



DALLAS/FORT WORTH

PETROLEUM DATA WORKSHOP

MARCH 05, 2019
MICROSOFT CAMPUS, IRVING, TEXAS

2019 Dallas/Fort Worth Petroleum Data Workshop

Speakers Abstracts

March 5, 2019

8:00-9:00am

Welcome and PPDM Update

Trudy Curtis (Professional Petroleum Data Management Association)

Short Biography:

Trudy is the Chief Executive Officer of the Professional Petroleum Data Management (PPDM) Association, the global Not-For-Profit society focused on data management best practices and standards and data management as a professional discipline. Based in Calgary, Canada, Curtis has nearly four decades of years of experience in the industry and is known around the world for her outspoken advocacy data as a strategic asset, and its management as a core business function.

After receiving a BSc. from the University of Calgary in 1978, Curtis went to work in the Oil and Gas industry. In 1996, she joined the PPDM Association as architect, CIO and ultimately CEO of PPDM Association. Curtis is leading the way to the emergence of data management as a global discipline, the creation and industry adoption of data management standards and best practices, the development of professional development and certification programs for data managers, and the professionalism of data management in the petroleum industry. In addition to her role as CEO of the PPDM Association, Curtis is co-founder of the Standards Leadership Council.

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*9:05-9:50am*

**Closing the Distance Between the User and the Graph (Keynote Presentation)**

**Dr. Richard Strickland (The Strickland Group)**

**Description of Presentation:**

The issue is how we present high quality data (or any type of data). What we as an industry don't realize/pay attention to is that the user can come to an incorrect or other alternate conclusions just



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because of the presentation. Their conclusions may be contrary to actual science/physics. This is a real problem when presenting scientific results to non-scientists, especially management.

### Short Biography: To follow

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10:20- 10:50am

Wrestling the Data Quality Bull: Using Informatica IDQ so Upstream Business Users can Grab Data Quality by the Horns and Wrestle it to Submission

Matt Becker (Sullexis)

Description of Presentation:

Learn how Sullexis & Informatica helped an Oil and Gas Super Major develop a business-led, self-service, and automated data quality management solution that enabled business processes to operate efficiently, reducing manpower and exception management, while laying a foundation for good data to power future automation and machine learning.

Key Outcomes

- Implemented foundation of a modern-day data architecture to help maintain and support good data quality across the various upstream functions.
- Developed a straightforward data stewardship-based framework, combined with Informatica Intelligent Data Quality (IDQ), that aligns the organization’s people, processes, and technology, to quickly derive value from their data.
- Implemented a business-led, self-service, automated SAP PM data quality management solution utilizing Sullexis’ Data Quality Methodology and Informatica’s IDQ solution.
- Streamlined plant management maintenance process resulting in improvements in safety, reliability, and the operational effectiveness
- On-going utilization of the self-service capabilities of IDQ thereby minimizing IT support and cost
- Dramatic reduction in data load times from several days to just a few hours

Short Biography:

Matt Becker serves as the Managing Director of Sullexis’ Enterprise Data Strategy and Solutions practice. He has spent 19+ years creating and implementing strategies that drive client performance through technology adaptation in areas ranging from big data to enterprise data management to business



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intelligence and analytics. Matt enjoys delivering the value gained by implementing solid information management principles, thereby reducing inefficiencies and gaining insight into overall operational performance.

Prior to joining Sullexis, Matt served in leadership roles with Slalom, Noah Consulting, and SunGard after spending his early years with Enform Technologies. Matt has cultivated a deep subject matter expertise in the Energy industry, including Upstream Oil & Gas (Unconventional / Shale), Energy Trading (gas and power), Pipeline, and Refined Products.

Matt holds a BA in Management Information Systems from Texas A&M University. Matt lives with his wife, Kristina, their six kids (yep...six) and two dogs, in the Spring area of Houston where they enjoy doing family road trips, camping, home improvement projects, and movie/game night.

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*10:50-11:20am*

### **Application of Data Analytics and Machine Learning to Boost Deal Flow in A&D**

**Laura Freeman (Highpoint Global Capital) & Deepankar Biswas (ActiveReservoir)**

#### **Description of Presentation:**

In the last few years there is an increasing interest in data analytics and visualization as well as application of Machine Learning (ML) algorithms to improve business decisions and operational efficiencies.

Key drivers behind this are the 3V's (velocity, variety and volume) of data acquisition and synthesis. In the world of massive data availability, the enormity of "making sense", let alone application, of information can quickly become too cumbersome or insurmountably time consuming for traditional analysis.

Two avenues that can greatly improve the ability to make sense of the data pile are data visualization and Machine Learning. Data visualization can facilitate analysis of large amounts of data in a short time and allow users to explore hypothesis and relationships quickly and easily. Machine Learning techniques attempt to systematically unravel the underlying trends and interrelationships between the driver and response variables.

In this talk we demonstrate the application of Spotfire based analytics and visualization tools to boost lead generation and success of acquisitions and divestitures in oil and gas. We then explore early results of application of Machine Learning to the analytics process of generating high quality A&D leads.

