Form 3160- 5 (April 2004)

UNITED STATES

DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

MAY 02 2)13

FORM APPROVED

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

Farmington Field Office

| SU | NDRY NOTICES ANI | ก หลงดหาว ดีเลียด์ | またらとand Ma | ahanem gicarilla Contract 126 | |
|---|---------------------------------------|--------------------------------|---------------------------------------|---|--|
| Do not use this form for proposals to drill or to re-enter an | | | 6. If Indian, Allottee, or Tribe Name | | |
| abandoned well. Use Form 3160-3 (APD) for such proposals. | | | Jicarilla Apache Tribe | | |
| | RIPLICATE - Other Instr | uctions on reverse si | de. | 7. If Unit or CA. Agreement Name and/or No. | |
| 1. Type of Well X Oil Well Gas Well | 8. Well Name and No. | | | | |
| 2. Name of Operator | | | | Apache #145 | |
| EnerVest Operating, l | LLC | | | 9. API Well No. | |
| 3a. Address 1001 | Fannin St, Suite 800 | 3b. Phone No. (inch | de area code) | 30-039-23889 | |
| Hous | ton, TX 77002-6707 | 713-6 | 59-3500 | 10. Field and Pool, or Exploratory Area | |
| 4. Location of Well (Footage, Sec., T., | R., M., or Survey Description) | | | Lindreth Gallup-Dakota, West | |
| 2000' FSL & 1900' FEL (UL J) | | | 11. County or Parish, State | | |
| Sec. 11 T24N R04W | | | | Rio Arriba, NM | |
| 12. CHECK APPROP | RIATE BOX(S) TO INDI | CATE NATURE OF N | OTICE, REPORT | T, OR OTHER DATA | |
| TYPE OF SUBMISSION | TYPE OF ACTION . | | | | |
| X Notice of Intent | Acidize | Deepen | Production (| Start/ Resume) Water Shut-off | |
| | Altering Casing | Fracture Treat | Reclamation | Well Integrity | |
| Subsequent Report | Casing Repair | New Construction | Recomplete | Other | |
| Change Plans X Plug and abandon Temporarily Abandon | | Abandon | | | |
| Final Abandonment Notice | Convert to Injection | Plug back | Water Dispos | | |
| 13. Describe Proposed or Completed O | peration (clearly state all pertinent | details including estimated st | arting date of any prop | osed work and approximate duration thereof. | |

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 reclamantion, have been completed, and the operator has determined that the site is ready for final inspection.)

EnerVest Operating, L.L.C. intends to Plug and Abandon this well by 6/30/13 if weather and rig availability permit. Please see the attached Plug and Abandonment Procedure.

A CBL is required to be submitted for review to the agencies prior to cementing.

RCVD MAY 7'13 OIL CONS. DIV. DIST. 3

Attachments: P&A proposed procedure, Current WBD, Proposed WBD.

| Name (Printed/ Typed) Bart Trevino | Title | Regulatory Analyst | |
|--|------------------------------------|--------------------|--|
| Signature | Date | May 1, 2013 | |
| THIS SPA | ACE FOR FEDERAL OR STATE | OFFICE USE | |
| Approved by Unginal Signed: Stephen Iv | lason Title | Date MATUS LUIS | |
| Conditions of approval, if any are attached. Approval of this n | otice does not warrant or | | |
| | | | |
| certify that the applicant holds legal or equitable title to those | rights in the subject lease Office | • | |

(Instructions on page 2)

PLUG AND ABANDONMENT PROCEDURE

Apache #145

W. Lindrith Gallup / Dakota 2000' FSL and 1900' FEL, Section 11, T24N, R4W Rio Arriba County, New Mexico / API 30-039-23889

Note: All cement volumes use 100% excess outside pipe and 50' excess inside. The stabilizing wellbore fluid will be 8.3 ppg, sufficient to balance all exposed formation pressures. All cement will be ASTM Class B, mixed at 15.6 ppg with a 1.18 cf/sx yield.

