

HOBBS OCD

JUL 09 2013

OCD Hobbs

FORM APPROVED  
OMB No. 1004-0137  
Expires October 31, 2014RECEIVED  
UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

## APPLICATION FOR PERMIT TO DRILL OR REENTER

|                                                                                                                                                                                                                            |                                                     |                                                                                         |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER                                                                                                                               |                                                     | 5. Lease Serial No.<br>NMNM 100568                                                      |
| 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     |                                                     | 6. If Indian, Allottee or Tribe Name                                                    |
| 2. Name of Operator Devon Energy Production Company, L.P.                                                                                                                                                                  |                                                     | 7. If Unit or CA Agreement, Name and No.                                                |
| 3a. Address 333 W. Sheridan<br>Oklahoma City, OK 73102                                                                                                                                                                     | 3b. Phone No. (include area code)<br>405.235.3611   | 8. Lease Name and Well No. <b>40007</b><br>Ragin Cajun 13 Federal 1H                    |
| 4. Location of Well (Report location clearly and in accordance with any State requirements. *)<br>At surface 330' FSL & 1345' FWL, Unit N<br>At proposed prod. zone 330' FNL & 1980' FWL, Unit C; PP: 330' FSL & 1345' FWL |                                                     | 9. API Well No.<br><b>30-025-41358</b>                                                  |
| 14. Distance in miles and direction from nearest town or post office*<br>12 miles SW from Jal, NM                                                                                                                          |                                                     | 10. Field and Pool, or Exploratory <b>97597</b><br>Delaware, Brushy Canyon, Jabelina SW |
| 15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) See attached map                                                                                     | 16. No. of acres in lease<br>1920 ac                | 11. Sec., T. R. M. or Blk. and Survey or Area<br>Sec 13, T26S, R34E                     |
| 18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. See attached map                                                                                                | 19. Proposed Depth<br>TVD: 9000'<br>MD: 13421'      | 12. County or Parish<br>Lea                                                             |
| 21. Elevations (Show whether DF, KDB, RT, GL, etc.)<br>3244.7 GL                                                                                                                                                           | 22. Approximate date work will start*<br>05/16/2013 | 13. State<br>NM                                                                         |
| 23. Estimated duration<br>45 Days                                                                                                                                                                                          |                                                     |                                                                                         |

24. Attachments To be pad drilled with Ragin Cajun 13 Federal 2H

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

- |                                                                                                                                                |                                                                                                 |
|------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|
| 1. Well plat certified by a registered surveyor.                                                                                               | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). |
| 2. A Drilling Plan.                                                                                                                            | 5. Operator certification                                                                       |
| 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office). | 6. Such other site specific information and/or plans as may be required by the BLM.             |

|                                                                                                   |                                     |                   |
|---------------------------------------------------------------------------------------------------|-------------------------------------|-------------------|
| 25. Signature  | Name (Printed/Typed)<br>Ryan DeLong | Date<br>4/16/2013 |
| Title<br>Regulatory Compliance Professional                                                       |                                     |                   |

|                                                    |                                        |                          |
|----------------------------------------------------|----------------------------------------|--------------------------|
| Approved by (Signature) <b>/s/George MacDonell</b> | Name (Printed/Typed)                   | Date <b>JUL - 8 2013</b> |
| Title<br><b>FIELD MANAGER</b>                      | Office<br><b>CARLSBAD FIELD OFFICE</b> |                          |

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 TWO YEARS

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.

(Continued on page 2)

\*(Instructions on page 2)

Carlsbad Controlled Water Basin

Approval Subject to General Requirements  
& Special Stipulations AttachedSEE ATTACHED FOR  
CONDITIONS OF APPROVAL

JUL 15 2013



**DRILLING PROGRAM**  
Devon Energy Production Company, LP  
**Ragin Cajun 13 Federal 1H**

Surface Location: 330' FSL & 1345' FWL, Unit N, Sec 13 T26S R34E, Lea, NM  
Bottom Hole Location: 330' FNL & 1980' FWL, Unit C, Sec 13 T26S R34E, Lea, NM

**1. Geologic Name of Surface Formation**

a. Quat Alluvium

**2. Estimated Tops of Geological Markers & Depths of Anticipated Fresh Water, Oil or Gas:**

|                  |        |           |
|------------------|--------|-----------|
| a. Fresh Water   | 180'   |           |
| b. Rustler       | 727'   |           |
| c. Salado        | 915'   |           |
| d. Castile       | 3531'  |           |
| e. Delaware      | 5191'  | Oil / Gas |
| f. Bell Canyon   | 5236'  | Oil       |
| g. Cherry Canyon | 6216'  | Oil       |
| h. Brushy Canyon | 7743'  | Oil       |
| Total Depth      | 13421' |           |

**3. Casing Program:**

|                | <u>Hole</u><br><u>Size</u> | <u>Hole</u><br><u>Interval</u> | <u>OD Csg</u> | <u>Casing</u><br><u>Interval</u> | <u>Weight</u> | <u>Collar</u> | <u>Grade</u> |
|----------------|----------------------------|--------------------------------|---------------|----------------------------------|---------------|---------------|--------------|
| Sec 13<br>CORA | 17-1/2"                    | 0-800' <del>1100'</del>        | 13-3/8"       | 0-800' <del>1100'</del>          | 48#           | STC           | H-40         |
|                | 12-1/4"                    | 800-5250'                      | 9-5/8"        | 0-5250'                          | 40#           | LTC           | HCK-55       |
|                | 8-3/4"                     | 5250-8200'                     | 5-1/2"        | 0-8200'                          | 17#           | LTC           | HCP-110      |
|                | 8-3/4"                     | 8200-13421'                    | 5-1/2"        | 8200-13421'                      | 17#           | BTC           | HCP-110      |

All casing is new and API approved.

**Design Parameter Factors:**

| <u>Casing Size</u> | <u>Collapse Design</u><br><u>Factor</u> | <u>Burst Design</u><br><u>Factor</u> | <u>Tension Design</u><br><u>Factor</u> |
|--------------------|-----------------------------------------|--------------------------------------|----------------------------------------|
| 13-3/8"            | 2.06                                    | 4.62                                 | 8.39                                   |
| 9-5/8"             | 1.55                                    | 1.29                                 | 3.00                                   |
| 5-1/2"             | 1.77                                    | 2.53                                 | 1.91                                   |
| 5-1/2"             | 2.24                                    | 2.77                                 | 6.08                                   |

4. **Cement Program: (all cement volumes based on at least 25% excess)**

- a. 13-3/8" Surface **Lead:** 250 sacks Class C Cement + 2% bwoc Calcium Chloride + 0.125 lbs/sack Poly-E-Flake + 4% bwoc Bentonite + 70.1% Fresh Water, 13.5 ppg. **Yield:** 1.75 cf/sk.  
**Tail:** 515 sacks Class C Cement + 2% bwoc Calcium Chloride + 0.125 lbs/sack Poly-E-Flake + 63.1% Fresh Water, 14.8 ppg. **Yield:** 1.35 cf/sk. **TOC @ surface.**
- b. 9-5/8" Intermediate **Lead:** 1080 sacks (65:35) Class C Cement:Poz (Fly Ash): + 5% bwow Sodium Chloride + 0.125 lbs/sack Poly-E-Flake + 6% bwoc Bentonite + 70.9% Fresh Water, 12.9 ppg. **Yield:** 1.85 cf/sk.  
**Tail:** 360 sacks Class C Cement + 0.125 lbs/sack Poly-E-Flake + 63.5% Water, 14.8 ppg. **Yield:** 1.33 cf/sk. **TOC @ surface.**
- c. 5-1/2" Production **1<sup>st</sup> Stage**  
**Lead:** 610 sacks (65:35) Class H Cement:Poz (Fly Ash) + 6% bwoc Bentonite + 0.2% bwoc HR-601 + 74.1% Fresh Water, 12.5 ppg. **Yield:** 1.95 cf/sk.  
**Tail:** 1450 sacks (50:50) Class H Cement:Poz (Fly Ash) + 1 lb/sk Sodium Chloride + 0.5% bwoc HALAD-344 + 0.4% bwoc CFR-3 + 0.1% bwoc HR-601 + 2% bwoc Bentonite + 58.8% Fresh Water, 14.5 ppg. **Yield:** 1.22 cf/sk. **TOC @ 4750 ft.**

**Actual cement volumes will be adjusted based on fluid caliper and caliper log data.**

The above cement volumes could be revised pending the caliper measurement from the open hole logs. The top of cement is designed to reach approximately 500' above the 9 5/8" casing shoe.

5. **Pressure Control Equipment**

A 3M 13-5/8" BOP system (Double Ram and Annular preventer) will be installed and tested prior to drilling out the surface casing shoe. The BOP system used to drill the intermediate hole will be tested per BLM Onshore Oil and Gas Order 2.

A 3M 13-5/8" BOP system (Double Ram and Annular preventer) will be installed and tested prior to drilling out the intermediate casing shoe. The BOP system used to drill the production hole will be tested per BLM Onshore Oil and Gas Order 2.

The pipe rams will be operated and checked each 24 hour period and each time the drill pipe is out of the hole. These tests will be logged in the daily driller's log. A 2" kill line and 3" choke line will be incorporated into the drilling spool below the ram BOP. In addition to the rams and annular preventer, additional BOP accessories include a kelly cock, floor safety valve, choke lines, and choke manifold rated at 3,000 psi WP.

See  
COR Devon requests a variance to use a flexible line with flanged ends between the BOP and the choke manifold (choke line); **if an H&P rig drills this well. Otherwise no flex line is needed.** The line will be kept as straight as possible with minimal turns.

### Proposed Mud Circulation System

| <u>Depth</u>              | <u>Mud Wt.</u> | <u>Visc</u> | <u>Fluid Loss</u> | <u>Type System</u> |
|---------------------------|----------------|-------------|-------------------|--------------------|
| See<br>COR 0-800' / 1100' | 8.4-9.0        | 30-34       | N/C               | FW                 |
| 800-5250'                 | 9.8-10.0       | 28-32       | N/C               | Brine              |
| 5250-13421'               | 8.6-9.0        | 28-32       | N/C-12            | FW                 |

The necessary mud products for weight addition and fluid loss control will be on location at all times. Visual mud monitoring equipment will be in place to detect volume changes indicating loss or gain of circulating fluid volume. If abnormal pressures are encountered, electronic/mechanical mud monitoring equipment will be installed.

#### 6. Auxiliary Well Control and Monitoring Equipment:

- See  
COR
- A Kelly cock will be in the drill string at all times.
  - A full opening drill pipe stabbing valve having the appropriate connections will be on the rig floor at all times.
  - Hydrogen Sulfide detection equipment will be in operation after drilling out the 13 3/8" casing shoe until the 5 1/2" casing is cemented. Breathing equipment will be on location upon drilling the 13 3/8" shoe until total depth is reached.

#### 7. Logging, Coring, and Testing Program:

- Drill stem tests will be based on geological sample shows.
- If a drill stem test is anticipated; a procedure, equipment to be used and safety measures will be provided via sundry notice to the BLM.
- The open hole electrical logging program will be:
  - Total Depth to Intermediate Casing      Dual Laterolog-Micro Laterolog with SP and Gamma Ray. Compensated Neutron – Z Density log with Gamma Ray and Caliper.
  - Total Depth to Surface      Compensated Neutron with Gamma Ray
  - No coring program is planned
  - Additional testing will be initiated subsequent to setting the 5 1/2" production casing. Specific intervals will be targeted based on log evaluation, geological sample shows and drill stem tests.

**8. Potential Hazards:**

- a. No abnormal pressures or temperatures are expected. There is no known presence of H<sub>2</sub>S in this area. If H<sub>2</sub>S is encountered the operator will comply with the provisions of Onshore Oil and Gas Order No. 6. No lost circulation is expected to occur. All personnel will be familiar with all aspects of safe operation of equipment being used to drill this well. Estimated BHP 4000 psi and Estimated BHT 142°. No H<sub>2</sub>S is anticipated to be encountered.

**9. Anticipated Starting Date and Duration of Operations:**

- a. Road and location construction will begin after the BLM has approved the APD. Anticipated spud date will be as soon after BLM approval and as soon as a rig will be available. Move in operations and drilling is expected to take 32 days. If production casing is run then an additional 30 days will be needed to complete well and construct surface facilities and/or lay flow lines in order to place well on production.



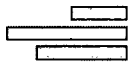
**Weatherford®**

## **Drilling Services**

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## **Proposal**

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devon

REGIN CAJUN 13 FEDERAL 1H

LEA COUNTY, NM

WELL FILE: **PLAN 1**

JUNE 4, 2013

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**Weatherford International, Ltd.**

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Ragin Cajun 13 Federal 1H  
Lea County, New Mexico



KB ELEV: 3270  
GL ELEV: 3245

SECTION DETAILS

| Sec | MD       | Inc   | Azi   | TVD     | +N/-S   | +E/-W  | DLeg  | TFace  | VSec    | Target |
|-----|----------|-------|-------|---------|---------|--------|-------|--------|---------|--------|
| 1   | 0.00     | 0.00  | 7.31  | 0.00    | 0.00    | 0.00   | 0.00  | 0.00   | 0.00    |        |
| 2   | 8300.00  | 0.00  | 7.31  | 8300.00 | 0.00    | 0.00   | 0.00  | 7.31   | 0.00    |        |
| 3   | 8901.33  | 60.13 | 67.82 | 8796.87 | 108.58  | 266.34 | 10.00 | 67.82  | 141.59  |        |
| 4   | 9610.24  | 90.00 | 0.00  | 9000.00 | 649.97  | 593.85 | 10.00 | -78.52 | 720.24  |        |
| 5   | 13589.67 | 90.00 | 0.00  | 9000.00 | 4629.40 | 593.85 | 0.00  | 0.00   | 4667.33 | PBHL   |

WELL DETAILS

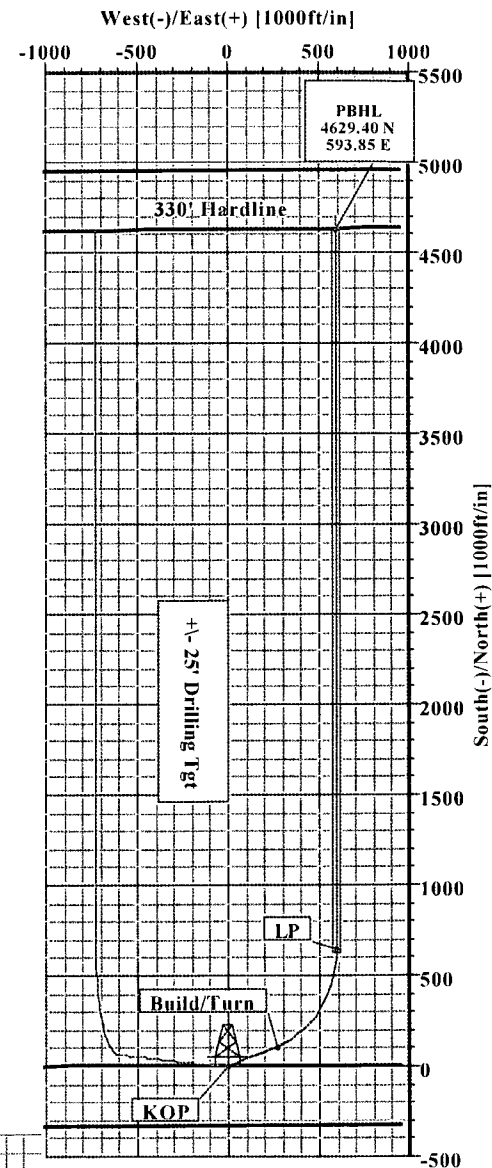
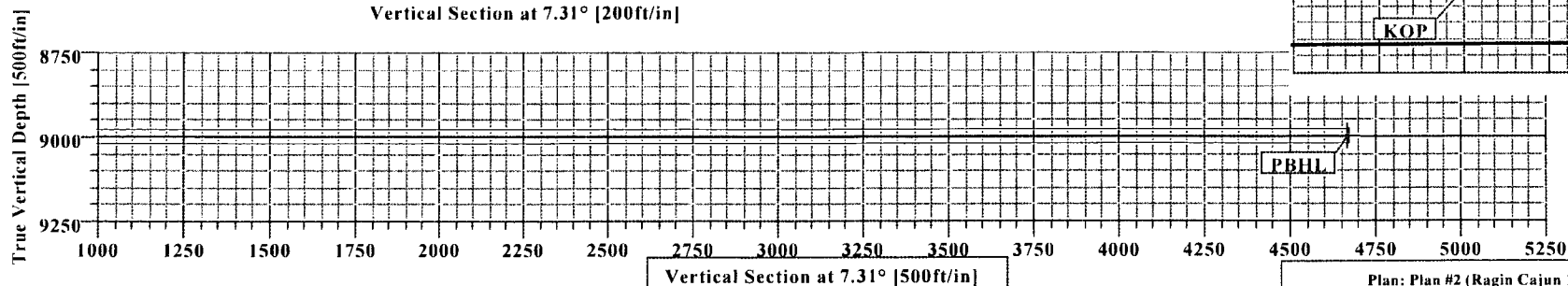
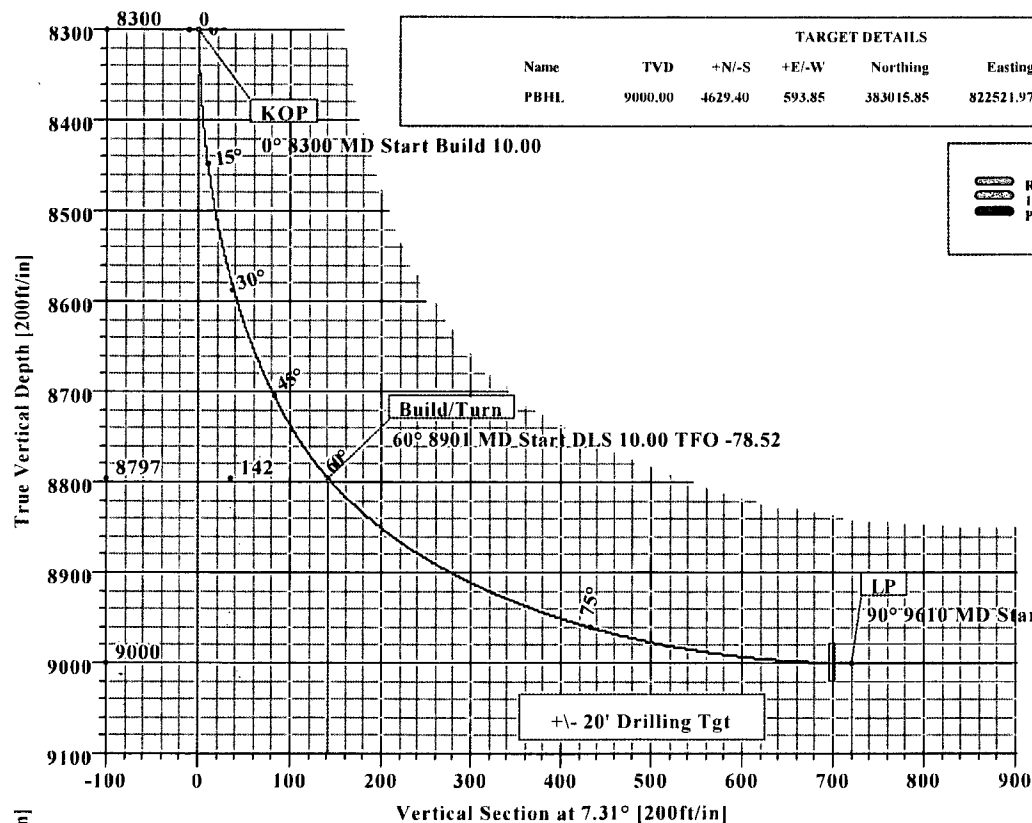
| Name                      | +N/-S | +E/-W | Northing  | Easting   | Latitude      | Longitude      | Slot |
|---------------------------|-------|-------|-----------|-----------|---------------|----------------|------|
| Ragin Cajun 13 Federal 1H | 0.00  | 0.00  | 378386.45 | 821928.12 | 32°02'13.304N | 103°25'40.171W | N/A  |

