|   | PARTMENT OF THE INTERIOR  |   | Car          | Isbad Ri                                     |                                 | ce                               |
|---|---|---|--------------|--|---------------------------------|----------------------------------|
|   | EAU OF LAND MANAGEMENT  |   |              | CCD.H  | OBHS NMNN                       | 1114984                          |
| Do not use this   | NOTICES AND REPORTS ON W<br>form for proposals to drill or to<br>Use Form 3160-3 (APD) for suc              | o re-enter an                             |              | 5. If Indian, Allottee or 7                  | Tribe Name                      |                                  |
|   | TRIPLICATE - Other instructions on page   |   |              | 7. If Unit of CA/Agreen                      | nent, Name and/or N             | 0.                               |
| 1. Type of Well   |   |   |              |  |                                 |                                  |
| Gas V   |   |   | 1            | 8. Well Name and No. C                       | HILI PARLOR 17 FED              | ERAL COM #2H                     |
| 2. Name of Operator BC OPERATIN   | G, INC.   |   |              | 9. API Well No. 30-025                       | -43137                          |                                  |
| 3a. Address P.O. BOX 50820<br>MIDLAND, TX 79710                                     |   | <i>(include area code</i><br>96           |              | 10. Field and Pool or Ex<br>RED TANK; BONE S | ploratory Area                  |                                  |
| 4. Location of Well (Footage, Sec. 7.1<br>240' FSL & 360' FEL, UNIT LETT            |   |   |              | 11 Country or Parish, S<br>LEA CO., NM       | tate                            |                                  |
| 12. CHE   | CK THE APPROPRIATE BOX(ES) TO IN  | DICATE NATURE                             | E OF NOTIO   | CE, REPORT OR OTHE                           | ER DATA                         |                                  |
| TYPE OF SUBMISSION  |   | TYI                                       | PE OF ACT    | ION  |                                 |                                  |
| Notice of Intent  |   | oen<br>raulic Fracturing<br>Construction  | Recla        | ction (Start/Resume)<br>mation<br>nplete     | Water Shut-Of<br>Well Integrity | ĩ                                |
| Subsequent Report   |   | and Abandon<br>Back                       |              | orarily Abandon<br>Disposal                  |                                 |                                  |
| CURRENT SURFACE CASING  | CTFULLY REQUESTS TO CHANGE T<br>G: 16" HOLE, 13.375" CSG, 54.5 #, J55<br>NG: 20" CSG, 106.5#, J-55 B<br>2.6 | STC. FROM 0' -                            | 775'         |  |                                 |                                  |
|   |   |   | -            | ee attache<br>Conditions                     |                                 | VAL                              |
|   | · .   |   |              |  |                                 |                                  |
| 4. I hereby certify that the foregoing is<br>SARAH PRESLEY                          | true and correct. Name (Printed/Typed)  | REGULAT<br>Title                          | ORY ANA      | LYST   |                                 |                                  |
| Signature Carraly   | hol   | Date                                      |              | 09/09/201                                    | 6                               | K                                |
| 0   | THE SPACE FOR FEDE  | ERAL OR STA                               | ATE OFI      | CEUSE  |                                 |                                  |
| Approved by<br>Teungku Muc  | chiis Krueng  | Title PE                                  | TROLEU       | M ENGINEER Dat                               | APPF<br>te                      | OVED                             |
| Conditions of approval, if any, are attach  | ed. Approval of this notice does not warrant quitable title to those rights in the subject lea              |   |              |  | SEP 1                           | 6 201 <b>6</b>                   |
| Title 18 U.S.C Section 1001 and Title 43 ny false, fictitious or fraudulent stateme | U.S.C Section 1212, make it a crime for an ints or representations as to any matter within                  | y person knowingly<br>n its jurisdiction. | y and willfu | lly to make to any depa                      |                                 | NO WAANASSEEMENT<br>FIELD OFFICE |

(Instructions on page 2)

6

## PECOS DISTRICT CONDITIONS OF APPROVAL

| 1 |                       |                                   |
|---|-----------------------|-----------------------------------|
|   | OPERATOR'S NAME:      | BC Operating                      |
|   | LEASE NO.:            | NM114984                          |
|   | WELL NAME & NO.:      | 2H-Chili Parlor 17 Federal Com    |
|   | SURFACE HOLE FOOTAGE: | 240'/S & 660'/E                   |
|   | BOTTOM HOLE FOOTAGE   | 240'/S & 660'/E, sec. 17          |
|   | LOCATION:             | Section 8, T.22 S., R.33 E., NMPM |
|   | COUNTY:               | Lea County, New Mexico            |
|   |                       |                                   |

## All previous COA still apply except for the surface casing:

The 20 inch surface casing shall be set at approximately 775 feet (in a competent bed just below the base of the Magenta Dolomite, and if salt is encountered, set casing at least 25 feet above the salt) and cemented to the surface.

