

**District I**  
1625 N. French Dr., Hobbs, NM 88240  
Phone: (575) 393-6161 Fax: (575) 393-0720

**District II**  
811 S. First St., Artesia, NM 88210  
Phone: (575) 748-1283 Fax: (575) 748-9720

**District III**  
1000 Rio Brazos Road, Aztec, NM 87410  
Phone: (505) 334-6178 Fax: (505) 334-6170

**District IV**  
1220 S. St. Francis Dr., Santa Fe, NM 87505  
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico  
Energy Minerals and Natural Resources  
Oil Conservation Division  
1220 South St. Francis  
Santa Fe, NM 87505

Form C-101  
Revised July 18, 2013

☐ AMENDED REPORT

**APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE**

|                                                                                                                         |                                     |                               |
|-------------------------------------------------------------------------------------------------------------------------|-------------------------------------|-------------------------------|
| 1. Operator Name and Address<br>ConocoPhillips Company<br>600 N. Dairy Ashford Rd; P10-3-3096<br>Houston, TX 77079-1175 |                                     | 2. OGRID Number<br>217817     |
| 4. Property Code<br>31158                                                                                               | 3. Property Name<br>Vacuum Abo Unit | 5. API Number<br>30-025-42071 |
| Tract 7                                                                                                                 |                                     | 6. Well No.<br>706            |

**7. Surface Location**

| UL - Lot | Section | Township | Range | Lot Idn | Feet from | N/S Line | Feet From | E/W Line | County |
|----------|---------|----------|-------|---------|-----------|----------|-----------|----------|--------|
| O        | 27      | 17S      | 35E   |         | 1016      | South    | 2333      | East     | Lea    |

**8. Proposed Bottom Hole Location**

| UL - Lot | Section | Township | Range | Lot Idn | Feet from | N/S Line | Feet From | E/W Line | County |
|----------|---------|----------|-------|---------|-----------|----------|-----------|----------|--------|
| O        | 27      | 17S      | 35E   |         | 992       | South    | 1404      | East     | Lea    |

**9. Pool Information**

|                               |                    |
|-------------------------------|--------------------|
| Pool Name<br>Vacuum; Abo Reef | Pool Code<br>61780 |
|-------------------------------|--------------------|

**Additional Well Information**

|                            |                                          |                                        |                         |                                     |
|----------------------------|------------------------------------------|----------------------------------------|-------------------------|-------------------------------------|
| 11. Work Type<br>New Drill | 12. Well Type<br>Oil                     | 13. Cable/Rotary                       | 14. Lease Type<br>State | 15. Ground Level Elevation<br>3931' |
| 16. Multiple<br>S          | 17. Proposed Depth<br>9100'/9210' TVD/MD | 18. Formation<br>Abo                   | 19. Contractor          | 20. Spud Date<br>09/28/14           |
| Depth to Ground water      |                                          | Distance from nearest fresh water well |                         | Distance to nearest surface water   |

☒ We will be using a closed-loop system in lieu of lined pits

**21. Proposed Casing and Cement Program**

| Type  | Hole Size | Casing Size | Casing Weight/ft | Setting Depth | Sacks of Cement | Estimated TOC |
|-------|-----------|-------------|------------------|---------------|-----------------|---------------|
| Surf  | 12.25"    | 9.625"      | 36               | 1660'         | 700             | 0'            |
| Int'l | 8.75"     | 7.625"      | 26               | 5200'         | 500             | 0'            |
| Prod  | 6.75"     | 5.5"        | 20               | 9210'         | 532             | 4800'         |

**Casing/Cement Program: Additional Comments**

|  |
|--|
|  |
|--|

**22. Proposed Blowout Prevention Program**

| Type       | Working Pressure | Test Pressure | Manufacturer |
|------------|------------------|---------------|--------------|
| Annular    | 3000             | 3000          | Townsend     |
| Double Ram | 3000             | 3000          | Schaffer     |

23. I hereby certify that the information given above is true and complete to the best of my knowledge and belief.

I further certify that I have complied with 19.15.14.9 (A) NMAC ☒ and/or 19.15.14.9 (B) NMAC ☐, if applicable.

Signature: Susan B. Maunder

Printed name: Susan B. Maunder

Title: Sr. Regulatory Specialist

E-mail Address: Susan.B.Maunder@cop.com

Date: 8/20/14

Phone: 281-206-5281

**OIL CONSERVATION DIVISION**

Approved By:

Title: Petroleum Engineer

Approved Date: 08/26/14

Expiration Date: 08/26/16

Conditions of Approval Attached \*

AUG 26 2014

# CONDITIONS OF APPROVAL

| API #        | Operator               | Well name & Number    |
|--------------|------------------------|-----------------------|
| 30-025-42071 | ConocoPhillips Company | Vacuum Abo Unit # 706 |

Applicable conditions of approval marked with XXXXXX

## Administrative Orders Required

|  |  |
|--|--|
|  |  |
|--|--|

Other wells

|  |  |
|--|--|
|  |  |
|--|--|

## Drilling

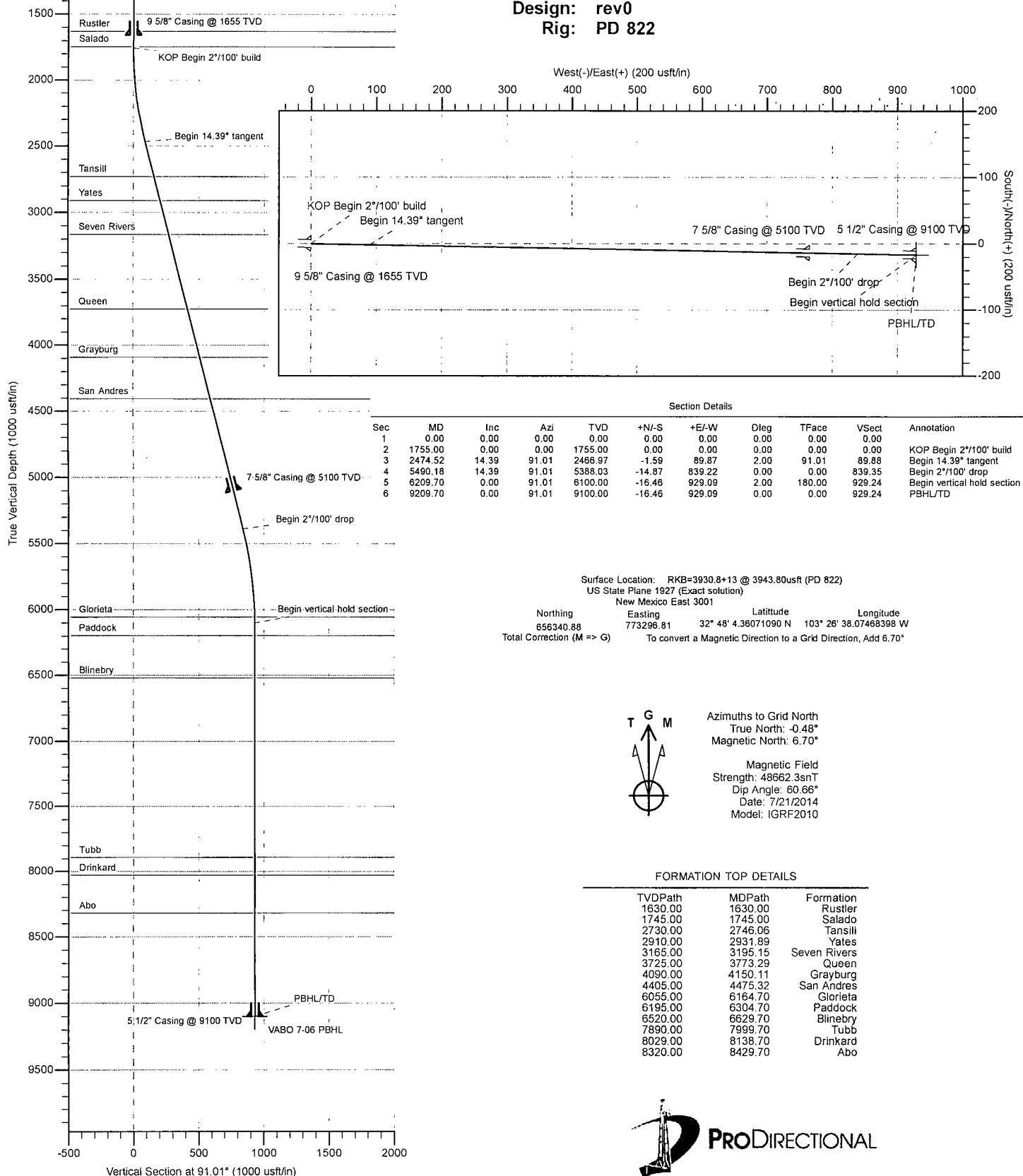
|         |                                                                                                                                                                                                                                                                      |
|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| XXXXXXX | Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string |
| XXXXXXX | If using a pit for drilling and completion operations, must have an approved pit from prior to spudding the well.                                                                                                                                                    |
|         |                                                                                                                                                                                                                                                                      |