TARGET DETAILS

| Name | TVD     | +N/-S   | +E/-W  | Northing  | Easting   | Shape               |
|------|---------|---------|--------|-----------|-----------|---------------------|
| PBHL | 9000.00 | 4629.40 | 593.85 | 383015.85 | 822521.97 | Rectangle (4000x50) |

LEGEND

- Ragin Cajun 13 Federal 2H (1)
- Plan #2



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Plan: Plan #2 (Ragin Cajun 13 Federal 1H/1)

Created By: Russell W. Joyner

Date: 6/4/2013



# Weatherford

## Wft Plan Report X Y's.

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|                                               |  |                                                                       |                       |                |
|-----------------------------------------------|--|-----------------------------------------------------------------------|-----------------------|----------------|
| <b>Company:</b> Devon Energy                  |  | <b>Date:</b> 6/4/2013                                                 | <b>Time:</b> 09:12:24 | <b>Page:</b> 1 |
| <b>Field:</b> Lea County, New Mexico (NAD 83) |  | <b>Co-ordinate(NE) Reference:</b> Well: Ragin Cajun 13 Federal 1H     |                       |                |
| <b>Site:</b> Ragin Cajun 13 Federal 1H        |  | <b>Vertical (TVD) Reference:</b> SITE 3270.0                          |                       |                |
| <b>Well:</b> Ragin Cajun 13 Federal 1H        |  | <b>Section (VS) Reference:</b> Well (0.00N,0.00E,7.31Azi)             |                       |                |
| <b>Wellpath:</b> 1                            |  | <b>Survey Calculation Method:</b> Minimum Curvature <b>Db:</b> Sybase |                       |                |

|                       |                                 |
|-----------------------|---------------------------------|
| <b>Plan:</b> Plan #2  | <b>Date Composed:</b> 3/18/2013 |
| <b>Principal:</b> Yes | <b>Version:</b> 1               |
|                       | <b>Tied-to:</b> From Surface    |

|                                        |                               |                                   |
|----------------------------------------|-------------------------------|-----------------------------------|
| <b>Site:</b> Ragin Cajun 13 Federal 1H |                               |                                   |
| <b>Site Position:</b>                  | <b>Northing:</b> 378386.45 ft | <b>Latitude:</b> 32 2 13.304 N    |
| <b>From:</b> Map                       | <b>Easting:</b> 821928.12 ft  | <b>Longitude:</b> 103 25 40.171 W |
| <b>Position Uncertainty:</b> 0.00 ft   |                               | <b>North Reference:</b> Grid      |
| <b>Ground Level:</b> 3245.00 ft        |                               | <b>Grid Convergence:</b> 0.48 deg |

|                                        |                               |                                   |  |
|----------------------------------------|-------------------------------|-----------------------------------|--|
| <b>Well:</b> Ragin Cajun 13 Federal 1H |                               | <b>Slot Name:</b>                 |  |
| <b>Well Position:</b> +N/-S 0.00 ft    | <b>Northing:</b> 378386.45 ft | <b>Latitude:</b> 32 2 13.304 N    |  |
| +E/-W 0.00 ft                          | <b>Easting:</b> 821928.12 ft  | <b>Longitude:</b> 103 25 40.171 W |  |
| <b>Position Uncertainty:</b> 0.00 ft   |                               |                                   |  |

|                                           |                          |                                           |                  |
|-------------------------------------------|--------------------------|-------------------------------------------|------------------|
| <b>Wellpath:</b> 1                        |                          | <b>Drilled From:</b> Surface              |                  |
| <b>Current Datum:</b> SITE                | <b>Height</b> 3270.00 ft | <b>Tie-on Depth:</b> 0.00 ft              |                  |
| <b>Magnetic Data:</b> 12/15/2013          |                          | <b>Above System Datum:</b> Mean Sea Level |                  |
| <b>Field Strength:</b> 48294 nT           |                          | <b>Declination:</b> 7.20 deg              |                  |
| <b>Vertical Section: Depth From (TVD)</b> | <b>+N/-S</b>             | <b>Mag Dip Angle:</b> 59.97 deg           |                  |
| ft                                        | ft                       | <b>+E/-W</b>                              | <b>Direction</b> |
|                                           |                          | ft                                        | deg              |
| 0.00                                      | 0.00                     | 0.00                                      | 7.31             |

| Plan Section Information |             |             |           |             |             |                  |                    |                   |            |        |
|--------------------------|-------------|-------------|-----------|-------------|-------------|------------------|--------------------|-------------------|------------|--------|
| MD<br>ft                 | Incl<br>deg | Azim<br>deg | TVD<br>ft | +N/-S<br>ft | +E/-W<br>ft | DLS<br>deg/100ft | Build<br>deg/100ft | Turn<br>deg/100ft | TFO<br>deg | Target |
| 0.00                     | 0.00        | 7.31        | 0.00      | 0.00        | 0.00        | 0.00             | 0.00               | 0.00              | 0.00       |        |
| 8300.00                  | 0.00        | 7.31        | 8300.00   | 0.00        | 0.00        | 0.00             | 0.00               | 0.00              | 7.31       |        |
| 8901.33                  | 60.13       | 67.82       | 8796.87   | 108.58      | 266.34      | 10.00            | 10.00              | 0.00              | 67.82      |        |
| 9610.24                  | 90.00       | 0.00        | 9000.00   | 649.97      | 593.85      | 10.00            | 4.21               | -9.57             | -78.52     |        |
| 13589.67                 | 90.00       | 0.00        | 9000.00   | 4629.40     | 593.85      | 0.00             | 0.00               | 0.00              | 0.00       | PBHL   |

| 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 | MapN<br>ft | MapE<br>ft | Comment    |
| 8300.00  | 0.00        | 7.31        | 8300.00   | 0.00      | 0.00      | 0.00     | 0.00             | 378386.45  | 821928.12  | KOP        |
| 8400.00  | 10.00       | 67.82       | 8399.49   | 3.29      | 8.06      | 4.28     | 10.00            | 378389.74  | 821936.18  |            |
| 8500.00  | 20.00       | 67.82       | 8495.96   | 13.04     | 32.00     | 17.01    | 10.00            | 378399.49  | 821960.12  |            |
| 8600.00  | 30.00       | 67.82       | 8586.48   | 28.98     | 71.08     | 37.79    | 10.00            | 378415.43  | 821999.20  |            |
| 8700.00  | 40.00       | 67.82       | 8668.29   | 50.60     | 124.12    | 65.98    | 10.00            | 378437.05  | 822052.24  |            |
| 8800.00  | 50.00       | 67.82       | 8738.92   | 77.26     | 189.51    | 100.75   | 10.00            | 378463.71  | 822117.63  |            |
| 8900.00  | 60.00       | 67.82       | 8796.21   | 108.15    | 265.27    | 141.02   | 10.00            | 378494.60  | 822193.39  |            |
| 8901.33  | 60.13       | 67.82       | 8796.87   | 108.58    | 266.34    | 141.59   | 10.00            | 378495.03  | 822194.46  | Build/Turn |
| 9000.00  | 62.54       | 56.91       | 8844.31   | 148.73    | 342.82    | 191.14   | 10.00            | 378535.18  | 822270.94  |            |
| 9100.00  | 65.81       | 46.41       | 8887.96   | 204.55    | 413.20    | 255.46   | 10.00            | 378591.00  | 822341.32  |            |
| 9200.00  | 69.76       | 36.48       | 8925.84   | 273.89    | 474.28    | 332.01   | 10.00            | 378660.34  | 822402.40  |            |
| 9300.00  | 74.24       | 27.07       | 8956.80   | 354.67    | 524.20    | 418.48   | 10.00            | 378741.12  | 822452.32  |            |
| 9400.00  | 79.10       | 18.09       | 8979.90   | 444.41    | 561.43    | 512.24   | 10.00            | 378830.86  | 822489.55  |            |
| 9500.00  | 84.22       | 9.40        | 8994.43   | 540.41    | 584.86    | 610.43   | 10.00            | 378926.86  | 822512.98  |            |
| 9600.00  | 89.46       | 0.87        | 8999.95   | 639.73    | 593.77    | 710.08   | 10.00            | 379026.18  | 822521.89  |            |
| 9610.24  | 90.00       | 0.00        | 9000.00   | 649.97    | 593.85    | 720.24   | 10.00            | 379036.42  | 822521.97  | LP         |
| 9700.00  | 90.00       | 0.00        | 9000.00   | 739.73    | 593.85    | 809.28   | 0.00             | 379126.18  | 822521.97  |            |
| 9800.00  | 90.00       | 0.00        | 9000.00   | 839.73    | 593.85    | 908.46   | 0.00             | 379226.18  | 822521.97  |            |
| 9900.00  | 90.00       | 0.00        | 9000.00   | 939.73    | 593.85    | 1007.65  | 0.00             | 379326.18  | 822521.97  |            |
| 10000.00 | 90.00       | 0.00        | 9000.00   | 1039.73   | 593.85    | 1106.84  | 0.00             | 379426.18  | 822521.97  |            |
| 10100.00 | 90.00       | 0.00        | 9000.00   | 1139.73   | 593.85    | 1206.02  | 0.00             | 379526.18  | 822521.97  |            |
| 10200.00 | 90.00       | 0.00        | 9000.00   | 1239.73   | 593.85    | 1305.21  | 0.00             | 379626.18  | 822521.97  |            |



# Weatherford

## Wft Plan Report X Y's.

**Weatherford\***

Company: Devon Energy  
Field: Lea County, New Mexico (NAD 83)  
Site: Ragin Cajun 13 Federal 1H  
Well: Ragin Cajun 13 Federal 1H  
Wellpath: 1

Date: 6/4/2013 Time: 09:12:24 Page: 2  
Co-ordinate(NE) Reference: Well: Ragin Cajun 13 Federal 1H  
Vertical (TVD) Reference: SITE 3270.0  
Section (VS) Reference: Well (0.00N,0.00E,7.31Azi)  
Survey Calculation Method: Minimum Curvature Db: Sybase

### 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 | MapN<br>ft | MapE<br>ft | Comment |
|----------|-------------|-------------|-----------|-----------|-----------|----------|------------------|------------|------------|---------|
| 10300.00 | 90.00       | 0.00        | 9000.00   | 1339.73   | 593.85    | 1404.40  | 0.00             | 379726.18  | 822521.97  |         |
| 10400.00 | 90.00       | 0.00        | 9000.00   | 1439.73   | 593.85    | 1503.59  | 0.00             | 379826.18  | 822521.97  |         |
| 10500.00 | 90.00       | 0.00        | 9000.00   | 1539.73   | 593.85    | 1602.77  | 0.00             | 379926.18  | 822521.97  |         |
| 10600.00 | 90.00       | 0.00        | 9000.00   | 1639.73   | 593.85    | 1701.96  | 0.00             | 380026.18  | 822521.97  |         |
| 10700.00 | 90.00       | 0.00        | 9000.00   | 1739.73   | 593.85    | 1801.15  | 0.00             | 380126.18  | 822521.97  |         |
| 10800.00 | 90.00       | 0.00        | 9000.00   | 1839.73   | 593.85    | 1900.34  | 0.00             | 380226.18  | 822521.97  |         |
| 10900.00 | 90.00       | 0.00        | 9000.00   | 1939.73   | 593.85    | 1999.52  | 0.00             | 380326.18  | 822521.97  |         |
| 11000.00 | 90.00       | 0.00        | 9000.00   | 2039.73   | 593.85    | 2098.71  | 0.00             | 380426.18  | 822521.97  |         |
| 11100.00 | 90.00       | 0.00        | 9000.00   | 2139.73   | 593.85    | 2197.90  | 0.00             | 380526.18  | 822521.97  |         |
| 11200.00 | 90.00       | 0.00        | 9000.00   | 2239.73   | 593.85    | 2297.08  | 0.00             | 380626.18  | 822521.97  |         |
| 11300.00 | 90.00       | 0.00        | 9000.00   | 2339.73   | 593.85    | 2396.27  | 0.00             | 380726.18  | 822521.97  |         |
| 11400.00 | 90.00       | 0.00        | 9000.00   | 2439.73   | 593.85    | 2495.46  | 0.00             | 380826.18  | 822521.97  |         |
| 11500.00 | 90.00       | 0.00        | 9000.00   | 2539.73   | 593.85    | 2594.65  | 0.00             | 380926.18  | 822521.97  |         |
| 11600.00 | 90.00       | 0.00        | 9000.00   | 2639.73   | 593.85    | 2693.83  | 0.00             | 381026.18  | 822521.97  |         |
| 11700.00 | 90.00       | 0.00        | 9000.00   | 2739.73   | 593.85    | 2793.02  | 0.00             | 381126.18  | 822521.97  |         |
| 11800.00 | 90.00       | 0.00        | 9000.00   | 2839.73   | 593.85    | 2892.21  | 0.00             | 381226.18  | 822521.97  |         |
| 11900.00 | 90.00       | 0.00        | 9000.00   | 2939.73   | 593.85    | 2991.39  | 0.00             | 381326.18  | 822521.97  |         |
| 12000.00 | 90.00       | 0.00        | 9000.00   | 3039.73   | 593.85    | 3090.58  | 0.00             | 381426.18  | 822521.97  |         |
| 12100.00 | 90.00       | 0.00        | 9000.00   | 3139.73   | 593.85    | 3189.77  | 0.00             | 381526.18  | 822521.97  |         |
| 12200.00 | 90.00       | 0.00        | 9000.00   | 3239.73   | 593.85    | 3288.96  | 0.00             | 381626.18  | 822521.97  |         |
| 12300.00 | 90.00       | 0.00        | 9000.00   | 3339.73   | 593.85    | 3388.14  | 0.00             | 381726.18  | 822521.97  |         |
| 12400.00 | 90.00       | 0.00        | 9000.00   | 3439.73   | 593.85    | 3487.33  | 0.00             | 381826.18  | 822521.97  |         |
| 12500.00 | 90.00       | 0.00        | 9000.00   | 3539.73   | 593.85    | 3586.52  | 0.00             | 381926.18  | 822521.97  |         |
| 12600.00 | 90.00       | 0.00        | 9000.00   | 3639.73   | 593.85    | 3685.71  | 0.00             | 382026.18  | 822521.97  |         |
| 12700.00 | 90.00       | 0.00        | 9000.00   | 3739.73   | 593.85    | 3784.89  | 0.00             | 382126.18  | 822521.97  |         |
| 12800.00 | 90.00       | 0.00        | 9000.00   | 3839.73   | 593.85    | 3884.08  | 0.00             | 382226.18  | 822521.97  |         |
| 12900.00 | 90.00       | 0.00        | 9000.00   | 3939.73   | 593.85    | 3983.27  | 0.00             | 382326.18  | 822521.97  |         |
| 13000.00 | 90.00       | 0.00        | 9000.00   | 4039.73   | 593.85    | 4082.45  | 0.00             | 382426.18  | 822521.97  |         |
| 13100.00 | 90.00       | 0.00        | 9000.00   | 4139.73   | 593.85    | 4181.64  | 0.00             | 382526.18  | 822521.97  |         |
| 13200.00 | 90.00       | 0.00        | 9000.00   | 4239.73   | 593.85    | 4280.83  | 0.00             | 382626.18  | 822521.97  |         |
| 13300.00 | 90.00       | 0.00        | 9000.00   | 4339.73   | 593.85    | 4380.02  | 0.00             | 382726.18  | 822521.97  |         |
| 13400.00 | 90.00       | 0.00        | 9000.00   | 4439.73   | 593.85    | 4479.20  | 0.00             | 382826.18  | 822521.97  |         |
| 13500.00 | 90.00       | 0.00        | 9000.00   | 4539.73   | 593.85    | 4578.39  | 0.00             | 382926.18  | 822521.97  |         |
| 13589.67 | 90.00       | 0.00        | 9000.00   | 4629.40   | 593.85    | 4667.33  | 0.00             | 383015.85  | 822521.97  | PBHL    |