Additional cement may be required – excess calculates to -16%.

- a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
- b. Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry.
- c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
- d. If cement falls back, remedial cementing will be done prior to drilling out that string.

The intermediate casing shall be kept fluid filled to avoid approaching the minimum collapse pressure rating of the casing.

223308p APD Chili Parlor 17 Federal Com 2H 30025 NM96244 BC OP TMAK 09-16-2016 v12.4

| 20   | surface   |  | 26  | inch hole.  |   | Design I   | actors   | SUR   | FACE   |
|--|---|--|---|---|---|--|--|---|--|
| Segment  | #/ft  | Grade  |   | Coupling  | Body  | Collapse   | Burst  | Length  | Weight   |
| "A"  | 106.50  | J  | 55  | BUTT  | 10.33   | 3.19   | 0.99   | 775   | 82,538   |
| "B"  |   |  |   |   |   | STREET, ST   |  | 0   | 0  |
|  | mud, 30min Sfc  |  |   | Tail Cmt  | does not  | circ to sfc.   | Totals:  | 775   | 82,538   |
| in the Phone in the second sec |   | and the second sec |   | ement Volumes   |   |  |  |   |  |
| Hole   | Annular   | 1 Stage  | 1 Stage   | Min   | 1 Stage   | Drilling   | Calc   | Req'd   | Min Dist   |
| Size   | Volume  | Cmt Sx   | CuFt Cmt  | Cu Ft   | % Excess  | Mud Wt   | MASP   | BOPE  | Hole-Cpl   |
| 26   | 1.5053  | 700  | 1096  | 1299  | -16   | 8.80   | 1425   | 2M  | 2.50   |
| Burst Frac Grad  | dient(s) for Seg  | gment(s) A,  | B=,b All>   | 0.70, OK.   |   |  | 1999 12 1999 14 1999 5   | ,<br>   |  |
| 95/8   | casing ins  | side the   | 20  |   |   | Design   | Factors  | INTER   | MEDIATE  |
| Segment  | #/ft  | Grade  | 20  | Coupling  | Joint   | Collapse   | Burst  | Length  | Weight   |
| "A"  | 40.00   | A MARCHART CHART TO A MARCH CO   | 55  | LT&C  | 2.83  | 1.05   | 0.67   | 4,600   | 184,000  |
| "B"  | 10.00   |  | NUMBER OF   |   | 2.00  | State State  | STREES STR   | 0   | 0  |
|  | mud, 30min Sfc  | Csg Test nsig  |   |   | er a forsk under stander stander stander af de stander stander af de stander af de stander stander stander stan<br>Er stander stand |  | Totals:  | 4,600   | 184,000  |
|  |   |  |   | chieve a top of   | 0   | ft from su   |  | 775   | overlap.   |
| Hole   | Annular   | 1 Stage  | 1 Stage   | Min   | 1 Stage   | Drilling   | Calc   | Req'd   | Min Dist   |
| Size   | Volume  | Cmt Sx   | CuFt Cmt  | Cu Ft   | % Excess  | Mud Wt   | MASP   | BOPE  | Hole-Cpl   |
| 12 1/4   | 0.3132  | 1350   | 2289  | 2351  | -3  | 10.20  | 3197   | 5M  | 0.81   |
|  |   | 1000   | 2200  | 2001  |   | 10.20  | 0107   |   | 0.01   |
|  | -   |  |   |   |   |  |  |   |  |
|  | dient(s) for Se   |  |   | 6, b, c, d All > 0  | ).70, OK.   |  |  |   |  |
| Burst Frac Grad  | dient(s) for Ser  | side the   | B, C, D = 0.8   | , , , , , , , , , , , , , , , , , , ,   | 1997 or 2000 i 2 2000 i   | Design Fa  | CONTRACTOR OF ANY ADDRESS OF A DREAM AND AND A DREAM AND AND AND AND A | T A REAL PROPERTY AND INCOME.   | UCTION   |
