

**FORGE Energy**  
**UL 20 Flathead 2H**  
**API Number: 42-495-33782**

**10/29/2016**

Rig Name:

Depth = 0.0 Progress = 0.0

07:00 Location is clear for permitting and construction  
From intersection of Hwy 115 and FM 1232 in Wink TX go northwest on FM  
1232 for 1.5 miles, go west on CR 201 for 6.8 miles turn south(left), Go 0.9  
miles, turn west(right), location on left.

**02/02/2017**

Rig Name:

Depth = 0.0 Progress = 0.0

07:00 Location construction: Pad is cleared and 90% leveled.

**02/03/2017**

Rig Name:

Depth = 0.0 Progress = 0.0

07:00 Pad is cleared and level, pit construction is 30% complete

**02/04/2017**

Rig Name:

Depth = 0.0 Progress = 0.0

07:00 Location construction, pad is cleared and leveled, road is cleared, pit  
construction is 50% complete.

**02/07/2017**

Rig Name:

Depth = 0.0 Progress = 0.0

07:00 Location construction: Caliche hauling is complete for road and pad.

**02/08/2017**

Rig Name:

Depth = 0.0 Progress = 0.0

07:00 Construction: Pad and road is 90% complete, pits are 75% complete, cellar is  
installed

**02/09/2017**

Rig Name:

Depth = 0.0 Progress = 0.0

07:00 Construction: pad,road, and pit construction is complete. Set 40'X20" conductor  
and 70'X16" MH

**02/10/2017**

Rig Name:

Depth = 0.0 Progress = 0.0

07:00 Lined pits, installed barbed wire fence, star fresh and brine to pits. Location is  
complete.

**02/16/2017**

Rig Name: Blue Quail Rig 13

Depth = 0.0 Progress = 0.0

06:00 MOVE IN BLUE QUAIL SURFACE RIG #13. UNLOAD 15 JTS, 636' OF 13 3/8,  
68#,J55,BTC CASING.START RIGGING UP BLUE QUAIL #13, CALL TRRC WITH  
INTENT TO SPUD. TALKED TO ROSA JOB#71876

15:00 CONTINUE TO RIG UP. PLUMB IN PUMP. PLUMB IN PITS. STRAP BHA AND DP.  
MAKE UP AS MUCH BHA AS POSSIBLE AND REPAIR FOR DAYLIGHTS TO SPUD  
IN.

23:00 CREWS WENT TO MOTEL THIS ONE NIGHT AS DAY CREWS AND NIGHT CREWS  
WERE ON THEIR ROTATION CHANGE. DAYLIGHTS WILL COME ON AT 7AM AND  
PREPARE TO SPUD BEOFRE NOON.

**02/17/2017**

Rig Name: Blue Quail Rig 13

Depth = 457.0 Progress = 392.0

06:00 RE-TOUR SAFETY MEETING WITH BQ AND COMPANY MAN, PRE-SPUD RIG &  
SAFETY INPSPECTION, ALL GOOD NO PROBLEMS, FIX LEAKS IN HOSES,  
REPAIR SWIVEL PACKING, RUN PUMPS AND TEXT NOV SURVEY TOOL - TEST  
GOOD,

11:00 SPUD IN WELL AT 11:00 HRS, DRLG 17.5" HOLE F/65'-457' WITH GOOD  
RETURNS, NO PROBLEMS.SURVEY @ 250' @ 0.6 DEG WITH FLODRIFT TOOL  
FROM NOV. TURNKEY OPERATION - 25K WOB, 105 RPM, 450 GPM.

MD (ft)	TVD (ft)	Incl (°)	Azi (°)	VS (ft)	DLS (°/100ft)	N/S (ft)	E/W (ft)
25.0	25.00	0.00	0.00	0.00	0.00	0.00	0.00

84.0	84.00	0.07	75.49	0.00	0.12	0.01	0.03
117.0	117.00	0.23	282.37	-0.03	0.89	0.03	-0.01
210.0	210.00	0.23	222.14	-0.02	0.25	-0.07	-0.32
360.0	360.00	0.62	265.35	-0.03	0.32	-0.36	-1.33
390.0	389.99	0.64	256.20	-0.07	0.34	-0.41	-1.65

## 02/18/2017

Rig Name: Blue Quail Rig 13

Depth = 534.0 Progress = 77.0

06:00 DRLG F/ 457'-534' SURFACE TD. GOOD RETURNS NO LOSSES OR HOLE TROUBLE AT ALL.

07:30 MIX & PUMP 45 VIS FWG SWEEP TO CLEAN HOLE. CIRCULATE 2 BOTTOMS UP. DROP SCIENTIFIC GYRO.

09:30 COME OUT LDDP & LD BHA. NO DRAG OR TIGHT HOLE WHILE LDDP. RIG UP TO RUN 13 3/8 CASING. PREPARE RIG FOR CASING.

13:00 BROKE TAIL OF OF MAKE UP AND BREAK OUT TONGS. BLUE QUAIL CALL FOR MORE TONGS WAITING ON PARTS.

15:00 HOLD SAFETY MEETING BEFORE RUNNING CASING. BLUE QUAIL RUNS THE CASING SO THERE IS NO 3RD PARTY HERE. BLUE QUAIL DOES NOT HAVE THE CORRECT SUB FOR LIFTING, TORQUING OR PUMPING THROUGH CASING. THE SUPERINTENDENT IS OVERSEEING THIS PROBLEM. GET CASING RUNNING TOOL BACK. MACHINE SHOP BUILT TOOL INCORRECT. SENT TOOL BACK TO MACHINE SHOP TO GET RE-WORKED. DISCUSSED OTHER IDEAS FOR GETTING CASING RUN SOONER. DUE TO THE LIMITATIONS OF THE RIG THERE ARE NOT ANY OTHER OPTIONS OTHER THAN TO GET TOOL BACK AND RUN CASING WITH THEIR SYSTEM.

Vis (s/qt): 28, Dens (lb/gal): 8.50, pH: 0.0

MD (ft)	TVD (ft)	Incl (°)	Azi (°)	VS (ft)	DLS (°/100ft)	N/S (ft)	E/W (ft)
420.0	419.99	0.52	265.90	-0.10	0.52	-0.46	-1.95
450.0	449.99	0.54	273.76	-0.18	0.25	-0.46	-2.23
472.0	471.99	0.44	276.20	-0.25	0.46	-0.45	-2.42

## 02/19/2017

Rig Name: Blue Quail Rig 13

Depth = 534.0 Progress = 0.0

06:00 WAITING ON CASING RUNNING TOOL FOR SURFACE RIG.

15:00 TOH AND LDDP AFTER WO PARTS. NO DRAG OR TIGHT HOLE.

17:00 PREPARE RIG FOR RUNNING CASING. HOLD SAFETY MEETING WITH RIG CREW ABOUT RUNNING CASING.TALK ABOUT WHAT JOINTS STAY OUT. SHOE, FL COLLAR, CENTRALIZERS, DOPE COLLARS, THREADLOCK TPS AND FC.

18:00 RUN 12 JTS TOTAL OF 13 3/8, 68#, K55, BTC CASING. TEX PATTERN SHOE+ 1 CASING SHOE JT+FLOAT COLLAR+ 11 JTS OF CASING. RAN CENTRALIZER 10' UP FROM SHOE, RAN CENTRALIZER 10' UP FROM FLOAT COLLAR, RAN CENTRALIZER EVERY 3RD JT AFTER FLOAT COLLAR. NO DRAG OR TIGHT HOLE WHILE RUNNING CASING. WASH LAST JOINT TO BOTTOM. TAG BOTTOM AND SET CASING ON BOTTOM.

22:00 HOLD SAFETY MEETING WITH HALLIBURTON CEMENTERS AND RIG CREW. TALK ABOUT STOP JOB AUTHORITY. TALK ABOUT HIGH PRESSURE LINES. TALK ABOUT DISPLACEMENT VOLUME. RU HALLIBURTON, TEST LINES TO 3000 PSI - TEST GOOD. PUMP 20 GEL SPACER, MIX AND PUMP 535 SX (130 BBL) HALCEM C, 14.8 PPG, 1.362 YIELD, 1%CALCIUM CHL, 3 PPS KOLSEAL. GOOD RETURNS. SHUT DOWN AND DROP NONROTATING RUBBER PLUG. DISPLACE CASING W/ 70 BBLs OF FW, BUMP PLUG 500PSI OVER AT 750 PSI, AT CALCULATED DISPLACEMENT, FLOATS HELD. CIRCULATED 165 SX TO THE PIT. SHUT DOWN AND RIG DOWN HALLIBURTON.

01:00 CUT OFF CASING AND CONDUCTOR, INSTALL AND WELD ON MULTIBOWL WELLHEAD F/CACTUS WELLHEAD (MBU3T). TEST BRADEN HEAD TO TO 1560 PSI - TEST GOOD.

## 02/28/2017

Rig Name: Blue Quail Rig 13

Depth = 534.0 Progress = 0.0

07:00 Install 3' hog wire around barbed fence to keep cows out

## 03/04/2017

Rig Name: Blue Quail Rig 13

Depth = 534.0 Progress = 0.0

07:00 Load Pits with fresh and brine water

## 03/17/2017

Rig Name: Blue Quail Rig 13

Depth = 534.0 Progress = 0.0

10:00 RIGGED DOWN AND MOVED MAN CAMPS, FRONT YARD, GENERATORS AND MUD PUMPS, PRE MIX AND DIESEL TANKS.  
18:00 RIGGED DOWN AND MOVED MUD PITS, SOLIDS CONTROL, BAR BINS, VFD, MCC, SQUATTED DOGHOUSE AT 18:30; LOWERED DERRICK AT 21:00; SPLIT SUB AND DERRICK; MOVED TO NEW LOCATION. RIGGED UP PITS, GENERATORS; VFD, MCC, DAY TANK, PRE MIX, SHAKER SKID AND RIG FUEL TANK.

### 03/18/2017

Rig Name: Blue Quail Rig 13

Depth = 534.0 Progress = 0.0

06:00 RIGGING UP RIG ON NEW LOCATION; FINISH HAULING IN FINAL LOADS; SET SUBSTRUCTURE AND ASSEMBLED; SET DOGHOUSE; RAISE SUB AND DOGHOUSE; SET IN BAR BINS AND HOPPER SKID; RAISE SHAKER SKID AND SEPARATOR; SET DRAW WORKS; STRING UP DERRICK;  
12:00 WORKING ON DERRICK WITH WELDERS INSTALLING SLEAVE;  
20:00 RIG UP DERRICK; RAISE DERRICK TO FLOOR @ 1:30; RAISE DERRICK @ 2:00; SET RIG IN & RELEASED TRUCKING @ 4:00; RIGGING UP RIG;

### 03/19/2017

Rig Name: Blue Quail Rig 13

Depth = 534.0 Progress = 0.0

06:00 RIGGING UP H&P RIG #602 ON THE UL 20 FLATHEAD #1H; RIGGED UP MUD PUMPS; GENERATORS; VFD HOUSE; MCC HOUSE; HOPPER SKID; ELECTRICAL LINES IN BACKYARD; RIGGED UP DRAW WORKS; SAFETY SOLUTIONS RIGGED UP AND TESTED H2S PACKAGE; RIGGED UP FLARE STACK AND VENT LINES; RIGGED UP MUD PITS AND TESTED ROTATION ON ALL MOTORS AND SHAKERS; RIGGING UP ELECTRICAL TO SUBSTRUCTURE AND DOGHOUSE, KOOMY SKID, PIPE WRANGLER AND BOP WRANGLER; CHANGE OUT GRABBER DIES & SAVERSUB (INSTALLED CORROSION RING);  
16:00 STRING UP DRAW WORKS; UNDOCK TOP DRIVE; SWAP CAMP TO RIG POWER; STOOD UP BOP TO CHANGE OUT VARIABLE RAMS;  
18:00 EXCEPT RIG H&P 602 ON DAY WORK; CHANGING OUT VARIABLE RAMS & NIPPLE UP BOP; UN PIN BOOM POLES; RAN KILL LINE;  
02:00 TEST BOP, CHOKE, FLOOR VALVES BACK TO THE PUMPS; 250 LOW 10/MIN 5000 HIGH F/10 MIN  
04:00 CHANGING SAVER SUB, INSTALL BAILS & ELEVATORS; RAN LINES FOR ORBIT VALVE & CLAMP

### 03/20/2017

Rig Name: Blue Quail Rig 13

Depth = 534.0 Progress = 0.0

06:00 FINISHED TESTING BOP, CHOKES, FLOOR VALVES & BACK TO THE PUMPS; ALL TESTS GOOD;  
12:00 TESTED CASING 1,500 PSI FOR 30 MINUTES; TEST GOOD;  
13:00 CHANGING OUT PUMP #1 & #2 LINERS & SWABS FROM 5" TO 6"; HAD TO CHANGE OUT SOME SEATS & VALVES;  
23:00 PERFORMED DRILL PIPE COUNT ON LOCATION; FILLED UP STEEL PITS & FIXED LEAKING HAMMER SEALS; RIGGING UP TROUGH AND PVC ON BACK OF MUD PITS;  
04:00 RU GAS BUSTER; INSTALL WEAR BUSHING; INSTALL MOUSE HOLE; BRING HANDLING TOOLS TO FLOOR; LAY OUT BHA ON GULL WINGS; INSTALL CORROSION RING IN SAVER SUB;

Vis (s/qt): 28, Dens (lb/gal): 9.90, pH: 8.0

### 03/21/2017

Rig Name: Blue Quail Rig 13

Depth = 2,077.0 Progress = 1543.0

06:00 FINISH RIGGING UP PVC AND CUTTINGS TROUGH; FINISH PICKING UP ALL HANDLING TOOLS TO RIG FLOOR;  
09:30 PICK UP 1ST INTERM BHA AS FOLLOWS, DRILFORMANCE DF616X2 V6 PDC BIT, WEATHERFORD 4:5 LOBE, 5.3 STAGE, 1.15 DEG BEND, 6.6' BIT TO BEND, 0 25 RPG, 8" MOTOR W/ STABILIZER; 12 1/8" ROLLER REAMER; PONY NMDC; UBHO; SCRIBE MOTOR TO HIGH SIDE; HPTC; NON MAG STAILIZER 12"; NMDC; 12 1/8" ROLLER REAMER; SHOCK SUB; X/O SUB; SHALLOW TEST MOTOR AND MWD, ALL TEST GOOD.  
12:00 PICKING UP DRILL COLLARS FROM RACKS AND RUNNING IN HOLE F/142' - T/ 484'; TAGGED TOP OF CMT @ 484'.  
15:30 ROT DRLG CMT AND SHOE TRACK F/ 484' - T/ 534'; 550 GPM; 20K WOB; 450 DIFF; 1300 PSI SPP; 45 RPM; 138 MMRPM; 3500 FT/LBS TRQ;  
17:30 ROT DRLG F/ 534' - T/1414' (880' @ 147 FPH). WOB : 15-30K, TOP DRV RPM:80-100; SPP 2950 PSI; SPM 210; GPM: 800; MUD MTR RPM: 200; TOP DRV TRQ: 3-10K FT/LBS ON BTM, 2K OFF BTM; DIFF PSI: 400/500; PU 108 SO 105 ROT: 105  
23:30 REMOVE TRIP NIPPLE & INSTALL ROTATING HEAD  
00:30 ROT DRLG F/ 1414' - T/2077' (663' @ 120.5 FPH). WOB : 20-30K, TOP DRV RPM:80-100; SPP 3000 PSI; SPM 210; GPM: 800; MUD MTR RPM: 200; TOP

DRV TRQ: 3-10K FT/LBS ON BTM, 2K OFF BTM; DIFF PSI: 400/500; PU 148 SO  
125 ROT: 135

Vis (s/qt): 28, Dens (lb/gal): 9.90, pH: 8.0

MD (ft)	TVD (ft)	Incl (°)	Azi (°)	VS (ft)	DLS (°/100ft)	N/S (ft)	E/W (ft)
612.0	611.98	0.58	307.17	-1.02	0.22	0.04	-3.52
793.0	792.97	0.69	296.36	-2.50	0.09	1.08	-5.22
974.0	973.96	0.56	288.76	-3.74	0.09	1.85	-7.04
1,156.0	1,155.95	0.64	302.67	-5.02	0.09	2.68	-8.73
1,345.0	1,344.94	0.70	326.17	-6.92	0.15	4.21	-10.26
1,535.0	1,534.93	0.70	325.34	-9.13	0.01	6.13	-11.57
1,724.0	1,723.91	0.79	334.17	-11.51	0.08	8.25	-12.80
1,913.0	1,912.89	0.78	329.34	-14.04	0.04	10.53	-14.02

### 03/22/2017

Rig Name: Blue Quail Rig 13

Depth = 4,634.0 Progress = 2557.0

06:00 ROT DRLG F/ 2,077' - T/2,570' (493' @ 123.25 FPH). WOB : 20-30K, TOP DRV RPM:80-100; SPP 3000 PSI; SPM 210; GPM: 800; MUD MTR RPM: 200; TOP DRV TRQ: 3-10K FT/LBS ON BTM, 2K OFF BTM; DIFF PSI: 400/500; PU 148 SO 129 ROT: 133

10:00 ROT DRLG F/ 2,570' - T/2,738' (168' @ 112 FPH). WOB : 25K/35K, TOP DRV RPM:80-120; SPP 3550 PSI; SPM 225; GPM: 850; MUD MTR RPM: 213; TOP DRV TRQ: 3-10K FT/LBS ON BTM, 2K OFF BTM; DIFF PSI: 400/800; PU 148 SO 129 ROT: 133

11:30 SLD DRLG F/ 2,738' - T/2,768' (30' @ 60 FPH). WOB : 20K, SPP 3550 PSI; SPM 225; GPM: 850; MUD MTR RPM: 213; 2K OFF BTM; DIFF PSI: 400/800; PU 148 SO 129 ROT: 133

12:00 ROT DRLG F/ 2,768' - T/3,310' (542' @ 135.5 FPH). WOB : 35K/45K, TOP DRV RPM:80-120; SPP 3550 PSI; SPM 225; GPM: 850; MUD MTR RPM: 213; TOP DRV TRQ: 3-10K FT/LBS ON BTM, 2K OFF BTM; DIFF PSI: 400/800; PU 148 SO 129 ROT: 133

16:00 GENERATORS SPIKED AND WENT DOWN; RE-BOOT ALL DIRECTIONAL COMPUTERS;

17:00 ROT DRLG F/ 3,310' - T/3,780' (470' @ 94 FPH). WOB : 35K/50K, TOP DRV RPM:100-120; SPP 3550 PSI; SPM 225; GPM: 800; MUD MTR RPM: 200; TOP DRV TRQ: 12-14K FT/LBS ON BTM, 4K OFF BTM; DIFF PSI: 800/900; PU 175 SO 155 ROT: 171

22:00 ROT DRLG F/ 3,780' - T/4,252' (472' @ 118 FPH). WOB : 35K/50K, TOP DRV RPM:100-120; SPP 3550 PSI; SPM 225; GPM: 800; MUD MTR RPM: 200; TOP DRV TRQ: 12-14K FT/LBS ON BTM, 4K OFF BTM; DIFF PSI: 800/900; PU 181 SO 157 ROT: 173

02:00 ROT DRLG F/ 4,252' - T/4,634' (382' @ 95.5 FPH). WOB : 35K/50K, TOP DRV RPM:100-120; SPP 3550 PSI; SPM 225; GPM: 800; MUD MTR RPM: 200; TOP DRV TRQ: 12-15K FT/LBS ON BTM, 5K OFF BTM; DIFF PSI: 800/900; PU 187 SO 163 ROT: 177

Vis (s/qt): 29, Dens (lb/gal): 10.05, pH: 10.0

MD (ft)	TVD (ft)	Incl (°)	Azi (°)	VS (ft)	DLS (°/100ft)	N/S (ft)	E/W (ft)
2,103.0	2,102.87	0.84	350.55	-16.67	0.16	13.02	-14.91
2,292.0	2,291.85	0.98	9.86	-19.50	0.18	15.97	-14.86
2,482.0	2,481.81	1.26	18.74	-22.67	0.17	19.55	-13.91
2,671.0	2,670.76	1.54	23.09	-26.33	0.16	23.86	-12.24
2,861.0	2,860.74	0.60	236.34	-28.01	1.09	25.66	-12.07
3,050.0	3,049.73	0.30	236.53	-27.57	0.16	24.83	-13.31
3,239.0	3,238.73	0.25	108.81	-27.19	0.26	24.43	-13.33
3,429.0	3,428.73	0.16	233.63	-26.86	0.19	24.14	-13.15
3,618.0	3,617.72	0.78	249.46	-26.67	0.33	23.53	-14.57
3,808.0	3,807.71	0.56	192.94	-25.76	0.35	22.17	-15.99
3,997.0	3,996.70	0.70	132.83	-23.97	0.34	20.49	-15.35
4,186.0	4,185.69	0.76	119.43	-22.08	0.10	19.08	-13.41
4,376.0	4,375.67	0.63	135.14	-20.26	0.12	17.73	-11.58

### 03/23/2017

Rig Name: Blue Quail Rig 13

Depth = 5,136.0 Progress = 502.0

06:00 RECYCLING PUMPS TO GET SURVEY; MISSING A PULSE; (DIRTY SIGNAL)

06:30 ROT DRLG F/ 4,634' - T/4,824' (190' @ 126.67 FPH). WOB : 35K/50K, TOP DRV RPM:100-120; SPP 3550 PSI; SPM 225; GPM: 800; MUD MTR RPM: 200; TOP DRV TRQ: 12-15K FT/LBS ON BTM, 5K OFF BTM; DIFF PSI: 800/900; PU 196 SO 180 ROT: 190

08:00 SLD DRLG F/ 4,824' - T/4,854' (30' @ 60 FPH). WOB : 40K, SPP 3450 PSI; SPM 225; GPM: 850; MUD MTR RPM: 213; 2K OFF BTM; DIFF PSI: 775; PU 196 SO 180.