### Targets

| Name                 | Description<br>Dip. Dir. | TVD<br>ft | +N/-S<br>ft | +E/-W<br>ft | Map<br>Northing<br>ft | Map<br>Easting<br>ft | <--- Latitude ---> |   |          | <--- Longitude ---> |    |          |
|----------------------|--------------------------|-----------|-------------|-------------|-----------------------|----------------------|--------------------|---|----------|---------------------|----|----------|
| PBHL                 |                          | 9000.00   | 4629.40     | 593.85      | 383015.85             | 822521.97            | 32                 | 2 | 59.063 N | 103                 | 25 | 32.820 W |
| -Rectangle (4100x50) |                          |           |             |             |                       |                      |                    |   |          |                     |    |          |

### Casing Points

| MD | TVD | Diameter | Hole Size | Name |
|----|-----|----------|-----------|------|
|    |     |          |           |      |



# Weatherford

## Wft Plan Report X Y's.



# Weatherford

Company: Devon Energy  
Field: Lea County, New Mexico (NAD 83)  
Site: Ragin Cajun 13 Federal 1H  
Well: Ragin Cajun 13 Federal 1H  
Wellpath: 1

Date: 6/4/2013 Time: 09:12:24 Page: 3  
Co-ordinate(NE) Reference: Well: Ragin Cajun 13 Federal 1H  
Vertical (TVD) Reference: SITE 3270.0  
Section (VS) Reference: Well (0.00N,0.00E,7.31Azi)  
Survey Calculation Method: Minimum Curvature Db: Sybase

### Formations

| MD | TVD | Formations | Lithology | Dip Angle | Dip Direction |
|----|-----|------------|-----------|-----------|---------------|
|    |     |            |           |           |               |

### Annotation

| MD<br>ft | TVD<br>ft |            |
|----------|-----------|------------|
| 8300.00  | 8300.00   | KOP        |
| 8901.33  | 8796.87   | Build/Turn |
| 9610.24  | 9000.00   | LP         |
| 13589.67 | 9000.00   | PBHL       |



# Weatherford Anticollision Report

**Weatherford**

Company: Devon Energy Date: 6/4/2013 Time: 09:11:46 Page: 1  
Field: Lea County, New Mexico (NAD 83)  
Reference Site: Ragin Cajun 13 Federal 1H Co-ordinate(NE) Reference: Well: Ragin Cajun 13 Federal 1H  
Reference Well: Ragin Cajun 13 Federal 1H Vertical (TVD) Reference: SITE 3270.0  
Reference Wellpath: Db: Sybase

NO GLOBAL SCAN: Using user defined selection & scan criteria Reference: Plan: Plan #2  
Interpolation Method MD + Stations Interval: 100.00 ft Error Model: ISCWSA Ellipse  
Depth Range: 0.00 to 13589.67 ft Scan Method: Closest Approach 3D  
Maximum Radius 0000.00 ft Error Surface: Ellipse

Plan: Plan #2 Date Composed: 3/18/2013  
Principal: Yes Version: 1  
Tied-to: From Surface

## Summary

| Site                   | Offset Wellpath        | Wellpath              | Reference MD ft | Offset MD ft | Ctr-Ctr Edge Distance ft | Separation Distance Factor | Warning |
|------------------------|------------------------|-----------------------|-----------------|--------------|--------------------------|----------------------------|---------|
| Ragin Cajun 13 Federal | Ragin Cajun 13 Federal | 1 V0 Plan: Plan #1 V1 | 5600.00         | 5600.00      | 50.00                    | 25.11                      | 2.01    |

Site: Ragin Cajun 13 Federal 2H  
Well: Ragin Cajun 13 Federal 2H  
Wellpath: 1 V0 Plan: Plan #1 V1

Inter-Site Error: 0.00 ft

| Reference MD ft | TVD ft  | Offset MD ft | TVD ft  | Semi-Major Axis Ref ft | Offset ft | TFO-HS deg | Location North ft | East ft | Ctr-Ctr Edge Distance ft | Separation Distance Factor | Warning |
|-----------------|---------|--------------|---------|------------------------|-----------|------------|-------------------|---------|--------------------------|----------------------------|---------|
| 0.00            | 0.00    | 0.00         | 0.00    | 0.00                   | 0.00      | 269.68     | -0.28             | -50.00  | 50.00                    |                            | No Data |
| 100.00          | 100.00  | 100.00       | 100.00  | 0.08                   | 0.08      | 269.68     | -0.28             | -50.00  | 50.00                    | 49.83                      | 296.61  |
| 200.00          | 200.00  | 200.00       | 200.00  | 0.31                   | 0.31      | 269.68     | -0.28             | -50.00  | 50.00                    | 49.38                      | 80.89   |
| 300.00          | 300.00  | 300.00       | 300.00  | 0.53                   | 0.53      | 269.68     | -0.28             | -50.00  | 50.00                    | 48.93                      | 46.83   |
| 400.00          | 400.00  | 400.00       | 400.00  | 0.76                   | 0.76      | 269.68     | -0.28             | -50.00  | 50.00                    | 48.48                      | 32.96   |
| 500.00          | 500.00  | 500.00       | 500.00  | 0.98                   | 0.98      | 269.68     | -0.28             | -50.00  | 50.00                    | 48.03                      | 25.42   |
| 600.00          | 600.00  | 600.00       | 600.00  | 1.21                   | 1.21      | 269.68     | -0.28             | -50.00  | 50.00                    | 47.58                      | 20.69   |
| 700.00          | 700.00  | 700.00       | 700.00  | 1.43                   | 1.43      | 269.68     | -0.28             | -50.00  | 50.00                    | 47.14                      | 17.45   |
| 800.00          | 800.00  | 800.00       | 800.00  | 1.66                   | 1.66      | 269.68     | -0.28             | -50.00  | 50.00                    | 46.69                      | 15.08   |
| 900.00          | 900.00  | 900.00       | 900.00  | 1.88                   | 1.88      | 269.68     | -0.28             | -50.00  | 50.00                    | 46.24                      | 13.28   |
| 1000.00         | 1000.00 | 1000.00      | 1000.00 | 2.11                   | 2.11      | 269.68     | -0.28             | -50.00  | 50.00                    | 45.79                      | 11.86   |
| 1100.00         | 1100.00 | 1100.00      | 1100.00 | 2.33                   | 2.33      | 269.68     | -0.28             | -50.00  | 50.00                    | 45.34                      | 10.72   |
| 1200.00         | 1200.00 | 1200.00      | 1200.00 | 2.56                   | 2.56      | 269.68     | -0.28             | -50.00  | 50.00                    | 44.89                      | 9.78    |
| 1300.00         | 1300.00 | 1300.00      | 1300.00 | 2.78                   | 2.78      | 269.68     | -0.28             | -50.00  | 50.00                    | 44.44                      | 8.99    |
| 1400.00         | 1400.00 | 1400.00      | 1400.00 | 3.01                   | 3.01      | 269.68     | -0.28             | -50.00  | 50.00                    | 43.99                      | 8.32    |
| 1500.00         | 1500.00 | 1500.00      | 1500.00 | 3.23                   | 3.23      | 269.68     | -0.28             | -50.00  | 50.00                    | 43.54                      | 7.74    |
| 1600.00         | 1600.00 | 1600.00      | 1600.00 | 3.46                   | 3.46      | 269.68     | -0.28             | -50.00  | 50.00                    | 43.09                      | 7.23    |
| 1700.00         | 1700.00 | 1700.00      | 1700.00 | 3.68                   | 3.68      | 269.68     | -0.28             | -50.00  | 50.00                    | 42.64                      | 6.79    |
| 1800.00         | 1800.00 | 1800.00      | 1800.00 | 3.91                   | 3.91      | 269.68     | -0.28             | -50.00  | 50.00                    | 42.19                      | 6.40    |
| 1900.00         | 1900.00 | 1900.00      | 1900.00 | 4.13                   | 4.13      | 269.68     | -0.28             | -50.00  | 50.00                    | 41.74                      | 6.05    |
| 2000.00         | 2000.00 | 2000.00      | 2000.00 | 4.35                   | 4.35      | 269.68     | -0.28             | -50.00  | 50.00                    | 41.29                      | 5.74    |
| 2100.00         | 2100.00 | 2100.00      | 2100.00 | 4.58                   | 4.58      | 269.68     | -0.28             | -50.00  | 50.00                    | 40.84                      | 5.46    |
| 2200.00         | 2200.00 | 2200.00      | 2200.00 | 4.80                   | 4.80      | 269.68     | -0.28             | -50.00  | 50.00                    | 40.39                      | 5.20    |
| 2300.00         | 2300.00 | 2300.00      | 2300.00 | 5.03                   | 5.03      | 269.68     | -0.28             | -50.00  | 50.00                    | 39.94                      | 4.97    |
| 2400.00         | 2400.00 | 2400.00      | 2400.00 | 5.25                   | 5.25      | 269.68     | -0.28             | -50.00  | 50.00                    | 39.49                      | 4.76    |
| 2500.00         | 2500.00 | 2500.00      | 2500.00 | 5.48                   | 5.48      | 269.68     | -0.28             | -50.00  | 50.00                    | 39.04                      | 4.56    |
| 2600.00         | 2600.00 | 2600.00      | 2600.00 | 5.70                   | 5.70      | 269.68     | -0.28             | -50.00  | 50.00                    | 38.59                      | 4.38    |
| 2700.00         | 2700.00 | 2700.00      | 2700.00 | 5.93                   | 5.93      | 269.68     | -0.28             | -50.00  | 50.00                    | 38.14                      | 4.22    |
| 2800.00         | 2800.00 | 2800.00      | 2800.00 | 6.15                   | 6.15      | 269.68     | -0.28             | -50.00  | 50.00                    | 37.69                      | 4.06    |
| 2900.00         | 2900.00 | 2900.00      | 2900.00 | 6.38                   | 6.38      | 269.68     | -0.28             | -50.00  | 50.00                    | 37.25                      | 3.92    |
| 3000.00         | 3000.00 | 3000.00      | 3000.00 | 6.60                   | 6.60      | 269.68     | -0.28             | -50.00  | 50.00                    | 36.80                      | 3.79    |
| 3100.00         | 3100.00 | 3100.00      | 3100.00 | 6.83                   | 6.83      | 269.68     | -0.28             | -50.00  | 50.00                    | 36.35                      | 3.66    |
| 3200.00         | 3200.00 | 3200.00      | 3200.00 | 7.05                   | 7.05      | 269.68     | -0.28             | -50.00  | 50.00                    | 35.90                      | 3.55    |
| 3300.00         | 3300.00 | 3300.00      | 3300.00 | 7.28                   | 7.28      | 269.68     | -0.28             | -50.00  | 50.00                    | 35.45                      | 3.44    |
| 3400.00         | 3400.00 | 3400.00      | 3400.00 | 7.50                   | 7.50      | 269.68     | -0.28             | -50.00  | 50.00                    | 35.00                      | 3.33    |
| 3500.00         | 3500.00 | 3500.00      | 3500.00 | 7.73                   | 7.73      | 269.68     | -0.28             | -50.00  | 50.00                    | 34.55                      | 3.24    |



# Weatherford Anticollision Report

**Weatherford**

Company: Devon Energy Date: 6/4/2013 Time: 09:11:46 Page: 2  
Field: Lea County, New Mexico (NAD 83)  
Reference Site: Ragin Cajun 13 Federal 1H Co-ordinate(NE) Reference: Well: Ragin Cajun 13 Federal 1H  
Reference Well: Ragin Cajun 13 Federal 1H Vertical (TVD) Reference: SITE 3270.0  
Reference Wellpath: Db: Sybase

Site: Ragin Cajun 13 Federal 2H  
Well: Ragin Cajun 13 Federal 2H  
Wellpath: 1 V0 Plan: Plan #1 V1

