OPENFIELD™ TECHNOLOGY

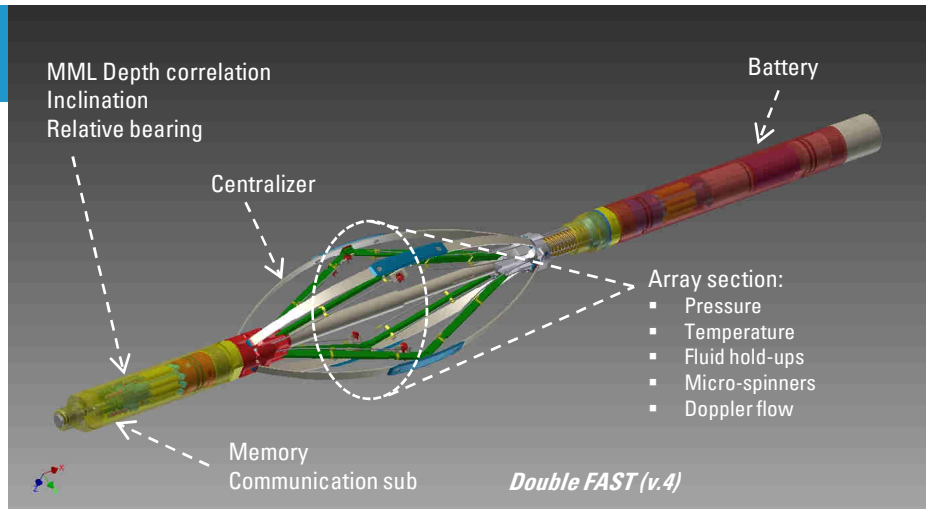
MICRO INSTRUMENTS FOR HARSH ENVIRONMENTS

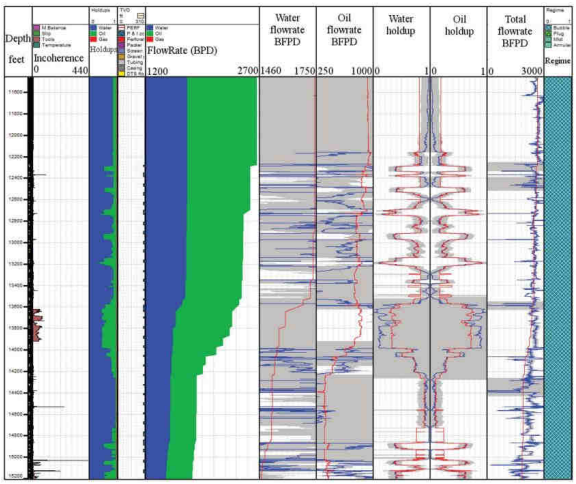
FAST

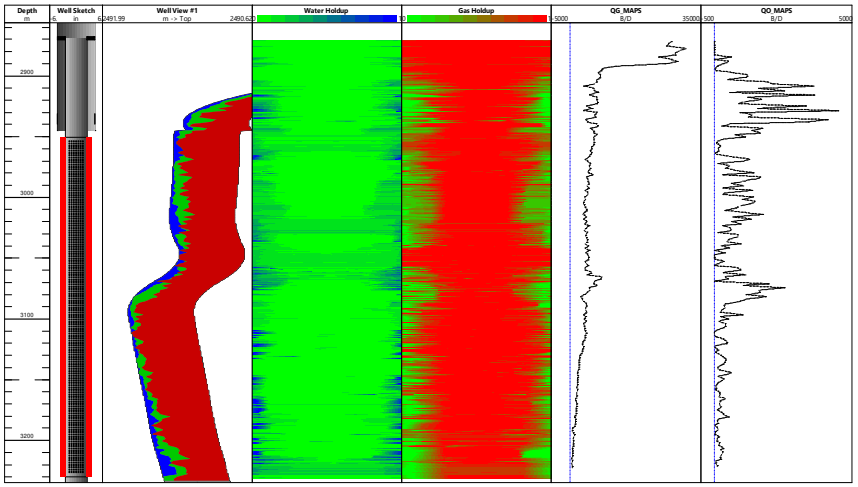
Flow Array Sensing Tool

UNIQUE SOLUTION FOR ADVANCED DOWNHOLE FLOW DIAGNOSTICS

MULTIPHASE FLOWS
DEVIATED AND HORIZONTAL WELLS
-
EXTENDED FLOW RATE RANGE
EXTENDED HOLD UP RANGE
-
ULTRA COMPACT
MODULAR
COLOCATED SENSORS





