

## OCD-ARTESIA

RECEIVED

JUL 18 2005

Form 3160-3  
(April 2004)

## SUBJECT TO LIKE APPROVAL BY STATE

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

## APPLICATION FOR PERMIT TO DRILL OR REENTER

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

|                                                                                                                                                                                                                        |                                                      |                                                                    |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------|--------------------------------------------------------------------|
| 1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER                                                                                                                           |                                                      | 7. If Unit or CA Agreement, Name and No.                           |
| 1b. Type of Well: <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone |                                                      | 8. Lease Name and Well No.<br>Apache 13 Federal 8 34442            |
| 2. Name of Operator<br>Devon Energy Production Company, LP                                                                                                                                                             |                                                      | 9. API Well No.<br>30-015-34221                                    |
| 3a. Address 20 North Broadway<br>Oklahoma City, Oklahoma City 73102-8260                                                                                                                                               | 3b. Phone No. (include area code)<br>405-552-8198    | 10. Field and Pool, or Exploratory<br>Delaware                     |
| 4. Location of Well (Report location clearly and in accordance with any State requirements.)<br>At surface 2530 FNL & 330 FEL<br>At proposed prod. zone 1650 FNL & 1650 FWL<br>R-111-P Petach                          |                                                      | 11. Sec., T. R. M. or Blk. and Survey or Area<br>Sec 13, T22S R30E |
| 14. Distance in miles and direction from nearest town or post office*<br>Approximately 45 miles West from Jal, NM                                                                                                      |                                                      | 12. County or Parish<br>Eddy County                                |
| 15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)                                                                                                  |                                                      | 13. State<br>NM                                                    |
| 16. No. of acres in lease<br>1040 acres                                                                                                                                                                                | 17. Spacing Unit dedicated to this well<br>120 acres |                                                                    |
| 18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.                                                                                                             | 19. Proposed Depth<br>6780' TVD 10,140' MD           | 20. BLM/BIA Bond No. on file                                       |
| 21. Elevations (Show whether DF, KDB, RT, GL, etc.)<br>3347' GL                                                                                                                                                        | 22. Approximate date work will start*<br>07/01/2005  | 23. Estimated duration<br>45 days                                  |

## 24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, shall be attached to this form:

- Well plat certified by a registered surveyor.
- A Drilling Plan.
- A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office).
- Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
- Operator certification
- Such other site specific information and/or plans as may be required by the authorized officer.

|                                                                                                      |                                        |                    |
|------------------------------------------------------------------------------------------------------|----------------------------------------|--------------------|
| 25. Signature<br> | Name (Printed/Typed)<br>Norvella Adams | Date<br>05/03/2005 |
| Title<br>Sr. Staff Eng. Tech                                                                         |                                        |                    |

|                                                    |                                                 |                           |
|----------------------------------------------------|-------------------------------------------------|---------------------------|
| Approved by (Signature)<br>/s/ Linda S. C. Rundell | Name (Printed/Typed)<br>/s/ Linda S. C. Rundell | Date<br>JUL 11 2005       |
| Title<br>STATE DIRECTOR                            |                                                 | Office<br>NM STATE OFFICE |

Application approval 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.  
Conditions of approval, if any, are attached.

APPROVAL FOR 1 YEAR

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)

Controlled Water Basin

APPROVAL SUBJECT TO  
GENERAL REQUIREMENTS AND  
SPECIAL STIPULATIONS  
ATTACHED

S. N.  
D. S.

NSL - 5237

### **Additional Operator Remarks:**

Devon Energy Production Company, LP proposes to drill a Delaware well to 6950' for commercial quantities of oil and gas. If the well is deemed noncommercial, the wellbore will be plugged and abandoned per Federal regulations. Devon Energy Production Co., LP plans to drill the well per the currently approved MDSUP and approved Attachment A of the currently approved Master Drilling and Surface Use Program for the Quahada Ridge, SE Field with approval of the following variances in production casing and cementing:

Devon respectfully requests to set 5 ½" production casing and cement as follows rather than the 7" production casing and cement outlined in the approved MDSUP Attachment A.

5 ½" casing - Stage 1; 1<sup>st</sup> lead with 378 sacks (35:65) Poz Class C, 2<sup>nd</sup> lead with 410 sacks (60:40) Poz Class H, tail with 1079 sacks (60:40) Poz Class H. Stage 2; lead with 408 sacks (35:65) Poz Class C, tail with 200 sacks (60:40) Poz Class C.

Directions: From Hobbs, go 35.7 miles west to WIPP Road; then south on WIPP road for 10.0 miles to El Paso R/W; then west on El Paso R/W for 2.0 miles; then south on lease road for 0.9 mile to location.

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Avenue, Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy Minerals and Natural Resources

Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-144  
June 1, 2004  
For drilling and production facilities, submit to appropriate NMOCD District Office.  
For downstream facilities, submit to Santa Fe office

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**Pit or Below-Grade Tank Registration or Closure**

JUL 15 20

Is pit or below-grade tank covered by a "general plan"? Yes ☐ No ☒

OOD-ARTE

Type of action: Registration of a pit or below-grade tank ☒ Closure of a pit or below-grade tank ☐

Operator: Devon Energy Production Company, L.P. Telephone: (405)-552-7802 e-mail address: Stephanie.Ysasaga@dev.com  
Address: P.O. Box 250 Artesia, NM 88211  
Facility or well name: Apache 13 Federal 8 API #:                      U/L or Qtr/Qtr H Sec 13 T 22S R 30E  
County: Eddy Latitude                      Longitude                      NAD: 1927 ☐ 1983 ☐  
Surface Owner: Federal ☒ State ☐ Private ☐ Indian ☐

| Pit                                                                                                                                                                                                                                                                                                                                                                                                                                     | Below-grade tank                                                                                                                                                                                                                                          |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Type: Drilling <input checked="" type="checkbox"/> Production <input type="checkbox"/> Disposal <input type="checkbox"/><br>Workover <input type="checkbox"/> Emergency <input type="checkbox"/><br>Lined <input checked="" type="checkbox"/> Unlined <input type="checkbox"/><br>Liner type: Synthetic <input checked="" type="checkbox"/> Thickness <u>12</u> mil Clay <input type="checkbox"/><br>Pit Volume <u>            </u> bbl | Volume: <u>            </u> bbl Type of fluid: <u>                    </u><br>Construction material: <u>                    </u><br>Double-walled, with leak detection? Yes <input type="checkbox"/> If not, explain why not: <u>                    </u> |
| Depth to ground water (vertical distance from bottom of pit to seasonal high water elevation of ground water.)                                                                                                                                                                                                                                                                                                                          | Less than 50 feet (20 points)<br>50 feet or more, but less than 100 feet (10 points)<br><u>100 feet or more</u> (0 points)                                                                                                                                |
| Wellhead protection area: (Less than 200 feet from a private domestic water source, or less than 1000 feet from all other water sources.)                                                                                                                                                                                                                                                                                               | Yes (20 points)<br><u>No</u> (0 points)                                                                                                                                                                                                                   |
| Distance to surface water: (horizontal distance to all wetlands, playas, irrigation canals, ditches, and perennial and ephemeral watercourses.)                                                                                                                                                                                                                                                                                         | Less than 200 feet (20 points)<br>200 feet or more, but less than 1000 feet (10 points)<br><u>1000 feet or more</u> (0 points)                                                                                                                            |
| Ranking Score (Total Points)                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                           |

If this is a pit closure: (1) Attach a diagram of the facility showing the pit's relationship to other equipment and tanks. (2) Indicate disposal location: (check the onsite box if you are burying in place) onsite ☐ offsite ☐ If offsite, name of facility                     . (3) Attach a general description of remedial action taken including remediation start date and end date. (4) Groundwater encountered: No ☐ Yes ☐ If yes, show depth below ground surface              ft. and attach sample results. (5) Attach soil sample results and a diagram of sample locations and excavations.