08:30 ROT DRLG F/ 4,854' - T/5,136' (282' @ 113 FPH). WOB : 35K/50K, TOP DRV

RPM:100-120; SPP 4550 PSI; SPM 225; GPM: 800; MUD MTR RPM: 200; TOP DRV TRQ: 18-20K FT/LBS ON BTM, 5K OFF BTM; DIFF PSI: 800/900; PU 202, SO 180, ROT: 194

11:00 LAMAR TOP VERIFIED BY MUD LOGGERS @ 5,104'; PUMP 2, 60 VIS SWEEPS, CIRCULATE AND CONDITION HOLE FOR 9 5/8" CASING; FIRST SWEEP BACK WITH 35% SCREEN COVERAGE; SECOND SWEEP 5%/10% SCREEN COVERAGE; SHAKERS CLEAN AFTER 2ND SWEEP.

14:00 TOH F/ 5,136'- T/236'; MONITORING WELL ON TRIP TANK; WELL IS TAKING PROPER DISPLACEMENT; NO UNUSUAL DRAG SEEN DURING TRIP. (6" DC HAD TIGHT CONNECTION BREAK W/ TONGS);

20:00 LAY DOWN 8" DC'S AND BHA (TIGHT CONNECTION BREAK W/ TONGS); DRAIN MOTOR; BREAK AND DULL GRADE BIT 1 INNER 2 OUTER;

23:30 CLEAN FLOOR & PULL WEAR BUSHING

01:00 PJSM RIG UP CRT TOOL & CALIBRATE EQUIPMENT; GET ALL CASING EQUIPMENT TO THE FLOOR;

03:00 MAKE UP SHOE, 1 JT OF 9 5/8" 40# HCL-80 BTC CSG, M/U NON-ROTATING FC; THREAD LOCKED ALL CONNECTIONS, PUMPED THROUGH FLOATS, FLOATS ARE GOOD, INSTALLED 1 BOW SPRING CENT 10' ABOVE SHOE, ONE BOW SPRING CENT 10' ABOVE FLOAT COLLAR, THEN ONE EVERY THIRD JOINT BACK TO SURFACE FOR A TOTAL OF 7 BOW SPRING CENTRALIZERS, RUN 9 5/8" CASING F/ SURFACE T/876' WITH NORMAL DRAG & WELL STATIC, TOTAL OF 20 JOINTS RAN,

Vis (s/qt): 29, Dens (lb/gal): 10.20, pH: 9.5

MD (ft)	TVD (ft)	Incl (°)	Azi (°)	VS (ft)	DLS (°/100ft)	N/S (ft)	E/W (ft)
4,565.0	4,564.64	1.34	112.62	-17.96	0.42	16.14	-8.80
4,755.0	4,754.57	1.85	105.72	-14.94	0.29	14.45	-3.80
4,945.0	4,944.54	0.56	211.54	-12.69	1.09	12.83	-1.33
5,067.0	5,066.53	0.40	203.04	-11.96	0.14	11.93	-1.81

### 03/24/2017

Rig Name: Blue Quail Rig 13

Depth = 5,136.0 Progress = 0.0

06:00 RUN 9 5/8" CASING F/ 876'- T/5,089' WITH NORMAL DRAG & WELL STATIC, TOTAL OF 95 JOINTS RAN; PICKED UP LANDING JT AND REMOVED THREAD PROTECTOR; THREADS ARE 8rd STC NOT BTC;

13:30 CIRCULATE CASING @ 4 BBLS/MIN WHILE WAITING ON MANDREL FROM CACTUS WELLHEAD.

15:30 MAKE UP NEW MANDREL ON LANDING JT, MAKE UP LJ AND RUN IN HOLE; LAND OUT CASING IN WELLHEAD W/ 217K ON MANDREL.

16:00 PJSM AND RU HALLIBURTON; TEST LINES TO 3,500 PSI AND BLEED OFF; PUMPED 30 BBLS OF GEL SPACER WITH RED DYE @ 5 BBLS/MIN, 162 PSI; FOLLOWED BY 603 BBLS, (1,210 SACKS) OF NEOCEM LEAD CEMENT, 11 PPG, 2.8 YIELD, 17.34 GAL/SACK FW, @ 5 BBLS/MIN; FOLLOWED BY 36 BBLS (155 SACKS) OF HALCEM C, TAIL CEMENT, 14.8 PPG, 1.33 YIELD, 6.5 GAL/SACK FW; @ 5 BBLS/MIN; SHUT DOWN AND DROPPED WIPER PLUG THEN DISPLACED WITH 385 BBLS OF 10.2 PPG BW FROM ACTIVE MUD PITS; 7 BBLS/MIN TO CATCH PLUG THEN 5 BBLS/MIN; THEN 3 BBLS/MIN FOR LAST 30 BBLS; BUMPED PLUG ON SCHEDULE W/ 351 PSI, PRESSURED UP TO 883 PSI AND HELD FOR 5 MIN. BLEED OFF 2 BBLS TO TRUCK; FLOATS ARE HOLDING; BUMPED PLUG @ 19:00; CIRCULATED 145 BBLS, (290 SACKS) OF LEAD CEMENT TO SURFACE; FULL RETURNS THROUGH OUT JOB.

19:00 RIG DOWN HALLIBURTON; FLUSH CEMENT FROM BOP STACK, STANDPIPE VALVES AND FLOWLINE.

20:00 BACK OFF LANDING JT; RIG DOWN CRT; RUN WASH OUT TOOL; INSTALL PACK OFF IN WELLHEAD AND TEST PULL 40K & 5000 PSI. (TEST GOOD)

00:00 PICKING UP BHA & TEST (GOOD) PICK UP 8 3/4 SMITH PDC Z619 SER# JM8237; MOTOR 6 3/4 1.15 9/10 8.0 STAGE (.27 RPG); ROLLER REAMER; NMDC; UBHO; HPTC; NM STAB; NMDC; ROLLER REAMER; X-O; 12-6.5 DC; X-O; 21- HWDP; TIH T/2,000';

Vis (s/qt): 29, Dens (lb/gal): 10.10, pH: 9.0

### 03/25/2017

Rig Name: Blue Quail Rig 13

Depth = 6,740.0 Progress = 1604.0

06:00 TIH F/2,000'- T/ 5,000' W/ BHA #3; NO ISSUES.

09:30 FILL DRILL STRING AND CIRCULATE 1 BOTTOMS UP TO BALANCE OUT MUD AND CLEAR ANY AIR FROM STRING AND ANNULUS.

10:00 SHUT IN WELL WITH ANNULAR AND PRESSURE UP TO 2,700 PSI FOR 30 MINUTES TO TEST CASING; PSI DROPPED TO 2,627 PSI IN FIRST 3 MINUTES THEN STABLE FOR REMAINDER OF TEST, = 2 1/2% PSI DROP; GOOD TEST.

11:00 TAG CEMENT @ 5,073'; ROT DRLG CMT AND SHOE TRACK F/5,073' - T/ 5,125'; 450 GPM; 10K/20K WOB; 450 DIFF; 1300 PSI SPP; 30 RPM; 122 MMRPM; 3500 FT/LBS TRQ;

12:30 PUMP 15 BBL, 60 VIS SWEEP TO CIRC OUT ALL WIPER PLUG AND FLOAT EQUIPMENT TO FLOAT CATCHER.

13:30 ROT DRLG F/ 5,136' - T/5,660' (524' @ 131 FPH). WOB : 25K/45K, TOP DRV

RPM:65-80; SPP 2550/2850 PSI; SPM 180; GPM: 550/690; MUD MTR RPM: 149/187; TOP DRV TRQ: 10K/13 FT/LBS ON BTM, 5K OFF BTM; DIFF PSI: 250/450; PU 202, SO 180, ROT: 194

17:30 SERVICE RIG

18:00 ROT DRLG F/ 5,660' - T/6,042' (382' @ 95.5 FPH). WOB : 35K/45K, TOP DRV RPM:80-90; SPP 2550/2850 PSI; SPM 180; GPM: 700; MUD MTR RPM: 189; TOP DRV TRQ: 12K/14 FT/LBS ON BTM, 5K OFF BTM; DIFF PSI: 250/450; PU 208, SO 180, ROT: 197

22:00 ROT DRLG F/ 6,042' - T/6,370' (328' @ 82 FPH). WOB : 35K/45K, TOP DRV RPM:80-90; SPP 2550/2850 PSI; SPM 180; GPM: 700; MUD MTR RPM: 189; TOP DRV TRQ: 12K/14 FT/LBS ON BTM, 5K OFF BTM; DIFF PSI: 250/450; PU 208, SO 180, ROT: 198

02:00 ROT DRLG F/ 6,370' - T/6,740' (370' @ 92.5 FPH). WOB : 45-50, TOP DRV RPM:80-90; SPP 2650 PSI; SPM 180; GPM: 700; MUD MTR RPM: 189; TOP DRV TRQ: 12K/14 FT/LBS ON BTM, 5K OFF BTM; DIFF PSI: 250/450; PU 215, SO 198, ROT: 207

Vis (s/qt): 28, Dens (lb/gal): 9.00, pH: 11.0

MD (ft)	TVD (ft)	Incl (°)	Azi (°)	VS (ft)	DLS (°/100ft)	N/S (ft)	E/W (ft)
5,208.0	5,207.53	0.25	197.66	-11.32	0.11	11.18	-2.10
5,398.0	5,397.53	0.38	179.86	-10.38	0.08	10.16	-2.22
5,587.0	5,586.52	0.49	203.69	-9.15	0.11	8.79	-2.54
5,777.0	5,776.51	0.60	229.04	-8.12	0.14	7.40	-3.62
5,966.0	5,965.49	1.05	224.34	-6.85	0.24	5.51	-5.58
6,156.0	6,155.47	0.70	218.56	-5.33	0.19	3.36	-7.52
6,345.0	6,344.45	0.94	231.26	-4.07	0.16	1.48	-9.45
6,535.0	6,534.42	1.00	234.10	-2.92	0.04	-0.46	-12.01

### 03/26/2017

Rig Name: Blue Quail Rig 13

Depth = 8,314.0 Progress = 1574.0

06:00 ROT DRLG F/ 6,740' - T/7,081' (341' @ 85.25 FPH). WOB : 45-50, TOP DRV RPM:80-90; SPP 2650 PSI; SPM 180; GPM: 700; MUD MTR RPM: 189; TOP DRV TRQ: 12K/14 FT/LBS ON BTM, 5K OFF BTM; DIFF PSI: 250/450; PU 225, SO 208, ROT: 215

10:00 ROT DRLG F/ 7,081' - T/7,380' (299' @ 74.75 FPH). WOB : 45-53, TOP DRV RPM:75-90; SPP 2650 PSI; SPM 162/180; GPM: 622/700; MUD MTR RPM: 168/189; TOP DRV TRQ: 12K/14 FT/LBS ON BTM, 5K OFF BTM; DIFF PSI: 250/450; PU 215, SO 198, ROT: 207

14:00 ROT DRLG F/ 7,380' - T/7,554' (174' @ 70 FPH). WOB : 45-53, TOP DRV RPM:75-90; SPP 2650 PSI; SPM 162/180; GPM: 622/700; MUD MTR RPM: 168/189; TOP DRV TRQ: 12K/14 FT/LBS ON BTM, 5K OFF BTM; DIFF PSI: 250/450; PU 234, SO 217, ROT: 226

16:30 SERVICE RIG, TDS, PIPE WRANGLER

17:00 ROT DRLG F/ 7,554' - T/7,659' (105' @ 70 FPH). WOB : 45-53, TOP DRV RPM:75-90; SPP 2650 PSI; SPM 162/180; GPM: 622/700; MUD MTR RPM: 168/189; TOP DRV TRQ: 12K/14 FT/LBS ON BTM, 5K OFF BTM; DIFF PSI: 250/450; PU 234, SO 217, ROT: 226

18:30 PULL ROTATING HEAD AND CHANGE OUT LEAKING BOWL GASKET, REPAIR BROKEN OIL LINE TO BEARING ASSEMBLY.

19:30 ROT DRLG F/ 7,659' - T/7,970' (311' @ 77.75 FPH). WOB : 45-53, TOP DRV RPM:75-90; SPP 2650 PSI; SPM 162/180; GPM: 622/700; MUD MTR RPM: 168/189; TOP DRV TRQ: 12K/14 FT/LBS ON BTM, 5K OFF BTM; DIFF PSI: 250/450; PU 240, SO 220, ROT: 232

23:30 ROT DRLG F/ 7,970' - T/8,122' (152' @ 51 FPH). WOB : 45-53, TOP DRV RPM:75-90; SPP 2650 PSI; SPM 162/180; GPM: 622/700; MUD MTR RPM: 168/189; TOP DRV TRQ: 12K/14 FT/LBS ON BTM, 5K OFF BTM; DIFF PSI: 250/450; PU 240, SO 220, ROT: 232

02:30 SLD DRLG F/ 8,122' - T/8,165' (43' @ 43 FPH). WOB : 35K, SPP 2950 PSI; SPM 182; GPM: 700; MUD MTR RPM: 189; DIFF PSI: 200/250; PU 250 SO 235.

03:30 ROT DRLG F/ 8,165' - T/8,314' (149' @ 60 FPH). WOB : 45-53, TOP DRV RPM:75-90; SPP 2650 PSI; SPM 162/180; GPM: 622/700; MUD MTR RPM: 168/189; TOP DRV TRQ: 12K/14 FT/LBS ON BTM, 5K OFF BTM; DIFF PSI: 250/450; PU 250, SO 235, ROT: 240

Vis (s/qt): 28, Dens (lb/gal): 9.00, pH: 10.0

MD (ft)	TVD (ft)	Incl (°)	Azi (°)	VS (ft)	DLS (°/100ft)	N/S (ft)	E/W (ft)
6,725.0	6,724.40	0.99	243.40	-2.07	0.09	-2.17	-14.82
6,914.0	6,913.36	1.16	244.60	-1.47	0.09	-3.72	-18.01
7,104.0	7,103.32	1.26	224.60	-0.15	0.23	-6.03	-21.21
7,294.0	7,293.28	1.24	227.18	1.78	0.03	-8.92	-24.19
7,483.0	7,482.24	1.00	206.85	3.90	0.24	-11.78	-26.43
7,673.0	7,672.20	1.23	223.83	6.13	0.21	-14.73	-28.59
7,862.0	7,861.16	1.35	219.06	8.40	0.09	-17.92	-31.40
8,052.0	8,051.10	1.51	218.83	11.11	0.08	-21.61	-34.38
8,241.0	8,240.06	0.56	219.15	13.06	0.50	-24.27	-36.52

**03/27/2017**

Rig Name: Blue Quail Rig 13

Depth = 8,879.0 Progress = 565.0

06:00 ROT DRLG F/ 8,314' - T/8,585' (271' @ 67.75 FPH). WOB : 45-53, TOP DRV RPM:50; SPP 2650 PSI; SPM 162/180; GPM: 622/700; MUD MTR RPM: 168/189; TOP DRV TRQ: 12K/14 FT/LBS ON BTM, 5K OFF BTM; DIFF PSI: 250/450; PU 250, SO 235, ROT: 240 WELL FLOWING 3 1/2 BBLS/MIN ON CONNECTIONS; 100% RETURNS.  
CLOSE LOOP FOR 1HR, NO LOSSES NOTICED, FLOWING 3 1/2 BBLS/MIN.

10:00 ROT DRLG F/ 8,585' - T/8,690' (105' @ 52.5 FPH). WOB : 55, TOP DRV RPM:50; SPP 2650 PSI; SPM 162/180; GPM: 622/700; MUD MTR RPM: 168/189; TOP DRV TRQ: 12K/14 FT/LBS ON BTM, 5K OFF BTM; DIFF PSI: 250/450; PU 260, SO 245, ROT: 247 WELL FLOWING 3 1/2 BBLS/MIN ON CONNECTIONS; 100% RETURNS.

12:00 SLD DRLG F/ 8,690' - T/8,738' (48' @ 32 FPH). WOB : 35K, SPP 2750 PSI; SPM 182; GPM: 700; MUD MTR RPM: 189; DIFF PSI: 325; PU 260, SO 240.

13:30 ROT DRLG F/ 8,738' - T/8,879' (141' @ 79.5 FPH). WOB : 55, TOP DRV RPM:50; SPP 3500 PSI; SPM 162/180; GPM: 622/700; MUD MTR RPM: 168/189; TOP DRV TRQ: 12K/14 FT/LBS ON BTM, 5K OFF BTM; DIFF PSI: 250/450; PU 260, SO 245, ROT: 247; ROP DROPPED TO 6 FT/HR WITH DIFFERENTIAL SPIKES FROM 150 PSI TO 600 PSI. WELL FLOWING 3 1/2 BBLS/MIN ON CONNECTIONS; 100% RETURNS.

15:30 PUMP 2, 40 BBL, 60 VIS SWEEPS TO CONDITION HOLE FOR BIT TRIP; FIRST SWEEP BACK WITH 20% SCREEN COVERAGE, 2ND SWEEP BACK WITH 5% SCREEN COVERAGE AND CLEAN IMMEDIATELY AFTER SWEEP.

16:30 BULLHEAD 80 BBLS OF 12.5 PPG, KWM DOWN BACKSIDE TO KILL FLOW; WELL IS STATIC.

17:00 TOOH F/ 8,879' - T/ SURFACE; MONITORING WELL ON TRIP TANK; PUMPING CALCULATED FILL;

22:00 BREAK & GRADE BIT 8 INNER 7 OUTER; PICK UP SMITH BIT FH47HY SER# RJ1785 JETTED 3-20's TFA .92; MOTOR 6 3/4 7/8 LOBE 3.0 STAGE (.15 RPG) (TEST GOOD)

00:00 TIH F/SURFACE T/ 8,782';

05:00 INDUCE WELL 285 BBLS 3120 STROKES @ 75 SPM & CIRCULATE OUT GAS THREW CHOKE;

Vis (s/qt): 28, Dens (lb/gal): 9.20, pH: 10.0

MD (ft)	TVD (ft)	Incl (°)	Azi (°)	VS (ft)	DLS (°/100ft)	N/S (ft)	E/W (ft)
8,431.0	8,430.04	1.24	225.74	14.55	0.36	-26.42	-38.58
8,620.0	8,618.97	1.79	241.17	16.15	0.36	-29.27	-42.63
8,810.0	8,808.91	1.12	255.21	16.74	0.40	-31.18	-47.03

**03/28/2017**

Rig Name: Blue Quail Rig 13

Depth = 9,166.0 Progress = 287.0

06:00 CIRCULATE BOTTOMS UP TO EVACUATE TRIP GAS FROM WELLBORE; 2,033 UNITS TRIP GAS, NO FLARE.

07:30 CHANGE OUT ROTATING HEAD

08:30 SAFETY WASH AND REAM F/ 8,788' - T/ 8,879'; 40 RPM, 576 GPM; 2,050 PSI SPP; 3,150 TRQ; NO ISSUES.