Inter-Site Error: 0.00 ft

| Reference<br>MD<br>ft | TVD<br>ft | Offset<br>MD<br>ft | TVD<br>ft | Semi-Major Axis |              |               | Offset Location |            | Ctr-Ctr<br>Distance<br>ft | Edge<br>Distance<br>ft | Separation<br>Factor | Warning |
|-----------------------|-----------|--------------------|-----------|-----------------|--------------|---------------|-----------------|------------|---------------------------|------------------------|----------------------|---------|
|                       |           |                    |           | Ref<br>ft       | Offset<br>ft | TFO-HS<br>deg | North<br>ft     | East<br>ft |                           |                        |                      |         |
| 3600.00               | 3600.00   | 3600.00            | 3600.00   | 7.95            | 7.95         | 269.68        | -0.28           | -50.00     | 50.00                     | 34.10                  | 3.14                 |         |
| 3700.00               | 3700.00   | 3700.00            | 3700.00   | 8.18            | 8.18         | 269.68        | -0.28           | -50.00     | 50.00                     | 33.65                  | 3.06                 |         |
| 3800.00               | 3800.00   | 3800.00            | 3800.00   | 8.40            | 8.40         | 269.68        | -0.28           | -50.00     | 50.00                     | 33.20                  | 2.98                 |         |
| 3900.00               | 3900.00   | 3900.00            | 3900.00   | 8.63            | 8.63         | 269.68        | -0.28           | -50.00     | 50.00                     | 32.75                  | 2.90                 |         |
| 4000.00               | 4000.00   | 4000.00            | 4000.00   | 8.85            | 8.85         | 269.68        | -0.28           | -50.00     | 50.00                     | 32.30                  | 2.82                 |         |
| 4100.00               | 4100.00   | 4100.00            | 4100.00   | 9.07            | 9.07         | 269.68        | -0.28           | -50.00     | 50.00                     | 31.85                  | 2.75                 |         |
| 4200.00               | 4200.00   | 4200.00            | 4200.00   | 9.30            | 9.30         | 269.68        | -0.28           | -50.00     | 50.00                     | 31.40                  | 2.69                 |         |
| 4300.00               | 4300.00   | 4300.00            | 4300.00   | 9.52            | 9.52         | 269.68        | -0.28           | -50.00     | 50.00                     | 30.95                  | 2.62                 |         |
| 4400.00               | 4400.00   | 4400.00            | 4400.00   | 9.75            | 9.75         | 269.68        | -0.28           | -50.00     | 50.00                     | 30.50                  | 2.56                 |         |
| 4500.00               | 4500.00   | 4500.00            | 4500.00   | 9.97            | 9.97         | 269.68        | -0.28           | -50.00     | 50.00                     | 30.05                  | 2.51                 |         |
| 4600.00               | 4600.00   | 4600.00            | 4600.00   | 10.20           | 10.20        | 269.68        | -0.28           | -50.00     | 50.00                     | 29.60                  | 2.45                 |         |
| 4700.00               | 4700.00   | 4700.00            | 4700.00   | 10.42           | 10.42        | 269.68        | -0.28           | -50.00     | 50.00                     | 29.15                  | 2.40                 |         |
| 4800.00               | 4800.00   | 4800.00            | 4800.00   | 10.65           | 10.65        | 269.68        | -0.28           | -50.00     | 50.00                     | 28.70                  | 2.35                 |         |
| 4900.00               | 4900.00   | 4900.00            | 4900.00   | 10.87           | 10.87        | 269.68        | -0.28           | -50.00     | 50.00                     | 28.25                  | 2.30                 |         |
| 5000.00               | 5000.00   | 5000.00            | 5000.00   | 11.10           | 11.10        | 269.68        | -0.28           | -50.00     | 50.00                     | 27.81                  | 2.25                 |         |
| 5100.00               | 5100.00   | 5100.00            | 5100.00   | 11.32           | 11.32        | 269.68        | -0.28           | -50.00     | 50.00                     | 27.36                  | 2.21                 |         |
| 5200.00               | 5200.00   | 5200.00            | 5200.00   | 11.55           | 11.55        | 269.68        | -0.28           | -50.00     | 50.00                     | 26.91                  | 2.17                 |         |
| 5300.00               | 5300.00   | 5300.00            | 5300.00   | 11.77           | 11.77        | 269.68        | -0.28           | -50.00     | 50.00                     | 26.46                  | 2.12                 |         |
| 5400.00               | 5400.00   | 5400.00            | 5400.00   | 12.00           | 12.00        | 269.68        | -0.28           | -50.00     | 50.00                     | 26.01                  | 2.08                 |         |
| 5500.00               | 5500.00   | 5500.00            | 5500.00   | 12.22           | 12.22        | 269.68        | -0.28           | -50.00     | 50.00                     | 25.56                  | 2.05                 |         |
| 5600.00               | 5600.00   | 5600.00            | 5600.00   | 12.45           | 12.45        | 269.68        | -0.28           | -50.00     | 50.00                     | 25.11                  | 2.01                 |         |
| 5700.00               | 5700.00   | 5697.38            | 5697.34   | 12.67           | 12.65        | 270.00        | 0.00            | -52.47     | 52.53                     | 27.22                  | 2.08                 |         |
| 5800.00               | 5800.00   | 5794.26            | 5793.93   | 12.90           | 12.85        | 270.81        | 0.84            | -59.81     | 60.12                     | 34.43                  | 2.34                 |         |
| 5900.00               | 5900.00   | 5890.15            | 5889.03   | 13.12           | 13.05        | 271.77        | 2.22            | -71.85     | 72.72                     | 46.68                  | 2.79                 |         |
| 6000.00               | 6000.00   | 5984.58            | 5981.99   | 13.35           | 13.26        | 272.66        | 4.10            | -88.34     | 90.25                     | 63.89                  | 3.42                 |         |
| 6100.00               | 6100.00   | 6081.66            | 6076.96   | 13.57           | 13.49        | 273.37        | 6.39            | -108.34    | 110.95                    | 84.19                  | 4.15                 |         |
| 6200.00               | 6200.00   | 6179.47            | 6172.63   | 13.80           | 13.72        | 273.87        | 8.70            | -128.55    | 131.72                    | 104.54                 | 4.85                 |         |
| 6300.00               | 6300.00   | 6277.29            | 6268.30   | 14.02           | 13.97        | 274.23        | 11.01           | -148.77    | 152.50                    | 124.89                 | 5.52                 |         |
| 6400.00               | 6400.00   | 6375.10            | 6363.98   | 14.24           | 14.23        | 274.51        | 13.32           | -168.98    | 173.29                    | 145.25                 | 6.18                 |         |
| 6500.00               | 6500.00   | 6472.91            | 6459.65   | 14.47           | 14.49        | 274.72        | 15.63           | -189.19    | 194.08                    | 165.61                 | 6.82                 |         |
| 6600.00               | 6600.00   | 6570.73            | 6555.33   | 14.69           | 14.76        | 274.90        | 17.94           | -209.41    | 214.87                    | 185.97                 | 7.44                 |         |
| 6700.00               | 6700.00   | 6668.54            | 6651.00   | 14.92           | 15.04        | 275.04        | 20.25           | -229.62    | 235.66                    | 206.33                 | 8.03                 |         |
| 6800.00               | 6800.00   | 6766.35            | 6746.67   | 15.14           | 15.33        | 275.16        | 22.56           | -249.83    | 256.46                    | 226.69                 | 8.62                 |         |
| 6900.00               | 6900.00   | 6864.16            | 6842.35   | 15.37           | 15.62        | 275.26        | 24.87           | -270.05    | 277.25                    | 247.05                 | 9.18                 |         |
| 7000.00               | 7000.00   | 6961.98            | 6938.02   | 15.59           | 15.93        | 275.35        | 27.17           | -290.26    | 298.04                    | 267.40                 | 9.73                 |         |
| 7100.00               | 7100.00   | 7059.79            | 7033.69   | 15.82           | 16.23        | 275.42        | 29.48           | -310.47    | 318.84                    | 287.76                 | 10.26                |         |
| 7200.00               | 7200.00   | 7157.60            | 7129.37   | 16.04           | 16.55        | 275.49        | 31.79           | -330.69    | 339.64                    | 308.11                 | 10.77                |         |
| 7300.00               | 7300.00   | 7255.42            | 7225.04   | 16.27           | 16.86        | 275.55        | 34.10           | -350.90    | 360.43                    | 328.47                 | 11.28                |         |
| 7400.00               | 7400.00   | 7353.23            | 7320.71   | 16.49           | 17.19        | 275.60        | 36.41           | -371.11    | 381.23                    | 348.82                 | 11.76                |         |
| 7500.00               | 7500.00   | 7451.04            | 7416.39   | 16.72           | 17.52        | 275.65        | 38.72           | -391.33    | 402.03                    | 369.17                 | 12.24                |         |
| 7600.00               | 7600.00   | 7548.85            | 7512.06   | 16.94           | 17.85        | 275.69        | 41.03           | -411.54    | 422.83                    | 389.52                 | 12.70                |         |
| 7700.00               | 7700.00   | 7646.67            | 7607.74   | 17.17           | 18.19        | 275.73        | 43.34           | -431.75    | 443.62                    | 409.87                 | 13.14                |         |
| 7800.00               | 7800.00   | 7744.48            | 7703.41   | 17.39           | 18.53        | 275.77        | 45.65           | -451.97    | 464.42                    | 430.22                 | 13.58                |         |
| 7900.00               | 7900.00   | 7842.29            | 7799.08   | 17.62           | 18.87        | 275.80        | 47.96           | -472.18    | 485.22                    | 450.57                 | 14.00                |         |
| 8000.00               | 8000.00   | 7940.11            | 7894.76   | 17.84           | 19.22        | 275.83        | 50.27           | -492.39    | 506.02                    | 470.92                 | 14.42                |         |
| 8100.00               | 8100.00   | 8037.92            | 7990.43   | 18.07           | 19.57        | 275.86        | 52.58           | -512.61    | 526.82                    | 491.26                 | 14.82                |         |
| 8200.00               | 8200.00   | 8135.73            | 8086.10   | 18.29           | 19.93        | 275.88        | 54.89           | -532.82    | 547.61                    | 511.61                 | 15.21                |         |
| 8300.00               | 8300.00   | 8233.55            | 8181.78   | 18.52           | 20.29        | 275.91        | 57.20           | -553.03    | 568.41                    | 531.95                 | 15.59                |         |
| 8350.00               | 8349.94   | 8281.99            | 8229.17   | 18.62           | 20.47        | 208.59        | 58.35           | -563.04    | 580.68                    | 544.03                 | 15.85                |         |
| 8400.00               | 8399.49   | 8329.27            | 8275.41   | 18.73           | 20.64        | 209.11        | 59.46           | -572.81    | 596.63                    | 559.88                 | 16.24                |         |
| 8450.00               | 8448.29   | 8375.03            | 8320.17   | 18.84           | 20.81        | 209.66        | 60.54           | -582.27    | 616.17                    | 579.39                 | 16.75                |         |



# Weatherford

## Anticollision Report

**Weatherford**

Company: Devon Energy  
Field: Lea County, New Mexico (NAD 83)  
Reference Site: Ragin Cajun 13 Federal 1H  
Reference Well: Ragin Cajun 13 Federal 1H  
Reference Wellpath:

Date: 6/4/2013

Time: 09:11:46

Page: 3

Co-ordinate(NE) Reference: Well: Ragin Cajun 13 Federal 1H  
Vertical (TVD) Reference: SITE 3270.0

Db: Sybase

Site: Ragin Cajun 13 Federal 2H  
Well: Ragin Cajun 13 Federal 2H  
Wellpath: 1 V0 Plan: Plan #1 V1

Inter-Site Error: 0.00 ft

| Reference<br>MD<br>ft | TVD<br>ft | Offset<br>MD<br>ft | TVD<br>ft | Semi-Major Axis<br>Ref<br>ft | Offset<br>ft | TFO-HS<br>deg | Location<br>North<br>ft | East<br>ft | Ctr-Ctr<br>Distance<br>ft | Edge<br>Distance<br>ft | Separation<br>Factor | Warning |
|-----------------------|-----------|--------------------|-----------|------------------------------|--------------|---------------|-------------------------|------------|---------------------------|------------------------|----------------------|---------|
| 8500.00               | 8495.96   | 8418.92            | 8363.10   | 18.95                        | 20.98        | 210.29        | 61.58                   | -591.34    | 639.18                    | 602.45                 | 17.40                |         |
| 8550.00               | 8542.14   | 8460.60            | 8403.87   | 19.07                        | 21.13        | 211.06        | 62.56                   | -599.95    | 665.56                    | 628.92                 | 18.17                |         |
| 8600.00               | 8586.48   | 8499.76            | 8442.17   | 19.19                        | 21.28        | 212.01        | 63.49                   | -608.05    | 695.14                    | 658.65                 | 19.05                |         |
| 8650.00               | 8628.64   | 8535.00            | 8476.62   | 19.34                        | 21.39        | 213.34        | 64.85                   | -615.32    | 727.79                    | 691.45                 | 20.03                |         |
| 8700.00               | 8668.29   | 8567.68            | 8508.45   | 19.50                        | 21.45        | 215.23        | 67.94                   | -622.05    | 763.30                    | 727.09                 | 21.08                |         |
| 8750.00               | 8705.15   | 8598.14            | 8537.91   | 19.70                        | 21.48        | 217.79        | 72.50                   | -628.27    | 801.36                    | 765.21                 | 22.17                |         |
| 8800.00               | 8738.92   | 8626.14            | 8564.75   | 19.94                        | 21.45        | 221.15        | 78.09                   | -633.94    | 841.68                    | 805.41                 | 23.21                |         |
| 8850.00               | 8769.35   | 8651.48            | 8588.78   | 20.22                        | 21.42        | 225.53        | 84.30                   | -639.02    | 883.93                    | 847.34                 | 24.16                |         |
| 8900.00               | 8796.21   | 8673.99            | 8609.90   | 20.55                        | 21.35        | 231.21        | 90.72                   | -643.48    | 927.82                    | 890.57                 | 24.91                |         |
| 8901.33               | 8796.87   | 8674.55            | 8610.42   | 20.56                        | 21.35        | 231.39        | 90.89                   | -643.59    | 929.00                    | 891.74                 | 24.93                |         |
| 8950.00               | 8820.72   | 8695.79            | 8630.09   | 20.91                        | 21.29        | 239.44        | 97.74                   | -647.75    | 971.86                    | 933.48                 | 25.33                |         |
| 9000.00               | 8844.31   | 8719.59            | 8651.81   | 21.26                        | 21.20        | 246.16        | 106.30                  | -652.34    | 1014.49                   | 975.15                 | 25.79                |         |
| 9050.00               | 8866.77   | 8745.83            | 8675.34   | 21.61                        | 21.10        | 251.65        | 116.79                  | -657.31    | 1055.48                   | 1015.32                | 26.28                |         |
| 9100.00               | 8887.96   | 8775.06            | 8700.96   | 21.95                        | 20.99        | 256.13        | 129.76                  | -662.72    | 1094.61                   | 1053.72                | 26.77                |         |
| 9150.00               | 8907.70   | 8807.93            | 8728.96   | 22.26                        | 20.86        | 259.77        | 145.93                  | -668.64    | 1131.64                   | 1090.10                | 27.24                |         |
| 9200.00               | 8925.84   | 8845.23            | 8759.58   | 22.55                        | 20.76        | 262.69        | 166.22                  | -675.10    | 1166.33                   | 1124.20                | 27.68                |         |
| 9250.00               | 8942.25   | 8887.91            | 8792.93   | 22.81                        | 20.71        | 264.98        | 191.87                  | -682.15    | 1198.41                   | 1155.73                | 28.08                |         |
| 9300.00               | 8956.80   | 8937.03            | 8828.89   | 23.02                        | 20.73        | 266.72        | 224.45                  | -689.75    | 1227.59                   | 1184.39                | 28.42                |         |
| 9350.00               | 8969.38   | 8993.76            | 8866.84   | 23.20                        | 20.84        | 267.98        | 265.81                  | -697.77    | 1253.52                   | 1209.82                | 28.68                |         |
| 9400.00               | 8979.90   | 9059.12            | 8905.35   | 23.33                        | 21.06        | 268.82        | 317.95                  | -705.90    | 1275.81                   | 1231.60                | 28.86                |         |
| 9450.00               | 8988.27   | 9133.75            | 8941.89   | 23.41                        | 21.39        | 269.35        | 382.50                  | -713.62    | 1294.01                   | 1249.27                | 28.92                |         |
| 9500.00               | 8994.43   | 9217.34            | 8972.68   | 23.46                        | 21.85        | 269.65        | 459.86                  | -720.13    | 1307.66                   | 1262.36                | 28.87                |         |
| 9550.00               | 8998.33   | 9308.20            | 8993.29   | 23.47                        | 22.43        | 269.84        | 548.14                  | -724.48    | 1316.31                   | 1270.42                | 28.68                |         |
| 9600.00               | 8999.95   | 9400.14            | 9000.00   | 23.45                        | 23.12        | 269.99        | 639.73                  | -725.90    | 1319.67                   | 1273.17                | 28.38                |         |
| 9610.24               | 9000.00   | 9410.37            | 9000.00   | 23.44                        | 23.22        | 270.00        | 649.97                  | -725.90    | 1319.75                   | 1273.16                | 28.33                |         |
| 9700.00               | 9000.00   | 9500.13            | 9000.00   | 24.20                        | 24.07        | 270.00        | 739.73                  | -725.90    | 1319.75                   | 1271.55                | 27.38                |         |
| 9800.00               | 9000.00   | 9600.13            | 9000.00   | 25.11                        | 25.11        | 270.00        | 839.73                  | -725.90    | 1319.75                   | 1269.61                | 26.32                |         |
| 9900.00               | 9000.00   | 9700.13            | 9000.00   | 26.11                        | 26.24        | 270.00        | 939.73                  | -725.90    | 1319.75                   | 1267.48                | 25.25                |         |
| 10000.00              | 9000.00   | 9800.13            | 9000.00   | 27.20                        | 27.45        | 270.00        | 1039.73                 | -725.90    | 1319.75                   | 1265.19                | 24.19                |         |
| 10100.00              | 9000.00   | 9900.13            | 9000.00   | 28.36                        | 28.71        | 270.00        | 1139.73                 | -725.90    | 1319.75                   | 1262.75                | 23.16                |         |
| 10200.00              | 9000.00   | 10000.13           | 9000.00   | 29.59                        | 30.04        | 270.00        | 1239.73                 | -725.90    | 1319.75                   | 1260.20                | 22.16                |         |
| 10300.00              | 9000.00   | 10100.13           | 9000.00   | 30.88                        | 31.41        | 270.00        | 1339.73                 | -725.90    | 1319.75                   | 1257.53                | 21.21                |         |
| 10400.00              | 9000.00   | 10200.13           | 9000.00   | 32.22                        | 32.83        | 270.00        | 1439.73                 | -725.90    | 1319.75                   | 1254.77                | 20.31                |         |
| 10500.00              | 9000.00   | 10300.13           | 9000.00   | 33.61                        | 34.29        | 270.00        | 1539.73                 | -725.90    | 1319.75                   | 1251.93                | 19.46                |         |
| 10600.00              | 9000.00   | 10400.13           | 9000.00   | 35.04                        | 35.78        | 270.00        | 1639.73                 | -725.90    | 1319.75                   | 1249.01                | 18.66                |         |
| 10700.00              | 9000.00   | 10500.13           | 9000.00   | 36.50                        | 37.30        | 270.00        | 1739.73                 | -725.90    | 1319.75                   | 1246.03                | 17.90                |         |
| 10800.00              | 9000.00   | 10600.13           | 9000.00   | 37.99                        | 38.84        | 270.00        | 1839.73                 | -725.90    | 1319.75                   | 1242.99                | 17.19                |         |
| 10900.00              | 9000.00   | 10700.13           | 9000.00   | 39.51                        | 40.41        | 270.00        | 1939.73                 | -725.90    | 1319.75                   | 1239.90                | 16.53                |         |
| 11000.00              | 9000.00   | 10800.13           | 9000.00   | 41.06                        | 42.00        | 270.00        | 2039.73                 | -725.90    | 1319.75                   | 1236.76                | 15.90                |         |
| 11100.00              | 9000.00   | 10900.13           | 9000.00   | 42.62                        | 43.60        | 270.00        | 2139.73                 | -725.90    | 1319.75                   | 1233.59                | 15.32                |         |
| 11200.00              | 9000.00   | 11000.13           | 9000.00   | 44.21                        | 45.23        | 270.00        | 2239.73                 | -725.90    | 1319.75                   | 1230.37                | 14.77                |         |
| 11300.00              | 9000.00   | 11100.13           | 9000.00   | 45.81                        | 46.87        | 270.00        | 2339.73                 | -725.90    | 1319.75                   | 1227.13                | 14.25                |         |
| 11400.00              | 9000.00   | 11200.13           | 9000.00   | 47.43                        | 48.52        | 270.00        | 2439.73                 | -725.90    | 1319.75                   | 1223.86                | 13.76                |         |
| 11500.00              | 9000.00   | 11300.13           | 9000.00   | 49.07                        | 50.18        | 270.00        | 2539.73                 | -725.90    | 1319.75                   | 1220.56                | 13.30                |         |
| 11600.00              | 9000.00   | 11400.13           | 9000.00   | 50.72                        | 51.85        | 270.00        | 2639.73                 | -725.90    | 1319.75                   | 1217.23                | 12.87                |         |
| 11700.00              | 9000.00   | 11500.13           | 9000.00   | 52.37                        | 53.54        | 270.00        | 2739.73                 | -725.90    | 1319.75                   | 1213.89                | 12.47                |         |
| 11800.00              | 9000.00   | 11600.13           | 9000.00   | 54.04                        | 55.23        | 270.00        | 2839.73                 | -725.90    | 1319.75                   | 1210.53                | 12.08                |         |
| 11900.00              | 9000.00   | 11700.13           | 9000.00   | 55.72                        | 56.93        | 270.00        | 2939.73                 | -725.90    | 1319.75                   | 1207.14                | 11.72                |         |
| 12000.00              | 9000.00   | 11800.13           | 9000.00   | 57.41                        | 58.64        | 270.00        | 3039.73                 | -725.90    | 1319.75                   | 1203.75                | 11.38                |         |
| 12100.00              | 9000.00   | 11900.13           | 9000.00   | 59.11                        | 60.35        | 270.00        | 3139.73                 | -725.90    | 1319.75                   | 1200.34                | 11.05                |         |
| 12200.00              | 9000.00   | 12000.13           | 9000.00   | 60.81                        | 62.07        | 270.00        | 3239.73                 | -725.90    | 1319.75                   | 1196.91                | 10.74                |         |



