

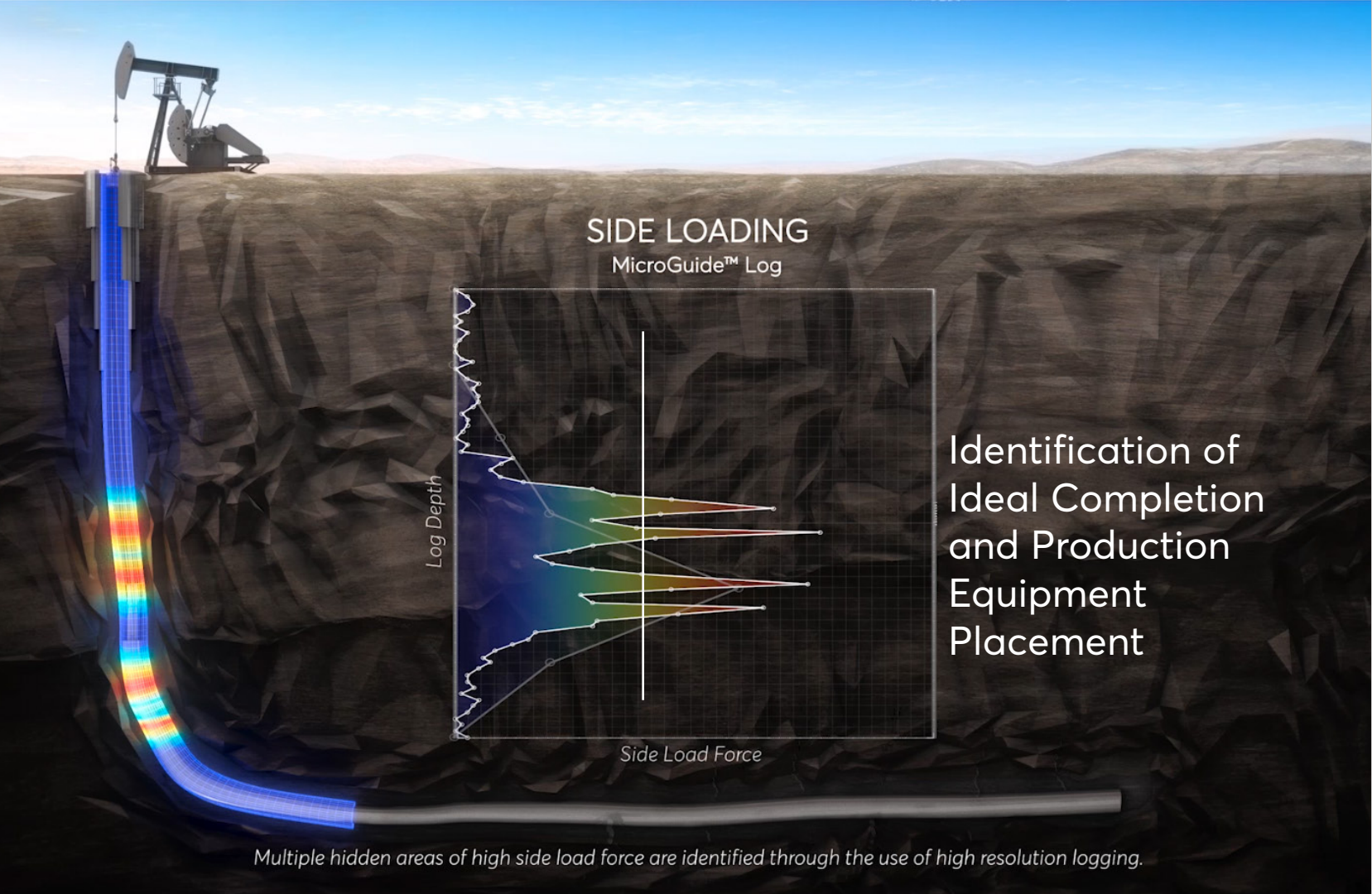
WIRELINE SERVICES

CASED HOLE LOGGING

***gyro*data**

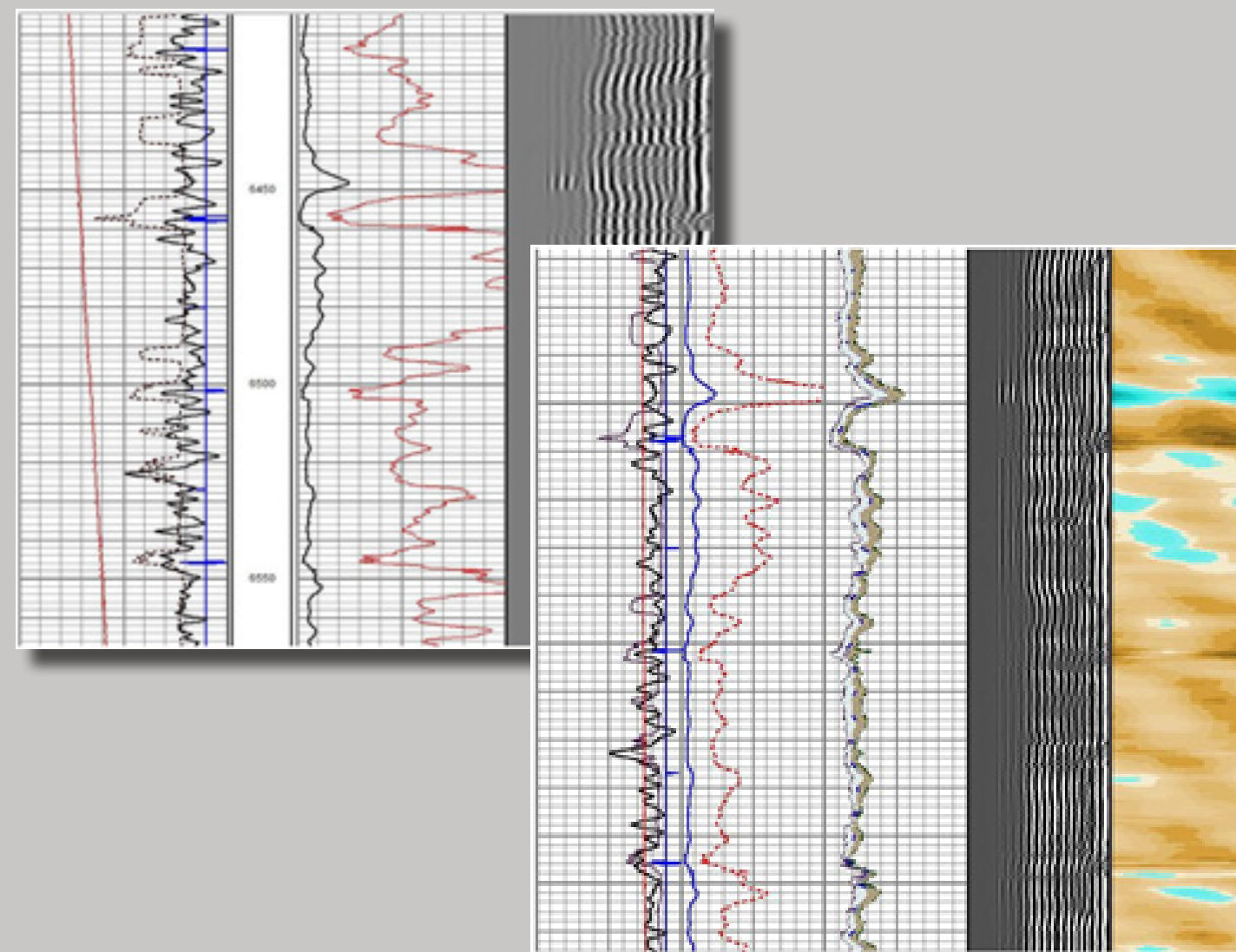
Gyrodata offers a complete line of cased hole logging services to provide clients with the information necessary to evaluate the integrity of the wellbore for future operations. From Radial Cement Bond logs with full cement maps to our proprietary tortuosity logging service, MicroGuide, Gyrodata can offer solutions to your wellbore integrity issues.





