Form 3160-5 (November 1994)

UNITED STATES DEPARTMENT OF THE INTERIOR DIFFER ALL OF LAND MANAGEMENT

REGEIVED | FEB 1 8 2014

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

BUR	EAU OF LAND MANAGEN	MENT NM	OCD ART	S Lease Serial	No.	
SUNDRY N	OTICES AND REPORTS	1	VMNM 048344			
	form for proposals to a Use Form 3160-3 (APD) f	6. If Indian, Al	lottee or Tribe Name			
		7. If Unit or CA/Agreement, Name and/or No.				
	ICATE – Other instruc	tions on reverse	e side			
1. Type of Well	[7]			8. Well Name a	and No	
2. Name of Operator	Other			1	AMS A FEDERAL #	R
LRE OPERATING, LLC.				3		
3a. Address c/o Mike Pippin L	LC 3	b. Phone No. (include	le area code)	1	30-015-36513	
3104 N. Sullivan, Farmingto	on, NM 87401	505-327-4573		4 .	ool, or Exploratory Area	016
4. Location of Well (Footage, Sec.,	T., R., M., or Survey Description)		Artesia, Glorieta-Yeso (96830) DHC		
	. 			Red Lake, Queen-Grayburg-San Andres (51300 AND		
1090' FSL & 1550' FWL Uni	t N			AND	•	
Sec. 29, T17S, R28E		•		Eddy County	y, New Mexico	
12. CHECK APPROPRIATE BOX	X(ES) TO INDICATE NATU	RE OF NOTICE, RI	EPORT, OR OT	HER DATA		
TYPE OF SUBMISSION	TYPE OF ACTION					
Notice of Intent	Acidize	Deepen		(Start/Resume)	☐ Water Shut-Off ☐ Well Integrity	
Subsequent Report	Alter Casing Casing Repair	☐ Fracture Treat ☐ New Construction	Recomplete		Will other DHC Applica	ation
	Change Plans	Plug and Abandon	-	y Abandon		
Final Abandonment Notice	Convert to Injection	Plug Back	☐ Water Disp			
13. Describe Proposed or Completed Operation of the proposal is to deepen directionally Amend the Bond under which the work Following completion of the involved op Testing has been completed. Final Abdemnined that the site is ready for final inspection.	y or recomplete horizontally, give sub- will be performed or provide the Bo- erations. If the operation results in a andonment Notices shall be filed only	surface locations and meas nd No on file with BLM multiple completion or re	ured and intervention /BIA. Required sub- completion in a new	al depths of all per sequent reports shall interval, a Form 3	ninent markers and zones. be filed within 30 days 160-4 shall be filed once	
LRE requests administra the existing, producing Red on 4/1/09 with a recompletion have not experienced any significance of liquids & gas, elliproductivity. Notice has been	Lake, Queen-Grayburg- on into the San Andres o gnificant cross flows, & minate redundant surfa	le commingle the San Andrès (513 n 6/25/13.Both in all the fluids are d be equipment, wh	00). The wel tervals have compatible. I lich reduces t	ll was original common owr Downhole cor	lly completed in the 'nership (Category #1 mmingling will impro	Yeso !), we ve
LRE plans to commingle by to commingle the two pools Yeso test before the recompafter the recompletion of 75 calculates to be: oil - 86% & other supporting data, which	Cupon completion of rig eletion workover of 10 Bo BOPD & 160 MCF/D, w gas - 82% with the lowe	operatons. The OPD & 36 MCF/E hich was taken o er zone, oil - 12% State	production a on 6/9/13 a n 7/12/13. TI & gas - 18%	llocation was nd the San A herefore, the See the att	calculated using the ndres production tes upper zone allocatio ached C-107A, WBI	et on O &
14. I hereby certify that the foregoin	g is true and correct				NN	MOCDAR
Namê (Prinied/Typed) Mike	Pipgin	Title	Petrolei	ım Engineer ((Anant)	TO TO
Signature		Date	1 00000	arr Engineer	(rigeni)	10CD16
Mike	typpin			tember 10, 20	013	7
	THIS SPACE	FOR FEDERAL OR	STATE USE		SOUFIL	1
Approved by		Title		Pate A	YYMY	5
Conditions of approval, if any, are attached certify that the applicant holds legal or equivalent would entitle the applicant to conduct the conductive transfer of the conductive transfer or conductive tran	nitable title to those rights in the subj	1		18	FEB 4 2018	
Title 18 U.S.C. Section 1001, makes i fraudulent statements or representation			e to any departme	nt or agency of th	ue United States any false of	MEMES OF

