

FIBER OPTICS: SAGD TEMPERATURE PROFILE

Fiber optics provide continuous acquisition of distributed temperature data, even in extreme environments such as SAGD and CSS. Using specialized fiber optics and bottom-hole assemblies, a high-resolution profile can be acquired quickly and efficiently, saving time and money.

High-Temperature Profiling Application:

- Fast acquisition of temperature profiles for regulatory purposes, including distributed temperature sensing for production optimization through real-time monitoring (via internet connection), allowing the operator the ability to observe and optimize well performance
- Temperature profiling for AER submission as per regulatory requirements
- Monitor vertical observation wells with cost-effective slickline, allowing multiple wells to be acquired in one day
- Horizontal observation with specialized high-temperature coil to monitor both producers and injectors
- Deployed with pump-down if required

Benefits:

- Specialized high-temperature coil, able to be run by any independent coil operator
- High-temperature slickline available on stand-alone lightweight mast units
- Certified fiber optic technicians
- Coil deployment - eliminating destructive temperature interference associated with pump-down applications, saving time and maximizing the ability to profile multiple wells per day
- Faster than conventional logging methods
- Overcomes limitations of conventional methods in high-temperature environments
- Data is presented in a simple, easy-to-read format and exportable to L S, Excel, and CSV format
- Better vertical resolution than conventional logging methods
- Provides insight into wellbore dynamics that cannot be seen with conventional methods
- Can 'see' into the reservoir to gain insight into reservoir performance



	High Temp. Coil	High Temp. Slickline
OD	1 1/2"	1/8"
Length	2,500 m	5,000 m
Temperature	300°C	300°C
Temp. Resolution	0.1°C	0.1°C
Pressure	72 MPa	103 MPa
Resolution	0.5 m	0.5 m
Sample Rate	30 sec	30 sec
H₂S / CO₂	yes / yes	yes / yes
HZ Deployment	Coil	Pump Down