Form 3160-5 (March 2012)

1. Type of Well

3a. Address

2. Name of Operator Logos Operating, LLC

Farmington, NM 87401

Oil Well

4001 North Butler Avenue, Building 7101

Gas Well

4. Location of Well (Footage, Sec., T.,R.,M., or Survey Description) 919' FSL, 1738' FEL Section 10, T22N, R3W, UL O

UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

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DEC 27

FORM APPROVED

OMB-No.-1004-0137.-Expires: October 31, 2014

SUNDRY NOTICES AND REPORTS ON WELLS

SUBMIT IN TRIPLICATE - Other instructions on page 2.

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

Other

5) Lease Serial No. Jicarilla Apache Lease #417 6. If Indian, Allottee or Tribe Name

Lindrith Gallup-Dakota, West

11. County or Parish, State Sandoval County, NM

Jicarilla Apache Nation

TE 16 1790)
7. If Unit of CA/Agreement, Name and/or No.
8. Well Name and No. Jicarilla O 3E
9. API Well No. 30-043-21165
 10 Field and Pool or Exploratory Area

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

3b. Phone No. (include area code)

505-330-9333

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

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 must 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 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.)

CBL ran on 12/20/13 shows good cement from 4100' to 5910'. Logos Operating plans to squeeze the production casing per the attached procedure. Please see the attached current & proposed wellbore schematics which include the formation tops.

RCVD JAM 2 '14

OIL CONS. DIV.

DIST. 3

CONDITIONS OF APPROVAL Adhere to previously issued stipulations. BLM'S APPROVAL OR ACCEPTANCE OF THIS ACTION DOES NOT RELIEVE THE LESSEE AND OPERATOR FROM OBTAINING ANY OTHER **AUTHORIZATION PEQUIRED FOR OPERATIONS** ON PEDERAL AND INDIAN LANDS

14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed)	
Tamra Sessions	Title Operations Technician
Signature Tan Sessin	Date 12/27/2013
THIS SPACE FOR FEDE	RAL OR STATE OFFICE USE
Approved by William Tambekou	Title Petroleum Engineer Date 12/31/2013
Conditions of approval, if any, are attached. Approval of this notice does not warrant or c that the applicant holds legal or equitable title to those rights in the subject lease which we entitle the applicant to conduct operations thereon.	ertify

fictitious or fraudulent statements or representations as to any matter within its jurisdiction.



CASING SQUEEZE PROCEDURE

Jicarilla O #3E

919' FSL, 1738' FEL
UL O, Section 10, T22N, R03W
Sandoval County, New Mexico
LAT: 36.14663° N LONG: 107.14088° W
Lindrith Gallup-Dakota West

KG:	Kristy Graham 12/27/2013	Prepare/Production Engineer
	Date	
DG:	Date	Approve/VP of Operations
JPM:	Doto	Approve/President

PROJECT OBJECTIVE:

Test casing, establish injection rate through casing shoe, perforate circulation holes, and complete casing squeeze.

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CAPACITIES

Capacity Between 7-7/8" hole and 5-1/2" Casing: 0.03086 BBL/ft

Capacity of 2-7/8" Tubing: 0.00579 BBL/ft Capacity of 5-1/2" Casing: 0.0232 BBL/ft

WORKOVER PROCEDURE:

Deliver to location the following equipment:

1.	~90' 2-7/8", 6.5#, J-55, EUE tubing to tag up
2.	Cast Iron Cement Retainer (CICR) for 5-1/2", 17#, P110 Casing
3.	Packer for 5-1/2", 17#, P110 Casing
4.	Rig pit with 2% KCI
5.	Chart Recorder for Pressure Test
6.	4-3/4" PDC bit to drill out cement
7.	Wireline Perforating Unit
8.	Dry Cement to be mixed for cement job (bring full load of dry cement) - Type III
	Premium Lite HS Blend Cement

- 1. Hold safety meeting. MIRU workover rig. Place fire and safety equipment in strategic locations. Comply with all LOGOS, Jicarilla, BLM and NMOCD rules and regulations.
- 2. Lay flow lines. Check and record casing pressure.
- 3. ND wellhead and NU BOP.

NOTE: Tubing is already in hole.

