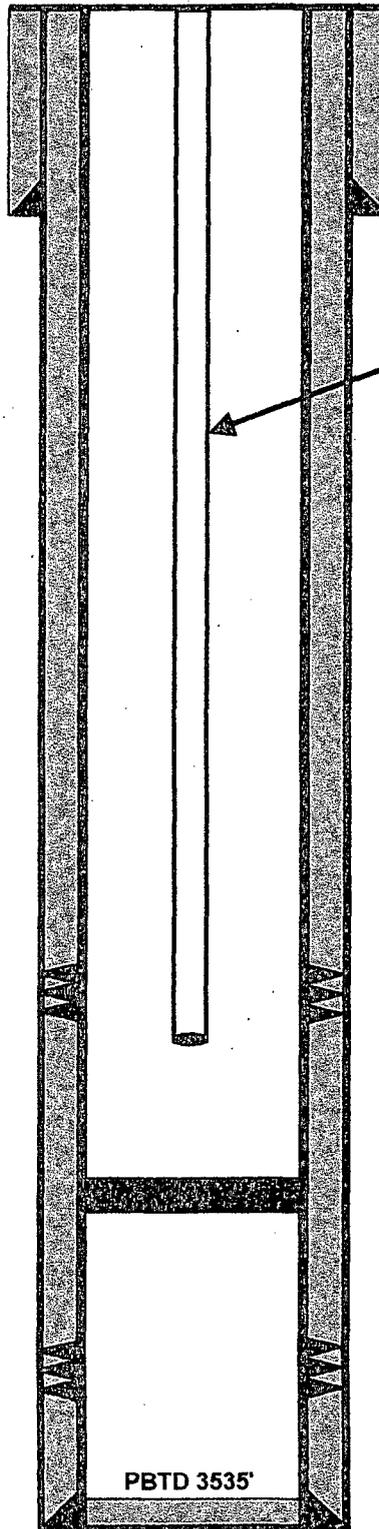
Grayburg @ 1562'

San Andres @ 1880'

Glorieta @ 3264'

Yeso @ 3374'

7-7/8" hole



8-5/8" 24# Csg @ 459'  
Cmt w/375375 sx  
Circ cmt to Surface

2-7/8" tubing @ 3216'

San Andres Perfs: 1932'-3176'

5-1/2" CBP @ 3250'

Yeso Perfs: 3291'-3502'

5-1/2" 15.5# Csg @ 3562'  
Cmt with 750 sx  
Circ cmt to Surface

PBD 3535'

TD 3570'



DISTRICT I  
1825 W. FRENCH DR., HOBBS, NM 58240

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

DISTRICT III  
1600 Elia 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 Department

OIL CONSERVATION DIVISION  
1220 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	Pool Code 96830	Pool Name Artesia, C - <i>Gloria-Geo</i>
Property Code 27688	Property Name WILLIAMS B FEDERAL	Well Number 5
OGHD No. 020451	Operator Name SDX RESOURCES, INC.	Elevation 3638'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
G	29	17-S	28-E		1980	NORTH	2230	EAST	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><b>OPERATOR CERTIFICATION</b></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><i>Bonnie Atwater</i> 3/2/07 Signature Date</p> <p>Bonnie Atwater Printed Name</p>
	<p><b>SURVEYOR CERTIFICATION</b></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>FEBRUARY 15 2007 Date Surveyed</p> <p>G. EDISON LA Signature &amp; Seal of Professional Surveyor</p> <p><i>Gary Edison</i> 2/15/07 Signature Date</p> <p>07.11.0212 Certificate No. GARY EDISON 12641</p>

GEODETIC COORDINATES  
NAD 27 NME  
Y=657260.9 N  
X=542171.3 E  
LAT.=32.806824° N  
LONG.=104.196079° W

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1501 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

F  
Revised October  
Submit to Appropriate Dis  
State Lease  
Fee Lease

AMENDEE

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

<sup>1</sup> API Number 30-015-35545		<sup>2</sup> Pool Code 97253		<sup>3</sup> Pool Name RED LAKE, San Andres	
<sup>4</sup> Property Code 309867		<sup>5</sup> Property Name WILLIAMS B FEDERAL			<sup>6</sup> Well Number 5
<sup>7</sup> OGRID No. 281994		<sup>8</sup> Operator Name LRE OPERATING, LLC.			<sup>9</sup> Elevation 3638' GL

<sup>10</sup> Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
G	29	17-S	28-E		1980	NORTH	2230	EAST	EDDY

<sup>11</sup> 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

<sup>12</sup> Dedicated Acres 40	<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.