09:00 ROT DRLG F/ 8,879' - T/9,018' (139' @ 35 FPH). WOB :40/48, TOP DRV RPM:50/65; SPP 2100 PSI; SPM 150; GPM: 576; MUD MTR RPM: 86; TOP DRV TRQ: 7000 FT/LBS ON BTM, 2K OFF BTM; DIFF PSI: 75/150; PU 260, SO 245, ROT: 247; WELL FLOWING 4 1/2 BBLS/MIN ON CONNECTIONS; 100% RETURNS.  
AT 8,958' ON BOTTOM TORQUE INCREASE F/8,800 FT/LBS - T/12,120 FT/LBS; NO DIFF INCREASE, ROP FELL FROM 48 FT/HR TO 30 FT/HR; DRILLED TO 8,972' WITH NO CHANGE, INCREASED RPM FROM 70 TO 75 HOPING TO BREAK WALL CONTACT WITH REAMERS; BACKREAMED THROUGH SPOT AND TORQUE FELL OFF TO NORMAL.

13:00 ROT DRLG F/ 9,018' - T/9,068' (50' @ 50 FPH). WOB :40/48, TOP DRV RPM:50/65; SPP 2100 PSI; SPM 150; GPM: 576; MUD MTR RPM: 86; TOP DRV TRQ: 7000 FT/LBS ON BTM, 2K OFF BTM; DIFF PSI: 75/150; PU 260, SO 245, ROT: 247; WELL FLOWING 4 1/2 BBLS/MIN ON CONNECTIONS; 100% RETURNS.

14:00 SLD DRLG F/ 9,068' - T/9,118' (50' @ 25 FPH), TFO: 60M; WOB: 60K, SPP 2750 PSI; SPM 182; GPM: 700; MUD MTR RPM: 189; DIFF PSI: 250; PU 260, SO 240.  
WELL IS FLOWING @ 4 1/2 BBLS/MIN.

16:00 ROT DRLG F/ 9,118' - T/9,161' (43' @ 43 FPH). WOB :48, TOP DRV RPM:60/65; SPP 2100 PSI; SPM 150; GPM: 576; MUD MTR RPM: 86; TOP DRV TRQ: 8800 FT/LBS ON BTM, 2K OFF BTM; DIFF PSI: 75/150; PU 270, SO 245, ROT: 258; WELL FLOWING 4 1/2 BBLS/MIN ON CONNECTIONS; 100% RETURNS.

17:00 SERVICE RIG AND TDS; ACQUIRE SPR'S;

17:30 ROT DRLG F/ 9,161' - T/9,166' (5' @ 10 FPH). WOB :45, TOP DRV RPM:60/65; SPP 2100 PSI; SPM 150; GPM: 576; MUD MTR RPM: 86; TOP DRV TRQ:

8800/20,000 FT/LBS ON BTM, 2K OFF BTM; DIFF PSI: 75/150; PU 270, SO 245, ROT: 258; WELL FLOWING 4 1/2 BBLS/MIN ON CONNECTIONS; 100% RETURNS.

TORQUING UP AND STALLING MOTOR, TORQUE TO 20,000 FT/LBS, GETTING STICKY, PULLED 30K OVER STRING WT TO MOVE PIPE; TORQUE WAS OFF BOTTOM; WORKED PIPE FREE AND TORQUE FELL OFF TO NORMAL, TAG BOTTOM AND DIFF PSI SPIKED TO 812; DECISION WAS MADE TO POOH AND SEE WHAT IS WRONG.

18:00 PUMPED 2, 65 VIS SWEEPS TO CLEAN HOLE FOR TRIP; 1ST SWEEP BACK WITH 10% SCREEN COVERAGE, 2ND SWEEP BACK WITH 5% COVERAGE; BULLHEAD 65 BBLS 12.5 KILL MUD

21:00 TOOH F/9,166' T/SURFACE; MONITORING WELL ON TRIP TANK; PUMPING CALCULATED FILL;

01:30 BREAK & GRADE BIT 8 OUTER 5 INNER 2 CONE LOCKED UP (1/4 OUT OF GAGE) PICK UP SMITH FH47HYODVPS SER# RJ1077 (JETTED 3-20's .92 TFA). TEST MOTOR (GOOD)

03:30 TIH F/SURFACE T/4,872'; NO DISPLACEMENT.

Vis (s/qt): 28, Dens (lb/gal): 9.20, pH: 9.5

MD (ft)	TVD (ft)	Incl (°)	Azi (°)	VS (ft)	DLS (°/100ft)	N/S (ft)	E/W (ft)
8,999.0	8,997.79	2.87	235.47	18.18	0.98	-34.33	-52.71
9,094.0	9,092.71	1.89	255.04	18.89	1.33	-36.08	-56.19

### 03/29/2017

Rig Name: Blue Quail Rig 13

Depth = 9,392.0 Progress = 226.0

06:00 TIH F/4,872' - T/8,874'; NO DISPLACEMENT.

09:00 BULLHEAD 264 BBLS OF 9.2 PPG SYSTEM MUD DOWN ANNULUS TO INDUCE FLOW; 250 GPM; 720 PSI; 310 PSI ANNULAR; OPEN WELL ON CHOKE TO BLEED OFF PRESSURE AND WELL IS FLOWING @ 4 1/2 BBLS/MIN.

10:00 CIRCULATE 1 BOTTOMS UP TO CLEAR TRIP GAS; 2,305 UNITS GAS; 5/10 FT LAZY FLARE FOR 16 MINUTES.

11:00 REAM F/ 8,874' - T/9,166', DUE TO BIT #3 BEING UNDER GAUGE; 577 GPM; 40 RPM; 1950 PSI SPP; ONLY UNDER GAUGE HOLE ENCOUNTERED F/ 9,163' - T/ 9,166'.

13:00 ROT DRLG F/ 9,166' - T/9,258' (92' @ 31 FPH). WOB :40, TOP DRV RPM:60; SPP 2100 PSI; SPM 150; GPM: 576; MUD MTR RPM: 86; TOP DRV TRQ: 7500 FT/LBS ON BTM, 2K OFF BTM; DIFF PSI: 80/120; PU 270, SO 245, ROT: 258; WELL FLOWING 4 1/2 BBLS/MIN ON CONNECTIONS; 100% RETURNS; 5/15 FT LAZY FLARE FOR 8/10 MINUTES ON EACH BOTTOMS UP, 1100/1200 UNITS GAS.

16:00 SERVICE RIG AND TDS

16:30 ROT DRLG F/ 9,258' - T/9,295' (37' @ 24.66 FPH). WOB :40, TOP DRV RPM:60; SPP 2100 PSI; SPM 150; GPM: 576; MUD MTR RPM: 86; TOP DRV TRQ: 7500 FT/LBS ON BTM, 2K OFF BTM; DIFF PSI: 80/120; PU 274, SO 250, ROT: 264; WELL FLOWING 4 1/2 BBLS/MIN ON CONNECTIONS; 100% RETURNS; 5' FT LAZY FLARE FOR 2/6 MINUTES ON EACH BOTTOMS UP, 1100/1200 UNITS GAS.

18:00 ROT DRLG F/ 9,295' - T/9,392' (97' @ 24.25 FPH). WOB :40, TOP DRV RPM:60; SPP 2100 PSI; SPM 150; GPM: 576; MUD MTR RPM: 86; TOP DRV TRQ: 7500 FT/LBS ON BTM, 2K OFF BTM; DIFF PSI: 80/120; PU 280, SO 255, ROT: 265; WELL FLOWING 4 1/2 BBLS/MIN ON CONNECTIONS; 100% RETURNS; INCREASE IN TORQUE & DIFFERENTIAL SPIKES;

22:00 CIRCULATE 2-40 BBLS 60+ VIS SWEEPS; 1ST SWEEP 20% SCREEN COVERAGE; 2ND SWEEP 5% SCREEN COVERAGE; BULLHEAD 65 BBLS OF 12.5 KILL MUD;

00:00 TOOH F/9,392' T/SURFACE; MONITORING WELL ON TRIP TANK; PUMPING CALCULATED FILL;

04:30 BREAK & GRADE BIT 2 INNER 6 OUTER (BEARING GOOD - 1/8 OUT OF GAUGE); PICK UP SMITH BIT FH47HYODVPS SER# RJ1074 JETTED 3-20's TFA .92; MOTOR 6 3/4 7/8 LOBE 3.0 STAGE (.15 RPG) (TEST GOOD)

Vis (s/qt): 28, Dens (lb/gal): 9.20, pH: 9.0

MD (ft)	TVD (ft)	Incl (°)	Azi (°)	VS (ft)	DLS (°/100ft)	N/S (ft)	E/W (ft)
9,189.0	9,187.68	0.91	302.39	18.28	1.51	-36.09	-58.34
9,323.0	9,321.66	1.06	342.89	16.25	0.52	-34.33	-59.60

### 03/30/2017

Rig Name: Blue Quail Rig 13

Depth = 9,655.0 Progress = 263.0

06:00 TIH F/SURFACE T/4932' (FILLING PIPE EVERY 25 STDs)

09:00 SERVICE RIG

09:30 WAITING ON MECHANIC / WORKING ON GRABBER BOX WEAR PLATE (MONITORING WELL) (WELL STATIC)

12:30 TIH F/4932 T/9350' (FILLING PIPE EVERY 25 STDs)

15:00 INDUCING WELL W/ 265 BBLS OF 9.2 ACTIVE;

16:00 CIRCULATE BOTTOMS UP GAS 710 UNITS (NO FLARE)

17:00 SAFETY WASH F/9,350' T/9,392'

17:30 ROT DRLG F/ 9,392' - T/9,410' (18' @ 36 FPH). WOB:45/55, TOP DRV RPM:40;



18:00 SPP 2150 PSI; SPM 156; GPM: 600; MUD MTR RPM: 90; TOP DRV TRQ: 6000 FT/LBS ON BTM, 5K OFF BTM; DIFF PSI: 100/120; PU 280, SO 260, ROT: 264; WELL FLOWING 4 1/2 BBLS/MIN ON CONNECTIONS; 100% RETURNS; ROT DRLG F/ 9,410' - T/9,563' (153' @ 38.25 FPH). WOB:55, TOP DRV RPM:40; SPP 2150 PSI; SPM 156; GPM: 600; MUD MTR RPM: 90; TOP DRV TRQ: 6K-7K FT/LBS ON BTM, 5K OFF BTM; DIFF PSI: 100/120; PU 280, SO 260, ROT: 264; WELL FLOWING 6 BBLS/MIN ON CONNECTIONS; 100% RETURNS;

22:00 ROT DRLG F/ 9,563' - T/9,655' (92' @ 46 FPH). WOB:55/40, TOP DRV RPM:40; SPP 2150 PSI; SPM 156; GPM: 600; MUD MTR RPM: 90; TOP DRV TRQ: 6K-7K FT/LBS ON BTM, 5K OFF BTM; DIFF PSI: 100/120; PU 280, SO 260, ROT: 264; WELL FLOWING 6 BBLS/MIN ON CONNECTIONS; 100% RETURNS; DIFFERENTIAL AND TORQUE SPIKES WHILE DRILLING STARTED @ 9,636'

00:00 CIRCULATE 2-30 BBLS 60+ VIS SWEEPS; 1ST SWEEP 10% SCREEN COVERAGE; 2ND SWEEP <5% SCREEN COVERAGE; SHUT IN WELL W/ 84 PSI SICP; BULLHEAD 70 BBLS OF 12.5 KILL MUD; FLOW CHECK WELL - STATIC

02:00 TOO H WET F/9,655' T/8,318' W/ NORMAL DRAG; PUMPING CALCULATED HOLE FILL

03:00 PUMP 25 BBL SLUG @ 12.5 PPG; PULL ROT HEAD

03:30 TOO H F/8,318' T/325' W/ NORMAL DRAG; PUMPING CALCULATED HOLE FILL

Vis (s/qt): 28, Dens (lb/gal): 9.30, pH: 10.0

MD (ft)	TVD (ft)	Incl (°)	Azi (°)	VS (ft)	DLS (°/100ft)	N/S (ft)	E/W (ft)
9,473.0	9,471.63	1.25	0.27	13.29	0.26	-31.37	-60.00
9,586.0	9,584.61	1.27	63.78	11.89	1.17	-29.58	-58.87

### 03/31/2017

Rig Name: Blue Quail Rig 13

Depth = 9,867.0 Progress = 212.0

06:00 BREAK & GRADE BIT 7 OUTER 5 INNER (BEARING GOOD) 1/8 OUT OF GAUGE; PU BIT FH47HYODVPS SER# RJ1076 JETTED 3-20's (TFA .92); CHANGE MOTOR & LOWER ROLLER REAMER ON BHA; HAD TO ADJUST MOTOR FROM ZERO TO 1.15 BEND; TEST NEW MOTOR & MWD (TEST GOOD)

09:00 TIH F/SURFACE T/9,541' (FILLING PIPE EVERY 25 STDS)

14:30 INDUCING WELL W/ 265 BBLS OF 9.2 ACTIVE; CIRCULATE BOTTOMS UP GAS OUT THREW CHOKE (618 UNIT TRIG GAS);

16:30 SAFETY WASH F/9,541' T/9,655'

17:00 ROT DRLG F/ 9,655' - T/9,695' (40' @ 40 FPH). WOB:40/55, TOP DRV RPM:40; SPP 2100 PSI; SPM 156; GPM: 600; MUD MTR RPM: 90; TOP DRV TRQ: 6000 FT/LBS ON BTM, 5K OFF BTM; DIFF PSI: 100/120; PU 275, SO 260, ROT: 266; WELL FLOWING 8 BBLS/MIN ON CONNECTIONS; 100% RETURNS;

18:00 ROT DRLG F/ 9,695' - T/9,856' (161' @ 40.25 FPH). WOB:55, TOP DRV RPM:40; SPP 2100 PSI; SPM 156; GPM: 600; MUD MTR RPM: 90; TOP DRV TRQ: 6000 FT/LBS ON BTM, 5K OFF BTM; DIFF PSI: 100/120; PU 275, SO 260, ROT: 266; WELL FLOWING 8 BBLS/MIN ON CONNECTIONS; 100% RETURNS

22:00 ROT DRLG F/ 9,856' - T/9,867' (11' @ 22 FPH). WOB:40/60, TOP DRV RPM:35/50; SPP 2100 PSI; SPM 156; GPM: 600; MUD MTR RPM: 90; TOP DRV TRQ: 6000 FT/LBS ON BTM, 5K OFF BTM; DIFF PSI: 100/120; PU 275, SO 260, ROT: 266; WELL FLOWING 8 BBLS/MIN ON CONNECTIONS; 100% RETURNS. ROP DROPPED TO 15 - 20 FT/HR WITH REDUCED TORQUE & DIFFERENTIAL; STEP TEST 40K-60K WOB W/O SIGNIFICANT CHANGE IN ROP OR SURFACE MSE. STEP TEST TD RPM F/ 35 T/ 50 RPM WITHOUT IMPROVEMENT

22:30 CIRCULATE 2-30 BBLS 60+ VIS SWEEPS; 1ST SWEEP 10% SCREEN COVERAGE; 2ND SWEEP <5% SCREEN COVERAGE; SHUT IN WELL W/ 84 PSI SICP; BULLHEAD 70 BBLS OF 12.5 KILL MUD; FLOW CHECK WELL - STATIC

00:30 TOO H WET F/9,867' T/8,436' W/ NORMAL DRAG; PUMPING CALCULATED HOLE FILL

01:00 PUMP 25 BBL SLUG @ 12.5 PPG; PULL ROT HEAD

01:30 TOO H F/8,436' T/SURFACE' W/ NORMAL DRAG; PUMPING CALCULATED HOLE FILL

04:00 BREAK & GRADE BIT 2 OUTER 2 INNER (BEARING GOOD) IN GAUGE; PU BIT U716M SER# 33576 JETTED 6X13, 1X14 (TFA .928); CHANGE MOTOR ON BHA - RR WEATHERFORD 1.15 BEND 9/10 8.0 STAGE 0.28 REV/GAL #675-50196;

Vis (s/qt): 28, Dens (lb/gal): 9.30, pH: 9.5

MD (ft)	TVD (ft)	Incl (°)	Azi (°)	VS (ft)	DLS (°/100ft)	N/S (ft)	E/W (ft)
9,757.0	9,755.56	1.45	70.57	11.45	0.14	-28.03	-55.13

### 04/01/2017

Rig Name: Blue Quail Rig 13

Depth = 11,065.0 Progress = 1198.0

06:00 CHANGE MOTOR ON BHA - RR WEATHERFORD 1.15 BEND 9/10 8.0 STAGE 0.28 REV/GAL #675-50196; TEST MOTOR & MWD (TEST GOOD);

07:30 TIH F/SURFACE T/4,904' (FILL UP EVERY 25 STDS)

10:30 PJSM & SLIP & CUT DRILLING LINE (9 WRAPS);

12:00 TIH F/4,904' T/9,734' (FILL UP EVERY 25 STDS)

14:00 INDUCING WELL W/ 265 BBLS OF 9.2 ACTIVE; CIRCULATE BOTTOMS UP GAS OUT THREW CHOKE (497 UNIT TRIG GAS);

16:00 SAFETY WASH F/9,734' T/9,867'

16:30 ROT DRLG F/ 9,867' - T/10,021' (154' @ 154 FPH). WOB:30, TOP DRV RPM:50; SPP 2400 PSI; SPM 156; GPM: 600; MUD MTR RPM: 168; TOP DRV TRQ: 11,000 FT/LBS ON BTM, 5K OFF BTM; DIFF PSI: 500/600; PU 284, SO 262, ROT: 272; WELL FLOWING 8 BBLS/MIN ON CONNECTIONS; 100% RETURNS

17:30 LUBRICATE RIG

18:00 ROT DRLG F/ 10,021' - T/10,116' (95' @ 95 FPH). WOB:30, TOP DRV RPM:50; SPP 2400 PSI; SPM 156; GPM: 600; MUD MTR RPM: 168; TOP DRV TRQ: 11,000 FT/LBS ON BTM, 5K OFF BTM; DIFF PSI: 500/600; PU 284, SO 262, ROT: 272; WELL FLOWING 8 BBLS/MIN ON CONNECTIONS; 100% RETURNS

19:00 SLD DRLG F/ 10,116' - T/ 10,139' (23' @ 46 FPH). TFO:270; WOB : 35K, SPP 2400 PSI; SPM 156; GPM: 600; MUD MTR RPM: 168; DIFF PSI: 300/500; PU 284 SO 262.