| Burst Frac Grad<br>5 1/2<br>Segment  | dient(s) for Ser<br>casing in:<br>#/ft  | side the<br>Grade  | 9 5/8   | Coupling  | Joint   | Collapse   | Burst  | Length  | Weigh  |
| Burst Frac Grad<br>5 1/2<br>Segment<br>"A"   | dient(s) for Sep<br>casing ins<br>#/ft<br>17.00   | side the<br>Grade<br>P   | <b>9 5/8</b><br>110   | Coupling<br>Tejas TTRs1   | Joint<br>2.72   | Collapse<br>1.38   | <b>Burst</b> 1.81  | Length<br>11,252  | Weigh<br>191,284   |
| 5 1/2<br>Segment<br>"A"<br>"B"   | dient(s) for Sep<br>casing ins<br>#/ft<br>17.00<br>17.00  | side the<br>Grade<br>P<br>P  | <b>9 5/8</b><br>110<br><b>110</b>   | Coupling  | Joint   | Collapse   | Burst<br>1.81<br>1.81  | Length<br>11,252<br>5,612   | Weigh<br>191,284<br>95,404   |
| 5 1/2<br>Segment<br>"A"<br>"B"<br>w/8.4#/g   | casing ins<br>#/ft<br>17.00<br>17.00<br>mud, 30min Sfc  | side the<br>Grade<br>P<br>P  | <b>9 5/8</b><br>110<br><b>110</b>   | Coupling<br>Tejas TTRs1   | <b>Joint</b><br>2.72<br>7.95  | Collapse<br>1.38<br>1.21   | Burst<br>1.81<br><b>1.81</b><br>Totals:  | Length<br>11,252<br>5,612<br>16,864   | Weigh<br>191,284<br>95,404<br>286,688  |
| 5 1/2<br>Segment<br>"A"<br>"B"<br>w/8.4#/g   | dient(s) for Sep<br>casing ins<br>#/ft<br>17.00<br>17.00  | side the<br>Grade<br>P<br>P  | <b>9 5/8</b><br>110<br><b>110</b><br>2,475  | Coupling<br>Tejas TTRs1<br>Tejas TTRs1  | <b>Joint</b><br>2.72<br>7.95<br>56.05   | Collapse<br>1.38<br>1.21<br>1.31   | Burst<br>1.81<br>1.81<br>Totals:<br>if it were a   | Length<br>11,252<br>5,612<br>16,864<br>vertical we  | Weigh<br>191,284<br>95,404<br>286,686<br>ellbore.  |
| Surst Frac Grad<br>5 1/2<br>Segment<br>"A"<br>"B"<br>w/8.4#/g<br>B   | casing ins<br>#/ft<br>17.00<br>17.00<br>mud, 30min Sfc  | side the<br>Grade<br>P<br>Csg Test psig:   | 95/8<br>110<br>110<br>2,475<br>MTD  | Coupling<br>Tejas TTRs1<br>Tejas TTRs1<br>Max VTD   | Joint<br>2.72<br>7.95<br>56.05<br>Csg VD  | Collapse<br>1.38<br>1.21<br>1.31<br>Curve KOP  | Burst<br>1.81<br>1.81<br>Totals:<br>if it were a<br>Dogleg <sup>o</sup>  | Length<br>11,252<br>5,612<br>16,864<br>vertical we<br>Severity <sup>o</sup>   | Weigh<br>191,284<br>95,404<br>286,688<br>ellbore.<br>MEOC  |
| Surst Frac Grad<br>5 1/2<br>Segment<br>"A"<br>"B"<br>w/8.4#/g<br>B<br>Pilot  | dient(s) for Sep<br>casing ins<br>#/ft<br>17.00<br>17.00<br>mud, 30min Sfc<br>would be:<br>Hole Plann   | side the<br>Grade<br>P<br>P<br>Csg Test psig:<br>ed  | <b>9 5/8</b><br>110<br>110<br>2,475<br>MTD<br>16864   | Coupling<br>Tejas TTRs1<br>Tejas TTRs1<br>Max VTD<br>12150  | Joint<br>2.72<br>7.95<br>56.05<br>Csg VD<br>11825   | Collapse<br>1.38<br>1.21<br>1.31<br>Curve KOP<br>11252   | Burst<br>1.81<br>1.81<br>Totals:<br>if it were a<br>Dogleg <sup>o</sup><br>90  | Length<br>11,252<br>5,612<br>16,864<br>vertical we<br>Severity <sup>o</sup><br>10   | Weigh<br>191,28<br>95,404<br>286,68<br>ellbore.<br>MEOC<br>12152   |