SUBJECT TO LIKE APPROVAL BY STATE

District 1

State of New Mexico Energy, Minerals and Natural Resources Department

Form C-107A Revised June 10, 2003

District II

1301 W. Grand Avenue, Asteolo, NM 88210

District III 1000 Rio Hazzos Rosal, Azacc, NM 87410

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

APPLICATION TYPE X Single Well
Establish Pre-Approved Pools
EXISTING WELLBORE

District IV

1220 S. St. Francis Dr., Santa Fc. NM 87505	APPLICATION FOR DO	WNHOLE COMMINGLING	<u>X</u> Y	esNo					
LRE OPERATING, LLC Operator		104 N. Sullivan, Farmington, NM 87401 tress							
WILLIAMS A FEDERAL #8	N SEC. 29 T17S R28E Eddy								
Lease	Well No. Unit Letter-	County							
OGRID No. 281994 Property Cod	e_309877 API No30-015	-36513 Lease Type:Federal	X State	Fee					
DATA ELEMENT	UPPER ZONE	LOWER ZONE							
Pool Name .	RED LAKE; -Queen- Grayburg-San Andres ARTESIA: Glorieta-Yeso								
Pool Code	51300 2000'-3030'		968						
Top and Bottom of Pay Section (Perforated or Open-Hole Interval)	2000 -3030		3371 -	.3310					
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 Cas BTU)	34.8		38.	32					
Producing, Shut-In or New Zone	Producing		SI Belo	w CBP					
Date and Oil/Gas/Water Rates of Last Production. (Note: For new zenes with na production history, upplicurs shall be required to smuch production estimates and supporting data.)	Date: 7/12/13 Date: Date: 6/9/13 RATES: 75 BOPD Rates: 10 BOPD 36 MCF/D 36 MCF/D								
Fixed Allocation Percentage (Note: If allocation is based upon something other	Oil Gas	Oil Gas	Oil	Gas					
than current or past production, supporting data or explanation will be required.)	88% 82%	% %	12%	18%					
Are all working, royalty and overriding royalty interests identical in all commingled zones? Are all working, royalty and overriding royalty interest owners been notified by certified mail? 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? 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.									
If application is List of other orders approving downhol List of all operators within the proposed Proof that all operators within the proposed Bottomhole pressure data.	to establish Pre-Approved Pools, to e commingling within the proposed I Pre-Approved Pools	,	ll be required:						
I hereby certify that the information	above is true and complete to	the best of my knowledge and belie	ef.	······································					
SIGNATURE Mile Viagra TITLE Petroleum Engineer - Agent DATE September 10, 2013									
TYPE OR PRINT NAMEM	like Pippin	TELEPHONE NO. (50)5) 327-4	573					
E-MAIL ADDRESS mike@	pippinllc.com								

DOWNHOLE COMMINGLING WORKSHEET

Operator: LRE OPERATING, LLC

Lease/Well Name/API#/Location: NMNM-048344, WILLIAMS A FEDERAL #8, 30-015-36513, N SEC 29 T17S R28E

Date: 2/3/2014

	_		Estimated Combined
Data	Bottom Formation	Upper Formation	Production Data
Pool Name:	Artesia, G-Y	Red Lake, Q-G-SA	
Pool Code:	96830	51300	(See attached weighted
State Form C-102 w/dedicated Acres	Yes	Yes	average calculations)
provided:	40 acres	40 acres	
Formation Name:	Yeso	San Andres	
Top & Bottom of Pay Section	3371'-3510'	2000'-3030'	
(Perfed or OH interval):	Perfed	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*	34.6 / 1240	34.7 / 1250
Average Sulfur Content (Wt%):	1.003*	1.3099	1.274
Oil Sample Analysis Provided:	Yes*	Yes	
Gas Analysis Provided:	Yes*	Yes	
Produce Water Analysis Provided:	Yes*	Yes	
H2S Present:	9500 ppm*	4000 ppm	5010
Producing, Shut-in or New Zone:	SI	Pumping	
	6/9/2013	7/12/2013	Estimated Rates:
Date & Oil/Gas/Water rates of Last	10 BOPD	75 BOPD	90 BOPD
Production (new zones or no production	36 MCF/D	160 MCF/D	220 MCF/D
history Operator shall attach production	23 BWPD	180 BWPD	220 BWPD
estimate & supporting data):		1	
Average decline % (provide back up data):	OIL = 9.76%*	OIL = 9.51%*	OIL = 8.59%*
	GAS - 1.57%*	GAS = 5.89%*	GAS = 1.91%*
Fixed Allocation %:	OIL = 12%	OIL = 88%	
(See attached calculations)	GAS = 18%	GAS = 82%	
	WTR = 11%	WTR = 89%	