19:30 ROT DRLG F/ 10,139' - T/10,306' (167' @ 111 FPH). WOB:30, TOP DRV RPM:50; SPP 2400 PSI; SPM 156; GPM: 600; MUD MTR RPM: 168; TOP DRV TRQ: 11,000 FT/LBS ON BTM, 5K OFF BTM; DIFF PSI: 500/600; PU 284, SO 262, ROT: 272; WELL FLOWING 8 BBLS/MIN ON CONNECTIONS; 100% RETURNS

21:00 SLD DRLG F/ 10,306' - T/ 10,366' (60' @ 40 FPH). TFO:170; WOB : 35K, SPP 2400 PSI; SPM 156; GPM: 600; MUD MTR RPM: 168; DIFF PSI: 300/500; PU 284 SO 262

22:30 ROT DRLG F/ 10,366' - T/10,684' (318' @ 91 FPH). WOB:30/38, TOP DRV RPM:50; SPP 2400 PSI; SPM 156; GPM: 600; MUD MTR RPM: 168; TOP DRV TRQ: 12,000 FT/LBS ON BTM, 5K OFF BTM; DIFF PSI: 500/750; PU 300, SO 262, ROT: 282; WELL FLOWING 5 BBLS/MIN ON CONNECTIONS; 100% RETURNS

02:00 SLD DRLG F/ 10,684' - T/ 10,730' (46' @ 46 FPH). TFO:150; WOB : 15K, SPP 2400 PSI; SPM 156; GPM: 600; MUD MTR RPM: 168; DIFF PSI: 300/500; PU 300, SO 278

03:00 ROT DRLG F/ 10,730' - T/11,065' (335' @ 112 FPH). WOB:38, TOP DRV RPM:50; SPP 2400 PSI; SPM 156; GPM: 600; MUD MTR RPM: 168; TOP DRV TRQ: 12,000 FT/LBS ON BTM, 5K OFF BTM; DIFF PSI: 500/750; PU 315, SO 278, ROT: 294; WELL FLOWING 5 BBLS/MIN ON CONNECTIONS; 100% RETURNS

Vis (s/qt): 28, Dens (lb/gal): 9.30, pH: 10.0

MD (ft)	TVD (ft)	Incl (°)	Azi (°)	VS (ft)	DLS (°/100ft)	N/S (ft)	E/W (ft)
9,851.0	9,849.52	1.84	78.80	11.52	0.48	-27.34	-52.53
10,041.0	10,039.38	2.66	48.96	9.94	0.74	-23.85	-46.21
10,231.0	10,229.17	2.95	13.01	3.83	0.92	-16.19	-41.78
10,420.0	10,418.01	1.78	26.73	-2.56	0.68	-8.83	-39.37
10,610.0	10,607.93	1.48	359.96	-7.07	0.43	-3.74	-38.04
10,800.0	10,797.92	0.94	159.15	-7.88	1.25	-2.74	-37.49

#### 04/02/2017

Rig Name: Blue Quail Rig 13

Depth = 11,567.0 Progress = 502.0

06:00 ROT DRLG F/ 11,065' - T/11,254' (189' @ 75.6 FPH). WOB:30-35, TOP DRV RPM:50; SPP 2400 PSI; SPM 156; GPM: 600; MUD MTR RPM: 168; TOP DRV TRQ: 12,000 FT/LBS ON BTM, 5K OFF BTM; DIFF PSI: 400/600; PU 315, SO 280, ROT: 297; WELL FLOWING 5 BBLS/MIN ON CONNECTIONS; 100% RETURNS

08:30 SLD DRLG F/ 11,254' - T/ 11,293' (39' @ 39 FPH). TFO:XX; WOB : 20K, SPP 2400 PSI; SPM 156; GPM: 600; MUD MTR RPM: 168; DIFF PSI: 300/500; PU 315, SO 280, ROT 297;

09:30 ROT DRLG F/ 11,293' - T/11,567' (274' @ 109.6 FPH). WOB:25-35, TOP DRV RPM:50; SPP 2500 PSI; SPM 156; GPM: 600; MUD MTR RPM: 168; TOP DRV TRQ: 12,000 FT/LBS ON BTM, 5K OFF BTM; DIFF PSI: 400/600; PU 315, SO 280, ROT: 297; WELL FLOWING 5 BBLS/MIN ON CONNECTIONS; 100% RETURNS

12:00 CIRCULATE 2-40 BBLS 60+ VIS SWEEPS; 1ST SWEEP 20% SCREEN COVERAGE; 2ND SWEEP 5% SCREEN COVERAGE;

14:00 SERVICE RIG

14:30 BULLHEAD 70 BBLS OF 12.5 KILL MUD; FLOW CHECK WELL - STATIC

15:00 TOO H F/11,567' T/10,150' W/ NORMAL DRAG; PUMPING CALCULATED HOLE FILL

16:00 PUMP 25 BBL SLUG @ 12.5 PPG; PULL ROT HEAD

16:30 TOO H F/10,150' T/ DRILL COLLARS' W/ NORMAL DRAG; PUMPING CALCULATED HOLE FILL

20:00 LAY DOWN 6 1/2" COLLARS WITH MANUAL TONGS DUE TO TIGHT CONNECTIONS. BREAK & GRADE BIT (INNER 1, OUTER 2, IN GAUGE, PICTURES IN DROPBOX); DRAIN MOTOR; LAY DOWN REAMERS, MOTOR & NMDC, PICK UP 2 X FLEX NMDC & STAND BACK DIRECTIONAL/MWD TOOLS; CLEAR & CLEAN RIG FLOOR; PUMPING CALCULATED FILL

23:30 PICK UP & SCRIBE IN 2ND INTERMEDIATE BHA #7 CONSISTING OF: 8 3/4" BAKER KM624 KYMERA BIT W/ 4" GAUGE, 4 X 18'S, TFA = 0.994; WEATHERFORD 6.75" 4/5 LOBE 7.0 STAGE 2.12 BEND 0.48 REV/GAL 6.2' BIT

TO BEND MOTOR; PONY NMDC; UBHO; HPTC; 2 X 6.5" FLEX NMDC; SHALLOW  
TEST TOOLS - GOOD

00:30 TIH F/SURFACE T/ 11,258'; FILL PIPE EVERY 25 STANDS; NO DISPLACEMENT  
WHILE TIH.

Vis (s/qt): 28, Dens (lb/gal): 9.30, pH: 10.0

MD (ft)	TVD (ft)	Incl (°)	Azi (°)	VS (ft)	DLS (°/100ft)	N/S (ft)	E/W (ft)
10,990.0	10,987.87	1.59	154.87	-3.72	0.35	-6.59	-35.82
11,179.0	11,176.74	2.68	179.30	3.13	0.74	-13.38	-34.65
11,369.0	11,366.59	1.82	175.17	10.37	0.46	-20.83	-34.34
11,492.0	11,489.53	1.75	171.67	14.14	0.11	-24.63	-33.90

**04/03/2017**

Rig Name: Blue Quail Rig 13

Depth = 12,035.0 Progress = 468.0

06:00 TIH F/11,258' T/ 11,475'

06:30 INDUCING WELL W/ 265 BBLS OF 9.2 ACTIVE; CIRCULATE BOTTOMS UP GAS  
OUT THREW CHOKE (408 UNIT TRIG GAS);

09:00 SAFETY WASH F/11,475' T/11,567'

09:30 SLD DRLG F/ 11,567' - T/ 11,599' (32' @ 32 FPH). TFO:160; WOB : 20-25K,  
SPP 1800 PSI; SPM 130; GPM: 500; MUD MTR RPM: 240; DIFF PSI: 300; PU  
315, SO 280, ROT 297;

10:30 ROT DRLG F/ 11,599' - T/11,606' (7' @ 14 FPH). WOB:20, TOP DRV RPM: 45;  
SPP 1800 PSI; SPM 132; GPM: 500; MUD MTR RPM: 240; TOP DRV TRQ: 9,000  
FT/LBS ON BTM, 5K OFF BTM; DIFF PSI: 400/600; PU 315, SO 280, ROT: 297;  
WELL FLOWING 5 BBLS/MIN ON CONNECTIONS; 100% RETURNS

11:00 SLD DRLG F/ 11,606' - T/ 11,631' (25' @ 50 FPH). TFO:160; WOB : 20-25K,  
SPP 1800 PSI; SPM 132; GPM: 500; MUD MTR RPM: 240; DIFF PSI: 300; PU  
315, SO 280, ROT 297;

11:30 ROT DRLG F/ 11,631' - T/11,638' (7' @ 14 FPH). WOB:20, TOP DRV RPM: 45;  
SPP 1800 PSI; SPM 132; GPM: 500; MUD MTR RPM: 240; TOP DRV TRQ: 9,000  
FT/LBS ON BTM, 5K OFF BTM; DIFF PSI: 400/600; PU 315, SO 280, ROT: 297;  
WELL FLOWING 5 BBLS/MIN ON CONNECTIONS; 100% RETURNS

12:00 SLD DRLG F/ 11,638' - T/ 11,663' (25' @ 50 FPH). TFO:160; WOB : 20-25K,  
SPP 1800 PSI; SPM 132; GPM: 500; MUD MTR RPM: 240; DIFF PSI: 300; PU  
315, SO 280, ROT 297;

12:30 ROT DRLG F/ 11,663' - T/11,668' (5' @ 10 FPH). WOB:20, TOP DRV RPM: 45;  
SPP 1800 PSI; SPM 132; GPM: 500; MUD MTR RPM: 240; TOP DRV TRQ: 9,000  
FT/LBS ON BTM, 5K OFF BTM; DIFF PSI: 400/600; PU 315, SO 280, ROT: 297;  
WELL FLOWING 5 BBLS/MIN ON CONNECTIONS; 100% RETURNS

13:00 SLD DRLG F/ 11,668' - T/ 11,697' (29' @ 29 FPH). TFO:340; WOB : 20-25K,  
SPP 1800 PSI; SPM 118; GPM: 450; MUD MTR RPM: 216; DIFF PSI: 300; PU  
315, SO 280, ROT 297;

14:00 ROT DRLG F/ 11,697' - T/11,701' (4' @ 8 FPH). WOB:20, TOP DRV RPM: 45;  
SPP 1800 PSI; SPM 118; GPM: 450; MUD MTR RPM: 216; TOP DRV TRQ: 9,000  
FT/LBS ON BTM, 5K OFF BTM; DIFF PSI: 400/600; PU 315, SO 280, ROT: 297;  
WELL FLOWING 5 BBLS/MIN ON CONNECTIONS; 100% RETURNS

14:30 SLD DRLG F/ 11,701' - T/ 11,728' (27' @ 54 FPH). TFO:0; WOB : 20-25K, SPP  
1800 PSI; SPM 118; GPM: 450; MUD MTR RPM: 216; DIFF PSI: 300; PU 315,  
SO 280, ROT 297;

15:00 ROT DRLG F/ 11,728' - T/11,733' (5' @ 10 FPH). WOB:20, TOP DRV RPM: 45;  
SPP 1800 PSI; SPM 118; GPM: 450; MUD MTR RPM: 216; TOP DRV TRQ: 9,000  
FT/LBS ON BTM, 5K OFF BTM; DIFF PSI: 400/600; PU 315, SO 280, ROT: 297;  
WELL FLOWING 5 BBLS/MIN ON CONNECTIONS; 100% RETURNS

15:30 SLD DRLG F/ 11,733' - T/ 11,763' (30' @ 30 FPH). TFO:0; WOB : 20-25K, SPP  
1800 PSI; SPM 118; GPM: 450; MUD MTR RPM: 216; DIFF PSI: 300; PU 315,  
SO 280, ROT 297;

16:30 SERVICE RIG & SPR

17:00 SLD DRLG F/ 11,763' - T/ 11,821' (58' @ 38.7 FPH). TFO:20R; WOB : 25-38K,  
SPP 1800 PSI; SPM 118; GPM: 450; MUD MTR RPM: 216; DIFF PSI: 300; PU  
312, SO 277, ROT 297;

18:30 ROT DRLG F/ 11,821' - T/11,827' (6' @ 12 FPH). WOB:20, TOP DRV RPM: 45;  
SPP 1800 PSI; SPM 118; GPM: 450; MUD MTR RPM: 216; TOP DRV TRQ: 9,000  
FT/LBS ON BTM, 5K OFF BTM; DIFF PSI: 400/600; PU 315, SO 280, ROT: 297;  
WELL FLOWING 5 BBLS/MIN ON CONNECTIONS; 100% RETURNS

19:00 SLD DRLG F/ 11,827' - T/ 11,854' (27' @ 54 FPH). TFO:20R; WOB : 25-38K,  
SPP 1800 PSI; SPM 118; GPM: 450; MUD MTR RPM: 216; DIFF PSI: 300; PU  
315, SO 280, ROT 297

19:30 ROT DRLG F/ 11,854' - T/11,858' (4' @ 8 FPH). WOB:20, TOP DRV RPM: 45;  
SPP 1800 PSI; SPM 118; GPM: 450; MUD MTR RPM: 216; TOP DRV TRQ: 9,000  
FT/LBS ON BTM, 5K OFF BTM; DIFF PSI: 400/600; PU 315, SO 280, ROT: 297;  
WELL FLOWING 5 BBLS/MIN ON CONNECTIONS; 100% RETURNS

20:00 SLD DRLG F/ 11,858' - T/ 11,885' (27' @ 27 FPH). TFO:20R; WOB : 25-38K,  
SPP 1800 PSI; SPM 118; GPM: 450; MUD MTR RPM: 216; DIFF PSI: 300; PU  
315, SO 280, ROT 297

21:00 ROT DRLG F/ 11,885' - T/11,891' (6' @ 12 FPH). WOB:20, TOP DRV RPM: 45;  
SPP 1800 PSI; SPM 118; GPM: 450; MUD MTR RPM: 216; TOP DRV TRQ: 9,000

FT/LBS ON BTM, 5K OFF BTM; DIFF PSI: 400/600; PU 315, SO 280, ROT: 297;  
WELL FLOWING 5 BBLs/MIN ON CONNECTIONS; 100% RETURNS  
21:30 SLD DRLG F/ 11,891' - T/ 11,986' (95' @ 23.75 FPH). TFO:40R; WOB : 25-38K,  
SPP 1800 PSI; SPM 118; GPM: 450; MUD MTR RPM: 216; DIFF PSI: 300; PU  
315, SO 281, ROT 297  
01:30 SLD DRLG F/ 11,986' - T/ 12,035' (49' @ 24.5 FPH). TFO:80R; WOB : 25-38K,  
SPP 1800 PSI; SPM 118; GPM: 450; MUD MTR RPM: 216; DIFF PSI: 300; PU  
315, SO 281, ROT 297  
03:30 CIRCULATE 2-40 BBLs 60+ VIS SWEEPS @ 500 GPM; ROTATE & WORK PIPE 30  
RPM; 1ST SWEEP 60% SCREEN COVERAGE; 2ND SWEEP 5% SCREEN  
COVERAGE; SWEEPS CAME BACK 200 BBL LATE.  
05:30 BULLHEAD 70 BBL 12.5 PPG KILL MUD @ 7 BPM  
Vis (s/qt): 30, Dens (lb/gal): 9.30, pH: 10.0

MD (ft)	TVD (ft)	Incl (°)	Azi (°)	VS (ft)	DLS (°/100ft)	N/S (ft)	E/W (ft)
11,538.0	11,535.51	1.84	169.32	15.57	0.25	-26.05	-33.66
11,570.0	11,567.48	2.94	163.23	16.90	3.52	-27.34	-33.33
11,601.0	11,598.40	5.34	164.99	19.14	7.75	-29.50	-32.73
11,633.0	11,630.18	7.76	159.63	22.78	7.79	-32.96	-31.59
11,665.0	11,661.82	9.43	156.40	27.54	5.43	-37.39	-29.79
11,696.0	11,692.29	11.78	151.30	33.15	8.16	-42.49	-27.25
11,728.0	11,723.44	14.76	148.30	40.27	9.55	-48.83	-23.54
11,759.0	11,753.20	17.71	147.18	48.60	9.57	-56.15	-18.91
11,791.0	11,783.46	20.20	149.19	58.61	8.04	-64.99	-13.44
11,823.0	11,813.25	22.65	149.70	69.94	7.68	-75.06	-7.50
11,854.0	11,841.64	24.70	149.18	82.00	6.65	-85.77	-1.17
11,886.0	11,870.49	26.53	148.44	95.37	5.81	-97.60	6.00
11,917.0	11,897.90	29.16	146.59	109.27	8.93	-109.81	13.78
11,949.0	11,925.47	31.81	145.24	124.72	8.55	-123.25	22.88
11,967.0	11,940.61	33.66	145.31	133.96	10.28	-131.25	28.43

#### 04/04/2017

Rig Name: Blue Quail Rig 13

Depth = 12,035.0 Progress = 0.0

06:00 PJSM LAY DOWN DRILL STRING F/12,035' 11,211'  
07:30 PULL ROTATING HEAD & PUMP SLUG  
08:00 LDDS F/11,211' T/SURFACE  
16:00 BREAK & GRADE BIT 1 INNER 2 OUTER IN GAUGE (BEARING GOOD); LAY  
DOWN ALL BHA;  
17:30 PULL WEAR BUSHING  
18:00 CLEAN & CLEAR RIG FLOOR; HPJSM; RIG UP CRT; BRING UP FLOAT  
EQUIPMENT & CENTRALIZERS TO RIG FLOOR  
19:30 HPJSM; MAKE UP 7" 32# LTC HCP-110 SHOE TRACK CONSISTING OF FLOAT  
SHOE, TWO CASING JOINTS, & FLOAT COLLAR THREAD LOCKING ALL  
CONNECTIONS TO TOP OF FLOAT COLLAR; TORQUE TO 9,000 FT-LBS; PUMP  
THROUGH FLOAT EQUIPMENT; INSTALL STOP RINGS & CENTRALIZERS 10'  
ABOVE SHOE & 10' BELOW FLOOR COLLAR  
20:30 RUN 4 JTS. 7"32# HCP 110 LTC F/ FLOAT COLLAR T/ 267';  
21:00 CRT BECAME STUCK IN CASING JOINT #7. UNABLE TO PULL OUT STINGER  
FROM CASING. PLACE PIN OF #7 ON RIG FLOOR; UNSCREW NOSE CONE. PULL  
CRT OUT OF CASING JOINT; RECOVER NOSE CONE; FOUND NOSE CONE SEAT  
STUCK IN CASING JOINT. ALL CRT PARTS ACCOUNTED FOR. LAY DOWN  
CASING JOINT WITH SEAT STUCK IN IT; WAIT ON DELIVERY OF NEW NOSE  
CONE ASSEMBLY; INSPECT & CALIPER NEW PARTS; INSTALL PARTS ON CRT;  
MONITOR WELL ON TRIP TANK - STATIC  
23:30 RAN TWO JOINTS 7" CASING TO 356' WITH NO ISSUES  
00:00 PIPE WRANGLER TROUGH FOUND FOUR BOLTS SHEARED OFF THE YOLK THAT  
HOLDS ONE SIDE OF THE CENTER BEARING. TAP OUT & REPLACE SHEARED  
BOLTS; INSPECT & FUNCTION ALL OF WRANGLER.(GOOD)  
01:30 RAN 77 JOINTS OF 7" 32# HCP-110 LTC CASING F/356' T/3600' TORQUING  
T/9000 FT-LBS;

Vis (s/qt): 28, Dens (lb/gal): 9.30, pH: 9.0

#### 04/05/2017

Rig Name: Blue Quail Rig 13

Depth = 12,035.0 Progress = 0.0

06:00 RUN TOTAL 273 JTS 7" CASING F/3600' T/12,010'  
19:00 INDUCE WELL W/145 BBLs; CIRCULATE 2 X BOTTOMS UP; RUN HALLIBURTON  
CEMENTING IRON; HELD PJSM. FIRST BOTTOMS UP @ 6 BPM THROUGH  
CHOKE W/ 251 UNITS TRIP GAS & 10' FLARE FOR 10 MINUTES; SECOND  
BOTTOMS UP DOWN FLOWLINE @ 6 BPM  
22:00 PJSM; RIG UP LINES TO STAND PIPE AND TEST TO 4,000 PSI. GOOD TEST;  
PUMPED JOB AS FOLLOWS; 40 BBLs FRESH WATER; 20 BBLs GEL SPACER;  
FOLLOWED BY LEAD TUNED LIGHT CEMENT 202 BBLs (370 SACKS) @ 5  
BBL./MIN 10.2 PPG, 3.053 YIELD, 16.56 GAL/SK; FOLLOWED BY TAIL HALCEM

H 95 BBLS (445 SACKS) @ 5 BBL/MIN, 15.6 PPG, 1.196 YIELD, 5.41 GAL/SK;  
SHUT IN WELL AND DROPPED NO-ROTATE WIPER PLUG; PUMPED 330 BBLS OF  
9.4 PPG MUD DISPLACEMENT @ 8 BBL/MIN, THEN 70 BBL @ 4 BBL/MIN; THEN  
30 BBL @ 3 BBL/MIN. FCP = 1,480 PSI; DID NOT BUMP PLUG @ 430 BBL;  
PUMP 2 ADDITIONAL BBL WITHOUT BUMPING PLUG; HELD 1333 PSI FOR 5  
MIN.; BLEED BACK 3 BBLS FROM LINES; SMALL FLOW CONTINUED STEADY FOR  
5 MINUTES; FLOATS ARE NOT HOLDING; SHUT IN LOW TORQUE VALVE TO  
HOLD PRESSURE ON CASING @ 01:00 HRS; FULL RETURNS THRU JOB;  
(BARREL IN & OUT DETAILS) AT 330 BBLS IN WE STARTED 4 BBL IN @ 3 BBL  
OUT; DISPLACEMENT CAUGHT CEMENT @ 350 BBLS; THEN @ 400 BBLS WE  
WENT TO 3BBLS IN AND 2 BBLS OUT; SHUT IN WITH SHUT IN CASING  
PRESSURE @ 46 PSI

01:00 WOC; RIG DOWN CEMENT LINES; CLEAN PITS; FILL SLUG TANK W/ 12.5 PPG  
KILL MUD; RIG DOWN PVC & TRASH PUMPS IN BACKYARD

Vis (s/qt): 28, Dens (lb/gal): 9.30, pH: 8.5

#### 04/06/2017

Rig Name: Blue Quail Rig 13

Depth = 12,035.0 Progress = 0.0

06:00 WAITING ON CEMENT; CLEANING PITS; RIGGING DOWN PVC & TRASH PUMPS  
PREPARING BACKYARD FOR OBM; MONITORING WELL

13:00 WAITING ON CEMENT; R/D FLARE & PANIC LINE; SPOT NOV SOLIDS CONTROL  
EQUIPMENT & BEGIN RIGGING UP; LAY OUT & STRAP 200 JOINTS 4" DRILL  
PIPE; RIG DOWN CRT; BEGIN BUILDING 4" STANDS OF DRILL PIPE.