## Casing & Cement

|         |                                                                                                               |
|---------|---------------------------------------------------------------------------------------------------------------|
| XXXXXXX | SURFACE & INTERMEDIATE(1) CASING - Cement must circulate to surface --                                        |
|         | INTERMEDIATE2 CASING - Cement must tie back into intermediate casing --                                       |
| XXXXXXX | PRODUCTION CASING - Cement must tie back into intermediate casing --                                          |
| XXXXXXX | If cement does not circulate to surface, must run temperature survey or other log to determine top of cement. |
|         | <b>South Area</b>                                                                                             |
| XXXXXXX | Surface casing must be set 25' below top of Rustler Anhydrite in order to seal off protectable water          |
|         | <b>North Area</b>                                                                                             |
|         |                                                                                                               |



Well: Vacuum ABO Unit Well No. 7-06  
Site: Vacuum ABO Unit  
Project: Lea County, New Mexico  
Design: rev0  
Rig: PD 822



| Section Details |         |       |       |         |        |        |      |        |        |                             |
|-----------------|---------|-------|-------|---------|--------|--------|------|--------|--------|-----------------------------|
| Sec             | MD      | Inc   | Azi   | TVD     | +N/-S  | +E/-W  | Dleg | TFace  | Vsect  | Annotation                  |
| 1               | 0.00    | 0.00  | 0.00  | 0.00    | 0.00   | 0.00   | 0.00 | 0.00   | 0.00   |                             |
| 2               | 1755.00 | 0.00  | 0.00  | 1755.00 | 0.00   | 0.00   | 0.00 | 0.00   | 0.00   | KOP Begin 2°/100' build     |
| 3               | 2474.52 | 14.39 | 91.01 | 2466.97 | -1.59  | 89.87  | 2.00 | 91.01  | 89.88  | Begin 14.39° tangent        |
| 4               | 5490.18 | 14.39 | 91.01 | 5388.03 | -14.87 | 839.22 | 0.00 | 0.00   | 839.35 | Begin 2°/100' drop          |
| 5               | 6209.70 | 0.00  | 91.01 | 6100.00 | -16.46 | 929.09 | 2.00 | 180.00 | 929.24 | Begin vertical hold section |
| 6               | 9209.70 | 0.00  | 91.01 | 9100.00 | -16.46 | 929.09 | 0.00 | 0.00   | 929.24 | PBHL/TD                     |

Surface Location: RKB=3930.8+13 @ 3943.80usft (PD 822)  
US State Plane 1927 (Exact solution)  
New Mexico East 3001

Northing: 656340.88  
Easting: 773296.81  
Latitude: 32° 48' 4.36071090 N  
Longitude: 103° 26' 38.07468398 W  
Total Correction (M => G): To convert a Magnetic Direction to a Grid Direction, Add 6.70°



Azimuths to Grid North  
True North: -0.48°  
Magnetic North: 6.70°

Magnetic Field  
Strength: 48662.3snT  
Dip Angle: 60.66°  
Date: 7/21/2014  
Model: IGRF2010

#### FORMATION TOP DETAILS

| TVDPath | MDPath  | Formation    |
|---------|---------|--------------|
| 1630.00 | 1630.00 | Rustler      |
| 1745.00 | 1745.00 | Salado       |
| 2730.00 | 2746.06 | Tansill      |
| 2910.00 | 2931.89 | Yates        |
| 3165.00 | 3195.15 | Seven Rivers |
| 3725.00 | 3773.29 | Queen        |
| 4090.00 | 4150.11 | Grayburg     |
| 4405.00 | 4475.32 | San Andres   |
| 6055.00 | 6164.70 | Glorieta     |
| 6195.00 | 6304.70 | Paddock      |
| 6520.00 | 6629.70 | Blinebry     |
| 7890.00 | 7999.70 | Tubb         |
| 8029.00 | 8138.70 | Drinkard     |
| 8320.00 | 8429.70 | Abo          |





HOBBS OGD  
AUG 25 2014

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## **ConocoPhillips**

Lea County, New Mexico

Vacuum ABO Unit

Vacuum ABO Unit Well No. 7-06

Original hole

Plan: rev0

## **Standard Planning Report**

21 July, 2014

|           |                               |                              |                                      |
|-----------|-------------------------------|------------------------------|--------------------------------------|
| Database: | EDM 5000.1 Ddatabase          | Local Co-ordinate Reference: | Well Vacuum ABO Unit Well No. 7-06   |
| Company:  | ConocoPhillips                | TVD Reference:               | RKB=3930.8+13 @ 3943.80usft (PD 822) |
| Project:  | Lea County, New Mexico        | MD Reference:                | RKB=3930.8+13 @ 3943.80usft (PD 822) |
| Site:     | Vacuum ABO Unit               | North Reference:             | Grid                                 |
| Well:     | Vacuum ABO Unit Well No. 7-06 | Survey Calculation Method:   | Minimum Curvature                    |
| Wellbore: | Original hole                 |                              |                                      |
| Design:   | rev0                          |                              |                                      |

|             |                                      |               |                |
|-------------|--------------------------------------|---------------|----------------|
| Project     | Lea County, New Mexico               |               |                |
| Map System: | US State Plane 1927 (Exact solution) | System Datum: | Mean Sea Level |
| Geo Datum:  | NAD 1927 (NADCON CONUS)              |               |                |
| Map Zone:   | New Mexico East 3001                 |               |                |

|                       |                 |                   |                        |
|-----------------------|-----------------|-------------------|------------------------|
| Site                  | Vacuum ABO Unit |                   |                        |
| Site Position:        |                 | Northing:         | 657,758.66 usft        |
| From:                 | Map             | Easting:          | 778,438.28 usft        |
| Position Uncertainty: | 0.00 usft       | Slot Radius:      | 13-3/16 "              |
|                       |                 | Latitude:         | 32° 48' 17.95668364 N  |
|                       |                 | Longitude:        | 103° 25' 37.70173029 W |
|                       |                 | Grid Convergence: | 0.49 °                 |

|                      |                                                                    |                     |               |
|----------------------|--------------------------------------------------------------------|---------------------|---------------|
| Well                 | Vacuum ABO Unit Well No. 7-06, Surf Loc: 1016 FSL 2333 FEL Sect 27 |                     |               |
| Well Position        | +N/-S                                                              | -1,417.78 usft      | Northing:     |
|                      | +E/-W                                                              | -5,141.47 usft      | Easting:      |
| Position Uncertainty | 0.00 usft                                                          | Wellhead Elevation: | Ground Level: |
|                      |                                                                    |                     | 3,930.80 usft |

|           |               |             |                |
|-----------|---------------|-------------|----------------|
| Wellbore  | Original hole |             |                |
| Magnetics | Model Name    | Sample Date | Declination    |
|           | IGRF2010      | 7/21/2014   | 7.18           |
|           |               |             | Dip Angle      |
|           |               |             | 60.66          |
|           |               |             | Field Strength |
|           |               |             | 48,662         |

|                   |                  |           |               |
|-------------------|------------------|-----------|---------------|
| Design            | rev0             |           |               |
| Audit Notes:      |                  |           |               |
| Version:          | Phase:           | PROTOTYPE | Tie On Depth: |
|                   |                  |           | 0.00          |
| Vertical Section: | Depth From (TVD) | +N/-S     | +E/-W         |
|                   | (usft)           | (usft)    | (usft)        |
|                   | 0.00             | 0.00      | 0.00          |
|                   |                  |           | Direction     |
|                   |                  |           | 91.01         |

| Plan Sections         |                 |             |                       |              |              |                         |                        |                       |         |                |
|-----------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|------------------------|-----------------------|---------|----------------|
| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) | TFO (°) | Target         |
| 0.00                  | 0.00            | 0.00        | 0.00                  | 0.00         | 0.00         | 0.00                    | 0.00                   | 0.00                  | 0.00    |                |
| 1,755.00              | 0.00            | 0.00        | 1,755.00              | 0.00         | 0.00         | 0.00                    | 0.00                   | 0.00                  | 0.00    |                |
| 2,474.52              | 14.39           | 91.01       | 2,466.97              | -1.59        | 89.87        | 2.00                    | 2.00                   | 0.00                  | 91.01   |                |
| 5,490.18              | 14.39           | 91.01       | 5,388.03              | -14.87       | 839.22       | 0.00                    | 0.00                   | 0.00                  | 0.00    |                |
| 6,209.70              | 0.00            | 91.01       | 6,100.00              | -16.46       | 929.09       | 2.00                    | -2.00                  | 0.00                  | 180.00  |                |
| 9,209.70              | 0.00            | 91.01       | 9,100.00              | -16.46       | 929.09       | 0.00                    | 0.00                   | 0.00                  | 0.00    | VABO 7-06 PBHL |

