

FORGE ENERGY OPERATING, LLC.
UL EMPIRE 18-15-16 WA1 1H
API Number: 42-475-38410

08/10/2022

Rig Name:
Depth = 0.0 Progress = 0.0
07:00 CLEAR PAD AND START LEVELING

08/11/2022

Rig Name:
Depth = 0.0 Progress = 0.0
07:00 FINISH WITH CLEARING PAD, START LEVELING, 5% COMPLETE

08/12/2022

Rig Name:
Depth = 0.0 Progress = 0.0
07:00

08/13/2022

Rig Name:
Depth = 0.0 Progress = 0.0
07:00

08/14/2022

Rig Name:
Depth = 0.0 Progress = 0.0
07:00

08/16/2022

Rig Name:
Depth = 0.0 Progress = 0.0
07:00 CONTINUE LEVELING PAD

08/17/2022

Rig Name:
Depth = 0.0 Progress = 0.0
07:00 CONTINUE RIPPING ROCK

08/18/2022

Rig Name:
Depth = 0.0 Progress = 0.0
07:00 CONTINUE RIPPING ROCK, WILL HAVE TRACKHOE TOMMORROW

08/19/2022

Rig Name:
Depth = 0.0 Progress = 0.0
07:00 CONTINUE RIPPING ROCK

08/20/2022

Rig Name:
Depth = 0.0 Progress = 0.0
07:00 BROUGHT IN TRACK HOLE AND HAMMER DRILL

08/21/2022

Rig Name:
Depth = 0.0 Progress = 0.0
07:00

08/23/2022

Rig Name:
Depth = 0.0 Progress = 0.0
07:00 CONTINUE LEVELING PAD, 1-D8 BROKE DOWN

08/24/2022

Rig Name:
Depth = 0.0 Progress = 0.0
07:00 PAD IS 80% LEVELED

08/25/2022

Rig Name:
Depth = 0.0 Progress = 0.0
07:00 PAD IS 90% LEVEL

08/26/2022

Rig Name:
Depth = 0.0 Proqress = 0.0

07:00 PAD IS 70% LEVELED

08/27/2022

Rig Name:

Depth = 0.0 Progress = 0.0

07:00 LEVELING COMPLETE, WATER AND ROLL LOCATION, PITS STARTED

08/28/2022

Rig Name:

Depth = 0.0 Progress = 0.0

07:00 PAD IS 80% LEVELED, PITS ARE 20% COMPLETE

08/29/2022

Rig Name:

Depth = 0.0 Progress = 0.0

07:00

08/30/2022

Rig Name:

Depth = 0.0 Progress = 0.0

07:00 CELLARS ARE SET, PITS ARE 50% COMPLETE

08/31/2022

Rig Name:

Depth = 0.0 Progress = 0.0

07:00 PITS CONSTRUCTION IS 80% COMPLETE, CELLARS INSTALLED, 2 CONDUCTORS SET

09/01/2022

Rig Name:

Depth = 0.0 Progress = 0.0

07:00

09/02/2022

Rig Name:

Depth = 0.0 Progress = 0.0

07:00

09/06/2022

Rig Name:

Depth = 0.0 Progress = 0.0

07:00 LAY 3" POLY PIPE TO LOCATION, HAUL BRINE TO PITS

09/07/2022

Rig Name:

Depth = 0.0 Progress = 0.0

07:00 HAULING BRINE, WORKING ON FRESH WATER GENERATOR

09/08/2022

Rig Name:

Depth = 0.0 Progress = 0.0

07:00 LOAD FRESH WATER PIT

09/17/2022

Rig Name: H&P 474

Depth = 0.0 Progress = 0.0

12:00 LOAD OUT PITS, FLOWLINE SKIDS, PUMPS, GEN SETS, MRC, VFD HOUSE, DRILL PIPE, & MISC LOADS TO UL EMPIRE PAD. RIG DOWN FLOOR, UNDRESS DERRICK, STOW SUBS & MISC ITEMS, WASH LOADS BEFORE TRANSPORT. CONTINUE TO RIG DOWN, LOWER MAST & LAY OVER, SQUAT SUBS, PULL MAST FOR CLEANING & TRANSPORT, CONTINUE CLEANING LOADS. RIG MOVERS SHUT DOWN @ 2000 HRS FOR HOURS.