# Weatherford Anticollision Report

**Weatherford**

Company: Devon Energy Date: 6/4/2013 Time: 09:11:46 Page: 4  
Field: Lea County, New Mexico (NAD 83)  
Reference Site: Ragin Cajun 13 Federal 1H Co-ordinate(NE) Reference: Well: Ragin Cajun 13 Federal 1H  
Reference Well: Ragin Cajun 13 Federal 1H Vertical (TVD) Reference: SITE 3270.0  
Reference Wellpath: Db: Sybase

Site: Ragin Cajun 13 Federal 2H  
Well: Ragin Cajun 13 Federal 2H  
Wellpath: 1 V0 Plan: Plan #1 V1

Inter-Site Error: 0.00 ft

| Reference |         | Offset   |         | Semi-Major Axis |        |        | Offset Location |         | Ctr-Ctr Edge |          | Separation | Warning |
|-----------|---------|----------|---------|-----------------|--------|--------|-----------------|---------|--------------|----------|------------|---------|
| MD        | TVD     | MD       | TVD     | Ref             | Offset | TFO-HS | North           | East    | Distance     | Distance | Factor     |         |
| ft        | ft      | ft       | ft      | ft              | ft     | deg    | ft              | ft      | ft           | ft       |            |         |
| 12300.00  | 9000.00 | 12100.13 | 9000.00 | 62.52           | 63.80  | 270.00 | 3339.73         | -725.90 | 1319.75      | 1193.47  | 10.45      |         |
| 12400.00  | 9000.00 | 12200.13 | 9000.00 | 64.24           | 65.53  | 270.00 | 3439.73         | -725.90 | 1319.75      | 1190.02  | 10.17      |         |
| 12500.00  | 9000.00 | 12300.13 | 9000.00 | 65.96           | 67.27  | 270.00 | 3539.73         | -725.90 | 1319.75      | 1186.56  | 9.91       |         |
| 12600.00  | 9000.00 | 12400.13 | 9000.00 | 67.69           | 69.01  | 270.00 | 3639.73         | -725.90 | 1319.75      | 1183.09  | 9.66       |         |
| 12700.00  | 9000.00 | 12500.13 | 9000.00 | 69.42           | 70.76  | 270.00 | 3739.73         | -725.90 | 1319.75      | 1179.62  | 9.42       |         |
| 12800.00  | 9000.00 | 12600.13 | 9000.00 | 71.16           | 72.50  | 270.00 | 3839.73         | -725.90 | 1319.75      | 1176.13  | 9.19       |         |
| 12900.00  | 9000.00 | 12700.13 | 9000.00 | 72.90           | 74.26  | 270.00 | 3939.73         | -725.90 | 1319.75      | 1172.63  | 8.97       |         |
| 13000.00  | 9000.00 | 12800.13 | 9000.00 | 74.64           | 76.01  | 270.00 | 4039.73         | -725.90 | 1319.75      | 1169.13  | 8.76       |         |
| 13100.00  | 9000.00 | 12900.13 | 9000.00 | 76.39           | 77.77  | 270.00 | 4139.73         | -725.90 | 1319.75      | 1165.62  | 8.56       |         |
| 13200.00  | 9000.00 | 13000.13 | 9000.00 | 78.14           | 79.53  | 270.00 | 4239.73         | -725.90 | 1319.75      | 1162.11  | 8.37       |         |
| 13300.00  | 9000.00 | 13100.13 | 9000.00 | 79.90           | 81.30  | 270.00 | 4339.73         | -725.90 | 1319.75      | 1158.59  | 8.19       |         |
| 13400.00  | 9000.00 | 13200.13 | 9000.00 | 81.66           | 83.07  | 270.00 | 4439.73         | -725.90 | 1319.75      | 1155.06  | 8.01       |         |
| 13500.00  | 9000.00 | 13300.13 | 9000.00 | 83.42           | 84.84  | 270.00 | 4539.73         | -725.90 | 1319.75      | 1151.53  | 7.85       |         |
| 13589.67  | 9000.00 | 13378.95 | 9000.00 | 85.00           | 86.23  | 270.00 | 4618.54         | -725.90 | 1319.79      | 1148.60  | 7.71       |         |

**Weatherford****Weatherford Drilling Services**

GeoDec v5.03

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Report Date: March 18, 2013  
Job Number: \_\_\_\_\_  
Customer: Devon Energy  
Well Name: Ragin Cajun 13 Federal 1H  
API Number: \_\_\_\_\_  
Rig Name: \_\_\_\_\_  
Location: Lea County, NM  
Block: \_\_\_\_\_  
Engineer: RWJ

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|                                              |                                             |
|----------------------------------------------|---------------------------------------------|
| US State Plane 1983                          | Geodetic Latitude / Longitude               |
| System: New Mexico Eastern Zone              | System: Latitude / Longitude                |
| Projection: Transverse Mercator/Gauss Kruger | Projection: Geodetic Latitude and Longitude |
| Datum: North American Datum 1983             | Datum: North American Datum 1983            |
| Ellipsoid: GRS 1980                          | Ellipsoid: GRS 1980                         |
| North/South 378386.450 USFT                  | Latitude 32.0370308 DEG                     |
| East/West 821928.120 USFT                    | Longitude -103.4278199 DEG                  |
| Grid Convergence: .48°                       |                                             |
| Total Correction: +6.83°                     |                                             |

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|                         |              |                        |
|-------------------------|--------------|------------------------|
| Geodetic Location WGS84 | Elevation =  | 0.0 Meters             |
| Latitude =              | 32.03703° N  | 32° 2 min 13.311 sec   |
| Longitude =             | 103.42782° W | 103° 25 min 40.152 sec |

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|                        |              |                              |
|------------------------|--------------|------------------------------|
| Magnetic Declination = | 7.31°        | [True North Offset]          |
| Local Gravity =        | .9988 g      | Checksum = 6761              |
| Local Field Strength = | 48253 nT     | Magnetic Vector X = 23985 nT |
| Magnetic Dip =         | 59.92°       | Magnetic Vector Y = 3075 nT  |
| Magnetic Model =       | bggm2012     | Magnetic Vector Z = 41756 nT |
| Spud Date =            | Dec 15, 2013 | Magnetic Vector H = 24181 nT |

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Signed: \_\_\_\_\_

Date: \_\_\_\_\_



# Weatherford

## Wft Plan Report X Y's.

**Weatherford**

Company: Devon Energy Date: 3/20/2013 Time: 06:30:42 Page: 1  
Field: Lea County, New Mexico (NAD 83) Co-ordinate(NE) Reference: Well: Ragin Cajun 13 Federal 1H  
Site: Ragin Cajun 13 Federal 1H Vertical (TVD) Reference: SITE 3270.0  
Well: Ragin Cajun 13 Federal 1H Section (VS) Reference: Well (0.00N,0.00E,7.31Azi)  
Wellpath: 1 Survey Calculation Method: Minimum Curvature Db: Sybase

Plan: Plan #1 Date Composed: 3/18/2013  
Principal: Yes Version: 1  
Tied-to: From Surface

Site: Ragin Cajun 13 Federal 1H

Site Position: Northing: 378386.45 ft Latitude: 32 2 13.304 N  
From: Map Easting: 821928.12 ft Longitude: 103 25 40.171 W  
Position Uncertainty: 0.00 ft North Reference: Grid  
Ground Level: 3245.00 ft Grid Convergence: 0.48 deg

Well: Ragin Cajun 13 Federal 1H Slot Name:  
Well Position: +N/-S 0.00 ft Northing: 378386.45 ft Latitude: 32 2 13.304 N  
+E/-W 0.00 ft Easting: 821928.12 ft Longitude: 103 25 40.171 W  
Position Uncertainty: 0.00 ft

Wellpath: 1 Drilled From: Surface  
Current Datum: SITE Height 3270.00 ft Tie-on Depth: 0.00 ft  
Magnetic Data: 12/15/2013 Above System Datum: Mean Sea Level  
Field Strength: 48294 nT Declination: 7.20 deg  
Vertical Section: Depth From (TVD) Mag Dip Angle: 59.97 deg  
ft +N/-S ft +E/-W Direction deg  
0.00 0.00 0.00 7.31

### Plan Section Information

| MD<br>ft | Incl<br>deg | Azim<br>deg | TVD<br>ft | +N/-S<br>ft | +E/-W<br>ft | DLS<br>deg/100ft | Build<br>deg/100ft | Turn<br>deg/100ft | TFO<br>deg | Target |
|----------|-------------|-------------|-----------|-------------|-------------|------------------|--------------------|-------------------|------------|--------|
| 0.00     | 0.00        | 7.31        | 0.00      | 0.00        | 0.00        | 0.00             | 0.00               | 0.00              | 0.00       |        |
| 8427.04  | 0.00        | 7.31        | 8427.04   | 0.00        | 0.00        | 0.00             | 0.00               | 0.00              | 0.00       |        |
| 9327.04  | 90.00       | 7.31        | 9000.00   | 568.30      | 72.90       | 10.00            | 10.00              | 0.00              | 7.31       |        |
| 13421.42 | 90.00       | 7.31        | 9000.00   | 4629.40     | 593.85      | 0.00             | 0.00               | 0.00              | 0.00       | PBHL   |

### 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 | MapN<br>ft | MapE<br>ft | Comments |
|----------|-------------|-------------|-----------|-----------|-----------|----------|------------------|------------|------------|----------|
| 8400.00  | 0.00        | 7.31        | 8400.00   | 0.00      | 0.00      | 0.00     | 0.00             | 378386.45  | 821928.12  |          |
| 8427.04  | 0.00        | 7.31        | 8427.04   | 0.00      | 0.00      | 0.00     | 0.00             | 378386.45  | 821928.12  | KOP      |
| 8500.00  | 7.30        | 7.31        | 8499.80   | 4.60      | 0.59      | 4.64     | 10.00            | 378391.05  | 821928.71  |          |
| 8600.00  | 17.30       | 7.31        | 8597.39   | 25.70     | 3.30      | 25.91    | 10.00            | 378412.15  | 821931.42  |          |
| 8700.00  | 27.30       | 7.31        | 8689.79   | 63.28     | 8.12      | 63.80    | 10.00            | 378449.73  | 821936.24  |          |
| 8800.00  | 37.30       | 7.31        | 8774.21   | 116.21    | 14.91     | 117.16   | 10.00            | 378502.66  | 821943.03  |          |
| 8900.00  | 47.30       | 7.31        | 8848.09   | 182.87    | 23.46     | 184.37   | 10.00            | 378569.32  | 821951.58  |          |
| 9000.00  | 57.30       | 7.31        | 8909.17   | 261.25    | 33.51     | 263.39   | 10.00            | 378647.70  | 821961.63  |          |
| 9100.00  | 67.30       | 7.31        | 8955.60   | 348.95    | 44.76     | 351.81   | 10.00            | 378735.40  | 821972.88  |          |
| 9200.00  | 77.30       | 7.31        | 8985.97   | 443.32    | 56.87     | 446.95   | 10.00            | 378829.77  | 821984.99  |          |
| 9300.00  | 87.30       | 7.31        | 8999.36   | 541.49    | 69.46     | 545.93   | 10.00            | 378927.94  | 821997.58  |          |
| 9327.04  | 90.00       | 7.31        | 9000.00   | 568.30    | 72.90     | 572.96   | 10.00            | 378954.75  | 822001.02  | LP       |
| 9400.00  | 90.00       | 7.31        | 9000.00   | 640.67    | 82.18     | 645.92   | 0.00             | 379027.12  | 822010.30  |          |
| 9500.00  | 90.00       | 7.31        | 9000.00   | 739.85    | 94.91     | 745.92   | 0.00             | 379126.30  | 822023.03  |          |
| 9600.00  | 90.00       | 7.31        | 9000.00   | 839.04    | 107.63    | 845.92   | 0.00             | 379225.49  | 822035.75  |          |
| 9700.00  | 90.00       | 7.31        | 9000.00   | 938.23    | 120.35    | 945.92   | 0.00             | 379324.68  | 822048.47  |          |
| 9800.00  | 90.00       | 7.31        | 9000.00   | 1037.42   | 133.08    | 1045.92  | 0.00             | 379423.87  | 822061.20  |          |
| 9900.00  | 90.00       | 7.31        | 9000.00   | 1136.60   | 145.80    | 1145.92  | 0.00             | 379523.05  | 822073.92  |          |
| 10000.00 | 90.00       | 7.31        | 9000.00   | 1235.79   | 158.52    | 1245.92  | 0.00             | 379622.24  | 822086.64  |          |
| 10100.00 | 90.00       | 7.31        | 9000.00   | 1334.98   | 171.25    | 1345.92  | 0.00             | 379721.43  | 822099.37  |          |
| 10200.00 | 90.00       | 7.31        | 9000.00   | 1434.16   | 183.97    | 1445.92  | 0.00             | 379820.61  | 822112.09  |          |
| 10300.00 | 90.00       | 7.31        | 9000.00   | 1533.35   | 196.70    | 1545.92  | 0.00             | 379919.80  | 822124.82  |          |
| 10400.00 | 90.00       | 7.31        | 9000.00   | 1632.54   | 209.42    | 1645.92  | 0.00             | 380018.99  | 822137.54  |          |



# Weatherford

## Wft Plan Report X Y's.

**Weatherford**

Company: Devon Energy  
Field: Lea County, New Mexico (NAD 83)  
Site: Ragin Cajun 13 Federal 1H  
Well: Ragin Cajun 13 Federal 1H  
Wellpath: 1

Date: 3/20/2013 Time: 06:30:42 Page: 2  
Co-ordinate(NE) Reference: Well: Ragin Cajun 13 Federal 1H  
Vertical (TVD) Reference: SITE 3270.0  
Section (VS) Reference: Well (0.00N,0.00E,7.31Azi)  
Survey Calculation Method: Minimum Curvature Db: Sybase

### 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 | MapN<br>ft | MapE<br>ft | Comments |
|----------|-------------|-------------|-----------|-----------|-----------|----------|------------------|------------|------------|----------|
| 10500.00 | 90.00       | 7.31        | 9000.00   | 1731.73   | 222.14    | 1745.92  | 0.00             | 380118.18  | 822150.26  |          |
| 10600.00 | 90.00       | 7.31        | 9000.00   | 1830.91   | 234.87    | 1845.92  | 0.00             | 380217.36  | 822162.99  |          |
| 10700.00 | 90.00       | 7.31        | 9000.00   | 1930.10   | 247.59    | 1945.92  | 0.00             | 380316.55  | 822175.71  |          |
| 10800.00 | 90.00       | 7.31        | 9000.00   | 2029.29   | 260.31    | 2045.92  | 0.00             | 380415.74  | 822188.43  |          |
| 10900.00 | 90.00       | 7.31        | 9000.00   | 2128.47   | 273.04    | 2145.92  | 0.00             | 380514.92  | 822201.16  |          |
| 11000.00 | 90.00       | 7.31        | 9000.00   | 2227.66   | 285.76    | 2245.92  | 0.00             | 380614.11  | 822213.88  |          |
| 11100.00 | 90.00       | 7.31        | 9000.00   | 2326.85   | 298.48    | 2345.92  | 0.00             | 380713.30  | 822226.60  |          |
| 11200.00 | 90.00       | 7.31        | 9000.00   | 2426.04   | 311.21    | 2445.92  | 0.00             | 380812.49  | 822239.33  |          |
| 11300.00 | 90.00       | 7.31        | 9000.00   | 2525.22   | 323.93    | 2545.92  | 0.00             | 380911.67  | 822252.05  |          |
| 11400.00 | 90.00       | 7.31        | 9000.00   | 2624.41   | 336.65    | 2645.92  | 0.00             | 381010.86  | 822264.77  |          |
| 11500.00 | 90.00       | 7.31        | 9000.00   | 2723.60   | 349.38    | 2745.92  | 0.00             | 381110.05  | 822277.50  |          |
| 11600.00 | 90.00       | 7.31        | 9000.00   | 2822.79   | 362.10    | 2845.92  | 0.00             | 381209.24  | 822290.22  |          |
| 11700.00 | 90.00       | 7.31        | 9000.00   | 2921.97   | 374.82    | 2945.92  | 0.00             | 381308.42  | 822302.94  |          |
| 11800.00 | 90.00       | 7.31        | 9000.00   | 3021.16   | 387.55    | 3045.92  | 0.00             | 381407.61  | 822315.67  |          |
| 11900.00 | 90.00       | 7.31        | 9000.00   | 3120.35   | 400.27    | 3145.92  | 0.00             | 381506.80  | 822328.39  |          |
| 12000.00 | 90.00       | 7.31        | 9000.00   | 3219.53   | 413.00    | 3245.92  | 0.00             | 381605.98  | 822341.12  |          |
| 12100.00 | 90.00       | 7.31        | 9000.00   | 3318.72   | 425.72    | 3345.92  | 0.00             | 381705.17  | 822353.84  |          |
| 12200.00 | 90.00       | 7.31        | 9000.00   | 3417.91   | 438.44    | 3445.92  | 0.00             | 381804.36  | 822366.56  |          |
| 12300.00 | 90.00       | 7.31        | 9000.00   | 3517.10   | 451.17    | 3545.92  | 0.00             | 381903.55  | 822379.29  |          |
| 12400.00 | 90.00       | 7.31        | 9000.00   | 3616.28   | 463.89    | 3645.92  | 0.00             | 382002.73  | 822392.01  |          |
| 12500.00 | 90.00       | 7.31        | 9000.00   | 3715.47   | 476.61    | 3745.92  | 0.00             | 382101.92  | 822404.73  |          |
| 12600.00 | 90.00       | 7.31        | 9000.00   | 3814.66   | 489.34    | 3845.92  | 0.00             | 382201.11  | 822417.46  |          |
| 12700.00 | 90.00       | 7.31        | 9000.00   | 3913.85   | 502.06    | 3945.92  | 0.00             | 382300.30  | 822430.18  |          |
| 12800.00 | 90.00       | 7.31        | 9000.00   | 4013.03   | 514.78    | 4045.92  | 0.00             | 382399.48  | 822442.90  |          |
| 12900.00 | 90.00       | 7.31        | 9000.00   | 4112.22   | 527.51    | 4145.92  | 0.00             | 382498.67  | 822455.63  |          |
| 13000.00 | 90.00       | 7.31        | 9000.00   | 4211.41   | 540.23    | 4245.92  | 0.00             | 382597.86  | 822468.35  |          |
| 13100.00 | 90.00       | 7.31        | 9000.00   | 4310.59   | 552.95    | 4345.92  | 0.00             | 382697.04  | 822481.07  |          |
| 13200.00 | 90.00       | 7.31        | 9000.00   | 4409.78   | 565.68    | 4445.92  | 0.00             | 382796.23  | 822493.80  |          |
| 13300.00 | 90.00       | 7.31        | 9000.00   | 4508.97   | 578.40    | 4545.92  | 0.00             | 382895.42  | 822506.52  |          |
| 13400.00 | 90.00       | 7.31        | 9000.00   | 4608.16   | 591.12    | 4645.92  | 0.00             | 382994.61  | 822519.24  |          |
| 13421.42 | 90.00       | 7.31        | 9000.00   | 4629.40   | 593.85    | 4667.33  | 0.00             | 383015.85  | 822521.97  | PBHL     |

