

AGE OF DIGITIZATION

# Core Laboratories

2023 ANNUAL REPORT



**Core Lab**  
RESERVOIR OPTIMIZATION



**Core Laboratories**  
*is the Reservoir Optimization Company™*

Core Laboratories is a leading provider of proprietary and patented reservoir description and production enhancement services and products. These services and products enable the Company's clients to optimize reservoir performance, maximize hydrocarbon recovery from their producing fields, and improve operations across the hydrocarbon value chain. The Company has over 70 offices in more than 50 countries and is located in every major oil-producing province in the world. Core Laboratories provides its services to the world's major, national, and independent energy companies.



**Front Cover**

The theme of the Core Lab 2023 Annual Report is the Age of Digitization and how we are positioning the Company as a leading innovator in technology, automation, and digital solutions that benefit our own business and our clients.

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## Message from the Executive Team



From left to right: Mark Tattoli, Gwen Gresham, Chris Hill, Larry Bruno.

A multi-year recovery cycle for the oil and gas industry continued in 2023, led by improvement in both onshore and offshore client activity across our global operations. The recovery cycle is being led by upstream investment in the Arabian Peninsula, South Atlantic Margin and West Africa, but opportunities exist across the globe. The Arabian Peninsula region is playing a leading role in this crude-oil development cycle and will account for an increasing percentage of the global crude-oil supply over the next several decades. Core Lab is already well-positioned as a strategic partner for National Oil Companies (“NOC”) in the Arabian Peninsula, providing both services and products through its Reservoir Description and Production Enhancement segments.

Core Laboratories remains focused on helping clients achieve reservoir optimization. In the Age of Digitization, the strategic application of analytical data holds the key to unlocking the next incremental barrel. In this Annual Report, we review the technologies and innovations the Company has applied to enhance the client experience, improve operational efficiencies, and deliver data in a way that enables innovation. Our strategy to drive digitization and automation creates technological differentiation, contributes to higher margins, and drives internal efficiencies and cost savings.

We are excited about 2024 and beyond, and we are grateful for our talented employees, Board of Directors, and shareholders who all contribute to the Company’s success. We look forward to the opportunity to improve returns on international activity growth, while maximizing value in North America. We will continue to focus on operational efficiency throughout our laboratory network, as we develop and deploy digital and automation solutions as a strategic client partner for both hydrocarbon production and energy transition solutions such as Carbon Capture and Sequestration (“CCS”). Core Lab will remain focused on meeting clients’ needs through technological innovations and a high level of service and ethics. Client-driven technology advancements will continue to be delivered through our two business segments: Reservoir Description and Production Enhancement (Figure 1). Both segments apply patented and proprietary technologies to solve clients’ problems and anticipate their needs, helping them optimize their reservoirs and maximize their return on investment.

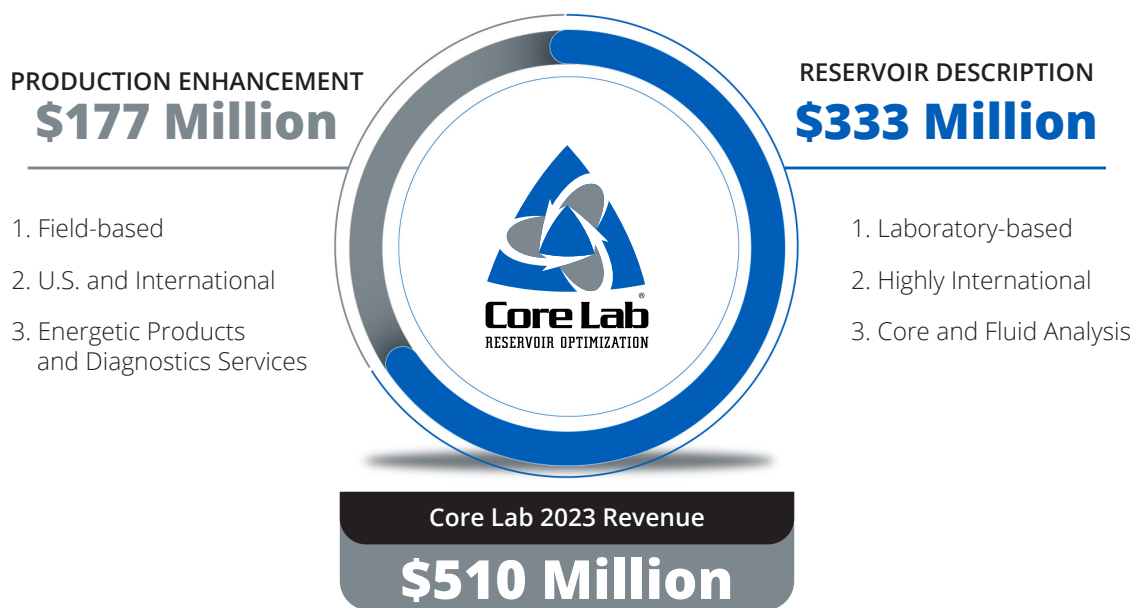


Figure 1 - Reservoir Description and Production Enhancement Business Segments.

# Financial Strategies

Core continues to follow the three financial tenets that management believes will drive total shareholder returns over the long term.

## 1 Maximize Free Cash Flow

Core Lab follows a disciplined approach to capital allocation for maintaining and growing our business. This discipline towards capital investments and maintaining an asset-light business model has the Company well-positioned for the continued expansion of exploration and production of oil and gas over the next several years. In 2023, Core Lab generated approximately \$14.2 million of Free Cash Flow. The unexpected decrease in U.S. onshore drilling and completion activities resulted in inefficiencies in our manufacturing of products and excess inventory (working capital) serving this market. As we look ahead, U.S. land activity is projected to be more stable, which will allow us to improve investments in working capital. In addition, our existing global network of laboratories provides a foundation to expand profitability and Free Cash Flow with the continued growth in international oil and gas projects.

