

Summary report

Wellbore: 15/9-F-14

Period: 2008-06-14 00:00 - 2008-06-15 00:00

| | |
|--------------------------|-------------------|
| Status: | normal |
| Report creation time: | 2018-05-03 13:52 |
| Report number: | 60 |
| Days Ahead/Behind (+/-): | 8.2 |
| Operator: | StatoilHydro |
| Rig Name: | MÆRSK INSPIRER |
| Drilling contractor: | Mærsk Contractors |
| Spud Date: | 2007-11-04 00:00 |
| Wellbore type: | |
| Elevation RKB-MSL (m): | 54.9 |
| Water depth MSL (m): | 91 |
| Tight well: | Y |
| HPHT: | Y |
| Temperature (): | |
| Pressure (): | |
| Date Well Complete: | 2008-06-15 |

| | |
|-----------------------------|--------------------------|
| Dist Drilled (m): | 194 |
| Penetration rate (m/h): | -999.99 |
| Hole Dia (in): | 8.5 |
| Pressure Test Type: | formation integrity test |
| Formation strength (g/cm3): | 1.56 |
| Dia Last Casing (): | |

| | |
|-----------------------------------|--------|
| Depth at Kick Off mMD: | |
| Depth at Kick Off mTVD: | |
| Depth mMD: | 3750 |
| Depth mTVD: | 3158.5 |
| Plug Back Depth mMD: | |
| Depth at formation strength mMD: | 2788 |
| Depth At Formation Strength mTVD: | 2728.4 |
| Depth At Last Casing mMD: | 2783.5 |
| Depth At Last Casing mTVD: | 2728.3 |

Summary of activities (24 Hours)

Continued drilling 8½" hole from 3617m to 3750m TD. Took pressure points, bit depth 3668.7m. Circulated well clean 3 times bottoms up. POOH with 8½" drilling BHA from 3750m to 1919m. Serviced TDS and both PRS's

Summary of planned activities (24 Hours)

Continue POOH with drilling BHA to surface. Change surface handling equipment and RIH with 7" liner to 600m.