Additional Comments:

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that the above-described pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines ☐, a general permit ☒, or an (attached) alternative OCD-approved plan ☐.

Date: 07/14/05

Printed Name/Title Stephanie A. Ysasaga / Senior Engineering Technician Signature                     

Your certification and NMOCD approval of this application/closure does not relieve the operator of liability should the contents of the pit or tank contaminate ground water or otherwise endanger public health or the environment. Nor does it relieve the operator of its responsibility for compliance with any other federal, state, or local laws and/or regulations.

Approval:

Printed Name/Title Field Supervisor Signature                     

JUL 18 2005

DISTRICT I  
1625 N. French Dr., Hobbs, NM 88240

DISTRICT II  
811 South First, Artesia, NM 86210

DISTRICT III  
1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV  
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-102  
Revised March 17, 1999

Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

# OIL CONSERVATION DIVISION

2040 South Pacheco  
Santa Fe, New Mexico 87504-2088

☐ AMENDED REPORT

## WELL LOCATION AND ACREAGE DEDICATION PLAT

|                   |                                   |                             |
|-------------------|-----------------------------------|-----------------------------|
| API Number        | Pool Code                         | Pool Name                   |
|                   |                                   | Quahada Ridge SE (Delaware) |
| Property Code     | Property Name                     | Well Number                 |
|                   | APACHE "13" FEDERAL               | 8                           |
| OGRID No.<br>6137 | Operator Name                     | Elevation                   |
|                   | DEVON ENERGY PRODUCTION CO., L.P. | 3347'                       |

| Surface Location |         |          |       |         |               |                  |               |                |        |
|------------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|--------|
| UL or lot No.    | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
| H                | 13      | 22 S     | 30 E  |         | 2530          | NORTH            | 330           | EAST           | EDDY   |

| Bottom Hole Location If Different From Surface |                 |                    |           |         |               |                  |               |                |        |
|------------------------------------------------|-----------------|--------------------|-----------|---------|---------------|------------------|---------------|----------------|--------|
| UL or lot No.                                  | Section         | Township           | Range     | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
| F                                              | 13              | 22 S               | 30 E      |         | 1650          | NORTH            | 1650          | WEST           | EDDY   |
| Dedicated Acres<br>120                         | Joint or Infill | Consolidation Code | Order No. |         |               |                  |               |                |        |

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED  
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

|  |                                                                                                                                                                                                                                                                                              |
|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | <b>OPERATOR CERTIFICATION</b><br>I hereby certify the the information<br>contained herein is true and complete to the<br>best of my knowledge and belief.<br><br>Signature<br>Norvella Adams<br>Printed Name<br>Sr. Staff Eng. Tech.<br>Title<br>March 30, 2005<br>Date                      |
|  | <b>SURVEYOR CERTIFICATION</b><br>I hereby certify that the well location shown<br>on this plat was plotted from field notes of<br>actual surveys made by me or under my<br>supervision, and that the same is true and<br>correct to the best of my belief.<br>MARCH 8, 2005<br>Date Surveyed |
|  |                                                                                                                                                                                                                                                                                              |
|  | Signature of Surveyor<br>Professional Surveyor                                                                                                                                                                                                                                               |





# PathFinder Planning Report

Company: Devon Energy  
Field: Apache - Section 13, T22-S, R30-E  
Site: Apache 13 Federal #8H  
Well: Apache 13 Federal #8H  
Wellpath: Original Hole

Date: 4/19/2005 Time: 09:08:29 Page: 2  
Co-ordinate(NE) Reference: Site: Apache 13 Federal #8H, True North  
Vertical (TVD) Reference: SITE 9.0  
Section (VS) Reference: Well (0.00N,0.00E,287.74Azi)  
Plan: Plan #2 041805