Remarks: *See attached back-up data & "Williams A & B Field Study of Yeso & San Andres".

The State DHC order is DHC-4643.

Operator Signature:

Date: 2/3/2014

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 A FEDERAL #8

Artesia; Glorieta-Yeso & Red Lake, Queen-Grayburg-San Andres
N Section 29 T17S R28E
2/3/2014 – Mike Pippin
API#: 30-015-36513

WEIGHTED AVERAGES

OIL GRAVITY:

Bottom zone (Yeso) = 10 BOPD, 35.8 Upper zone (SA) = 75 BOPD, 34.6 (10x35.8) + (75x34.6) = 358 + 2595 = 2953 2953 / (10 + 75) = 34.7 GRAVITY OIL

GAS BTU:

Bottom zone (Yeso) = 36 MCF/D, 1295 BTU Upper zone (SA) = 160 MCF/D, 1240 BTU (36x1295) + (160x1240) = 46,620 + 198,400 = 245,020245,020 / (36 + 160) =**1250 BTU GAS**

H2S in GAS:

Bottom zone (Yeso) = 36 MCF/D, 9,500 ppm Upper zone (SA) = 160 MCF/D, 4000 ppm (36x9,500) + (160x4000) = 342,000 + 640,000 = 982,000982,000 / (36 + 160) = 5010 ppm H2S

Sulfur in Oil:

Bottom zone (Yeso) = 10 BOPD, 1.003 Upper zone (SA) = 75 BOPD, 1.3099 (10x1.003) + (75x1.3099) = 10.03 + 98.2425 = 108.2725108.2725 / (10+75) =**1.274 Wt% Sulfur**

LRE OPERATING, LLC WILLIAMS A FEDERAL #8

Artesia; Glorieta-Yeso & Red Lake, Queen-Grayburg-San Andres N Section 29 T17S R28E 2/3/2014

API#: 30-015-36513

Commingle Allocation Calculations

On 4/1/09, the Yeso (lower zone) was completed as a new well. On 6/25/13, the well was recompleted into the San Andres (upper zone) with the lower zone shut-in below a CBP @ 3150'. The Yeso production test on 6/9/13 before the recompletion was 10 BOPD, 36 MCF/D, & 23 BWPD. The test on the San Andres alone after the recompletion was on 7/12/13 for 75 BOPD, 160 MCF/D, & 180 BWPD.

	Upper		Lower			
	Zone (SA)	+	Zone (YESO)	Total	
Total Oil (bbls/d)	75	+	10	=	85	
Total Gas (mcf/d)	160	+	36	=	196	
Total Water (bbls)	180		23	=	203	

OIL

Upper Zone (SA) = 75 BOPD Total oil = 85 BOPD % **Upper Zone** = <u>75</u> = <u>88%</u> Lower Zone (Yeso) = 10 BOPD

% Lower Zone = $\frac{10}{85}$ = $\frac{12\%}{85}$

GAS

Upper Zone (SA) = 160 mcf/d Total gas = 196 mcf/d % **Upper Zone** = 160 = 82% 196 Lower Zone (Yeso) = 36 mcf/d

% Lower Zone = 36 = 18%

WATER

Upper Zone (SA) = 160 mcf/d Total gas = 196 mcf/d % **Upper Zone** = <u>180</u> = <u>89%</u> 203 Lower Zone (Yeso) = 36 mcf/d

% Lower Zone =
$$23 = 11\%$$

WILLIAMS A FEDERAL #8

Current

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

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

Today's Date: 9/10/13

Spud: 1/8/09

Completed Yeso: 4/1/09 Completed SA: 6/25/13

Elevation: 3679' GL

API#: 30-015-36513

Queen @ 1147'

Grayburg @ 1562'

