| | | HOBBS | | ATS-15 | -742 | | |
|--|---|--|------------------------------------|---|---|---------|--|
| Form 3160-3 (March 2012) | | AUG 1 0 | | FORM | APPROVED No. 1004-0137 October 31, 2014 | 0 | |
| UNITED STATES DEPARTMENT OF THE BUREAU OF LAND MAN | INTERIOR | RECEIN | /ED | 5. Lease Serial No. NMLC057210 | 0000001 51, 2014 | | |
| APPLICATION FOR PERMIT TO | | REENTER | | 6. If Indian, Allotee N/A | or Tribe Nam | e | |
| Ia. Type of work: 🖌 DRILL 🗌 REENT | ER | | | 7 If Unit or CA Agr N/A | eement, Name | and No. | |
| 1b. Type of Well: Oil Well Gas Well Other | Sin | ngle Zone 🔲 Multi | ple Zone | 8. Lease Name and MCA Unit 551 | Well No. | 71422 | |
| 2. Name of Operator ConocoPhillips Company | 17) | | | 9. API Well No. 30-025-4338 | 4 | - | |
| 3a. Address 600 N. Dairy Ashford Rd.; P10-3096 Houston, TX 77079-1175 | 3b. Phone No. 281-206-52 | <i>(include area code)</i> 281 | | 10. Field and Pool, or Maljamar; Graybur | | es 43 | |
| Location of Well (Report location clearly and in accordance with an At surface 1966' FNL and 1079' FEL; UL , Sec. 28, T1' At proposed prod. zone 2047' FNL and 1331' FEL; UL G, S | 7S, R32E | 4) | | 11. Sec., T. R. M. or E Sec. 28, T17S, R3 | | or Area | |
| Distance in miles and direction from nearest town or post office* Approximately 3.5 miles south east of Maljamar; New Mex | | (0) | 12. County or Parish Lea County | 13. NN | State A | | |
| Distance from proposed* 11' to UL line property or lease line, ft. (Also to nearest drig. unit line, if any) | 16. No. of a | cres in lease | g Unit dedicated to this | well | | | |
| Bistance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. | ance from proposed location* approx. 450' at surface 19. Proposed Depth 20. Bi earest well, drilling, completed, 19. Proposed Depth 4523' MD/4508' TVD ESO | | | | | | |
| I. Elevations (Show whether DF, KDB, RT, GL, etc.) 3993' GL | | | | | 23. Estimated duration 7 days | | |
| | 24. Attac | | | , dayo | | | |
| he following, completed in accordance with the requirements of Onshor Well plat certified by a registered surveyor. A Drilling Plan. A Surface Use Plan (if the location is on National Forest System SUPO must be filed with the appropriate Forest Service Office). | | Bond to cover t Item 20 above). Operator certific | he operation | is form: ns unless covered by an prmation and/or plans as | U | | |
| 5. Signature Sugar & Maunder the | | Printed/Typed) B. Maunder | | | Date 515 | / | |
| senior Regulatory Specialist | Name | (Printed/Typed) | | | AUG 1 | - 2016 | |
| tle FIELD MANAGER | Office | | CA | RLSBAD FIELD O | | | |
| pplication approval does not warrant or certify that the applicant hold onduct operations thereon. onditions of approval, if any, are attached. | s legal or equita | able title to those righ | | PPROVAL FC | | | |
| tle 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a cr ates any false, fictitious or fraudulent statements or representations as t | time for any per to any matter wi | rson knowingly and w thin its jurisdiction. | | and the second se | | | |
| (Continued on page 2) Roswell Controlled Water Basin | | | | *(Instr | ructions on | page 2) | |

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

1. Geologic Formations

| TVD of target | 4508' | Pilot hole depth | NA | |
|---------------|-------|-------------------------------|------|--|
| MD at TD: | 4523' | Deepest expected fresh water: | 855' | |

Permian Basin

| Formation | TVD (ft) | | |
|--------------|----------|--|--|
| Rustler | 855 | | |
| Salado | 1025 | | |
| Tansill | 2025 | | |
| Yates | 2180 | | |
| Seven Rivers | 2515 | | |
| Queen | 3140 | | |
| Grayburg | 3495 | | |
| San Andres | 3875 | | |
| TD | 4508 | | |