| 5 1/2<br>Segment<br>"A"<br>"B"<br>w/8.4#/g<br>B<br>Pilot<br>The  | casing ins<br>#/ft<br>17.00<br>17.00<br>mud, 30min Sfc<br>would be:<br>Hole Plann<br>e cement volu  | side the<br>Grade<br>P<br>Csg Test psig:<br>ed<br>ume(s) are in  | <b>9 5/8</b><br><b>110</b><br><b>110</b><br><b>2,475</b><br>MTD<br>16864<br><b>htended to a</b>                                 | Coupling<br>Tejas TTRs1<br>Tejas TTRs1<br>Max VTD<br>12150<br>achieve a top of  | Joint<br>2.72<br>7.95<br>56.05<br>Csg VD<br>11825<br>4100   | Collapse<br>1.38<br>1.21<br>1.31<br>Curve KOP<br>11252<br>ft from su                               | Burst<br>1.81<br>1.81<br>Totals:<br>if it were a<br>Dogleg <sup>o</sup><br>90<br>urface or a   | Length<br>11,252<br>5,612<br>16,864<br>vertical we<br>Severity <sup>o</sup><br>10<br>500  | Weigh<br>191,28<br>95,404<br>286,68<br>ellbore.<br>MEOC<br>12152<br>overlap.   |
| Surst Frac Grad<br>5 1/2<br>Segment<br>"A"<br>"B"<br>w/8.4#/g<br>B<br>Pilot<br>The<br>Hole   | dient(s) for Sey<br>casing ins<br>#/ft<br>17.00<br>17.00<br>mud, 30min Sfo<br>would be:<br>Hole Plann<br>e cement volu<br>Annular   | side the<br>Grade<br>P<br>P<br>Csg Test psig:<br>ed<br>ume(s) are in<br>1 Stage  | 9 5/8<br>110<br>110<br>2,475<br>MTD<br>16864<br>ntended to a<br>1 Stage   | Coupling<br>Tejas TTRs1<br>Tejas TTRs1<br>Max VTD<br>12150<br>Inchieve a top of<br>Min  | Joint<br>2.72<br>7.95<br>56.05<br>Csg VD<br>11825<br>4100<br>1 Stage  | Collapse<br>1.38<br>1.21<br>1.31<br>Curve KOP<br>11252<br>ft from su<br>Drilling                   | Burst<br>1.81<br>1.81<br>Totals:<br>if it were a<br>Dogleg <sup>o</sup><br>90<br>urface or a<br>Calc   | Length<br>11,252<br>5,612<br>16,864<br>vertical we<br>Severity <sup>o</sup><br>10<br>500<br>Req'd   | Weigh<br>191,284<br>95,404<br>286,688<br>ellbore.<br>MEOC<br>12152<br>overlap.<br>Min Dis  |
| Burst Frac Grad<br>5 1/2<br>Segment<br>"A"<br>"B"<br>w/8.4#/g<br>B<br>Pilot<br>The<br>Hole<br>Size   | dient(s) for Sey<br>casing ins<br>#/ft<br>17.00<br>17.00<br>mud, 30min Sfo<br>would be:<br>Hole Plann<br>e cement volu<br>Annular<br>Volume   | side the<br>Grade<br>P<br>Csg Test psig:<br>ed<br>ume(s) are in<br>1 Stage<br>Cmt Sx   | 9 5/8<br>110<br>110<br>2,475<br>MTD<br>16864<br>ntended to a<br>1 Stage<br>CuFt Cmt   | Coupling<br>Tejas TTRs1<br>Tejas TTRs1<br>Max VTD<br>12150<br>achieve a top of<br>Min<br>Cu Ft                                    | Joint<br>2.72<br>7.95<br>56.05<br>Csg VD<br>11825<br>4100<br>1 Stage<br>% Excess  | Collapse<br>1.38<br>1.21<br>1.31<br>Curve KOP<br>11252<br>ft from su<br>Drilling<br>Mud Wt         | Burst<br>1.81<br>1.81<br>Totals:<br>if it were a<br>Dogleg <sup>o</sup><br>90<br>urface or a   | Length<br>11,252<br>5,612<br>16,864<br>vertical we<br>Severity <sup>o</sup><br>10<br>500  | Weigh<br>191,28<br>95,404<br>286,68<br>ellbore.<br>MEOC<br>12152<br>overlap.<br>Min Dis<br>Hole-Cpl  |
