

HALLIBURTON

iCem[®] Service

Post Job Report

ANADARKO PETROLEUM CORP - EBUS

For:

Date: Sunday, June 01, 2014

MULGA 3N-23HZ

Surface

Sincerely,

VAUGHN OTERI AND CREW

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Job Times

| | Date | Time | Time Zone |
|-----------------------------------|-------|------|-----------|
| Requested Time On Location | 06-01 | 0900 | MT |
| Called Out | 06-01 | 0300 | MT |
| On Location | 06-01 | 0800 | MT |
| Job Started | 06-01 | 0925 | MT |
| Job Completed | 06-01 | 1041 | MT |
| Departed Location | 06-01 | 1200 | MT |

1.1 Cementing Job Summary

Insert Job Summary from HDF

| | | | |
|--|---------------------------|---|----------------------------------|
| Sold To #: 300466 | Ship To #: 3468353 | Quote #: | Sales Order #: 0901397134 |
| Customer: ANADARKO PETROLEUM CORP - EBUS | | Customer Rep: BOB | |
| Well Name: MULGA | Well #: 3N-23 HZ | API/UWI #: 05-123-39254-00 | |
| Field: WATTENBERG | City (SAP): IONE | County/Parish: WELD | State: COLORADO |
| Legal Description: SW SW-23-2N-67W-275FSL-2206FWL | | | |
| Contractor: | | Rig/Platform Name/Num: Majors 29 | |
| Job BOM: 7521 | | | |
| Well Type: HORIZONTAL GAS | | | |
| Sales Person: HALAMERICA\HX46524 | | Srv Supervisor: Vaughn Oteri | |
| Job | | | |

| | | | |
|-------------------------------|------------|--|--------------------------|
| Formation Name | | | |
| Formation Depth (MD) | Top | | Bottom |
| Form Type | | | BHST |
| Job depth MD | 1194ft | | Job Depth TVD |
| Water Depth | | | Wk Ht Above Floor |
| Perforation Depth (MD) | | | To |

Well Data

| | New / Used | Size in | ID in | Weight lbm/ft | Thread | Grade | Top MD ft | Bottom MD ft | Top TVD ft | Bottom TVD ft |
|-------------------|-------------------|----------------|--------------|----------------------|---------------|--------------|------------------|---------------------|-------------------|----------------------|
| Casing | | 9.625 | 8.921 | 36 | | J-55 | 0 | 1190 | | |
| Open Hole Section | | | 13.5 | | | | 0 | 1200 | | |

Tools and Accessories

| Type | Size in | Qty | Make | Depth ft | | Type | Size in | Qty | Make |
|--------------|----------------|------------|-------------|-----------------|--|----------------|----------------|------------|-------------|
| Guide Shoe | 9.625 | 1 | | 1190 | | Top Plug | 9.625 | 1 | HES |
| Float Shoe | 9.625 | 1 | | | | Bottom Plug | 9.625 | 1 | HES |
| Float Collar | 9.625 | 1 | | | | SSR plug set | 9.625 | 1 | HES |
| Insert Float | 9.625 | 1 | | | | Plug Container | 9.625 | 1 | HES |
| | 9.625 | 1 | | | | Centralizers | 9.625 | 1 | HES |

Miscellaneous Materials

| Gelling Agt | Conc | Surfactant | Conc | Acid Type | Qty | | | | |
|--------------------|-------------|-------------------|-------------|------------------|------------|--|--|--|--|
| Treatment Fld | Conc | | Conc | Sand Type | | | | | |

Fluid Data

Stage/Plug #: 1

| Fluid # | Stage Type | Fluid Name | Qty | Qty UoM | Mixing Density lbm/gal | Yield ft³/sack | Mix Fluid Gal | Rate bbl/min | Total Mix Fluid Gal |
|----------------|------------------------|-------------------|------------|----------------|-------------------------------|----------------------------------|----------------------|---------------------|----------------------------|
| 1 | Mud Flush III (Powder) | Mud Flush III | 12 | bbl | 8.4 | | | | |

42 gal/bbl

| Fluid # | Stage Type | Fluid Name | Qty | Qty UoM | Mixing Density lbm/gal | Yield ft³/sack | Mix Fluid Gal | Rate bbl/min | Total Mix Fluid Gal |
|----------------|-------------------|-------------------|------------|----------------|-------------------------------|----------------------------------|----------------------|---------------------|----------------------------|
|----------------|-------------------|-------------------|------------|----------------|-------------------------------|----------------------------------|----------------------|---------------------|----------------------------|

| 2 | Lead Cement | SWIFTCEM (TM) SYSTEM | 450 | sack | 14.2 | 1.54 | | 6 | 7.64 |
|----------------|--------------|-------------------------|-------|---------|---------------------------|--------------------------------|------------------|-----------------|---------------------------|
| | | | | | | | | | |
| Fluid # | Stage Type | Fluid Name | Qty | Qty UoM | Mixing Density lbm/gal | Yield ft ³ /sack | Mix Fluid Gal | Rate bbl/min | Total Mix Fluid Gal |
| 3 | Displacement | Displacement | 88.81 | bbl | 8.33 | | | | |
| | | | | | | | | | |
| | | Amount | 42 ft | | | | | | |
| Comment | | | | | | | | | |