20:00 SIMOPS: CONTINUE TO RIG DOWN AN CLEAN DERRICK, SUBS, RIG WATER TANK & WASH LOADS FOR TRANSPORT ON LYSSA PAD. MIRU ON EMPIRE PAD: RIG UP PITS, MUD PUMPS, PARTS HOUSE, MCC, SHAKERS, AND START ON GEN SET.

09/18/2022

Rig Name: H&P 474

Depth = 0.0 Progress = 0.0

06:00 CONTINUE MIRU: LOAD OUT SUBS AND WASH, SET PREMIX AND BULK SILOS, GEN SETS, SUBS, CENTER BEAM, POWER PACK, SET CYLINDERS, RAISE SUB, PIN CROWN SECTION TO LOWER, DRESS DERRICK AND DROPS INSPECTION COMPLETE, PJSM & RAISE DERRICK @ 2000 HRS, RIG UP FLOOR, SET V-DOOR & CATWALK, RIG UP SAME, SET CYLINDERS FOR SKID, SET FLOWLINE SKIDS & LINES, BOLT TOGETHER, SET BUSTER, CHOKE, & FLOWLINE TO SKIDS, RIG UP DIESEL LINES TO GEN SETS. RIG IS 100% MOVED.

00:00 GENERAL RIG UP OF ELECTRICAL LINES, FIBER LINES, WATER LINES, COMMUNICATION LINES, TOTCO, SET SKID PACKAGE & BLEED LINES, SET OUT AND MAKE UP RED IRON, ARMORED LINE TO CHOKE, SET FIRE EXT, CONTINUE RIG UP OF RIG FLOOR, SET TONGS & ST-80. START RIG GEN #1.

09/19/2022

Rig Name: H&P 474

Depth = 0.0 Progress = 0.0

06:00 RIG UP FLOOR FOR DRILLING OPERATIONS, MUD LINES, ELECTRICAL LINES, SKID RAILS, SPREADER BEAMS, SPOOL UP DRAWWORKS, SIMOPS: MECHANIC CHANGED OUT HPU PUMP AND ROT TABLE VALVE & TROUBLESHOOT TOPDRIVE FAULT (DID NOT HINDER RIG UP OPERATIONS).
 15:00 PREP & SKID RIG TO THE 1H
 18:00 UNDOCK TOP DRIVE & RUN OUT SAME, INSTALL HP MUD LINE FROM MCC, SET FLOWLINE STAND AND INSTALL FLOWLINE SECTION. START PRESPUD INSPECTION.
 23:00 RIG ACCEPTED ON DAYWORK @ 15:00 HRS ON 9-18-22: CONTINUE PRE SPUD INSPECTION.
 RIG UP THIRD PARTY EQUIPMENT, BUILD DIVERTER WITH DOUBLE SPACER SPOOLS, MUDCROSS WITH HCR, HYDRILL, AND BELL NIPPLE.
 SIMOPS: SET 3RD PARTY PUMPS AND HOSES, SET OUT DIVERTER 6" LINE TO OUTSIDE RESERVE, SET MANIFOLD FOR WATER TRANSFER, CHECK VALVES ON PITS, PREP TO FILL WITH FRESH WATER FOR SPUD.