## 2 Maximize Return on Invested Capital

Core Lab strives to maximize ROIC through capital discipline and continued execution of our three Growth Strategies:

- 1) Develop New Technologies for Reservoir Optimization
- 2) Leverage Core's International Laboratory Network
- 3) Acquire Complimentary and Strategically Positioned Technologies

The Company has maintained these strategies and its focus on ROIC for decades. We believe that our commitment to this approach will result in superior long-term performance of Core Lab's share price compared with the Company's peer group compiled by Bloomberg. We believe having the management team's performance-based stock compensation, tied to both ROIC and Total Shareholder Return, continues to be aligned with long-term shareholders objectives. Despite the challenges and disruptions associated with the U.S. land activity levels, and the geopolitical conflicts in Russia-Ukraine and the Middle East, the Company's ROIC continued to improve throughout 2023, reaching 12.0% as we exited the year.

## 3 Return Excess Capital to Shareholders

Since 2002, Core Lab has returned excess capital to shareholders in the form of share repurchases, warrant settlements, dividends, and special dividends, totaling \$2.7 billion (Figure 2). For the last several years and throughout 2023, the Company has been primarily focused on applying free cash towards reducing debt. As the Company continues to reduce its debt leverage ratio, excess capital will be returned to shareholders via share repurchases and the quarterly dividend.

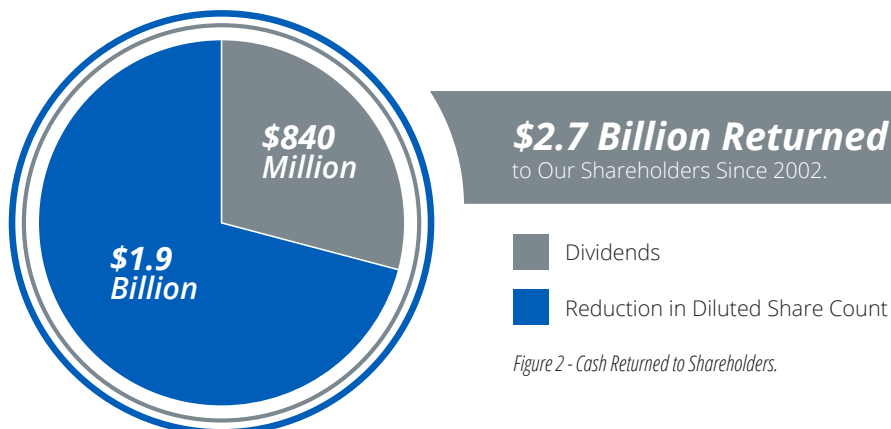


Figure 2 - Cash Returned to Shareholders.



# Financial Highlights

## Consolidated Company Results

| (in thousands, except per share data) | 2023       | 2022        | 2021        |
|---------------------------------------|------------|-------------|-------------|
| Total Revenue                         | \$ 509,790 | \$ 489,735  | \$ 470,252  |
| Total Operating Expenses              | \$ 399,957 | \$ 393,655  | \$ 367,896  |
| Gross Profit (loss)                   | \$ 109,833 | \$ 96,080   | \$ 102,356  |
| Operating Income (loss)               | \$ 54,640  | \$ 41,524   | \$ 45,262   |
| Net Income (loss)                     | \$ 36,675  | \$ 19,453   | \$ 19,727   |
| Earnings (loss) per Diluted Share     | \$ 0.77    | \$ 0.42     | \$ 0.42     |
| Total Assets                          | \$ 586,395 | \$ 578,354  | \$ 580,853  |
| Long-term Debt                        | \$ 163,134 | \$ 172,386  | \$ 188,636  |
| Total Shareholders' Equity            | \$ 229,807 | \$ 188,954  | \$ 161,000  |
| Cash Flows from Operating Activities  | \$ 24,789  | \$ 24,956   | \$ 36,579   |
| Capital Expenditures                  | \$ 10,579  | \$ 10,216   | \$ 13,539   |
| Free Cash Flow <sup>1</sup>           | \$ 14,210  | \$ 14,740   | \$ 23,040   |
| Reduction of Net Debt <sup>2</sup>    | \$ (8,692) | \$ (12,725) | \$ (67,103) |

1) Free Cash Flow is calculated as Cash Flows from Operating Activities less Capital Expenditures

2) Reduction of Net Debt is calculated as the reduction in Total Debt less the change in cash for the same period

## 2023 Operating Results

In 2023, the Company's financial performance improved compared to the prior year, Core Lab's revenue increased 4%, which was underpinned by growth and expansion of international projects in various regions. However, this growth was partially offset by a decrease in U.S. onshore drilling and completion activity, and disruptions to certain international laboratory services caused by the on-going conflicts in Russia-Ukraine and more recently, the Middle East. Core Lab's operating income improved by approximately 32% compared to the prior year, with operating margins of approximately 11%, which expanded over 220 basis points from the prior year. The Company continues to project activity on international projects to grow in 2024 and beyond, which should primarily benefit our Reservoir Description segment.

## Strengthening the Balance Sheet and Capital Allocation

In December 2019, the Company announced its plan to focus Free Cash Flow towards reducing debt, with a longer-term goal of maintaining a leverage ratio of 1.5 times or lower. Since that time, the Company has reduced long-term debt by \$141 million or 46% despite the challenges posed by the pandemic and geopolitical conflicts (Figure 3). As we look ahead to 2024 and beyond, the macro fundamentals continue to support growing demand for oil and gas and an expanding energy market. We expect the Company's operating activities and financial performance to improve and expand with this growing energy market. Upon reaching our targets in reducing the leverage ratio, we would also expect to become more active in our share repurchase program, with some consideration to increasing the quarterly dividend.

### Reduction of Long-term Debt

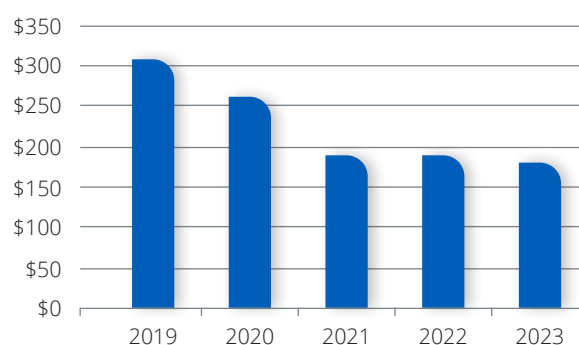


Figure 3 - Long-term Debt.

# Navigating the Age of Digitization

During the Age of Digitization operators in the oil and gas industry continue to pursue efficiency, sustainability, and dependable production. Core Lab partners with its clients as they undergo their own digital transformation by diligently enhancing our services, streamlining operations, and optimizing our data management architecture. These efforts are aimed at fostering stronger connections with our clients, empowering them to harness technology more effectively in pursuit of reservoir optimization.

