Form 3160-5 (August 2007)

### **UNITED STATES** DEPARTMENT OF THE INTERIOR

OCD Artesla

FORM APPROVED OMB NO. 1004-0135 Expires: July 31, 2010

	BUREAU OF LAND MANAGEMENT					Expires. July 31, 2010		
SUNDRY NOTICES AND REPORTS ON WELLS  Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.					5 Lease Serial No NMLC029435B			
					6 If Indian, Allottee or Tribe Name			
SUBMIT IN TRIPLICATE - Other instructions on reverse side.					7. If Unit or CA/Agreement, Name and/or No			
1. Type of Well					8. Well Name and No. J L KEEL B 34			
Oil Well Gas Well Other  2. Name of Operator Contact: NANCY S FITZWATER					9 API Well No.			
LINN OPERATING INCORE	ZWAIER	30-015-25447-00-S1						
3a Address 600 TRAVIS STREET SUITE 5100 HOUSTON, TX 77002		3b Phone No (include area code) Ph: 281-840-4266 Fx: 281-840-4003		)	10 Field and Pool, or Exploratory GRAYBURG			
4. Location of Well (Footage, Sec., T., R., M., or Survey Description)			11. County or Parish, and State					
Sec 6 T17S R31E SENE 1880FNL 660FEL 🗸				EDDY COUNTY, NM				
UL H								
	PROPRIATE BOX(ES) To	O INDICATE I	NATURE OF I	NOTICE, RI	EPORT, OR OTHER	DATA		
TYPE OF SUBMISSION	TYPE OF ACTION							
Notice of Intent	Acidize	Deepe	Deepen		Production (Start/Resume)		Water Shut-Off	
Notice of Intent		Fractu	Fracture Treat		ation	☐ Well Integrity		
Subsequent Report	equent Report		Construction Recom		olete Other			
☐ Final Abandonment Notice	☐ Change Plans	□ Plug a	nd Abandon	<b>-</b>				
	Convert to Injection	D Plug I	Plug Back		□ Water Disposal			
14 I hereby certify that the foregoing	red operations. If the operation re Abandonment Notices shall be fir final inspection.)  ETURN WELL TO INJECT ACK, NDWH, NUBOP, POON NIT, DRILLED OUT TO 36. SET 1 PKR W/1.50 PROF. CIRC 60 BBLS PKR FLUI RELEASE PKR, POOH WE'PKR & RBP. SET RBP & COUND HOLE TO BE FROM SOZ CEMENT JOB ON INTO OF RBP. MIX & ED FOR SET STORY OF RBP. MIX & ED FOR	isults in a multiple led only after all re look.  ION:  IOH W/TBG. TIHO8', CIRC WELET ILE NIPPLE. TO NOWH SET 1/7TBG & PKR.  I & SET @ 272', TEST ILE & SET & SET @ 272', TEST ILE & SET &	A TAG BTM (L CLEAN. 2 ON/OFF TO PKR @ 2750', FO 500 PSI, LC 4 TEST PLUG RELEASE PK . S CLASS C Clean by the BLM Well RATED, sent to	@ 3477'. FC OL, TIH TES CSG STILL DST 400 PS 560 PSI FC IR POOH. N MT W/2% C	new interval, a Form 3160 n, have been completed, a UND 187' OF FILL. STING TO 5000 PSI. FLOWING, CSG IS I. CONTINUE OR 15 MIN 100% TES OTIFIED RANDY W/ ALC 1.32 YIELD (85	T. OCD OF	d once	
Name(Printed/Typed) NANCY S FITZWATER			Title REGULATORY COMPLIANCE ADVISOR					
Signature (Electroni	re (Electronic Submission) Date 08/18/2011					<b>~</b>		
	THIS SPACE FO	OR FEDERAL	OR STATE	OFFICE US	SE .			
Approved By ACCEPTED				WHITLOCK ROLEUM E	NGINEERING TECH	Date 0	9/19/2011	
Conditions of approval, if any, are attached. Approval of this notice does not warrant or ertify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon		e subject lease	Office Carlsbac	<b>Aç</b>	cepted for reco	d alzal	, N	

NMOCD

#### Additional data for EC transaction #115456 that would not fit on the form

#### 32. Additional remarks, continued

BBLS). WELL ON VACUUM. SWI
7/12/11 TIH & TAGGED CMT @ 130', 371' CMT ABOVE CSG LEAK. RU REVERSE UNIT PRESSURE TEST CSG TO
500 PSI, GOOD. RU BIT, DRILL OUT TO 363', CIRC CLEAN.
7/13/11 DRILLED DOWN & FELL THRU CMT @ 564', PRESSURE TEST SQZ TO 650 PSI, LOST PSI.

