

BP SIT Testing Franks Facility Lafayette



General Information

- Status: Franks test well Lafayette La.
- Rig: Franks Test Rig
- Casing: 13 3/8", 0' to 4,600'
- Workstring: 4 1/2" IF
- Brine: Fresh Water
- Directional: Straight Hole
- PBTD: 4,600' MD

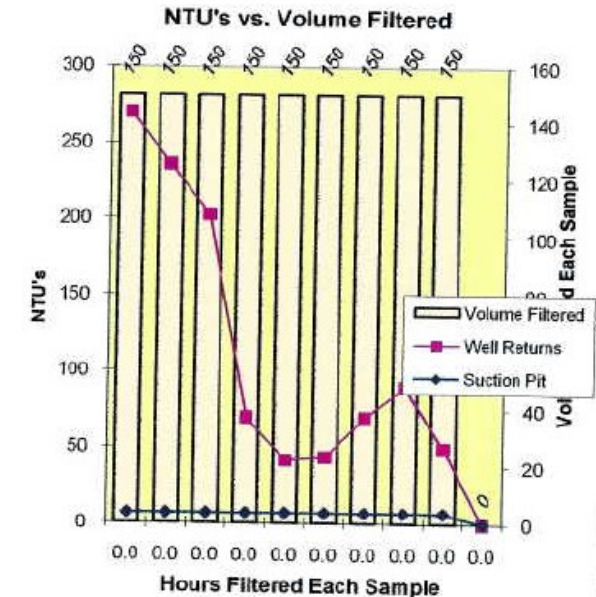
Job Information

- Date: April 6, 2009
- Determine MAP Tool integrity
- Located MAP Tool outer sleeve in Hydril
- Slacked off until MAP TOOL unlatched (20,000 k lbs)

Summary of Operations

- With the Hydril closed begin rotating at 30 rpms for 2 hours
- Beginning pumping at 10 bpm
- Reciprocate pipe at 60 feet per minute
- Re-latch MAP TOOL and record over-pull of 40,000 k lbs
- Unlatch MAP TOOL and bring rpms to 60 for 4 hours
- No increased torque or drag was noted during the operation
- 1,100 psi differential pressure was recorded during the test against the lower seal package
- Increase rotational speed to 70 rpms for 2 hours
- The MAP TOOL was latched and re-latched 18 times during the 8 hour period
- Open annular, pull MAP TOOL to surface, wash down MAP TOOL, record visual condition
- Return MAP TOOL to shop for teardown and TH Hill inspection
- All seals and bearing were inspected for wear and none was noticed
- The internal Sea Blue lubricant was tested for possible water invasion and none was recorded

Case History: BP Thunder Horse MC 778-2 Completion (PDQ)



General Information:

- Status: Well suspended since December 2008 with inhibited CaBr₂ in hole
- Rig: PDQ
- Casing:
 - 21" (19.75" ID) marine riser / 18-3/4" BOP 0' to 6,142'
 - 11-3/4" 102 ppf (10.030" ID) casing 6,142' to 10,587'
 - 9-7/8" 68 ppf (8.519" ID) casing 10,587' to 23,148'
- Workstring:
 - 5-7/8" 33.53 ppf S-135 CTM57 (7.0" x 4.25")
 - 5-7/8" 23.40 ppf Z-140 CTM57 (7.0" x 4.25")
- Brine: 12.6 ppg CaBr₂
- Directional: 30° with KOP at 11,700' and holds angle to TD
- PBTD: 23,000' MD

Job Summary:

- Date: June 20, 2009
- "Dirty" brine in the hole when MAP tool picked up
- Tagged fill at 22,972'
- Located & engaged MAP tool to wash and ream to PBTD with annular closed (taking returns up the choke and kill lines)
- Washed / reamed to 23,000' PBTD
 - Circulation: 15 bpm at 3,045 psi
 - Rotation: 70 rpms with 26k ft-lbs torque
- Estimated 8 hours extra C&C time due to filtration unit plugging resulting in reduced filtration rates
- Rotated for a total of 23 hours
- Performed MAP tool qualification
 - Tested seals to 4,500 psi