## Survey

| MD<br>ft | Incl<br>deg | Azlm<br>deg | TVD<br>ft | +N/-S<br>ft | +E/-W<br>ft | VS<br>ft | DLS<br>deg/100ft | Build<br>deg/100ft | Turn<br>deg/100ft | Tool/Comment |
|----------|-------------|-------------|-----------|-------------|-------------|----------|------------------|--------------------|-------------------|--------------|
| 1600.00  | 0.00        | 0.00        | 1600.00   | 0.00        | 0.00        | 0.00     | 0.00             | 0.00               | 0.00              |              |
| 1700.00  | 0.00        | 0.00        | 1700.00   | 0.00        | 0.00        | 0.00     | 0.00             | 0.00               | 0.00              |              |
| 1800.00  | 0.00        | 0.00        | 1800.00   | 0.00        | 0.00        | 0.00     | 0.00             | 0.00               | 0.00              |              |
| 1900.00  | 0.00        | 0.00        | 1900.00   | 0.00        | 0.00        | 0.00     | 0.00             | 0.00               | 0.00              |              |
| 2000.00  | 0.00        | 0.00        | 2000.00   | 0.00        | 0.00        | 0.00     | 0.00             | 0.00               | 0.00              |              |
| 2100.00  | 0.00        | 0.00        | 2100.00   | 0.00        | 0.00        | 0.00     | 0.00             | 0.00               | 0.00              |              |
| 2200.00  | 0.00        | 0.00        | 2200.00   | 0.00        | 0.00        | 0.00     | 0.00             | 0.00               | 0.00              |              |
| 2300.00  | 0.00        | 0.00        | 2300.00   | 0.00        | 0.00        | 0.00     | 0.00             | 0.00               | 0.00              |              |
| 2400.00  | 0.00        | 0.00        | 2400.00   | 0.00        | 0.00        | 0.00     | 0.00             | 0.00               | 0.00              |              |
| 2500.00  | 0.00        | 0.00        | 2500.00   | 0.00        | 0.00        | 0.00     | 0.00             | 0.00               | 0.00              |              |
| 2600.00  | 0.00        | 0.00        | 2600.00   | 0.00        | 0.00        | 0.00     | 0.00             | 0.00               | 0.00              |              |
| 2700.00  | 0.00        | 0.00        | 2700.00   | 0.00        | 0.00        | 0.00     | 0.00             | 0.00               | 0.00              |              |
| 2800.00  | 0.00        | 0.00        | 2800.00   | 0.00        | 0.00        | 0.00     | 0.00             | 0.00               | 0.00              |              |
| 2900.00  | 0.00        | 0.00        | 2900.00   | 0.00        | 0.00        | 0.00     | 0.00             | 0.00               | 0.00              |              |
| 3000.00  | 0.00        | 0.00        | 3000.00   | 0.00        | 0.00        | 0.00     | 0.00             | 0.00               | 0.00              |              |
| 3100.00  | 0.00        | 0.00        | 3100.00   | 0.00        | 0.00        | 0.00     | 0.00             | 0.00               | 0.00              |              |
| 3200.00  | 0.00        | 0.00        | 3200.00   | 0.00        | 0.00        | 0.00     | 0.00             | 0.00               | 0.00              |              |
| 3300.00  | 0.00        | 0.00        | 3300.00   | 0.00        | 0.00        | 0.00     | 0.00             | 0.00               | 0.00              |              |
| 3400.00  | 0.00        | 0.00        | 3400.00   | 0.00        | 0.00        | 0.00     | 0.00             | 0.00               | 0.00              |              |
| 3500.00  | 0.00        | 0.00        | 3500.00   | 0.00        | 0.00        | 0.00     | 0.00             | 0.00               | 0.00              |              |
| 3600.00  | 0.00        | 0.00        | 3600.00   | 0.00        | 0.00        | 0.00     | 0.00             | 0.00               | 0.00              |              |
| 3700.00  | 0.00        | 0.00        | 3700.00   | 0.00        | 0.00        | 0.00     | 0.00             | 0.00               | 0.00              |              |
| 3800.00  | 0.00        | 0.00        | 3800.00   | 0.00        | 0.00        | 0.00     | 0.00             | 0.00               | 0.00              |              |
| 3900.00  | 0.00        | 0.00        | 3900.00   | 0.00        | 0.00        | 0.00     | 0.00             | 0.00               | 0.00              |              |
| 4000.00  | 0.00        | 0.00        | 4000.00   | 0.00        | 0.00        | 0.00     | 0.00             | 0.00               | 0.00              |              |
| 4100.00  | 0.00        | 0.00        | 4100.00   | 0.00        | 0.00        | 0.00     | 0.00             | 0.00               | 0.00              |              |
| 4200.00  | 0.00        | 0.00        | 4200.00   | 0.00        | 0.00        | 0.00     | 0.00             | 0.00               | 0.00              |              |
| 4300.00  | 0.00        | 0.00        | 4300.00   | 0.00        | 0.00        | 0.00     | 0.00             | 0.00               | 0.00              |              |
| 4400.00  | 0.00        | 0.00        | 4400.00   | 0.00        | 0.00        | 0.00     | 0.00             | 0.00               | 0.00              |              |
| 4500.00  | 0.00        | 0.00        | 4500.00   | 0.00        | 0.00        | 0.00     | 0.00             | 0.00               | 0.00              |              |
| 4600.00  | 0.00        | 0.00        | 4600.00   | 0.00        | 0.00        | 0.00     | 0.00             | 0.00               | 0.00              |              |
| 4700.00  | 0.00        | 0.00        | 4700.00   | 0.00        | 0.00        | 0.00     | 0.00             | 0.00               | 0.00              |              |
| 4800.00  | 0.00        | 0.00        | 4800.00   | 0.00        | 0.00        | 0.00     | 0.00             | 0.00               | 0.00              |              |
| 4900.00  | 0.00        | 0.00        | 4900.00   | 0.00        | 0.00        | 0.00     | 0.00             | 0.00               | 0.00              |              |
| 5000.00  | 0.00        | 0.00        | 5000.00   | 0.00        | 0.00        | 0.00     | 0.00             | 0.00               | 0.00              |              |
| 5100.00  | 0.00        | 0.00        | 5100.00   | 0.00        | 0.00        | 0.00     | 0.00             | 0.00               | 0.00              |              |
| 5200.00  | 0.00        | 0.00        | 5200.00   | 0.00        | 0.00        | 0.00     | 0.00             | 0.00               | 0.00              |              |
| 5300.00  | 0.00        | 0.00        | 5300.00   | 0.00        | 0.00        | 0.00     | 0.00             | 0.00               | 0.00              |              |
| 5400.00  | 0.00        | 0.00        | 5400.00   | 0.00        | 0.00        | 0.00     | 0.00             | 0.00               | 0.00              |              |
| 5500.00  | 0.00        | 0.00        | 5500.00   | 0.00        | 0.00        | 0.00     | 0.00             | 0.00               | 0.00              |              |
| 5600.00  | 0.00        | 0.00        | 5600.00   | 0.00        | 0.00        | 0.00     | 0.00             | 0.00               | 0.00              |              |
| 5700.00  | 0.00        | 0.00        | 5700.00   | 0.00        | 0.00        | 0.00     | 0.00             | 0.00               | 0.00              |              |
| 5800.00  | 0.00        | 0.00        | 5800.00   | 0.00        | 0.00        | 0.00     | 0.00             | 0.00               | 0.00              |              |
| 5900.00  | 0.00        | 0.00        | 5900.00   | 0.00        | 0.00        | 0.00     | 0.00             | 0.00               | 0.00              |              |
| 6000.00  | 0.00        | 0.00        | 6000.00   | 0.00        | 0.00        | 0.00     | 0.00             | 0.00               | 0.00              |              |
| 6100.00  | 0.00        | 0.00        | 6100.00   | 0.00        | 0.00        | 0.00     | 0.00             | 0.00               | 0.00              |              |
| 6200.00  | 0.00        | 0.00        | 6200.00   | 0.00        | 0.00        | 0.00     | 0.00             | 0.00               | 0.00              |              |
| 6300.00  | 0.00        | 0.00        | 6300.00   | 0.00        | 0.00        | 0.00     | 0.00             | 0.00               | 0.00              |              |
| 6322.50  | 0.00        | 0.00        | 6322.50   | 0.00        | 0.00        | 0.00     | 0.00             | 0.00               | 0.00              |              |
| 6325.00  | 0.30        | 287.74      | 6325.00   | 0.00        | -0.01       | 0.01     | 12.00            | 12.00              | 0.00              |              |
| 6350.00  | 3.30        | 287.74      | 6349.98   | 0.24        | -0.75       | 0.79     | 12.00            | 12.00              | 0.00              |              |
| 6375.00  | 8.30        | 287.74      | 6374.89   | 0.88        | -2.75       | 2.88     | 12.00            | 12.00              | 0.00              |              |
| 6400.00  | 9.30        | 287.74      | 6399.66   | 1.91        | -5.98       | 6.28     | 12.00            | 12.00              | 0.00              |              |
| 6425.00  | 12.30       | 287.74      | 6424.21   | 3.34        | -10.44      | 10.96    | 12.00            | 12.00              | 0.00              |              |



# PathFinder Planning Report

Company: Devon Energy  
Field: Apache - Section 13, T22-S, R30-E  
Site: Apache 13 Federal #8H  
Well: Apache 13 Federal #8H  
Wellpath: Original Hole

Date: 4/19/2005 Time: 09:08:29 Page: 3  
Co-ordinate(NE) Reference: Site: Apache 13 Federal #8H, True North  
Vertical (TVD) Reference: SITE 0.0  
Section (VS) Reference: Well (0.00N,0.00E,287.74Azi)  
Plan: Plan #2 041805

