

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

OCD-HORNBBS OGD

FORM APPROVED
OMB No 1004-0137
Expires July 31, 2010

MAR 21 2012

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

5. Lease Serial No
NM12612

6. If Indian, Allottee or Tribe Name

SUBMIT IN TRIPLICATE - Other instructions on page 2.

1. Type of Well

☐ Oil Well

☐ Gas Well

☒ Other *Injector*

2. Name of Operator

Resaca Operating Company

3a. Address

1331 Lamar Street, Suite 1450

Houston, TX 77010

3b. Phone No (include area code)

(432) 580-8500

7. If Unit of CA/Agreement, Name and/or No
Cooper Jal Unit- NM 70926X

8. Well Name and No
Cooper Jal Unit #133

9. API Well No.
30-025-11161

4. Location of Well (Footage, Sec., T, R., M., or Survey Description)

1980 FSL & 1916 FWL, Sec 19, T-24S, R-37E, Unit Letter K

10. Field and Pool or Exploratory Area
Jalmat; T-Y-7R/ Langlie Mattix; 7R-Q-G

11. Country or Parish, State
Lea County, NM

12. CHECK THE 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 <i>Test casing & repair</i>
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	<i>if necessary, Run MIT</i>
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

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 recomple 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 recomple 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.)

Objective: This injector is currently injecting into the Jalmat (2982'-3278') and Langlie Mattix (3320'-3680') Pools. We intend to test casing, make repairs if necessary, run MIT & pull chart.

- 1.) MIRU Pulling Unit & Above Ground Steel Pit.
- 2.) Pressure Test casing to see if any casing leaks are found.
- 3.) If casing leak is found, locate & cement squeeze with appropriate sacks of cement.
- 4.) Drill out cement & circulate well clean.
- 5.) Pressure test casing to make sure casing repair was successful.
- 6.) Run Mechanical Integrity Test (Notify BLM & NMOCD prior to test). Pull chart for BLM (copy to NMOCD).
- 7.) RDMO Pulling Unit, clean location, clean & dispose of pit fluids.