09/20/2022

Rig Name: H&P 474

Depth = 120.0 Progress = 0.0

06:00 CONTINUE TO NIPPLE UP DIVERTER, FLOWLINE AND DRESSER SLEEVE TO DIVERTER RISER, INSTALL TURN BUCKELS, DRESS FLOWLINE WITH MUD LINES, INSTALL KILL LINE TO RIG FLOOR, FILL PITS & CHECK FOR LEAKS, SET FLOWLINE, RIG UP SHAKER TROUGH, BOTH PUMPS, FLOATER PUMPS & HOSES.
 18:00 RIG UP HYDRO LINES TO DIVERTER, FIX LEAK ON HYDRO LINES, SET BLUEY LINE FUNCTION TEST DIVERTER ON DP, DIVERTER WOULD NOT CLOSE ON DP, TROUBLESHOOT & ACTUATE DIVERTER OPEN TO CLOSE 6 TIMES, DIVERTER ANNULAR CLOSED ON DP, TEST GOOD, RIG UP FLOWLINE PUMP FOR FRESH WATER & BRINE, REMOVE CEMENT FROM 4" HOSES, INSTALL MOUSEHOLE.
 23:30 SERVICE RIG
 00:00 LAY OUT & STRAP BHA
 01:00 FILL SURFACE EQUIPMENT AND LOAD HOLE WITH FRESH WATER, CIRCULATE FLOWLINE CHECK FOR LEAKS, FUNCTION TEST PREMIX, TEST HP MUD LINE TO TOP DRIVE TO 1,500 PSI / 5 MIN, GOOD TEST, TROUBLESHOOT STROKE COUNTERS WITH TOTCO, FIX LEAK ON DRESSER SLEEVE.
 03:00 PICK UP DIRECTIONAL BHA, SCRIBE, & INSTALL BIT.
 Vis (s/qt): 28, Dens (lb/gal): 8.40, pH: 8.3

09/21/2022

Rig Name: H&P 474

Depth = 3,322.0 Progress = 3202.0

06:00 ROT DRILL F/120' T/457'(337 @ 84.25FPH) REDUCED PARAMETERS
 10:00 SLIDE DRILL F/457 T/477' (20 @ 80FPH)
 10:15 ROT DRILL F/477' T/1,541' (1064 @ 158FPH)
 PUMP HIGH VIS LOW WATER LOSS SWEEP & SWAP TO BRINE @ 623'
 17:00 SLD DRLG F/1,541' - T/1,561' (20' @ 80 FPH) MTF 80
 17:15 ROT DRILL F/1,561' T/2,202' (641 @ 213 FPH)
 20:15 SLD DRLG F/2,202' - T/2,217' (15' @ 30 FPH) MTF 180
 20:45 ROT DRILL F/2,217' T/2,283' (66 @ 264 FPH)
 21:00 SLD DRLG F/2,283' - T/2,295' (12' @ 24 FPH) MTF 270
 21:30 ROT DRILL F/2,295' T/2,392' (97 @ 194 FPH)
 22:00 SLD DRLG F/2,392' - T/2,414' (22' @ 44 FPH) MTF 300
 22:30 ROT DRILL F/2,414' T/2,473' (59 @ 236 FPH)
 22:45 SLD DRLG F/2,473' - T/2,488' (15' @ 30 FPH) MTF 250
 23:15 ROT DRILL F/2,488' T/2,567' (79 @ 158 FPH)
 23:45 SLD DRLG F/2,567' - T/2,582' (15' @ 30 FPH) MTF 260
 00:15 ROT DRILL F/2,582' T/2,662' (80 @ 320 FPH)
 00:30 SLD DRLG F/2,662' - T/2,682' (20' @ 20 FPH) MTF 310
 01:30 ROT DRILL F/2,682' T/2,945' (263 @ 175 FPH)
 03:00 SLD DRLG F/2,945' - T/2,970' (25' @ 25 FPH) MTF 130
 04:00 ROT DRILL F/2,970' T/3,322' (352 @ 176 FPH)
 Vis (s/qt): 28, Dens (lb/gal): 9.80, pH: 8.1

| MD (ft) | TVD (ft) | Incl (°) | Azi (°) | VS (ft) | DLS (°/100ft) | N/S (ft) | E/W (ft) |
|---------|----------|----------|---------|---------|---------------|----------|----------|
| 154.0 | 154.00 | 0.53 | 342.68 | -0.71 | 0.34 | 0.68 | -0.21 |
| 273.0 | 272.99 | 0.92 | 347.78 | -2.22 | 0.33 | 2.14 | -0.58 |
| 393.0 | 392.97 | 1.19 | 353.67 | -4.40 | 0.24 | 4.32 | -0.92 |
| 522.0 | 521.95 | 1.32 | 100.37 | -5.06 | 1.56 | 5.38 | 0.39 |