## Survey

| MD<br>ft | Incl<br>deg | Azim<br>deg | TVD<br>ft | +N/-S<br>ft | +E/-W<br>ft | VS<br>ft | DLS<br>deg/100ft | Buil<br>deg/100ft | Turn<br>deg/100ft | Tool/Comment |
|----------|-------------|-------------|-----------|-------------|-------------|----------|------------------|-------------------|-------------------|--------------|
| 6450.00  | 15.30       | 287.74      | 6448.49   | 5.16        | -16.12      | 16.92    | 12.00            | 12.00             | 0.00              |              |
| 6475.00  | 18.30       | 287.74      | 6472.42   | 7.36        | -23.00      | 24.15    | 12.00            | 12.00             | 0.00              |              |
| 6500.00  | 21.30       | 287.74      | 6495.94   | 9.94        | -31.06      | 32.61    | 12.00            | 12.00             | 0.00              |              |
| 6525.00  | 24.30       | 287.74      | 6518.98   | 12.89       | -40.29      | 42.30    | 12.00            | 12.00             | 0.00              |              |
| 6550.00  | 27.30       | 287.74      | 6541.49   | 16.20       | -50.65      | 53.18    | 12.00            | 12.00             | 0.00              |              |
| 6575.00  | 30.30       | 287.74      | 6563.40   | 19.87       | -62.12      | 65.22    | 12.00            | 12.00             | 0.00              |              |
| 6600.00  | 33.30       | 287.74      | 6584.64   | 23.89       | -74.66      | 78.39    | 12.00            | 12.00             | 0.00              |              |
| 6625.00  | 36.30       | 287.74      | 6605.17   | 28.23       | -88.25      | 92.66    | 12.00            | 12.00             | 0.00              |              |
| 6650.00  | 39.30       | 287.74      | 6624.92   | 32.90       | -102.84     | 107.98   | 12.00            | 12.00             | 0.00              |              |
| 6675.00  | 42.30       | 287.74      | 6643.84   | 37.88       | -118.40     | 124.31   | 12.00            | 12.00             | 0.00              |              |
| 6700.00  | 45.30       | 287.74      | 6661.89   | 43.15       | -134.88     | 141.61   | 12.00            | 12.00             | 0.00              |              |
| 6725.00  | 48.30       | 287.74      | 6679.00   | 48.70       | -152.23     | 159.83   | 12.00            | 12.00             | 0.00              |              |
| 6750.00  | 51.30       | 287.74      | 6695.14   | 54.52       | -170.41     | 178.82   | 12.00            | 12.00             | 0.00              |              |
| 6775.00  | 54.30       | 287.74      | 6710.25   | 60.58       | -189.38     | 198.83   | 12.00            | 12.00             | 0.00              |              |
| 6800.00  | 57.30       | 287.74      | 6724.30   | 66.88       | -209.07     | 219.51   | 12.00            | 12.00             | 0.00              |              |
| 6825.00  | 60.30       | 287.74      | 6737.25   | 73.40       | -229.43     | 240.89   | 12.00            | 12.00             | 0.00              |              |
| 6850.00  | 63.30       | 287.74      | 6749.07   | 80.11       | -250.41     | 262.92   | 12.00            | 12.00             | 0.00              |              |
| 6875.00  | 66.30       | 287.74      | 6759.71   | 87.00       | -271.96     | 285.53   | 12.00            | 12.00             | 0.00              |              |
| 6900.00  | 69.29       | 287.74      | 6769.16   | 94.05       | -294.00     | 308.68   | 12.00            | 12.00             | 0.00              |              |
| 6925.00  | 72.29       | 287.74      | 6777.38   | 101.25      | -316.48     | 332.28   | 12.00            | 12.00             | 0.00              |              |
| 6950.00  | 75.29       | 287.74      | 6784.36   | 108.56      | -339.34     | 356.29   | 12.00            | 12.00             | 0.00              |              |
| 6975.00  | 78.29       | 287.74      | 6790.07   | 115.97      | -362.52     | 380.62   | 12.00            | 12.00             | 0.00              |              |
| 7000.00  | 81.29       | 287.74      | 6794.50   | 123.47      | -385.95     | 405.22   | 12.00            | 12.00             | 0.00              |              |
| 7025.00  | 84.29       | 287.74      | 6797.63   | 131.03      | -409.58     | 430.02   | 12.00            | 12.00             | 0.00              |              |
| 7050.00  | 87.29       | 287.74      | 6799.47   | 138.62      | -433.32     | 454.95   | 12.00            | 12.00             | 0.00              |              |
| 7072.56  | 90.00       | 287.74      | 6800.00   | 145.49      | -454.79     | 477.50   | 12.00            | 12.00             | 0.00              |              |
| 7085.03  | 90.37       | 287.74      | 6799.96   | 149.30      | -466.68     | 489.96   | 3.00             | 3.00              | 0.02              |              |
| 7100.00  | 90.37       | 287.74      | 6799.86   | 153.86      | -480.93     | 504.94   | 0.00             | 0.00              | 0.00              |              |
| 7200.00  | 90.37       | 287.74      | 6799.21   | 184.33      | -576.18     | 604.94   | 0.00             | 0.00              | 0.00              |              |
| 7300.00  | 90.37       | 287.74      | 6798.55   | 214.80      | -671.42     | 704.94   | 0.00             | 0.00              | 0.00              |              |
| 7400.00  | 90.37       | 287.74      | 6797.90   | 245.27      | -766.66     | 804.94   | 0.00             | 0.00              | 0.00              |              |
| 7500.00  | 90.37       | 287.74      | 6797.25   | 275.75      | -861.90     | 904.94   | 0.00             | 0.00              | 0.00              |              |
| 7600.00  | 90.37       | 287.74      | 6796.59   | 306.22      | -957.14     | 1004.93  | 0.00             | 0.00              | 0.00              |              |
| 7700.00  | 90.37       | 287.74      | 6795.94   | 336.69      | -1052.38    | 1104.93  | 0.00             | 0.00              | 0.00              |              |
| 7800.00  | 90.37       | 287.74      | 6795.29   | 367.16      | -1147.63    | 1204.93  | 0.00             | 0.00              | 0.00              |              |
| 7900.00  | 90.37       | 287.74      | 6794.63   | 397.64      | -1242.87    | 1304.93  | 0.00             | 0.00              | 0.00              |              |
| 8000.00  | 90.37       | 287.74      | 6793.98   | 428.11      | -1338.11    | 1404.93  | 0.00             | 0.00              | 0.00              |              |
| 8100.00  | 90.37       | 287.74      | 6793.33   | 458.58      | -1433.35    | 1504.92  | 0.00             | 0.00              | 0.00              |              |
| 8200.00  | 90.37       | 287.74      | 6792.67   | 489.05      | -1528.59    | 1604.92  | 0.00             | 0.00              | 0.00              |              |
| 8300.00  | 90.37       | 287.74      | 6792.02   | 519.53      | -1623.83    | 1704.92  | 0.00             | 0.00              | 0.00              |              |
| 8400.00  | 90.37       | 287.74      | 6791.37   | 550.00      | -1719.08    | 1804.92  | 0.00             | 0.00              | 0.00              |              |
| 8500.00  | 90.37       | 287.74      | 6790.71   | 580.47      | -1814.32    | 1904.91  | 0.00             | 0.00              | 0.00              |              |
| 8600.00  | 90.37       | 287.74      | 6790.06   | 610.94      | -1909.56    | 2004.91  | 0.00             | 0.00              | 0.00              |              |
| 8700.00  | 90.37       | 287.74      | 6789.41   | 641.42      | -2004.80    | 2104.91  | 0.00             | 0.00              | 0.00              |              |
| 8800.00  | 90.37       | 287.74      | 6788.75   | 671.89      | -2100.04    | 2204.91  | 0.00             | 0.00              | 0.00              |              |
| 8800.00  | 90.37       | 287.74      | 6788.10   | 702.36      | -2195.29    | 2304.91  | 0.00             | 0.00              | 0.00              |              |
| 9000.00  | 90.37       | 287.74      | 6787.45   | 732.83      | -2290.53    | 2404.90  | 0.00             | 0.00              | 0.00              |              |
| 9100.00  | 90.37       | 287.74      | 6786.79   | 763.31      | -2385.77    | 2504.90  | 0.00             | 0.00              | 0.00              |              |
| 9200.00  | 90.37       | 287.74      | 6786.14   | 793.78      | -2481.01    | 2604.90  | 0.00             | 0.00              | 0.00              |              |
| 9300.00  | 90.37       | 287.74      | 6785.49   | 824.25      | -2576.25    | 2704.90  | 0.00             | 0.00              | 0.00              |              |
| 9400.00  | 90.37       | 287.74      | 6784.83   | 854.72      | -2671.49    | 2804.90  | 0.00             | 0.00              | 0.00              |              |
| 9500.00  | 90.37       | 287.74      | 6784.18   | 885.20      | -2766.74    | 2904.89  | 0.00             | 0.00              | 0.00              |              |
| 9600.00  | 90.37       | 287.74      | 6783.53   | 915.67      | -2861.98    | 3004.89  | 0.00             | 0.00              | 0.00              |              |

**PATHFINDER**  
 ENERGY SERVICES

# PathFinder

## Planning Report

Company: Devon Energy  
 Field: Apache - Section 13, T22-S, R30-E  
 Site: Apache 13 Federal #8H  
 Well: Apache 13 Federal #8H  
 Wellpath: Original Hole

