

Optis[®] E-line Job Report

Company : Petronas Carigali Sdn Bhd
Field : KNNAG
Well : KNJT-C4
Country : Malaysia
Date Recorded: 30/12/2023
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1. Executive Summary

Dimension Bid has carried out a downhole video log in KNJT-C4 with the objective to identify the condition of EGF Flapper. The flapper is suspected to be in partially close condition.

Video acquired shows that there is no obstruction of the suspected EGF flapper. Below is image of the flapper at 786 ftTHF.



Fig.1.1 EGF Flapper condition at 786 ft

2. Objective

- To identify the EGF flapper condition.

3. Operation

A surface check of EV's Optis® Infinity Hybrid tool string was done at the surface before the camera ran. Communication through the Dimension Bid wireline was good, with low values of UL EVM and DL EVM errors. However, the optimum setting for the VWT is an 75-bit rate with medium resolution. The camera run was performed on December 30, 2023. The tool was checked at the surface while hanging before running into the hole. When opening the well, water is flushed downhole and the DV camera still to have blur or debris left on lens surface probably due to some grease during filling up water and pressurise inside the lubricator. The SV camera condition is clean, the lubricator is pressurised by pumping fresh water with higher pressure before opening the well. After the communication check was vertically completed and the camera was working well, operations proceeded with RIH and water is pumped at minimum rate.

Note: The tool zero is at THF.

Throughout the camera run, communication from tool was fine and check regularly for DV and SV angle until reaching at TRSV at 786 ft, thou during RIH while pumping the visibility is unclear due

water displacement downhole. Water is then stop pumped at 750ft and waiting for the fluid level to further to lower down until below TRSV.



Fig.3.1 DV Cam at 750ft observe fluid slowly displaced downhole.

On December 30, 2023, the operation continued after the camera passed the surface test. Below is the serial number of the EV Toolstring used for the runs.

| Tool | S/N Run1 |
|--|----------|
| AECNTB1GO-A (1-11/16" 6-BLADE BOW SPRING CENTRALISER) | 088 |
| EVTELCMK2EL-A (1-11/16" MK2 E-LINE TELEMETRY MODULE) | 143 |
| EVXO10B24P-A (1 11/16" CROSSOVER 10 WAY BOX TO 24 WAY PIN) | 085 |
| EVMEM24-A (1-11/16" MEMORY MODULE) | 080 |
| EVCNTB24K-A (24 WAY M-F BOWSPRING CENTRALISER) | 087 |
| EVCAMIDV-A (EV INTEGRATED DOWNVIEW FOR MCSV) | 010 |

Toolstring reached at TRSV 786ft (flapper) and the camera gave a good result during the process. There is no obstacle to the expected EGF Flapper depth of 786 ft only visualise that the flowtube is not fully travel. WSS then agreed to POOH, and the video of accessories was taken from 787ft - 783ft.