Wellbore Integrity

Gyrodata's Radial Cement Bond Logging service offers a complete 360° depiction of the cement-to-casing and cement-to-formation bond integrity. The standard radial log format makes it easy to identify the cement tops and any channeling or micro-annuli that may be present while delivering precision cement mapping. Custom log formats are available for a variety of applications to fit the clients' program including the historic 3-inch to -5-inch dual receiver layout. These features paired with quantitative interpretation by Gyrodata's experienced logging services team enables operators to make confident decisions for complex reservoir situations. Calibrated bond index results are delivered with each log to assist in quick decisions for remediation.

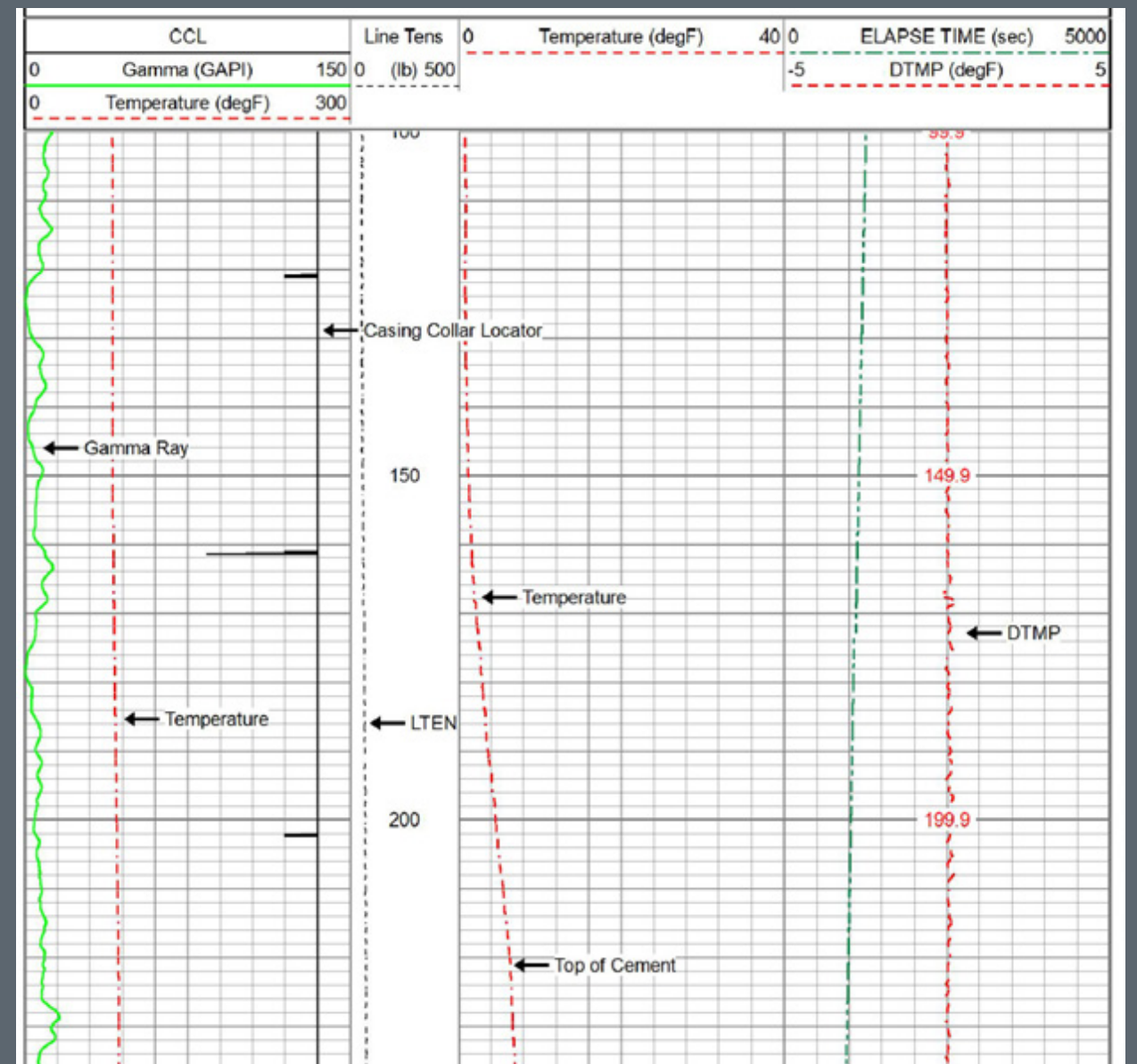
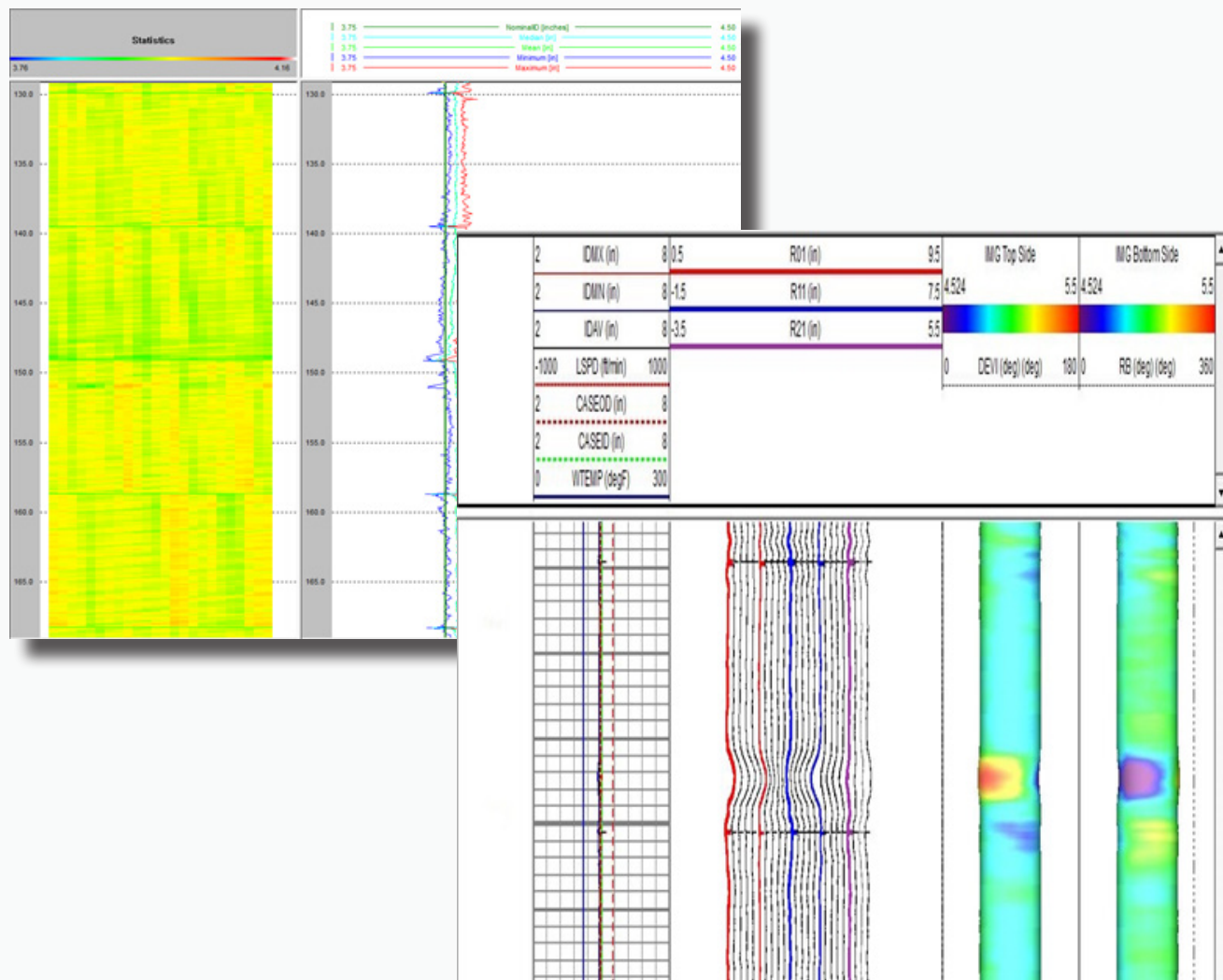