1.3 Job Overview

| | | Units | Description |
|----|---|-------------------------------------|-------------|
| 1 | Surface temperature at time of job | °F | 80 |
| 2 | Mud type (OBM, WBM, SBM, Water, Brine) | - | WBM |
| 3 | Actual mud density | lb/gal | 9.5 |
| 4 | Actual mud Plastic Viscosity (PV) | cP | |
| 5 | Actual mud Yield Point (YP) | lb _r /100ft ² | |
| 6 | Actual mud 30 min Gel Strength | lb _r /100ft ² | |
| 7 | Time circulated before job | HH:MM | 1:30 |
| 8 | Mud volume circulated | Bbls | |
| 9 | Rate at which well was circulated | Bpm | |
| 10 | Pipe movement during hole circulation | Y/N | N |
| 11 | Rig pressure while circulating | Psi | |
| 12 | Time from end mud circulation to start of job | HH:MM | 00:20 |
| 13 | Pipe movement during cementing | Y/N | N |
| 14 | Calculated displacement | Bbls | 88.81 |
| 15 | Job displaced by | Rig/HES | HES |
| 16 | Annular flow before job | Y/N | N |
| 17 | Annular flow after job | Y/N | N |
| 18 | Length of rat hole | Ft | 4 |
| 19 | Units of gas detected while circulating | Units | |
| 20 | Was lost circulation experienced at any time? | Y/N | N |

Lost Circulation Details

| |
|--|
| |
|--|

1.4 Job Event Log

| Type | Seq. No. | Activity | Graph Label | Date | Time | Source | PS Pump Press (psi) | DH Density (ppg) | Comb Pump Rate (bbl/min) | Mudcup Density (ppg) | Comment |
|-------|----------|-------------------|-------------------|----------|----------|--------|---------------------|------------------|--------------------------|----------------------|--|
| Event | 1 | Call Out | Call Out | 6/1/2014 | 03:00:00 | USER | | | | | CALL OUT FROM ARS OFFICE |
| Event | 2 | Arrive At Loc | Arrive At Loc | 6/1/2014 | 08:00:00 | USER | | | | | ARRIVE ON LOCATION MET WITH COMPANY REP TO DISCUSS JOB PROCESS AND CONCERNS ADVISED THAT RIG WAS ON BOTTOM AND WAS READY |
| Event | 3 | Start Job | Start Job | 6/1/2014 | 09:24:26 | COM6 | 3.00 | 8.25 | 0.00 | 0.00 | HELD PREJOB SAFTY MEETING IN DOG HOUSE WITH ALL HANDS ON LOCATION TO DISCUSS JOB PROCESS AND HAZARDS |
| Event | 4 | Test Lines | Test Lines | 6/1/2014 | 09:25:54 | COM6 | 6.00 | 8.32 | 0.00 | 0.00 | PRESSURE TESED PUMPS AND LINES FOUND NO LEAKS AND PRESSURE HELD GOOD |
| Event | 5 | Pump Spacer 1 | Pump Spacer 1 | 6/1/2014 | 09:28:03 | COM6 | 5.00 | 8.32 | 0.00 | 0.00 | PUMPED 10BBBL OF FRESH WATER AT 2.5BBL 27PSI |
| Event | 6 | Pump Spacer 2 | Pump Spacer 2 | 6/1/2014 | 09:33:13 | COM6 | 27.00 | 8.33 | 2.60 | 0.00 | MIXED 12BBBL OF MUD FLUSH AT 2.5BPM 28PSI |
| Event | 7 | Pump Spacer 1 | Pump Spacer 1 | 6/1/2014 | 09:38:26 | COM6 | 34.00 | 8.77 | 2.60 | 0.00 | PUMPED 10BBBL OF FRESH WATER AT 2.5BPM 33PSI |
| Event | 8 | Pump Cement | Pump Cement | 6/1/2014 | 09:42:40 | COM6 | 43.00 | 12.27 | 2.60 | 0.00 | MIXED 124BBBL OF 14.2PPG SWIFTCEM AT 5.0BPM 82PSI |
| Event | 9 | Shutdown | Shutdown | 6/1/2014 | 10:09:42 | COM6 | 13.00 | 0.50 | 0.00 | 0.00 | |
| Event | 10 | Drop Top Plug | Drop Top Plug | 6/1/2014 | 10:11:12 | COM6 | 7.00 | 0.44 | 0.00 | 0.00 | RELEASED PLUG WITNESSED BY COMPANY REP |
| Event | 11 | Pump Displacement | Pump Displacement | 6/1/2014 | 10:12:43 | COM6 | 9.00 | 5.30 | 1.10 | 0.00 | PUMPED 88BBBL OF FRESH WATER TO DISPLACE CEMENT AT 5.0BPM AT 200PSI |

| | | | | | | | | | | | |
|-------|----|-----------|-----------|----------|----------|------|---------|------|------|------|---|
| Event | 12 | Bump Plug | Bump Plug | 6/1/2014 | 10:36:04 | COM6 | 1488.00 | 8.39 | 0.00 | 0.00 | BUMPED PLUG 500PSI OVER FINAL PUMP PRESSURE |
| Event | 13 | End Job | End Job | 6/1/2014 | 10:41:59 | COM6 | 6.00 | 8.39 | 0.00 | 0.00 | 16BBL OF CEMENT BACK TO SURFACE |

2.0 Custom Graphs

2.1 Custom Graph