### Targets

| Name                         | Description<br>Dip. | Dir. | TVD<br>ft | +N/-S<br>ft | +E/-W<br>ft | Map<br>Northing<br>ft | Map<br>Easting<br>ft | <---- Latitude ----> |   |          | <--- Longitude ---> |    |          |
|------------------------------|---------------------|------|-----------|-------------|-------------|-----------------------|----------------------|----------------------|---|----------|---------------------|----|----------|
| PBHL<br>-Rectangle (4100x50) |                     |      | 9000.00   | 4629.40     | 593.85      | 383015.85             | 822521.97            | 32                   | 2 | 59.063 N | 103                 | 25 | 32.820 W |

### Casing Points

| MD | TVD | Diameter | Hole Size | Name |
|----|-----|----------|-----------|------|
|    |     |          |           |      |

### Annotation

| MD<br>ft | TVD<br>ft |      |
|----------|-----------|------|
| 8427.04  | 8427.04   | KOP  |
| 9327.04  | 9000.00   | LP   |
| 13421.41 | 9000.00   | PBHL |



# Weatherford Anticollision Report

**Weatherford**

Company: Devon Energy Date: 3/20/2013 Time: 06:32:13 Page: 1  
Field: Lea County, New Mexico (NAD 83)  
Reference Site: Ragin Cajun 13 Federal 1H Co-ordinate(NE) Reference: Well: Ragin Cajun 13 Federal 1H  
Reference Well: Ragin Cajun 13 Federal 1H Vertical (TVD) Reference: SITE 3270.0  
Reference Wellpath: Db: Sybase

NO GLOBAL SCAN: Using user defined selection & scan criteria  
Interpolation Method: MD + Stations Interval: 100.00 ft  
Depth Range: 100.00 to 13428.72 ft  
Maximum Radius: 10000.00 ft

Reference: Plan: Plan #1  
Error Model: ISCWSA Ellipse  
Scan Method: Closest Approach 3D  
Error Surface: Ellipse

Plan: Plan #1 Date Composed: 3/18/2013  
Principal: Yes Version: 1  
Tied-to: From Surface

## Summary

| Site                   | Offset Wellpath Well   | Wellpath              | Reference MD ft | Offset MD ft | Ctr-Ctr Edge Distance ft | Separation Distance ft | Factor | Warning |
|------------------------|------------------------|-----------------------|-----------------|--------------|--------------------------|------------------------|--------|---------|
| Ragin Cajun 13 Federal | Ragin Cajun 13 Federal | 1 V0 Plan: Plan #1 V1 | 5600.00         | 5600.00      | 50.00                    | 25.11                  | 2.01   |         |

Site: Ragin Cajun 13 Federal 2H  
Well: Ragin Cajun 13 Federal 2H  
Wellpath: 1 V0 Plan: Plan #1 V1

Inter-Site Error: 0.00 ft

| Reference MD ft | TVD ft  | Offset MD ft | TVD ft  | Semi-Major Axis Ref ft | Offset ft | TFO-HS deg | Offset Location North ft | East ft | Ctr-Ctr Edge Distance ft | Separation Distance ft | Factor | Warning |
|-----------------|---------|--------------|---------|------------------------|-----------|------------|--------------------------|---------|--------------------------|------------------------|--------|---------|
| 100.00          | 100.00  | 100.00       | 100.00  | 0.08                   | 0.08      | 269.68     | -0.28                    | -50.00  | 50.00                    | 49.83                  | 296.61 |         |
| 200.00          | 200.00  | 200.00       | 200.00  | 0.31                   | 0.31      | 269.68     | -0.28                    | -50.00  | 50.00                    | 49.38                  | 80.89  |         |
| 300.00          | 300.00  | 300.00       | 300.00  | 0.53                   | 0.53      | 269.68     | -0.28                    | -50.00  | 50.00                    | 48.93                  | 46.83  |         |
| 400.00          | 400.00  | 400.00       | 400.00  | 0.76                   | 0.76      | 269.68     | -0.28                    | -50.00  | 50.00                    | 48.48                  | 32.96  |         |
| 500.00          | 500.00  | 500.00       | 500.00  | 0.98                   | 0.98      | 269.68     | -0.28                    | -50.00  | 50.00                    | 48.03                  | 25.42  |         |
| 600.00          | 600.00  | 600.00       | 600.00  | 1.21                   | 1.21      | 269.68     | -0.28                    | -50.00  | 50.00                    | 47.58                  | 20.69  |         |
| 700.00          | 700.00  | 700.00       | 700.00  | 1.43                   | 1.43      | 269.68     | -0.28                    | -50.00  | 50.00                    | 47.14                  | 17.45  |         |
| 800.00          | 800.00  | 800.00       | 800.00  | 1.66                   | 1.66      | 269.68     | -0.28                    | -50.00  | 50.00                    | 46.69                  | 15.08  |         |
| 900.00          | 900.00  | 900.00       | 900.00  | 1.88                   | 1.88      | 269.68     | -0.28                    | -50.00  | 50.00                    | 46.24                  | 13.28  |         |
| 1000.00         | 1000.00 | 1000.00      | 1000.00 | 2.11                   | 2.11      | 269.68     | -0.28                    | -50.00  | 50.00                    | 45.79                  | 11.86  |         |
| 1100.00         | 1100.00 | 1100.00      | 1100.00 | 2.33                   | 2.33      | 269.68     | -0.28                    | -50.00  | 50.00                    | 45.34                  | 10.72  |         |
| 1200.00         | 1200.00 | 1200.00      | 1200.00 | 2.56                   | 2.56      | 269.68     | -0.28                    | -50.00  | 50.00                    | 44.89                  | 9.78   |         |
| 1300.00         | 1300.00 | 1300.00      | 1300.00 | 2.78                   | 2.78      | 269.68     | -0.28                    | -50.00  | 50.00                    | 44.44                  | 8.99   |         |
| 1400.00         | 1400.00 | 1400.00      | 1400.00 | 3.01                   | 3.01      | 269.68     | -0.28                    | -50.00  | 50.00                    | 43.99                  | 8.32   |         |
| 1500.00         | 1500.00 | 1500.00      | 1500.00 | 3.23                   | 3.23      | 269.68     | -0.28                    | -50.00  | 50.00                    | 43.54                  | 7.74   |         |
| 1600.00         | 1600.00 | 1600.00      | 1600.00 | 3.46                   | 3.46      | 269.68     | -0.28                    | -50.00  | 50.00                    | 43.09                  | 7.23   |         |
| 1700.00         | 1700.00 | 1700.00      | 1700.00 | 3.68                   | 3.68      | 269.68     | -0.28                    | -50.00  | 50.00                    | 42.64                  | 6.79   |         |
| 1800.00         | 1800.00 | 1800.00      | 1800.00 | 3.91                   | 3.91      | 269.68     | -0.28                    | -50.00  | 50.00                    | 42.19                  | 6.40   |         |
| 1900.00         | 1900.00 | 1900.00      | 1900.00 | 4.13                   | 4.13      | 269.68     | -0.28                    | -50.00  | 50.00                    | 41.74                  | 6.05   |         |
| 2000.00         | 2000.00 | 2000.00      | 2000.00 | 4.35                   | 4.35      | 269.68     | -0.28                    | -50.00  | 50.00                    | 41.29                  | 5.74   |         |
| 2100.00         | 2100.00 | 2100.00      | 2100.00 | 4.58                   | 4.58      | 269.68     | -0.28                    | -50.00  | 50.00                    | 40.84                  | 5.46   |         |
| 2200.00         | 2200.00 | 2200.00      | 2200.00 | 4.80                   | 4.80      | 269.68     | -0.28                    | -50.00  | 50.00                    | 40.39                  | 5.20   |         |
| 2300.00         | 2300.00 | 2300.00      | 2300.00 | 5.03                   | 5.03      | 269.68     | -0.28                    | -50.00  | 50.00                    | 39.94                  | 4.97   |         |
| 2400.00         | 2400.00 | 2400.00      | 2400.00 | 5.25                   | 5.25      | 269.68     | -0.28                    | -50.00  | 50.00                    | 39.49                  | 4.76   |         |
| 2500.00         | 2500.00 | 2500.00      | 2500.00 | 5.48                   | 5.48      | 269.68     | -0.28                    | -50.00  | 50.00                    | 39.04                  | 4.56   |         |
| 2600.00         | 2600.00 | 2600.00      | 2600.00 | 5.70                   | 5.70      | 269.68     | -0.28                    | -50.00  | 50.00                    | 38.59                  | 4.38   |         |
| 2700.00         | 2700.00 | 2700.00      | 2700.00 | 5.93                   | 5.93      | 269.68     | -0.28                    | -50.00  | 50.00                    | 38.14                  | 4.22   |         |
| 2800.00         | 2800.00 | 2800.00      | 2800.00 | 6.15                   | 6.15      | 269.68     | -0.28                    | -50.00  | 50.00                    | 37.69                  | 4.06   |         |
| 2900.00         | 2900.00 | 2900.00      | 2900.00 | 6.38                   | 6.38      | 269.68     | -0.28                    | -50.00  | 50.00                    | 37.25                  | 3.92   |         |
| 3000.00         | 3000.00 | 3000.00      | 3000.00 | 6.60                   | 6.60      | 269.68     | -0.28                    | -50.00  | 50.00                    | 36.80                  | 3.79   |         |
| 3100.00         | 3100.00 | 3100.00      | 3100.00 | 6.83                   | 6.83      | 269.68     | -0.28                    | -50.00  | 50.00                    | 36.35                  | 3.66   |         |
| 3200.00         | 3200.00 | 3200.00      | 3200.00 | 7.05                   | 7.05      | 269.68     | -0.28                    | -50.00  | 50.00                    | 35.90                  | 3.55   |         |
| 3300.00         | 3300.00 | 3300.00      | 3300.00 | 7.28                   | 7.28      | 269.68     | -0.28                    | -50.00  | 50.00                    | 35.45                  | 3.44   |         |
| 3400.00         | 3400.00 | 3400.00      | 3400.00 | 7.50                   | 7.50      | 269.68     | -0.28                    | -50.00  | 50.00                    | 35.00                  | 3.33   |         |
| 3500.00         | 3500.00 | 3500.00      | 3500.00 | 7.73                   | 7.73      | 269.68     | -0.28                    | -50.00  | 50.00                    | 34.55                  | 3.24   |         |
| 3600.00         | 3600.00 | 3600.00      | 3600.00 | 7.95                   | 7.95      | 269.68     | -0.28                    | -50.00  | 50.00                    | 34.10                  | 3.14   |         |



# Weatherford Anticollision Report

**Weatherford**

Company: Devon Energy  
Field: Lea County, New Mexico (NAD 83)  
Reference Site: Ragin Cajun 13 Federal 1H  
Reference Well: Ragin Cajun 13 Federal 1H  
Reference Wellpath:

Date: 3/20/2013

Time: 06:32:13

Page: 2

Co-ordinate(NE) Reference: Well: Ragin Cajun 13 Federal 1H  
Vertical (TVD) Reference: SITE 3270.0