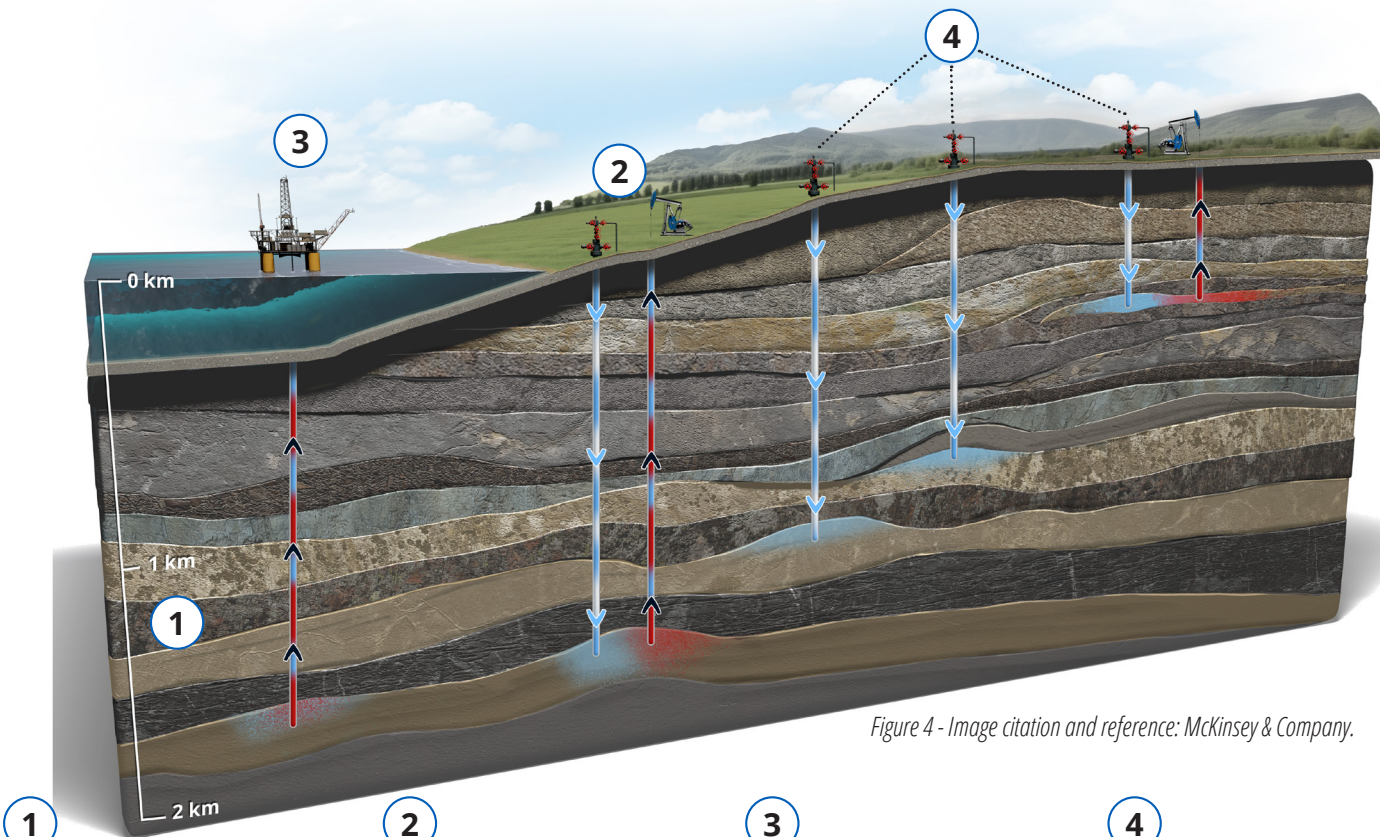


Figure 4 - Image citation and reference: McKinsey & Company.

1

## Improved Understanding of Reservoir Potential

Core performs a thorough analysis of the subsurface potential by examining the geology, hydrocarbon properties and production history to establish production potential versus performance to date. This analysis improves estimates of recoverable hydrocarbons and optimizes performance management of the field.

2

## Maximizing Value from Existing Wells

By leveraging historical data from existing wells, Core helps operators produce more hydrocarbons and less water.

3

## Maximizing Value in New Wells

Core's exhaustive, proprietary database can be utilized to generate analogs for rock samples recovered from new wells. This expedites evaluation programs and helps to predict performance.

4

## Production Network Optimization

Powerful data analytics of field level data from both the subsurface and production datasets enables operators to make operational decisions at a field or play scale, rather than well by well.

In the current environment, oil and gas operators face mounting pressure due to the delicate balance between maintaining reliable supply and continually rising demand. As a result, our clients are seizing opportunities for optimization through digitization across various stages of subsurface operations and throughout the hydrocarbon value chain. By embracing digitization and an analytical approach to production, operators can unlock significant potential. Leveraging data from existing wells can elevate the global average recovery factor, and applying lessons learned from previous wells can help maximize production from new wells (Figure 4).