| 5 1/2<br>Segment<br>"A"<br>"B"<br>w/8.4#/g<br>B<br>Pilot<br>The<br>Hole<br>Size<br>8 1/2   | dient(s) for Sey<br>casing in:<br>#/ft<br>17.00<br>17.00<br>mud, 30min Sfc<br>would be:<br>Hole Plann<br>e cement volu<br>Annular<br>Volume<br>0.2291   | side the<br>Grade<br>P<br>P<br>Csg Test psig:<br>ed<br>ume(s) are in<br>1 Stage  | 9 5/8<br>110<br>110<br>2,475<br>MTD<br>16864<br>ntended to a<br>1 Stage   | Coupling<br>Tejas TTRs1<br>Tejas TTRs1<br>Max VTD<br>12150<br>Inchieve a top of<br>Min  | Joint<br>2.72<br>7.95<br>56.05<br>Csg VD<br>11825<br>4100<br>1 Stage  | Collapse<br>1.38<br>1.21<br>1.31<br>Curve KOP<br>11252<br>ft from su<br>Drilling                   | Burst<br>1.81<br>1.81<br>Totals:<br>if it were a<br>Dogleg <sup>o</sup><br>90<br>urface or a<br>Calc   | Length<br>11,252<br>5,612<br>16,864<br>vertical we<br>Severity <sup>o</sup><br>10<br>500<br>Req'd   | Weight<br>191,284<br>95,404<br>286,688<br>ellbore.<br>MEOC<br>12152  |
| 5 1/2<br>Segment<br>"A"<br>"B"<br>w/8.4#/g<br>B<br>Pilot<br>The<br>Hole<br>Size  | dient(s) for Sey<br>casing in:<br>#/ft<br>17.00<br>17.00<br>mud, 30min Sfc<br>would be:<br>Hole Plann<br>e cement volu<br>Annular<br>Volume<br>0.2291   | side the<br>Grade<br>P<br>Csg Test psig:<br>ed<br>ume(s) are in<br>1 Stage<br>Cmt Sx   | 9 5/8<br>110<br>110<br>2,475<br>MTD<br>16864<br>ntended to a<br>1 Stage<br>CuFt Cmt   | Coupling<br>Tejas TTRs1<br>Tejas TTRs1<br>Max VTD<br>12150<br>achieve a top of<br>Min<br>Cu Ft                                    | Joint<br>2.72<br>7.95<br>56.05<br>Csg VD<br>11825<br>4100<br>1 Stage<br>% Excess  | Collapse<br>1.38<br>1.21<br>1.31<br>Curve KOP<br>11252<br>ft from su<br>Drilling<br>Mud Wt         | Burst<br>1.81<br>1.81<br>Totals:<br>if it were a<br>Dogleg <sup>o</sup><br>90<br>urface or a<br>Calc   | Length<br>11,252<br>5,612<br>16,864<br>vertical we<br>Severity <sup>o</sup><br>10<br>500<br>Req'd   | Weight<br>191,284<br>95,404<br>286,688<br>ellbore.<br>MEOC<br>12152<br>overlap.<br>Min Dist<br>Hole-Cpl  |
| 5 1/2<br>Segment<br>"A"<br>"B"<br>w/8.4#/g<br>B<br>Pilot<br>The<br>Hole<br>Size<br>8 1/2   | dient(s) for Sey<br>casing in:<br>#/ft<br>17.00<br>17.00<br>mud, 30min Sfc<br>would be:<br>Hole Plann<br>e cement volu<br>Annular<br>Volume<br>0.2291   | side the<br>Grade<br>P<br>Csg Test psig:<br>ed<br>ume(s) are in<br>1 Stage<br>Cmt Sx   | 9 5/8<br>110<br>110<br>2,475<br>MTD<br>16864<br>ntended to a<br>1 Stage<br>CuFt Cmt   | Coupling<br>Tejas TTRs1<br>Tejas TTRs1<br>Max VTD<br>12150<br>achieve a top of<br>Min<br>Cu Ft                                    | Joint<br>2.72<br>7.95<br>56.05<br>Csg VD<br>11825<br>4100<br>1 Stage<br>% Excess  | Collapse<br>1.38<br>1.21<br>1.31<br>Curve KOP<br>11252<br>ft from su<br>Drilling<br>Mud Wt         | Burst<br>1.81<br>1.81<br>Totals:<br>if it were a<br>Dogleg <sup>o</sup><br>90<br>urface or a<br>Calc<br>MASP   | Length<br>11,252<br>5,612<br>16,864<br>vertical we<br>Severity <sup>o</sup><br>10<br>500<br>Req'd   | Weight<br>191,284<br>95,404<br>286,688<br>ellbore.<br>MEOC<br>12152<br>overlap.<br>Min Dist<br>Hole-Cpl  |