Operations

| Start time | End time | End Depth mMD | Main - Sub Activity | State | Remark |
|------------|----------|---------------|---------------------|-------|---|
| 00:00 | 01:00 | 3577 | drilling -- drill | ok | Continued drilling 8½" hole from 3556m to 3577m. Drilling parameters: Flow 1963 lpm / SPP 175 bar / String RPM 180 / WOB 4-5 MT / TQ 13-17 kNm / ROP 18-30 m/h our / ECD 1.456-1.463 SG / MUD weight 1.35+ SG. Simultaneously transported flow line Co-flex down to the well head. |
| 01:00 | 01:30 | 3577 | drilling -- survey | ok | Cleaned well prior to take pressure points. Reciprocated the string while cleaning. Parameters: Flow 1963 lpm / SPP 175 bar / String RPM 180 / TQ 11-13 kNm / ECD 1.449-1.461 SG / MUD weight 1.35+ SG. |
| 01:30 | 02:00 | 3570.7 | drilling -- survey | ok | Down linked and activated the stethoscope, prior to take pressure points. Bit depth 3570.7m, test depth 3545mMD/3029.3TVD, pressure 297.98 bars, mobility 58.39mD. |
| 02:00 | 02:15 | 3570.7 | drilling -- survey | ok | Down linked and deactivated the stethoscope. Took survey prior to continue drilling ahead. |
| 02:15 | 04:30 | 3617 | drilling -- drill | ok | Continued drilling 8½" hole from 3577m to 3617m. Drilling parameters: Flow 1963 lpm / SPP 180 bar / String RPM 180 / WOB 5-6 MT / TQ 13-17 kNm / ROP 18-20 m/h our / ECD 1.469-1.471 SG / MUD weight 1.35+ SG. |
| 04:30 | 05:00 | 3617 | drilling -- survey | ok | Cleaned well prior to take pressure points. Reciprocated the string while cleaning. Parameters: Flow 1963 lpm / SPP 180 bar / String RPM 180 / TQ 11-14 kNm / ECD 1.461-1.474 SG / MUD weight 1.35+ SG. |
| 05:00 | 05:15 | 3613.7 | drilling -- survey | ok | Down linked and activated the stethoscope, prior to take pressure points. Bit depth 3613.7m, test depth 3588mMD/3053.4TVD, pressure 299.86 bars, mobility 38.08mD. |
| 05:15 | 05:30 | 3617 | drilling -- survey | ok | Down linked and deactivated the stethoscope. Took survey prior to continue drilling ahead. |
| 05:30 | 05:45 | 3617 | drilling -- drill | ok | Made up new stand of DP and prepared for drilling ahead. |
| 05:45 | 06:00 | 3617 | drilling -- other | ok | Rig alarm went off and all personnel mustered. Circulated and rotated pipe. |
| 06:00 | 13:45 | 3736 | drilling -- drill | ok | Continued drilling 8½" hole from 3617m to 3739m. Drilling parameters: Flow 2000 lpm / SPP 180 bar / String RPM 180 / WOB 9-12 MT / TQ 10-20 kNm / ROP 16-26 m/hour / ECD 1.478-1.491 SG / MUD weight 1.35+ SG. |
| 13:45 | 14:30 | 3699 | drilling -- survey | ok | Cleaned well prior to take pressure points. Racked back on stand. Parameters: Flow 1600 lpm / SPP 130 bar / String RPM 25 / TQ 11 kNm / ECD 1.447 SG / MUD weight 1.35+ SG. |
| 14:30 | 14:45 | 3699 | drilling -- survey | ok | Down linked and activated the stethoscope. |
| 14:45 | 15:15 | 3668.7 | drilling -- survey | ok | Took pressure point: Bit depth 3668.7m, test depth 3643m MD 3089.58m TVD, pressure 302.52 bars, mobility 16.93 mD. |
| 15:15 | 15:30 | 3668.7 | drilling -- survey | ok | Down linked and deactivated the stethoscope. Took survey prior to continue drilling ahead. |
| 15:30 | 16:30 | 3750 | drilling -- drill | ok | Continued drilling 8½" hole from 3739m to 3750m. Drilling parameters: Flow 1960 lpm / SPP 185 bar / String RPM 180 / WOB 9-13 MT / TQ 14-20 kNm / ROP 9-26 m/hour / ECD 1.475-1.487 SG / MUD weight 1.35+ SG. |
| 16:30 | 16:45 | 3750 | drilling -- survey | ok | Down linked Sonix Vision tool in fast record mode. |
| 16:45 | 19:45 | 3750 | drilling -- other | ok | Circulated well clean 3 time bottom up. Reciprocated the string while cleaning. Parameters: Flow 1960 lpm / SPP 180 bar / String RPM 180 / TQ 12-13 kNm / ECD 1.466-1.473 SG / MUD weight 1.36 SG. |
| 19:45 | 20:00 | 3750 | drilling -- other | ok | Flow checked the well stable. |
| 20:00 | 20:15 | 3745 | drilling -- other | ok | Took drag and torque reading. 10 rpm = 7.7 kNm, 20 rpm = 7.9 kNm and 30 rpm = 8.6 kNm. Up/down weight 186/145 MT rotation 159 MT, stretch 2.5m. |
| 20:15 | 21:45 | 3536 | drilling -- trip | ok | Held tool box talk and started POOH with 8½" drilling BHA wet 5 std. from 3750m to 3536m. Held kick drill. Trip time in open hole 142 m/hours |
| 21:45 | 22:15 | 3536 | drilling -- trip | ok | Flow checked well, well stable. Simultaneously made up to TDS and pumped 5m³ 1.56 SG slug. |
| 22:15 | 00:00 | 3092 | drilling -- trip | ok | Continued POOH with 8½" drilling BHA from 3536m to 3092m. Trip time in open hole 253 m/hour. |

Drilling Fluid

| | | | | |
|-----------------------|--------------|--------------|--------------|--------------|
| Sample Time | 04:00 | 09:00 | 16:30 | 22:00 |
| Sample Point | Flowline | Flowline | Flowline | Reserve pit |
| Sample Depth mMD | 3610 | 3669 | 3750 | 3750 |
| Fluid Type | OBM-Standard | OBM-Standard | OBM-Standard | OBM-Standard |
| Fluid Density (g/cm3) | 1.35 | 1.35 | 1.36 | 1.36 |
| Funnel Visc (s) | -999.99 | -999.99 | -999.99 | -999.99 |
| Mf () | | | | |
| Pm () | | | | |
| Pm filtrate () | | | | |
| Chloride () | | | | |
| Calcium () | | | | |
| Magnesium () | | | | |
| pH | | | | |
| Excess Lime () | | | | |
| Solids | | | | |