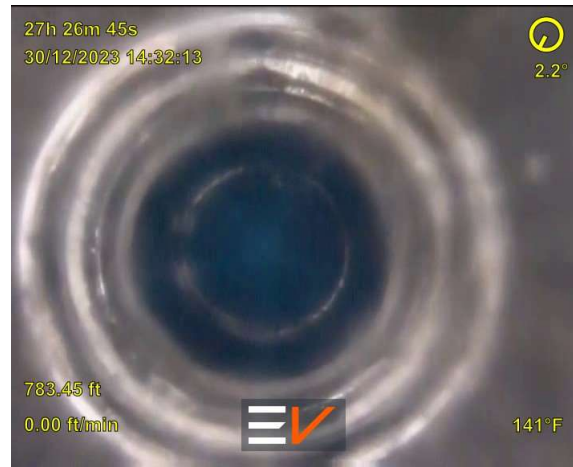
DV at 785ft



SV at 786ft flapper

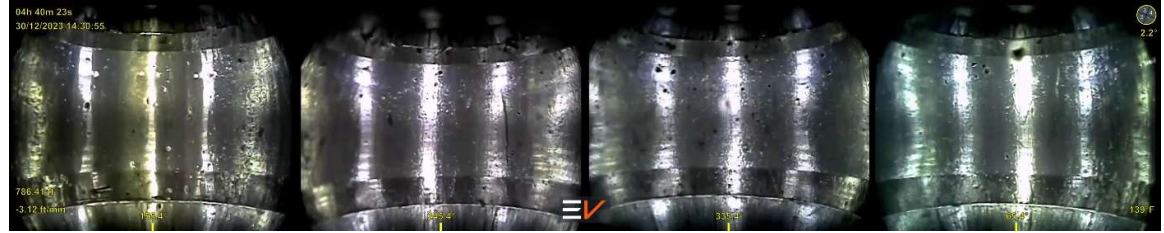
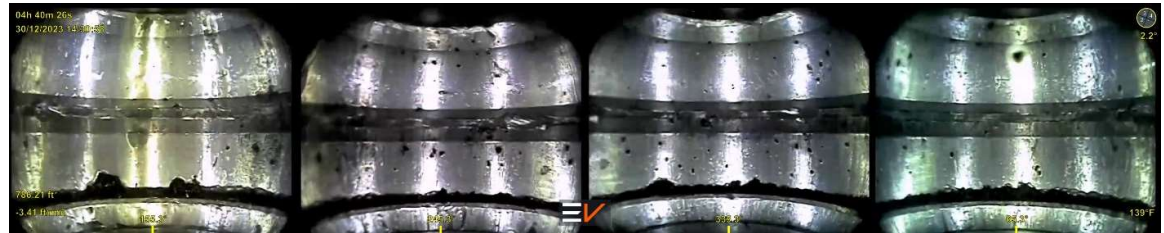
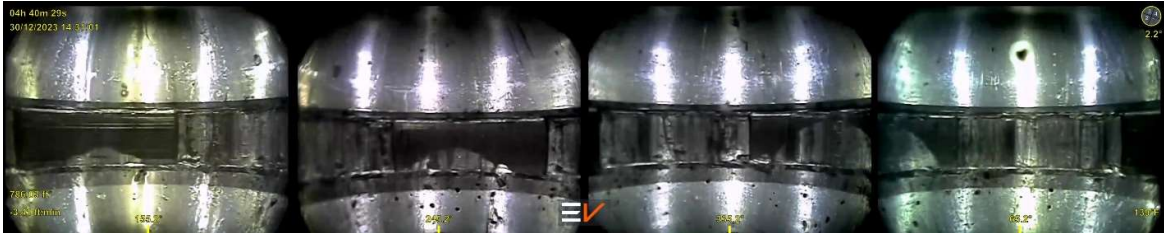
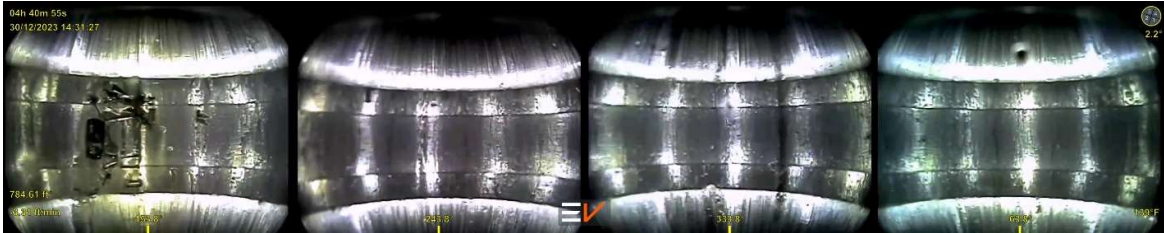
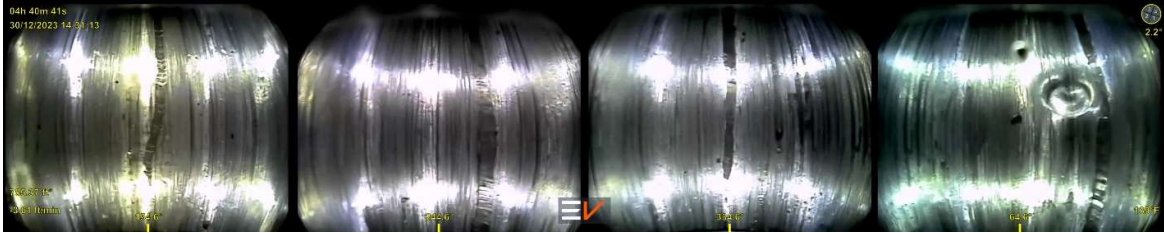


DV at 787ft



DV at 783ft





4. Conclusion

The operation was carried out successfully and images of the EGF Flapper and the HUD were acquired.

Video footage shows that there is no obstruction from the EGF Flapper that suspected to be in partially close condition.

The deepest depth of the camera survey is 787 ft (DV). No anomaly was found during log down to 787 ft.

The operation was carried out safely and all the hazards had been addressed to prior commencing the operation.