4. TIH with tubing to top of float collar at (6813') and circulate hole clean. (Tubing currently landed at 6780' KB)

Tubing Configuration in Hole: (208) Jts 2-7/8", (1) 2.25' Bit Sub, (1) 4-3/4" x 1.8' Tapered Mill

- 5. TOOH with tubing and mill and LD mill.
- 6. PU packer for 5-1/2", 17#, P110 casing. TIH and set packer at 6780'.
- 7. Load backside and pressure test casing to 1000 PSI for 30 minutes and record on chart. Report results to Engineer.

- 8. Establish water rate through packer and casing shoe at 2 BPM to verify the shoe is clear, record pressure, rate, and volume pumped.
- 9. TOOH with packer and LD packer.
- 10. Rig up wireline and TIH to perforate 2 holes with 0.38 charges phased at 180 degrees. Perforate at 5950' based on CBL depths.
- 11. TOOH with wireline and make sure all shots fired.
- 12. PU CICR and TIH and set CICR @ 6070'.
- 13. Establish circulation through CICR and casing shoe at 2 BPM prior to pumping cement. Contact engineer with established rate, pressure, and volume before pumping cement.
- 14. Mix and pump 42 bbls of Type III Premium Lite HS blend cement (169 sacks) with 1.38 yield and displace to top of float collar with 52 bbls of water to the top of the shoe.
- 15. Sting out of retainer and reverse the hole clean.
- 16. TOOH with entire tubing string and shut down for the day.
- 17. After letting cement setup overnight.
- 18. Pressure test casing to 1000 PSI on chart recorder and report results to Engineer.
- 19. Drill out cement and CICR to the top of float collar.
- 20. Circulate hole clean.
- 21. Pressure test casing to 500 PSI and report results to Engineer.
- 22. Rig up wireline and run CBL. TOOH with wireline.
- 23. Wait on Engineer for next plan of action to determine if additional squeezes are necessary.

LOGOS OPERATING, LLC

Jicarilla O #3E

Casing Squeeze Procedure

Page 4 of 4

Contacts

Kristy Graham – Production Engineer Office (505) 436-2627 Cell (505) 402-6361

David Gonzales - Vice President of Operations Office (505) 436-2626 Cell (505) 215-8215

Wayne Ritter – Production Manager Cell (505) 320-0436

Ron Coffee – Consultant Cell (505) 320-1009

Larry Candelaria – Consultant Cell (505) 330-7065 or (713) 493-0957

Art Sullivan – Production Foreman Cell (505) 320-1983

Dave McWilliams – WSS Construction and Lybrook Yard Owner Cell (505) 320-1515 Cell (505) 635-1581

Blue Jet- Wireline Perforating Cell (505) 320-0172



Wellbore Schematic

Well Name:	Jicarilla O #3E			Date Prepared:	12/27/2013
Location:	919' FSL, 1738' FEL, Section 10, T22N, R03W			Last Updated:	12/27/2013
County:	Sandoval			Spud Date:	12/11/2013
API#:	30-043-21165			Completion Date:	
Co-ordinates:	LAT: 36.14863° N LONG: 107.14088° W Last Workover Date			Last Workover Date: _	
Elevations:	GROUNE				
	KE				
Depths (KB):	PBTC				
	TC				
Current V	Vellbore Confi				
-	All depths K	B Hole Size	Surface Casing: (12/13/13)	
Surface Casing	12-1/4" Drilled a 12-1/4" s			rface hole to 510'. Set 11 jts 9-5/8", 36#, J	-55 casing at 503'
9-5/8", 36# K-55				254 sx Type 3 cement; circulated 15 bbls o	
Set at 503	1 1 1		Production Casing		
254 sx cmt	1 1 1			fuction hole to 6890'. Set 161 joints 5-1/2"	17# P-110 csg at 6858'
503'		TOC at surface	DV Tool set at 4		, 17 m, 1 - 1 to cog at cooc
500	1	(circ)		with 165 sx Premium Lite HS FM, switched	to tail, while bringing tail cmt
		(6.75)		nt thickened, plugged up mix tub, had mixe	
	1	1	up v in (14.0) on	int thekened, plagged up this tab, had thise	tall citic to 12.0 ppg
	1 1 1				
	1 1 1		Tubles		Length (ft)
			Tubing:		
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	1 1 1	0-6870'			0
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Production Casing		i i			
5-1/2", 17#, P-110		TOC 4100' (CBL)	Perforations:		
Set at 6858'					
Stage Tool at 4805					
Stage 1: 165 sacks		(1) (1) (1) (1)			
Cmt 4100'-5910'					
Stage 2: not pumped	1 1 1	DV Tool set at 4805			
- 1987	1 1 1				
1934					
					