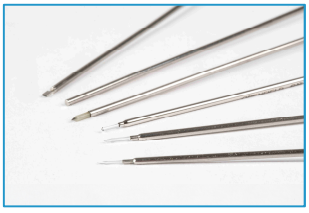


INTERCHANGEABLE ARRAY PROBES

Spaghetti FAST

Fluid identification	▪ Gas hold-up optical probe ▪ Triphasic optical probe ▪ Water hold-up conductivity probe ▪ Water hold-up capacitance probe ▪ Fluorescence probe
Flow rate	▪ Mini-spinners (low threshold) ▪ Micro-spinners (high velocities) ▪ Ultrasonic Doppler probe
Pressure	Openfield™ MEMS pressure sensor – tube shape
Temperature	High resolution temperature array imaging

Mix and match according to well type and job objectives



Array probes

The OpenField™ FAST – Flow Array Sensing Tool

TOOL SPECIFICATIONS

10 times shorter than state of the art array-PLTs

	"The Memory FAST" (aka v.2)	"The Throughwire FAST"	"The Double FAST" (aka v.4)	"The Spaghetti FAST"
OD	1 - 11/16 in. (43 mm)			1 – ¼ in. (31.75 mm)
Length	34 in. (86 cm)	42 in. (107 cm)	42 in. (107 cm)	32 in. (80 cm)
Pressure	10 kPSI (15 kPSI option available)			
Temperature	257°F (302°F option available)			
Max casing ID	7 in. (178 mm)			4 in. (101.6 mm)
Number of arms	4	4	4	3
No. of replaceable array probes	8	8	16	12
Corrosion	NACE compliant materials – Stainless steel 316 L, Inconel, Nickel, Sapphire			
Shocks	250 G, 2 ms			
Power supply	D-battery 3.6 V 150 hours of continuous recording and real-time acquisition			C-battery 3.6 V 80 hours
Memory	192 MB: 24 hours at 16 Hz, 8 days at 2 Hz	192 MB: 24 hours at 16 Hz, 8 days at 2 Hz	384 MB: 48 hours at 16 Hz,16 days at 2 Hz	192 MB: 24 hours at 16 Hz, 8 days at 2 Hz
Top connexion	Sucker rod 15/16" PIN	Inverted GO PIN	Inverted GO PIN	Sucker rod 15/16" PIN
Bottom connexion	Sucker rod 15/16" BOX	Inverted GO BOX	Inverted GO BOX	Sucker rod 15/16" BOX
Acquisition	• Memory • Plug & Play USB to Openfield™ FAST Recorder software	• Real time or memory • Compatible with the Openfield™ FAST SRO telemetry system		
Centered measurements included	• MEMS Pressure Accuracy 1 PSI Resolution 0.01 PSI • Temperature Platinum RTD Accuracy 0.1°C Resolution 0.01°C • Fullbore Doppler flowrate • Depth correlation MML Resolution 0.1 m • Inclination 0-90° ± 1 • Relative bearing 0-360° ± 3		• Depth correlation MML Resolution 0.1 m • Inclination 0-90° ± 1 • Relative bearing 0-360° ± 3	• Depth correlation MML Resolution 0.1 m • Inclination 0-90° ± 1 • Relative bearing 0-360° ± 3
Optional	Tandem acquisition for cross-correlation	• Throughwire • Caliper (1d) for Casing ID • Additional Temperature RTD	• Fullbore Doppler flowrate • Can be deployed in axial configuration	

www.openfield-technology.com
440 Cobia drive - #404 – Katy TX 77494 – USA
13 rue de Limoges – 78000 Versailles – FRANCE