**Database:** EDM 5000.1 Ddatabase  
**Company:** ConocoPhillips  
**Project:** Lea County, New Mexico  
**Site:** Vacuum ABO Unit  
**Well:** Vacuum ABO Unit Well No. 7-06  
**Wellbore:** Original hole  
**Design:** rev0

**Local Co-ordinate Reference:** Well Vacuum ABO Unit Well No. 7-06  
**TVD Reference:** RKB=3930.8+13 @ 3943.80usft (PD 822)  
**MD Reference:** RKB=3930.8+13 @ 3943.80usft (PD 822)  
**North Reference:** Grid  
**Survey Calculation Method:** Minimum Curvature

## Planned Survey

| Measured<br>Depth<br>(usft)    | Inclination<br>(°) | Azimuth<br>(°) | Vertical<br>Depth<br>(usft) | +N/-S<br>(usft) | +E/-W<br>(usft) | Vertical<br>Section<br>(usft) | Dogleg<br>Rate<br>(°/100usft) | Build<br>Rate<br>(°/100usft) | Turn<br>Rate<br>(°/100usft) |
|--------------------------------|--------------------|----------------|-----------------------------|-----------------|-----------------|-------------------------------|-------------------------------|------------------------------|-----------------------------|
| 0.00                           | 0.00               | 0.00           | 0.00                        | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| 100.00                         | 0.00               | 0.00           | 100.00                      | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| 200.00                         | 0.00               | 0.00           | 200.00                      | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| 300.00                         | 0.00               | 0.00           | 300.00                      | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| 400.00                         | 0.00               | 0.00           | 400.00                      | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| 500.00                         | 0.00               | 0.00           | 500.00                      | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| 600.00                         | 0.00               | 0.00           | 600.00                      | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| 700.00                         | 0.00               | 0.00           | 700.00                      | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| 800.00                         | 0.00               | 0.00           | 800.00                      | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| 900.00                         | 0.00               | 0.00           | 900.00                      | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| 1,000.00                       | 0.00               | 0.00           | 1,000.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| 1,100.00                       | 0.00               | 0.00           | 1,100.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| 1,200.00                       | 0.00               | 0.00           | 1,200.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| 1,300.00                       | 0.00               | 0.00           | 1,300.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| 1,400.00                       | 0.00               | 0.00           | 1,400.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| 1,500.00                       | 0.00               | 0.00           | 1,500.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| 1,600.00                       | 0.00               | 0.00           | 1,600.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| 1,630.00                       | 0.00               | 0.00           | 1,630.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| <b>Rustler</b>                 |                    |                |                             |                 |                 |                               |                               |                              |                             |
| 1,700.00                       | 0.00               | 0.00           | 1,700.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| 1,745.00                       | 0.00               | 0.00           | 1,745.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| <b>Salado</b>                  |                    |                |                             |                 |                 |                               |                               |                              |                             |
| 1,755.00                       | 0.00               | 0.00           | 1,755.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| <b>KOP Begin 2°/100' build</b> |                    |                |                             |                 |                 |                               |                               |                              |                             |
| 1,800.00                       | 0.90               | 91.01          | 1,800.00                    | -0.01           | 0.35            | 0.35                          | 2.00                          | 2.00                         | 0.00                        |
| 1,900.00                       | 2.90               | 91.01          | 1,899.94                    | -0.06           | 3.67            | 3.67                          | 2.00                          | 2.00                         | 0.00                        |
| 2,000.00                       | 4.90               | 91.01          | 1,999.70                    | -0.19           | 10.47           | 10.47                         | 2.00                          | 2.00                         | 0.00                        |
| 2,100.00                       | 6.90               | 91.01          | 2,099.17                    | -0.37           | 20.75           | 20.75                         | 2.00                          | 2.00                         | 0.00                        |
| 2,200.00                       | 8.90               | 91.01          | 2,198.21                    | -0.61           | 34.49           | 34.49                         | 2.00                          | 2.00                         | 0.00                        |
| 2,300.00                       | 10.90              | 91.01          | 2,296.72                    | -0.92           | 51.68           | 51.68                         | 2.00                          | 2.00                         | 0.00                        |
| 2,400.00                       | 12.90              | 91.01          | 2,394.56                    | -1.28           | 72.29           | 72.30                         | 2.00                          | 2.00                         | 0.00                        |
| 2,474.52                       | 14.39              | 91.01          | 2,466.97                    | -1.59           | 89.87           | 89.88                         | 2.00                          | 2.00                         | 0.00                        |
| <b>Begin 14.39° tangent</b>    |                    |                |                             |                 |                 |                               |                               |                              |                             |
| 2,500.00                       | 14.39              | 91.01          | 2,491.66                    | -1.70           | 96.20           | 96.22                         | 0.00                          | 0.00                         | 0.00                        |
| 2,600.00                       | 14.39              | 91.01          | 2,588.52                    | -2.14           | 121.05          | 121.07                        | 0.00                          | 0.00                         | 0.00                        |
| 2,700.00                       | 14.39              | 91.01          | 2,685.38                    | -2.58           | 145.90          | 145.92                        | 0.00                          | 0.00                         | 0.00                        |
| 2,746.06                       | 14.39              | 91.01          | 2,730.00                    | -2.79           | 157.34          | 157.37                        | 0.00                          | 0.00                         | 0.00                        |
| <b>Tansill</b>                 |                    |                |                             |                 |                 |                               |                               |                              |                             |
| 2,800.00                       | 14.39              | 91.01          | 2,782.25                    | -3.02           | 170.75          | 170.77                        | 0.00                          | 0.00                         | 0.00                        |
| 2,900.00                       | 14.39              | 91.01          | 2,879.11                    | -3.47           | 195.60          | 195.63                        | 0.00                          | 0.00                         | 0.00                        |
| 2,931.89                       | 14.39              | 91.01          | 2,910.00                    | -3.61           | 203.52          | 203.55                        | 0.00                          | 0.00                         | 0.00                        |
| <b>Yates</b>                   |                    |                |                             |                 |                 |                               |                               |                              |                             |
| 3,000.00                       | 14.39              | 91.01          | 2,975.97                    | -3.91           | 220.44          | 220.48                        | 0.00                          | 0.00                         | 0.00                        |
| 3,100.00                       | 14.39              | 91.01          | 3,072.83                    | -4.35           | 245.29          | 245.33                        | 0.00                          | 0.00                         | 0.00                        |
| 3,195.15                       | 14.39              | 91.01          | 3,165.00                    | -4.76           | 268.94          | 268.98                        | 0.00                          | 0.00                         | 0.00                        |
| <b>Seven Rivers</b>            |                    |                |                             |                 |                 |                               |                               |                              |                             |
| 3,200.00                       | 14.39              | 91.01          | 3,169.70                    | -4.79           | 270.14          | 270.18                        | 0.00                          | 0.00                         | 0.00                        |
| 3,300.00                       | 14.39              | 91.01          | 3,266.56                    | -5.23           | 294.99          | 295.04                        | 0.00                          | 0.00                         | 0.00                        |
| 3,400.00                       | 14.39              | 91.01          | 3,363.42                    | -5.67           | 319.84          | 319.89                        | 0.00                          | 0.00                         | 0.00                        |
| 3,500.00                       | 14.39              | 91.01          | 3,460.28                    | -6.11           | 344.69          | 344.74                        | 0.00                          | 0.00                         | 0.00                        |
| 3,600.00                       | 14.39              | 91.01          | 3,557.15                    | -6.55           | 369.54          | 369.59                        | 0.00                          | 0.00                         | 0.00                        |
| 3,700.00                       | 14.39              | 91.01          | 3,654.01                    | -6.99           | 394.39          | 394.45                        | 0.00                          | 0.00                         | 0.00                        |
| 3,773.29                       | 14.39              | 91.01          | 3,725.00                    | -7.31           | 412.60          | 412.66                        | 0.00                          | 0.00                         | 0.00                        |