5.3. Run Summary

| Run | Date | Details |
|-----|------------|--------------------------|
| 1 | 30-12-2023 | Optis HD E-line Standard |

5.4. Run Report

| Tool | S/N Run Eline |
|--|---------------|
| AECNTB1GO-A (1-11/16" 6-BLADE BOW SPRING CENTRALISER) | 088 |
| EVTELCMK2EL-A (1-11/16" MK2 E-LINE TELEMETRY MODULE) | 143 |
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| EVCAMIDV-A (EV INTEGRATED DOWNVIEW FOR MCSV) | 010 |

5.5. Time Sequence of Events

| Details Activity (24/10/2023) | | | | |
|-------------------------------|---------|-------|------|--|
| TIME FROM | TIME TO | HOURS | CODE | DESCRIPTION |
| 6:00 | 06:30 | 0.5 | HSE | Attend morning meeting with operation onboard. |
| 6:30 | 7:00 | 0.5 | HSE | Toolbox meeting with WSS and WIS team onboard |
| 7:00 | 8:30 | 1.5 | HSE | ePTW revalidation and awaiting for approval. |
| 8:30 | 9:00 | 0.5 | OPT | Make up EV camera tool, function test tool. Connect additional 2 tungsten weight bar and perform function test. |
| 9:00 | 10:00 | 1 | OPT | Stab in lubricator section, fill up at 0.8bbl and perform pressure test PCE at 3100psi. Monitor for 15mins and observed no leakage. |
| 10:00 | 12:45 | 2.75 | OPT | Proceed pumping at minimum rate between 0.15-0.20bbl while rih. Upon reaching 750ft, station tool and stop pumping. Monitor camera condition. Observed that camera still blurry at bottom view and sideview. Sideview observed slight debris. Continue to monitor until well is stabilize and fluid is below flapper. |
| 12:45 | 13:15 | 0.5 | OPT | Continue rih until SCSSV depth and observed flapper is seen clearly. |
| 13:15 | 14:00 | 0.75 | OPT | Discussion with town and commenced to proceed to log for 2 cycle as reference depth. Agreed with flapper image is seen clearly as per EV camera sideview. |
| 14:00 | 15:00 | 1 | OPT | POOH until reach at depth 430ft and flag cable line. Observed mark at tubing wall. Yoyo at 450ft-430ft while observe tubing wall condition. |
| 15:00 | 15:30 | 0.5 | OPT | POOH to surface and disconnect tool. |
| 15:30 | 15:45 | 0.25 | OPT | Rig down pumping line and secure pumping tee. |
| 15:45 | 16:15 | 0.5 | OPT | Make up slickplug tool and continue to rig up to lubricator section but observed tool hang up at tooltrap. |
| 16:15 | 16:45 | 0.5 | OPT | Disconnect slickplug and lowerdown upper pce section. Removed tooltrap and test simulate slickplug passing thru. |
| 16:45 | 17:15 | 0.5 | OPT | Due to time constraint. PCE, well and equipments secured. |
| 17:15 | 17:45 | 0.5 | JPR | Housekeeping at work area and suspend ePTW. |

5.6. Mnemonics

| | |
|------|-----------------------------------|
| RIH | Run in Hole |
| POOH | Pull out of Hole |
| AOI | Area of Interest |
| OD | Outer Diameter |
| ID | Inner Diameter |
| DF | Drill Floor |
| HUD | Hold-up Depth |
| GL | Ground Level |
| SSSV | Sub-Surface Safety Valve |
| TBT | Toolbox Talk |
| FS | Field Specialist |
| SDI | Scientific Drilling International |
| DV | Down-View |
| SV | Side-View |
| TOL | Top of Liner |
| UMV | Upper Master Valve |
| LMV | Lower Master Valve |
| TD | Tagged Depth |

6. HD E-line Tool Specification

Optis® E-Line HD is a step change in downhole video technology providing colour, 25 frames per second video, on mono-conductor cables. Colour images provide a new level of detail particularly when inspecting corrosion or mechanical damage.

EV's proprietary telemetry, which runs at over 200 kbps, is combined with video compression technology and error correction to deliver industry leading video quality. The system tunes itself to a wide range of cables so that Optis® Electric Line HD works on virtually any cable length or cable type.

Optis® E-Line HD's modular design means it can be run with downview, sideview or both. Deviation, high side indicator and internal temperature are digitally transmitted to the surface laptop providing essential information when viewing images.

EV's colour downview light head uses the latest in LED technology combined with an optimised lens to give colour pictures of unrivalled quality even in marginal fluid conditions. The LED light intensity can be adjusted to maximise image quality in a wide range of wellbore scenarios. The LED technology is rugged, minimizing susceptibility to shock loading.

SPECIFICATIONS

| | | |
|--------------------|--|-----------|
| Diameter | 1.7 in | 43.0 mm |
| Length* | 147.5 in | 3746.8 mm |
| Pressure rating | 15,000 psi | 1034 bar |
| Temperature rating | 257 °F | 125 °C |
| Camera Type | Downview (Colour) & 360° Motorised Sideview (Colour) | |
| Video Frame Rate | Up to 25 fps | |
| Recording Capacity | Continuous real-time transmission to surface | |

***Example tool string**