Date: 4/19/2005 Time: 09:06:29 Page: 4  
 Co-ordinate(NE) Reference: Site: Apache 13 Federal #8H, True North  
 Vertical (TVD) Reference: SITE 0.0  
 Section (VS) Reference: Well (0.00N,0.00E,287.74Azi)  
 Plan: Plan #2 041805

### Survey

| MD<br>ft | Incl<br>deg | Azim<br>deg | TVD<br>ft | +N/-S<br>ft | +E/-W<br>ft | VS<br>ft | DLS<br>deg/100ft | Build<br>deg/100ft | Turn<br>deg/100ft | Tool/Comment |
|----------|-------------|-------------|-----------|-------------|-------------|----------|------------------|--------------------|-------------------|--------------|
| 9700.00  | 90.37       | 287.74      | 6782.87   | 946.14      | -2957.22    | 3104.89  | 0.00             | 0.00               | 0.00              |              |
| 9800.00  | 90.37       | 287.74      | 6782.22   | 976.61      | -3052.46    | 3204.89  | 0.00             | 0.00               | 0.00              |              |
| 9900.00  | 90.37       | 287.74      | 6781.57   | 1007.09     | -3147.70    | 3304.88  | 0.00             | 0.00               | 0.00              |              |
| 10000.00 | 90.37       | 287.74      | 6780.91   | 1037.56     | -3242.95    | 3404.88  | 0.00             | 0.00               | 0.00              |              |
| 10100.00 | 90.37       | 287.74      | 6780.28   | 1068.03     | -3338.19    | 3504.88  | 0.00             | 0.00               | 0.00              |              |
| 10139.67 | 90.37       | 287.74      | 6780.00   | 1080.12     | -3375.97    | 3544.55  | 0.00             | 0.00               | 0.00              |              |

# Devon Energy

## Apache '13' Federal #8H

### Section 13, T22-S, R30-E

### Eddy County, New Mexico

### Plan #2 - 041805

## COMPANY DETAILS

Devon Energy  
20 N. Broadway, Ste. 1300  
Oklahoma City, OK 73102  
Columbia Method: Anderson Curvature  
Error Method: Symmetrical Bilge  
Error Method: Elliptical Bilge  
Welding Method: Error Ratio

## PATHFINDER ENERGY SERVICES

## ANNOTATIONS

No. TVD MD Annotation  
1 6322.50 6322.50 20' 41" Build Beam  
2 7072.56 7072.56 20' 41" Build Beam  
3 7072.56 7072.56 20' 41" Build Beam  
4 7072.56 7072.56 20' 41" Build Beam  
5 7072.56 7072.56 20' 41" Build Beam

SITE DETAILS  
Apache 13 Federal #8H  
Eddy County, New Mexico  
Site Comp. Latitude: 32°22'28.970"N  
Longitude: 107°49'34.110"W  
Ground Level: 3347.00  
Wellhead Unconformity: 4.00  
Corrosion: 0.37

## FIELD DETAILS

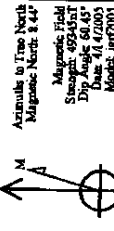
Apache - Section 13, T22-S, R30-E  
Eddy County, New Mexico

Geodetic System: US State Plane Coordinate System 1927  
Datum: NAD 27 (Clarke 1866)  
Zone: 10N  
Magnetic Model: IGR2003  
System Datum: Mean Sea Level  
Local North: True North

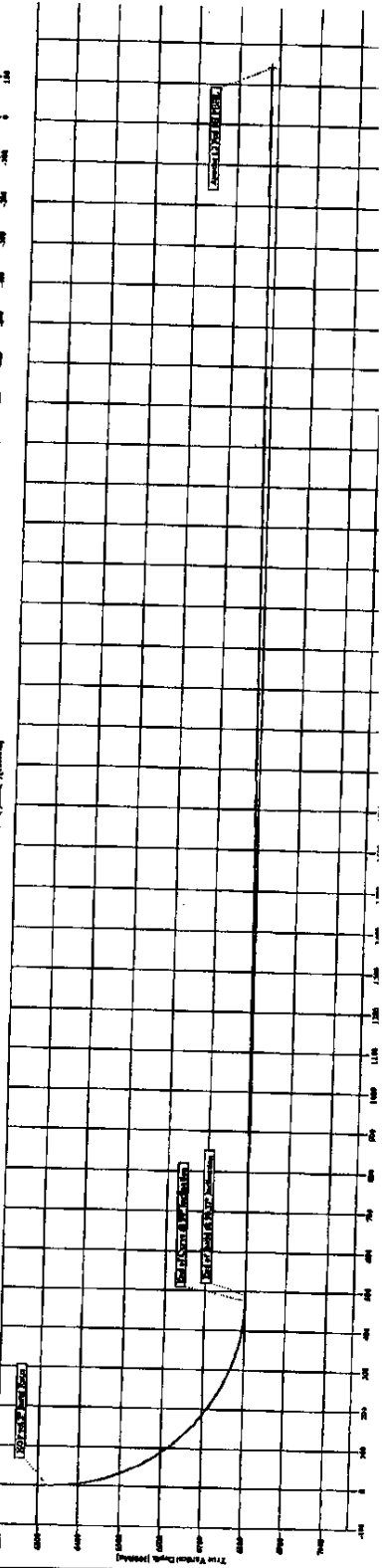
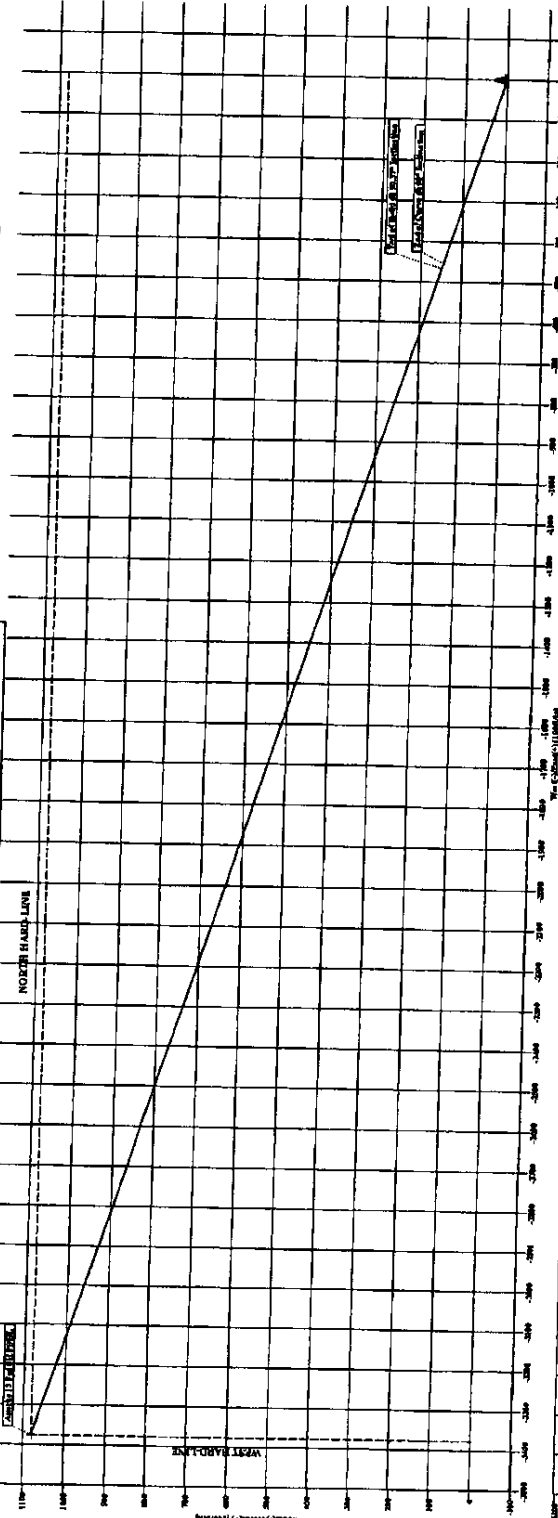
## TARGET DETAILS

