



Weatherford®

REAL RESULTS

MetalSkin® Cased-Hole Liner Isolates Damaged Casing, Enables Recompletion, Saves Well From Abandonment in Malaysia

Objectives

- Provide a permanent casing-remediation solution to isolate a casing leak at a depth of 351 ft (107 m). Previous cement squeeze attempts were unsuccessful.
- Minimize the loss of inside diameter (ID) to optimize production.

Results

- The 9 5/8-in. casing string was thoroughly cleaned and prepared for casing remediation using a mill provided by Weatherford's fishing services.
- Weatherford personnel ran a 7 5/8- x 9 5/8-in. *MetalSkin* cased-hole liner to a depth of 374 ft (114 m). The carbide anchor was expanded into the parent casing using hydraulic pressure. The workover rig was used to mechanically expand the system in one trip from a depth of 374 to 305 ft (114 to 93 m).
- The system's hydraulic-setting capability was used to safely exit the liner top during the expansion of the last 6 ft.
- Weatherford's IPP® injection production packer was run below the *MetalSkin* system for a post-installation pressure test to 3,000 psi (20.68 MPa), confirming the integrity of the repaired casing.

Value to Client

- Weatherford's *MetalSkin* system enabled the operator to permanently isolate the interval in one trip, saving the well from abandonment.
- The *MetalSkin* system provided a post-expansion ID of 7.900 in. (201 mm) and a drift of 7.775 in. (197 mm), minimizing loss of hole size for optimum production.



The second installation of Weatherford's *MetalSkin* system in Malaysia provided permanent isolation to a damaged casing interval, enabling the well to be recompleted as a water-alternating-gas injector.

Location

Offshore, Malaysia

Rig Type

Platform workover rig

Well Type

Water-alternating-gas injector

Hole Angle

Deviated

Parent Casing

9 5/8-in., 40-lb/ft (60-kg/m) K-55

Depth

- Setting: 374 ft (114 m)
- Liner: 69 ft (21 m)

Static Bottomhole Temperature

135°F (57°C)

Inclination

- 10° incline at setting depth
- 5° incline per 100 ft (30 m) of dogleg severity

Products/Services

- *MetalSkin* cased-hole liner system
- IPP injection production packer
- Fishing services

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