#### **Short Biography:**



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Dee is the President and Founder of ActiveReservoir, a full service, international, consulting firm specializing in reservoir management, development and optimization using both classical and data-centric techniques. His 20 years in the industry span research, operations, drilling and consulting. Recently, he is actively engaged in developing and applying Machine Learning algorithms to extract hidden and counter-intuitive insights in datasets in different facets of the industry and prescribing solutions to improve profitability. Dee has a Ph.D. in Petroleum Engineering from the University of Texas at Austin and Finance Certificate from SMU. He has published in SPE refereed journals and presented at various conferences and workshops around the world.

Laura Freeman is a Managing Director and founder of Highpoint Global Capital a Capital Acquisition Broker which currently has over \$200 million in mandates helping oil and gas operators find, evaluate, and close acquisitions, divest of properties, and secure bank and alternative financing. Ms. Freeman specializes in buy and sell-side advisory, reserves valuation, reservoir engineering, well review, development planning, financials, strategic planning and technical due diligence. Ms. Freeman has a Masters in Petroleum Engineering as well as an MBA and is a member of the Society of Petroleum Engineers. She has also been featured as an expert on M&A, banking topics, and Reservoir Engineering for Oil and Gas Financial Journal, Society of Petroleum Engineers (SPE), and various industry events and online publications.

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11:20-11:50am

Drill Maybe Drill- 2019 Oil and Gas Outlook

Trey Cowan (S&P Global Platts)

Description of Presentation:

This presentation will delve into the US drilling trends for the major basins for activity and will detail how the well permitting, drilling, and completions data provide an indication and foreshadowing of future drilling and production. Much of the data used in the presentation is derived from state agencies in conjunction with industry sources where formatting and substance of the source data can present some challenges. As part of the presentation we will also look at a few examples of the challenges and the solutions we then applied to ensure that the quality of data we repackaged and distributed to our clients was generally enhanced from its raw form.

Short Biography:



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Trey Cowan is a finance professional with over 20 years of experience specializing in equity analysis, forecasting and energy research. Currently, Mr. Cowan provides weekly commentary & analysis on US drilling activities through the firm’s various subscription publications. Prior to his current position, he was Vice President of Equity Research with Clarkson Capital Markets covering oilfield services. Mr. Cowan is a Texas licensed CPA and holds an MBA in Finance from Vanderbilt University.

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*1:00- 1:30pm*

### **Pioneer Natural Resources- Digital Journey: The Road to Master Data Management**

**Bryan Sagebiel (Pioneer) & Mike Skeffington (EnergyIQ)**

#### **Description of Presentation:**

As a data-driven decision-making organization, Pioneer is making better, faster decisions throughout the organization based on high quality, consistent, & comprehensive well data. The data management team has completed the initial implementation of a central hub for key well data, synchronized across key applications to support data-driven decisions. Ultimately, this solution will serve as a central Well Master and Master Data Management solution. In this presentation, we will discuss the system implementation which sets the foundation for Master Data Management & a full Well Master. We will discuss challenges that were addressed with the new solution to integrate, blend, & manage various data types from multiple data sources, providing the business with a single version of the ‘best’ information. We will present lessons learned, & talk about the high-level view to the long-term roadmap that will leverage this foundation throughout the transformation journey we have undertaken.

#### **Short Biography:**

Bryan Sagebiel joined Pioneer Natural Resources’ Data Management Office as a Sr. Data Management Specialist in September 2017. Past employers have been Sage Innovative Resources, ARL Bio Pharma and DNA Solutions, EnergyIQ and Chesapeake Energy Corporation. Bryan has 30 years of IT and data experience has covered many industries from residential and commercial construction, education, legal and law, banking, residential appraisals, pharmaceutical testing, and DNA, consulting, and over 23 years’ experience in the oil and gas industry working in and with IT, Construction, Geophysics, Geology, Engineering, Drilling and to establish well data standards and data governance. Bryan has attended and participated in PPDM events for many years, including events in Houston, Midland, Oklahoma City and in Dallas. He has a diverse perspective in attending and presenting at events in various capacities while working for a small operator that grew into a large independent operator, as a vendor representative,



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and individually as a consultant. Bryan is an active member of the Professional Petroleum Data Management (PPDM) association and holds a bachelor’s degree in Computer Information Systems from Tarleton State University. Bryan is a native of Fredericksburg, TX. He and his wife have been married for 22 years, have 3 children, and they live on a 10-acre farm in Norman, Oklahoma.

With over 25 years of experience, Mike has a deep understanding of the diverse business and technical requirements surrounding oil and gas data management solutions. Mike started his career in E&P working for a seismic data processing firm in 1984, and has over 25 years of experience in consulting services, project management, customer support, and business development. During his 6 years with EnergyIQ, Mike has met and worked with many of the biggest and best E&P companies in North America. Through this experience, Mike has gained a deep understanding of the diverse business and technical requirements surrounding data management solutions for oil and gas. Mike has helped implement and manage many data management projects, delivering information certainty in some of the most challenging and uncertain times for the industry.