| Burst Frac Grad<br>5 1/2<br>Segment<br>"A"<br>"B"<br>w/8.4#/g<br>B<br>Pilot<br>The<br>Hole<br>Size<br>8 1/2<br>Class 'H' tail cm<br>0<br>Segment   | dient(s) for Sey<br>casing in:<br>#/ft<br>17.00<br>17.00<br>mud, 30min Sfc<br>would be:<br>Hole Plann<br>e cement volu<br>Annular<br>Volume<br>0.2291   | side the<br>Grade<br>P<br>Csg Test psig:<br>ed<br>ume(s) are in<br>1 Stage<br>Cmt Sx   | 9 5/8<br>110<br>110<br>2,475<br>MTD<br>16864<br>ntended to a<br>1 Stage<br>CuFt Cmt<br>3855                                     | Coupling<br>Tejas TTRs1<br>Tejas TTRs1<br>Max VTD<br>12150<br>achieve a top of<br>Min<br>Cu Ft                                    | Joint<br>2.72<br>7.95<br>56.05<br>Csg VD<br>11825<br>4100<br>1 Stage<br>% Excess  | Collapse<br>1.38<br>1.21<br>1.31<br>Curve KOP<br>11252<br>ft from su<br>Drilling<br>Mud Wt<br>9.30 | Burst<br>1.81<br>1.81<br>Totals:<br>if it were a<br>Dogleg <sup>o</sup><br>90<br>urface or a<br>Calc<br>MASP   | Length<br>11,252<br>5,612<br>16,864<br>vertical we<br>Severity <sup>o</sup><br>10<br>500<br>Req'd<br>BOPE                                       | Weight<br>191,284<br>95,404<br>286,688<br>ellbore.<br>MEOC<br>12152<br>overlap.<br>Min Dis<br>Hole-Cpl<br>1.23   |
| Burst Frac Grad<br>5 1/2<br>Segment<br>"A"<br>"B"<br>w/8.4#/g<br>B<br>Pilot<br>The<br>Hole<br>Size<br>8 1/2<br>Class 'H' tail cm   | dient(s) for Sey<br>casing ins<br>#/ft<br>17.00<br>17.00<br>mud, 30min Sfc<br>would be:<br>Hole Plann<br>e cement volu<br>Annular<br>Volume<br>0.2291<br>nt yld > 1.20  | side the<br>Grade<br>P<br>Csg Test psig:<br>ed<br>Ime(s) are in<br>1 Stage<br>Cmt Sx<br>1820   | 9 5/8<br>110<br>110<br>2,475<br>MTD<br>16864<br>ntended to a<br>1 Stage<br>CuFt Cmt<br>3855                                     | Coupling<br>Tejas TTRs1<br>Tejas TTRs1<br>Max VTD<br>12150<br>Achieve a top of<br>Min<br>Cu Ft<br>2945                            | Joint<br>2.72<br>7.95<br>56.05<br>Csg VD<br>11825<br>4100<br>1 Stage<br>% Excess<br>31  | Collapse<br>1.38<br>1.21<br>1.31<br>Curve KOP<br>11252<br>ft from su<br>Drilling<br>Mud Wt<br>9.30 | Burst<br>1.81<br>1.81<br>Totals:<br>if it were a<br>Dogleg <sup>o</sup><br>90<br>urface or a<br>Calc<br>MASP<br>Factors  | Length<br>11,252<br>5,612<br>16,864<br>vertical we<br>Severity <sup>o</sup><br>10<br>500<br>Req'd<br>BOPE                                       | Weigh<br>191,284<br>95,404<br>286,688<br>ellbore.<br>MEOC<br>12152<br>overlap.<br>Min Diss<br>Hole-Cpl<br>1.23   |
| Surst Frac Grad<br>5 1/2<br>Segment<br>"A"<br>"B"<br>w/8.4#/g<br>B<br>Pilot<br>The<br>Hole<br>Size<br>8 1/2<br>Class 'H' tail cm<br>0<br>Segment<br>"A"<br>"B"   | dient(s) for Sey<br>casing ins<br>#/ft<br>17.00<br>17.00<br>mud, 30min Sfo<br>would be:<br>Hole Plann<br>e cement volu<br>Annular<br>Volume<br>0.2291<br>nt yld > 1.20<br>#/ft  | side the<br>Grade<br>P<br>P<br>Csg Test psig:<br>ed<br>ime(s) are ir<br>1 Stage<br>Cmt Sx<br>1820<br>Grade   | 9 5/8<br>110<br>110<br>2,475<br>MTD<br>16864<br>ntended to a<br>1 Stage<br>CuFt Cmt<br>3855                                     | Coupling<br>Tejas TTRs1<br>Tejas TTRs1<br>Max VTD<br>12150<br>Achieve a top of<br>Min<br>Cu Ft<br>2945                            | Joint<br>2.72<br>7.95<br>56.05<br>Csg VD<br>11825<br>4100<br>1 Stage<br>% Excess<br>31  | Collapse<br>1.38<br>1.21<br>1.31<br>Curve KOP<br>11252<br>ft from su<br>Drilling<br>Mud Wt<br>9.30 | Burst<br>1.81<br>1.81<br>Totals:<br>if it were a<br>Dogleg <sup>o</sup><br>90<br>urface or a<br>Calc<br>MASP<br>Factors<br>Burst   | Length<br>11,252<br>5,612<br>16,864<br>vertical we<br>Severity <sup>o</sup><br>10<br>500<br>Req'd<br>BOPE                                       | Weigh<br>191,28<br>95,404<br>286,68<br>ellbore.<br>MEOC<br>12152<br>overlap.<br>Min Dis<br>Hole-Cpl<br>1.23<br>Weigh<br>0                                  |