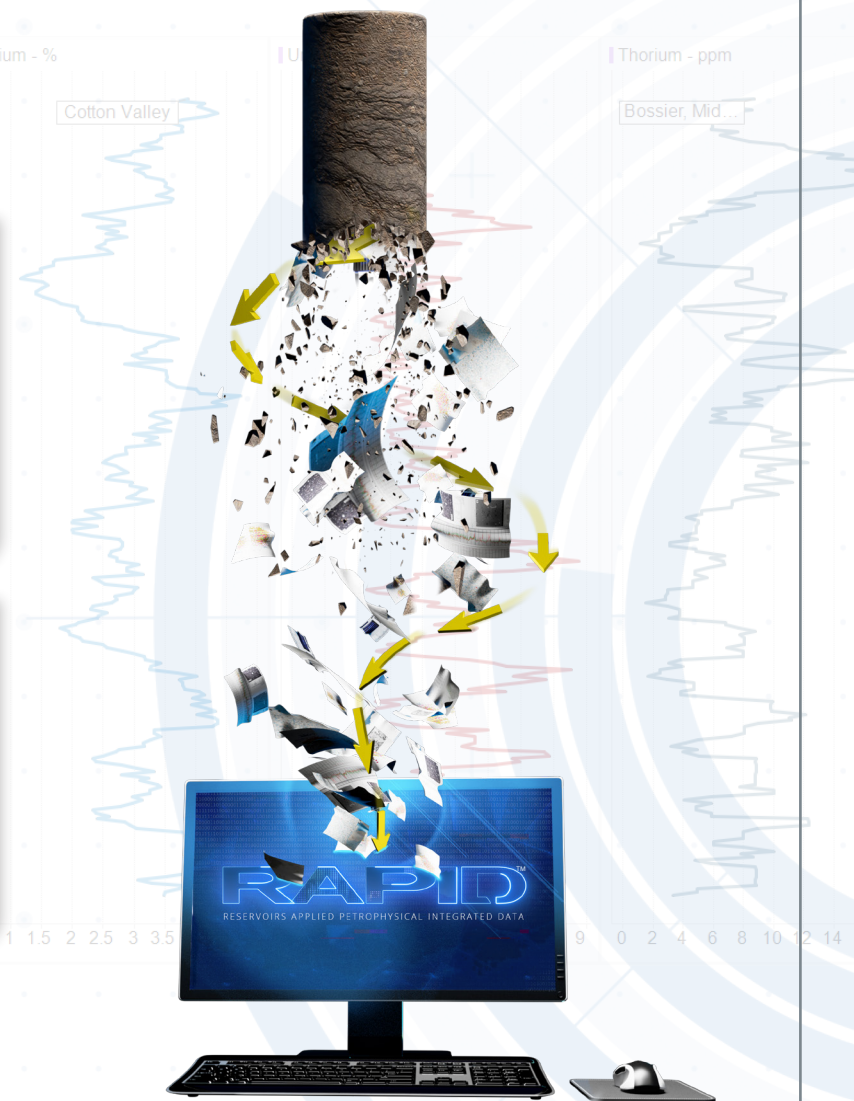
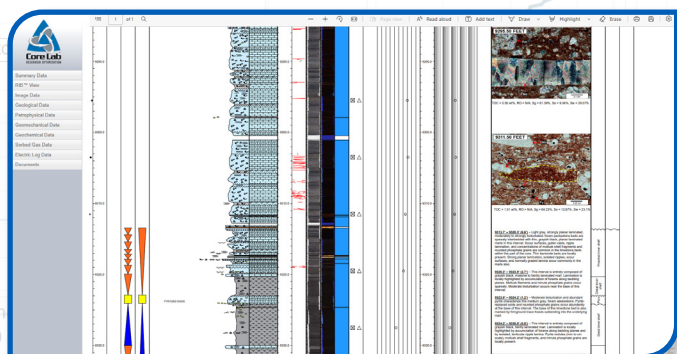
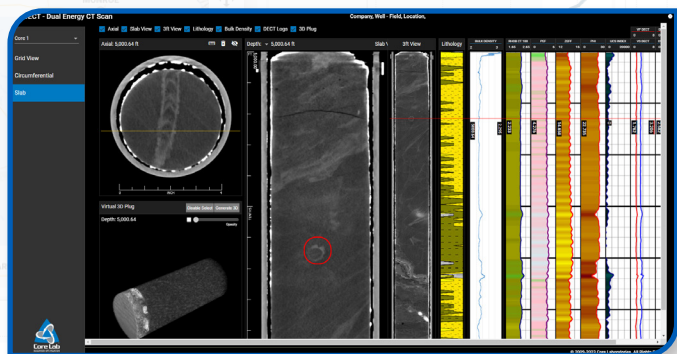
Core Laboratories remains focused on our commitment to assisting clients in achieving reservoir optimization. The strategic application of analytical digitization holds the key to unlocking the next incremental barrel. In this Annual Report, we review key technologies and innovations the Company has applied to enhance the client experience, improve operational efficiencies, and deliver data in a way that enables innovation.



# Enhancing the Client Experience

In upholding our commitment to revolutionize the client experience, Core Laboratories is harnessing digital innovation to transform how we deliver and evaluate data. With a vision towards the future power of properly organized data sets, Core Lab developed Reservoirs Applied Petrophysical Integrated Data service ("RAPID™"). This proprietary database has played a pivotal role in delivering and securely storing both Joint Industry Project and proprietary data for over 25 years, servicing our worldwide client base. This proprietary database is the foundation for supporting the new age of lab data delivery, aligning seamlessly with the analytical requirements of our clients. A growing number of major operators use RAPID™ as their primary database for organizing, storing, and analyzing their subsurface data.

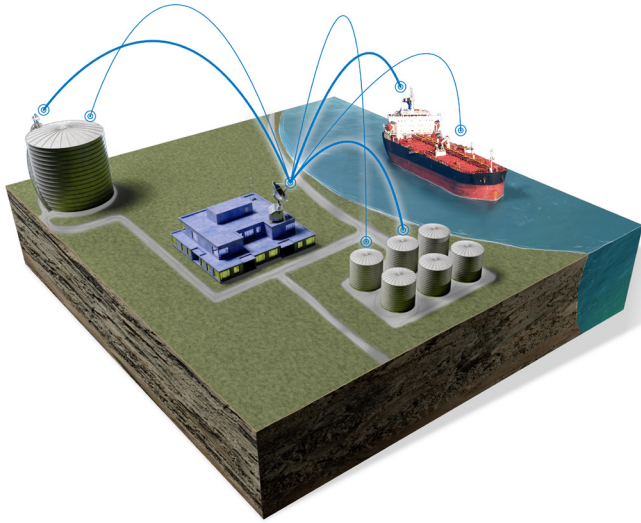
## RAPID™



Reservoir Description has made significant strides in streamlining the delivery of lab data by maximizing the utility of RAPID™. Upstream laboratory data flow into this platform, ensuring a more efficient and comprehensive data delivery process. Pertinent test data collected from each sample, follows the sample as meta data into various calculation software and data transformation applications. Once the data has undergone processing, it is prepared for client delivery through RAPID™. Proprietary Application Program Interfaces ("API") play a crucial role in allowing seamless connections between data and other applications, modeling programs, and simulators. This flexibility empowers operators to effectively leverage their existing data, paving the way for efficient data utilization.