2. Casing Program

| Hole | Casin | g Interval | Csg. | Weight | Grade | Conn. | SF | SF | SF |
|--------|-------|---------------|--------|--------------|-----------|-----------|---------|------|---------|
| Size | From | To Size (lbs) | | A CONTRACTOR | Collapse | Burst | Tension | | |
| 12.25" | 0 | \$90 935' | 8.625" | 24 | J55 | STC | 3.48 | 7.5 | 11.4 |
| 7.875" | 0 | 4513 | 5.5" | 17 | J55 | LTC | 2.09 | 2.27 | 3.22 |
| 1 | | | | BLM Min | imum Safe | ty Factor | 1.125 | 1 | 1.6 Dry |
| | | | | | | | | | 1.8 Wet |

All casing strings will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.h

Must have table for contingency casing

ConocoPhillips, MCA UNIT 551

| | Y or N |
|--|--------|
| Is casing new? If used, attach certification as required in Onshore Order #1 | YES |
| Does casing meet API specifications? If no, attach casing specification sheet. | YES |
| Is premium or uncommon casing planned? If yes attach casing specification sheet. | NO |
| Does the above casing design meet or exceed BLM's minimum standards? If not provide justification (loading assumptions, casing design criteria). | YES |
| Will the intermediate pipe be kept at a minimum 1/3 fluid filled to avoid approaching the collapse pressure rating of the casing? | N/A |
| Is well located within Capitan Reef? | NO |
| If yes, does production casing cement tie back a minimum of 50' above the Reef? | |
| Is well within the designated 4 string boundary. | |
| Is well located in SOPA but not in R-111-P? | NO |
| If yes, are the first 2 strings cemented to surface and 3 rd string cement tied back 500' into previous casing? | |
| Is well located in R-111-P and SOPA? | NO |
| If yes, are the first three strings cemented to surface? | |
| Is 2 nd string set 100' to 600' below the base of salt? | |
| Is well located in high Cave/Karst? | NO |
| If yes, are there two strings cemented to surface? | |
| (For 2 string wells) If yes, is there a contingency casing if lost circulation occurs? | |
| Is well located in critical Cave/Karst? | NO |
| If yes, are there three strings cemented to surface? | |

3. Cementing Program

| Casing | # Sks | Wt. lb/ gal | Yld ft3/ sack | H20 gal/sk | 500# Comp. Strength (hours) | Slurry Description |
|--------------------------------|-------|-------------------|---------------------|---------------|--------------------------------------|--|
| Surf. | 350 | 13.5 | 1.75 | 9.17 | 15.75 | Lead: Class C + 4% Bentonite + 2% CACl2 + 0.25% Cello Flake (LCM) |
| | 250 | 14.8 | 1.34 | 6.36 | 8 | Tail: Class C + 2% CaCl2 |
| DV Tool- Contin gency | 450 | 11.5 | 3.22 | 19.06 | 29 | Lead:Class C+3%MPA-5 (strength enhancement)+10% extender+.005lbs/sx Static Free+.005gps defoamer+.125lb/sx Cello Flake+3lbs/sx LCM+2%extender+1% bonding improver+6% Bentonite |
| | 320 | 14.0 | 1.37 | 6.17 | 5.5 | Tail: (35:65) Poz:Class C+1% Extender+1.5% Fluid Loss Add.+ .125 lbs/sx Cello Flake + 3lbs/sx LCM |
| | 250 | 14.8 | 1.34 | 6.36 | 8 | Stage 2:Class C +2%CACl2 |

ConocoPhillips, MCA UNIT 551

| Prod. | 450 | 11.5 | 3.21 | 19.34 | 29 | Lead: Class C +10% Gas Migration Add.+2% Extender+3% MPA-5 (strength enhancement) +1% BA-10A (Bonding improver)+6% Bentonite |
|-------|-----|------|------|-------|-----|--|
| | 320 | 14.0 | 1.37 | 6.48 | 5.5 | Tail: (35:65) Poz:Class C+1% Extender+1.5% Fluid Loss Add. |

Lab reports with recipe and the 500 psi compressive strength time for the cement will be onsite for review.