Measure TVD +N+S +E+W Sump  
Apache 13 Fed #H PBHL 6780.00 (860.12 -3375.97) Point

LEGEND  
— Plan #2/041805

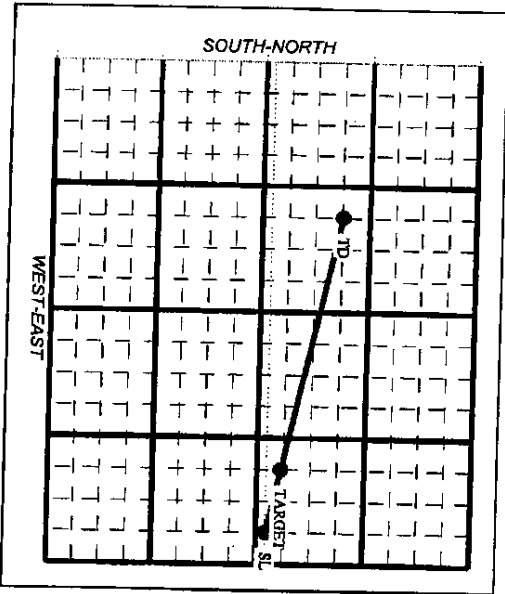


| WELL DETAILS          |          |       |           |           | SECTION DETAILS |                 |      |       |             |
|-----------------------|----------|-------|-----------|-----------|-----------------|-----------------|------|-------|-------------|
| Name                  | +N+S     | +E+W  | Northing  | Easting   | Latitude        | Longitude       | Size |       |             |
| Apache 13 Federal #8H | 0.00     | 0.00  | 506571.20 | 656555.62 | 32°22'28.970"N  | 107°49'34.110"W | N/A  |       |             |
| Sec                   | MD       | Inc   | Ad        | TVD       | +N+S            | +E+W            | DLeg | TPass | VSoc Target |
| 1                     | 0.00     | 0.00  | 0.00      | 0.00      | 0.00            | 0.00            | 0.00 | 0.00  | 0.00        |
| 2                     | 6322.50  | 0.00  | 0.00      | 6322.50   | 0.00            | 0.00            | 0.00 | 0.00  | 0.00        |
| 3                     | 7072.56  | 90.00 | 287.74    | 6800.00   | 145.49          | -454.29         | 5.00 | 28.74 | 0.00        |
| 4                     | 7072.56  | 90.37 | 287.74    | 6799.56   | 146.30          | -466.68         | 3.00 | 0.31  | 477.50      |
| 5                     | 10139.87 | 90.37 | 287.74    | 6780.00   | 1060.12         | -3375.97        | 0.00 | 0.00  | 3544.45     |