7/14/11 TIH, SET EOT @ 592'. PUMP 1 BBL H20, 2 BBL 15.1 SLURRY W/2% CALC, TBG PRESSURE 320 PSI. HAD TO RU NEW WH & BOP. PRESSURE TEST BOP TO 500 PSI. CIRC CMT OUT CLEAN HOLE.

7/15/11 PUMP 50 SXS CMT @ 14.8 PPG, PUT 500 PSI ON WELL & SWI.

7/18/11 TIH & TAG CMT @ 306', DRILL OUT TO 498', TST CSG, CSG WOULD NOT HOLD PSI. CIRC HOLE

CLEAN, POOH, SWI

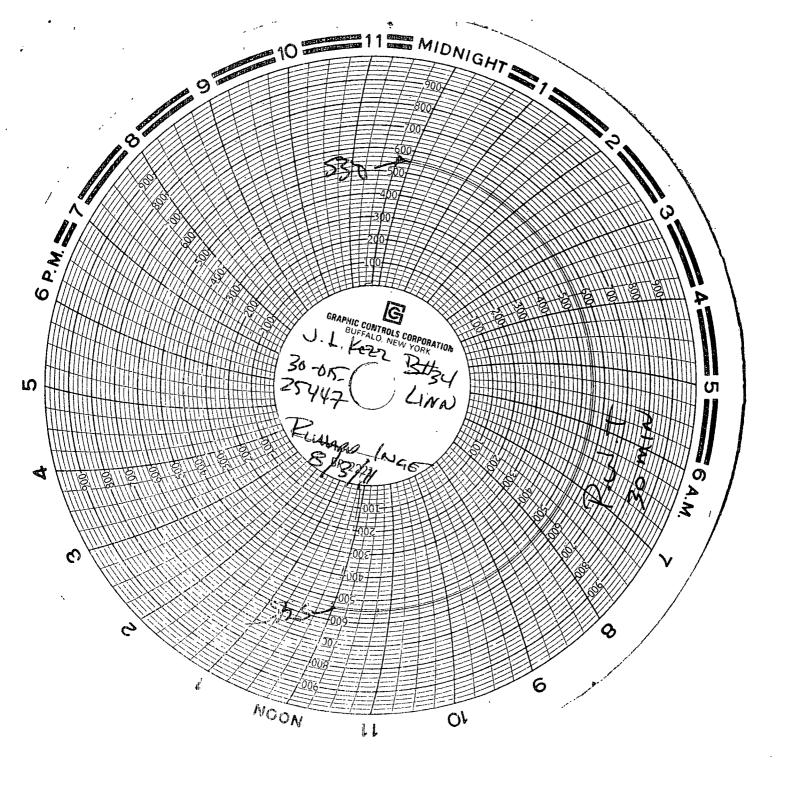
7/20/11 DRILL DOWN TO 556' & FELL OUT OF CMT. CIRC. PUMP 50 SXS C NEAT W/100# CALC CHLORIDE ADDED TO MAKE 2%. PUT 500 PSI ON WELL SWI 7/21/11 TIH TAG UP & DRILLED TO 181', CMT WAS GREEN. 7/25/11 DRILLED DOWN TO 245' PRESSURE TEST, TO 500 PSI, LOST PSI. 7/26/11 DRILLED DOWN TO 587', FELL OUT OF CMT @ 604'. CIRC HOLE CLEAN. PRESSURE TEST CSG 500 PSI

FOR 30 MIN, HELD 100%. BLEED DOWN, RETEST, HELD AGAIN. TAG SAND @ 2704, CIRC SAND OFF RBP. RELEASE

RBP. FLOWBACK WELL.