DV tool to be run and two stage cement job to be performed as contingency in the event of flows or severe losses while drilling and running casing. DV tool depth will be adjusted based on hole conditions and cement volumes will be adjusted proportionally. DV tool will be set a minimum of 50 feet below previous casing and a minimum of 200 feet above current shoe.

| Casing String | TOC | % Excess |
|---------------|-----|----------------------|
| Surface | 0' | 157% lead, 107% tail |
| Production | 0' | 262% lead, 81% tail |

4. Pressure Control Equipment

| BOP installed and tested before drilling which hole? | Size? | Min. Required WP | Ту | pe | - | Tested to: | | |
|---|------------------------|------------------------|------------|-------|------|-------------------------|--|--|
| | | | Ann | ular | X | 70% of working pressure | | |
| | | | Blind | Ram | | | | |
| | | | | | Pipe | Ram | | |
| | | | Double | e Ram | X | | | |
| 7-7/8" | 11" | 3M | Other* | | | 214 | | |
| | Pipe Ram Double Ram | 3M | | | | | | |
| | | | | | | | | |
| | | | Other * | | | | | |

*Specify if additional ram is utilized.

BOP/BOPE will be tested by an independent service company to 250 psi low and the high pressure indicated above per Onshore Order 2 requirements. The System may be upgraded to a higher pressure but still tested to the working pressure listed in the table above. If the system is upgraded all the components installed will be functional and tested.

Pipe rams will be operationally checked each 24 hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets. Other accessories to the BOP equipment will include a Kelly cock and floor safety valve (inside BOP) and choke lines and choke manifold. See attached schematics.

| X | Formation integrity test will be performed per Onshore Order #2. On Exploratory wells or on that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.i. |
|---|---|
| N | A variance is requested for the use of a flexible choke line from the BOP to Choke Manifold. See attached for specs and hydrostatic test chart. |
| | Y/N Are anchors required by manufacturer? |
| N | A multibowl wellhead is being used. The BOP will be tested per Onshore Order #2 after installation on the surface casing which will cover testing requirements for a maximum of 30 days. If any seal subject to test pressure is broken the system must be tested. |
| | See attached schematic. |

5. Mud Program

| Depth | | Туре | Weight (ppg) | Viscosity | Water | PH |
|------------|------------|--------------------|--------------|-----------|-------|-------|
| From | То | | | | Loss | |
| 0 | Surf. shoe | FW Gel | 8.5-9.0 | 28-40 | N/C | N.C. |
| Surf. Shoe | TD | Saturated Brine | 10.0 | 29 | N/C | 10-11 |

Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept on location at all times.

| What will be used to monitor the loss or gain | PVT/Pason/Visual Monitoring |
|---|-----------------------------|
| of fluid? | |

6. Logging and Testing Procedures

| Logg | ing, Coring and Testing. |
|------|---|
| NO | Will run GR/CNL from TD to surface (horizontal well - vertical portion of hole). Stated |
| | logs run will be in the Completion Report and submitted to the BLM. |
| | No Logs are planned based on well control or offset log information. |
| NO | Drill stem test? If yes, explain |
| NO | Coring? If yes, explain |

| Additional logs planned | Interval |
|-------------------------|---------------------------------------|
| Resistivity | |
| Density, GR, BHC | |
| CBL | |
| Mud log | |
| PEX | 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 |

7. Drilling Conditions

| Condition | Specify what type and where? |
|----------------------------|------------------------------|
| BH Pressure at deepest TVD | 1845 psi |
| Abnormal Temperature | No |

 Mitigation measure for abnormal conditions - Loss of circulation is a possibility in the horizons below the Top of Grayburg. We expect that normal Loss of Circulation Material will be successful in healing any such loss of circulation events.

Gas detection equipment and pit level flow monitoring equipment will be on location. A flow paddle will be installed in the flow line to monitor relative amount of mud flowing in the non-pressurized return line. Mud probes will be installed in the individual tanks to monitor pit volumes of the drilling fluid with a pit volume totalizer. Gas detecting equipment and H2S monitor alarm will be installed in the mud return system and will be monitored. A mud gas separator will be installed and operable before drilling out from the Surface Casing. The gases shall be piped into the flare system. Drilling mud containing H2S shall be degassed in accordance with API RP-49, item 5.14. If Hydrogen Sulfide is encountered, measured values and formations will be provided to the BLM.

X H2S is present

X H2S Plan attached

8. Other facets of operation

Is this a walking operation? If yes, describe. No Will be pre-setting casing? If yes, describe. No A 10' rathole is planned between TD and production casing set depth.