18:00 WOC: PICK UP 4" DP AND BUILD 17 STANDS IN DERRICK; RIG UP KATCH KAN  
SYSTEM; TRANSFERRED 506 BBLS OF 13.7 PPG OBM TO MUD PITS AND BEGIN  
ROLLING AND CUTTING MW TO 13.0 PPG; RIG UP DOWNLINK CONTROL BOX  
IN MUD LINE; RIG UP DIESEL LINES TO MUD PITS;

01:00 SICP = 116 PSI; OPEN CHOKE AND BLEED OFF 3 BBLS; PSI DROPPED TO 12;  
WELL IS FLOWING @ 1.5 BBLS/MIN GAS CUT MUD @ 8.8 PPG AND 2-3 % OIL;  
SHUT IN WELL AND BULLHEADED 70 BBLS OF 12.5 PPG KWM DOWN ANNULUS  
TO KILL FLOW; PUMPED @ 1.5 BBLS/MIN, W/ 580 PSI; 312 ANNULAR PSI;  
PUMED IN 10 BBL INCREMENTS UNTILL WELL WAS STATIC; WELL STATIC  
AFTER 68 BBLS.

03:00 BACKED OFF 7" LANDING JOINT; WASHED UP WELL HEAD; INSTALLED PACK  
OFF AND LOCK RING; TESTED PACKOFF TO 5,000 PSI, GOOD TEST AND PULL  
TESTED TO 40K, GOOD TEST; BEGIN CHANGING LINERS IN MUD PUMPS FROM  
6" TO 5".

RIGGED UP BATTLE ENERGY TESTERS AND TESTED CHOKE MANIFOLD TO  
10,000 PSI HIGH AND 250 PSI LOW FOR 5 MIN EACH; ALL TESTS GOOD.

05:30 FILL SLUG TANK WITH 9.3 PPG MUD FROM RESERVE PIT AND PRESSURE UP 7"  
CSG AGAINST BLIND RAMS TO 5,000 PSI FOR 30 MINUTE CASING TEST.

Vis (s/qt): 28, Dens (lb/gal): 9.30, pH: 8.5

#### 04/07/2017

Rig Name: Blue Quail Rig 13

Depth = 12,035.0 Progress = 0.0

06:00 SHUT BLIND RAMS; CHART TEST CASING TO 5,000 PSI FOR 30 MINUTES -  
GOOD; START PRESSURE = 5,025 PSI, END = 4,976

07:30 CACTUS WELLHEAD INSTALL BIT GUIDE IN WELLHEAD AND TORQUE LOCKING  
PINS; RIG CREW CHANGING LINERS TO 5" ON MUD PUMP #1

08:30 H&P BOP GROUP CHANGE BOTTOM RAMS TO 3 1/2 X 5 1/2 VBR'S; RIG CREW  
CHANGING LINERS TO 5" ON MUD PUMP #1

10:30 INSTALL TEST PLUG; RIG UP BATTLE TESTERS; TEST ALL RAMS, CHOKE LINE  
VALVES, KILL LINE VALVES, FOSV, IBOP, KELLY VALVE TO 250 PSI LOW /  
10,000 PSI HIGH FOR 10 MINUTES EACH TEST. TEST ANNULAR BOP 250 PSI  
LOW / 5000 PSI HIGH FOR 10 MINUTES EACH TEST. TEST STANDPIPE AND  
VALVES BACK TO PUMPS 250 PSI LOW / 7500 PSI HIGH FOR 10 MINUTES  
EACH. RIG CREW CHANGING LINERS F/ 6" T/ 5" ON MP#1 AND MP#2. TESTED  
ALL FLOOR VALVES TO 7500 PSI HIGH AND 250 PSI LOW; ALL TESTS GOOD;  
18:30 CHANGE OUT SWIVAL PACKING; CHANGE OUT SAVER SUB AND GRABBER DIES  
AND STABBING GUIDE ON TDS; RIG UP DUMP LINE ON PITS; MU PANIC LINE  
AND FLARE LINE; INSTALL 4" ELEVATORS AND INSTALL 4" RUBBER IN  
ROTATING HEAD; INSTALL WEAR BUSHING IN WELLHEAD.

23:30 PU DRILL OUT BHA AS FOLLOWS: 6" PDC LOGIC, PLT613D6, PDC BIT, SN-  
S09739; B/S; X/O; PONY NMDC; 5 7/8" NM STABILIZER; X/O; 9 JTS 4",  
HWDP; 4" DP; TBHA= 308.5'

00:30 TIH W/ DRILL OUT ASSEMBLY; F/308' - T/4,400'; RAN IN STANDS FROM  
DERRICK THEN PICKING UP 4" DP FROM RACKS; FILLING DP EVERY 30  
STANDS W/ 9.3 PPG CUT BRINE.

Vis (s/qt): 29, Dens (lb/gal): 9.30, pH: 9.0

#### 04/08/2017

Rig Name: Blue Quail Rig 13

Depth = 12,065.0 Progress = 30.0

06:00 TIH W/ DRILL OUT ASSEMBLY; F/4,400' - T/6,622'; PICKING UP 4" DP FROM  
RACKS & RABBETING PIPE; FILLING DP EVERY 30 STANDS W/ 9.3 PPG CUT

BRINE.

09:00 LOAD AND STRAP 175 JOINTS OF 4" DP ON RACK

11:00 TIH W/ DRILL OUT ASSEMBLY; F/6,622' - T/11,854'; PICKING UP 4" DP FROM RACKS & RABBETING PIPE; FILLING DP EVERY 30 STANDS W/ 9.3 PPG CUT BRINE. TAG @ 11,854' (FLOAT COLLAR @ 11,918')

16:30 BREAK CIRCULATION; PERFORM STRIPPING TEST W/ ANNULAR CLOSED; BEGINNING W/ 1,000 PSI, ACQUIRE PU AND SO WEIGHT, THEN ADDING 500 PSI INCREMENTS GETTING WEIGHTS EACH 500 PSI UNTILL 4,000 PSI REACHED. ANNULAR CLOSING PRESSURE SET @ 260 PSI. (ANN P: 23, UP: 224, DN:202); (ANN P. 1026, UP: 212, DN: 190); (ANN P. 1550, UP: 207, DN: 182); (ANN P. 2037, UP: 201, DN:175); (ANN P. 2537, UP: 199, DN:162); (ANN P. 3058, UP:197, DN: 152); (ANN P. 3548, UP: 192/184, DN: 141); (ANN P. 4013, UP: 192/182, DN: 135)

18:30 DRILL CEMENT F/ 11,854'- T/ 11,919'; 1' BELOW FC; CIRCULATE BOTTOMS UP AND VERIFY 9.3 PPG MW ALL AROUND.

20:00 PERFORM CASING TEST TO 5,000 PSI @ 3 STKS/MIN; PLOTTING PSI EVERY 3 STKS (0.1905 BBLs); UNTILL 5,000 PSI WAS REACHED; GOOD TEST NO LEAK OFF.

21:00 DRILL CEMENT F/ 11,919' - T/ 12,035'; 116'; WOB: 15K/20K; RPM: 75; GPM: 420; SPP: 3,100; TRQ OFF BTM: 4000; TRQ ON BTM: 8500

21:30 ROT DRLG F/ 12,035' - T/12,045' (10' @ 20 FPH). WOB:25, TOP DRV RPM: 100; SPP 3,100 PSI; GPM: 450; TOP DRV TRQ: 9,000 FT/LBS ON BTM, 5K OFF BTM; PU 215, SO 195, ROT: 200; 100% RETURNS

22:00 CIRCULATE BOTTOMS UP TO CLEAR CUTTINGS AND INSURE BALANCED 9.3 MW ALL AROUND FOR F.I.T. TEST.

23:00 ATTEMPT F.I.T. TEST TO 17.5 PPG, EMW; W/ 9.3 PPG SYSTEM CUT BRINE; LEAK OFF @ 4,476 PSI; 16.49 PPG, EMW. MONITOR FOR 18 MINUTES, ANNULAR PSI LEVELED OFF @ 4,134 PSI.

00:00 DISPLACE 9.3 PPG CUT BRINE FROM WELLBORE W/ 373 BBLs OF 13.0 PPG OBM.

01:00 ROT DRLG F/ 12,045' - T/12,065' (20' @ 40 FPH). WOB:25/30, TOP DRV RPM: 100; SPP 3,100 PSI; GPM: 450; TOP DRV TRQ: 9,000 FT/LBS ON BTM, 5K OFF BTM; PU 215, SO 195, ROT: 200; 100% RETURNS

01:30 CIRCULATE BOTTOMS UP FOR TOH.

02:30 TOH F/ 12,065' T/ 6,527'; HOLE IS TAKING PROPER FILL; NO UNUSUAL DRAG. Vis (s/qt): 29, Dens (lb/gal): 9.30, pH: 9.0

#### 04/09/2017

Rig Name: Blue Quail Rig 13

Depth = 12,085.0 Progress = 20.0

06:00 TOH F/ 6,527' T/ BHA; HOLE IS TAKING PROPER FILL; NO UNUSUAL DRAG.

08:30 LAY DOWN SHOE TRACK DRILL OUT BHA; BREAK & GRADE 6" PDC LOGIC PLT613D69 BIT (INNER - 1, OUTER 1, IN GAUGE, FIXED CUTTER BIT)

09:00 MAKE UP 6" ULTERRA U613M BIT SN# 31761 WITH 3X11'S, 3X12'S TFA 0.609 GAUGE: 6"; MAKE UP WEATHERFORD RSS, HEL TOOL, NM STABILIZER, PONY NMDC, TOMAX TOOL, WEATHERFORD 7/8 LOBE 3.7 STAGE 0.35 REV/GAL STRAIGHT MOTOR; FILTER SUB, X/O, 1 X 4" DRILL PIPE, X/O, DRILL-N-REAM, X/O; SHALLOW TEST TOOLS - GOOD

11:30 TIH WITH 83 STANDS 4" DRILL PIPE, 3 STANDS 4" HWDP, PICK UP & RABBIT 48 JTS 4" HWDP T/ 9,760'; HOLE GIVING NORMAL DISPLACEMENT

17:00 TIH WITH 4" DRILL PIPE F/ 9,760' T/ 11,466'; HOLE GIVING NORMAL DISPLACEMENT

19:00 SLIP AND CUT DRLG LINE; CALLIBRATE BLOCKS AND SAFETY STOPS.

20:30 TIH WITH 4" DRILL PIPE F/ 11,466' T/ 12,025'; HOLE GIVING NORMAL DISPLACEMENT

21:00 DOWNLINK TO TOOLS; TROUBLESHOOT DETECTION ISSUES; CLEAN PUMP SCREENS. DOWN LINKS ACCEPTED.

22:00 WASH AND REAM F/12,025' - T/12,062'; MWD RECORDING GAMMA

23:00 RECYCLE PUMPS; DOWNLINK TO TOOLS;

23:30 ROT DRILL F/ 12,065' T/12,067'; 5 7/8" STABILIZER HANGING UP IN 7" CASING SHOE; REAM STABILIZER AT VARIOUS PARAMETERS AND CAN'T GET BELOW 12,067'; DOWNLINK AND RETRACT STEERING PADS; TOOLS WENT TO BOTTOM WITH NO ISSUE; WAS NOT STABILIZER HANGING IN CSG SHOE.

01:30 ROT DRILL F/ 12,067' T/ 12,078'; 11' @ 11 FT/HR; WOB: 20; GPM: 270; RPM: 30; SPP: 5,450; DIFF: 250; MMRPM: 95; TRQ ON BTM: 4,000 FT/LBS; TRQ OFF BTM: 3,000 FT/LBS; PU: 210; ROT: 199; SO: 193; DRILLED IN RIBS OUT MODE TO PROPERLY BED STEERING TOOLS.

02:30 DOWNLINK TO TOOLS; PLACE IN RIBS ON MODE.

03:00 ROT DRILL F/ 12,078' T/ 12,085'; 7' @ 14 FT/HR; WOB: 20; GPM: 270; RPM: 30; SPP: 5,450; DIFF: 250; MMRPM: 95; TRQ ON BTM: 4,000 FT/LBS; TRQ OFF BTM: 3,000 FT/LBS; PU: 210; ROT: 199; SO: 193; WE ARE ABLE TO COMMUNICATE WITH STEERING TOOLS BUT TOOLS ARE NOT RESPONDING TO COMMANDS;

03:30 DOWN LINK AND TROUBLE SHOOT TOOLS NOT RESPONDING TO COMMANDS; NO SUCCESS; DECISION MADE TO TOH FOR TOOL FAILURE.

04:30 PUMP 40 BBL DRY PIPE SLUG AND FLOW CHECK WELL; WELL IS STATIC;

05:00 TOH F/12,085' - T/10,235'; WELL IS TAKING PROPER FILL; NO UNUSUAL DRAG SEEN.

Vis (s/qt): 66, Dens (lb/gal): 13.00, pH: 0.0

MD (ft)	TVD (ft)	Incl (°)	Azi (°)	VS (ft)	DLS (°/100ft)	N/S (ft)	E/W (ft)
12,037.0	11,997.64	37.32	154.65	173.36	9.33	-166.41	48.57
12,062.0	12,017.62	36.58	155.62	188.22	3.77	-180.05	54.89

#### 04/10/2017

Rig Name: Blue Quail Rig 13

Depth = 12,350.0 Progress = 265.0

06:00 TOH F/10,700' T/DIRECTIONAL TOOLS; WELL IS TAKING PROPER FILL; NO UNUSUAL DRAG SEEN.

10:30 BREAK AND GRADE BIT (1/1/IN GAUGE - NO DAMAGE), LAY DOWN AND INSPECT RSS TOOL (FOUND SEAL FAILURE AND HEAT CHECKED METAL AT TOP OF REFERENCE UNIT; STAND BACK REST OF BHA

11:30 DISCUSS THE RSS BIAS UNIT DAMAGE WITH WEATHERFORD AND MAKE PLAN TO RUN NEW RSS TOOL AND BED IN TOOL FOR 12' WITH NO DEFLECTION, THEN 11+' WITH 59% DEFLECTION, THEN INCREASE DEFLECTION TO 87%.

13:00 RERUN CURVE/LATERAL BIT #1 (ULTERRA U613M); MAKE UP NEW RSS TOOL; MAKE UP HEL TOOL WITH NM STAB, NM PONY COLLAR, TOMAX, & WEATHERFORD 7/8 LOBE 3.7 STAGE 0.35 REV/GAL STRAIGHT MOTOR; MAKE UP FILTER SUB, X/O, 1 JOINT 4" DRILL PIPE; SHALLOW TEST TOOLS - GOOD; MAKE UP X/O, DRILL-N-REAM, X/O

15:00 TIH F/149' T/12,085'; WELL IS GIVING PROPER DISPLACEMENT; NO UNUSUAL DRAG SEEN.

20:30 DOWNLINK TO TOOLS; INSURE 0 DEFLECTION; RUN DIAGNOSTIC; TOOLS WORKING PROPERLY.

21:00 ROT DRILL F/ 12,085' T/ 12,110'; 25' @ 13 FT/HR; WOB: 5/15; GPM: 290; RPM: 30; SPP: 5,450; DIFF: 100/200; MMRPM: 101; TRQ ON BTM: 4,000 FT/LBS; TRQ OFF BTM: 3,000 FT/LBS; PU: 215; ROT: 199; SO: 194; CONTROL DRILLING TO BED TOOLS, 12085'-12097'- 0% DEFLECTION; 12097'-12110'- 59% DEFLECTION. THEN 89% DEFLECTION.

23:00 DOWNLINK TO TOOLS SET DEFLECTION TO 89%.

23:30 ROT DRILL F/ 12,110' T/ 12,224'; 114' @ 32.5 FT/HR; WOB: 15/20; GPM: 290; RPM: 30; SPP: 5,450; DIFF: 100/200; MMRPM: 101; TRQ ON BTM: 4,000 FT/LBS; TRQ OFF BTM: 3,000 FT/LBS; PU: 215; ROT: 199; SO: 194;

03:00 ROT DRILL F/ 12,110'- T/ 12,350'; 240' @ 80 FT/HR; WOB: 15/25; GPM: 290; RPM: 80; SPP: 5,750; DIFF: 275/375; MMRPM: 101; TRQ ON BTM: 6,500 FT/LBS; TRQ OFF BTM: 3,100 FT/LBS; PU: 215; ROT: 199; SO: 188; AVG BACKGROUND GAS: 75/85 UNITS; NO FLARES.

Vis (s/qt): 69, Dens (lb/gal): 13.05, pH: 0.0

MD (ft)	TVD (ft)	Incl (°)	Azi (°)	VS (ft)	DLS (°/100ft)	N/S (ft)	E/W (ft)
12,106.0	12,053.06	36.10	157.36	214.08	2.58	-203.95	65.30
12,138.0	12,078.55	38.31	161.94	233.37	11.07	-222.09	72.00
12,170.0	12,103.16	41.18	164.78	253.82	10.61	-241.69	77.84
12,201.0	12,125.90	44.42	166.34	274.87	11.00	-262.09	83.09
12,233.0	12,148.09	47.79	167.32	297.89	10.76	-284.54	88.33
12,264.0	12,168.22	51.21	167.46	321.41	11.04	-307.54	93.48
12,296.0	12,187.51	54.60	165.27	346.90	11.92	-332.33	99.50

#### 04/11/2017

Rig Name: Blue Quail Rig 13

Depth = 13,266.0 Progress = 916.0

06:00 ROT DRILL F/ 12,350'- T/ 12,475'; 125' @ 31.25 FT/HR; WOB: 20/22; GPM: 293; RPM: 80; SPP: 5,500; DIFF: 275/375; MMRPM: 102; TRQ ON BTM: 6,500 FT/LBS; TRQ OFF BTM: 3,100 FT/LBS; PU: 212; ROT: 198; SO: 188; AVG BACKGROUND GAS: 75/85 UNITS; NO FLARES.

10:00 ROT DRILL F/ 12,475'- T/ 12,630'; 155' @ 38.75 FT/HR; WOB: 20/25; GPM: 300; RPM: 80/90; SPP: 5,800; DIFF: 275/375; MMRPM: 105; TRQ ON BTM: 6,500 FT/LBS; TRQ OFF BTM: 3,200 FT/LBS; PU: 212; ROT: 198; SO: 188; AVG BACKGROUND GAS: 120 UNITS; NO FLARES.

14:00 ROT DRILL F/ 12,630'- T/ 12,695'; 65' @ 32.5 FT/HR; WOB: 20/25; GPM: 300; RPM: 80/90; SPP: 5,800; DIFF: 275/375; MMRPM: 105; TRQ ON BTM: 6,500 FT/LBS; TRQ OFF BTM: 3,200 FT/LBS; PU: 212; ROT: 198; SO: 184; AVG BACKGROUND GAS: 120 UNITS; NO FLARES.

16:00 RIG SERVICE; GREASE SWIVEL PACKING, BONNET SEAL, ADD HYDRAULIC FLUID, OBTAIN SPR'S.

16:30 ROT DRILL F/ 12,695'- T/ 12,791'; 96' @ 32 FT/HR; WOB: 20/25; GPM: 300; RPM: 80/90; SPP: 5,800; DIFF: 350; MMRPM: 105; TRQ ON BTM: 6,500 FT/LBS; TRQ OFF BTM: 3,200 FT/LBS; PU: 215; ROT: 196; SO: 186; AVG BACKGROUND GAS: 140 UNITS; NO FLARES.

19:30 DOWNLINK TO TOOLS; PLACED IN AUTO PILOT MODE W/ 14% DEFLECTION FOR SOFT LANDING; FROM 64% DEFLECTION

20:00 ROT DRILL F/ 12,791'- T/ 12,886'; 95' @ 47.5 FT/HR; WOB: 20/25; GPM: 300; RPM: 80/90; SPP: 5,800; DIFF: 350; MMRPM: 105; TRQ ON BTM: 6,500

FT/LBS; TRQ OFF BTM: 3,200 FT/LBS; PU: 215; ROT: 196; SO: 186; AVG BACKGROUND GAS: 140 UNITS; NO FLARES.

22:00 DOWNLINK: AUTO PILOT OFF AND PLACED IN MANUAL STEER W/ 64% DEFLECTION; WASN'T GETTING BUILD RATES IN AUTO.

22:30 ROT DRILL F/ 12,886'- T/ 12,980'; 94' @ 47 FT/HR; WOB: 20/25; GPM: 300; RPM: 80/90; SPP: 5,800; DIFF: 350; MMRPM: 105; TRQ ON BTM: 6,500 FT/LBS; TRQ OFF BTM: 3,200 FT/LBS; PU: 215; ROT: 196; SO: 186; AVG BACKGROUND GAS: 140 UNITS; NO FLARES.