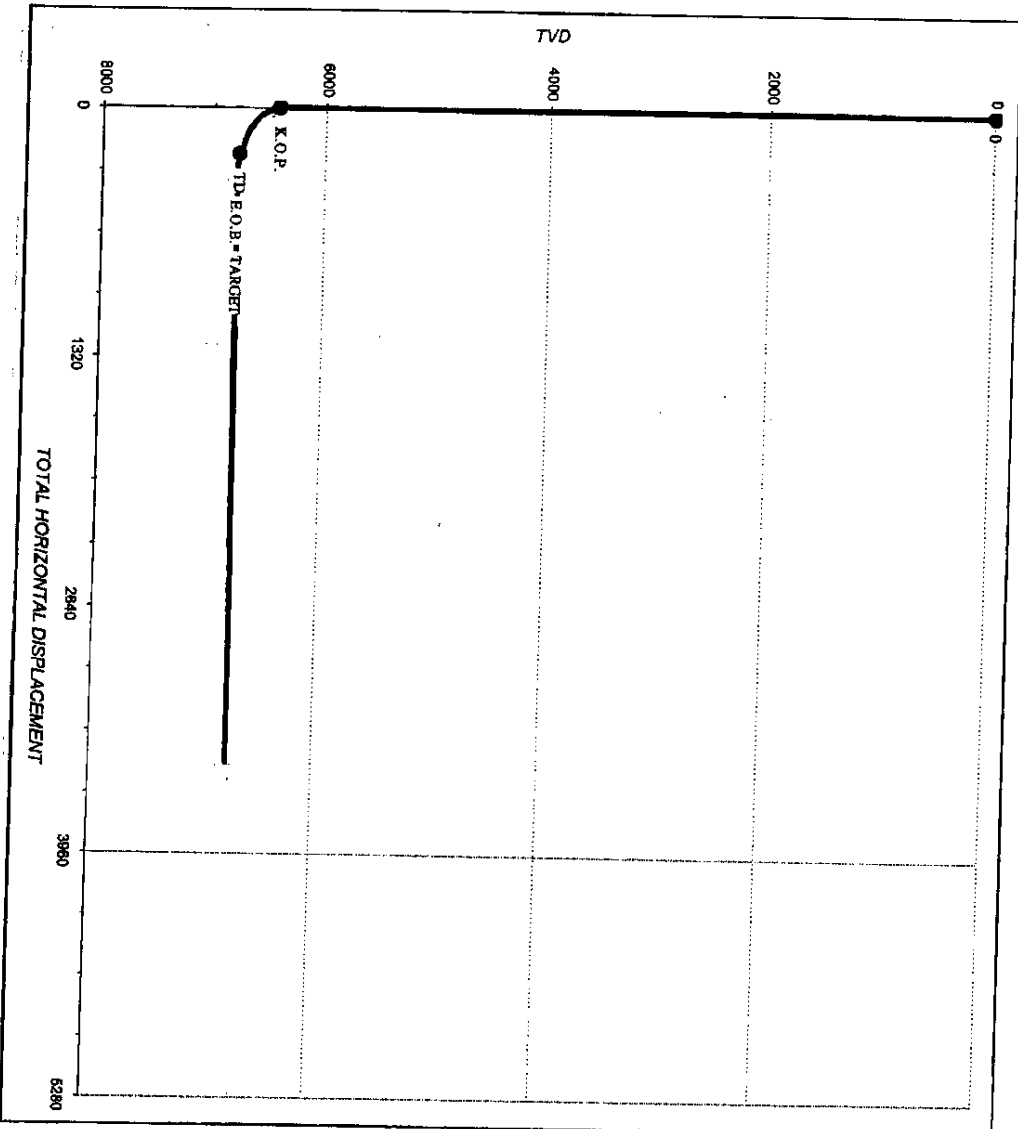


*devon*  
Apache 13 Fed #8  
Quahada Ridge (Del)  
Sec 13, T22S, R30E

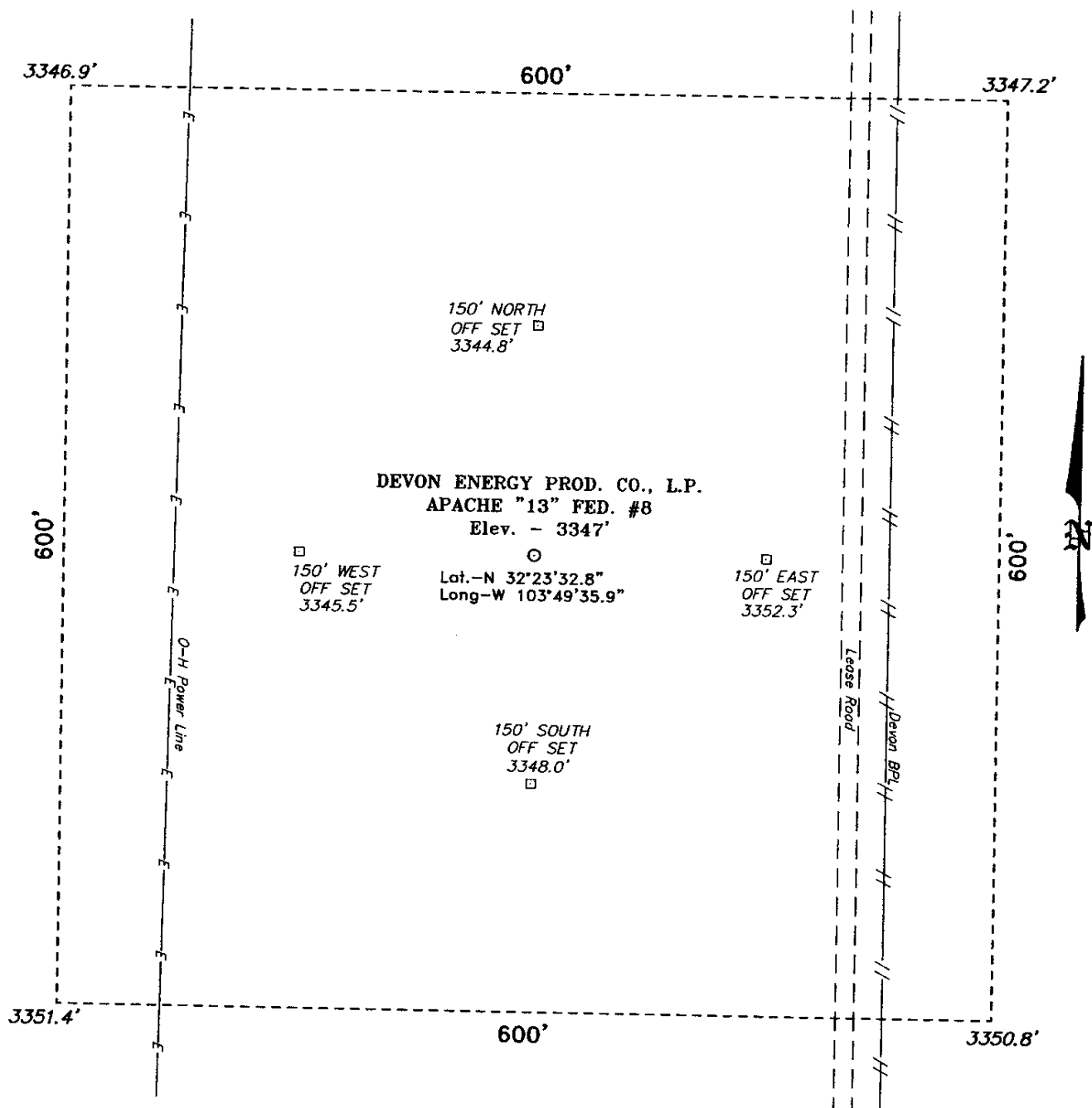
# DEVON

Blount  
5/4/2004

| Design Data                  |       |       |             |
|------------------------------|-------|-------|-------------|
|                              | MD    | TVD   | Total Disp. |
| Kr. Point                    | 6,423 | 6,423 | 0           |
| En. Build                    | 7,030 | 6,805 | 389         |
| TD                           | 6,990 | 6,780 | 246         |
| Azimuth: N 75.07° W          |       |       |             |
| Build Rate (Deg/100') 15.00° |       |       |             |
| Ramp Angle (Deg.) 91.00°     |       |       |             |

[illegible]

SECTION 13, TOWNSHIP 22 SOUTH, RANGE 30 EAST, N.M.P.M.,  
EDDY COUNTY, NEW MEXICO.



100 0 100 200 FEET  
SCALE: 1" = 100'

Directions to Location:

FROM HOBBS, GO 35.7 MILES WEST TO WIPP ROAD;  
THENCE SOUTH ON WIPP ROAD FOR 10.0 MILES TO  
EL PASO R/W; THENCE WEST ON EL PASO R/W FOR  
2.0 MILES; THENCE SOUTH ON LEASE ROAD FOR 0.9  
MILE TO LOCATION.

**BASIN SURVEYS** P.O. BOX 1786 - HOBBS, NEW MEXICO

W.O. Number: 5174 Drawn By: K. GOAD

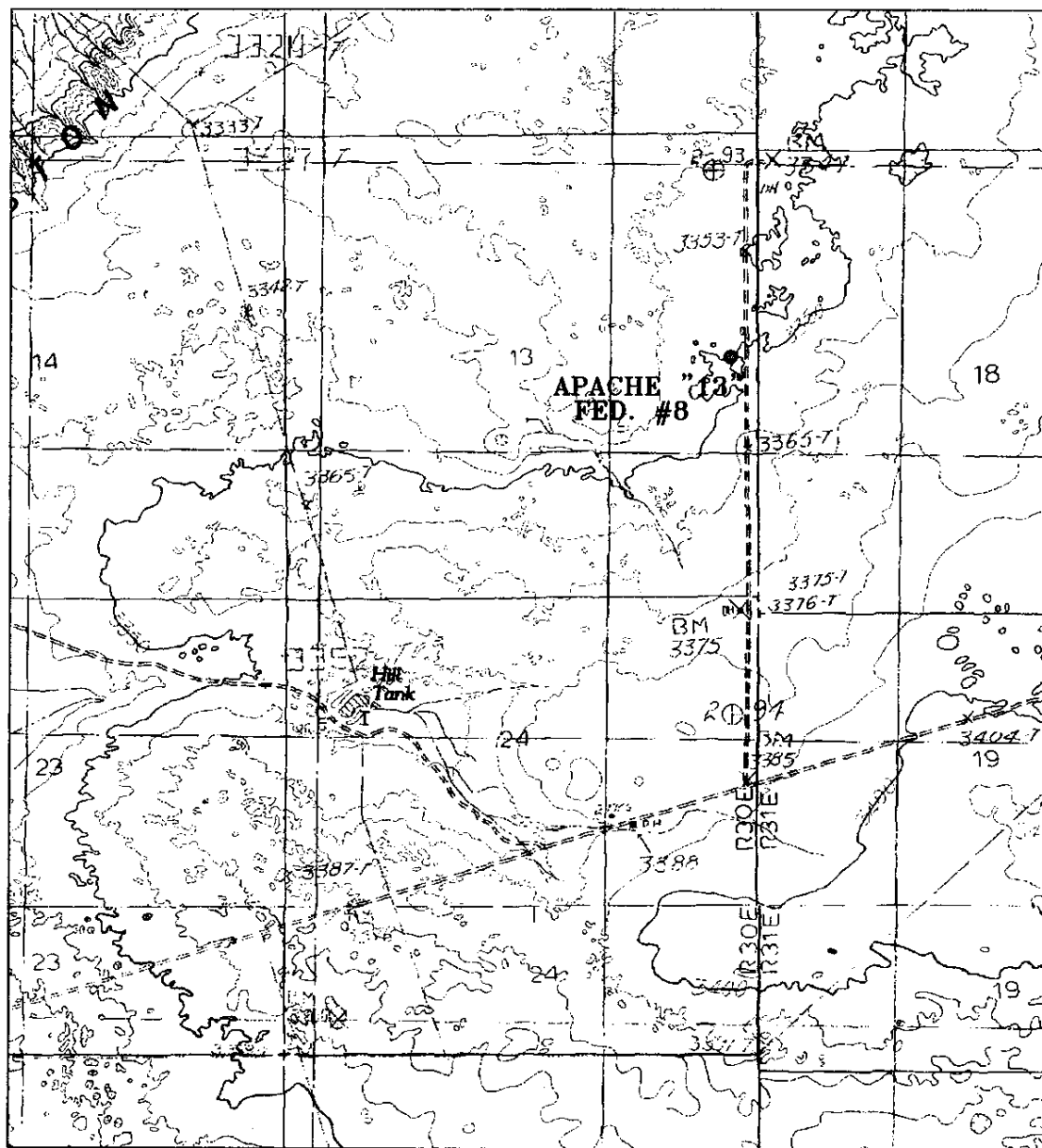
Date: 03-09-2005 Disk: KJG CD#4 - 5174A.DWG