| | | | | | | | |
|---------|----------|------|-------|--------|------|-------|--------|
| 617.0 | 616.93 | 0.70 | 87.71 | -4.43 | 0.69 | 5.21 | 2.05 |
| 627.0 | 626.93 | 0.70 | 87.71 | -4.36 | 0.62 | 5.19 | 2.23 |
| 712.0 | 711.93 | 0.62 | 69.87 | -4.32 | 0.23 | 5.41 | 3.11 |
| 808.0 | 807.92 | 0.79 | 65.92 | -4.44 | 0.18 | 5.86 | 4.21 |
| 903.0 | 902.91 | 1.14 | 66.00 | -4.66 | 0.37 | 6.51 | 5.67 |
| 997.0 | 996.89 | 1.23 | 60.55 | -5.02 | 0.15 | 7.39 | 7.40 |
| 1,093.0 | 1,092.86 | 1.27 | 58.36 | -5.53 | 0.06 | 8.45 | 9.20 |
| 1,188.0 | 1,187.85 | 1.05 | 57.04 | -6.06 | 0.23 | 9.48 | 10.83 |
| 1,283.0 | 1,282.83 | 1.19 | 62.93 | -6.50 | 0.19 | 10.40 | 12.44 |
| 1,376.0 | 1,375.80 | 1.32 | 67.15 | -6.80 | 0.17 | 11.25 | 14.28 |
| 1,471.0 | 1,470.78 | 1.32 | 66.18 | -7.07 | 0.02 | 12.12 | 16.29 |
| 1,565.0 | 1,564.72 | 2.55 | 68.55 | -7.40 | 1.31 | 13.32 | 19.23 |
| 1,659.0 | 1,658.59 | 3.56 | 71.63 | -7.69 | 1.09 | 15.01 | 23.95 |
| 1,753.0 | 1,752.39 | 3.91 | 70.49 | -7.98 | 0.38 | 17.00 | 29.74 |
| 1,847.0 | 1,846.14 | 4.44 | 70.40 | -8.37 | 0.56 | 19.29 | 36.19 |
| 1,941.0 | 1,939.84 | 4.75 | 70.84 | -8.78 | 0.33 | 21.79 | 43.29 |
| 2,035.0 | 2,033.48 | 5.27 | 71.01 | -9.18 | 0.55 | 24.47 | 51.05 |
| 2,129.0 | 2,127.05 | 5.63 | 70.84 | -9.61 | 0.38 | 27.39 | 59.49 |
| 2,223.0 | 2,220.56 | 6.15 | 75.85 | -9.66 | 0.78 | 30.13 | 68.72 |
| 2,318.0 | 2,315.04 | 5.76 | 78.05 | -9.11 | 0.48 | 32.36 | 78.32 |
| 2,413.0 | 2,409.62 | 5.05 | 72.42 | -8.84 | 0.93 | 34.61 | 86.97 |
| 2,507.0 | 2,503.29 | 4.62 | 74.71 | -8.87 | 0.50 | 36.86 | 94.57 |
| 2,602.0 | 2,598.03 | 3.78 | 77.08 | -8.62 | 0.90 | 38.57 | 101.31 |
| 2,695.0 | 2,690.87 | 2.99 | 64.60 | -8.83 | 1.16 | 40.30 | 106.49 |
| 2,790.0 | 2,785.74 | 3.08 | 56.07 | -9.99 | 0.48 | 42.78 | 110.85 |
| 2,885.0 | 2,880.60 | 2.99 | 49.66 | -11.78 | 0.37 | 45.81 | 114.85 |
| 2,979.0 | 2,974.40 | 4.53 | 65.92 | -13.28 | 1.98 | 48.91 | 120.11 |
| 3,073.0 | 3,068.07 | 5.14 | 78.66 | -13.42 | 1.31 | 51.26 | 127.63 |
| 3,167.0 | 3,161.73 | 4.62 | 78.75 | -12.73 | 0.55 | 52.82 | 135.47 |

09/22/2022

Rig Name: H&P 474

Depth = 4,971.0 Progress = 1649.0

06:00 ROT DRILL F/3,322' T/3,426' (104 @ 138.6 FPH)