Database: EDM 5000.1 Ddatabase  
 Company: ConocoPhillips  
 Project: Lea County, New Mexico  
 Site: Vacuum ABO Unit  
 Well: Vacuum ABO Unit Well No. 7-06  
 Wellbore: Original hole  
 Design: rev0

Local Co-ordinate Reference: Well Vacuum ABO Unit Well No. 7-06  
 TVD Reference: RKB=3930.8+13 @ 3943.80usft (PD 822)  
 MD Reference: RKB=3930.8+13 @ 3943.80usft (PD 822)  
 North Reference: Grid  
 Survey Calculation Method: Minimum Curvature

## Planned Survey

| Measured Depth (usft)              | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
|------------------------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|
| <b>Queen</b>                       |                 |             |                       |              |              |                         |                         |                        |                       |
| 3,800.00                           | 14.39           | 91.01       | 3,750.87              | -7.43        | 419.23       | 419.30                  | 0.00                    | 0.00                   | 0.00                  |
| 3,900.00                           | 14.39           | 91.01       | 3,847.74              | -7.87        | 444.08       | 444.15                  | 0.00                    | 0.00                   | 0.00                  |
| 4,000.00                           | 14.39           | 91.01       | 3,944.60              | -8.31        | 468.93       | 469.00                  | 0.00                    | 0.00                   | 0.00                  |
| 4,100.00                           | 14.39           | 91.01       | 4,041.46              | -8.75        | 493.78       | 493.86                  | 0.00                    | 0.00                   | 0.00                  |
| 4,150.11                           | 14.39           | 91.01       | 4,090.00              | -8.97        | 506.23       | 506.31                  | 0.00                    | 0.00                   | 0.00                  |
| <b>Grayburg</b>                    |                 |             |                       |              |              |                         |                         |                        |                       |
| 4,200.00                           | 14.39           | 91.01       | 4,138.32              | -9.19        | 518.63       | 518.71                  | 0.00                    | 0.00                   | 0.00                  |
| 4,300.00                           | 14.39           | 91.01       | 4,235.19              | -9.63        | 543.48       | 543.56                  | 0.00                    | 0.00                   | 0.00                  |
| 4,400.00                           | 14.39           | 91.01       | 4,332.05              | -10.07       | 568.33       | 568.42                  | 0.00                    | 0.00                   | 0.00                  |
| 4,475.32                           | 14.39           | 91.01       | 4,405.00              | -10.40       | 587.04       | 587.13                  | 0.00                    | 0.00                   | 0.00                  |
| <b>San Andres</b>                  |                 |             |                       |              |              |                         |                         |                        |                       |
| 4,500.00                           | 14.39           | 91.01       | 4,428.91              | -10.51       | 593.17       | 593.27                  | 0.00                    | 0.00                   | 0.00                  |
| 4,600.00                           | 14.39           | 91.01       | 4,525.77              | -10.95       | 618.02       | 618.12                  | 0.00                    | 0.00                   | 0.00                  |
| 4,700.00                           | 14.39           | 91.01       | 4,622.64              | -11.39       | 642.87       | 642.97                  | 0.00                    | 0.00                   | 0.00                  |
| 4,800.00                           | 14.39           | 91.01       | 4,719.50              | -11.83       | 667.72       | 667.83                  | 0.00                    | 0.00                   | 0.00                  |
| 4,900.00                           | 14.39           | 91.01       | 4,816.36              | -12.27       | 692.57       | 692.68                  | 0.00                    | 0.00                   | 0.00                  |
| 5,000.00                           | 14.39           | 91.01       | 4,913.22              | -12.71       | 717.42       | 717.53                  | 0.00                    | 0.00                   | 0.00                  |
| 5,100.00                           | 14.39           | 91.01       | 5,010.09              | -13.15       | 742.27       | 742.38                  | 0.00                    | 0.00                   | 0.00                  |
| 5,200.00                           | 14.39           | 91.01       | 5,106.95              | -13.59       | 767.12       | 767.24                  | 0.00                    | 0.00                   | 0.00                  |
| 5,300.00                           | 14.39           | 91.01       | 5,203.81              | -14.03       | 791.96       | 792.09                  | 0.00                    | 0.00                   | 0.00                  |
| 5,400.00                           | 14.39           | 91.01       | 5,300.67              | -14.47       | 816.81       | 816.94                  | 0.00                    | 0.00                   | 0.00                  |
| 5,490.18                           | 14.39           | 91.01       | 5,388.03              | -14.87       | 839.22       | 839.35                  | 0.00                    | 0.00                   | 0.00                  |
| <b>Begin 2°/100' drop</b>          |                 |             |                       |              |              |                         |                         |                        |                       |
| 5,500.00                           | 14.19           | 91.01       | 5,397.54              | -14.91       | 841.65       | 841.78                  | 2.00                    | -2.00                  | 0.00                  |
| 5,600.00                           | 12.19           | 91.01       | 5,494.89              | -15.32       | 864.47       | 864.60                  | 2.00                    | -2.00                  | 0.00                  |
| 5,700.00                           | 10.19           | 91.01       | 5,592.99              | -15.66       | 883.87       | 884.01                  | 2.00                    | -2.00                  | 0.00                  |
| 5,800.00                           | 8.19            | 91.01       | 5,691.70              | -15.94       | 899.85       | 899.99                  | 2.00                    | -2.00                  | 0.00                  |
| 5,900.00                           | 6.19            | 91.01       | 5,790.91              | -16.16       | 912.37       | 912.51                  | 2.00                    | -2.00                  | 0.00                  |
| 6,000.00                           | 4.19            | 91.01       | 5,890.49              | -16.32       | 921.42       | 921.56                  | 2.00                    | -2.00                  | 0.00                  |
| 6,100.00                           | 2.19            | 91.01       | 5,990.33              | -16.42       | 926.99       | 927.14                  | 2.00                    | -2.00                  | 0.00                  |
| 6,164.70                           | 0.90            | 91.01       | 6,055.00              | -16.45       | 928.74       | 928.88                  | 2.00                    | -2.00                  | 0.00                  |
| <b>Glorieta</b>                    |                 |             |                       |              |              |                         |                         |                        |                       |
| 6,200.00                           | 0.19            | 91.01       | 6,090.30              | -16.46       | 929.07       | 929.22                  | 2.00                    | -2.00                  | 0.00                  |
| 6,209.70                           | 0.00            | 91.01       | 6,100.00              | -16.46       | 929.09       | 929.24                  | 2.00                    | -2.00                  | 0.00                  |
| <b>Begin vertical hold section</b> |                 |             |                       |              |              |                         |                         |                        |                       |
| 6,300.00                           | 0.00            | 91.01       | 6,190.30              | -16.46       | 929.09       | 929.24                  | 0.00                    | 0.00                   | 0.00                  |
| 6,304.70                           | 0.00            | 91.01       | 6,195.00              | -16.46       | 929.09       | 929.24                  | 0.00                    | 0.00                   | 0.00                  |
| <b>Paddock</b>                     |                 |             |                       |              |              |                         |                         |                        |                       |
| 6,400.00                           | 0.00            | 91.01       | 6,290.30              | -16.46       | 929.09       | 929.24                  | 0.00                    | 0.00                   | 0.00                  |
| 6,500.00                           | 0.00            | 91.01       | 6,390.30              | -16.46       | 929.09       | 929.24                  | 0.00                    | 0.00                   | 0.00                  |
| 6,600.00                           | 0.00            | 91.01       | 6,490.30              | -16.46       | 929.09       | 929.24                  | 0.00                    | 0.00                   | 0.00                  |
| 6,629.70                           | 0.00            | 91.01       | 6,520.00              | -16.46       | 929.09       | 929.24                  | 0.00                    | 0.00                   | 0.00                  |
| <b>Blinberry</b>                   |                 |             |                       |              |              |                         |                         |                        |                       |
| 6,700.00                           | 0.00            | 91.01       | 6,590.30              | -16.46       | 929.09       | 929.24                  | 0.00                    | 0.00                   | 0.00                  |
| 6,800.00                           | 0.00            | 91.01       | 6,690.30              | -16.46       | 929.09       | 929.24                  | 0.00                    | 0.00                   | 0.00                  |
| 6,900.00                           | 0.00            | 91.01       | 6,790.30              | -16.46       | 929.09       | 929.24                  | 0.00                    | 0.00                   | 0.00                  |
| 7,000.00                           | 0.00            | 91.01       | 6,890.30              | -16.46       | 929.09       | 929.24                  | 0.00                    | 0.00                   | 0.00                  |
| 7,100.00                           | 0.00            | 91.01       | 6,990.30              | -16.46       | 929.09       | 929.24                  | 0.00                    | 0.00                   | 0.00                  |
| 7,200.00                           | 0.00            | 91.01       | 7,090.30              | -16.46       | 929.09       | 929.24                  | 0.00                    | 0.00                   | 0.00                  |
| 7,300.00                           | 0.00            | 91.01       | 7,190.30              | -16.46       | 929.09       | 929.24                  | 0.00                    | 0.00                   | 0.00                  |
| 7,400.00                           | 0.00            | 91.01       | 7,290.30              | -16.46       | 929.09       | 929.24                  | 0.00                    | 0.00                   | 0.00                  |
| 7,500.00                           | 0.00            | 91.01       | 7,390.30              | -16.46       | 929.09       | 929.24                  | 0.00                    | 0.00                   | 0.00                  |

