

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

**RECEIVED**

FORM APPROVED  
OMB No. 1004-0137  
Expires: March 31, 2007

**JUL 03 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 reverse side.**

1. Type of Well  
 Oil Well     Gas Well     Other

2. Name of Operator  
**EnerVest Operating, LLC**

3a. Address    **1001 Fannin St, Suite 800  
Houston, TX 77002-6707**

3b. Phone No. (include area code)  
**713-659-3500; 713-970-1847**

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)  
**SHL: 1310' FSL & 1482' FWL (UL N) Sec. 9, T26N, R04W  
BHL: 660' FSL & 1980' FWL (UL N), Sec. 9, T26N, R04W**

5. Lease Serial No.  
**Jicarilla Contract 102**

6. If Indian, Allottee, or Tribe Name

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

8. Well Name and No.  
**Jicarilla Apache 102 #14M**

9. API Well No.  
**30-039-31193**

10. Field and Pool, or Exploratory Area  
**Blanco Mesaverde/Basin Dakota**

11. County or Parish, State  
**Rio Arriba, NM**

**12. CHECK APPROPRIATE BOX(S) 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"/> Altering 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	<b>Remedial Cement</b>
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug back	<input type="checkbox"/> Water Disposal	<b>Recommendation</b>

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 or pertinent markers and sands. Attach the Bond under which the work will performed or provide the Bond No. on file with the 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 Notice 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.)

The Jicarilla Apache 102 # 14M was TD'ed 4-20-2014, casing was run and cemented on 4-21-2014. Due to the severe mud losses experienced while drilling the well the decision was made to cement 1 stage of cement in the hopes to bring the cement over the Dakota and Mesa Verde but it was feared that there may be severe cement losses. If the initial cement TOC was adequate for completion, the well would be completed and remedial cement work was to be done post-completion. The TOC was found to be @ 4890', this was adequate for the Dakota and Mesa Verde completions. The well was completed. The NMOCD has now requested that the remedial cement work be done.

**BLM'S APPROVAL OR ACCEPTANCE OF THIS ACTION DOES NOT RELIEVE THE LESSEE AND OPERATOR FROM OBTAINING ANY OTHER AUTHORIZATION REQUIRED FOR OPERATIONS ON FEDERAL AND INDIAN LANDS**

(See attached Recommendation Procedure and wellbore schematic.)  
**CONDITIONS OF APPROVAL**

Adhere to previously issued stipulations

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

Name (Printed/ Typed) <b>Jeanie McMillan</b>	Title <b>Sr. Regulatory Analyst</b>
Signature <i>Jeanie McMillan</i>	Date <b>July 2, 2014</b>

**THIS SPACE FOR FEDERAL OR STATE OFFICE USE**

Approved by <i>William Tambekou</i>	Title <b>Petroleum Engineer</b>	Date <b>7/3/2014</b>
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 <b>FFD</b>	

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 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)

**NMOCD GENERAL INSTRUCTIONS**



ENERVEST

**Jicarilla Apache 102 # 14M**  
Remedial Cement Procedure  
San Juan Basin  
Rio Arriba County, New Mexico

**OBJECTIVE**

Cement 4 1/2" casing from current TOC @ 4890' to surface.

**WELL DATA**

API: 30-039-31193  
BOLO: 54012.023

Elevation: 7112'  
KB: 7125'

PBTD: 8459' (FC) MD

Surface Casing: 8 5/8" 24#, J-55, ST&C set @ 523' Cemented to surface.

Production Casing: 4 1/2" 11.6# N-80 LT&C  
Capacity: 0.0155 bbl/ft  
Burst: 7780 psi (80% Burst-6224 psi)  
Collapse: 6350 psi

7 7/8" hole x 4 1/2" casing annulus:  
Capacity: 0.0406 bbl/ft, (24.6474 ft/bbl)

Production tubing: 2 3/8" 4.7# J-55  
Capacity: 0.00387 bbl/ft  
Burst: 7700 psi (80% Burst 6160 psi)  
Collapse: 8100 psi

BHT: ~165° F (Dakota)  
~155° F (Mesa Verde)

BHP: ~1422 psi (3.43 ppg MWE @ 7974' TVD)