Attachments

_X_Directional Plan

X_Other, describe: Two Stage contingency cementing diagram; "Drill Plan Attachment"

Drill Plan Attachment

Two-Stage Cementing (Alternative for Shallow Gas)

Provide contingency plan for using two-stage cementing for the production casing cement job if gas flow occurs during the drilling operations. See APD Drill Plan Section 3.

Two-Stage Cementing (Alternative for Oil/Water/Gas & Water Flow)

Provide contingency plan for using two-stage cementing for the production casing cement job if oil or water flow occurs during drilling operations. See APD Drill Plan Section 3.







ConocoPhillips

Lea County, New Mexico (NAD 27) MCA Unit 551

Wellbore #1

Plan: Design #2

Standard Planning Report

14 May, 2015



HOBBS OCD

AUG 1 0 2016 RECEIVED



MS Energy Services Planning Report



| Database: Company: Project: Site: Well: Wellbore: Design: | EDM 5000.1 Conroe DB ConocoPhillips Lea County, New Mexico (NAD 27) MCA Unit 551 Wellbore #1 Design #2 | | | TVD Re MD Re North I | Co-ordinate Reference: ference: Reference: Calculation Meth | WELL WELL Grid | WELL @ 4006.50usft (Precision 194) WELL @ 4006.50usft (Precision 194) | | |
|---|--|---|-----------------------|----------------------------|--|---|--|---------------------------------------|--|
| Project | Lea Co | unty, New Mexico | (NAD 27) | | | | | | |
| Map System: Geo Datum: Map Zone: | NAD 192 | Plane 1927 (Exac 7 (NADCON CON kico East 3001 | | System | Datum: | Mean Se | a Level | | |
| Well | 551 | | | | | | | | |
| Well Position | +N/-S +E/-W | 657,890.22 usft 674,363.96 usft | Northing: Easting: | | 657,890.22 usft 674,363.96 usft | Latitude: Longitude | ə: | 32° 48' 26.434 N 103° 45' 57.004 W | |
| Position Uncertai | nty | 0.00 usft | Wellhead E | levation: | 0.00 usft | Ground L | evel: | 3,992.50 usf | |
| Wellbore | Wellbo | re #1 | | | | and the second second | | | |
| Magnetics | Mod | el Name | Sample Date | Declir (* | nation °) | Dip Angle (°) | | Field Strength (nT) | |
| | E | BGGM2015 | 05/12/15 | | 7.39 | 6 | 0.65 | 48,557 | |
| Design | Design | #2 | | | | a al an | | | |
| Audit Notes: Version: | | | Phase: | PROTOTYPI | E Tie On | Depth: | 0.00 | | |
| Vertical Section: | | | rom (TVD) sft) | +N/-S (usft) | +E/-W (usft) | | Direction (°) | | |
| | | 0 | .00 | 0.00 | 0.00 | | 252.12 | | |

| 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 | |
| 2,026.50 | 0.00 | 0.00 | 2,026.50 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 2,472.21 | 6.69 | 252.12 | 2,471.20 | -7.98 | -24.72 | 1.50 | 1.50 | -24.21 | 252.12 | |
| 4,523.46 | 6.69 | 252.12 | 4,508.50 | -81.31 | -251.99 | 0.00 | 0.00 | 0.00 | 0.00 PI | BHL v2 - MCA L |



MS Energy Services Planning Report



| Database: Company: Project: Site: Well: Well: Wellbore: | EDM 5000.1 Conroe DB ConocoPhillips Lea County, New Mexico (NAD 27) MCA Unit 551 Wellbore #1 | Local Co-ordinate Reference: TVD Reference: MD Reference: North Reference: Survey Calculation Method: | Well 551 WELL @ 4006.50usft (Precision 194) WELL @ 4006.50usft (Precision 194) Grid Minimum Curvature |
|---|---|---|---|
| Design: | Design #2 | | |