00:30 DOWNLINK: RE LOG GAMMA F/12,963' - T/12,980'; PLACED TOOLS IN AUTO PILOT MODE W/ 0% DEFLECTION; EOC @ 12,896' MD, 12,346.81' TVD, VS 916.86'

01:00 ROT DRILL F/ 12,980'- T/ 13,187'; 207' @ 52 FT/HR; WOB: 22/27; GPM: 300/287; RPM: 80/90; SPP: 5,800; DIFF: 350/620; MMRPM: 105/101; TRQ ON BTM: 6,500 FT/LBS; TRQ OFF BTM: 3,200 FT/LBS; PU: 215; ROT: 196; SO: 186; AVG BACKGROUND GAS: 140 UNITS; NO FLARES.

05:00 ROT DRILL F/ 13,187'- T/ 13,266'; 79' @ 79 FT/HR; WOB: 22/27; GPM: 300/287; RPM: 80/90; SPP: 5,800; DIFF: 350/620; MMRPM: 105/101; TRQ ON BTM: 6,500 FT/LBS; TRQ OFF BTM: 3,200 FT/LBS; PU: 215; ROT: 196; SO: 186; AVG BACKGROUND GAS: 140 UNITS; NO FLARES.

Vis (s/qt): 29, Dens (lb/gal): 13.00, pH: 0.0

MD (ft)	TVD (ft)	Incl (°)	Azi (°)	VS (ft)	DLS (°/100ft)	N/S (ft)	E/W (ft)
12,328.0	12,205.26	58.03	164.77	373.52	10.80	-358.05	106.39
12,359.0	12,221.04	60.78	165.54	400.19	9.12	-383.84	113.22
12,391.0	12,236.02	63.39	165.77	428.45	8.18	-411.24	120.23
12,422.0	12,249.35	65.67	166.50	456.41	7.66	-438.41	126.93
12,454.0	12,261.90	68.14	166.58	485.81	7.72	-467.03	133.78
12,486.0	12,273.30	70.11	166.86	515.67	6.21	-496.13	140.65
12,517.0	12,283.43	71.73	166.50	544.92	5.34	-524.64	147.40
12,549.0	12,293.01	73.43	165.79	575.43	5.72	-554.28	154.71
12,580.0	12,301.54	74.65	165.26	605.22	4.26	-583.14	162.16
12,612.0	12,309.77	75.52	164.78	636.13	3.08	-613.01	170.15
12,644.0	12,317.46	76.68	164.21	667.19	4.02	-642.94	178.46
12,675.0	12,324.25	78.00	163.61	697.43	4.66	-672.00	186.84
12,707.0	12,330.39	79.88	163.06	728.84	6.11	-702.09	195.85
12,738.0	12,335.29	81.95	162.10	759.44	7.34	-731.29	205.01
12,770.0	12,339.39	83.33	162.38	791.17	4.40	-761.51	214.69
12,802.0	12,342.61	85.12	162.63	822.99	5.65	-791.88	224.26
12,833.0	12,344.89	86.42	163.04	853.91	4.40	-821.42	233.39
12,865.0	12,346.43	88.09	163.07	885.87	5.22	-851.99	242.70
12,896.0	12,346.81	90.49	163.08	916.86	7.74	-881.64	251.73
12,927.0	12,346.46	90.80	163.02	947.85	1.02	-911.29	260.76
12,959.0	12,346.27	89.88	162.70	979.85	3.04	-941.87	270.19
13,053.0	12,346.16	90.25	162.93	1,073.84	0.46	-1,031.68	297.97
13,148.0	12,346.26	89.63	162.29	1,168.82	0.94	-1,122.33	326.36

#### 04/12/2017

Rig Name: Blue Quail Rig 13

Depth = 14,406.0 Progress = 1140.0

06:00 ROT DRILL F/ 13,266'- T/ 13,440'; 174' @ 43.5 FT/HR; WOB: 20/28; GPM: 300/287; RPM: 70/100; SPP: 5,880; DIFF: 350/500; MMRPM: 105/101; TRQ ON BTM: 6K/9K FT/LBS; TRQ OFF BTM: 3,200 FT/LBS; PU: 218; ROT: 196; SO: 186; AVG BACKGROUND GAS: 700 UNITS; NO FLARES.

10:00 ROT DRILL F/ 13,440'- T/ 13,642'; 202' @ 50.5 FT/HR; WOB: 26/32; GPM: 300; RPM: 70/100; SPP: 5,880; DIFF: 625; MMRPM: 105; TRQ ON BTM: 6K/9K FT/LBS; TRQ OFF BTM: 3,200 FT/LBS; PU: 225; ROT: 199; SO: 182; AVG BACKGROUND GAS: 700 UNITS; NO FLARES.

14:00 ROT DRILL F/ 13,642'- T/ 13,836'; 194' @ 49 FT/HR; WOB: 26/32; GPM: 300; RPM: 70/100; SPP: 5,880; DIFF: 625; MMRPM: 105; TRQ ON BTM: 6K/9K FT/LBS; TRQ OFF BTM: 3,200 FT/LBS; PU: 225; ROT: 199; SO: 182; AVG BACKGROUND GAS: 700 UNITS; NO FLARES.

18:00 ROT DRILL F/ 13,836'- T/ 14,026'; 190' @ 48 FT/HR; WOB: 26/32; GPM: 300; RPM: 70/100; SPP: 5,880; DIFF: 625; MMRPM: 105; TRQ ON BTM: 6K/9K FT/LBS; TRQ OFF BTM: 3,200 FT/LBS; PU: 219; ROT: 194; SO: 174; AVG BACKGROUND GAS: 700 UNITS; CONNECTION GAS: 3583 UNITS W/ 10' x 10 MIN LAZY FLARE.

22:00 ROT DRILL F/ 14,026'- T/ 14,216'; 190' @ 48 FT/HR; WOB: 26/32; GPM: 300; RPM: 70/100; SPP: 6,050; DIFF: 650; MMRPM: 105; TRQ ON BTM: 6K/9K FT/LBS; TRQ OFF BTM: 3,200 FT/LBS; PU: 219; ROT: 194; SO: 174; RAISE MW F/13.0 PPG T/ 13.2 PPG; AVG BACKGROUND GAS: 550 UNITS; CONNECTION GAS: 3100 UNITS W/ 1' x 3 MIN LAZY FLARE.

02:00 ROT DRILL F/ 14,216'- T/ 14,406'; 190' @ 48 FT/HR; WOB: 26/32; GPM: 300; RPM: 70/100; SPP: 6,050; DIFF: 650; MMRPM: 105; TRQ ON BTM: 6K/9K FT/LBS; TRQ OFF BTM: 3,200 FT/LBS; PU: 219; ROT: 194; SO: 174; RAISE MW



F/13.0 PPG T/ 13.2 PPG; AVG BACKGROUND GAS: 550 UNITS; CONNECTION GAS: 3100 UNITS W/ 1' x 3 MIN LAZY FLARE.

Vis (s/qt): 62, Dens (lb/gal): 13.20, pH: 0.0

MD (ft)	TVD (ft)	Incl (°)	Azi (°)	VS (ft)	DLS (°/100ft)	N/S (ft)	E/W (ft)
13,243.0	12,346.67	89.88	162.90	1,263.80	0.69	-1,212.98	354.77
13,338.0	12,346.56	90.25	162.13	1,358.78	0.90	-1,303.59	383.32
13,433.0	12,346.87	89.38	161.59	1,453.73	1.08	-1,393.87	412.89
13,529.0	12,348.06	89.20	160.50	1,549.61	1.15	-1,484.65	444.07
13,624.0	12,349.49	89.07	162.30	1,644.52	1.90	-1,574.68	474.37
13,718.0	12,350.91	89.20	162.33	1,738.48	0.14	-1,664.23	502.92
13,813.0	12,351.98	89.51	163.10	1,833.46	0.87	-1,754.93	531.15
13,909.0	12,350.58	92.16	165.26	1,929.43	3.56	-1,847.27	557.31
14,003.0	12,347.65	91.42	165.10	2,023.35	0.81	-1,938.10	581.35
14,098.0	12,345.34	91.36	164.92	2,118.30	0.20	-2,029.84	605.91
14,193.0	12,343.39	90.99	163.99	2,213.27	1.05	-2,121.34	631.36
14,287.0	12,339.80	93.39	163.59	2,307.20	2.59	-2,211.53	657.58
14,383.0	12,335.41	91.85	162.94	2,403.09	1.74	-2,303.37	685.20

#### 04/13/2017

Rig Name: Blue Quail Rig 13

Depth = 14,730.0 Progress = 324.0

06:00 ROT DRILL F/ 14,406'- T/ 14,552'; 146' @ 37 FT/HR; WOB: 26/32; GPM: 300; RPM: 70/100; SPP: 6,050; DIFF: 650; MMRPM: 105; TRQ ON BTM: 6K/9K FT/LBS; TRQ OFF BTM: 3,200 FT/LBS; PU: 219; ROT: 194; SO: 174; AVG BACKGROUND GAS: 875 UNITS; CONNECTION GAS: 3100 UNITS W/ NO FLARE

10:00 ROT DRILL F/ 14,552'- T/ 14,688'; 136' @ 45 FT/HR; WOB: 28; GPM: 300; RPM: 105; SPP: 6,370; DIFF: 650; MMRPM: 105; TRQ ON BTM: 6K/9K FT/LBS; TRQ OFF BTM: 3,200 FT/LBS; PU: 219; ROT: 194; SO: 167; AVG BACKGROUND GAS: 875 UNITS; CONNECTION GAS: 3100 UNITS W/ NO FLARE

13:00 SERVICE RIG

13:30 ROT DRILL F/ 14,688'- T/ 14,730'; 42' @ 17 FT/HR; WOB: 28; GPM: 300; RPM: 105; SPP: 6,370; DIFF: 650; MMRPM: 105; TRQ ON BTM: 6K/9K FT/LBS; TRQ OFF BTM: 3,200 FT/LBS; PU: 219; ROT: 194; SO: 167; AVG BACKGROUND GAS: 875 UNITS; CONNECTION GAS: 3100 UNITS W/ NO FLARE; ROP DROPPED TO LESS THAN 20 FT/HR; DIFF PSI DROPPED TO LESS THAN 100; WEATHERFORD MOTOR RPM SHOWING 0 RPM WITH WOB OVER 18K; LESS THAN 18K RPMS WILL COME BACK ON; RUBBER IN MOTOR POSSIBLY WORN OR WASHED; DECISION WAS MADE TO TOH AND CHANGE OUT MOTOR.

16:00 PERFORM CLEAN UP CYCLES FOR TOH; RACKING BACK 1 STAND AFTER EACH BOTTOMS UP; 1ST BTM UP 15%/20% SCREEN COVERAGE WITH FINE AND MEDIUM FINE CUTTINGS; 2ND BOTTOMS UP 10%/15% SCREEN COVERAGE WITH FINE AND MED FINE CUTTINGS; 3RD BOTTOMS UP 5% SCREEN COVERAGE OF FINE AND MEDIUM FINE CUTTINGS 5'FLARE 2500 UNITS GAS;

19:00 CIRCULATE & CONDITION HOLE WHILE WAITING ON SEVERE WEATHER LIGHTENING TO PASS 300 GPM 80 RPM, FLOW CHECK WELL FLOWING @ 5 BBLS PER HR, PUMP 30 BBLS WEIGHTED @ 11230' WELL STATIC

23:00 TOO H WET F/14,500' T/10,992'

03:00 CLEAN RIG FLOOR OF OBM, CHECKED FLOW , WELL FLOWING @ 2 BBLS PER HR. PUMPED 20BBLS. WEIGHTED PILL & PUMP 30 BBL SLUG CHECKED FLOW WELL STATIC

04:00 TOO H F/10,992' T/8,379'WELL TAKING PROPER FILL

Vis (s/qt): 65, Dens (lb/gal): 13.30, pH: 0.0

MD (ft)	TVD (ft)	Incl (°)	Azi (°)	VS (ft)	DLS (°/100ft)	N/S (ft)	E/W (ft)
14,478.0	12,333.72	90.19	163.91	2,498.07	2.02	-2,394.40	712.29
14,572.0	12,333.31	90.31	163.18	2,592.07	0.79	-2,484.55	738.92
14,667.0	12,332.85	90.25	162.43	2,687.05	0.79	-2,575.30	767.00

#### 04/14/2017

Rig Name: Blue Quail Rig 13

Depth = 14,777.0 Progress = 47.0

06:00 TOO H F/8,379' T/SURFACE; WELL TAKING PROPER FILL

10:00 DRAIN MOTOR; BREAK AND LD BIT, MOTOR, HEL TOOL AND RSS; PU NEW MOTOR, HEL TOOL; RSS AND DRILFORMANCE DF611 BIT; SURFACE TEST MOTOR AND TOOLS; GOOD TEST;

13:00 TIH W/ NEW WEATHERFORD ASSEMBLY F/150' - T/12,146'

19:00 CIRC. BTMS. UP @ 12,146' CAUGHT 40 BBLS. HEAVY WT PILL IN TRIP TANK MUD WAS CUT F/15.3# T/14#; WITH 1507 UNITS GAS AT BTMS UP;

21:00 TIH W/ NEW WEATHERFORD ASSEMBLY F/12,146' - T/14,730'

22:00 CIRC. BTMS. UP @ 14,730' WITH 3582 UNITS GAS AT BTMS UP; 15'FLARE FOR 25 MIN.

00:00 ROT DRILL F/ 14,730'- T/ 14,762'; 32' @ 8 FT/HR; WOB: 12/15; GPM: 288; RPM: 80; SPP: 6,585; DIFF: 280; MMRPM: 101; TRQ ON BTM: 6K FT/LBS; TRQ OFF BTM: 3,200 FT/LBS; PU: 208; ROT: 195; SO: 165; AVG BACKGROUND

GAS: 198 UNITS;  
04:00 ROT DRILL F/ 14,762'- T/ 14,777'; 15' @ 10 FT/HR; WOB: 12/20; GPM: 288;  
RPM: 80; SPP: 6,585; DIFF: 280; MMRPM: 101; TRQ ON BTM: 6K FT/LBS; TRQ  
OFF BTM: 3,200 FT/LBS; PU: 208; ROT: 195; SO: 165; AVG BACKGROUND  
GAS: 198 UNITS;  
05:30 TROUBLE SHOOTING RSS TOOL  
Vis (s/qt): 69, Dens (lb/gal): 13.30, pH: 0.0

#### 04/15/2017

Rig Name: Blue Quail Rig 13  
Depth = 14,777.0 Progress = 0.0  
06:00 TROUBLE SHOOTING RSS TOOL  
06:30 CIRCULATE BOTTOMS UP; SHAKERS ARE CLEAN; 3%/5% SCREEN COVERAGE  
OF FINE CUTTINGS;  
08:30 FLOW CHECKED WELL, WELL FLOWING @ 5 BBLS/HR; MIX 90 BBLS OF 16.3  
PPB WEIGHTED PILL; PUMP AND SPOT 60 BBLS OF 16.3 PPG PILL AT 11,400';  
FLOW CHECK WELL, WELL IS STATIC; SLUG PIPE W/ 25 BBLS OF 16.3 PPB;  
11:30 TOH F/14,777'- T/BIT'L/D TOE MAX TOOL,.DRAIN MOTOR  
18:00 DOWNLOAD DATA F/RSS TOOL, TIH W RSS TOOL & SHALLOW TEST,  
21:00 RIG SERVICE TOP DRIVE & BLOCKS  
21:30 TIH F/150' T/12,140'; WELL IS GIVING PROPER DISPLACEMENT; FILLING DP  
EVERY 30 STDS,  
04:00 CIRC. BTMS UP @ 12,140'; CAUGHT 70 BBLS. HEAVY WT PILL IN TRIP TANK  
MUD WAS CUT F/16.3# T/13.8#; WITH 1098 UNITS GAS AT BTMS UP NO  
FLARE;  
05:30 PULL TRIP NIPPLE & INSTALL ROTATING HEAD  
Vis (s/qt): 67, Dens (lb/gal): 13.25, pH: 0.0

#### 04/16/2017

Rig Name: Blue Quail Rig 13  
Depth = 15,637.0 Progress = 860.0  
06:00 TIH F/12,140' T/14,777'; WELL IS GIVING PROPER DISPLACEMENT;  
07:30 CIRCULATE BOTTOMS UP TO CLEAR TRIP GAS FROM WELLBORE; 2,000 UNITS  
GAS W/20' X 10 MINUTE LAZY FLARE AND 6' X 5 MINUTE LAZY FLARE.  
09:00 ROT DRILL F/ 14,777'- T/ 14,790'; 13' @ 26 FT/HR; TO BED IN RSS TOOLS;  
WOB: 22; GPM: 288; RPM: 80/90; SPP: 6,590; DIFF: 450; MMRPM: 101; TRQ  
ON BTM: 8K FT/LBS; TRQ OFF BTM: 3,200 FT/LBS; PU: 215; ROT: 189 SO:  
170; AVG BACKGROUND GAS: 285 UNITS;  
09:30 DOWNLINK TO TOOLS; PLACE IN AUTO PILOT STEER MODE, 14% DEFLECTION.  
10:00 ROT DRILL F/ 14,790'- T/ 14,951'; 161' @ 40.25 FT/HR; WOB: 22; GPM: 288;  
RPM: 80/90; SPP: 6,590; DIFF: 450; MMRPM: 101; TRQ ON BTM: 8K FT/LBS;  
TRQ OFF BTM: 3,200 FT/LBS; PU: 215; ROT: 189 SO: 170; AVG BACKGROUND  
GAS: 285 UNITS;  
14:00 ROT DRILL F/ 14,951'- T/ 15,067'; 116' @ 39 FT/HR; WOB: 18/26; GPM: 288;  
RPM: 80/100; SPP: 6,590; DIFF: 450; MMRPM: 101; TRQ ON BTM: 8K FT/LBS;  
TRQ OFF BTM: 3,200 FT/LBS; PU: 215; ROT: 189 SO: 170; AVG BACKGROUND  
GAS: 285 UNITS;  
17:00 SERVICE RIG AND TDS; OBTAIN SPR'S.  
17:30 ROT DRILL F/ 15,067'- T/ 15,270'; 203' @ 44.1 FT/HR; WOB: 18/26; GPM:  
300; RPM: 80/105; SPP: 6,983; DIFF: 450; MMRPM: 105; TRQ ON BTM: 8K  
FT/LBS; TRQ OFF BTM: 4K FT/LBS; PU: 218; ROT: 191 SO: 159; AVG  
BACKGROUND GAS: 350 UNITS;  
22:00 ROT DRILL F/ 15,270'- T/ 15,450'; 180' @ 45 FT/HR; WOB: 18/26; GPM: 300;  
RPM: 90; SPP: 6,900; DIFF: 475; MMRPM: 105; TRQ ON BTM: 8K FT/LBS; TRQ  
OFF BTM: 3K FT/LBS; PU: 218; ROT: 191 SO: 159; AVG BACKGROUND GAS:  
350 UNITS;  
02:00 ROT DRILL F/ 15,450'- T/ 15,637'; 187' @ 46.8 FT/HR; WOB: 18/26; GPM:  
270; RPM: 80/105; SPP: 6,200; DIFF: 475; MMRPM: 95; TRQ ON BTM: 9K  
FT/LBS; TRQ OFF BTM: 3K FT/LBS; PU: 220; ROT: 186 SO: 168; AVG  
BACKGROUND GAS: 350 UNITS;

Vis (s/qt): 65, Dens (lb/gal): 13.30, pH: 0.0

MD (ft)	TVD (ft)	Incl (°)	Azi (°)	VS (ft)	DLS (°/100ft)	N/S (ft)	E/W (ft)
14,762.0	12,334.69	87.53	162.57	2,782.01	2.87	-2,665.88	795.56
14,857.0	12,337.40	89.20	163.70	2,876.96	2.12	-2,756.75	823.11
14,951.0	12,337.40	90.80	165.16	2,970.94	2.30	-2,847.30	848.34
15,046.0	12,334.28	92.96	166.94	3,065.81	2.95	-2,939.44	871.23
15,140.0	12,330.94	91.11	166.91	3,159.60	1.97	-3,030.94	892.48
15,235.0	12,328.90	91.36	166.03	3,254.46	0.96	-3,123.28	914.70
15,330.0	12,326.19	91.91	166.68	3,349.32	0.90	-3,215.56	937.10
15,424.0	12,325.13	89.38	165.52	3,443.23	2.96	-3,306.79	959.68
15,519.0	12,324.84	90.97	165.17	3,538.18	1.71	-3,398.70	983.71