Db: Sybase

Site: Ragin Cajun 13 Federal 2H

Well: Ragin Cajun 13 Federal 2H

Wellpath: 1 V0 Plan: Plan #1 V1

Inter-Site Error: 0.00 ft

| Reference<br>MD<br>ft | TVD<br>ft | Offset<br>MD<br>ft | TVD<br>ft | Semi-Major Axis<br>Ref<br>ft | Offset<br>ft | TFO-HS<br>deg | Offset Location<br>North<br>ft | East<br>ft | Ctr-Ctr<br>Distance<br>ft | Edge<br>Distance<br>ft | Separation<br>Factor | Warning |
|-----------------------|-----------|--------------------|-----------|------------------------------|--------------|---------------|--------------------------------|------------|---------------------------|------------------------|----------------------|---------|
| 3700.00               | 3700.00   | 3700.00            | 3700.00   | 8.18                         | 8.18         | 269.68        | -0.28                          | -50.00     | 50.00                     | 33.65                  | 3.06                 |         |
| 3800.00               | 3800.00   | 3800.00            | 3800.00   | 8.40                         | 8.40         | 269.68        | -0.28                          | -50.00     | 50.00                     | 33.20                  | 2.98                 |         |
| 3900.00               | 3900.00   | 3900.00            | 3900.00   | 8.63                         | 8.63         | 269.68        | -0.28                          | -50.00     | 50.00                     | 32.75                  | 2.90                 |         |
| 4000.00               | 4000.00   | 4000.00            | 4000.00   | 8.85                         | 8.85         | 269.68        | -0.28                          | -50.00     | 50.00                     | 32.30                  | 2.82                 |         |
| 4100.00               | 4100.00   | 4100.00            | 4100.00   | 9.07                         | 9.07         | 269.68        | -0.28                          | -50.00     | 50.00                     | 31.85                  | 2.75                 |         |
| 4200.00               | 4200.00   | 4200.00            | 4200.00   | 9.30                         | 9.30         | 269.68        | -0.28                          | -50.00     | 50.00                     | 31.40                  | 2.69                 |         |
| 4300.00               | 4300.00   | 4300.00            | 4300.00   | 9.52                         | 9.52         | 269.68        | -0.28                          | -50.00     | 50.00                     | 30.95                  | 2.62                 |         |
| 4400.00               | 4400.00   | 4400.00            | 4400.00   | 9.75                         | 9.75         | 269.68        | -0.28                          | -50.00     | 50.00                     | 30.50                  | 2.56                 |         |
| 4500.00               | 4500.00   | 4500.00            | 4500.00   | 9.97                         | 9.97         | 269.68        | -0.28                          | -50.00     | 50.00                     | 30.05                  | 2.51                 |         |
| 4600.00               | 4600.00   | 4600.00            | 4600.00   | 10.20                        | 10.20        | 269.68        | -0.28                          | -50.00     | 50.00                     | 29.60                  | 2.45                 |         |
| 4700.00               | 4700.00   | 4700.00            | 4700.00   | 10.42                        | 10.42        | 269.68        | -0.28                          | -50.00     | 50.00                     | 29.15                  | 2.40                 |         |
| 4800.00               | 4800.00   | 4800.00            | 4800.00   | 10.65                        | 10.65        | 269.68        | -0.28                          | -50.00     | 50.00                     | 28.70                  | 2.35                 |         |
| 4900.00               | 4900.00   | 4900.00            | 4900.00   | 10.87                        | 10.87        | 269.68        | -0.28                          | -50.00     | 50.00                     | 28.25                  | 2.30                 |         |
| 5000.00               | 5000.00   | 5000.00            | 5000.00   | 11.10                        | 11.10        | 269.68        | -0.28                          | -50.00     | 50.00                     | 27.81                  | 2.25                 |         |
| 5100.00               | 5100.00   | 5100.00            | 5100.00   | 11.32                        | 11.32        | 269.68        | -0.28                          | -50.00     | 50.00                     | 27.36                  | 2.21                 |         |
| 5200.00               | 5200.00   | 5200.00            | 5200.00   | 11.55                        | 11.55        | 269.68        | -0.28                          | -50.00     | 50.00                     | 26.91                  | 2.17                 |         |
| 5300.00               | 5300.00   | 5300.00            | 5300.00   | 11.77                        | 11.77        | 269.68        | -0.28                          | -50.00     | 50.00                     | 26.46                  | 2.12                 |         |
| 5400.00               | 5400.00   | 5400.00            | 5400.00   | 12.00                        | 12.00        | 269.68        | -0.28                          | -50.00     | 50.00                     | 26.01                  | 2.08                 |         |
| 5500.00               | 5500.00   | 5500.00            | 5500.00   | 12.22                        | 12.22        | 269.68        | -0.28                          | -50.00     | 50.00                     | 25.56                  | 2.05                 |         |
| 5600.00               | 5600.00   | 5600.00            | 5600.00   | 12.45                        | 12.45        | 269.68        | -0.28                          | -50.00     | 50.00                     | 25.11                  | 2.01                 |         |
| 5700.00               | 5700.00   | 5697.38            | 5697.34   | 12.67                        | 12.65        | 270.00        | 0.00                           | -52.47     | 52.53                     | 27.22                  | 2.08                 |         |
| 5800.00               | 5800.00   | 5794.26            | 5793.93   | 12.90                        | 12.85        | 270.81        | 0.84                           | -59.81     | 60.12                     | 34.43                  | 2.34                 |         |
| 5900.00               | 5900.00   | 5890.15            | 5889.03   | 13.12                        | 13.05        | 271.77        | 2.22                           | -71.85     | 72.72                     | 46.68                  | 2.79                 |         |
| 6000.00               | 6000.00   | 5984.58            | 5981.99   | 13.35                        | 13.26        | 272.66        | 4.10                           | -88.34     | 90.25                     | 63.89                  | 3.42                 |         |
| 6100.00               | 6100.00   | 6081.66            | 6076.96   | 13.57                        | 13.49        | 273.37        | 6.39                           | -108.34    | 110.95                    | 84.19                  | 4.15                 |         |
| 6200.00               | 6200.00   | 6179.47            | 6172.63   | 13.80                        | 13.72        | 273.87        | 8.70                           | -128.55    | 131.72                    | 104.54                 | 4.85                 |         |
| 6300.00               | 6300.00   | 6277.29            | 6268.30   | 14.02                        | 13.97        | 274.23        | 11.01                          | -148.77    | 152.50                    | 124.89                 | 5.52                 |         |
| 6400.00               | 6400.00   | 6375.10            | 6363.98   | 14.24                        | 14.23        | 274.51        | 13.32                          | -168.98    | 173.29                    | 145.25                 | 6.18                 |         |
| 6500.00               | 6500.00   | 6472.91            | 6459.65   | 14.47                        | 14.49        | 274.72        | 15.63                          | -189.19    | 194.08                    | 165.61                 | 6.82                 |         |
| 6600.00               | 6600.00   | 6570.73            | 6555.33   | 14.69                        | 14.76        | 274.90        | 17.94                          | -209.41    | 214.87                    | 185.97                 | 7.44                 |         |
| 6700.00               | 6700.00   | 6668.54            | 6651.00   | 14.92                        | 15.04        | 275.04        | 20.25                          | -229.62    | 235.66                    | 206.33                 | 8.03                 |         |
| 6800.00               | 6800.00   | 6766.35            | 6746.67   | 15.14                        | 15.33        | 275.16        | 22.56                          | -249.83    | 256.46                    | 226.69                 | 8.62                 |         |
| 6900.00               | 6900.00   | 6864.16            | 6842.35   | 15.37                        | 15.62        | 275.26        | 24.87                          | -270.05    | 277.25                    | 247.05                 | 9.18                 |         |
| 7000.00               | 7000.00   | 6961.98            | 6938.02   | 15.59                        | 15.93        | 275.35        | 27.17                          | -290.26    | 298.04                    | 267.40                 | 9.73                 |         |
| 7100.00               | 7100.00   | 7059.79            | 7033.69   | 15.82                        | 16.23        | 275.42        | 29.48                          | -310.47    | 318.84                    | 287.76                 | 10.26                |         |
| 7200.00               | 7200.00   | 7157.60            | 7129.37   | 16.04                        | 16.55        | 275.49        | 31.79                          | -330.69    | 339.64                    | 308.11                 | 10.77                |         |
| 7300.00               | 7300.00   | 7255.42            | 7225.04   | 16.27                        | 16.86        | 275.55        | 34.10                          | -350.90    | 360.43                    | 328.47                 | 11.28                |         |
| 7400.00               | 7400.00   | 7353.23            | 7320.71   | 16.49                        | 17.19        | 275.60        | 36.41                          | -371.11    | 381.23                    | 348.82                 | 11.76                |         |
| 7500.00               | 7500.00   | 7451.04            | 7416.39   | 16.72                        | 17.52        | 275.65        | 38.72                          | -391.33    | 402.03                    | 369.17                 | 12.24                |         |
| 7600.00               | 7600.00   | 7548.85            | 7512.06   | 16.94                        | 17.85        | 275.69        | 41.03                          | -411.54    | 422.83                    | 389.52                 | 12.70                |         |
| 7700.00               | 7700.00   | 7646.67            | 7607.74   | 17.17                        | 18.19        | 275.73        | 43.34                          | -431.75    | 443.62                    | 409.87                 | 13.14                |         |
| 7800.00               | 7800.00   | 7744.48            | 7703.41   | 17.39                        | 18.53        | 275.77        | 45.65                          | -451.97    | 464.42                    | 430.22                 | 13.58                |         |
| 7900.00               | 7900.00   | 7842.29            | 7799.08   | 17.62                        | 18.87        | 275.80        | 47.96                          | -472.18    | 485.22                    | 450.57                 | 14.00                |         |
| 8000.00               | 8000.00   | 7940.11            | 7894.76   | 17.84                        | 19.22        | 275.83        | 50.27                          | -492.39    | 506.02                    | 470.92                 | 14.42                |         |
| 8100.00               | 8100.00   | 8037.92            | 7990.43   | 18.07                        | 19.57        | 275.86        | 52.58                          | -512.61    | 526.82                    | 491.26                 | 14.82                |         |
| 8200.00               | 8200.00   | 8135.73            | 8086.10   | 18.29                        | 19.93        | 275.88        | 54.89                          | -532.82    | 547.61                    | 511.61                 | 15.21                |         |
| 8300.00               | 8300.00   | 8233.55            | 8181.78   | 18.52                        | 20.29        | 275.91        | 57.20                          | -553.03    | 568.41                    | 531.95                 | 15.59                |         |
| 8400.00               | 8400.00   | 8331.36            | 8277.45   | 18.74                        | 20.65        | 275.93        | 59.51                          | -573.25    | 589.21                    | 552.29                 | 15.96                |         |
| 8427.04               | 8427.04   | 8357.81            | 8303.32   | 18.80                        | 20.75        | 275.93        | 60.14                          | -578.71    | 594.84                    | 557.79                 | 16.06                |         |
| 8450.00               | 8449.99   | 8380.26            | 8325.28   | 18.85                        | 20.83        | 269.07        | 60.67                          | -583.35    | 599.62                    | 562.48                 | 16.14                |         |
| 8500.00               | 8499.80   | 8428.96            | 8372.92   | 18.96                        | 21.02        | 269.75        | 61.82                          | -593.42    | 610.09                    | 572.72                 | 16.33                |         |



# Weatherford Anticollision Report

**Weatherford**

Company: Devon Energy  
Field: Lea County, New Mexico (NAD 83)  
Reference Site: Ragin Cajun 13 Federal 1H  
Reference Well: Ragin Cajun 13 Federal 1H  
Reference Wellpath:

Date: 3/20/2013

Time: 06:32:13

Page: 3

Co-ordinate(NE) Reference: Well: Ragin Cajun 13 Federal 1H  
Vertical (TVD) Reference: SITE 3270.0

Db: Sybase

Site: Ragin Cajun 13 Federal 2H  
Well: Ragin Cajun 13 Federal 2H  
Wellpath: 1 V0 Plan: Plan #1 V1

Inter-Site Error: 0.00 ft

| Reference<br>MD<br>ft | TVD<br>ft | Offset<br>MD<br>ft | TVD<br>ft | Semi-Major Axis<br>Ref<br>ft | Offset<br>ft | TFO-HS<br>deg | North<br>ft | East<br>ft | Ctr-Ctr<br>Distance<br>ft | Edge<br>Distance<br>ft | Separation<br>Factor | Warning |
|-----------------------|-----------|--------------------|-----------|------------------------------|--------------|---------------|-------------|------------|---------------------------|------------------------|----------------------|---------|
| 8550.00               | 8549.06   | 8477.12            | 8420.02   | 19.07                        | 21.20        | 270.06        | 62.95       | -603.37    | 620.66                    | 583.06                 | 16.51                |         |
| 8600.00               | 8597.39   | 8523.48            | 8465.37   | 19.18                        | 21.36        | 270.08        | 64.20       | -612.95    | 631.40                    | 593.59                 | 16.70                |         |
| 8650.00               | 8644.42   | 8567.84            | 8508.60   | 19.28                        | 21.45        | 270.09        | 67.96       | -622.08    | 642.56                    | 604.54                 | 16.90                |         |
| 8700.00               | 8689.79   | 8612.99            | 8552.18   | 19.39                        | 21.46        | 270.13        | 75.29       | -631.29    | 654.16                    | 615.89                 | 17.10                |         |
| 8750.00               | 8733.17   | 8659.06            | 8595.92   | 19.51                        | 21.40        | 270.17        | 86.36       | -640.53    | 666.10                    | 627.59                 | 17.29                |         |
| 8800.00               | 8774.21   | 8706.16            | 8639.59   | 19.63                        | 21.26        | 270.22        | 101.36      | -649.76    | 678.32                    | 639.52                 | 17.48                |         |
| 8850.00               | 8812.62   | 8754.43            | 8682.94   | 19.77                        | 21.07        | 270.28        | 120.47      | -658.91    | 690.73                    | 651.61                 | 17.66                |         |
| 8900.00               | 8848.09   | 8804.00            | 8725.66   | 19.93                        | 20.88        | 270.34        | 143.91      | -667.94    | 703.23                    | 663.76                 | 17.81                |         |
| 8950.00               | 8880.35   | 8855.04            | 8767.41   | 20.11                        | 20.74        | 270.40        | 171.89      | -676.76    | 715.73                    | 675.85                 | 17.95                |         |
| 9000.00               | 8909.17   | 8907.71            | 8807.75   | 20.31                        | 20.71        | 270.45        | 204.62      | -685.28    | 728.12                    | 687.78                 | 18.05                |         |
| 9050.00               | 8934.32   | 8962.15            | 8846.19   | 20.54                        | 20.77        | 270.49        | 242.29      | -693.40    | 740.28                    | 699.43                 | 18.12                |         |
| 9100.00               | 8955.60   | 9018.54            | 8882.12   | 20.80                        | 20.92        | 270.52        | 285.05      | -701.00    | 752.09                    | 710.67                 | 18.16                |         |
| 9150.00               | 8972.86   | 9077.01            | 8914.85   | 21.09                        | 21.13        | 270.54        | 332.97      | -707.91    | 763.42                    | 721.37                 | 18.15                |         |
| 9200.00               | 8985.97   | 9137.67            | 8943.58   | 21.40                        | 21.41        | 270.55        | 386.02      | -713.98    | 774.14                    | 731.40                 | 18.12                |         |
| 9250.00               | 8994.83   | 9200.59            | 8967.40   | 21.75                        | 21.74        | 270.55        | 444.01      | -719.01    | 784.10                    | 740.63                 | 18.04                |         |
| 9300.00               | 8999.36   | 9265.78            | 8985.37   | 22.12                        | 22.15        | 270.56        | 506.52      | -722.81    | 793.17                    | 748.90                 | 17.92                |         |
| 9327.04               | 9000.00   | 9301.96            | 8992.31   | 22.33                        | 22.39        | 270.56        | 541.99      | -724.28    | 797.65                    | 752.93                 | 17.84                |         |
| 9400.00               | 9000.00   | 9401.07            | 9000.00   | 22.94                        | 23.13        | 270.00        | 640.67      | -725.90    | 808.08                    | 762.07                 | 17.56                |         |
| 9500.00               | 9000.00   | 9500.26            | 9000.00   | 23.86                        | 24.07        | 270.00        | 739.85      | -725.90    | 820.81                    | 772.93                 | 17.15                |         |
| 9600.00               | 9000.00   | 9599.45            | 9000.00   | 24.89                        | 25.11        | 270.00        | 839.04      | -725.90    | 833.53                    | 783.60                 | 16.69                |         |
| 9700.00               | 9000.00   | 9698.63            | 9000.00   | 25.99                        | 26.23        | 270.00        | 938.23      | -725.90    | 846.25                    | 794.10                 | 16.23                |         |
| 9800.00               | 9000.00   | 9797.82            | 9000.00   | 27.18                        | 27.42        | 270.00        | 1037.42     | -725.90    | 858.98                    | 804.45                 | 15.75                |         |
| 9900.00               | 9000.00   | 9897.01            | 9000.00   | 28.43                        | 28.67        | 270.00        | 1136.60     | -725.90    | 871.70                    | 814.67                 | 15.28                |         |
| 10000.00              | 9000.00   | 9996.20            | 9000.00   | 29.73                        | 29.99        | 270.00        | 1235.79     | -725.90    | 884.42                    | 824.77                 | 14.83                |         |
| 10100.00              | 9000.00   | 10095.38           | 9000.00   | 31.09                        | 31.35        | 270.00        | 1334.98     | -725.90    | 897.15                    | 834.78                 | 14.38                |         |
| 10200.00              | 9000.00   | 10194.57           | 9000.00   | 32.49                        | 32.75        | 270.00        | 1434.16     | -725.90    | 909.87                    | 844.69                 | 13.96                |         |
| 10300.00              | 9000.00   | 10293.76           | 9000.00   | 33.93                        | 34.19        | 270.00        | 1533.35     | -725.90    | 922.60                    | 854.54                 | 13.56                |         |
| 10400.00              | 9000.00   | 10392.95           | 9000.00   | 35.40                        | 35.67        | 270.00        | 1632.54     | -725.90    | 935.32                    | 864.31                 | 13.17                |         |
| 10500.00              | 9000.00   | 10492.13           | 9000.00   | 36.90                        | 37.17        | 270.00        | 1731.73     | -725.90    | 948.04                    | 874.03                 | 12.81                |         |
| 10600.00              | 9000.00   | 10591.32           | 9000.00   | 38.43                        | 38.70        | 270.00        | 1830.91     | -725.90    | 960.77                    | 883.69                 | 12.47                |         |
| 10700.00              | 9000.00   | 10690.51           | 9000.00   | 39.98                        | 40.26        | 270.00        | 1930.10     | -725.90    | 973.49                    | 893.31                 | 12.14                |         |
| 10800.00              | 9000.00   | 10789.69           | 9000.00   | 41.55                        | 41.83        | 270.00        | 2029.29     | -725.90    | 986.21                    | 902.88                 | 11.84                |         |
| 10900.00              | 9000.00   | 10888.88           | 9000.00   | 43.14                        | 43.42        | 270.00        | 2128.47     | -725.90    | 998.94                    | 912.42                 | 11.55                |         |
| 11000.00              | 9000.00   | 10988.07           | 9000.00   | 44.75                        | 45.03        | 270.00        | 2227.66     | -725.90    | 1011.66                   | 921.93                 | 11.27                |         |
| 11100.00              | 9000.00   | 11087.26           | 9000.00   | 46.37                        | 46.66        | 270.00        | 2326.85     | -725.90    | 1024.38                   | 931.41                 | 11.02                |         |
| 11200.00              | 9000.00   | 11186.44           | 9000.00   | 48.00                        | 48.29        | 270.00        | 2426.04     | -725.90    | 1037.11                   | 940.86                 | 10.78                |         |
| 11300.00              | 9000.00   | 11285.63           | 9000.00   | 49.65                        | 49.94        | 270.00        | 2525.22     | -725.90    | 1049.83                   | 950.29                 | 10.55                |         |
| 11400.00              | 9000.00   | 11384.82           | 9000.00   | 51.31                        | 51.60        | 270.00        | 2624.41     | -725.90    | 1062.55                   | 959.69                 | 10.33                |         |
| 11500.00              | 9000.00   | 11484.00           | 9000.00   | 52.97                        | 53.27        | 270.00        | 2723.60     | -725.90    | 1075.28                   | 969.08                 | 10.13                |         |
| 11600.00              | 9000.00   | 11583.19           | 9000.00   | 54.65                        | 54.94        | 270.00        | 2822.79     | -725.90    | 1088.00                   | 978.45                 | 9.93                 |         |
| 11700.00              | 9000.00   | 11682.38           | 9000.00   | 56.33                        | 56.63        | 270.00        | 2921.97     | -725.90    | 1100.72                   | 987.80                 | 9.75                 |         |
| 11800.00              | 9000.00   | 11781.57           | 9000.00   | 58.02                        | 58.32        | 270.00        | 3021.16     | -725.90    | 1113.45                   | 997.14                 | 9.57                 |         |
| 11900.00              | 9000.00   | 11880.75           | 9000.00   | 59.72                        | 60.02        | 270.00        | 3120.35     | -725.90    | 1126.17                   | 1006.47                | 9.41                 |         |
| 12000.00              | 9000.00   | 11979.94           | 9000.00   | 61.42                        | 61.73        | 270.00        | 3219.53     | -725.90    | 1138.90                   | 1015.78                | 9.25                 |         |
| 12100.00              | 9000.00   | 12079.13           | 9000.00   | 63.13                        | 63.44        | 270.00        | 3318.72     | -725.90    | 1151.62                   | 1025.08                | 9.10                 |         |
| 12200.00              | 9000.00   | 12178.32           | 9000.00   | 64.85                        | 65.15        | 270.00        | 3417.91     | -725.90    | 1164.34                   | 1034.37                | 8.96                 |         |
| 12300.00              | 9000.00   | 12277.50           | 9000.00   | 66.57                        | 66.88        | 270.00        | 3517.10     | -725.90    | 1177.07                   | 1043.65                | 8.82                 |         |
| 12400.00              | 9000.00   | 12376.69           | 9000.00   | 68.29                        | 68.60        | 270.00        | 3616.28     | -725.90    | 1189.79                   | 1052.93                | 8.69                 |         |
| 12500.00              | 9000.00   | 12475.88           | 9000.00   | 70.02                        | 70.33        | 270.00        | 3715.47     | -725.90    | 1202.51                   | 1062.19                | 8.57                 |         |
| 12600.00              | 9000.00   | 12575.06           | 9000.00   | 71.75                        | 72.07        | 270.00        | 3814.66     | -725.90    | 1215.24                   | 1071.45                | 8.45                 |         |
| 12700.00              | 9000.00   | 12674.25           | 9000.00   | 73.49                        | 73.80        | 270.00        | 3913.85     | -725.90    | 1227.96                   | 1080.70                | 8.34                 |         |