06:45 SLD DRLG F/3,426' - T/3,446' (20' @ 40 FPH)

07:15 ROT DRILL F/3,446' T/3,520' (74 @ 98.6 FPH)

08:00 SLD DRLG F/3,520' - T/3,540' (20' @ 40 FPH)

08:30 ROT DRILL F/3,540' T/4,180' (640 @ 165 FPH)

12:30 SLD DRLG F/4,180' - T/4,200' (20' @ 40 FPH)

13:00 ROT DRILL F/4,200' T/4,971' (771 @ 119 FPH) SURFACE TD

19:30 CIRCULATE BOTTOMS UP TO VERIFY FORMATION TOP, TOP VERIFIED, PUMP 40 BBL SWEEPS X2, LAST WITH DIE, SWEEP 230 BBLs OVER CALCULATED, 25% WASHOUT.

22:30 TOH F/ 4,971' TO DIRECTIONAL TOOLS. ATTEMPT TO STRAP OUT, COULD NOT DUE TO WIND. TIGHT CONNECTIONS USING RIG TONGS.

02:45 WORK DIRECTIONAL BHA: L/D SHOCK SUB WITH STAB, PULL MWD, L/D 2 STABS, BREAK BIT, RACK BACK DIRECTIONAL TOOLS. BIT GRADE 1-2-CC

04:15 RIG UP CASING CREWS: CRT, POWER TONGS, FILL UP HOSE, BOWL, CASING BACKUP TONGS, SLIPS.

05:30 PJSM: PICK UP PREBUCKED 9-5/8" FLOAT SHOE & FLOAT COLLAR JOINT.

Vis (s/qt): 28, Dens (lb/gal): 10.00, pH: 8.5

| MD (ft) | TVD (ft) | Incl (°) | Azi (°) | VS (ft) | DLS (°/100ft) | N/S (ft) | E/W (ft) |
|---------|----------|----------|---------|---------|---------------|----------|----------|
| 3,262.0 | 3,256.44 | 4.26 | 80.68 | -11.96 | 0.41 | 54.14 | 142.70 |
| 3,356.0 | 3,350.19 | 4.09 | 81.47 | -11.09 | 0.19 | 55.20 | 149.46 |
| 3,450.0 | 3,444.02 | 2.77 | 82.79 | -10.28 | 1.41 | 55.98 | 155.03 |
| 3,544.0 | 3,537.98 | 0.48 | 97.91 | -9.76 | 2.46 | 56.22 | 157.68 |
| 3,638.0 | 3,631.98 | 0.40 | 237.74 | -9.51 | 0.88 | 55.99 | 157.79 |
| 3,733.0 | 3,726.97 | 0.62 | 235.28 | -9.25 | 0.23 | 55.52 | 157.09 |
| 3,828.0 | 3,821.97 | 0.48 | 163.91 | -8.69 | 0.69 | 54.84 | 156.77 |
| 3,922.0 | 3,915.96 | 0.97 | 120.14 | -7.72 | 0.75 | 54.06 | 157.57 |
| 4,016.0 | 4,009.95 | 1.23 | 107.84 | -6.58 | 0.37 | 53.36 | 159.22 |
| 4,110.0 | 4,103.92 | 1.58 | 99.49 | -5.45 | 0.43 | 52.83 | 161.46 |
| 4,205.0 | 4,198.90 | 0.53 | 141.41 | -4.48 | 1.30 | 52.27 | 163.02 |
| 4,299.0 | 4,292.90 | 0.48 | 213.84 | -3.82 | 0.64 | 51.61 | 163.08 |
| 4,394.0 | 4,387.90 | 0.13 | 227.81 | -3.52 | 0.37 | 51.20 | 162.77 |
| 4,489.0 | 4,482.90 | 0.48 | 101.25 | -3.29 | 0.60 | 51.05 | 163.09 |
| 4,584.0 | 4,577.89 | 0.48 | 97.21 | -2.95 | 0.04 | 50.93 | 163.87 |
| 4,678.0 | 4,671.89 | 0.88 | 87.89 | -2.61 | 0.44 | 50.90 | 164.98 |
| 4,772.0 | 4,765.87 | 0.97 | 83.05 | -2.31 | 0.13 | 51.03 | 166.49 |
| 4,867.0 | 4,860.86 | 0.92 | 77.61 | -2.12 | 0.11 | 51.29 | 168.04 |

| | | | | | | | |
|---------|----------|------|-------|-------|------|-------|--------|
| 4,911.0 | 4,904.86 | 0.97 | 72.51 | -2.11 | 0.22 | 51.47 | 168.74 |
|---------|----------|------|-------|-------|------|-------|--------|