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 |
|---------------------------------|--------------------|----------------|-----------------------------|-----------------|-----------------|-------------------------------|-------------------------------|------------------------------|----------------------------|
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.0 |
| 100.00 | 0.00 | 0.00 | 100.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.0 |
| 200.00 | 0.00 | 0.00 | 200.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.0 |
| 300.00 | 0.00 | 0.00 | 300.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.0 |
| 400.00 | 0.00 | 0.00 | 400.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.0 |
| | | | | | | | | | |
| 500.00 | 0.00 | 0.00 | 500.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.0 |
| 600.00 | 0.00 | 0.00 | 600.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.0 |
| 700.00 | 0.00 | 0.00 | 700.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.0 |
| 800.00 | 0.00 | 0.00 | 800.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.0 |
| 900.00 | 0.00 | 0.00 | 900.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.0 |
| 1,000.00 | 0.00 | 0.00 | 1.000.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.0 |
| 1,100.00 | 0.00 | 0.00 | 1,100.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.0 |
| | 0.00 | 0.00 | 1,200.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.0 |
| 1,200.00 | 0.00 | 0.00 | 1,200.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.0 |
| 1,300.00 | | | | | | | | | |
| 1,400.00 | 0.00 | 0.00 | 1,400.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.0 |
| 1,500.00 | 0.00 | 0.00 | 1,500.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.0 |
| 1,600.00 | 0.00 | 0.00 | 1,600.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.0 |
| 1,700.00 | 0.00 | 0.00 | 1,700.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.0 |
| 1,800.00 | 0.00 | 0.00 | 1,800.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.0 |
| 1,900.00 | 0.00 | 0.00 | 1,900.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.0 |
| 2,000.00 | 0.00 | 0.00 | 2,000.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.0 |
| 2,026.50 | 0.00 | 0.00 | 2,026.50 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.0 |
| KOP, 1.50° | | 0.00 | 2,020.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.0 |
| Contraction of the state of the | | 050 40 | 2 100 00 | 0.00 | 0.67 | 0.74 | 1 50 | 1 50 | 0.0 |
| 2,100.00 | 1.10 | 252.12 | 2,100.00 | -0.22 | -0.67 | 0.71 | 1.50 | 1.50 | 0.0 |
| 2,200.00 | 2.60 | 252.12 | 2,199.94 | -1.21 | -3.75 | 3.94 | 1.50 | 1.50 | 0.0 |
| 2,300.00 | 4.10 | 252.12 | 2,299.77 | -3.01 | -9.31 | 9.79 | 1.50 | 1.50 | 0.0 |
| 2,400.00 | 5.60 | 252.12 | 2,399.41 | -5.60 | -17.36 | 18.25 | 1.50 | 1.50 | 0.0 |
| 2,472.21 | 6.69 | 252.12 | 2,471.20 | -7.98 | -24.72 | 25.97 | 1.50 | 1.50 | 0.0 |
| Hold 6.69° | Inc | | | | | | | | |
| 2,500.00 | 6.69 | 252.12 | 2,498.80 | -8.97 | -27.80 | 29.21 | 0.00 | 0.00 | 0.0 |
| 2,600.00 | 6.69 | 252.12 | 2,598.12 | -12.54 | -38.88 | 40.85 | 0.00 | 0.00 | 0.0 |
| 2,700.00 | 6.69 | 252.12 | 2,697.44 | -16.12 | -49.96 | 52.49 | 0.00 | 0.00 | 0.0 |
| 2,800.00 | 6.69 | 252.12 | 2,796.76 | -19.70 | -61.04 | 64.14 | 0.00 | 0.00 | 0.0 |
| 2,900.00 | 6.69 | 252.12 | 2,896.08 | -23.27 | -72.12 | 75.78 | 0.00 | 0.00 | 0.0 |
| 3,000.00 | 6.69 | 252.12 | 2,995.40 | -26.85 | -83.20 | 87.42 | 0.00 | 0.00 | 0.0 |
| 3,100.00 | 6.69 | 252.12 | 3,094.72 | -30.42 | -94.28 | 99.06 | 0.00 | 0.00 | 0.0 |
| 3,200.00 | 6.69 | 252.12 | 3,194.04 | -34.00 | -105.36 | 110.70 | 0.00 | 0.00 | 0.0 |
| | | | | | | | | | |
| 3,300.00 | 6.69 | 252.12 | 3,293.36 | -37.57 | -116.44 | 122.35 | 0.00 | 0.00 | 0.0 |
| 3,400.00 | 6.69 | 252.12 | 3,392.68 | -41.15 | -127.52 | 133.99 | 0.00 | 0.00 | 0.0 |
| 3,500.00 | 6.69 | 252.12 | 3,492.00 | -44.72 | -138.59 | 145.63 | 0.00 | 0.00 | 0.0 |
| 3,600.00 | 6.69 | 252.12 | 3,591.32 | -48.30 | -149.67 | 157.27 | 0.00 | 0.00 | 0.0 |
| 3,700.00 | 6.69 | 252.12 | 3,690.64 | -51.87 | -160.75 | 168.92 | 0.00 | 0.00 | 0.0 |
| 3,800.00 | 6.69 | 252.12 | 3,789.96 | -55.45 | -171.83 | 180.56 | 0.00 | 0.00 | 0.0 |
| 3,900.00 | 6.69 | 252.12 | 3,889.28 | -59.02 | -182.91 | 192.20 | 0.00 | 0.00 | 0.00 |
| 4,000.00 | 6.69 | 252.12 | 3,988.60 | -62.60 | -193.99 | 203.84 | 0.00 | 0.00 | 0.00 |
| 4,100.00 | 6.69 | 252.12 | 4,087.92 | -66.17 | -205.07 | 215.48 | 0.00 | 0.00 | 0.00 |
| 4,200.00 | 6.69 | 252.12 | 4,187.24 | -69.75 | -216.15 | 227.13 | 0.00 | 0.00 | 0.00 |
| | | | | | | | | | |
| 4,300.00 | 6.69 | 252.12 | 4,286.56 | -73.32 | -227.23 | 238.77 | 0.00 | 0.00 | 0.00 |
| 4,400.00 | 6.69 | 252.12 | 4,385.88 | -76.90 | -238.31 | 250.41 | 0.00 | 0.00 | 0.00 |
| 4,500.00 | 6.69 | 252.12 | 4,485.20 | -80.47 | -249.39 | 262.05 | 0.00 | 0.00 | 0.00 |
| 4,523.46 | 6.69 | 252.12 | 4,508.50 | -81.31 | -251.99 | 264.78 | 0.00 | 0.00 | 0.00 |
| PBHL | | | | | | | | | |