## Enhancing the Client Experience - Cont.



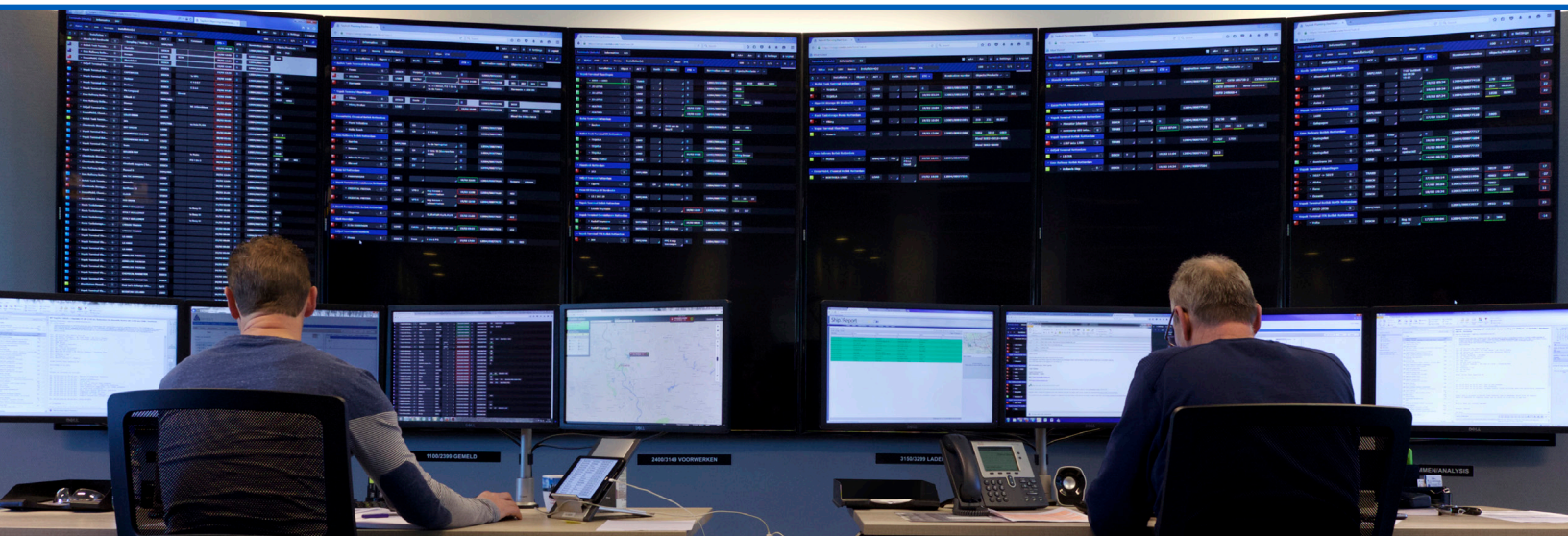
In the realm of oil distribution chains and final product specifications, where extensive data on product qualities, quantity balances, and process timeliness are generated, Core Laboratories adheres to a groundbreaking principle - the Single Source of Data ("SSoD"), implemented on a global scale. Field data is captured in real time using mobile devices, and all international calculation standards are embedded within our reporting software, utilized worldwide. Our laboratories are equipped with a unified Laboratory Information Management System ("LIMS"), and data entry is supported by mobile devices. This highly digitized and calibrated data generation environment is an industry leader for testing, inspection, and certification of crude oil and derived products, and it is built upon our proprietary digital technology.

This innovative architecture, aptly named Connect, facilitates almost immediate data sharing with our clients through our advanced API technology. To further enrich our service offering, we provide distinct added value by offering business analytical tools across all data categories. Customized data analytics reports are efficiently shared with our clients in a secure, user-friendly manner.

Complex logistical operations, such as the loading and discharging of vessels, barges, or trains, are inherently intricate processes, demanding agile planning and meticulous execution. Our PortTraQ platform plays a pivotal role by tracking and quantifying delays, pinpointing the impacted logistical steps, and categorizing product types involved. The platform also provides invaluable benchmarks for logistic service providers and locations.

Another critical aspect in transportation is minimizing product losses. Our LossTraQ platform provides a solution by meticulously tracking all product losses, and identifying each loss event during transportation. With product loss control departments transitioning from being incident-driven to data-driven, our experts can delve into instances of higher loss rates, investigate the root causes, and offer recommendations to restore balance.

Product quality is another main concern. The QTraQ platform tracks product quality across a wide spectrum of events, circumstances, and locations. This data is crucial for traders, blenders, industrial buyers, and producers alike.