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

14. I hereby certify that the foregoing is true and correct Name (Printed/Typed)

Melanie Reyes

Title Engineer Assistant

Signature

Date 02/27/2012

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

/s/ JD Whitlock Jr

Title

LPE7

Date

3/19/12

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

CKO

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

w/attached COA's
03/06/2012

*Design
Casing Changes Require
2nd approved NO*

MAR 22 2012

WELLBORE SCHEMATIC AND HISTORY					
CURRENT COMPLETION SCHEMATIC		LEASE NAME		WELL NO 133 WIW	
<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>Surface Csg</p> <p>Hole Size 11 in</p> <p>Csg Size 8 5/8 in</p> <p>Set @ 304 ft</p> <p>Sxs Cmt 175</p> <p>Circ Yes</p> <p>TOC @ surf</p> <p>TOC by circ</p> </div> <div style="width: 45%;"> <p>Perf 2 holes @ 215' circ cmt to surface</p> <p>TOC @ 225'</p> <p>cmt sqz</p> <p>csg leak from 250 - 340'</p> <p>w/ 500 sxs cmt</p> </div> </div>		Cooper Jal Unit (Formerly No s 240 & 310)		API# 30-025-11161	
		STATUS		Water Injector	
		LOCATION		1980 FSL & 1916 6 FWL, Sec 19, T - 24S, R - 37E, Lee County, New Mexico	
		SPUD DATE		TD 3680 KB 3,296' DF	
		INT COMP DATE		10/10/49 PBTD 3680 GL 3,286'	
<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>Production Csg</p> <p>Hole Size 7 7/8 in</p> <p>Csg Size 5 1/2 in</p> <p>Set @ 3320 ft</p> <p>Sxs Cmt 1100</p> <p>Circ No</p> <p>TOC @ surf</p> <p>TOC by circ</p> </div> <div style="width: 45%;"> <p>Pkr @ 2929'</p> <p>Yates @ 2976'</p> <p>Jalmat</p> <p>2982'-3049'</p> <p>3053'-59'</p> <p>3060'-3155'</p> <p>3182'-3220'</p> <p>7-Rivers @ 3210'</p> <p>3245'-78'</p> <p>Langlie Mattix</p> <p>Fill at 3434'</p> <p>OH Interval 3320 - 3680'</p> <p>Queen @ 3544'</p> </div> </div>		ELECTRIC LOGS		CORES, DSTs or MUD LOGS	
		GR-CBL-CCL from 3104 - 2330' (3-21-94 Halliburton)			
		Resistivity Log (E-log) from 323 - 3677' (10-10-49 Schlumberger)			
		GR-N from surface - 3241' (10-13-49 Lane Wells)			
		HYDROCARBON BEARING ZONE DEPTH TOPS			
Yates @ 2976'		7-Rivers @ 3210'		Queen @ 3544'	
<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>CSG PERFS</p> <p>12-May-54 Perf'd Yates f/ 3053 - 3110' (Yates)</p> <p>05-Aug-55 Cement Squeeze'd Perfs 3053 - 3110'</p> <p>05-Aug-55 Perf'd Yates f/ 3182 - 3220' 3245'-78' w/ 1 spf</p> <p>05-Jun-74 Perf'd Yates f/ 3060 - 3155' w/ 1 spf (25 holes)</p> </div> <div style="width: 45%;"> <p>OPEN HOLE 3320 - 3680'</p> </div> </div>		Casing Profile			
		SURF 8 5/8" - 32#, J-55 set@ 304' Cmt'd w/175 sxs - circ cmt to surface			
		PROD 5 1/2" - 15 5#, J-55 set@ 3320' Cmt'd w/1000 sxs -TOC @ 225' f/surf by TS Perf'd @ 215' & cmt w/100 sxs circ cmt to surf			
LINER None		CURRENT PERFORATION DATA			
TUBING DETAIL 3/22/1994		ROD DETAIL			
<p><u>Length (ft)</u> <u>Detail</u></p> <p>10 KB</p> <p>2908 92 fts - 2 3/8" 4 7#, IPC, J-55, 8rd EUE tbg</p> <p>3 1- 5 1/2" x 2 3/8" Baker Model AD-1 packer</p> <p>2921 btm</p>		WELL HISTORY SUMMARY			
<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>PBTD 3680 ft</p> <p>TD 3680 ft</p> <p>OH ID ### in</p> </div> <div style="width: 45%;"> <p>12-May-54 Initial completion interval 3320'-3680' (7 RVRS/Queen OH) and perf'd 3053 - 3110' (Yates). Acdd'd w/ 1,000 gals IP = 52 bopd, 0 bwpd, & 55.7 Mcf/gpd (flowing)</p> <p>09-Jul-53 Frac w/ 6,000 gals lse oil & 4,500#s sand</p> <p>24-Jul-54 Complete as dual Acdd'd OH w/ 1,000 gals, Frac OH w/ 10,000 gals lse oil & 10,000#s sand</p> <p>05-Aug-55 Cmt sqz'd perfs 3053 - 3110' (Yates). Frac'd OH w/ 20,000gals lse oil & 20,000#s sand</p> <p>Perf'd (Jalmat) 3182 - 3220' & 3245 - 78' w/ 1 spf. Frac perfs w/ 20,000 gals lse oil & 20,000#s sand</p> <p>05-Jun-74 CONVERTED WELL TO DUAL INJECTOR: C/O fill to 3525' Perf'd 3060'- 155' w/ 1 spf (25 holes) & acdd'd w/2,500 gals</p> <p>22-Apr-86 Cmt sqz'd csg leak @ 250 - 340' w/ 500 sxs. Acdd'd perfs 3060'-3278' w/ 5,000 gals Perf'd 2 holes @ 215' & circ cmt to surface. Re-sqz'd csg leak 270 - 330' w/ 50 sxs.</p> <p>15-Mar-94 C/O fill from 3647 -80' (33' of fill) Ran GR-CCL-CBL from 3104'-2330' Perf intervals 2982 - 3049' w/ 2 spf (3 intervals - 100 holes - 0.56" dia). RIH w/ 2 3/8" IPC tbg & pkr Set pkr @ 2929' Initiated injection @ 672 bwpd, TP=vacuum</p> <p>01-Oct-94 Based on BLM Form 3160-5 dated October 1994, contained in well file, Subject well will be referred to as Cooper Jal Unit #133 from this date forward</p> <p>14-Feb-02 Tag TD using SL unit (1 1/4" x 5' sinker bar) Tag fill @ 3429' (167' of fill)</p> <p>07-Nov-05 RIH with 1 1/4" x 5' sinker bar and tagged at 3,434'.</p> <p>21-Apr-09 RU Gray Wireline Ran injection profile Place well on injection Rate/Press: 585 bwpd/684#.</p> </div> </div>		PREPARED BY		UPDATED	
		Larry S. Adams		19-May-09	
		D. Camzales			

Conditions of Approval

Resaca Operating Company

Cooper Jal Unit - 133

API 3002511181

March 6, 2012

Well with a Packer - Operations

- 1) 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) At least 24 hours before the test: In Eddy County email Paul R. Swartz pswartz@blm.gov, (phone 575-200-7902). If there is no response phone 575-361-2822. In Lea County email Andy Cortez acortez@blm.gov, (phone 575-393-3612 or 575-631-5801). Note the contact notification method, time, & date in your subsequent report.
 - 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, tubing on/off equipment just above the packer, and an in line tubing check valve below the packer or between the on/off tool and packer 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 workover.
 - 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.
- 3) Other unexplained significant variations of rate or pressure to be reported within 5 days of notice.
- 4) The casing/tubing annulus is required to be monitored for communication with injection fluid or loss of casing integrity.