Tortuosity Detection & Analysis

Gyrodata's proprietary MicroGuide™ high-resolution tortuosity log delivers the most accurate wellbore depiction available. This innovative analysis revolutionizes how completions, production, and drilling challenges are addressed by providing greater insight into wellbore conditions. MicroGuide offers several solutions including extending the life of an electric submersible pump through proper placement in the casing string or recommendations on the placement of tubing rod guides or the beam pump. MicroGuide also offers obstruction and conveyance analysis on practically any type of completions or production equipment helping identify whether it will be able to traverse the casing string without becoming stuck or damaging the equipment on the trip. Overall, MicroGuide enables the most informed decisions to be made when it matters most.

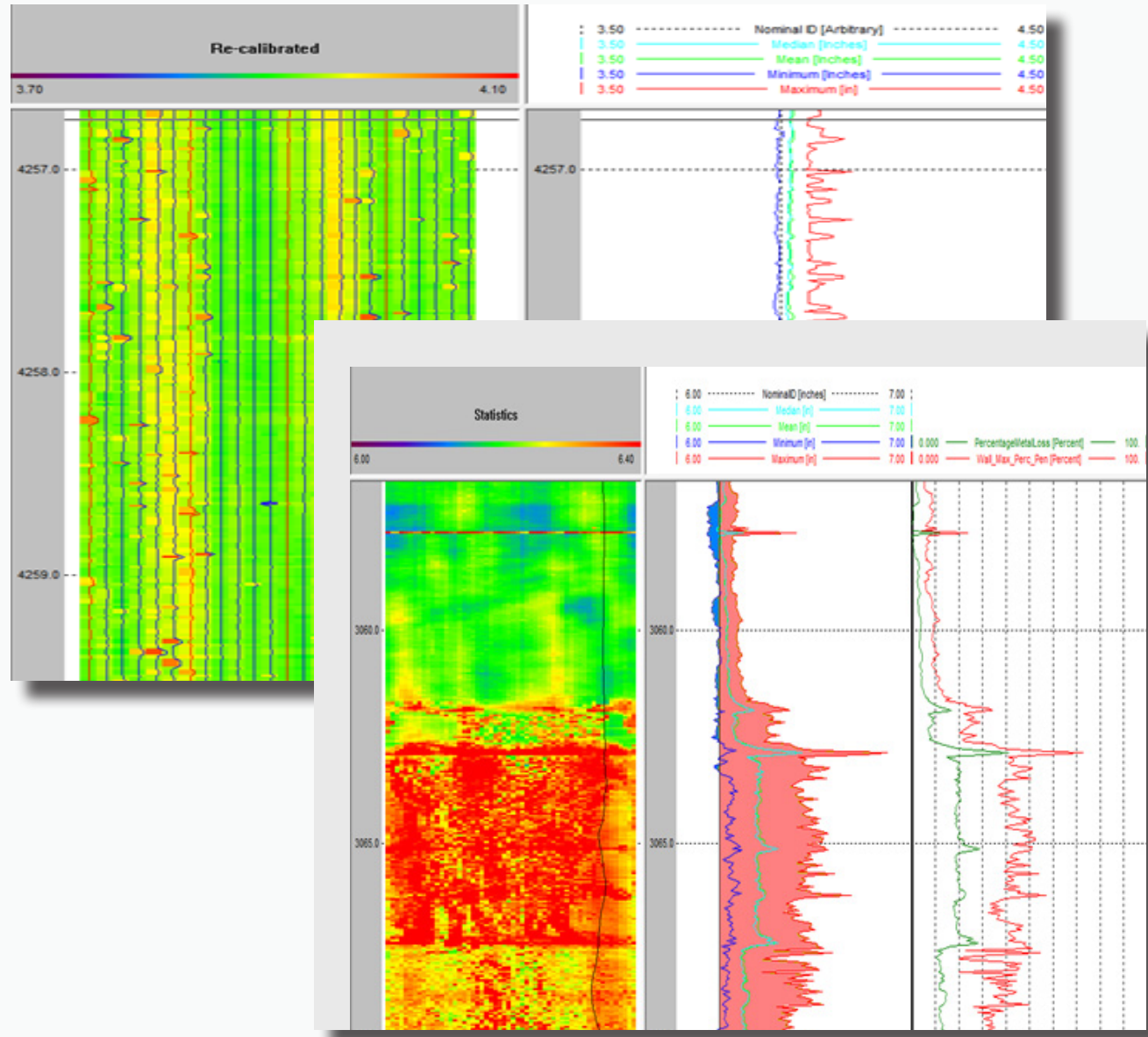
Casing and Tubing Inspection

Gyrodata's Multi-Finger Caliper Logging service provides a highly accurate depiction of the quality of the inside of the tubular which it is run. Caliper tools are utilized inside tubing or casing to help identify many different issues with the tubular. These tools can accurately identify holes, cracks or scale buildup in the string. They also identify issues with the ovality of the string caused by over-tensioning or placing the string in compression. The 24-finger calipers can be utilized inside tubing or casing up to 5-1/2-inch, and the 40-finger calipers are run inside casing up to 9-5/8-inch. Caliper tools are routinely utilized on many new wells to determine if there are areas that may be compromised during completion operations, or to set a baseline for future corrosion logging and avoidance programs. Joint by joint tabular grading information is delivered with each caliper log to assist with standardized decision making capabilities at the wellsite to drive efficiency.



Gradient Temperature & Top of Cement Identification

Gyrodata utilizes a highly accurate platinum resistance thermistor to log ambient downhole temperature. Our temperature probes are run in combination with every radial cement bond log or correlation log we run to add qualification variables for operations and value for the client. Temperature logs can also be run independently and are most often associated with identifying the top of cement if a complete bond log is not necessary or cement has not been circulated back to surface. Gyrodata also offers the temperature solution in combination with most pressure and flowmeter logs to help identify the type of different fluid or flow gradients inside the wellbore.



Corrosion Detection