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1:30-2:00pm

“Dark Data” Analytics
Nishanth Raj (Deloitte Consulting)

Description of Presentation:

Across organizations, there are several data repositories that are unstructured and not open for analysis. Only a few organizations have been able to explore non-traditional data sources such as image, video etc. – there are enormous troves of data in the unexplored “deep web”. That being said, many of the new advances in pattern recognition, cognitive & machine learning, computer vision etc. are making it possible for companies to shine a light on these unexplored sources and derive insights that lead to better experiences and decision making across the business. This paper focuses on leveraging some of these exponential capabilities to truly derive value and insights from the 'dark data'.

Short Biography:

Nishanth is a dynamic, result-oriented leader with a strong and consistent track record of delivering extraordinary results in growth, revenue, and operational performance. His main area of expertise is in Enterprise Information Management & Supply Chain Management in the Oil & Gas sector along with



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additional expertise in the areas of business process optimization, systems integration, business intelligence and change management.

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*2:00-2:30pm*

### **Tuned Production Operations- Driving Step Change in Oil & Gas Field**

#### **Digitalization**

**Dileep Divakaran (Schlumberger)**

#### **Description of Presentation:**

Despite the penetration of digitalization, not all industries are responding to the challenges and opportunities. In contrast to industries such as media and retail, where digital technology has been a significant disruptive force, process-oriented industries such as energy, transportation and industrial goods, have yet to experience its full effects. Currently, the energy sector lags other industries in terms of adoption of and accessibility to digital technology. Today, only 3-5% of oil and gas equipment is integrated and less than 1% of data is utilized to make decisions, leaving companies with significant potential to optimize assets and operations. Now, it is time to accelerate investment in the digital technology, as technology cost continues to decline. This paper discusses a solution approach focusing on delivering value in three important categories- Operations optimization, Increased automation and remote-operating capabilities, Enhancing collaboration.

#### **Short Biography:**

A Petroleum Engineer by degree, Dileep Divakaran has over 17 years of Oil & Gas upstream, downstream, and project management experience having worked across Middle East & Asia currently serving in a global digital product champion role based in Houston. Dileep's 13 years of upstream experience in Schlumberger, encompasses PE disciplines namely reservoir simulation, production modeling & analysis, Production data management solutions, production and reservoir Surveillance & integrated DOF's.

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2:50-3:20pm

The Overlooked Dataset with Reservoir Insights

Alex Bruns (Baker Hughes)



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Description of Presentation:

Surface sensors relating to the subsurface rock and fluids are readily available on nearly every wellsite. These datasets though are often not leveraged from an analytical perspective due to nature of the measurements and lack of scientific understanding. As an industry, we moved away from these measurements when downhole Wireline and Logging While Drilling technology came into the marketplace. It was not until the unconventional boom, that these datasets once again came to light as insights into the formation without standing in the way of operational efficiencies. As with any datasource, understanding what the measurement means, and what assumptions goes into this dataset is extremely important. These aspects will be discussed before the analytical applications of subsurface insight are shown. The application of these datasources will be showcased throughout the presentation with its various applications from petrophysics, geochemistry and hydraulic frac design considerations.

Short Biography:

Alex has held various roles within Baker Hughes. While in the field, Alex worked on offshore projects in the Gulf of Mexico and Guyana as a mud logger. As a research scientist he focused on gas extraction optimization, and reservoir analytics development. Currently he is focused on integration of various datasets into insights about the complex subsurface environment. Alex holds a BS from Northland College in Chemistry, and an MS from Michigan Technological University in Environmental Eng.

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*3:30-4:00pm*

### **Sharing Data Trustworthiness Across Applications & Life-of-Field Time Spans**

**Jay Hollingsworth (Energistics Inc)**

### **Description of Presentation:**

Geoscientists and engineers constantly update reservoir models with new data over the life of a field. No single software platform offers all the capabilities to deliver the best model. Standardized data formats make it possible to move a reservoir model across applications and platforms, but knowledge loss has been an issue due to variability in data qualification processes or the loss of the record of past actions. The industry-led Energistics Consortium offers a common architecture for upstream data exchange including metadata addressing trust: data lineage, data integrity, and the trustworthiness of data sources. Retaining a record of the level of trust of specific data items over time supports continuous and reliable field management. Standard-formatted, application agnostic data and metadata are readable at any time by any application, e.g. to plan an Enhanced Oil Recovery (EOR) program or to



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go back to a reservoir model’s status years ago to understand past decisions.

**Short Biography:**

Jay is CTO for Energistics. He has a BS plus post-graduate studies in Chemical Engineering at Tulane and graduated in Computer Science at University of Texas. His career in technical computing started with 20 years at Mobil Oil, responsible for the FINDER data store and engineering applications. He was in Landmark’s data modeling group before settling at Schlumberger running the data modeling group and Seabed database technology. After Schlumberger, he was an Industry Principal at Oracle.

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4:00-4:15pm

Closing Remarks

Trudy Curtis (PPDM Association)

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**Join Us After at Microsoft for Our Workshop  
Happy Hour!**