MS Energy Services Planning Report



| Database: | EDM 5000.1 Conroe DB ConocoPhillips | Local Co-ordinate Reference: | Well 551 |
|-----------|--|------------------------------|------------------------------------|
| Company: | | TVD Reference: | WELL @ 4006.50usft (Precision 194) |
| Project: | Lea County, New Mexico (NAD 27) | MD Reference: | WELL @ 4006.50usft (Precision 194) |
| Site: | MCA Unit | North Reference: | Grid |
| Well: | 551 | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | Wellbore #1 | | |
| Design: | Design #2 | | |

Design Targets

| Target Name - hit/miss target - Shape | Dip Angle (°) | Dip Dir. (°) | TVD (usft) | +N/-S (usft) | +E/-W (usft) | Northing (usft) | Easting (usft) | Latitude | Longitude |
|---|------------------|-----------------|---------------|-----------------|-----------------|--------------------|-------------------|------------------|-------------------|
| PBHL v2 - MCA Unit & - plan hits target c - Point | | 0.00 | 4,508.50 | -81.31 | -251.99 | 657,808.91 | 674,111.97 | 32° 48' 25.643 N | 103° 45' 59.962 W |

Casing Points

| Measured Depth (usft) | Vertical Depth (usft) | Name | Casing Diameter D (") | Hole iameter (") |
|-----------------------------|-----------------------------|------|-----------------------------|------------------------|
| 4,523.46 | 4,508.50 5 1/2" | | 5-1/2 | 6 |

Plan Annotations

| Measured | Vertical | Local Coor | dinates | |
|-----------------|-----------------|-----------------|-----------------|-----------------------|
| Depth (usft) | Depth (usft) | +N/-S (usft) | +E/-W (usft) | Comment |
| 2,026.50 | 2,026.50 | 0.00 | 0.00 | KOP, 1.50°/100' Build |
| 2,472.21 | 2,471.20 | -7.98 | -24.72 | Hold 6.69° Inc |
| 4,523.46 | 4,508.50 | -81.31 | -251.99 | PBHL |