Database: EDM 5000.1 Database  
 Company: ConocoPhillips  
 Project: Lea County, New Mexico  
 Site: Vacuum ABO Unit  
 Well: Vacuum ABO Unit Well No. 7-06  
 Wellbore: Original hole  
 Design: rev0

Local Co-ordinate Reference: Well Vacuum ABO Unit Well No. 7-06  
 TVD Reference: RKB=3930.8+13 @ 3943.80usft (PD 822)  
 MD Reference: RKB=3930.8+13 @ 3943.80usft (PD 822)  
 North Reference: Grid  
 Survey Calculation Method: Minimum Curvature

Planned Survey

| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
|-----------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|
| 7,600.00              | 0.00            | 91.01       | 7,490.30              | -16.46       | 929.09       | 929.24                  | 0.00                    | 0.00                   | 0.00                  |
| 7,700.00              | 0.00            | 91.01       | 7,590.30              | -16.46       | 929.09       | 929.24                  | 0.00                    | 0.00                   | 0.00                  |
| 7,800.00              | 0.00            | 91.01       | 7,690.30              | -16.46       | 929.09       | 929.24                  | 0.00                    | 0.00                   | 0.00                  |
| 7,900.00              | 0.00            | 91.01       | 7,790.30              | -16.46       | 929.09       | 929.24                  | 0.00                    | 0.00                   | 0.00                  |
| 7,999.70              | 0.00            | 91.01       | 7,890.00              | -16.46       | 929.09       | 929.24                  | 0.00                    | 0.00                   | 0.00                  |
| <b>Tubb</b>           |                 |             |                       |              |              |                         |                         |                        |                       |
| 8,000.00              | 0.00            | 91.01       | 7,890.30              | -16.46       | 929.09       | 929.24                  | 0.00                    | 0.00                   | 0.00                  |
| 8,100.00              | 0.00            | 91.01       | 7,990.30              | -16.46       | 929.09       | 929.24                  | 0.00                    | 0.00                   | 0.00                  |
| 8,138.70              | 0.00            | 91.01       | 8,029.00              | -16.46       | 929.09       | 929.24                  | 0.00                    | 0.00                   | 0.00                  |
| <b>Drinkard</b>       |                 |             |                       |              |              |                         |                         |                        |                       |
| 8,200.00              | 0.00            | 91.01       | 8,090.30              | -16.46       | 929.09       | 929.24                  | 0.00                    | 0.00                   | 0.00                  |
| 8,300.00              | 0.00            | 91.01       | 8,190.30              | -16.46       | 929.09       | 929.24                  | 0.00                    | 0.00                   | 0.00                  |
| 8,400.00              | 0.00            | 91.01       | 8,290.30              | -16.46       | 929.09       | 929.24                  | 0.00                    | 0.00                   | 0.00                  |
| 8,429.70              | 0.00            | 91.01       | 8,320.00              | -16.46       | 929.09       | 929.24                  | 0.00                    | 0.00                   | 0.00                  |
| <b>Abo</b>            |                 |             |                       |              |              |                         |                         |                        |                       |
| 8,500.00              | 0.00            | 91.01       | 8,390.30              | -16.46       | 929.09       | 929.24                  | 0.00                    | 0.00                   | 0.00                  |
| 8,600.00              | 0.00            | 91.01       | 8,490.30              | -16.46       | 929.09       | 929.24                  | 0.00                    | 0.00                   | 0.00                  |
| 8,700.00              | 0.00            | 91.01       | 8,590.30              | -16.46       | 929.09       | 929.24                  | 0.00                    | 0.00                   | 0.00                  |
| 8,800.00              | 0.00            | 91.01       | 8,690.30              | -16.46       | 929.09       | 929.24                  | 0.00                    | 0.00                   | 0.00                  |
| 8,900.00              | 0.00            | 91.01       | 8,790.30              | -16.46       | 929.09       | 929.24                  | 0.00                    | 0.00                   | 0.00                  |
| 9,000.00              | 0.00            | 91.01       | 8,890.30              | -16.46       | 929.09       | 929.24                  | 0.00                    | 0.00                   | 0.00                  |
| 9,100.00              | 0.00            | 91.01       | 8,990.30              | -16.46       | 929.09       | 929.24                  | 0.00                    | 0.00                   | 0.00                  |
| 9,200.00              | 0.00            | 91.01       | 9,090.30              | -16.46       | 929.09       | 929.24                  | 0.00                    | 0.00                   | 0.00                  |
| 9,209.70              | 0.00            | 91.01       | 9,100.00              | -16.46       | 929.09       | 929.24                  | 0.00                    | 0.00                   | 0.00                  |
| <b>PBHL/TD</b>        |                 |             |                       |              |              |                         |                         |                        |                       |

Design Targets

| Target Name               | Dip Angle (°) | Dip Dir. (°) | TVD (usft) | +N/-S (usft) | +E/-W (usft) | Northing (usft) | Easting (usft) | Latitude             | Longitude            |
|---------------------------|---------------|--------------|------------|--------------|--------------|-----------------|----------------|----------------------|----------------------|
| - hit/miss target         |               |              |            |              |              |                 |                |                      |                      |
| - Shape                   |               |              |            |              |              |                 |                |                      |                      |
| VABO 7-06 PBHL            | 0.00          | 0.00         | 9,100.00   | -16.46       | 929.09       | 656,324.42      | 774,225.90     | 32° 48' 4.12040881 N | 3° 26' 27.19230078 W |
| - plan hits target center |               |              |            |              |              |                 |                |                      |                      |
| - Point                   |               |              |            |              |              |                 |                |                      |                      |

Casing Points

| Measured Depth (usft) | Vertical Depth (usft) | Name                     | Casing Diameter (") | Hole Diameter (") |
|-----------------------|-----------------------|--------------------------|---------------------|-------------------|
| 1,655.00              | 1,655.00              | 9 5/8" Casing @ 1655 TVD | 9-5/8               | 12-1/4            |
| 5,192.83              | 5,100.00              | 7 5/8" Casing @ 5100 TVD | 7-5/8               | 8-3/4             |
| 9,209.70              | 9,100.00              | 5 1/2" Casing @ 9100 TVD | 5-1/2               | 6-3/4             |

|                  |                               |                                     |                                      |
|------------------|-------------------------------|-------------------------------------|--------------------------------------|
| <b>Database:</b> | EDM 5000.1 Database           | <b>Local Co-ordinate Reference:</b> | Well Vacuum ABO Unit Well No. 7-06   |
| <b>Company:</b>  | ConocoPhillips                | <b>TVD Reference:</b>               | RKB=3930.8+13 @ 3943.80usft (PD 822) |
| <b>Project:</b>  | Lea County, New Mexico        | <b>MD Reference:</b>                | RKB=3930.8+13 @ 3943.80usft (PD 822) |
| <b>Site:</b>     | Vacuum ABO Unit               | <b>North Reference:</b>             | Grid                                 |
| <b>Well:</b>     | Vacuum ABO Unit Well No. 7-06 | <b>Survey Calculation Method:</b>   | Minimum Curvature                    |
| <b>Wellbore:</b> | Original hole                 |                                     |                                      |
| <b>Design:</b>   | rev0                          |                                     |                                      |

#### Formations

| Measured Depth (usft) | Vertical Depth (usft) | Name         | Lithology | Dip (°) | Dip Direction (°) |
|-----------------------|-----------------------|--------------|-----------|---------|-------------------|
| 1,630.00              | 1,630.00              | Rustler      |           | 0.00    |                   |
| 1,745.00              | 1,745.00              | Salado       |           | 0.00    |                   |
| 2,746.06              | 2,730.00              | Tansill      |           | 0.00    |                   |
| 2,931.89              | 2,910.00              | Yates        |           | 0.00    |                   |
| 3,195.15              | 3,165.00              | Seven Rivers |           | 0.00    |                   |
| 3,773.29              | 3,725.00              | Queen        |           | 0.00    |                   |
| 4,150.11              | 4,090.00              | Grayburg     |           | 0.00    |                   |
| 4,475.32              | 4,405.00              | San Andres   |           | 0.00    |                   |
| 6,164.70              | 6,055.00              | Glorieta     |           | 0.00    |                   |
| 6,304.70              | 6,195.00              | Paddock      |           | 0.00    |                   |
| 6,629.70              | 6,520.00              | Blinberry    |           | 0.00    |                   |
| 7,999.70              | 7,890.00              | Tubb         |           | 0.00    |                   |
| 8,138.70              | 8,029.00              | Drinkard     |           | 0.00    |                   |
| 8,429.70              | 8,320.00              | Abo          |           | 0.00    |                   |