- 5) 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.
- 6) **Submit a subsequent report (Sundry Form 3160-5)** describing the installation of packer fluid level monitoring equipment within 30 days of beginning injection.
- 7) 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.
- 8) Loss of packer fluid above five barrels per month requires notification of the BLM authorized officer within 5 days.
- 9) 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 paul.swartz@blm.gov phone 575-200-7902). If there is no response phone 575-361-2822.
- 10) Also submit to this office a (Sundry Form 3160-5) Notice of Intent (NOI) for planned well work involving a formation change, casing repair/replacement, and injection well fracture treatment for approval by BLM and NMOCD. Verbal approval for the plan may be given by a BLM authorized officer, with the NOI filed within five business days. Packer and tubing repair (normal maintenance procedures) do not require a NOI, but a subsequent sundry needs to be filed. http://www.blm.gov/nm/st/en/prog/energy/oil_and_gas.html (see CFR § 3162.3-2 43 & CFR § 3160.0-9 (c)(1)).
 - a) Submit a (Sundry Form 3160-5) subsequent report (daily reports) describing all wellbore activity and Mechanical Integrity Test as per item 1) above. Include the date(s) of the well work, and the setting depths of required equipment: internally corrosive protected tubing, tubing on/off equipment just above the packer, and an in line tubing check valve below the packer or between the on/off tool and packer 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 workover.

Use of Form 3160-5 "Sundry Notices and Reports on Wells"

§ 43 CFR 3162.3-2 Subsequent Well Operations.

a) A proposal for further well operations shall be submitted by the operator on Form 3160-5 for approval by the authorized officer prior to commencing operations to redrill, deepen, perform casing repairs, plug-back, alter casing, perform nonroutine fracturing jobs, recompleting in a different interval, perform water shut off, commingling production between intervals and/or conversion to injection. If there is additional surface disturbance, the proposal shall include a surface use plan of operations. A subsequent report on these operations also will be filed on Form 3160-5. The authorized officer may prescribe that each proposal contain all or a portion of the information set forth in §3162.3-1 of this title.

(b) Unless additional surface disturbance is involved and if the operations conform to the standard of prudent operating practice, prior approval is not required for routine fracturing or acidizing jobs, or recompleting in the same interval; however, a subsequent report on these operations must be filed on Form 3160-5.

(c) No prior approval or a subsequent report is required for well cleanout work, routine well maintenance, or bottom hole pressure surveys.

[47 FR 47765, Oct. 27, 1982. Redesignated and amended at 48 FR 36583-36586, Aug. 12, 1983, further amended at 52 FR 5391, Feb. 20, 1987; 53 FR 17363, May 16, 1988; 53 FR 22847, June 17, 1988]

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

(c)(1) The information collection requirements contained in part 3160 have been approved by the Office of Management and Budget under 44 U.S.C. 3507 and assigned the following Clearance Numbers:

Operating Forms

Form No.	Name and filing date	OMB No.
3160-3	Application for Permit to Drill, Deepen, or Plug Back—Filed 30 days prior to planned action	1004-0136
3160-4	With Completion of Recompletion Report and Log—Due 30 days after well completion	1004-0137
3160-5	Sundry Notice and Reports on Wells—Subsequent report due 30 days after operations completed	1004-0135

The information will be used to manage Federal and Indian oil and gas leases. It will be used to allow evaluation of the technical, safety, and environmental factors involved with drilling and producing oil and gas on Federal and Indian oil and gas leases. Response is mandatory only if the operator elects to initiate drilling, completion, or subsequent operations on an oil and gas well, in accordance with 30 U.S.C. 181 *et seq.*

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

Not later than the 5th business day after any well begins production on which royalty is due anywhere on a lease site or allocated to a lease site, or resumes production in the case of a well which has been off production for more than 90 days, the operator shall notify the authorized officer by letter or sundry notice, Form 3160-5, or orally to be followed by a letter or sundry notice, of the date on which such production has begun or resumed.

NM Fed Regs & Forms - http://www.blm.gov/nm/st/en/prog/energy/oil_and_gas.html