Case History: Newfield Exploration G/B 293 Completion Ocean Victory



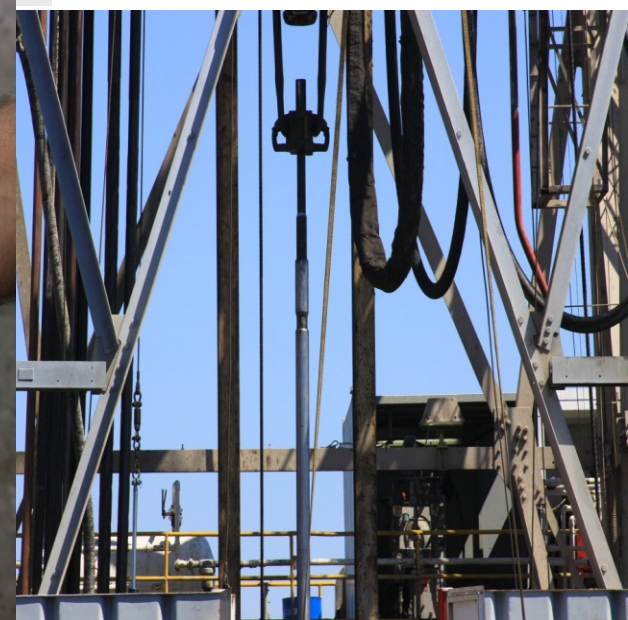
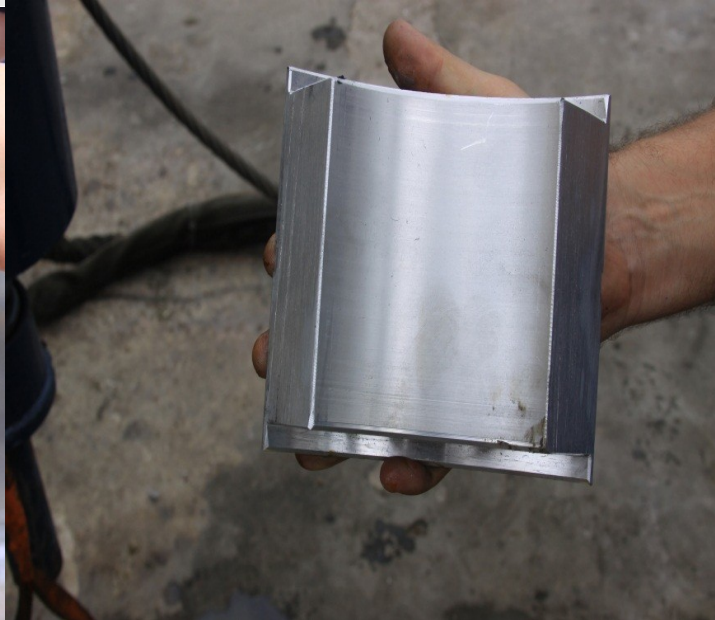
General Information:

- Rig: Ocean Victory
- Status: Drill and complete
- Casing:
 - 21" (19.625" ID) marine riser / 0' to 2,095'
 - 18-3/4" BOP
 - 9-7/8" 68 ppf (8.519" ID) casing 0 to 21,675'
- Workstring:
 - 5-7/8" 33.53 ppf S-135 XTM-57 (7.125" x 5.135")
- Brine: 13.3 ppg CaBr₂
- Mud: 14.9 SBM
- Directional: 9 Shape
- PBTD: 21,675' MD

Job Summary:

- Date: June 10, 2010
- 14.9 SBM displaced with 13.3 CABR2
- Located & engaged MAP tool required 5 minutes and began circulating (circulating the long way displacing riser first)
- Rotated / Reciprocate for 5 hours with 22 ft of stroke
 - Circulate @ 15 bpm at 2,000psi
 - 2,000 psi. Average pressure and 6,200 max psi
 - Rotations 50 rpms average and 56 rpms max
- Wt to unlatch Map Tool 20K and 30K to re-latch
- Workstring torque at beginning of rotation was 9K and never went above 10 K
- 15K wt gained locating to top stop
- Map Tool was reciprocated at 2 FPM
- 15 Barrel interface and cleaned up in 1 ½ circulations
- Map Tool housing had 0 damage and mandrel had only minor scratches which were scotch brite off

Nexen West Delta 45 Well H-15



General Information

- Status: Workover
- Rig: Ensco 99
- Casing: 9 5/8" 43.5# (0 – 6,082)
- Liner 7" 23# S-95 (6,082 – 8,110)
- Workstring: 4 14# IF
- Brine: 8.5 ppg KCL
- Mud 11.0 HyCal
- Directional: 14.1 degrees
- PBTD: 8,110' MD

