

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTFORM APPROVED
OMB NO. 1004-0135
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.***SUBMIT IN TRIPLICATE - Other instructions on reverse side.**1. Type of Well
☐ Oil Well ☐ Gas Well ☒ Other: INJECTION2. Name of Operator
R360 PERMIAN BASINContact: CHRIS R RUANE
E-Mail: chrissr@wasteconnections.com3a. Address
3 WATERWAY SQUARE PLACE, SUITE 110
THE WOODLANDS, TX 773803b. Phone No. (include area code)
Ph: 832-442-22004. Location of Well (Footage, Sec., T., R., M., or Survey Description)
Sec 22 T20S R32E SWSW 845FSL 1030FWL5. Lease Serial No.
NMNM33955

6. If Indian, Allottee or Tribe Name

7. If Unit or C/A/Agreement, Name and/or No.

8. Well Name and No.
HALFWAY SWD 19. API Well No.
30-025-4254510. Field and Pool, or Exploratory
BLUE BIRD DRILL ISLAND11. County or Parish, and State
LEA COUNTY, NM

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
	<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 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 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.)

Halfway SWD #1 will be completed as disposal well. Open hole from 14610-16000 will serve as the injection interval. A Retrievable bridge plug will be set at 14590? in the casing prior to rigging down the drilling rig. A CBL will be run to record the cement bonding. The open hole will be stimulated with a total of 40,000 gal 15% HCL in 5 stages using rock salt as a diverting agent. After stimulation the well will be cleaned out to total depth. Retrievable Seal Bore packer will be installed and tested using a workstring. Injection tubing will be run after testing the packer. Andy Rickard 432-553-2828

Prior to rigging up install and test rig anchors
Inspect location for any areas requiring additional dirt work
Rent and have delivered 6000? 2 7/8 PH6 8.7#/ft L80 tubing and 10000? 2 7/8 PH6 7.9#/ft L80 tubing with elevators for 2 7/8 PH6, slips, and pipe racks. (Summit Pipe)

**SEE ATTACHED FOR
CONDITIONS OF APPROVAL**
**SUBJECT TO LIKE
APPROVAL BY STATE**

WITNESS

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

**Electronic Submission #320665 verified by the BLM Well Information System
For R360 PERMIAN BASIN, sent to the Hobbs**

Name (Printed/Typed) JEREMY CANNADY

Title ENGINEERING

Signature (Electronic Submission)

Date 10/20/2015

THIS SPACE FOR FEDERAL OR STATE OFFICE USE**APPROVED****OCT 20 2015**

Date

Approved By

Title

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 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make a false statement or to make a false statement to any department or agency of the United States any false, fictitious or fraudulent statement.

**** OPERATOR**Cancel Well ☐ Create Pool ☐E-PERMITTING - - New Well ☐Comp ☒ P&A ☐ TA ☐CSNG ☒ Loc Chng ☐**** OPERATOR-SUBMITTED ******NOV 10 2015**

Additional data for EC transaction #320665 that would not fit on the form

32. Additional remarks, continued

Have 4 1/2 ? CLS 100 tubing ordered to arrive after acid job
Use brine water for all well work. Set a 3 frac tanks and load w/ brine water