**DEVON ENERGY PROD. CO., L.P.**

REF: APACHE "13" FED. No. 8 / Well Pad Topo

THE APACHE "13" FED No. 8 LOCATED 2530' FROM  
THE NORTH LINE AND 330' FROM THE EAST LINE OF  
SECTION 13, TOWNSHIP 22 SOUTH, RANGE 30 EAST,  
N.M.P.M., EDDY COUNTY, NEW MEXICO.

Survey Date: 03-08-2005 Sheet 1 of 1 Sheets



### APACHE "13" FEDERAL #8

Located at 2530' FNL and 330' FEL  
 Section 13, Township 22 South, Range 30 East,  
 N.M.P.M., Eddy County, New Mexico.

**Basin  
 Surveys**

focused on excellence  
 in the oilfield

P.O. Box 1786  
 1120 N. West County Rd.  
 Hobbs, New Mexico 88241  
 (505) 393-7316 - Office  
 (505) 392-3074 - Fax  
[basinsurveys.com](http://basinsurveys.com)

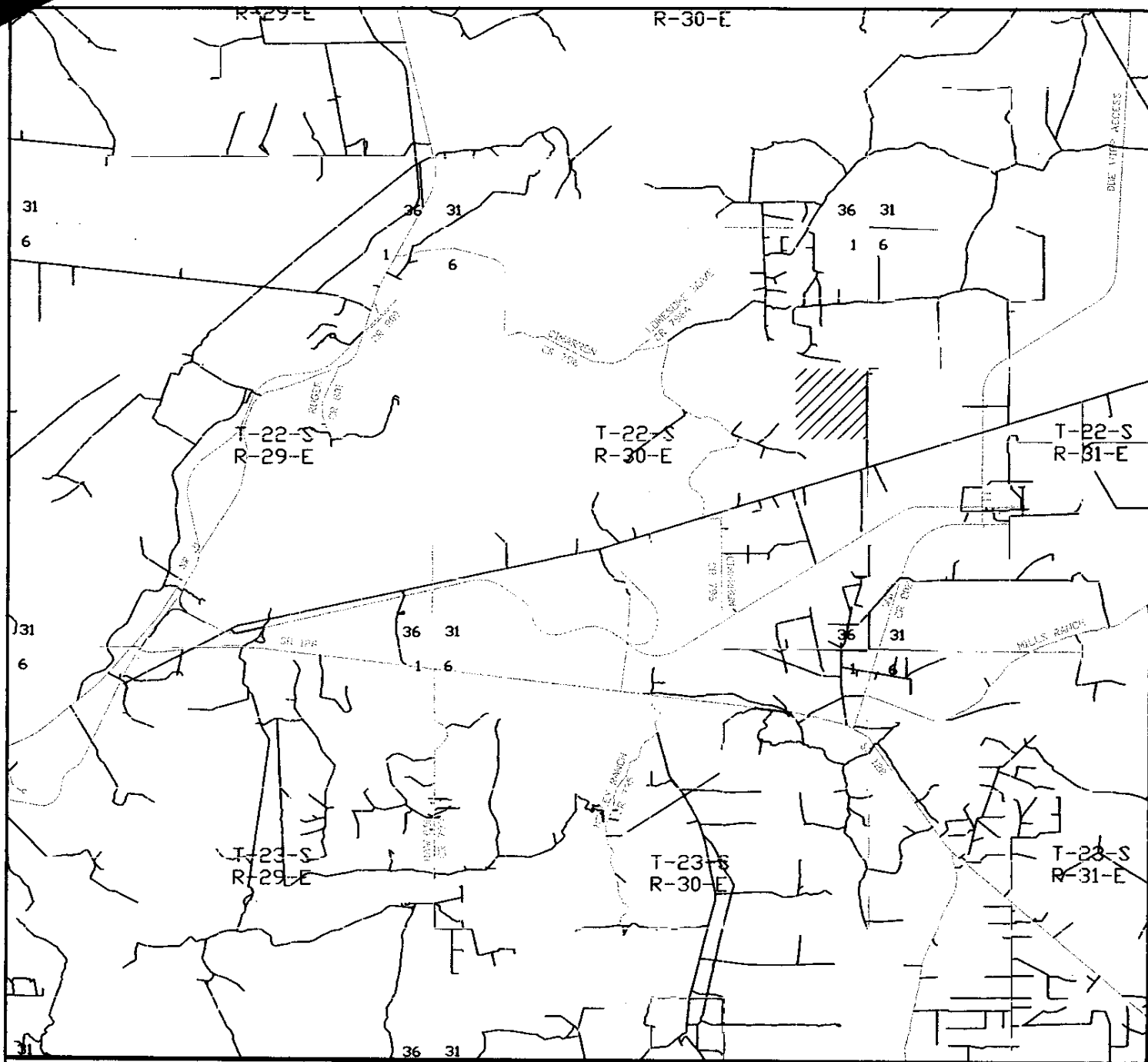
W.O. Number: 5174AA - KJC #1

Survey Date: 03-08-2005

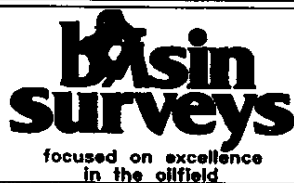
Scale: 1" = 2000'

Date: 03-09-2005

**DEVON ENERGY  
 PROD. CO., L.P.**



APACHE "13" FEDERAL #8  
 Located at 2530' FNL and 330' FEL  
 Section 24, Township 22 South, Range 30 East,  
 N.M.P.M., Eddy County, New Mexico.



P.O. Box 1786  
 1120 N. West County Rd.  
 Hobbs, New Mexico 88241  
 (505) 393-7316 - Office  
 (505) 392-3074 - Fax  
 basinsurveys.com

W.O. Number: 5174AA - KJG #1

Survey Date: 03-08-2005

Scale: 1" = 2 miles

Date: 03-09-2005

DEVON ENERGY  
 PROD. CO., L.P.



# United States Department of the Interior

## BUREAU OF LAND MANAGEMENT

Roswell Field Office  
2909 West Second Street  
Roswell, New Mexico 88201

IN REPLY REFER TO:

**JUN 15 2004**

Devon Energy Production Company, L.P.  
Attn. Ms Linda Guthrie  
20 North Broadway, Suite 1500  
Oklahoma City, Oklahoma 73102-8260

Re: Master Drilling and Surface Use Plan  
Delaware Formation  
T. 22 S., R. 30 E., Sections 12, 13, 24, & 25  
Eddy County, New Mexico

The Attachment A to the master drilling and surface use plan, dated May 28, 2004, for the Delaware formation in sections cited above is now approved. This amendment accommodates changes in casing design and cementing for drilling several horizontal wells located in the above sections. An approved copy is attached for your records.

If you have any questions, please contact Alexis C. Swoboda, P.E. at 505-627-0228.

Sincerely,

Larry D. Bray  
Assistant Field Manager  
Lands and Minerals