| Burst Frac Grad<br>5 1/2<br>Segment<br>"A"<br>"B"<br>w/8.4#/g<br>B<br>Pilot<br>The<br>Hole<br>Size<br>8 1/2<br>Class 'H' tail cm<br>0<br>Segment<br>"A"<br>"B"<br>w/8.4#/g   | dient(s) for Sey<br>casing in:<br>#/ft<br>17.00<br>17.00<br>mud, 30min Sfc<br>would be:<br>Hole Plann<br>e cement volu<br>Annular<br>Volume<br>0.2291<br>nt yld > 1.20<br>#/ft<br>mud, 30min Sfc                              | side the<br>Grade<br>P<br>Csg Test psig:<br>ed<br>Ime(s) are ir<br>1 Stage<br>Cmt Sx<br>1820<br>Grade  | 9 5/8<br>110<br>110<br>2,475<br>MTD<br>16864<br>ntended to a<br>1 Stage<br>CuFt Cmt<br>3855<br>5 1/2                            | Coupling<br>Tejas TTRs1<br>Tejas TTRs1<br>Max VTD<br>12150<br>Achieve a top of<br>Min<br>Cu Ft<br>2945<br>Coupling                | Joint<br>2.72<br>7.95<br>56.05<br>Csg VD<br>11825<br>4100<br>1 Stage<br>% Excess<br>31  | Collapse<br>1.38<br>1.21<br>1.31<br>Curve KOP<br>11252<br>ft from su<br>Drilling<br>Mud Wt<br>9.30 | Burst<br>1.81<br>1.81<br>Totals:<br>if it were a<br>Dogleg <sup>o</sup><br>90<br>urface or a<br>Calc<br>MASP<br>Factors<br>Burst<br>Totals:  | Length<br>11,252<br>5,612<br>16,864<br>vertical we<br>Severity <sup>o</sup><br>10<br>500<br>Req'd<br>BOPE<br>Length<br>0<br>0<br>0              | Weigh<br>191,28<br>95,404<br>286,68<br>ellbore.<br>MEOC<br>12152<br>overlap.<br>Min Dis<br>Hole-Cpl<br>1.23<br>Weigh<br>0<br>0                             |
| Burst Frac Grad<br>5 1/2<br>Segment<br>"A"<br>"B"<br>w/8.4#/g<br>B<br>Pilot<br>The<br>Hole<br>Size<br>8 1/2<br>Class 'H' tail cm<br>0<br>Segment<br>"A"<br>"B"<br>w/8.4#/g   | dient(s) for Ser<br>casing in:<br>#/ft<br>17.00<br>17.00<br>mud, 30min Sfc<br>would be:<br>Hole Plann<br>e cement volu<br>Annular<br>Volume<br>0.2291<br>nt yld > 1.20<br>#/ft<br>mud, 30min Sfc<br>Cmt vol calc I            | side the<br>Grade<br>P<br>Csg Test psig:<br>ed<br>Ime(s) are in<br>1 Stage<br>Cmt Sx<br>1820<br>Grade  | 9 5/8<br>110<br>110<br>2,475<br>MTD<br>16864<br>ntended to a<br>1 Stage<br>CuFt Cmt<br>3855<br>5 1/2<br>des this csg.           | Coupling<br>Tejas TTRs1<br>Tejas TTRs1<br>Tejas TTRs1<br>Max VTD<br>12150<br>achieve a top of<br>Min<br>Cu Ft<br>2945<br>Coupling | Joint<br>2.72<br>7.95<br>56.05<br>Csg VD<br>11825<br>4100<br>1 Stage<br>% Excess<br>31<br>Joint   | Collapse<br>1.38<br>1.21<br>1.31<br>Curve KOP<br>11252<br>ft from su<br>Drilling<br>Mud Wt<br>9.30 | Burst<br>1.81<br>1.81<br>Totals:<br>if it were a<br>Dogleg <sup>o</sup><br>90<br>urface or a<br>Calc<br>MASP<br>Factors<br>Burst<br>Totals:<br>urface or a   | Length<br>11,252<br>5,612<br>16,864<br>vertical we<br>Severity <sup>o</sup><br>10<br>500<br>Req'd<br>BOPE<br>Length<br>0<br>0<br>16864          | Weigh<br>191,28<br>95,404<br>286,68<br>ellbore.<br>MEOC<br>12152<br>overlap.<br>Min Dis<br>Hole-Cpl<br>1.23<br>Weigh<br>0<br>0<br>0<br>0<br>overlap.       |
