LUNA Sensing Group

Carina® XwellXpress™ DATASHEET



Real-time frac visualization with Carina XwellXpress

Carina XwellXpress is the world's first fiber optic crosswell low frequency strain and microseismic monitoring service that accurately locates microseismic and strain events in real-time through wireline interventions.

It enables operators to improve stimulation and completion designs on the fly to maximise recovery. The use of wireline ensures unmatched system flexibility with uncompromised data quality.

Why choose this service?

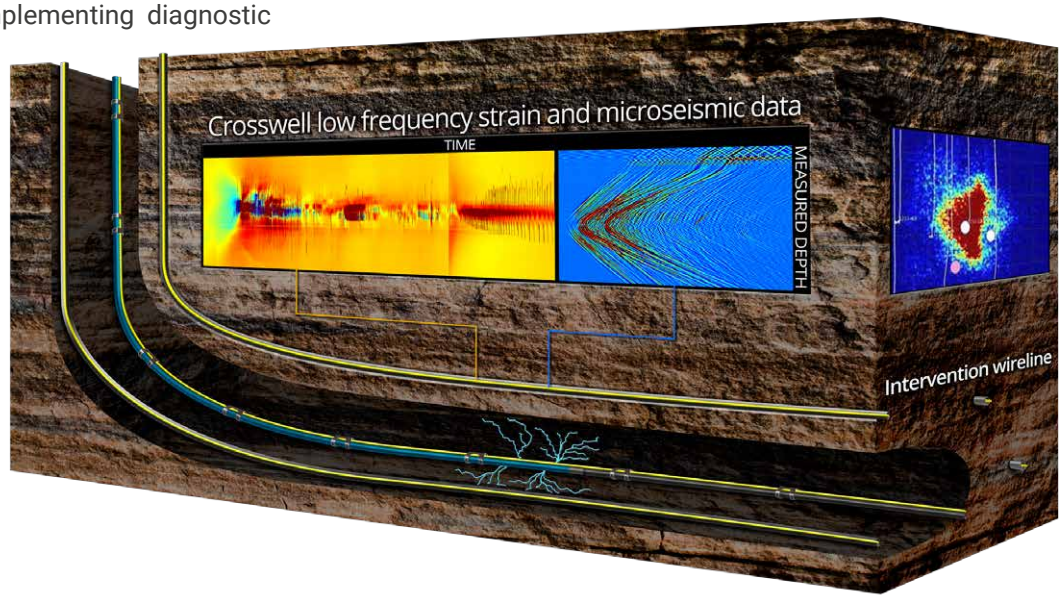
This service removes the most challenging barriers that keep operators from implementing diagnostic services: high costs, lack of real-time data and interference with operations.

Changes in frac design can dramatically alter the ultimate recovery with a variance of 30% or higher. Silixa's Carina XwellXpress removes uncertainty and maximizes return on investment by optimizing frac designs on the fly.

The enabling technology

Carina XwellXpress capitalizes on the breakthrough performance of the Carina® Sensing System, the engineered fibre optic sensing solution, that has 100x improvement in signal-to-noise ratio, and greater than 100x improvement in the lower frequency ranges of slow strain and microseismic compared to other DAS systems.

Due to its unparalleled sensitivity it can detect changes in low frequency strain induced by the development of the fracture network as little as 0.36 x 10 -4 microinch/ foot while simultaneously detecting microseismic events and crosswell frac hits.



Optimize well spacing and frac designs | Improve production | Reduce overall costs

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SILIXA
A LUNA company
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Technical data

Properties	
Cable Diameter	0.329”
Cable length	26,800’
Minimum sheave diameter	22”
Cable stretch coefficient	1.55 ft/kft/klb
Electrical	
Maximum conductor voltage	1,500 VDC
Conductor AWG Rating	14
Minimum insulation resistance	1,500M Q/kft@ 500 VDC
Armor electrical resistance	2.21 Ω/kft
Copper conductor resistance	2.9 Ω/kft
Mechanical	
Cable breaking strength	
Ends fixed	12,000 lb
Maximum suggested working tension	6,000 lb
Number of wires	
Inner armor	18 x 0.0358”
Outer armor	24 x 0.0358”
Average wire breaking strength	
Inner armor	315 lb
Outer armor	315 lb
Cable weight air	189 lb/kft
Cable weight water	156 lb/kft
Cable working temperature	400° F
Working Pressure	17,975 psi
Optical	
Singlemode fiber	2
Multimode fiber	2
Constellation™ fiber	1
Minimum temperature rating	-13°F
Maximum temperature rating	302° F
Carina® product specification	
Noise floor	3 picostrain
Measurement resolution	0.36 x 10-4 microinch/foot
Gauge length	6.6 feet, 32.8 feet
Deployment methods	
Pump-down or tractor	

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