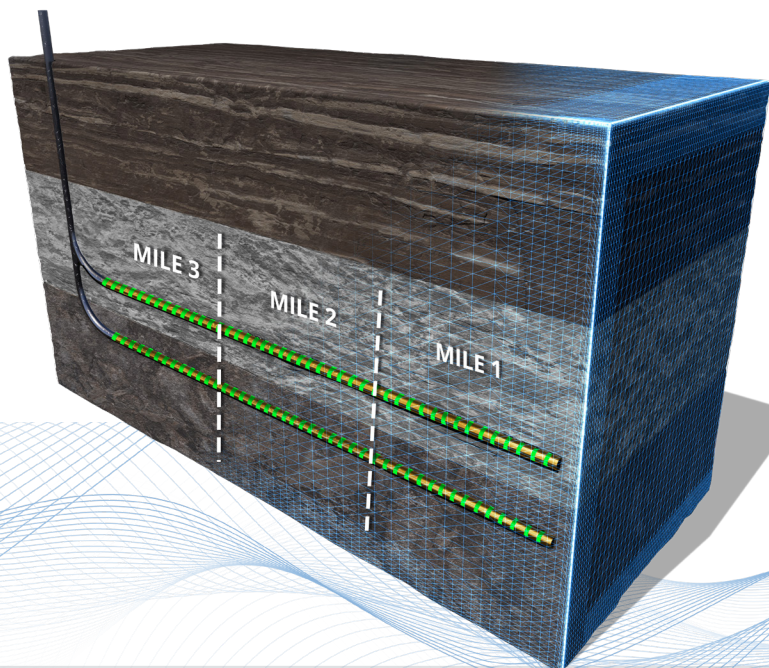




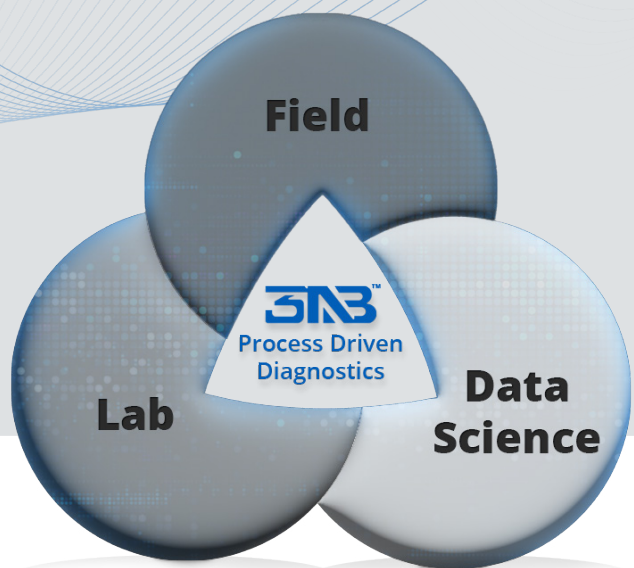


## Enhancing the Client Experience - Cont.

Core Lab is at the forefront of analytical innovations in the realm of Completion Diagnostics. Core's dedicated team of data scientists analyze field data to tailor and optimize tracer designs that meet the specific demands of our clients and the unique characteristics of different regions. The 3AB™ data analytics solution enables operators to validate various well treatment options in fewer test wells, rather than relying on traditional methods that require a significantly larger number of wells to identify statistically meaningful trends.



De-Risk Decision Making with 3AB™:  
Process Driven A/B Testing



This innovative proprietary technology not only saves operators the substantial cost of additional wells, but also mitigates the risk associated with investing in various well treatments that might not yield the desired results. This holistic approach enhances efficiency and underscores the value of accurate analytical results and data-driven decision-making in modern well evaluation programs.

Enhancing the client experience through digital innovation allows Core Lab to efficiently serve our clients, offering personalized solutions that empower them to thrive in the **Age of Digitization.**



Field Testing



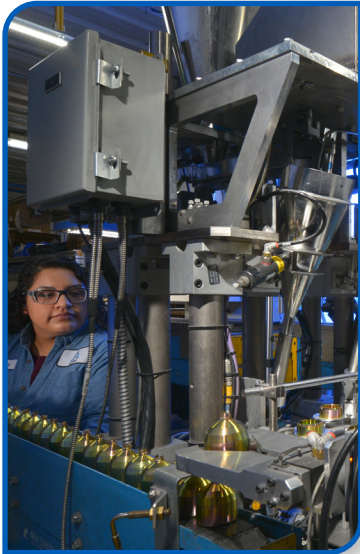
Laboratory Analysis



Data Science

# Improving Operational Efficiency

Operational excellence and technological advancement are part of Core's digital transformation. A significant milestone in our digital transformation journey began in 2019 when Core Lab initiated the implementation of robotics to automate energetic shaped charge manufacturing, which has had a profound impact on our operations.



The robotics-assisted manufacturing cells now operate 24/7, significantly increasing production uptime and throughput. By automating repetitive tasks, Core Lab ensures consistent quality and precision, reducing the risk of human error. Moreover, automation improves safety conditions and allows employees to focus on higher-value tasks.

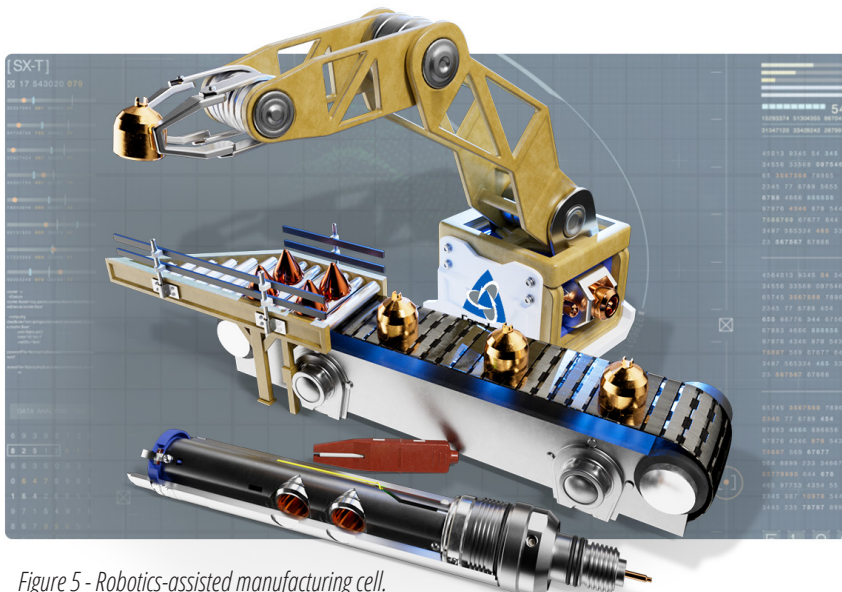


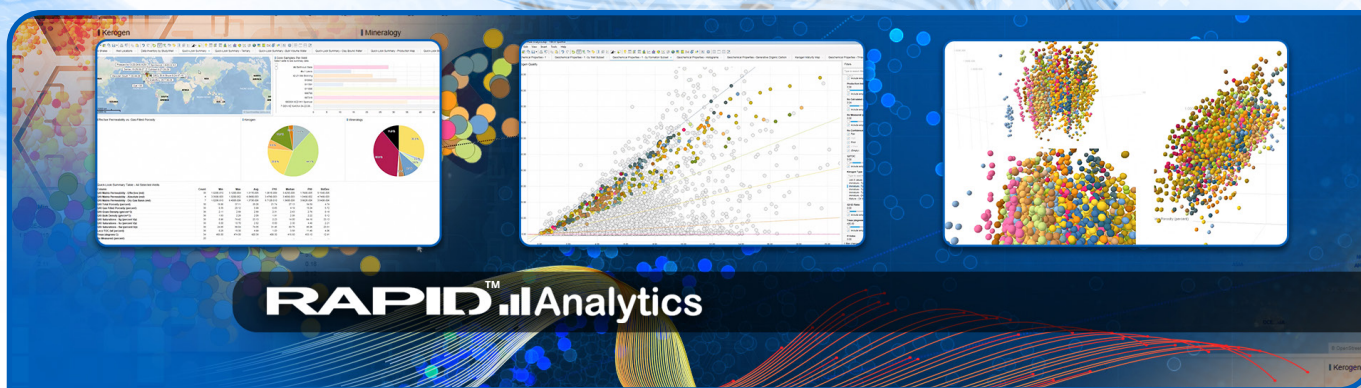
Figure 5 - Robotics-assisted manufacturing cell.