#### 04/17/2017

Rig Name: Blue Quail Rig 13  
Depth = 16,585.0 Progress = 948.0

06:00 ROT DRILL F/ 15,637'- T/ 15,827'; 190' @ 47.5 FT/HR; WOB: 27/30; GPM: 270; RPM: 80/105; SPP: 6,700; DIFF: 400/600; MMRPM: 95; TRQ ON BTM: 9K/10K FT/LBS; TRQ OFF BTM: 5.5K FT/LBS; PU: 220; ROT: 191 SO: 160; AVG BACKGROUND GAS: 350 UNITS;

10:00 ROT DRILL F/ 15,827'- T/ 16,017'; 190' @ 47.5 FT/HR; WOB: 27/30; GPM: 270; RPM: 80/105; SPP: 6,700; DIFF: 400/600; MMRPM: 95; TRQ ON BTM: 9K/10K FT/LBS; TRQ OFF BTM: 5.5K FT/LBS; PU: 220; ROT: 191 SO: 158; AVG BACKGROUND GAS: 350 UNITS;

14:00 ROT DRILL F/ 16,017'- T/ 16,111'; 94' @ 47 FT/HR; WOB: 27/30; GPM: 270; RPM: 80/105; SPP: 6,700; DIFF: 400/600; MMRPM: 95; TRQ ON BTM: 9K/10K FT/LBS; TRQ OFF BTM: 5.5K FT/LBS; PU: 220; ROT: 191 SO: 158; AVG BACKGROUND GAS: 350 UNITS;

16:00 RIG AND TDS SERVICE; OBTAIN SPR'S;  
MW: 13.3  
#1 PUMP: 30 SPM= 1090 PSI, 40 SPM= 1400 PSI, 50 SPM= 1890 PSI  
#2 PUMP: 40 SPM= 1060 PSI, 40 SPM= 1380 PSI, 50 SPM= 1860 PSI

16:30 ROT DRILL F/ 16,111'- T/ 16,206'; 95' @ 63.3 FT/HR; WOB: 27/30; GPM: 270; RPM: 80/105; SPP: 6,700; DIFF: 400/600; MMRPM: 95; TRQ ON BTM: 9K/10K FT/LBS; TRQ OFF BTM: 5.5K FT/LBS; PU: 220; ROT: 191 SO: 158; AVG BACKGROUND GAS: 350 UNITS;

18:00 ROT DRILL F/ 16,206'- T/ 16,328'; 122' @ 30.5 FT/HR; WOB: 26; GPM: 280; RPM: 80/105; SPP: 6,600; DIFF: 400/600; MMRPM: 95; TRQ ON BTM: 7K/10K FT/LBS; TRQ OFF BTM: 3K FT/LBS; PU: 215; ROT: 192 SO: 160; AVG BACKGROUND GAS: 250 UNITS;

22:00 ROT DRILL F/ 16,328'- T/ 16,464'; 136' @ 34 FT/HR; WOB: 27/30; GPM: 270; RPM: 80/105; SPP: 6,700; DIFF: 400/600; MMRPM: 95; TRQ ON BTM: 7K/10K FT/LBS; TRQ OFF BTM: 3K FT/LBS; PU: 220; ROT: 191 SO: 158; AVG BACKGROUND GAS: 250 UNITS;

02:00 ROT DRILL F/ 16,464'- T/ 16,585'; 121' @ 30.3 FT/HR; WOB: 27/30; GPM: 280; RPM: 80/105; SPP: 6,600; DIFF: 400; MMRPM: 98; TRQ ON BTM: 9K/10K FT/LBS; TRQ OFF BTM: 5.5K FT/LBS; PU: 215; ROT: 192 SO: 160; AVG BACKGROUND GAS: 250 UNITS;

Vis (s/qt): 61, Dens (lb/gal): 13.30, pH: 0.0

MD (ft)	TVD (ft)	Incl (°)	Azi (°)	VS (ft)	DLS (°/100ft)	N/S (ft)	E/W (ft)
15,614.0	12,322.96	91.30	164.56	3,633.15	0.73	-3,490.38	1,008.51
15,709.0	12,322.70	89.01	164.27	3,728.13	2.43	-3,581.88	1,034.03
15,804.0	12,323.16	90.43	163.43	3,823.13	1.74	-3,673.13	1,060.46
15,899.0	12,324.39	88.09	160.38	3,918.05	4.05	-3,763.41	1,089.95
15,994.0	12,326.02	89.94	160.98	4,012.90	2.05	-3,853.04	1,121.38
16,089.0	12,323.10	93.58	165.37	4,107.81	6.00	-3,943.89	1,148.85
16,183.0	12,319.61	90.68	164.46	4,201.72	3.23	-4,034.58	1,173.30
16,278.0	12,316.49	93.08	167.02	4,296.59	3.69	-4,126.59	1,196.68
16,373.0	12,312.62	91.60	165.22	4,391.42	2.45	-4,218.73	1,219.45
16,468.0	12,310.63	90.80	162.63	4,486.39	2.85	-4,309.99	1,245.75

#### 04/18/2017

Rig Name: Blue Quail Rig 13

Depth = 17,312.0 Progress = 727.0

06:00 ROT DRILL F/ 16,585'- T/ 16,747'; 162' @ 40.5 FT/HR; WOB: 27/30; GPM: 280; RPM: 80/105; SPP: 6,600; DIFF: 400; MMRPM: 98; TRQ ON BTM: 9K/10K FT/LBS; TRQ OFF BTM: 5.5K FT/LBS; PU: 212; ROT: 189 SO: 189; AVG BACKGROUND GAS: 250 UNITS;

10:00 ROT DRILL F/ 16,747'- T/ 16,911'; 164' @ 41 FT/HR; WOB: 27/30; GPM: 280; RPM: 80/105; SPP: 6,600; DIFF: 400; MMRPM: 98; TRQ ON BTM: 9K/10K FT/LBS; TRQ OFF BTM: 5.5K FT/LBS; PU: 212; ROT: 189 SO: 189; AVG BACKGROUND GAS: 250 UNITS;

14:00 ROT DRILL F/ 16,911'- T/ 16,963'; 52' @ 35 FT/HR; WOB: 27/30; GPM: 280; RPM: 80/105; SPP: 6,600; DIFF: 400; MMRPM: 98; TRQ ON BTM: 9K/10K FT/LBS; TRQ OFF BTM: 5.5K FT/LBS; PU: 212; ROT: 189 SO: 139; AVG BACKGROUND GAS: 250 UNITS;  
NOTE: 1 PUMP DOWN WITH WASHED VALVE AND SEAT, DRILLING WITH 1 PUMP.

15:30 RE LOG F/16,858'- T/16,963'. DUE TO POOR DETECTION WHILE DRILLING WITH 1 PUMP. (PUMP #2 REPAIRED AND BACK ON HOLE)

16:30 SERVICE RIG AND TDS, OBTAIN SPR'S  
MW: 13.3 PPG  
#1 PUMP: 30 SPM= 1100 PSI, 40 SPM= 1450 PSI, 50 SPM= 1980 PSI  
#2 PUMP: 30 SPM= 1100 PSI, 40 SPM= 1500 PSI, 50 SPM= 2000 PSI

17:00 ROT DRILL F/ 16,963'- T/ 17,143'; 180' @ 36 FT/HR; WOB: 27/30; GPM: 280; RPM: 80/105; SPP: 6,600; DIFF: 400; MMRPM: 98; TRQ ON BTM: 9K/10K FT/LBS; TRQ OFF BTM: 5.5K FT/LBS; PU: 215; ROT: 190 SO: 140; AVG BACKGROUND GAS: 250 UNITS;

22:00 ROT DRILL F/ 17,143'- T/ 17,226'; 83' @ 20.8 FT/HR; WOB: 20/25; GPM: 282; RPM: 80/105; SPP: 6,700; DIFF: 350; MMRPM: 99; TRQ ON BTM: 8K/10K FT/LBS; TRQ OFF BTM: 4/5.5K FT/LBS; PU: 215; ROT: 190 SO: 140; AVG

BACKGROUND GAS: 220 UNITS;  
02:00 ROT DRILL F/ 17,226'- T/ 17,312'; 86' @ 21.5 FT/HR; WOB: 20/34; GPM:  
260/300; RPM: 80/105; SPP: 5,800/7K; DIFF: 350/450; MMRPM: 98; TRQ ON  
BTM: 9K/10K FT/LBS; TRQ OFF BTM: 5.5K FT/LBS; PU: 215; ROT: 190 SO:  
140; AVG BACKGROUND GAS: 220 UNITS;  
Vis (s/qt): 64, Dens (lb/gal): 13.30, pH: 0.0

MD (ft)	TVD (ft)	Incl (°)	Azi (°)	VS (ft)	DLS (°/100ft)	N/S (ft)	E/W (ft)
16,563.0	12,309.75	90.26	162.00	4,581.36	0.87	-4,400.49	1,274.61
16,657.0	12,308.83	90.86	162.81	4,675.33	1.07	-4,490.09	1,303.02
16,752.0	12,307.45	90.80	163.24	4,770.31	0.46	-4,580.94	1,330.75
16,847.0	12,305.72	91.29	162.96	4,865.29	0.59	-4,671.82	1,358.37
16,942.0	12,303.85	90.97	161.64	4,960.24	1.43	-4,762.31	1,387.24
17,036.0	12,301.84	91.48	161.60	5,054.16	0.54	-4,851.49	1,416.88
17,131.0	12,299.23	91.66	162.20	5,149.07	0.66	-4,941.75	1,446.38
17,226.0	12,297.04	90.99	162.10	5,244.01	0.71	-5,032.16	1,475.49

#### 04/19/2017

Rig Name: Blue Quail Rig 13

Depth = 18,034.0 Progress = 722.0

06:00 ROT DRILL F/ 17,312'- T/ 17,397'; 85' @ 22 FT/HR; WOB: 20/34; GPM:  
260/300; RPM: 80/105; SPP: 5,800/7K; DIFF: 350/450; MMRPM: 98; TRQ ON  
BTM: 9K/10K FT/LBS; TRQ OFF BTM: 5.5K FT/LBS; PU: 215; ROT: 190 SO:  
140; AVG BACKGROUND GAS: 355 UNITS; PUMP 15BBL SWEEP WITH 15#PR  
GAL.GRAPHITE & 5#PR BBL BEADS EVERY STAND

10:00 ROT DRILL F/ 17,397'- T/ 17,537'; 140' @ 35 FT/HR; WOB: 20/34; GPM:  
260/300; RPM: 80/105; SPP: 5,800/7K; DIFF: 350/450; MMRPM: 98; TRQ ON  
BTM: 9K/10K FT/LBS; TRQ OFF BTM: 5.5K FT/LBS; PU: 215; ROT: 190 SO:  
140; AVG BACKGROUND GAS: 355 UNITS;PUMP 15BBL SWEEP WITH 15#PR  
GAL.GRAPHITE & 5#PR BBL BEADS EVERY STAND

14:00 ROT DRILL F/ 17,537'- T/ 17,669'; 132' @ 33 FT/HR; WOB: 20/34; GPM:  
260/300; RPM: 80/105; SPP: 5,800/7K; DIFF: 350/450; MMRPM: 98; TRQ ON  
BTM: 9K/10K FT/LBS; TRQ OFF BTM: 5.5K FT/LBS; PU: 215; ROT: 190 SO:  
140; AVG BACKGROUND GAS: 420 UNITS;PUMP 15BBL SWEEP WITH 15#PR  
GAL.GRAPHITE & 5#PR BBL BEADS EVERY STAND

18:00 ROT DRILL F/ 17,669'- T/ 17,817'; 148' @ 37 FT/HR; WOB: 20/34; GPM:  
260/300; RPM: 80/105; SPP: 6,350/7K; DIFF: 350/450; MMRPM: 98; TRQ ON  
BTM: 9K/11K FT/LBS; TRQ OFF BTM: 4/5.5K FT/LBS; PU: 215; ROT: 190 SO:  
120; AVG BACKGROUND GAS: 220 UNITS;PUMP 15BBL SWEEP WITH 15#PR  
GAL.GRAPHITE & 5#PR BBL BEADS EVERY STAND

22:00 ROT DRILL F/ 17,817'- T/ 17,924'; 107' @ 26.8 FT/HR; WOB: 18/34; GPM:  
260/300; RPM: 80/105; SPP: 6,350/7K; DIFF: 350/450; MMRPM: 98; TRQ ON  
BTM: 9K/11K FT/LBS; TRQ OFF BTM: 4/5.5K FT/LBS; PU: 215; ROT: 190 SO:  
140; AVG BACKGROUND GAS: 230 UNITS;PUMP 15BBL SWEEP WITH 15#PR  
GAL.GRAPHITE & 5#PR BBL BEADS EVERY STAND

02:00 ROT DRILL F/ 17,924'- T/ 18,034'; 110' @ 27.5 FT/HR; WOB: 20/34; GPM:  
260/300; RPM: 80/105; SPP: 5,800/7K; DIFF: 350/450; MMRPM: 98; TRQ ON  
BTM: 9K/10K FT/LBS; TRQ OFF BTM: 5.5K FT/LBS; PU: 220; ROT: 190 SO:  
140; AVG BACKGROUND GAS: 210 UNITS;PUMP 15BBL SWEEP WITH 15#PR  
GAL.GRAPHITE & 5#PR BBL BEADS EVERY STAND

Vis (s/qt): 61, Dens (lb/gal): 13.20, pH: 0.0

MD (ft)	TVD (ft)	Incl (°)	Azi (°)	VS (ft)	DLS (°/100ft)	N/S (ft)	E/W (ft)
17,321.0	12,294.43	92.16	162.92	5,338.95	1.50	-5,122.73	1,504.03
17,415.0	12,293.52	88.95	164.20	5,432.93	3.68	-5,212.87	1,530.63
17,510.0	12,295.48	88.68	164.11	5,527.91	0.30	-5,304.24	1,556.56
17,605.0	12,297.49	88.89	163.62	5,622.89	0.56	-5,395.47	1,582.96
17,699.0	12,297.59	90.99	164.93	5,716.87	2.63	-5,485.95	1,608.43
17,794.0	12,296.67	90.12	164.16	5,811.86	1.22	-5,577.51	1,633.74
17,889.0	12,297.09	89.38	163.23	5,906.86	1.25	-5,668.69	1,660.42
17,984.0	12,297.50	90.12	163.65	6,001.85	0.90	-5,759.74	1,687.49

#### 04/20/2017

Rig Name: Blue Quail Rig 13

Depth = 18,618.0 Progress = 584.0

06:00 ROT DRILL F/ 18,034'- T/ 18,176'; 142' @ 35.5 FT/HR; WOB: 20/34; GPM:  
260/300; RPM: 80/105; SPP: 6,500/7K; DIFF: 350/650; MMRPM: 98; TRQ ON  
BTM: 9K/11K FT/LBS; TRQ OFF BTM: 6K FT/LBS; PU: 225; ROT: 190 SO: 105;  
AVG BACKGROUND GAS: 200 UNITS;PUMP 5BBL SWEEP WITH 15#PR  
BBL.GRAPHITE & 5#PR BBL BEADS EVERY JOINT.

10:00 ROT DRILL F/ 18,176'- T/ 18,292'; 116' @ 46.4 FT/HR; WOB: 20/34; GPM:  
260/300; RPM: 80/105; SPP: 5,800/7K; DIFF: 350/450; MMRPM: 98; TRQ ON  
BTM: 9K/10K FT/LBS; TRQ OFF BTM: 5.5K FT/LBS; PU: 220; ROT: 190 SO:  
140; AVG BACKGROUND GAS: 210 UNITS;PUMP 5BBL SWEEP WITH 15#PR  
BBL.GRAPHITE & 5#PR BBL BEADS EVERY JOINT.

12:30 SERVICE RIG TOP DRIVE & BLOCKS; SPR @ 18,292' MWT:13.3 PPG; MP#1:

30/1300; 40/1650; 50/2100; MP#2: 30/1350; 40/1660; 50/2150 PSI  
13:00 ROT DRILL F/ 18,176'- T/ 18,371'; 195' @ 65 FT/HR; WOB: 20/34; GPM: 260/300; RPM: 80/110; SPP: 5,800/7K; DIFF: 350/450; MMRPM: 98; TRQ ON BTM: 9K/11K FT/LBS; TRQ OFF BTM: 6K FT/LBS; PU: 225; ROT: 190 SO: 105; AVG BACKGROUND GAS: 210 UNITS;PUMP 5BBL SWEEP WITH 15#PR BBL.GRAPHITE & 5#PR BBL BEADS EVERY JOINT.  
16:00 ROT DRILL F/ 18,371'- T/ 18,415'; 44' @ 22 FT/HR; WOB: 20/34; GPM: 260/300; RPM: 80/105; SPP: 6,200/7K; DIFF: 350/450; MMRPM: 98; TRQ ON BTM: 9K/11K FT/LBS; TRQ OFF BTM: 6K FT/LBS; PU: 225; ROT: 190 SO: 105; AVG BACKGROUND GAS: 210 UNITS;PUMP 5BBL SWEEP WITH 15#PR BBL.GRAPHITE & 5#PR BBL BEADS EVERY JOINT.  
18:00 ROT DRILL F/ 18,415'- T/ 18,514'; 99' @ 24.75 FT/HR; WOB: 20/34; GPM: 260/300; RPM: 80/105; SPP: 6,200/7K; DIFF: 350/450; MMRPM: 98; TRQ ON BTM: 9K/11K FT/LBS; TRQ OFF BTM: 6K FT/LBS; PU: 228; ROT: 193 SO: 110; AVG BACKGROUND GAS: 210 UNITS;PUMP 5BBL SWEEP WITH 15#PR BBL.GRAPHITE & 5#PR BBL BEADS EVERY JOINT.  
22:00 ROT DRILL F/ 18,514'- T/ 18,590'; 76' @ 19 FT/HR; WOB: 20/34; GPM: 260/300; RPM: 80/105; SPP: 6,200/7K; DIFF: 350/450; MMRPM: 98; TRQ ON BTM: 9K/11K FT/LBS; TRQ OFF BTM: 6K FT/LBS; PU: 228; ROT: 193 SO: 110; AVG BACKGROUND GAS: 210 UNITS;PUMP 5BBL SWEEP WITH 15#PR BBL.GRAPHITE & 5#PR BBL BEADS EVERY JOINT.  
02:00 ROT DRILL F/ 18,590'- T/ 18,618'; 28' @ 14 FT/HR; WOB: 20/34; GPM: 260; RPM: 80/110; SPP: 6,200/7K; DIFF: 250/450; MMRPM: 98; TRQ ON BTM: 9K/11K FT/LBS; TRQ OFF BTM: 6K FT/LBS; PU: 228; ROT: 193 SO: 115; AVG BACKGROUND GAS: 210 UNITS;PUMP 5BBL SWEEP WITH 15#PR BBL.GRAPHITE & 5#PR BBL BEADS EVERY JOINT.  
04:00 CIRCULATE & CONDITION HOLE USING K&M PRACTICE; GPM 246; RPM 80; RECIPROCATING PIPE; RACKING BACK A STAND PER BOTTOMS UP;

Vis (s/qt): 62, Dens (lb/gal): 13.30, pH: 0.0

MD (ft)	TVD (ft)	Incl (°)	Azi (°)	VS (ft)	DLS (°/100ft)	N/S (ft)	E/W (ft)
18,079.0	12,297.97	89.32	162.70	6,096.85	1.31	-5,850.67	1,714.99
18,174.0	12,297.21	91.59	162.88	6,191.82	2.40	-5,941.41	1,743.09
18,269.0	12,294.67	91.48	163.90	6,286.79	1.08	-6,032.41	1,770.24
18,364.0	12,289.71	94.50	165.05	6,381.64	3.40	-6,123.81	1,795.63
18,459.0	12,286.70	89.14	163.58	6,476.55	5.85	-6,215.19	1,821.29
18,554.0	12,285.65	92.12	163.58	6,571.53	3.14	-6,306.30	1,848.14

#### 04/21/2017

Rig Name: Blue Quail Rig 13

Depth = 19,170.0 Progress = 552.0

06:00 CIRC. & CLEAN HOLE DISCUSSING WITH MANAGEMENT & DIRECTIONAL TEAM ABOUT MOVING FORWARD,  
08:00 ROT DRILL F/ 18,618'- T/ 18,726'; 108' @ 27 FT/HR; WOB: 20/26; GPM: 270; RPM: 80/110; SPP: 6,200/7K; DIFF: 250/450; MMRPM: 95; TRQ ON BTM: 11K FT/LBS; TRQ OFF BTM: 7K FT/LBS; PU: 225; ROT: 191 SO: 105; AVG BACKGROUND GAS: 220 UNITS;PUMP 5BBL SWEEP WITH 15#PR BBL.GRAPHITE & 5#PR BBL BEADS EVERY JOINT.  
12:00 ROT DRILL F/ 18,726'- T/ 18,766'; 40' @ 26.6 FT/HR; WOB: 20/34; GPM: 265; RPM: 80/110; SPP: 6,200/7K; DIFF: 250/450; MMRPM: 93; TRQ ON BTM: 9K/11K FT/LBS; TRQ OFF BTM: 6K FT/LBS; PU: 228; ROT: 193 SO: 115; AVG BACKGROUND GAS: 220 UNITS;PUMP 5BBL SWEEP WITH 15#PR BBL.GRAPHITE & 5#PR BBL BEADS EVERY JOINT.  
13:30 RIG SERVICE & CHECK CROWN O MATIC  
14:00 ROT DRILL F/ 18,766'- T/ 18,900'; 134' @ 33.5 FT/HR; WOB: 20/34; GPM: 265; RPM: 80/110; SPP: 6,200/7K; DIFF: 250/450; MMRPM: 93; TRQ ON BTM: 9K/11K FT/LBS; TRQ OFF BTM: 6K FT/LBS; PU: 225; ROT: 191 SO: 105; AVG BACKGROUND GAS: 220 UNITS;PUMP 5BBL SWEEP WITH 15#PR BBL.GRAPHITE & 5#PR BBL BEADS EVERY JOINT.  
18:00 ROT DRILL F/ 18,900'- T/ 19,000'; 100' @ 25 FT/HR; WOB: 20/34; GPM: 265; RPM: 90/110; SPP: 6,200/7K; DIFF: 250/450; MMRPM: 93; TRQ ON BTM: 9K/11K FT/LBS; TRQ OFF BTM: 6K FT/LBS; PU: 228; ROT: 193 SO: 115; AVG BACKGROUND GAS: 220 UNITS;PUMP 5BBL SWEEP WITH 15#PR BBL.GRAPHITE & 5#PR BBL BEADS EVERY JOINT.  
22:00 ROT DRILL F/ 19,000'- T/ 19,080'; 80' @ 20 FT/HR; WOB: 20/34; GPM: 265; RPM: 90/110; SPP: 6,200/7K; DIFF: 250/450; MMRPM: 93; TRQ ON BTM: 9K/11K FT/LBS; TRQ OFF BTM: 6K FT/LBS; PU: 228; ROT: 193 SO: 115; AVG BACKGROUND GAS: 220 UNITS;PUMP 5BBL SWEEP WITH 15#PR BBL.GRAPHITE & 5#PR BBL BEADS EVERY JOINT.  
02:00 ROT DRILL F/ 19,080'- T/ 19,170'; 90' @ 22.5 FT/HR; WOB: 20/34; GPM: 265; RPM: 90/110; SPP: 6,200/7K; DIFF: 250/450; MMRPM: 93; TRQ ON BTM: 9K/11K FT/LBS; TRQ OFF BTM: 6K FT/LBS; PU: 228; ROT: 193 SO: 115; AVG BACKGROUND GAS: 220 UNITS;PUMP 5BBL SWEEP WITH 15#PR BBL.GRAPHITE & 5#PR BBL BEADS EVERY JOINT.

