

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

HOBBS OGD
OCT 16 2012

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

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 page 2.

1. Type of Well

☐ Oil Well ☐ Gas Well ☒ Other SWD

2. Name of Operator
Enervest Operating, L.L.C.

3a. Address
1001 Fannin Street, Suite 800
Houston, Texas 77002

3b. Phone No. (include area code)
(505) 690-9453

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
1980' FNL & 660' FEL (Unit H) Section 7, Township 23 South, Range 32 East, NMPM

5. Lease Serial No.
NM-86923

6. If Indian, Allottee or Tribe Name

7. If Unit of CA/Agreement, Name and/or No

8. Well Name and No.
Bitsy Federal SWD No. 1

9. API Well No.
30-025-33398

10. Field and Pool or Exploratory Area
SWD-Delaware

11. County or Parish, State
Lea County, New Mexico

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 checked="" 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 <u>Add Delaware</u>
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	<u>Injection Perforations</u>
	<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 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.)

NMOCD Order No. SWD-1156 dated 12/12/2008 authorized Enervest Operating, LLC to utilize the Bitsy Federal SWD No. 1 as a produced water disposal well, injection to occur into the Delaware formation from 4,660 feet to 6,270 feet.

The well was initially completed as a produced water disposal well through perforations from 6,166 feet to 6,206 feet. In order to increase injectivity and reduce the injection pressure, Enervest Operating, LLC proposes to add additional injection perforations in the Delaware formation from ~~4,660~~ 4,660 feet to 6,270 feet. The exact location of the additional perforations, which is not known at this time, will be determined by log analysis. However, all additional perforations will be in compliance with Order No. SWD-1156, and will be reported on a subsequent sundry notice.

Upon completion of perforating & acidizing, plastic-coated injection tubing will be set in a packer located within 100 feet of the uppermost injection perforations.

Attached is a specific procedure describing the proposed operations.

SUBJECT TO LIKE
APPROVAL BY STATE

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

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

David Catanach

Title Agent-Enervest Operating, L.L.C.

Signature

David Catanach

Date 07/16/2012

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

Title

Office

APPROVED

OCT 12 2012

Date

WESLEY W. INGRAM
PETROLEUM ENGINEER

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

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)

OCT 25 2012

Bitsy Federal #1 SWD

Sand Dunes

Add Perfs to Increase Injection Capacity and Lower Pressure

Lea County, NM

5/20/2012

Well Data:

Location: 1980' FNL & 660' FEL (H)
Section 7, T-23-S, R-32-E

Elevation: 3,550' GL

TD: 9,442'
PBTD: 8,213'

Surface Casing: 13-3/8" 48# STC H-40 @ 858'
Cmt w/ 650 sx (circ)

Intermediate Casing: 8-5/8" 32# STC J-55 @ 4,388'
Cmt w/ 1500 sx (circ)

Production Casing: 5-1/2" 17# & 20# J-55/N-80 @ 9,442'
Cmt w/ 1,330 sx (circ; DV tool @ 6,920')
Capacity: 0.0230 bbl/ft
Burst (80% of 17# N-80): 6,194 psi

Existing Perfs: 6,166'-6,206' (Delaware) w/ 120 holes

Production Tubing: 2-7/8" 6.5# J-55 EUE 8Rd
2-7/8" X 5-1/2" 17# annular volume = 0.01524 bbl/ft

Procedure:

1. Clean Location; Test anchors
2. MIRU workover unit; Kill well w/ 2% KCl... keep kill truck on location
3. ND WH, NU BOP and test
4. PU tag joints and lower tbg to tag for fill; note # of jts to tag and LD tag joints
5. POOH w/ tbg
6. Tally tbg string and note tag depth; if fill is covering existing perfs, clean out to TD before proceeding to the next step.
7. RU wireline. RIH and add new perfs (between ~~4,660'~~^{4,921'} - 6,270')
8. POOH w/ guns and RD Wireline
9. PU packer & RBP & RIH w/ tbg

10. Set RBP @ 6,150' and dump 20' of sand on top; pull up and set packer above perms; load and test backside to 500#
11. MIRU acid service and acidize as follows:
10,000 gals 7.5% NEFE HCl w/ scale inhibitor & clay stabilizer and ball sealers
12. Unseat packer and catch RBP
13. POOH and LD packer and RBP
14. PU injection packer and tubing and RIH; set packer above perms
15. Load and test backside to 500#
16. NDBOP, NUWH

Conditions of Approval

EnerVest Operating, L.L.C.

Bitsy Federal SWD 1

API 30-025-33398

T23S-R32E, Sec 07

October 12, 2012

- 1. Operator shall perform tests and submit an evaluation that the proposed injection perforations are not productive in paying quantities. That evaluation shall be reviewed by BLM prior to initiating injection.**
- 2. Subject to like approval by the New Mexico Oil Conservation Division.**
- 3. There are no producing wells on lease NM86923. Therefore, a Federal Right of Way must be secured from BLM prior to initiating injection. The well is currently out of compliance and injection shall cease until the ROW is approved.**
- 4. Provide BLM with an electronic copy (Adobe Acrobat Document) of a cement bond log from 8200' or below to top of cement. The CBL may be attached in an e-mail to pswartz@blm.gov.**
- 5. The Conditions of Approval dated January 27, 2009 for this well state "the shallowest perforation be a minimum of 200' below the base of the Federal "WL" #5". Records show TD of that well, API 3002521436, to be 4721'. This limits the top perforation in the Bitsy SWD -1 to 4921'. Corrections to the wellbore condition of the Federal "WL" #5 are required to lift that restriction. Perforating above 4921' will result in a request for operator to plug and abandon the well.**
- 6. Surface disturbance beyond the existing pad shall have prior approval.**
- 7. 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.**
- 8. Functional H₂S monitoring equipment shall be on location.**
- 9. A 3000 (3M BOPE) shall be used. All blowout preventer (BOP) and related equipment (BOPE) shall comply with reasonable well control requirements. A two ram system with a blind ram and a pipe ram designed for the work string shall be adequate. Tapered work strings will require an additional pipe ram. The manifold shall comply with Onshore Oil and Gas Order #2 (attachment 1, 3M diagrams of choke manifold equipment). The accumulator system shall have an immediately available power source to close the rams and retain 200 psi above pre-charge. The pre-charge test shall follow requirements in Onshore Order #2.**

10. 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.
11. Workover approval is good for 90 days (completion to be within 90 days of approval). A detailed justification is required to receive an extension of that date.

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.
- 2) 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.
- 3) 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.
- 4) At least 24 hours before the test: 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.
- 5) 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.
- 6) 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. List (by date) descriptions of daily activity of any previously unreported wellbore workover.
- 7) **Submit the original subsequent sundry with three copies to BLM Carlsbad.**
- 8) 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.
- 9) Unexplained significant variations of rate or pressure to be reported within 5 days of notice.
 - 10) 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 the annular fluid level at any time.
 - 11) A "Best Management Practice" is to maintain the annulus full of packer fluid at atmospheric pressure. Equipment that will display on site, continuous open to the air fluid level is necessary to achieve this goal.
 - 12) Loss of packer fluid above five barrels per month indicates a developing problem. Notify BLM Carlsbad Field Office, Petroleum Engineering within 5 days.
 - 13) A suggested format for monthly records documenting that the casing annulus is fluid filled is available from the BLM Carlsbad Field Office.
 - 14) Gain of annular fluid requires notification within 24 hours. Cease injection and maintain a production casing pressure of 0 psia. 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.
 - 15) 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 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. List (by date) descriptions of daily activity of any previously unreported wellbore workover.

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.