- 1. This project requires the Operator to obtain an approved NMOCD C-144 CLEZ Closed-Loop System Permit for the use of an A-Plus steel tank to handle waste fluids circulated from the well and cement wash up.
- 2. Install and test location rig anchors. Comply with all NMOCD, BLM, and Operator safety regulations. MOL and RU daylight pulling unit. Conduct safety meeting for all personnel on location. Record casing, tubing and bradenhead pressures. NU relief line and blow down well. Kill well with water as necessary and at least pump tubing capacity of water down the tubing. ND wellhead and NU BOP. Function test BOP.

| 3. | Rods: Yes, No _X Unknown | |
|----|---|-------------------|
| | Tubing: Yes X, No , Unknown , Size Length . | 7275' (w/TA) . |
| | Packer: Yes, No _X_, Unknown, Type | · • |
| | If well has rods or a packer, then modify the work sequence in Step # | 2 as appropriate. |

6061

4. Plug #1 (Dakota / Gallup perforations and tops, 6194' – 6094'): Round trip 4.5" gauge ring or casing scraper to 6194'. RIH and set 4.5" cement retainer at 6194'. Pressure test tubing to 1000 PSI. Load casing with water and circulate well clean. Pressure test casing. <u>If casing does not test, spot or tag subsequent plugs as appropriate</u>. Mix 12'sxs Class B cement and spot a balanced plug above CR to cover the Dakota / Gallup intervals. PUH.

5334 4514

6. Plug #2 (Mancos / Mesaverde top, 5540' – 5086'): Mix and pump 49 sxs Class B cement and spot a balanced plug inside casing to cover the Mancos and Mesaverde tops. PUH.

3820 3720

7. Plug #3 (Chacra top, 4392' 4292'): Perforate 3 squeeze holes at 4392'. Attempt to establish rate if the casing pressure tested. Set 4.5" cement retainer at 4342'. Establish rate into squeeze holes. Mix and pump 61 sxs Class B cement, squeeze 39 sxs-outside 4.5" casing and leave 12 sxs inside casing to cover the Chacra top. PUH.

7380

8. Plug #4 (Pictured Cliff, Fruitland, Kirtland and Ojo Alamo tops, 2981' – 2398'): Mix and pump 49 sxs Class B cement and spot a balanced plug inside casing to cover the Pictured Cliffs, Fruitland, Kirtland and Ojo Alamo tops. PUH.

1108 1008

9. Plug #5 (Nacimiento top, 1.993' – 993'): Mix and pump 12 sxs Class B cement and spot a balanced plug inside casing to cover the Nacimiento top. PUH.

- 10. Plug #6 (8.625" casing shoe, 443' 343'): Mix and pump 12 sxs Class B cement and spot a balanced plug inside casing to cover the casing shoe. TOH and LD tubing.
- 11. Plug #7 (8.625" casing shoe, 100' 0'): Perforate 3 HSC squeeze holes at 100'. Establish circulation to surface out the 4.5" casing and bradenhead valve, circulate the BH annulus clean. Mix approximately 12 sxs Class B cement and pump down the 4.5" casing to circulate good cement to the surface. Shut in well and WOC.
- 12. ND BOP and cut off wellhead below surface casing flange. Install P&A marker with cement to comply with regulations. RD, MOL and cut off anchors. Restore location per BLM stipulations.