#### Plan Annotations

| Measured Depth (usft) | Vertical Depth (usft) | Local Coordinates |              | Comment                     |
|-----------------------|-----------------------|-------------------|--------------|-----------------------------|
|                       |                       | +N/-S (usft)      | +E/-W (usft) |                             |
| 1,755.00              | 1,755.00              | 0.00              | 0.00         | KOP Begin 2°/100' build     |
| 2,474.52              | 2,466.97              | -1.59             | 89.87        | Begin 14.39° tangent        |
| 5,490.18              | 5,388.03              | -14.87            | 839.22       | Begin 2°/100' drop          |
| 6,209.70              | 6,100.00              | -16.46            | 929.09       | Begin vertical hold section |
| 9,209.70              | 9,100.00              | -16.46            | 929.09       | PBHL/TD                     |

ConocoPhillips  
 Lea County New Mexico  
 Vacuum ABO Unit  
 Vacuum ABO Unit Well No. 7-06  
 Original hole  
 rev0

21-Jul-14

| MD      | Inc   | Azimuth | TVD     | N/S   | E/W    | VS     | DLS | Y        | X        | Comment            |
|---------|-------|---------|---------|-------|--------|--------|-----|----------|----------|--------------------|
| 0       | 0     | 0       | 0       | 0     | 0      | 0      | 0   | 0        | 656340.9 | 773296.8           |
| 100     | 0     | 0       | 100     | 0     | 0      | 0      | 0   | 0        | 656340.9 | 773296.8           |
| 200     | 0     | 0       | 200     | 0     | 0      | 0      | 0   | 0        | 656340.9 | 773296.8           |
| 300     | 0     | 0       | 300     | 0     | 0      | 0      | 0   | 0        | 656340.9 | 773296.8           |
| 400     | 0     | 0       | 400     | 0     | 0      | 0      | 0   | 0        | 656340.9 | 773296.8           |
| 500     | 0     | 0       | 500     | 0     | 0      | 0      | 0   | 0        | 656340.9 | 773296.8           |
| 600     | 0     | 0       | 600     | 0     | 0      | 0      | 0   | 0        | 656340.9 | 773296.8           |
| 700     | 0     | 0       | 700     | 0     | 0      | 0      | 0   | 0        | 656340.9 | 773296.8           |
| 800     | 0     | 0       | 800     | 0     | 0      | 0      | 0   | 0        | 656340.9 | 773296.8           |
| 900     | 0     | 0       | 900     | 0     | 0      | 0      | 0   | 0        | 656340.9 | 773296.8           |
| 1000    | 0     | 0       | 1000    | 0     | 0      | 0      | 0   | 0        | 656340.9 | 773296.8           |
| 1100    | 0     | 0       | 1100    | 0     | 0      | 0      | 0   | 0        | 656340.9 | 773296.8           |
| 1200    | 0     | 0       | 1200    | 0     | 0      | 0      | 0   | 0        | 656340.9 | 773296.8           |
| 1300    | 0     | 0       | 1300    | 0     | 0      | 0      | 0   | 0        | 656340.9 | 773296.8           |
| 1400    | 0     | 0       | 1400    | 0     | 0      | 0      | 0   | 0        | 656340.9 | 773296.8           |
| 1500    | 0     | 0       | 1500    | 0     | 0      | 0      | 0   | 0        | 656340.9 | 773296.8           |
| 1600    | 0     | 0       | 1600    | 0     | 0      | 0      | 0   | 0        | 656340.9 | 773296.8           |
| 1630    | 0     | 0       | 1630    | 0     | 0      | 0      | 0   | 0        | 656340.9 | 773296.8 Rustler   |
| 1700    | 0     | 0       | 1700    | 0     | 0      | 0      | 0   | 0        | 656340.9 | 773296.8           |
| 1745    | 0     | 0       | 1745    | 0     | 0      | 0      | 0   | 0        | 656340.9 | 773296.8 Salado    |
| 1755    | 0     | 0       | 1755    | 0     | 0      | 0      | 0   | 0        | 656340.9 | 773296.8 KOP Begin |
| 1800    | 0.9   | 91.01   | 1800    | -0.01 | 0.35   | 0.35   | 2   | 656340.9 | 773297.2 |                    |
| 1900    | 2.9   | 91.01   | 1899.94 | -0.06 | 3.67   | 3.67   | 2   | 656340.8 | 773300.5 |                    |
| 2000    | 4.9   | 91.01   | 1999.7  | -0.19 | 10.47  | 10.47  | 2   | 656340.7 | 773307.3 |                    |
| 2100    | 6.9   | 91.01   | 2099.17 | -0.37 | 20.75  | 20.75  | 2   | 656340.5 | 773317.6 |                    |
| 2200    | 8.9   | 91.01   | 2198.21 | -0.61 | 34.49  | 34.49  | 2   | 656340.3 | 773331.3 |                    |
| 2300    | 10.9  | 91.01   | 2296.72 | -0.92 | 51.68  | 51.68  | 2   | 656340   | 773348.5 |                    |
| 2400    | 12.9  | 91.01   | 2394.56 | -1.28 | 72.29  | 72.3   | 2   | 656339.6 | 773369.1 |                    |
| 2474.52 | 14.39 | 91.01   | 2466.97 | -1.59 | 89.87  | 89.88  | 2   | 656339.3 | 773386.7 | Begin 14.35        |
| 2500    | 14.39 | 91.01   | 2491.66 | -1.7  | 96.2   | 96.22  | 0   | 656339.2 | 773393   |                    |
| 2600    | 14.39 | 91.01   | 2588.52 | -2.14 | 121.05 | 121.07 | 0   | 656338.7 | 773417.9 |                    |
| 2700    | 14.39 | 91.01   | 2685.38 | -2.58 | 145.9  | 145.92 | 0   | 656338.3 | 773442.7 |                    |
| 2746.06 | 14.39 | 91.01   | 2730    | -2.79 | 157.34 | 157.37 | 0   | 656338.1 | 773454.2 | Tansill            |
| 2800    | 14.39 | 91.01   | 2782.25 | -3.02 | 170.75 | 170.77 | 0   | 656337.9 | 773467.6 |                    |
| 2900    | 14.39 | 91.01   | 2879.11 | -3.47 | 195.6  | 195.63 | 0   | 656337.4 | 773492.4 |                    |
| 2931.89 | 14.39 | 91.01   | 2910    | -3.61 | 203.52 | 203.55 | 0   | 656337.3 | 773500.3 | Yates              |
| 3000    | 14.39 | 91.01   | 2975.97 | -3.91 | 220.44 | 220.48 | 0   | 656337   | 773517.3 |                    |
| 3100    | 14.39 | 91.01   | 3072.83 | -4.35 | 245.29 | 245.33 | 0   | 656336.5 | 773542.1 |                    |
| 3195.15 | 14.39 | 91.01   | 3165    | -4.76 | 268.94 | 268.98 | 0   | 656336.1 | 773565.7 | Seven River        |