Vis (s/qt): 60, Dens (lb/gal): 13.30, pH: 0.0

MD (ft)	TVD (ft)	Incl (°)	Azi (°)	VS (ft)	DLS (°/100ft)	N/S (ft)	E/W (ft)

18,648.0	12,282.60	91.60	162.30	6,665.47	1.47	-6,396.11	1,875.70
18,743.0	12,281.48	89.75	161.33	6,760.41	2.20	-6,486.36	1,905.35
18,838.0	12,280.10	91.91	161.98	6,855.33	2.37	-6,576.51	1,935.24
18,932.0	12,274.24	95.25	163.86	6,949.12	4.08	-6,666.18	1,962.80
19,027.0	12,267.13	93.33	163.34	7,043.85	2.09	-6,757.05	1,989.54
19,122.0	12,262.99	91.67	164.46	7,138.75	2.11	-6,848.23	2,015.86

#### 04/22/2017

Rig Name: Blue Quail Rig 13

Depth = 19,476.0 Progress = 306.0

06:00 ROT DRILL F/ 19,170'- T/ 19,240'; 70' @ 35 FT/HR; WOB: 20/34; GPM: 265; RPM: 90/110; SPP: 6,200/7K; DIFF: 250/450; MMRPM: 93; TRQ ON BTM: 9K/11K FT/LBS; TRQ OFF BTM: 6K FT/LBS; PU: 228; ROT: 193 SO: 115; AVG BACKGROUND GAS: 175 UNITS;PUMP 5BBL SWEEP WITH 15#PR BBL.GRAPHITE & 5#PR BBL BEADS EVERY JOINT.

08:00 SEND DOWN LINKS TO RSS TOOL

09:00 ROT DRILL F/ 19,240'- T/ 19,320'; 80' @ 20 FT/HR; WOB: 20/34; GPM: 265; RPM: 50/115; SPP: 6,200/7K; DIFF: 250/550; MMRPM: 93; TRQ ON BTM: 9K/11K FT/LBS; TRQ OFF BTM: 6K FT/LBS; PU: 229; ROT: 191 SO: 115; AVG BACKGROUND GAS: 105 UNITS;PUMP 5BBL SWEEP WITH 15#PR BBL.GRAPHITE & 5#PR BBL BEADS EVERY JOINT; SET AUTO PILOT F/91.5° T/89°FOR BETTER ROP.

13:00 ROT DRILL F/ 19,320'- T/ 19,335'; 15' @ 15 FT/HR; WOB: 20/34; GPM: 265; RPM: 50/115; SPP: 6,200/7K; DIFF: 250/550; MMRPM: 93; TRQ ON BTM: 9K/11K FT/LBS; TRQ OFF BTM: 6K FT/LBS; PU: 229; ROT: 191 SO: 115; AVG BACKGROUND GAS: 105 UNITS;PUMP 5BBL SWEEP WITH 15#PR BBL.GRAPHITE & 5#PR BBL BEADS EVERY JOINT;

14:00 SERVICE RIG: TOP DRIVE; BLOCKS; CHECK COM

14:30 ROT DRILL F/ 19,335'- T/ 19,406'; 71' @ 20.3 FT/HR; WOB: 20/34; GPM: 265; RPM: 50/115; SPP: 6,200/7K; DIFF: 250/550; MMRPM: 93; TRQ ON BTM: 9K/11K FT/LBS; TRQ OFF BTM: 6K FT/LBS; PU: 229; ROT: 191 SO: 115; AVG BACKGROUND GAS: 105 UNITS;PUMP 5BBL SWEEP WITH 15#PR BBL.GRAPHITE & 5#PR BBL BEADS EVERY JOINT;

18:00 ROT DRILL F/ 19,406'- T/ 19,476' TD WELL; 70' @ 15.3 FT/HR; WOB: 20/34; GPM: 265; RPM: 50/115; SPP: 6,200/7K; DIFF: 250/550; MMRPM: 93; TRQ ON BTM: 9K/11K FT/LBS; TRQ OFF BTM: 6K FT/LBS; PU: 229; ROT: 191 SO: 115; AVG BACKGROUND GAS: 105 UNITS;PUMP 5BBL SWEEP WITH 15#PR BBL.GRAPHITE & 5#PR BBL BEADS EVERY JOINT;

22:30 CIRCULATE & CONDITION HOLE USING K&M PRACTICES; RACKING BACK 1 STAND PER BOTTOMS UP; 1ST SWEEP 40% SCREEN COVERAGE; 2ND SWEEP 30% SCREEN COVERAGE; 3RD SWEEP 20% SCREEN COVERAGE; 4TH SWEEP 10% SCREEN COVERAGE; 5TH SWEEP 0% SCREEN COVERAGE;

05:30 PUMP OUT 5 STDs

Vis (s/qt): 61, Dens (lb/gal): 13.30, pH: 0.0

MD (ft)	TVD (ft)	Incl (°)	Azi (°)	VS (ft)	DLS (°/100ft)	N/S (ft)	E/W (ft)
19,217.0	12,259.71	92.28	167.26	7,233.62	3.01	-6,940.29	2,039.05
19,312.0	12,255.11	93.27	167.66	7,328.30	1.12	-7,032.91	2,059.65
19,407.0	12,250.82	91.91	164.94	7,423.10	3.20	-7,125.11	2,082.13
19,453.0	12,249.83	90.55	164.00	7,469.08	3.59	-7,169.41	2,094.44
19,476.0	12,249.62	90.55	164.00	7,491.08	0.00	-7,190.56	2,100.51

#### 04/23/2017

Rig Name: Blue Quail Rig 13

Depth = 19,476.0 Progress = 0.0

06:00 CIRC. SPOTTING 60BBLs. 16.3# PER BBL PILL ABOVE CURVE; CHECK FLOW; WELL IS STATIC, PUMP 30BBL 16.3# TO SLUG PIPE

08:30 TOO H F/18,513' T/16,967'; PULLED INTO TIGHT SPOT @ 18,357' PULLED 30K OVER PICK UP WT. PICKED UP 1 JT. & WORKED PIPE FREE WENT DOWN T/18,381'CIRC. 30 MIN. @ 200GPM & 50RPM TRIED PULLING BACK THROUGH TIGHT SPOT STILL THERE WORK BACK FREE CALLED MANAGEMENT DISCUSSED BACK REAMING, SAID TO TRY PERIODICALLY TO TOO H WITH ELEVATORS BACK REAMED F/18,357' T/17160' PULL 2 STANDS WITH ELEVATORS WITH 10-15K DRAG 3RD STD PULLED 30K @ 16,906' WENT BACK THROUGH TIGHT SPOT T/16,967'

13:45 CIRC. & CONDITION HOLE

14:15 BACK REAMING F/16,967' T/15735'; 78 SPM, 200GPM & 50RPM

16:30 TOO H WITH ELEVATORS F/15,735' T/12,897' STRAP OUT OF HOLE & PULLING 70' PER MIN.HOLE TAKING PROPER FILL.

19:00 CIRCULATE BOTTOMS UP @ EOC; SPOT 60 BBLs PILL; PUMP 30 BBLs SLUG; HOLE STATIC

20:30 TOO H WITH ELEVATORS F/12,897' T/11,965' STRAP OUT OF HOLE & PULLING 70' PER MIN; HOLE TAKING PROPER FILL.

21:30 SLIP & CUT 90' DRILLING LINE

23:30 REMOVE ROTATING HEAD & INSTALL TRIP NIPPLE

00:00 TOO H WITH ELEVATORS F/11,965' T/2,400' STRAP OUT OF HOLE & PULLING

100' PER MIN; HOLE TAKING PROPER FILL; PERFORMED TORQUE TEST @  
11,467 20 RPM 1400 40 RPM 1400 60 RPM 1500 80 RPM 1500

Vis (s/qt): 64, Dens (lb/gal): 13.30, pH: 0.0

#### 04/24/2017

Rig Name: Blue Quail Rig 13

Depth = 19,476.0 Progress = 0.0

06:00 TOO H F/2400' T/BHA;  
07:30 L/D RSS ASSEMBLY; SEND DOWN BIT;R/DOWN W/F SURFACE EQUIPMENT,  
10:00 CLEAN RIG FLOOR;  
10:30 PULL WEAR BUSHING;  
11:00 PJSM W/BYRD CASING CREW;BAKER;SCHLUMBERGER & THREAD REP;& RIG  
UP CASING RUNNING EQUIPMENT.  
12:00 MAKE UP SHOE TRACK AS FOLLOWED FLOAT SHOE,1-JT CASING,FLOAT  
COLLAR,LANDING COLLAR,2-JT CASING, KICKSTART SLEEVE; WHILE MAKING  
UP SHOE TRACK CASING POWER TONGS LOST THERE GRIP GAULDING CASING  
HAD TO LAY OUT #4 JT REPLACED WITH #171;FINISHED MAKING UP SHOE  
TRACK & PUMPED THROUGH FLOATS (GOOD)  
13:30 RUN 6JTS 4.5" 13.5# HPC-110 WEDGE 563CASING F/197' T/429'; FILL PIPE  
EVERY 15 JTS  
14:00 TROUBLE SHOOT TRQ. TURN REMOTE & BACK OUT JT#10; CHANGED OUT  
LOAD CELL ON CASING TONGS  
14:30 RUN 12 JTS. 4.5"13.5# HPC-110 WEDGE 563 CASING F/429' T/1006' FILL PIPE  
EVERY 15 JTS  
15:30 TROUBLE SHOOT TRQ. TURN REMOTE & CHANGE OUT LOAD CELL ON CASING  
TONGS  
16:00 RUN 149 JTS. 4.5"13.5# HPC-110 WEDGE 563 CASING F/1,006' T/8,016'; FILL  
PIPE EVERY 15 JTS  
22:30 PICK UP LINER HANGER & RIG DOWN CASING CREW & TORQUE TURN;  
00:00 CIRCULATE BOTTOMS UP TO CIRCULATE OUT HEAVY WEIGHT PILL;  
01:00 TIH W/DP RUNNING LINER F/8,016' T/9,335'; FILL PIPE EVERY 15 JTS  
02:00 WAITING ON ELECTRICIAN REPAIR COMMUNICATIONS WITH E-STOP ON DRAW  
WORKS; (FOUND LOOSE & BAD WIRING)  
04:30 TIH W/DP RUNNING LINER F/9,335' T/11,179'; FILL PIPE EVERY 15 JTS  
Vis (s/qt): 70, Dens (lb/gal): 13.40, pH: 0.0

#### 04/25/2017

Rig Name: Blue Quail Rig 13

Depth = 19,476.0 Progress = 0.0

06:00 TIH W/DP RUNNING LINER F/11,179' T/11,938'; FILL PIPE EVERY 10 STDs  
06:30 REMOVE TRIP NIPPLE & INSTALL ROTATING HEAD  
07:00 CIRC. WEIGHTED PILL OUT OF HOLE & RECORD P/UP & S/O WT'S & TRQ  
W/BAKER TECH FLARE @ 11938' 2/5' F/10 MIN.;  
08:30 TIH W/DP RUNNING LINER F/11,938' T/19,383'; FILL PIPE EVERY 10 STDs;  
PRE RIG MOVE MEETING W/LIGHTENING TRUCKING WILL HAVE 9 HAUL  
TRUCKS, 2 CRANES, 2 FORKLIFTS,2 TANDEM, 1 SAFETY MAN WORKING BOTH  
SIDES & 2 SUPERVISORS.  
15:00 CIRC. GAS OUT OF HOLE @ 4 BPM @ 19,383'; WASHED 1 STAND TO BOTTOM  
F/19383'T/19,476')SET TOTAL CASING 170 JTS OF HCP-110, 13.5 PPF, WEDGE  
563, 4 1/2" CASING AS FOLLOWS, SHOE JT @ 19,466',FC @19,414; LC @  
19,412;KCK START @ 19,315 THEN 7 JTS OF CSG, 1ST MRKR JT @ 18,969',  
THEN 60 JTS OF CSG, THEN 2ND MRKR JT @ 16,165', THEN 99 JTS OF CSG,  
THEN 3RD MRKR JT @ 11,554', THEN 1 JT OF CSG, THEN LINER HANGER @  
11,460'; CENTRALIZERS THROUGH CURVE. HALLIBURTON WAS SET UP FOR  
19:00 HRS; EXPECTED ARRIVAL TIME IS 03:00. FLARE @ 19450'-15/20' F/1.5  
HRS.  
19:00 CIRCULATE @ 5 BPM,1300 PSI, 100 TO 80 UNITS BACK GROUND GAS @  
19,476  
21:00 LAY DOWN 2 JOINTS OF DRILL PIPE; PU AND MU 10' PUP JT AND BAKER  
CEMENT HEAD; BAKER LINER HANGER TOOL REP. DROP 1.25 BALL;WAITED 30  
MIN FOR BALL DROP; PICK UP FREE TRAVEL WAS 283K SLACK OFF FREE  
TRAVEL 182K; PRESSURED UP ON BALL SEAT TO 1500 PSI SET HANGER W/  
86K WEIGHT ON IT; PRESSURED UP ON BALL - PASS THROUGH BALL SEAT @  
1900 PSI; DROPPED 1.5 BALL & WAIT ON BALL TO FALL; PASSED 1.5" BALL  
THROUGH BALL SEAT @ 1500 PSI & RELEASED FROM LINER; NEW WT AFTER  
RELEASE IS- 222 PU 215 SO; SET DOWN TO 160K & CIRCULATING;  
23:00 WAITING ON HALLIBURTON;  
Vis (s/qt): 72, Dens (lb/gal): 13.35, pH: 0.0

#### 04/26/2017

Rig Name: Blue Quail Rig 13

Depth = 19,476.0 Progress = 0.0

06:00 PJSM W/ HALLIBURTON, SCHLUMBERGER, BAKER HUGHES; H&P RIG MANAGER  
& CREW; H&J SUPERVISORS; DISCUSSED CEMENTING OPERATIONS IN  
DETAIL;  
07:00 R/U HALLIBURTON TO CEMENT HEAD, PRESSURE TEST LINES TO 8,500 PSI,  
CEMENT 4.5" LINER AS FOLLOWS: 50 BBLS OF 13.3 PPG TUNED SPACER III,

50 BBLS OF 14.0 PPG TUNED SPACER III, PUMPED 565 SX 123 BBLS  
VERSACEM<sup>®</sup> CMT, 1.223 CU FT/SK, 14.5 PPG, 5.56 GAL/SK MIX WATER,  
0.45% HR-601, 0.40% HALAD(R)-344: , MIXED AND PUMPED AT 5 BPM,  
DROPPED WIPER PLUG, DISPLACED W/ 20 BBLS MMCR, 81 BBLS FRESH  
WATER; 20 BBLS OF SUGAR WATER MIXED ON THE FLY, 30 BBLS OF 14.0 PPG  
TUNED SPACER III, 80 BBLS OF OBM FROM PITS, BUMPED PLUG .5 BBLS.  
OVER, FINAL RATE WAS 3 BPM @ 700 PSI, PRESSURED UP TO 1990 PSI, HELD  
FOR 5 MINUTE, OPEN LINE BLED BACK 1 BBLS FROM LINES, FLOATS HELD,  
WELL STATIC.

09:30 APPLIED WT. TO SHEAR PINS ON LINER HANGER; REVERSE CIRCULATE 115  
BBLS CEMENT & SPACER OUT OF HOLE; CIRCULATE HOLE CLEAN 7000 STKS.  
@ 4.8 BPM.  
12:00 WASH UP HALLIBURTON LINES; RIG DOWN HALLIBURTON & BAKERS HUGHES  
CEMENT HEAD; CHECK FLOW WELL STATIC;  
14:30 CLEAN OFF RIG FLOOR FOR L/D 4" DP  
15:00 PJSM W/RIG CREW TOOH STAND BACK 20 STDS F/11,460' T/9,608'  
16:00 L/D 4" DP F/9,608' T/6,568'  
18:00 SERVICE RIG  
18:30 LDDS F/6,568' T/SURFACE & LAY DOWN BAKER HUGHES TOOL  
01:00 CLEAN RIG FLOOR  
01:30 TIH F/SURFACE T/7,800;

#### **04/27/2017**

Rig Name: Blue Quail Rig 13

Depth = 19,476.0 Progress = 0.0

06:00 TIH F/7,800' T/11,450';  
08:00 CIRCULATE BOTTOMS UP; PERFORM PACK-OFF TEST 3000 PSI FOR 5 MIN  
(GOOD); DISPLACE OBM WITH 2% KCL WATER; PERFORM NEGATIVE TEST FOR  
30 MINUTES - GOOD;  
12:00 LDDS F/11,450' T/ 8,000'; (CLEANING PIT & HAULING OBM TO NEXT  
LOCATION) LIGHTNING TRUCKING MOVING TUBULAR & MISC. TO NEXT  
LOCATION;  
15:00 LDDS F/8,000' T/ SURFACE; (DRAIN GAS BUSTER, FLUSH KILL LINE & CHOKE  
LINE & MANIFOLD, CLEANING PITS, HAULING OBM TO NEXT LOCATION)  
22:30 RIG DOWN KATCH KAN, CLEAN STACK, PULL BIT GUIDE FROM WELLHEAD  
(COMPLETED CLEANING PITS & HAULING OBM TO NEXT LOCATION)  
01:30 NIPPLE DOWN FLOWLINE, CHOKE & KILL LINES, BOP STACK, & DRILLING  
ADAPTOR  
05:30 INSTALL TUBING HEAD

#### **04/28/2017**

Rig Name: Blue Quail Rig 13

Depth = 19,476.0 Progress = 0.0

06:00 INSTALL TUBING HEAD & TEST(GOOD) INSTALL FRAC VALVE; RELEASE RIG