Apache #145

Current

W. Lindrith Gallup / Dakota

2000' FSL, 1900' FEL, Section 11, T-24-N, R-4-W Today's Date: 3/27/13

7.875" hole

Rio Arriba County, NM, API #30-039-23889

Spud: 10/16/85 Completed: 12/3/85 Elevation: 6789' GL 6801' KB TOC @ 257' (Calc, 75%) 12.25" hole 8.625" 24#, J-55 Casing set @ 393' Cement with 250 sxs, circulated Nacimiento @ 1043' *est 2.375" tubing with SN at 7275' (228 jts, TA) Ojo Alamo @ 2448' *est Kirtland @ 2623' *est Fruitland @ 2807' *est Pictured Cliffs @ 2931' DV Tool at 3998' 2nd Stage: Cement with 680 sxs (1136 cf) Chacra @ 4342' TOC @ 4618' (Calc, 75%) Mesaverde @ 5136' Mancos @ 5490' Gallup @ 6190' Gallup Perforations: 6244' - 6297' Dakota @ 7072' Dakota Perforations: 7103' - 7366' 4.5" 10.5#, 11.6# Casing set @ 7460' 1st Stage: Cement with 550 sxs (863 cf)

> TD 7460' PBTD 7420'

Apache #145 Proposed P&A

W. Lindrith Gallup / Dakota

Today's Date: 3/27/13

6801' KB

Spud: 10/16/85 Completed: 12/3/85 Elevation: 6789' GL 2000' FSL, 1900' FEL, Section 11, T-24-N, R-4-W

12.25" hole

Nacimiento @ 1043' *est

Ojo Alamo @ 2448' *est

Kirtland @ 2623' *est

Fruitland @ 2807' *est

Pictured Cliffs @ 2931'

Chacra @ 4342'

Mesaverde @ 5136'

Mancos @ 5490'

Gallup @ 6190'

Dakota @ 7072'

Rio Arriba County, NM, API #30-039-23889

Perforate @ 100'

Plug #7: 100' - 0' Class B cement, 12 sxs

TOC @ 257' (Calc, 75%)

8.625" 24#, J-55 Casing set @ 393' Cement with 250 sxs, circulated

> Plug #6: 443' - 343' Class B cement, 12 sxs

Plug #5: 1093' - 993' Class B cement, 12 sxs

Plug #4: 2981' - 2398' Class B cement, 49 sxs

DV Tool at 3998'

2nd Stage: Cement with 680 sxs (1136 cf)

Set CR @ 4342'

Plug #3: 4392' - 4292'

Class B cement, 51 sxs: 12 inside and 39 outside

Perforate @ 4392'

TOC @ 4618' (Calc, 75%)

Plug #2: 5540' - 5086' Class B cement, 39 sxs

Set CR @ 6194'

Plug #1: 6194' - 6094'

Class B cement, 12 sxs

Gallup Perforations: 6244' - 6297'

Dakota Perforations: 7103' - 7366'

4.5" 10.5#; 11.6# Casing set @ 7460' 1st Stage: Cement with 550 sxs (863 cf)

7.875" hole

PBTD 7420'

TD 7460'

UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT FARMINGTON DISTRICT OFFICE

6251 COLLEGE BLVD. FARMINGTON, NEW MEXICO 87402

Attachment to notice of Intention to Abandon:

Re: Permanent Abandonment

Well: 145 Apache

CONDITIONS OF APPROVAL

- 1. Plugging operations authorized are subject to the attached "General Requirements for Permanent Abandonment of Wells on Federal and Indian Lease."
- 2. Farmington Office is to be notified at least 24 hours before the plugging operations commence (505) 564-7750.
- 3. The following modifications to your plugging program are to be made:
- a) Bring the top of the Dakota/Gallup plug to 6061'.
- b) Place the Mancos/Measverde plug from 5334' 4514'.

OR

- b') Place the Mancos plug from 5334' 5234'
- b") Place the Measverde plug from 4514' 4514'
- c) Place the Pictured Cliffs/Fruitland/Kirtland/Ojo Alamo plug from 2981' 2380'.
- d) Place the Nacimiento plug from 1108'- 1008'.

You are also required to place cement excesses per 4.2 and 4.4 of the attached General Requirements.

Office Hours: 7:45 a.m. to 4:30 p.m.