	<sup>17</sup> OPERATOR CERTIFICATION	
	<p><i>I hereby certify that the information contained herein is true and complete to knowledge and belief, and that this organization either owns a working interest in the land including the proposed bottom hole location or has drilled this well at this location pursuant to a contract with an owner of such a working interest, or to a voluntary pooling agreement or a compulsory pooling heretofore entered by the division.</i></p>	
	<p><i>Mike Pippin</i></p> <p>Signature</p>	<p>4/12/13</p> <p>Date</p>
	<p>Mike Pippin Printed Name</p>	
<sup>18</sup> SURVEYOR CERTIFICATION		
<p><i>I hereby certify that the well location shown on this plat from field notes of actual surveys made by me or under supervision, and that the same is true and correct to the belief.</i></p>		
<p>2/15/07</p> <p>Date of Survey</p>		
<p>Gary G. Eidson</p> <p>Signature and Seal of Professional Surveyor</p>		
<p>12641</p> <p>Certificate Number</p>		

## DOWNHOLE COMMINGLING WORKSHEET

Operator: LRE OPERATING, LLC
Lease/Well Name/API#/Location: NMLC-046250-B, WILLIAMS B FEDERAL #5, 30-015-35545, G SEC 29 T17S R28E
Date: 2/4/2014

Data	Bottom Formation	Upper Formation	Estimated Combined Production Data
Pool Name:	Artesia, G-Y	Red Lake, San Andres	(See attached weighted average calculations)
Pool Code:	96830	97253	
State Form C-102 w/dedicated Acres provided:	Yes 40 acres	Yes 40 acres	
Formation Name:	Yeso	San Andres	
Top & Bottom of Pay Section (Perfed or OH interval):	3291'-3502' Perfed	1932'-3176' Perfed	
Method of Production:	Plan to Pump	Pumping	
Bottom Hole Pressure:	851 psi	690 psi	
Reservoir Drive Mechanism:	Solution gas drive	Solution gas drive	
Oil Gravity &/or BTU:	35.8 / 1295*	37.1 / 1251	37.0 / 1255
Average Sulfur Content (Wt%):	1.003*	0.9767	0.9786
Oil Sample Analysis Provided:	Yes*	Yes	
Gas Analysis Provided:	Yes*	Yes	
Produce Water Analysis Provided:	Yes*	Yes	
H2S Present:	9500 ppm*	8000 ppm	8133
Producing, Shut-in or New Zone:	SI	Pumping	
Date & Oil/Gas/Water rates of Last Production (new zones or no production history Operator shall attach production estimate & supporting data):	8/6/2012 4 BOPD 34 MCF/D 10 BWPD	7/30/2013 51 BOPD 350 MCF/D 187 BWPD	Estimated Rates: 60 BOPD 400 MCF/D 200 BWPD
Average decline % (provide back up data):	OIL = 9.76%* GAS = 1.57%*	OIL = 9.51%* GAS = 5.89%*	OIL = 8.59%* GAS = 1.91%*
Fixed Allocation %: (See attached calculations)	OIL = 7% GAS = 9% WTR = 5%	OIL = 93% GAS = 91% WTR = 95%	

Remarks: \*See attached back-up data & "Williams A & B Field Study of Yeso & San Andres".  
The State DHC order is DHC-4630.

Operator Signature:
Date: 2/4/2014

### Attached Supporting Documents

- State Form C-102 w/dedicated Acres Provided
- Oil Sample Analysis Provided (Must be Current)
- Gas Analysis provided (Must be Current)
- Produce Water Analysis provided (Must be Current)
- Any additional supporting data (i.e. offset well production & decline curves etc.)

\* FROM WILLIAMS A & B FIELD STUDY

LRE OPERATING, LLC  
 WILLIAMS B FEDERAL #5  
 Artesia; Glorieta-Yeso & Red Lake, San Andres  
 G Section 29 T17S R28E  
 5/1/2014  
 API#: 30-015-35545.

## Commingle Allocation Calculations

On 7/13/07, the Yeso (lower zone) was completed as a new well. On 7/10/13, the well was recompleted into the San Andres (upper zone) with the lower zone shut-in below a CBP @ 3250'. The Yeso production test on 8/6/12 before the recompletion was 4 BOPD, 34 MCF/D, & 10 BWPD. The test on the San Andres alone after the recompletion was on 7/30/13 for 51 BOPD, 350 MCF/D, & 187 BWPD.

