

# MetalSkin® Monobore Openhole Liner, SurgeMaster® II System Extend 13 3/8-in. Casing to New Pay Zone, Increase Productive Life of Ultra-Deepwater Facility

## Objectives

- Extend a 13 3/8-in. casing string to isolate the current producing zone and reach a deeper pay zone.
- Reduce surge pressures while running the casing extension.
- Run an 11 3/4-in. long string through the extension, and enable two additional casing strings to be run below the primary producing zone while maintaining a 7 5/8-in. completion diameter.

## Our Approach

- Following a thorough pre-job analysis, a Weatherford well construction team recommended an 11 3/4- × 13 3/8-in. MetalSkin monobore openhole liner (MMOL). The system would run with a 14 1/2-in. tie-back shoe to provide a receptacle for the expanded liner and allow an ID and drift similar to the existing 13 3/8-in. casing. The SurgeMaster II system would reduce surge pressures.
- Prior to deployment, the team laser-measured, wall-mapped, and precision-ground the tie-back shoe OD to accommodate a 14.588-in. (370.5 mm) wellhead restriction.
- Onsite, the Weatherford team made up the 2,656-ft (809.5-m) MMOL and placed the SurgeMaster system in the first stand above the liner. They ran and cemented the liner with minimal surge issues. The team then then expanded the liner to a final post-expansion length of 2,516 ft (766.8 m).
- The team drilled out the guideshoe and cement, and then opened the mill-out tool to back ream the 2-ft (0.6-m) section of unexpanded casing. Finally, they used watermelon mills to polish the ID.
- Using specially designed Weatherford centralizer subs and the SurgeMaster II surge-reduction system, the team ran the 11 3/4-in. long string through the 11 3/4-in. MMOL and cemented it in place.

## Value to Customer

- The MetalSkin MMOL and SurgeMaster system extended the 13 3/8-in. casing string by 2,375 ft (724 m). This enabled the 11 3/4-in. long string to isolate the primary reservoir and reach a deeper, newly discovered production horizon.
- The operation enabled immediate additional production without installing new production facilities.
- The MMOL enabled through-drilling, tubular-running, and cementing operations while maintaining the desired 7 5/8-in. completion diameter.
- The SurgeMaster system reduced surge pressures and protected the formation while running the tie-back shoe, MMOL, and long string.



An 11 3/4- × 13 3/8-in. MetalSkin monobore openhole liner extended the 13 3/8-in. casing and enabled an 11 3/4-in. long string to be set and cemented below the expanded liner.

### LOCATION

Gulf of Mexico (USA zone)

### WELL TYPE

Ultra-deepwater directional oil producer

### WATER DEPTH

~8,000 ft (2,438 m)

### EXPANDABLE LINER SIZE

11-3/4 × 13-3/8 in.

### SETTING DEPTH

~14,000 ft (4,267 m)

### POST-EXPANSION LINER LENGTH

2,516 ft (766.8 m)

### PRODUCTS/SERVICES

- MetalSkin monobore openhole liner
- SurgeMaster II surge-reduction system
- Monobore tie-back shoe
- 11 3/4-in. liner centralizer subs