09/23/2022

Rig Name: H&P 474

Depth = 4,971.0 Progress = 0.0

- 06:00 RAN A TOTAL OF 17 JTS OF 9 5/8", 40#, L80, BTC CSG, FOLLOWED BY 111 JTS OF 9 5/8", 40#, J55, BTC CSG. ALL JOINTS TORQUED TO DIAMOND. FS @ 4,971', FC @ 4,922', DV TOOL @ 530'; 44 BOWSPRING CENTRALIZERS RAN. 1 WITH STOP RING 10' ABOVE FS AND ONE 10' ABOVE FC WITH STOP RING, THEN EVERY 3RD COUPLING TO SURFACE. CASING SET ON BOTTOM AND PICKED UP 1' FOR CEMENTING. CASING LANDED WEIGHT = 242K, BLOCK WT= 46K
- 13:30 RIG DOWN CASING CREW; RIG UP CIRCULATING IRON
- 14:30 CIRCULATE CASING @ 6 BLS/MIN 1 1/2 CAPACITIES; NO LOSSES SEEN. SPP = 205
- 16:00 PUMP 40 BBLS OF GEL SPACER WITH GREEN DYE, FOLLOWED BY 514 BBLS (1520 SX, 1.9 YIELD, 10.03 GAL/SK MIX WATER) 12.9 PPG LEAD CEMENT THEN 116 BBLS (375 SX, 1.74 YIELD, 9.23 GAL/SK MIX WATER) 13.5 PPG TAIL CEMENT. DROP PLUG AND DISPLACE WITH 10.0 PPG BRINE. PLUG BUMPED AT 367 BBLS INTO THE DISPLACEMENT (7 BBL EARLY). PRESSURED UP TO 2100 PSI. BLEED OFF PRESSURE FLOATS HELD. AT 230 BBLS INTO DISPLACEMENT OBSERVED SPACER W/ GREEN DYE BACK TO SURFACE AND AT 240 BBLS DISPLACED OBSERVED CEMENT BACK TO SURFACE. TOTAL OF 130 BBLS CEMENT TO SURFACE (384 SX). DROPPED CANCELLATION BOMB AND ALLOWED TO FALL FOR 10 MINUTES. PRESSURE UP TO 2000 PSI AS PER INNOVEX HAND. BLEED BACK. (CEMENT IN PLACE @ 19:47)
- 20:45 RIG DOWN CEMENTING EQUIPMENT WHILE CIRCULATING SUGAR WATER THROUGH ALL SURFACE LINES AND VERIFY CLEAR OF ANY CEMENT.
- 21:00 RIG DOWN RELATED BOP EQUIPMENT, DIVERTER LINES AND PREPARE TO NIPPLE DOWN DIVERTER. NIPPLE DOWN DIVERTER. CUT AND DRAIN CASING, MAKE ROUGH CUT AND L/D CASING. CUT AND LAYDOWN CONDUCTOR FLANGE, MAKE FINAL CUT ON CASING AND LAYDOWN, CLEAN AND BEVEL CASING. RELEASE RIG @ 01:00 AM.
PICK UP AND CLEAN WELLHEAD, INSTALL WELLHEAD AND VERIFY LEVEL, WELD IN PLACE. SIMOPS; PREP TO SKID. PULL FLOWLINE SKID & STAND, FLUSH BRINE FROM PITS, FILL WITH FRESH, SWAP OVERBOARD LINES, PULL INLINE SCREEN AND CLEAN, SET LIGHT PLANTS IN PREP FOR SKID.
- 01:00 NO OPS
- Vis (s/qt): 28, Dens (lb/gal): 10.00, pH: 8.1