By using robotics (Figure 5), Core Lab can swiftly reconfigure manufacturing lines to accommodate changing product requirements, ensuring operations remain agile in a dynamic market. Additionally, resource optimization minimizes manufacturing waste and maximizes output, contributing to the Company's bottom line. Importantly, Core Lab's clients also benefit significantly from this digital transformation with reliable deliveries and predictable lead times that enhance client satisfaction and project operations.



## Improving Operational Efficiency - Cont.

In tandem with these advances on the manufacturing front, Core's commitment to digital innovation extends to laboratory operations. By leveraging our internal instrument manufacturing capabilities, Core has embarked on the development of custom equipment that is designed to automate various laboratory processes. This innovation streamlines quality assurance and quality control ("QA/QC") procedures, along with significantly enhancing throughput.



Standardizing data transformation and calculation through proprietary software ensures that Core Lab's processes are efficient, traceable and compliant. This investment in automated equipment and custom software solutions strengthens Core's internal capabilities and positions the Company as a leading equipment provider in the broader marketplace.

The Company's commitment to digital innovation, automation, and operational efficiency is transforming the way we do business, empowering us to meet the evolving needs of the industry while delivering exceptional results to our clients.

## Leading Innovation

Artificial Intelligence (“AI”) represents a dynamic, transformative force that has experienced an unprecedented surge in both availability and potential. Over the past year, the impact of AI has proven to be nothing short of remarkable. Core Lab is focused on enabling clients’ innovation by delivering analytical data in a manner that enables them to leverage the vast potential of their own AI models and innovative strategies.



Core’s commitment to AI is further evidenced by the Machine Learning Sample Selection and Advanced Rock Typing (“ART™”) initiatives that leverage physical data and AI (Figure 6). They epitomize our dedication to capturing the potential of AI to streamline operations, drive innovation, improve efficiency, and offer enhanced value to our clients.

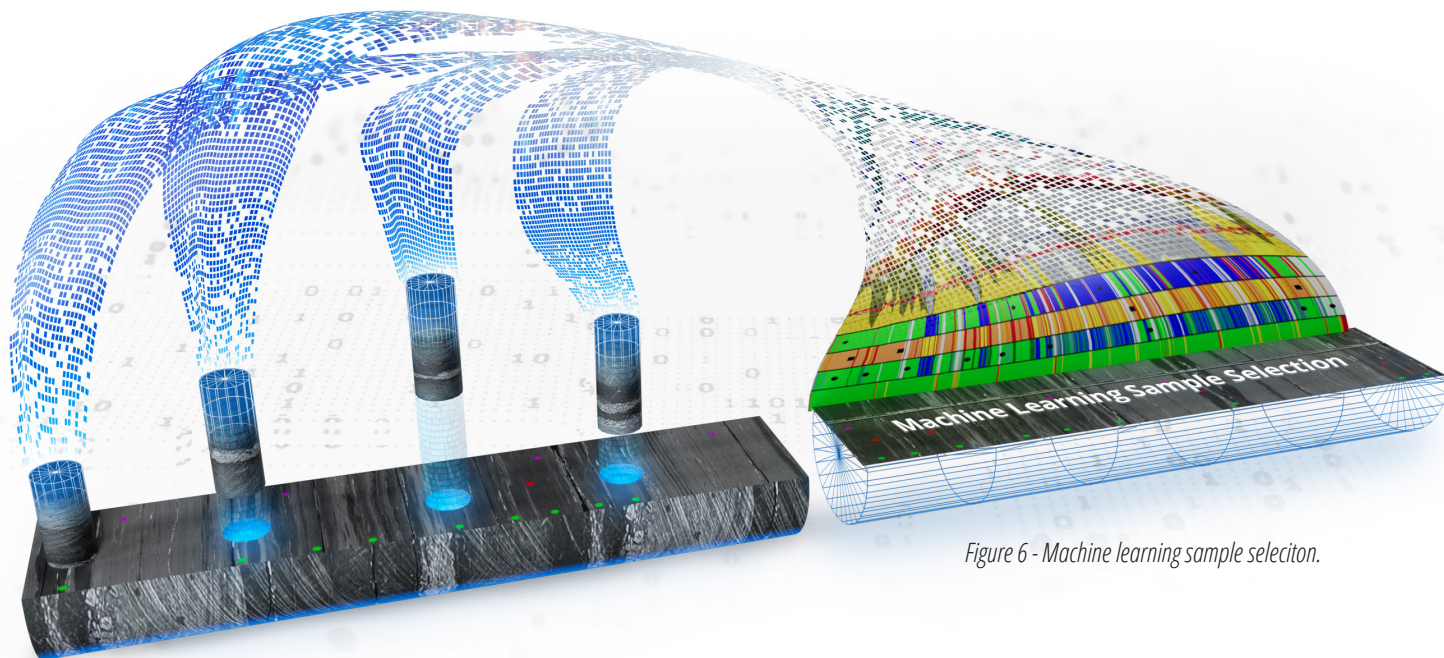


Figure 6 - Machine learning sample selection.

In the Age of Digitization, Core Laboratories is transforming to meet clients’ needs. By improving operational efficiency, Core delivers reliable products and services to clients whenever and wherever they require. This distinctive approach sets Core Lab apart and enables clients to access those highly valuable incremental barrels of oil.



# Bright Future

The Middle East remains a primary region for growth, as Core Lab embraces the power of data analytics and automation, focusing on streamlining operational efficiencies to ensure our clients lead in data-driven decision-making (Figure 7). Strategic operational focus on infrastructure and technology reach within the region was discussed in last year's annual report. Looking ahead, Core Lab will continue to take advantage of the region's momentum through emerging technologies and innovative solutions. Our expertise in reservoir characterization and production optimization, combined with data-integration and analytical enhancements, are enabling Core's Middle East clients to meet growth targets, a trend we expect to continue for many years to come.