	Upper Zone (SA)	+	Lower Zone (YESO)	=	Total
Total Oil (bbls/d)	51	+	4	=	55
Total Gas (mcf/d)	350	+	34	=	384
Total Water (bbls)	187		10	=	197

### OIL

Upper Zone (SA) = 51 BOPD  
 Total oil = 55 BOPD  
 $\% \text{ Upper Zone} = \frac{51}{55} = \underline{93\%}$

Lower Zone (Yeso) = 4 BOPD  
 $\% \text{ Lower Zone} = \frac{4}{55} = \underline{7\%}$

### GAS

Upper Zone (SA) = 350 mcf/d  
 Total gas = 384 mcf/d  
 $\% \text{ Upper Zone} = \frac{350}{384} = \underline{91\%}$

Lower Zone (Yeso) = 34 mcf/d.  
 $\% \text{ Lower Zone} = \frac{34}{384} = \underline{9\%}$

### WATER

Upper Zone (SA) = 187 BWPD  
 Total gas = 197 BWPD  
 $\% \text{ Upper Zone} = \frac{187}{197} = \underline{95\%}$

Lower Zone (Yeso) = 10 BWPD  
 $\% \text{ Lower Zone} = \frac{10}{197} = \underline{05\%}$

LRE OPERATING, LLC  
**WILLIAMS B FEDERAL #5**  
Artesia; Glorieta-Yeso & Red Lake, San Andres  
G Section 29 T17S R28E  
5/1/2014 – Mike Pippin  
API#: 30-015-35545

## WEIGHTED AVERAGES

### OIL GRAVITY:

Bottom zone (Yeso) = 4 BOPD, 35.8

Upper zone (SA) = 51 BOPD, 37.1

$$(4 \times 35.8) + (51 \times 37.1) = 143.2 + 1892 = 2035$$

$$2035 / (4 + 51) = \underline{\mathbf{37.0 \text{ GRAVITY OIL}}}$$

### GAS BTU:

Bottom zone (Yeso) = 34 MCF/D, 1295 BTU

Upper zone (SA) = 350 MCF/D, 1251 BTU

$$(34 \times 1295) + (350 \times 1251) = 44,030 + 437,850 = 481,880$$

$$481,880 / (34 + 350) = \underline{\mathbf{1255 \text{ BTU GAS}}}$$

### H2S in GAS:

Bottom zone (Yeso) = 34 MCF/D, 9,500 ppm

Upper zone (SA) = 350 MCF/D, 8000 ppm

$$(34 \times 9,500) + (350 \times 8000) = 323,000 + 2,800,000 = 3,123,000$$

$$3,123,000 / (34 + 350) = \underline{\mathbf{8133 \text{ ppm H2S}}}$$

### Sulfur in Oil:

Bottom zone (Yeso) = 4 BOPD, 1.003

Upper zone (SA) = 51 BOPD, 0.9767

$$(4 \times 1.003) + (51 \times 0.9767) = 4.012 + 49.8117 = 53.8237$$

$$53.8237 / (4 + 51) = \underline{\mathbf{0.9786 \text{ Wt\% Sulfur}}}$$

## Conditions of Approval

Sundry dated 7/30/2013

LRE Operating, LLC

Williams B - 05

API 3001535545, T17S-R28E, Sec 29

May 06, 2014

1. The "Williams A & B Field Study of the Yeso & San Andres" dated 11/23/2013 reviewed and Approved by EGF on 01/27/2014 has been accepted by BLM CFO as justification for a downhole pool comingling project on the Williams A and Williams B federal leases. The Yeso is currently capable of production in paying quantities and is to be produced until that formation's economic limits are achieved. This being said, the combined formations should increase field production.
2. A new "Well Location and Acreage-Dedication Plat" (NMOCD Form C-102) is required with the notice of intent package when opening another pay zone.
3. A subsequent sundry detailing work done and a completion report for the San Andres formation is necessary.
4. Surface disturbance beyond the originally approved pad must have prior approval.
5. Closed loop system required.
6. All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of work over operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area. Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.
7. Functional H<sub>2</sub>S monitoring equipment shall be on location.
8. 2000 (2M) Blow Out Prevention Equipment to be used. All BOPE and workover procedures shall establish fail safe well control. Ram(s) for the work string(s) used is required equipment. Manual BOP closure system including a blind ram and pipe ram(s) designed to close on all (hand wheels) equipment shall be installed regardless of BOP design. Function test the installed BOPE to 500psig when well conditions allow. Related equipment, (choke manifolds, kill trucks, gas vent or flare lines, etc.) shall be employed when needed for reasonable well control requirements.

Access information for use of Form 3160-5 "Sundry Notices and Reports on Wells"

NM Fed Regs & Forms - [http://www.blm.gov/nm/st/en/prog/energy/oil\\_and\\_gas.html](http://www.blm.gov/nm/st/en/prog/energy/oil_and_gas.html)

§ 43 CFR 3162.3-2 Subsequent Well Operations.

§ 43 CFR 3160.0-9 (c)(1) Information collection.

§ 3162.4-1 (c) Well records and reports.