Gyrodatta's Magnetic Thickness Determination Logging service uses eddy current waveform analysis to provide an extremely accurate representation of the thickness of the first two tubulars in the wellbore. This has become a very popular solution to determine if corrosion is present in the first string of casing without having to pull the tubing out of the well. These logs are routinely run in combination with tubing caliper services for an overall accurate depiction of the tubular health throughout the production zone of the wellbore.

M³ Logging Solution

Combination logging offers the highest level value proposition for cased hole services in the market today. Gyrodatta's M³ Logging solution combines our proprietary MicroGuide tortuosity log with the full corrosion logging solution including multi-finger caliper and magnetic thickness to offer the most comprehensive tubular integrity analysis log on the market. Easily identify areas in your wellbore causing issues with tubular integrity while simultaneously identifying whether downhole tortuosity is causing or adding to the issues. All logging services can be offered in combination to deliver the best bang for the buck for the clients' operation.

Depth Correlation

There are ample examples in the industry of when a highly accurate depth correlation log is useful. Gyrodatta utilizes the combination of gamma ray and casing collar locator logs to offer this solution. We correlate cased hole services to the primary wellbore log, most often the open hole log, in order to provide an accurate depth for additional logging or future energetics and blasting services. Both real time and memory options are available. Tool sizes are available for tubing or casing depth correlation services.

Energetic Service

Gyrodatta offers energetic services to improve efficiency for the overall operation. We offer standard mechanical services such as gauge ring and junk basket services to clean out and calibrate the wellbore before running other logging or completion tools. We have the ability to set almost any bridge plug, completion or production packer, cement retainer, etc. Gyrodatta also offers perforating in combination with the cement bond log services.

Wellbore Pressure Control Service

Gyrodatta offers the full array of pressure control solutions to ensure all logging, surveying, energetic or mechanical operations are conducted with safety and complete containment in action. State of the art logging units equipped with grease injection packages lead the fleet for our cased hole services. We also provide crane, trailer or skid mounted units to ensure a solution to any type of location.

GLOBAL HEADQUARTERS

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The logo for gyrodata, featuring the word "gyrodata" in a bold, lowercase, sans-serif font. A vertical red line is positioned between "gyro" and "data". A horizontal red line is located below the entire word. The logo is set against a background of diagonal grey and yellow stripes.

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