## Middle East Digital Solutions

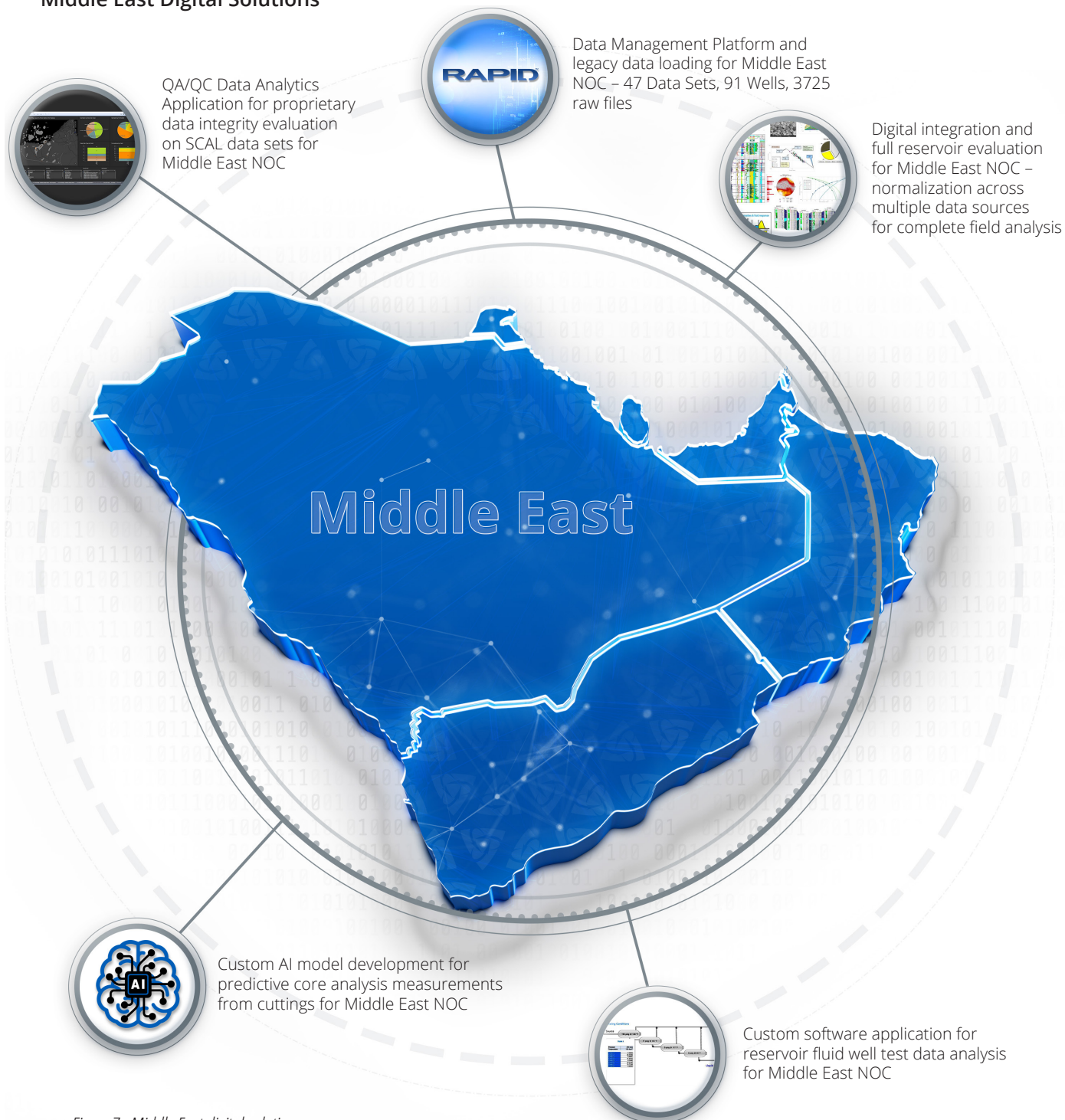


Figure 7 - Middle East digital solutions.

## Senior Corporate Management

**Lawrence V. Bruno,**  
Chairman of the Board and  
Chief Executive Officer

**Christopher S. Hill,**  
Senior Vice President and  
Chief Financial Officer

**Gwendolyn Y. Gresham,**  
Senior Vice President, Corporate Development  
and Investor Relations

**Mark D. Tattoli,**  
Senior Vice President, Secretary  
and General Counsel

## Senior Operations Management

**Alastair J. A. Crombie,**  
Vice President, Reservoir Description

**Peter W. G. Boks,**  
Vice President, Reservoir Description

**Lesley A. Weisner,**  
Vice President, Production Enhancement

**J. Donald Dumas Jr.,**  
Senior Vice President, Production  
Enhancement and Business Development

**Sow Hang Teo,**  
Vice President, Chief Accounting Officer

**Leslie D. Linklater,**  
Vice President, People, Organization  
and Culture

**Independent Auditors**  
KPMG LLP

**Transfer Agent And Registrar**  
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**Market Information**  
Listed on NYSE: CLB US



**Lawrence V. Bruno,**  
Chairman of the Board  
and Chief Executive Officer



**Martha Z. Carnes,**  
Director  
Retired Partner,  
PricewaterhouseCoopers LLP



**Michael Straughen,**  
Director  
Retired Executive Director  
and Chief Executive of the  
Engineering Division  
John Wood Group PLC



**Kwaku Temeng,**  
Director  
Retired Director of  
Upstream Research,  
Aramco Services Company



**Harvey Klingensmith,**  
Director  
Co-Founder and Former  
Chief Executive Officer of  
Ajax Resources LLC



**Curtis Anastasio,**  
Director  
Former Chief Executive Officer  
NuStar Energy



**Katherine Murray,**  
Director  
Retired Chief Financial Officer  
of Operations, McDermott  
International, Inc.



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RESERVOIR OPTIMIZATION

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Aberdeen - Abu Dhabi - Houston - Rotterdam - Kuala Lumpur

**Regional Specialty Centers**

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Khobar, **Saudi Arabia** - Alexandria, **Egypt** - Aktau, **Kazakhstan** - Moscow, **Russia** - Durban, **South Africa**  
Port Harcourt, **Nigeria** - Luanda, **Angola** - Anchorage, **Alaska** - Rio, **Brazil** - Bogota, **Colombia** - Pyle, **Wales**  
Midland, **Texas** - Paris, **France**

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