

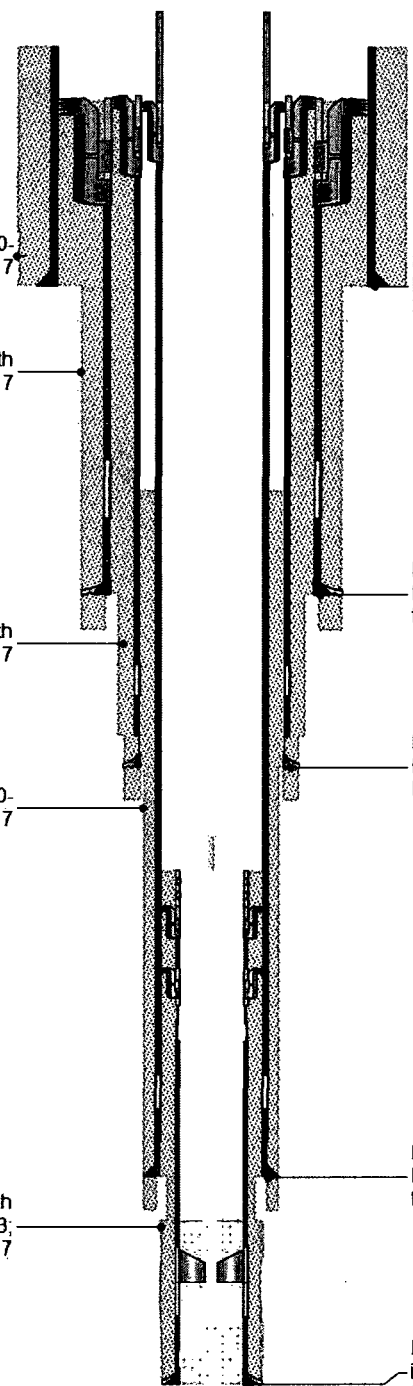


## Wellbore Schematic

Well Name: CAVE LION 5 FEDERAL WC 5H

State/Province NEW MEXICO	Prospect Area RED HILLS	Field Name	Well Subtype	Lat/Long Datum NAD27	Latitude (°) 32.065476	Longitude (°) -103.396008
Well Configuration Type HORIZONTAL	Well Objective EXPLOITATION	Well Status COMPLETION	Ground Elevation (ft) 3,271.00	KB-Ground Distance (ft) 25.00		

HORIZONTAL - CAVE LION 5 FEDERAL WC 5H BP01, 3/9/2018 9:32:06 AM

MD (ftKB)	TVD (ftKB)	Incl (°)	Vertical schematic (actual)	
-3.3	11,888.9	86.8		
24.9	11,890.5	86.8		
29.2	11,890.7	86.8		
29.5	11,890.7	86.8		
30.2	11,890.8	86.8		
30.5	11,890.8	86.8		
30.6	11,890.8	86.8		
76.1	11,893.3	86.8		
145.0	11,897.2	86.8		
167.3	11,898.4	86.8		
253.5	11,903.5	86.8		
944.6	11,941.8	86.8		
987.9	11,944.2	86.8		
1,030.8	11,946.6	86.8		
1,032.2	11,946.7	86.8		
1,032.6	11,946.7	86.8		
1,075.8	11,949.1	86.8		
1,077.4	11,949.2	86.8		
1,106.0	11,950.8	86.8		
5,590.7	12,190.0	86.8		
5,592.1	12,190.1	86.8		
5,438.3	12,192.7	86.8		
5,440.0	12,192.7	86.8		
5,450.1	12,193.3	86.8		
11,524.9	12,532.4	86.8		
11,535.4	12,533.0	86.8		
11,551.6	12,533.9	86.8		
11,564.8	12,534.1	86.8		
11,565.4	12,534.1	86.8		
11,590.7	12,534.4	86.8		
11,592.3	12,534.5	86.8		
11,737.9	12,544.3	86.8		
11,738.8	12,544.4	86.8		
11,833.3	12,549.6	86.8		
11,834.6	12,549.7	86.8		
11,835.9	12,550.0	86.8		
17,217.5	12,633.4	86.5		
17,219.2	12,633.5	86.5		
17,220.5	12,633.5	86.6		
17,263.6	12,635.5	88.0		
17,266.1	12,635.6	88.1		

Des: Conductor Cement; Depth MD:25.0-145.0 ftKB; Date:10/1/2017

No. 1; Des: Conductor 1; OD:20.000 in; ID:19.000 in; Depth MD:25.0-145.0 ftKB; Length:120.00 ft

Des: Surface Casing Cement; Depth MD:29.4-1,106.0 ftKB; Date:11/1/2017

No. 2; Des: Surface; OD:13.375 in; ID:12.515 in; Depth MD:29.4-1,077.4 ftKB; Length:1,048.02 ft

Des: Intermediate Casing Cement; Depth MD:29.4-5,450.0 ftKB; Date:11/6/2017

No. 3; Des: Intermediate 1; OD:9.625 in; ID:8.835 in; Depth MD:29.4-5,440.0 ftKB; Length:5,410.65 ft

Des: Cement; Depth MD:1,032.0-11,840.0 ftKB; Date:11/15/2017

No. 4; Des: Intermediate 2; OD:7.000 in; ID:6.184 in; Depth MD:-3.4-11,834.8 ftKB; Length:11,838.24 ft

Des: Production Casing Cement; Depth MD:11,525.0-17,266.0 ftKB; Date:12/4/2017

No. 5; Des: Liner 1; OD:4.500 in; ID:3.920 in; Depth MD:11,535.6-17,266.0 ftKB; Length:5,730.44 ft

Directions to Well: FROM THE INTERSECTION OF STATE HIGHWAY 128 (EAST KANSAS AVENUE) AND STATE HIGHWAY 18 IN THE CITY OF JAL NEW MEXICO, TRAVEL WEST ON AID STATE HIGHWAY 128 FOR 14.1 MILES TO CONTY RD # 2 (BATTLE AXE ROAD) ON THE LEFT. TRAVEL SOUTHWEST ON BATTLE AXE ROAD FOR 12.3 MILES TO A LEASE ROAD ON THE LEFT. TRAVEL SOUTH ON LEASE ROAD FOR 0.7 MILES ON THE LEFT. TRAVEL EAST ON LEASE ROAD FOR 7.8 MILES TO A LEASE RAD TO THE RIGH. TRAVEL EAST ON LEASE ROAD FOR 0.3 MILES TO PROPOSED WELL 232 FEET ON THE LEFT.