7/28/11 RELEASE RBP TOOH W/WS & RBP. PU 5-1/2" ARROW SET 1 PKR., ND BOP, LAND TBG CIRC 60 BBLS PKR FLUID, SET PKR @ 2750. PERFORM MOCK MIT 500 PSI, LOST 10 PSI, 30 MIN. GOOD. RDMO. 08/02/11 RICHARD INGE PERFORMED WITNESSED MIT ON WELL. GOOD TEST. RTI.

WELL RETURNED TO INJECTION.



## **Conditions of Approval: Wells with Packers\***

# Linn Operating Inc. J L Keel B 034 API 3001525447

September 14, 2011

- Conduct a Mechanical Integrity Test of the tubing/casing annulus after a tubing, packer or casing seal is established. Repair that seal any time more than five barrels of packer fluid is replaced within 30 days.
  - a. The minimum test pressure should be 500 psig for 30 minutes or 300 psig for 60 minutes, with 200 psig differentials between tubing and casing pressure (at test time) but no more than 70% of casing burst pressure as described by Onshore Order 2.III.B.1.h. (The tubing or reservoir pressure may need to be reduced). An alternate method for a BLM approved MIT is to have the fluid filled system open to atmospheric pressure and have a loss of less than five barrels in 30 days witnessed by a BLM authorized officer.
  - b. Document the pressure test on a calibrated recorder chart registering within 25 to 85 per cent of its full range. Greater than 10% pressure leakoff will be viewed as a failed MIT. Less than 10% pressure leakoff will be evaluated site specifically and may restrict injection approval.
  - c. Notify Paul R. Swartz at 575-234-5985 and/or 575-200-7902 at least 24 hours before the test. If there is no response, notify the BLM on call drilling phone, 575-361-2822. In Lea County call 575-393-3612.
  - d. Submit a subsequent Sundry Form 3160-5 relating the MIT activity. Include a copy of the recorded MIT pressure chart. List the name of the BLM witness, or the notified person and date of notification. NMOCD is to retain the original recorded MIT chart.
  - e. Use of tubing internal protection, on/off tubing equipment just above the packer, and a profile nipple installation is required. The setting depths and descriptions of each are to be included in the subsequent sundry. List (by date) descriptions of daily activity of any previously unreported wellbore work.
  - f. Submit the original subsequent sundry with three copies to BLM Carlsbad.
- 2. Compliance with a NMOCD Administrative Order is required, submit documentation of that authorization.
  - a. Approved injection pressure compliance is required.
  - b. If injection pressure exceeds the approved pressure you are required to reduce that pressure and notify the BLM within 24 hours.
  - c. When injection pressure is within 50 psig of the maximum pressure, install automation equipment that will prevent exceeding that maximum.
  - i. Submit a subsequent report (Sundry Form 3160-5) describing the installed automation equipment within 30 days.
  - e. Other unexplained significant variations of rate or pressure to be reported within 5 days of notice.

- 3. The casing/tubing annulus is required to be monitored for communication with injection fluid or loss of casing integrity.
  - a. The annulus is to be maintained full of packer fluid at atmospheric pressure. Installation of equipment that will display on site, continuous open to the air fluid level is required. A BLM inspector may request verification of this fluid level at any time.
  - b. **Submit a subsequent report (Sundry Form 3160-5)** describing the installation of packer fluid level monitoring equipment within 30 days of this approval.
  - c. The operator shall keep monthly records documenting that the casing annulus is fluid filled. A suggested format for these records is available from the BLM Carlsbad Field Office. Copies of those records shall be furnished at the request of a BLM authorized officer.
  - d. Loss of packer fluid above five barrels per month requires notification of the BLM authorized officer within 5 days.
  - a. Gain of annular fluid requires notification within 24 hours. Cease injection and maintain a production casing pressure of Opsia. Notify the BLM's authorized officer (Paul R. Swartz at 575-200-7902). If there is no response, notify the BLM on call drilling phone, 575-361-2822. In Lea County call 575-393-3612.
  - e. Also submit to this office a (Sundry Form 3160-5) Notice of Intent (NOI) for approval by BLM and NMOCD with a detailed plan for correction and the anticipated date of correction. Verbal approval for the plan may be given by a BLM authorized officer, with the NOI filed within five business days.
  - f. After the repairs submit a (Sundry Form 3160-5) Subsequent report, describing the repair(s) and Mechanical Integrity Test as per item 1 above.

<sup>\*</sup>COA's prepared by Paul R. Swartz