- 1) RU wireline run CBL
- a. RBP to 14000 w/1000 PSI
- b. RBP to 14000 w/3200 PSI
- c. RBP-surf w/0 psi
- 2) Send PDF files (all passes to Paul Swartz (BLM)(Swartz, Paul pswartz@blm.gov) and to OCD Hobbs (wait for approval) and to Andy Rickard arickard@cambridgemanagement.com
- 3) MIRU WSU.
- 4) PU Retrieving tool and 2 7/8? PH-6 workstring. TIH, release retrievable bridge plug (11590?) and pull out of hole.
- 5) RU HLS run open hole logs TD (16,000?) to End of casing (14,610?)
- 6) PU Notched(or Muleshoe) collar 1500? workstring(7.9#). Pick up treating packer(7?35#). TIH to 15,950? and set packer (Packer depth 14,450?) (nearest jt).
- 7) Swab 130 BBLS water from hole. Catch 4 samples. Check 1 for producible hydrocarbons. Send 1 to Martin Water Labs for analysis. Retain 1 each for BLM and OCD
- 8) Release treating packer. Pull to 14,650? and set packer (Packer depth 13150?) (nearest jt).
- 9) Test back side to 1000 psi. Acidize down tubing with 5 stages ? 8000 gallons 15% HCL each stage followed by 1500 lbs of rock salt each stage. (treat at max rate for 2800 PSI treating pressure)
Flush w/ tubing volume + 5 bbls (fresh)(Do not exceed 2800 psi) After 1 st stage pump 100 BBLS 9LB brine Step rate at 1 bbls/min increments (10 bbls each) until pressure reaches 2800 (record and report)
- Pump first salt block followed by 4 other stages and blocks.
- 10) RU reverse unit pump, Release packer and TIH to salt. Wash down with fresh water to TD.
Circulate clean
- 11) Pull out of the hole LD WS
- 12) RU Wireline. Pick up Pump-out-Plug, 2.75 R nipple, 8? 3 ? sub, 2.81 F Nipple in 7? Retrievable Seal Bore packer. Trip in the hole to 14,560? and set packer. ALL WET AREAS 316 STAINLESS
- 13) Test packer to 1000 PSI.
- 14) Pick up 4 ?? lined injection tubing. Trip in hole .
- 15) Sting into PBR
- 16) Space out
- 17) Sting out of PBR
- 18) Circulate packer fluid.
- 19) Space out, Sting into PBR. Engage J latch.
- 20) Test tubing to 1500 PSI for 30 min. Test Backside 500 PSI 30 min.
- 21) Nipple down BOP, Set weight to MOT recommendation and nipple up well head.
- 22) Schedule and perform MIT (48 hrs notice) on tubing casing annulus per OCD and BLM guidelines.
- 23) Pump out Pump-out-plug
- 24) Run Step rate injection test (Renegade Wireline Snyder TX)
- 25) Turn well over to R360 for plumbing up surface facilities

Conditions of Approval

R360

Halfway - 01, API 3002542545

T20S-R32E, Sec 22, 808FSL & 1007FWL

October 20, 2015

1. Due to being within the Lesser Prairie Chicken habitat, this workover activity will be restricted to the hours of 9:00am through 3:00am for the period of March 1 through June 15.
2. Subject to like approval by the New Mexico Oil Conservation Division.
3. Notify BLM 575-200-7902 Eddy Co. as work begins. Some procedures are to be witnessed. If there is no response, call 575-361-2822, leave a voice mail with the API#, workover purpose, and a call back phone number. Note the contact, time, & date in your subsequent report.
4. **Perform a charted casing integrity test** of 2900psig minimum from 14560' to surface (Step 10 b.). Document the pressure test on a one hour full rotation calibrated (within 6 months) recorder chart registering within 25 to 85 per cent of its full range. **Verify all annular casing vents are plumbed to the surface and open during this pressure test. Call BLM 575-393-3612 and arrange for a BLM witness of that pressure test.** Include a copy of the chart in the subsequent sundry for this workover.
5. Before casing or a liner is added, replaced, or repaired prior BLM approval of the design is required. Use notice of intent Form 3160-5.
6. **Provide BLM with an electronic copy (Adobe Acrobat Document) cement bond log record from 14560 (or below to top of cement taken with 0psig casing pressure. The CBL may be attached to a pswartz@blm.gov email.**
7. **Do not exceed the generic injection pressure of 2900psig with stimulation pump pressure.**
8. **Step 7 of N.O.I. dated 10/20/2015: The operator shall test for oil and gas production from the injection zone. Demonstrate that paying quantities of hydrocarbons are not produced when the well has a pumped off fluid level. After the stimulation load volumes have been recovered, this will require a minimum of 1300 barrels to be swabbed from the proposed disposal formation. Open hole logs may support the evaluation. BLM agreement is to be obtained prior completion as a disposal well.**
9. **Step 24 of N.O.I. dated 10/20/2015: This step is to be bypassed until the daily disposal volume rates and injection pressures have leveled out for about 3 months. At that time file a notice of intent. Approval conditions will be attached to that NOI.**
10. Surface disturbance beyond the existing pad shall have prior approval.
11. A closed loop system is required. The operator shall properly dispose of drilling/circulating contents at an authorized disposal site. Tanks are required for all operations, no excavated pits.
12. Functional H₂S monitoring equipment shall be on location.