Job Information

- Date: October 6, 2010
- Determine MAP Tool integrity for single trip frac systems
- Max. differential pressure on seals 2,000 psi
- The MAP TOOL was stroked approximately 40 times
- Max differential pressure on seals while stroking 600 psi
- 74 ft of stroke and 63 ft was needed to complete job

Summary of Operations

- Rig up OES non--making tubular services and mandrel elevators
- Latch elevators around handling pup and tail in with crane
- Spin up as per OES and torque bottom pup to recommended torque with iron ruffneck
- Pull inner bushings and lower housing below rotary 5' in from the top stop
- Installed inner bushings, continue to 5'in the hole and latch elevators around bottleneck
- Remove xo and handling pup and bring mandrel #2 into V-door
- Latch elevators around handling pup and tail in with crane
- Spin/up and Make-up with OES non-marking tongs, RIH and continue to 5' in the hole
- At 30 ft. in from the top stop close the bag to 500-800- psi
- P/U and bump to stop and open bag
- P/U 3.83' and close bag to 500-800 psi and P/U 1'.09" and bump the bottom stop
- Close bag to closing pressure and RIH and latch elevator around mandrel bottle neck
- Break out xo and handling pup and bring mandrel #3 into V-door
- Latch elevators around handling pup and tail in with crane, make up with OES
- RIH and latch elevators around mandrel bottleneck and break out handling pup
- Make-up 15' pup to frac head and commence frac operations as per Nexens orders

Case History: Mariner Energy G/C 490 Well # 1 Completion Ocean Victory



General Information:

- Rig: Ocean Victory
- Status: T & A
- Casing:
 - 21" (19.625" ID) marine riser / 0' to 3,779
 - 18-3/4" BOP
 - 9-5/8" 53.50 ppf (8.535" ID) casing 0 to 12,686'
- Workstring:
 - 5" S-135 19.3 ppf 4.5 IF connection
- Brine: 12.3 ppg CaBr₂
- Mud: 14.2 SBM
- Directional: Vertical
- PBTD: 21,675' MD

Job Summary:

- Date: October 10, 2010
- 14.2 SBM displaced with 12.3 CABR2
- Tagged fill @ 78 feet high and washed down to bottom
- Located & engaged MAP tool pressured up to 2,000 psi. Then pressured to 4,500 psi to test casing.
- Rotated / Reciprocate for 15 hours with 22 ft of stroke
 - Circulate @ 13.5 bpm at 3,000 – 4,000 psi
 - 2,000 psi. Average pressure and 4,100 max psi
 - Rotations 30 rpms average and 56 rpms max
- Difference in open bag torque versus closed bag torque was less than 500 ft/lbs.
- Initial NTU reading was 150
- 15 bbl interface on the casing and a 35 bbl interface on the riser and cleaned up in 1 ½ circulations
- Map Tool housing had 0 damage and mandrel had only minor scratches which were scotch brite off

Case History: ERT G/C 238 Well ST3BP1 Completion Ocean Victory



General Information:

- Rig: Ocean Victory
- Status: T & A
- Casing:
 - 21" (19.75" ID) marine riser / 0' to 2,418'
 - 18-3/4" BOP
 - 9-5/8" 53.50 ppf Q-125 (8.379" ID) casing 0 to 16,730'
- Workstring:
 - 5." S-135 19.5 ppf 4.5 IF connection
- Brine: 14.2 ppg CaBr₂
- Mud: 14.3 SBM
- Directional: 49 degrees
- PBTD: 16,645' MD

Job Summary:

- Date: April 21, 2011
- 14.3 SBM displaced with 14.2 CABR2
- Used the Map Tool in conjunction with RTTS for 2 hour negative shoe track test
- Rotated and reciprocated 36 hours while cleaning pits
- Rotated / Reciprocate for 11 hours with 42 ft of stroke while displacing
 - Circulate @ 20 bpm/riser and 15 bpm/casing
 - 2,800 psi. average pressure and 5,000 max psi
 - Rotations 50 rpms average and 55 rpms max
- Spotted MAP TOOL in 15 foot seas
- Due to the heaving action of the rig the annular would have been damaged even with the motion compensator without the MAP TOOL
- Initial NTU reading was 350 which cleaned up to 150 after one circulation and 25 NTU's after short trip and 1 ½ circulations (note initial high NTU reading was due to filter presses shutting down during displacement which caused the displacement to shut down twice)
- 25 bbl interface on the casing and a 25 bbl Interface on the riser
- Used a new sling system incorporating a pulley system