	1 1 1	[4] (4] [4] (4]			
		[144] 1444	Initial Test:		
Tubing	111	BOC 5910' (CBL)			
2-7/8", 6.5#, J-55	- 1 1 1				
(208 joints)					
2.25' bit sub	111		Formations:		
1.8' tapered mill on btm			Ojo Alamo-	2035	
Set at 6780'	1 1 1		Pictured Cliffs-	2417'	
			Menefee-	3935'	
6858'	141414141414141414141		Point Lookout-	4517'	
_	PBTD- 6813'		Mancos-	4707'	
	TD- 6870'				
	10-00/0		Gallup-	5339'	
			Greenhorn-	6541'	
			Graneros-	6597'	
			Dakota-	6630'	
			Additional Notes:		



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			Wellbore Schema	tic	
Well Name:	Jicarilla O #3	E		Date Prepared:	12/27/2013
Location:	919' FSL, 17:	38' FEL, Section 10, T22N	, R03W	Last Updated:	12/27/2013
County:	Sandoval			Spud Date:	12/11/2013
API#:	30-043-21165	5		Completion Date:	
Co-ordinates:		3° N LONG: 107.14088° V	N	Last Workover Date:	
Elevations:	GROUND				
	KE				
Depths (KB):	PBTD			-	
Deptins (RD).	TD				
Dramanad					
Proposed	Wellbore Cont		10 10 10 10 10		
	All depths Ki		Surface Casing: (12/		
Surface Casing		12-1/4"		ce hole to 510'. Set 11 jts 9-5/8", 36#,	
9-5/8", 36# K-55	ŀ	0-510'	Cemented with 254	sx Type 3 cement; circulated 15 bbls of	of cement to surface
Set at 503'	}		Production Casing: (12/19/13)	
254 sx cmt	i		Drilled a 7-7/8" produc	tion hole to 6890'. Set 161 joints 5-1/2'	', 17#, P-110 csg at 6858'
503'		TOC at surface	DV Tool set at 4805		
		(circ)		165 sx Premium Lite HS FM, switched	to tail, while bringing tail cmt
	ł	(00)	up t/ wt (14.6) cmt ti	hickened, plugged up mix tub, had mix	ed tail cmt to 12.5 ppg
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Production Casing					
5-1/2", 17#, P-110	!	TOC 4100' (CBL)	Perforations:		
Set at 6858	1	186 TO 4700 (000)			
Stage Tool at 4805'					
Stage 1: 165 sacks	1			***************************************	
Cmt 4100'-5910'	1				
Stage 2: not pumped		(1) DV Table 4 4005			
Stage 2. not pumped		DV Tool set at 4805'			
					
193		Est top of pay interval		· · · · · · · · · · · · · · · · · · ·	
1994		at 5250'			
拉拉					
					
技術			II-ini - I Took		
			Initial Test:		
Tubing	ļ. ļ	BOC 5910' (CBL)			
2-7/8", 6.5#, J-55	i i	Sqz perfs at 5950'			<u></u>
208 joints)		Sqz with 169 sacks			
2.25' bit sub	j	Type III Premium Lite	Formations:	·	
.8' tapered mill on btm	· ·	HS Blend Cement	Ojo Alamo-	2035'	
Set at 6780'	Į:		Pictured Cliffs-	2417'	
	l		Menefee-	3935'	
6858'			Point Lookout-	4517'	
	PBTD- 6813 ¹		Mancos-	4707'	
	TD- 6870'	•	Gallup-	5339'	
	٠	•	Greenhorn-	6541'	
		•	Graneros-	6597'	
		·	Dakota-	6630'	
*		İ	Additional Notes:		