13. 5000 (5M) Blow Out Prevention Equipment to be used. All BOPE and workover procedures shall establish fail safe well control. Blind ram(s) and pipe ram(s) designed to close on all workstring diameters used is required equipment. A manual BOP closure system (hand wheels) shall be available for use 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.
14. All waste (i.e. 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.
15. Submit a (BLM Form 3160-5 subsequent report (daily reports) via BLM's Well Information System; <https://www.blm.gov/wispermits/wis/SP> (email pswartz@blm.gov for instructions) 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 installed 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. The setting depths and descriptions of each are to be included in the subsequent sundry. File intermediate Form 3160-5 within 30 days of any interrupted workover procedures and a complete workover subsequent sundry.
16. Submit the BLM Form 3160-4 **Recompletion Report** within 30 days of the date all BLM approved procedures are complete.
17. Workover approval is good for 90 days (completion to be within 90 days of approval). A legitimate request is necessary for extension of that date.
18. Approval is granted for disposal of water produced from the lease, communitization, or unit agreement of this well only. Disposal fluid from another operator, lease, communitization, or unit agreement require BLM surface right-of-way agreement **approvals** and if applicable, authorization from the surface owner.
19. Disposal of water from another operator requires that the well be designated as a commercial well and BLM surface right-of-way agreement **approvals**.
20. If the well is to receive off-lease water or commercial disposal, the operator shall provide proof of surface right-of-way approval prior to injection.
21. Enclose a site security diagram for the water disposal facility upstream of this well.

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.

- 2) The minimum test pressure should be 500 psig for 30 minutes or 300 psig for 60 minutes, with a minimum 200 psig differential 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). **Verify all annular casing vents are plumbed to surface and those valves open to the surface during this pressure test.** 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.
- 3) Document the pressure test on a one hour full rotation chart recorder (calibrated within the last 6 months) 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.
- 4) Make arrangements 24 hours before the test for BLM to witness. In Lea County phone 575-393-3612. If no answer, leave a voice mail or email with the API#, workover purpose, and a call back phone number.
- 5) Use of tubing internal protection, tubing on/off equipment just above the packer, a profile nipple, and an in line tubing check valve below the packer or between the on/off tool and packer is a "Best Management Practice". The setting depths and descriptions of each are to be included in the subsequent sundry.
- 6) 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. Submit a subsequent report (Sundry Form 3160-5) describing the installed automation equipment within 30 days.
- 7) Unexplained significant variations of rate or pressure to be reported within 5 days of notice.
- 8) The casing/tubing annulus is required to be monitored for communication with injection fluid or loss of casing integrity. A BLM inspector may request verification of a full annular fluid level at any time.
- 9) **Maintain the annulus full of packer fluid at atmospheric pressure. Installation of equipment that will display continuous open to the air packer fluid level above the casing vent is required for this disposal well.**
- 10) **Notify the BLM's authorized officer ("Paul R. Swartz" <pswartz@blm.gov>, cell phone 575-200-7902) before injection begins to arrange for approval of the annular monitoring system.**
- 11) Loss of packer fluid above five barrels per month indicates a developing problem. Notify BLM Carlsbad Field Office, Petroleum Engineering within 5 days.

- 12) A suggested format for monthly records documenting that the casing annulus is fluid filled is available from the BLM Carlsbad Field Office.
- 13) Gain of annular fluid pressure requires notification within 24 hours. Cease injection and maintain a production casing pressure of 0psia. Notify the BLM's authorized officer ("Paul R. Swartz" <pswartz@blm.gov>, cell phone 575-200-7902). If there is no response phone 575-361-2822.
- 14) Submit a (BLM Form 3160-5 subsequent report (daily reports) via BLM's Well Information System; <https://www.blm.gov/wispermits/wis/SP> (email pswartz@blm.gov for operator setup instructions) 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 installed equipment: internally corrosive protected tubing, tubing on/off equipment just above the packer. The setting depths and descriptions of each are to be included in the subsequent sundry.
- 15) A request for increased wellhead pressures is to be accompanied by a step rate test. PRIOR to a Step Rate Test BLM – CFO is requiring a Notice of Intent.
- 16) Class II (production water injection) wells will not be permitted stimulation injection pressures that exceed frac pressure.

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

§ 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.