| MD      | Inc   | Azimuth | TVD     | N/S    | E/W    | VS     | DLS | Y | X        | Comment              |
|---------|-------|---------|---------|--------|--------|--------|-----|---|----------|----------------------|
| 3200    | 14.39 | 91.01   | 3169.7  | -4.79  | 270.14 | 270.18 |     | 0 | 656336.1 | 773567               |
| 3300    | 14.39 | 91.01   | 3266.56 | -5.23  | 294.99 | 295.04 |     | 0 | 656335.7 | 773591.8             |
| 3400    | 14.39 | 91.01   | 3363.42 | -5.67  | 319.84 | 319.89 |     | 0 | 656335.2 | 773616.6             |
| 3500    | 14.39 | 91.01   | 3460.28 | -6.11  | 344.69 | 344.74 |     | 0 | 656334.8 | 773641.5             |
| 3600    | 14.39 | 91.01   | 3557.15 | -6.55  | 369.54 | 369.59 |     | 0 | 656334.3 | 773666.3             |
| 3700    | 14.39 | 91.01   | 3654.01 | -6.99  | 394.39 | 394.45 |     | 0 | 656333.9 | 773691.2             |
| 3773.29 | 14.39 | 91.01   | 3725    | -7.31  | 412.6  | 412.66 |     | 0 | 656333.6 | 773709.4 Queen       |
| 3800    | 14.39 | 91.01   | 3750.87 | -7.43  | 419.23 | 419.3  |     | 0 | 656333.5 | 773716               |
| 3900    | 14.39 | 91.01   | 3847.74 | -7.87  | 444.08 | 444.15 |     | 0 | 656333   | 773740.9             |
| 4000    | 14.39 | 91.01   | 3944.6  | -8.31  | 468.93 | 469    |     | 0 | 656332.6 | 773765.7             |
| 4100    | 14.39 | 91.01   | 4041.46 | -8.75  | 493.78 | 493.86 |     | 0 | 656332.1 | 773790.6             |
| 4150.11 | 14.39 | 91.01   | 4090    | -8.97  | 506.23 | 506.31 |     | 0 | 656331.9 | 773803 Grayburg      |
| 4200    | 14.39 | 91.01   | 4138.32 | -9.19  | 518.63 | 518.71 |     | 0 | 656331.7 | 773815.4             |
| 4300    | 14.39 | 91.01   | 4235.19 | -9.63  | 543.48 | 543.56 |     | 0 | 656331.3 | 773840.3             |
| 4400    | 14.39 | 91.01   | 4332.05 | -10.07 | 568.33 | 568.42 |     | 0 | 656330.8 | 773865.1             |
| 4475.32 | 14.39 | 91.01   | 4405    | -10.4  | 587.04 | 587.13 |     | 0 | 656330.5 | 773883.9 San Andres  |
| 4500    | 14.39 | 91.01   | 4428.91 | -10.51 | 593.17 | 593.27 |     | 0 | 656330.4 | 773890               |
| 4600    | 14.39 | 91.01   | 4525.77 | -10.95 | 618.02 | 618.12 |     | 0 | 656329.9 | 773914.8             |
| 4700    | 14.39 | 91.01   | 4622.64 | -11.39 | 642.87 | 642.97 |     | 0 | 656329.5 | 773939.7             |
| 4800    | 14.39 | 91.01   | 4719.5  | -11.83 | 667.72 | 667.83 |     | 0 | 656329.1 | 773964.5             |
| 4900    | 14.39 | 91.01   | 4816.36 | -12.27 | 692.57 | 692.68 |     | 0 | 656328.6 | 773989.4             |
| 5000    | 14.39 | 91.01   | 4913.22 | -12.71 | 717.42 | 717.53 |     | 0 | 656328.2 | 774014.2             |
| 5100    | 14.39 | 91.01   | 5010.09 | -13.15 | 742.27 | 742.38 |     | 0 | 656327.7 | 774039.1             |
| 5200    | 14.39 | 91.01   | 5106.95 | -13.59 | 767.12 | 767.24 |     | 0 | 656327.3 | 774063.9             |
| 5300    | 14.39 | 91.01   | 5203.81 | -14.03 | 791.96 | 792.09 |     | 0 | 656326.8 | 774088.8             |
| 5400    | 14.39 | 91.01   | 5300.67 | -14.47 | 816.81 | 816.94 |     | 0 | 656326.4 | 774113.6             |
| 5490.18 | 14.39 | 91.01   | 5388.03 | -14.87 | 839.22 | 839.35 |     | 0 | 656326   | 774136 Begin 2°/10'  |
| 5500    | 14.19 | 91.01   | 5397.54 | -14.91 | 841.65 | 841.78 |     | 2 | 656326   | 774138.5             |
| 5600    | 12.19 | 91.01   | 5494.89 | -15.32 | 864.47 | 864.6  |     | 2 | 656325.6 | 774161.3             |
| 5700    | 10.19 | 91.01   | 5592.99 | -15.66 | 883.87 | 884.01 |     | 2 | 656325.2 | 774180.7             |
| 5800    | 8.19  | 91.01   | 5691.7  | -15.94 | 899.85 | 899.99 |     | 2 | 656324.9 | 774196.7             |
| 5900    | 6.19  | 91.01   | 5790.91 | -16.16 | 912.37 | 912.51 |     | 2 | 656324.7 | 774209.2             |
| 6000    | 4.19  | 91.01   | 5890.49 | -16.32 | 921.42 | 921.56 |     | 2 | 656324.6 | 774218.2             |
| 6100    | 2.19  | 91.01   | 5990.33 | -16.42 | 926.99 | 927.14 |     | 2 | 656324.5 | 774223.8             |
| 6164.7  | 0.9   | 91.01   | 6055    | -16.45 | 928.74 | 928.88 |     | 2 | 656324.4 | 774225.5 Glorieta    |
| 6200    | 0.19  | 91.01   | 6090.3  | -16.46 | 929.07 | 929.22 |     | 2 | 656324.4 | 774225.9             |
| 6209.7  | 0     | 91.01   | 6100    | -16.46 | 929.09 | 929.24 |     | 2 | 656324.4 | 774225.9 Begin verti |
| 6300    | 0     | 91.01   | 6190.3  | -16.46 | 929.09 | 929.24 |     | 0 | 656324.4 | 774225.9             |
| 6304.7  | 0     | 91.01   | 6195    | -16.46 | 929.09 | 929.24 |     | 0 | 656324.4 | 774225.9 Paddock     |
| 6400    | 0     | 91.01   | 6290.3  | -16.46 | 929.09 | 929.24 |     | 0 | 656324.4 | 774225.9             |
| 6500    | 0     | 91.01   | 6390.3  | -16.46 | 929.09 | 929.24 |     | 0 | 656324.4 | 774225.9             |
| 6600    | 0     | 91.01   | 6490.3  | -16.46 | 929.09 | 929.24 |     | 0 | 656324.4 | 774225.9             |
| 6629.7  | 0     | 91.01   | 6520    | -16.46 | 929.09 | 929.24 |     | 0 | 656324.4 | 774225.9 Blinebry    |
| 6700    | 0     | 91.01   | 6590.3  | -16.46 | 929.09 | 929.24 |     | 0 | 656324.4 | 774225.9             |
| 6800    | 0     | 91.01   | 6690.3  | -16.46 | 929.09 | 929.24 |     | 0 | 656324.4 | 774225.9             |
| 6900    | 0     | 91.01   | 6790.3  | -16.46 | 929.09 | 929.24 |     | 0 | 656324.4 | 774225.9             |