# Weatherford Anticollision Report

**Weatherford**

**Company:** Devon Energy  
**Field:** Lea County, New Mexico (NAD 83)  
**Reference Site:** Ragin Cajun 13 Federal 1H  
**Reference Well:** Ragin Cajun 13 Federal 1H  
**Reference Wellpath:**

**Date:** 3/20/2013 **Time:** 06:32:13 **Page:** 4  
**Co-ordinate(NE) Reference:** Well: Ragin Cajun 13 Federal 1H  
**Vertical (TVD) Reference:** SITE 3270.0

**Db:** Sybase

**Site:** Ragin Cajun 13 Federal 2H  
**Well:** Ragin Cajun 13 Federal 2H  
**Wellpath:** 1 V0 Plan: Plan #1 V1

**Inter-Site Error:** 0.00 ft

| Reference |         | Offset   |         | Semi-Major Axis |        |        | Offset Location |         | Ctr-Ctr Edge |          | Separation | Warning |
|-----------|---------|----------|---------|-----------------|--------|--------|-----------------|---------|--------------|----------|------------|---------|
| MD        | TVD     | MD       | TVD     | Ref             | Offset | TFO-HS | North           | East    | Distance     | Distance | Factor     |         |
| ft        | ft      | ft       | ft      | ft              | ft     | deg    | ft              | ft      | ft           | ft       |            |         |
| 12800.00  | 9000.00 | 12773.44 | 9000.00 | 75.23           | 75.54  | 270.00 | 4013.03         | -725.90 | 1240.68      | 1089.94  | 8.23       |         |
| 12900.00  | 9000.00 | 12872.63 | 9000.00 | 76.97           | 77.29  | 270.00 | 4112.22         | -725.90 | 1253.41      | 1099.18  | 8.13       |         |
| 13000.00  | 9000.00 | 12971.81 | 9000.00 | 78.72           | 79.04  | 270.00 | 4211.41         | -725.90 | 1266.13      | 1108.41  | 8.03       |         |
| 13100.00  | 9000.00 | 13071.00 | 9000.00 | 80.46           | 80.78  | 270.00 | 4310.59         | -725.90 | 1278.85      | 1117.63  | 7.93       |         |
| 13200.00  | 9000.00 | 13170.19 | 9000.00 | 82.21           | 82.54  | 270.00 | 4409.78         | -725.90 | 1291.58      | 1126.85  | 7.84       |         |
| 13300.00  | 9000.00 | 13269.38 | 9000.00 | 83.97           | 84.29  | 270.00 | 4508.97         | -725.90 | 1304.30      | 1136.07  | 7.75       |         |
| 13400.00  | 9000.00 | 13368.56 | 9000.00 | 85.72           | 86.05  | 270.00 | 4608.16         | -725.90 | 1317.02      | 1145.28  | 7.67       |         |
| 13421.42  | 9000.00 | 13378.95 | 9000.00 | 86.10           | 86.23  | 270.00 | 4618.54         | -725.90 | 1319.79      | 1147.49  | 7.66       |         |

**Weatherford****Weatherford Drilling Services**

GeoDec v5.03

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Report Date: March 18, 2013  
Job Number: \_\_\_\_\_  
Customer: Devon Energy  
Well Name: Ragin Cajun 13 Federal 1H  
API Number: \_\_\_\_\_  
Rig Name: \_\_\_\_\_  
Location: Lea County, NM  
Block: \_\_\_\_\_  
Engineer: RWJ

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|                                              |                                             |
|----------------------------------------------|---------------------------------------------|
| US State Plane 1983                          | Geodetic Latitude / Longitude               |
| System: New Mexico Eastern Zone              | System: Latitude / Longitude                |
| Projection: Transverse Mercator/Gauss Kruger | Projection: Geodetic Latitude and Longitude |
| Datum: North American Datum 1983             | Datum: North American Datum 1983            |
| Ellipsoid: GRS 1980                          | Ellipsoid: GRS 1980                         |
| North/South 378386.450 USFT                  | Latitude 32.0370308 DEG                     |
| East/West 821928.120 USFT                    | Longitude -103.4278199 DEG                  |
| Grid Convergence: .48°                       |                                             |
| Total Correction: +6.83°                     |                                             |

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|                         |              |                        |
|-------------------------|--------------|------------------------|
| Geodetic Location WGS84 | Elevation =  | 0.0 Meters             |
| Latitude =              | 32.03703° N  | 32° 2 min 13.311 sec   |
| Longitude =             | 103.42782° W | 103° 25 min 40.152 sec |

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|                        |              |                     |          |
|------------------------|--------------|---------------------|----------|
| Magnetic Declination = | 7.31°        | [True North Offset] |          |
| Local Gravity =        | .9988 g      | Checksum =          | 6761     |
| Local Field Strength = | 48253 nT     | Magnetic Vector X = | 23985 nT |
| Magnetic Dip =         | 59.92°       | Magnetic Vector Y = | 3075 nT  |
| Magnetic Model =       | bggm2012     | Magnetic Vector Z = | 41756 nT |
| Spud Date =            | Dec 15, 2013 | Magnetic Vector H = | 24181 nT |

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Signed: \_\_\_\_\_

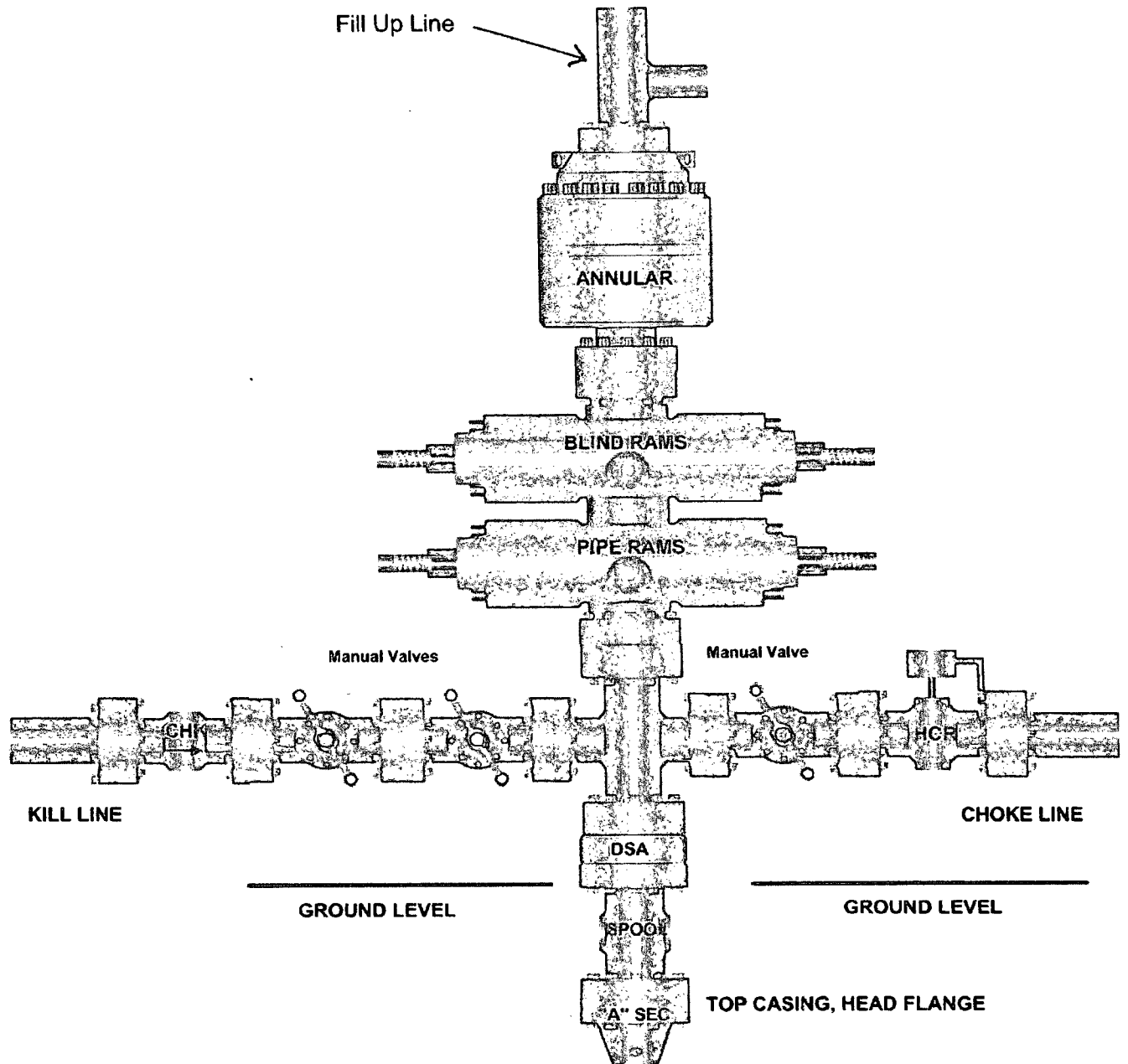
Date: \_\_\_\_\_

NOTES REGARDING BLOWOUT PREVENTERS  
Devon Energy Production Company, LP  
**Ragin Cajun 13 Federal 1H**

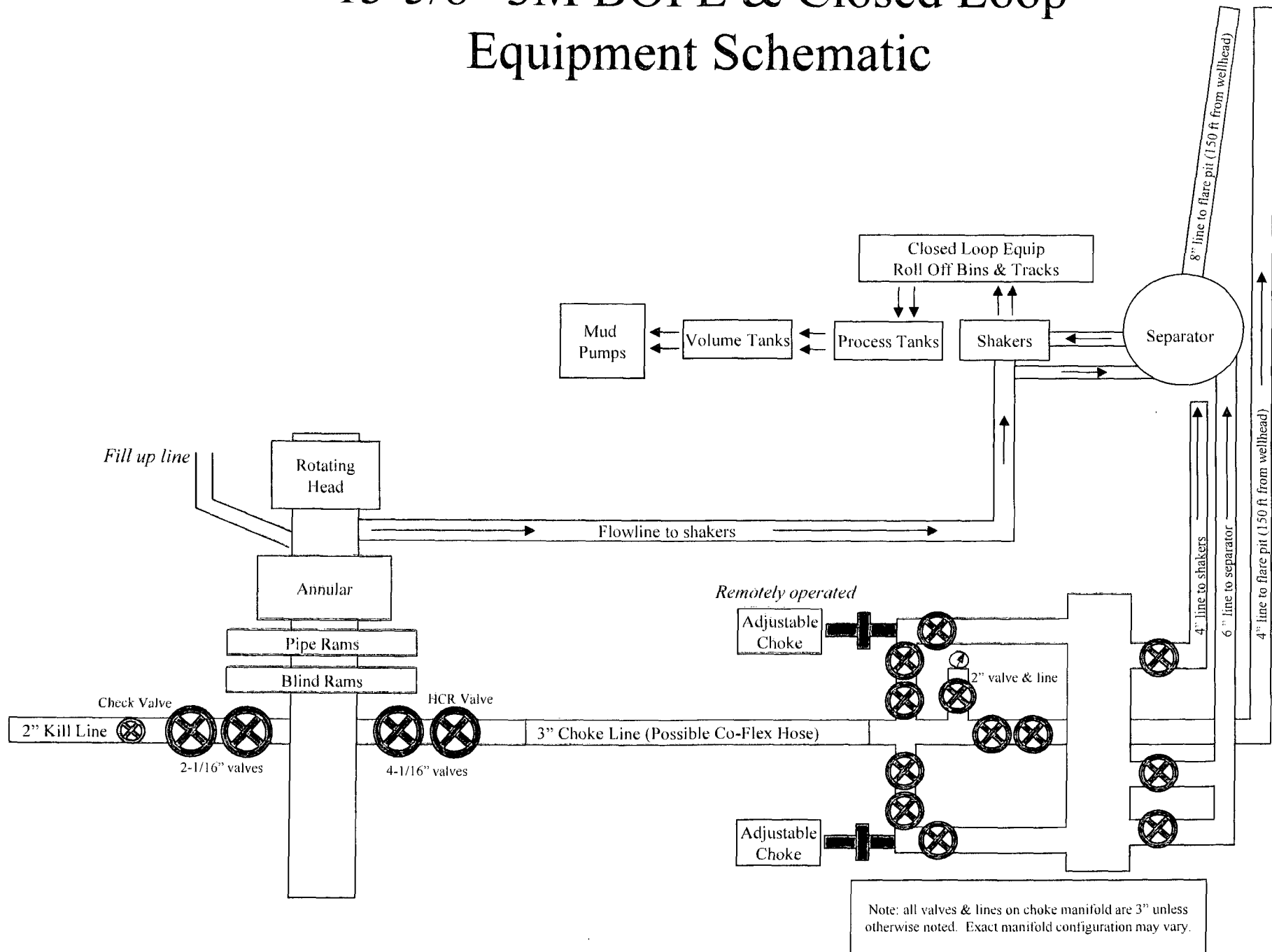
Surface Location: 330' FSL & 1345' FWL, Unit N, Sec 13 T26S R34E, Lea, NM  
Bottom Hole Location: 330' FNL & 1980' FWL, Unit C, Sec 13 T26S R34E, Lea, NM

1. Drilling nipple will be constructed so it can be removed mechanically without the aid of a welder. The minimum internal diameter will equal BOP bore.
2. Wear ring will be properly installed in head.
3. Blowout preventer and all associated fittings will be in operable condition to withstand a minimum 3000 psi working pressure.
4. All fittings will be flanged.
5. A full bore safety valve tested to a minimum 3000 psi WP with proper thread connections will be available on the rotary rig floor at all times.
6. All choke lines will be anchored to prevent movement.
7. All BOP equipment will be equal to or larger in bore than the internal diameter of the last casing string.
8. Will maintain a kelly cock attached to the kelly.
9. Hand wheels and wrenches will be properly installed and tested for safe operation.
10. Hydraulic floor control for blowout preventer will be located as near in proximity to driller's controls as possible.
11. All BOP equipment will meet API standards and include a minimum 40 gallon accumulator having two independent means of power to initiate closing operation.

# 13-5/8" x 3,000 psi BOP Stack



# 13-5/8" 3M BOPE & Closed Loop Equipment Schematic





Fluid Technology

ContiTech Beattie Corp.  
Website: [www.contitechbeattie.com](http://www.contitechbeattie.com)

Monday, June 14, 2010

RE: Drilling & Production Hoses  
Lifting & Safety Equipment

To Helmerich & Payne,

A Continental ContiTech hose assembly can perform as intended and suitable for the application regardless of whether the hose is secured or unsecured in its configuration. As a manufacturer of High Pressure Hose Assemblies for use in Drilling & Production, we do offer the corresponding lifting and safety equipment, this has the added benefit of easing the lifting and handling of each hose assembly whilst affording hose longevity by ensuring correct handling methods and procedures as well as securing the hose in the unlikely event of a failure; but in no way does the lifting and safety equipment affect the performance of the hoses providing the hoses have been handled and installed correctly. It is good practice to use lifting & safety equipment but not mandatory.

Should you have any questions or require any additional information/clarifications then please do not hesitate to contact us.

ContiTech Beattie is part of the Continental AG Corporation and can offer the full support resources associated with a global organization.

Best regards,

Robin Hodgson  
Sales Manager  
ContiTech Beattie Corp

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[www.contitechbeattie.com](http://www.contitechbeattie.com)



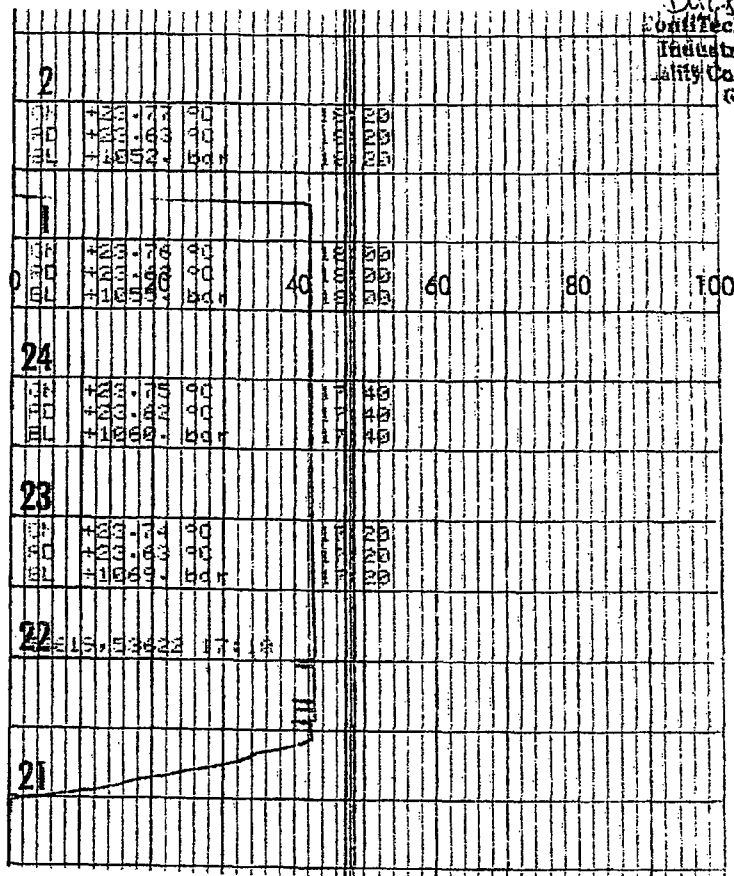
# Continental CONTITECH

## Quality Document

### Bank data

H&P 416

HARTMANN &



*Signature*  
 Coniftech Rubber  
 Industrial Kft.  
 Quality Control Dept.  
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