#### CASE STUDY- 2020- MALAYSIA

# Cflex® with fundament enables major operator to ensure well integrity with 2 stage cementing

# Challenge

A major operator was planning two wells with splitter wellhead design in a field in Malaysia. Statistics show that more than 70% of the offset wells had well integrity issues across intermediate casing section (12-1/4" x 9-5/8") which could be seen clearly from the poor cement bond log and high annulus pressure. Aside, potential risk of hitting anomalies across 12-1/4" section has been identified at planning stage. This could pose a great threat to the well integrity as well.

Hence, the operator required a solution to ensure proper zonal isolation could be achieved and assurance for well integrity could be maintained regardless the outcome of the primary cement job.

## **Solution**

Archer chose the Cflex® MKII-F, as primary solution. The Cflex®'s ISO 14998 VO rating combined with the integrated fundament provides selective access to the annulus for completing a second stage cement job with a base for cement all while providing best in class well integrity.

## Result

Cement jobs on both wells were planned as two stage, utilizing the Cflex® as access to initiate the second stage. 70 bbls of spacer and 53 bbls of cement were pumped on A-11 and 100 bbls of spacer and 52 bbls of cement on A-12. Both Cflex® were pressure tested and permanently locked resulting in well integrity for the lifetime of the well and proper zonal isolation.

Installation of the Cflex® and subsequent 2nd stage cement jobs allowed the operator to avoid any additional intervention work to remediate poor isolation from primary jobs allowing them to deliver the well on time and on budget.



Splitter well head design

36" Conductor

13-3/8" Casing

Anomaly

P-5/8" Casing

Reservoir sand

Archer is a global oil services company with a heritage that stretches back over 40 years. With a strong focus on safety and delivering the highest quality products and services, Archer operates in 40 locations over 19 countries providing drilling services, well integrity & intervention, plug & abandonment and decommissioning to its upstream oil and gas clients. **We are Archer.** 