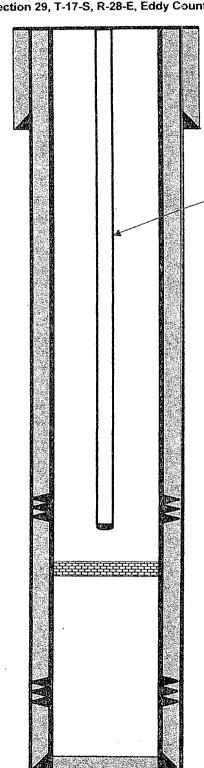
San Andres @ 1871'

Glorieta @ 3271'

Yeso @ 3364'

7-7/8" hole

12-1/4" hole



TD 3603'

8-5/8" 24# Csg @ 420' Cmt w/375 sx Circ Cmt to Surface

2-7/8" tubing @ 3147'

Red Lake; Queen-Grayburg-San Andres Existing Perfs: 2000'-3030'

CBP @ 3150'

Artesia; Glorieta-Yeso Existing Perfs:3371'-3510'

5-1/2" 17# Csg @ 3603' Cmt with 800 sx Circ Cmt to Surface District I 1625 N. French Dr., Hobbs, NM 88240 District II 1301 W. Grand Avenue, Artesia, NM 88210

<u>Dismict III</u> 1000 Rio Brazos Rd., Aztec, NM 87410

District IV

Property Code

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

¹ API Number

30-015-36513

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

³ Pool Name

RED LAKE, Queen-Grayburg-San Andres

☐ AMENDED REPORT

Well Number

WELL LOCATION AND ACREAGE DEDICATION PLAT

Property Name

² Pool Code

51300

30987	7	WILLIAMS A FEDERAL							8	
OCRID!	Vo.				=	rator Name "Elevation				
28199	4			Ĭ	RE OPERAT	3	3679' GL			
10 Surface Location										
UL or let ac.	Section	Township	Range	Los ida	Feet from the	North/South line	Fee	Feel from the East/W		County
Ŋ	29	17-S	28-E		1090	SOUTH		1550 WE	ST	EDDY
		<u> </u>	¹¹ Bo	tiom Ho	le Location I	f Different From	m Su	rface	***************************************	
UL or lot no.	Section	Township	Range	Loi lán	Feet from the	North/South line		from the East/W	est line	Сомину
12 Dedicated Acres	13 Joint o	r Infill 14 (Consolidation (Code 15 Or	der No.	· · · · · · · · · · · · · · · · · · ·				<u> </u>
40										
No allowable v	will be ass	signed to th	is complet	ion until al	ll interests have	been consolidated	oran	ion-standard unit ha	s been a	pproved by the
			 	T				17 OPERATO	OR CER	TIFICATION
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1550°				A CONTRACTOR				Signature and Seal of Fro	fessional Sur	Never.
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State of New Mexico

Form C-102

1826 N. Frenct, Dr., Bobbs, NN 88240 Energy, Minerals & Natural Resources Department Revised October 12, 2005

Bistrict II

1831 % Grand Avenue, Arcenia, NN 88210

District III

1220 South St. Francis Dr.

Santa Fe, NM 87505

District II 1250 S. St. Prancis Dr., Santa Fe, MM 87605

□ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT										
96830 ARTERICO - GL-VE										
4 Property Code 2) 5 451 WILLIAMS A FEDERAL 8 WILLIAMS A FEDERAL										
25553	33			LIME	8 Operator ROCK RE	Name SOURCES 2	4, L.P.		-	Blevetlen 679
					10 Surface					,
UL or lot so.	Section.	, Youruship	Range	Lot Idn	Foot from the	Horth/South bins	Paul from the	East/Ved	line	County
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		"Bo	ttom	Hole I	ocation If	Different	From Sur	face		
UL or lot ma.	Section	Township	Range	Lot Ida	Faut from the	Horth/South Has	Fact from the	East/West	tine	County
1E Bediophet Aar	uz 13 Joint	or Ingfall 14 Co	arolidation	Code 16	Order No.		L	<u> </u>		

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.

			" OPERATORS CERTIFICATION
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			18 SURVEYOR CERTIFICATION
			I hereby certify that the wall investion shows on this plot was plotted from field notes of actual movene
			made by me or tender my experience, and that the
			scene to true and correct to the best of my belief.
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