### **Recommended Procedure:**

1. MIRU completion rig.
2. MI 400 bbl frac tank for **cement water. Fill with 400 bbl FRESH water from TnT water well.**
3. Have 1 water truck available with 2% KCl water **for kill water only.**
4. MI return tanks (1/2 tank) for mud and cement returns. **Have enough volume to hold up to 300 bbls.**
5. Kill well as needed with 2% KCl water.
6. ND WH, NU 3K BOP.
7. Pressure test BOP as required by BLM
8. TOOH with 2 <sup>3</sup>/<sub>8</sub>" production string. Stand back for re-run.
9. Have the following cement available on site:
  - a. 700 sx Premium Lite FM + 2% BWOC CaCl<sub>2</sub> + 8% BWOC gel + 0.4% BWOC SMS + 0.4% BWOC FL-52A + 2 pps LCM. To be pumped @ 12.1 ppg, 2.13 yld.
  - b. 200 sx Type III neat to be pumped @ 14.6 ppg, 1.39 yld.
10. Install WL adapter for lubricator.
11. RIH with Basin Logging WL and set composite bridge plug. @ +/- 5000'
12. Pressure test CBP to 2000 psi with rig pump using fresh water.
13. RIH with perforating gun and CCL in lubricator. Perforate 2 – 0.50" squeeze holes @ 4750'. Shoot in the middle of the casing joint.
14. POOH with WL.
15. RD WL, but keep on site for more perforating if needed.
16. Have 2 water trucks available to pump out the return tank, (have sugar available for cement returns)
17. Rig up cement pump to casing valve. Rig up with squeeze manifold so as to allow reverse circulation of tubing after the cement placement.
18. Open 8 <sup>5</sup>/<sub>8</sub>" x 4 <sup>1</sup>/<sub>2</sub>" annulus to return tank.
19. Pump fresh water down casing. Monitor returns, record rate and pressure.
20. If returns are determined adequate (at least 2 – 4 bpm and less than 2000 psi), SD and prepare to pump cement.
21. (if step # 20 was satisfactory) TIH with 2 <sup>3</sup>/<sub>8</sub>" tbg and 4 <sup>1</sup>/<sub>2</sub>" cement retainer. Set retainer @ 4700'.
22. Pump cement as follows:
  - a. Pump 700 sx Premium Lite cement mixed @ 12.1 ppg.
    - i. If cement returns are seen at surface before all 700 sx is pumped switch to Type III cement and pump 25 sx @ 14.6 ppg, 1.39 yld.
    - ii. If cement returns are not seen after the 700 sx of 12.1 ppg cement has been pumped, switch to Type III cement and pump until cement returns are seen at surface.
    - iii. If circulation is lost at any time, switch to Type III cement and pump 50 sx @ 14.6 ppg, 1.39 yld.
  - b. Displace cement with 17 bbl fresh water.
  - c. SD pumping.
23. Sting out of cement retainer. Take off cement line from tubing.
24. Pull up 1 jt.
25. Rig up to reverse circulate.
26. Reverse circulate with fresh water to return tank(s) until tbg is clear.
27. Pull up 10 stands. SD and WOC at least overnight.

28. Release cement equipment.
29. Haul cement and mud returns to disposal.
30. MU BHA for drillout operations
  - JZ sealed journal bearing rock bit for 4 ½" 11.6# N-80 csg
  - Bit Sub
  - Float Sub
  - 3 ⅛" drill collars (6).
31. TIH to drillout cement and cement retainer.
32. Drillout through the cement, past the squeeze holes.
33. MIRU WL. Run CBL, CCL log from CBP to surface. Note TOC.
34. Perform "unofficial" MIT test of 65 psi, monitor for 30 minutes. Notify Loren Diede with results. (505)-334-8867
35. Notify NMOCD and Jicarilla BLM to witness MIT test.
36. Pump official MIT test with NMOCD and BLM to witness.
37. If test is successful, proceed to next step.
38. MIRU N2 unit.
39. TIH with drillout BHA and 3 ⅛" DC.
40. TIH and unload water with N2.
41. Tag the CBP @ 5000'.
42. Drill out the CBP with N2.
43. Cleanout to PBTD.
44. Tag for fill and clean out any fill.
45. TOOH. Stand back to re-run as production string.
46. If no further work is to be done on this well, run the 2 ⅜" production configured as per production engineer.
47. RDMO completion rig.

**CONTACT INFORMATION:**

Steve Knowles – Director of Completions	281-703-9912 (c)
	713-495-6554 (o)
Loren Diede – Engineering Consultant	505-334-8867 (c)
Porter Smith – Completions Consultant	505-320-9585 (c)
Josh Caldwell – Production Manager	713-495-5344 (o)
Mickey Ahrens – Production Superintendent	505-325-0318 (o)
Ryan Lohse – Production Engineer	713-495-6538 (o)