| | | | | |
|-------------------------|-----|-----|-----|-----|
| Sand () | | | | |
| Water () | | | | |
| Oil () | | | | |
| Solids () | | | | |
| Corrected solids () | | | | |
| High gravity solids () | | | | |
| Low gravity solids () | | | | |
| Viscometer tests | | | | |
| Plastic visc. (mPa.s) | 24 | 25 | 26 | 26 |
| Yield point (Pa) | 8 | 8 | 9 | 9 |
| Filtration tests | | | | |
| Pn filtrate () | | | | |
| Filtrate Lthp () | | | | |
| Filtrate Hthp () | | | | |
| Cake thickn API () | | | | |
| Cake thickn HPHT () | | | | |
| Test Temp HPHT (degC) | 120 | 120 | 120 | 120 |
| Comment | | | | |

Pore Pressure

| Time | Depth mMD | Depth TVD | Equ Mud Weight (g/cm3) | Reading |
|-------|-----------|-----------|------------------------|----------|
| 00:00 | 3006 | | 1.02 | measured |

Survey Station

| Depth mMD | Depth mTVD | Inclination (dega) | Azimuth (dega) | Comment |
|-----------|------------|--------------------|----------------|---------|
| 3596.2 | 3059.5 | 51.69 | 92.76 | |
| 3638.1 | 3086.3 | 48.65 | 94.05 | |
| 3678.4 | 3112.7 | 49.69 | 93.65 | |
| 3718.8 | 3138.7 | 50.17 | 93.8 | |
| 3729.9 | 3145.8 | 50.26 | 93.74 | |

Lithology Information

| Start Depth mMD | End Depth mMD | Start Depth mTVD | End Depth mTVD | Shows Description | Lithology Description |
|-----------------|---------------|------------------|----------------|--|--|
| 3612 | 3666 | 0 | 0 | Pchy (30-70%) mod wh gn dir fluor; v slomed gn/wh strmg cut fluor, no vis cut, pl gn/wh fluor res, no vis res. Show becomes very weak at 3666m and absent below. | |
| 3612 | 3680 | 3066.4 | 3113.6 | | Sandstone with traces of coal |
| 3666 | 3750 | 0 | 0 | No shows | |
| 3680 | 3750 | 3113.6 | 3158.5 | | Sandstone interbedded with siltstone, claystone and traces of coal |

Gas Reading Information

| Time | Class | Depth to Top mMD | Depth to Bottom MD | Depth to Top mTVD | Depth to Bottom TVD | Highest Gas (%) | Lowest Gas () | C1 (ppm) | C2 (ppm) | C3 (ppm) | IC4 (ppm) | IC5 (ppm) |
|-------|-------------------|------------------|--------------------|-------------------|---------------------|-----------------|---------------|----------|----------|----------|-----------|-----------|
| 00:00 | drilling gas peak | 3543 | | 3028.5 | | 5.57 | | 35708 | 3046 | 1492 | 110 | 82 |
| 00:00 | drilling gas peak | 3572 | | 3043 | | 4.62 | | 28462 | 2535 | 1316 | 104 | 81 |
| 00:00 | drilling gas peak | 3580 | | 3048.2 | | 6.88 | | 42362 | 3760 | 1850 | 136 | 97 |
| 00:00 | drilling gas peak | 3591 | | 3054.4 | | 4.02 | | 25190 | 2191 | 1085 | 84 | 67 |
| 00:00 | drilling gas peak | 3604 | | 3062 | | 4.16 | | 26138 | 2253 | 1108 | 86 | 68 |
| 00:00 | drilling gas peak | 3618 | | 3070.4 | | 3.51 | | 20864 | 2032 | 1081 | 176 | 229 |
| 00:00 | drilling gas peak | 3637 | | 3085.7 | | 4.86 | | 30790 | 2214 | 1100 | 90 | 70 |
| 00:00 | drilling gas peak | 3658 | | 3100.6 | | 7.57 | | 44923 | 3625 | 1728 | 130 | 91 |
| 00:00 | drilling gas peak | 3676 | | 3111.4 | | 3.43 | | 4526 | 570 | 364 | 39 | 41 |
| 00:00 | drilling gas peak | 3695 | | 3124.8 | | 1.58 | | 8850 | 856 | 447 | 41 | 45 |