| Burst Frac Grad<br>5 1/2<br>Segment<br>"A"<br>"B"<br>w/8.4#/g<br>B<br>Pilot<br>The<br>Hole<br>Size<br>8 1/2<br>Class 'H' tail cm<br>0<br>Segment<br>"A"<br>"B"<br>w/8.4#/g<br>(<br>Hole  | dient(s) for Seg<br>casing in:<br>#/ft<br>17.00<br>17.00<br>mud, 30min Sfc<br>would be:<br>Hole Plann<br>e cement volu<br>Annular<br>Volume<br>0.2291<br>nt yld > 1.20<br>#/ft<br>mud, 30min Sfc<br>Cmt vol calc I<br>Annular | side the<br>Grade<br>P<br>Csg Test psig:<br>ed<br>ume(s) are in<br>1 Stage<br>Cmt Sx<br>1820<br>Grade<br>Csg Test psig:<br>below include<br>1 Stage  | 9 5/8<br>110<br>110<br>2,475<br>MTD<br>16864<br>tended to a<br>1 Stage<br>CuFt Cmt<br>3855<br>5 1/2<br>des this csg.<br>1 Stage | Coupling<br>Tejas TTRs1<br>Tejas TTRs1<br>Tejas TTRs1<br>Max VTD<br>12150<br>achieve a top of<br>Min<br>Cu Ft<br>2945<br>Coupling | Joint<br>2.72<br>7.95<br>56.05<br>Csg VD<br>11825<br>4100<br>1 Stage<br>% Excess<br>31<br>Joint<br>0<br>1 Stage   | Collapse<br>1.38<br>1.21<br>1.31<br>Curve KOP<br>11252<br>ft from su<br>Drilling<br>Mud Wt<br>9.30 | Burst<br>1.81<br>1.81<br>Totals:<br>if it were a<br>Dogleg <sup>o</sup><br>90<br>urface or a<br>Calc<br>MASP<br>Factors<br>Burst<br>Totals:<br>urface or a<br>Calc   | Length<br>11,252<br>5,612<br>16,864<br>vertical we<br>Severity <sup>o</sup><br>10<br>500<br>Req'd<br>BOPE<br>Length<br>0<br>0<br>16864<br>Req'd | Weigh<br>191,28<br>95,404<br>286,68<br>ellbore.<br>MEOC<br>12152<br>overlap.<br>Min Dis<br>Hole-Cpl<br>1.23<br>Weigh<br>0<br>0<br>0<br>overlap.<br>Min Dis |
| Burst Frac Grad<br>5 1/2<br>Segment<br>"A"<br>"B"<br>w/8.4#/g<br>B<br>Pilot<br>The<br>Hole<br>Size<br>8 1/2<br>Class 'H' tail cm<br>0<br>Segment<br>"A"<br>"B"<br>w/8.4#/g   | dient(s) for Seg<br>casing ins<br>#/ft<br>17.00<br>17.00<br>mud, 30min Sfc<br>would be:<br>Hole Plann<br>e cement volu<br>Annular<br>Volume<br>0.2291<br>nt yld > 1.20<br>#/ft<br>mud, 30min Sfc<br>Cmt vol calc I            | side the<br>Grade<br>P<br>Csg Test psig:<br>ed<br>Ime(s) are in<br>1 Stage<br>Cmt Sx<br>1820<br>Grade  | 9 5/8<br>110<br>110<br>2,475<br>MTD<br>16864<br>ntended to a<br>1 Stage<br>CuFt Cmt<br>3855<br>5 1/2<br>des this csg.           | Coupling<br>Tejas TTRs1<br>Tejas TTRs1<br>Tejas TTRs1<br>Max VTD<br>12150<br>achieve a top of<br>Min<br>Cu Ft<br>2945<br>Coupling | Joint<br>2.72<br>7.95<br>56.05<br>Csg VD<br>11825<br>4100<br>1 Stage<br>% Excess<br>31<br>Joint   | Collapse<br>1.38<br>1.21<br>1.31<br>Curve KOP<br>11252<br>ft from su<br>Drilling<br>Mud Wt<br>9.30 | Burst<br>1.81<br>1.81<br>Totals:<br>if it were a<br>Dogleg <sup>o</sup><br>90<br>urface or a<br>Calc<br>MASP<br>Factors<br>Burst<br>Totals:<br>urface or a   | Length<br>11,252<br>5,612<br>16,864<br>vertical we<br>Severity <sup>o</sup><br>10<br>500<br>Req'd<br>BOPE<br>Length<br>0<br>0<br>16864          | Weigh<br>191,28<br>95,404<br>286,68<br>ellbore.<br>MEOC<br>12152<br>overlap.<br>Min Dis<br>Hole-Cpl<br>1.23<br>Weigh<br>0<br>0<br>0<br>0<br>overlap.       |