| MD     | Inc | Azimuth |       | TVD    | N/S    | E/W    | VS     | DLS | Y | X        | Comment           |
|--------|-----|---------|-------|--------|--------|--------|--------|-----|---|----------|-------------------|
| 7000   |     | 0       | 91.01 | 6890.3 | -16.46 | 929.09 | 929.24 |     | 0 | 656324.4 | 774225.9          |
| 7100   |     | 0       | 91.01 | 6990.3 | -16.46 | 929.09 | 929.24 |     | 0 | 656324.4 | 774225.9          |
| 7200   |     | 0       | 91.01 | 7090.3 | -16.46 | 929.09 | 929.24 |     | 0 | 656324.4 | 774225.9          |
| 7300   |     | 0       | 91.01 | 7190.3 | -16.46 | 929.09 | 929.24 |     | 0 | 656324.4 | 774225.9          |
| 7400   |     | 0       | 91.01 | 7290.3 | -16.46 | 929.09 | 929.24 |     | 0 | 656324.4 | 774225.9          |
| 7500   |     | 0       | 91.01 | 7390.3 | -16.46 | 929.09 | 929.24 |     | 0 | 656324.4 | 774225.9          |
| 7600   |     | 0       | 91.01 | 7490.3 | -16.46 | 929.09 | 929.24 |     | 0 | 656324.4 | 774225.9          |
| 7700   |     | 0       | 91.01 | 7590.3 | -16.46 | 929.09 | 929.24 |     | 0 | 656324.4 | 774225.9          |
| 7800   |     | 0       | 91.01 | 7690.3 | -16.46 | 929.09 | 929.24 |     | 0 | 656324.4 | 774225.9          |
| 7900   |     | 0       | 91.01 | 7790.3 | -16.46 | 929.09 | 929.24 |     | 0 | 656324.4 | 774225.9          |
| 7999.7 |     | 0       | 91.01 | 7890   | -16.46 | 929.09 | 929.24 |     | 0 | 656324.4 | 774225.9 Tubb     |
| 8000   |     | 0       | 91.01 | 7890.3 | -16.46 | 929.09 | 929.24 |     | 0 | 656324.4 | 774225.9          |
| 8100   |     | 0       | 91.01 | 7990.3 | -16.46 | 929.09 | 929.24 |     | 0 | 656324.4 | 774225.9          |
| 8138.7 |     | 0       | 91.01 | 8029   | -16.46 | 929.09 | 929.24 |     | 0 | 656324.4 | 774225.9 Drinkard |
| 8200   |     | 0       | 91.01 | 8090.3 | -16.46 | 929.09 | 929.24 |     | 0 | 656324.4 | 774225.9          |
| 8300   |     | 0       | 91.01 | 8190.3 | -16.46 | 929.09 | 929.24 |     | 0 | 656324.4 | 774225.9          |
| 8400   |     | 0       | 91.01 | 8290.3 | -16.46 | 929.09 | 929.24 |     | 0 | 656324.4 | 774225.9          |
| 8429.7 |     | 0       | 91.01 | 8320   | -16.46 | 929.09 | 929.24 |     | 0 | 656324.4 | 774225.9 Abo      |
| 8500   |     | 0       | 91.01 | 8390.3 | -16.46 | 929.09 | 929.24 |     | 0 | 656324.4 | 774225.9          |
| 8600   |     | 0       | 91.01 | 8490.3 | -16.46 | 929.09 | 929.24 |     | 0 | 656324.4 | 774225.9          |
| 8700   |     | 0       | 91.01 | 8590.3 | -16.46 | 929.09 | 929.24 |     | 0 | 656324.4 | 774225.9          |
| 8800   |     | 0       | 91.01 | 8690.3 | -16.46 | 929.09 | 929.24 |     | 0 | 656324.4 | 774225.9          |
| 8900   |     | 0       | 91.01 | 8790.3 | -16.46 | 929.09 | 929.24 |     | 0 | 656324.4 | 774225.9          |
| 9000   |     | 0       | 91.01 | 8890.3 | -16.46 | 929.09 | 929.24 |     | 0 | 656324.4 | 774225.9          |
| 9100   |     | 0       | 91.01 | 8990.3 | -16.46 | 929.09 | 929.24 |     | 0 | 656324.4 | 774225.9          |
| 9200   |     | 0       | 91.01 | 9090.3 | -16.46 | 929.09 | 929.24 |     | 0 | 656324.4 | 774225.9          |
| 9209.7 |     | 0       | 91.01 | 9100   | -16.46 | 929.09 | 929.24 |     | 0 | 656324.4 | 774225.9 PBHL/TD  |

All data are in feet unless otherwise stated. Directions and coordinates are relative to Grid North.  
Vertical depths are relative to RKB=3930.8+13

The Dogleg Severity is in Degrees per 100 feet.  
Vertical Section is from 0.00 E/-W 0.00 N/-S and calculated along an Azimuth of 91.015° (Grid).

Coordinate New Mexico East 3001.  
Central meridian is -104.333°.  
Grid Convergence at Surface is 0.482°.

Based upon at a Measured Depth of 9209.70ft.  
the Bottom in the Direction of 91.015° (Grid).

## Closed Loop System Design, Operating and Maintenance, and Closure Plan

ConocoPhillips Company  
Well: Vacuum Abo Unit (VAU) 7-06  
Location: Sec. 27, T17S, R35E  
Date: 8/20/2014

ConocoPhillips proposes the following plan for design, operating and maintenance, and closure of our proposed closed loop system for the above named well:

1. We propose to use a closed loop system with steel pits, haul-off bins, and frac tanks for containing all cuttings, solids, mud, water, brine, and liquids. We will not dig a pit, nor will we use a drying pad, nor will we build an earth pit above ground level, nor will we dispose of or bury any waste on location.

All drilling waste and all drilling fluids (fresh water, brine, mud, cuttings, drill solids, cement returns, and any other liquid or solid that may be involved) will be contained on location in the rig's steel pits or in haul-off bins or in frac tanks as needed. The intent is as follows:

- We propose to use the rigs' steel pits for containing and maintaining the drilling fluids.
- We propose to remove cuttings and drilled solids from the mud by using solids control equipment and to contain such cuttings and drilled solids on location in haul-off bins.
- We propose that any excess water that may need to be stored on location will be stored in tanks.

**The closed loop system components will be inspected daily by each tour and any needed repairs will be made immediately. Any leak in the system will be repaired immediately, and any spilled liquids and/or solids will be cleaned immediately, and the area where any such spill occurred will be remediated immediately.**

2. Cuttings and solids will be removed from location in haul-off bins by an authorized contractor and disposed of at an authorized facility. For this well, we propose the following disposal facility:

R-360 Inc.  
4507 West Carlsbad Hwy, Hobbs, NM 88240,  
P.O. Box 388; Hobbs, New Mexico 88241  
Toll Free Phone: 877.505.4274, Local Phone Number: 432.638.4076

The physical address for the plant where the disposal facility is located is Highway 62/180 at mile marker 66 (33 miles East of Hobbs, NM and 32 miles West of Carlsbad, NM).

The Permit Number for R-360 is NM-01-0006.

A photograph showing the type of haul-off bins that will be used is attached.

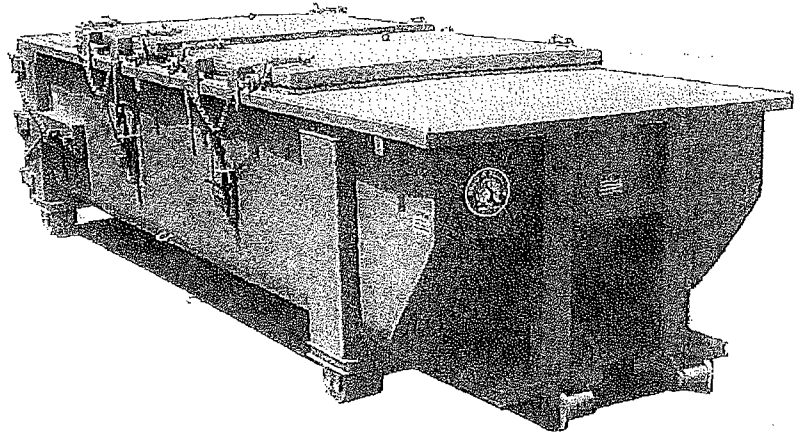
3. Mud will be transported by vacuum truck and disposed of at R-360 Inc. at the facility described above.
4. Fresh Water and Brine will be hauled off by vacuum truck and disposed of at an authorized salt water disposal well. We propose the following for disposal of fresh water and brine as needed:
  - Nabors Well Services Company, 3221 NW County Rd; Hobbs, NM 88240, PO 5208 Hobbs, NM, 88241, Permit SWD 092. (Well Location: **Section 3, T19S R37E**)
  - Basic Energy Services, P.O. Box 1869; Eunice, NM 88231 Phone Number: 575.394.2545, Facility located at Hwy 18, Mile Marker 19; Eunice, NM.

Steven Herrin  
Drilling Engineer  
Office: 281-206-5115  
Cell: 432-209-7558

# SPECIFICATIONS

## Heavy Duty Split Metal Rolling Lid

FLOOR: 3/16" PL one piece  
 CROSS MEMBER: 3 x 4-1 channel 16" on center  
 WALLS: 3/16" PL solid welded with tubing top inside liner hooks  
 DOOR: 3/16" PL with tubing frame  
 FRONT: 3/16" PL slant formed  
 PICK UP: Standard cable with 2" x 6" x 1/4" rails, gusset at each crossmember  
 WHEELS: 10 DIA x 9 long with rease fittings  
 DOOR LATCH: 3 Independent ratchet binders with chains, vertical second latch  
 GASKETS: Extruded rubber seal with metal retainers  
 WELDS: All welds continuous except sub structure crossmembers  
 FINISH: Coated inside and out with direct to metal, rust inhibiting acrylic enamel color coat  
 HYDROTESTING: Full capacity static test  
 DIMENSIONS: 22'-11" long (21'-8" inside), 99" wide (88" inside), see drawing for height  
 OPTIONS: Steel grit blast and special paint, Ampliroll, Heil and Dino pickup  
 ROOF: 3/16" PL roof panels with tubing and channel support frame  
 LIDS: (2) 68" x 90" metal rolling lids spring loaded, self raising  
 ROLLERS: 4" V-groove rollers with delrin bearings and grease fittings  
 OPENING: (2) 60" x 82" openings with 8" divider centered on container  
 LATCH: (2) independent ratchet binders with chains per lid  
 GASKETS: Extruded rubber seal with metal retainers



| CONT. | A  | B  |
|-------|----|----|
| 20 YD | 41 | 53 |
| 25 YD | 53 | 65 |
| 30 YD | 65 | 77 |