- Item Description
 - 1 Rotating Head (11")
 - 2A Fill up Line and Valve
 - 2B Flow Line (8")
 - 2C Shale Shakers and Solids Settling Tank
 - 2D Cuttings Bins for Zero Discharge
 - 2E Rental Mud Gas Separator with vent line to flare and return line to mud system
 - 3 Annular BOP (11", 3M)
 - 4 Double Ram (11", 3M, equipped with Blind Rams and Pipe Rams)
 - 5 Kill Line (2" flexible hose, 3000 psi WP)
 - 6 Kill Line Valve, Inner (2-1/16", 3000 psi WP)
 - 7 Kill Line Valve, Outer (2-1/16", 3000 psi WP)
 - 8 Kill Line Check Valve (2-1/16", 3000 psi WP)
 - 9 Straight Choke Line (3" 3000 psi WP)
 - 10 Choke Line Valve, Inner (3-1/8", 3000 psi WP)
 - 11 Choke Line Valve, Outer, (Hydraulically operated, 3-1/8", 3000 psi WP)
 - 12 Spacer Spool (11" 3M x 3M)
 - 13 Adapter Flange (11" 3M x 5M)
 - 14 Casing Head (11" 5M)
 - 15 Ball Valve and Threaded Nipple on Casing Head Outlet, (2", 5M)
 - 16 Surface Casing

Submitted by: Cord Denton, Drilling Engineer, Mid-Continent Business Unit, ConocoPhillips Company, 27-April-2015

CHOKE MANIFOLD ARRANGEMENT 3M System per Onshore Oil and Gas Order No. 2 utilizing 3M and 5M Equipment



All Tees must be targeted

- Item Description
 - 1 Manual Adjustable Choke, 2-1/16", 5M
 - 2 Remote-Controlled Hydraulically-Operated Adjustable Choke, 2-1/16", 10M
 - 3 Gate Valve, 2-1/16" 5M
 - 4 Gate Valve, 2-1/16" 5M
 - 5 Gate Valve, 2-1/16" 5M
 - 6 Gate Valve, 2-1/16" 5M
 - 7 Gate Valve, 3-1/8" 3M
 - 8 Gate Valve, 2-1/16" 5M
 - 9 Gate Valve, 2-1/16" 5M
 - 10 Gate Valve, 2-1/16" 5M
 - 11 Gate Valve, 3-1/8" 3M
 - 12 Gate Valve, 2-1/16" 5M
 - 13 Pressure Gauge
 - 14 2" hammer union tie-in point for BOP Tester

We will test each valve to 3000 psi from the upstream side.

Submitted by: Cord Denton Drilling Engineer, Mid-Continent Business Unit, ConocoPhillips Company Date: 27-April-2015

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

ConocoPhillips Company Well: MCA #551 Location: Section 28, T17S, R32E Date: 6/3/2015

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, use a drying pad, build an earthen pit above ground level, nor 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 hauloff bins or frac tanks as needed. The intent is as follows:

- We propose to use the rig's 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 during each tour and any necessary repairs will be made immediately. Any leak in the system will be repaired immediately, 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 the 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 Phone Number: 575.393.1079

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 NM1-006.

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; P.O. Box 5208 Hobbs, NM, 88241, Phone Number: 575.392.2577; Permit SWD 092.
 - Basic Energy Services, 2404 W Texas Ave, Eunice, NM 88231; P.O. Box 1869, Eunice, NM 88231 Phone Number: 575.394.2545, Facility located at Hwy 18, Mile Marker 19; Eunice, NM.
 - C & C Transport, LLC, P.O. Box 1352, Hobbs, NM 88241 Phone Number: 575.393.0422
 - Sundance Services, Inc., P.O. Box 1737 Eunice, NM 88231 Phone Number: 575.394.2511

Cord Denton Drilling Engineer, ConocoPhillips Company Phone: (281) 206-5406 Cell: (832) 754-7363

SPECIFICATIONS

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, insi de liner hooks

DOOR: 3/16" PL with tubing frame FRONT: 3/16" PL slant formed PICK U P: Standard cable with 2" x 6" x 1/4" rails, gu sset 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 substructur e crossmembers

FINISH: Coated inside and out with direct to metal, rust inhibiting acrylic enamel color coat HYDROTESTING: Full capacity static test DIMEN SIONS: 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

Heavy Duty Split Metal Rolling Lid



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







HOBBS OCD AUG 1 0 2016 RECEIVED

H₂S Contingency Plan

H₂S Contingency Plan Holders:

Attached is an H₂S Contingency Plan for COPC Permian Drilling working in the West Texas and Southeastern New Mexico areas operated by ConocoPhillips Company.

If you have any questions regarding this plan, please call Jet Brown at ConocoPhillips Company, 432.688.6849.

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