Advanced Data Management for Experts in the Oil and Gas Industry

Master Data Management for Well Seismic and Spatial Data

Introduction

This training programme, Advanced Data Management for Oil and Gas individuals, is intended for individuals and businesses that want to fully use data as a valuable asset. The advantages and hazards associated with the data revolution have elevated data to the rank of an essential resource in today's economy.

The increasing standardisation of project management has led to a corresponding standardisation in data management. The data collected and utilised by oil and gas companies must be appropriately valued, acquired, stored, managed, and utilised in analyses in a manner that optimises its value as a highly valuable enterprise asset.

Big Data presents data management challenges because simply having the data is insufficient. Data management is an administrative process that involves gathering, verifying, storing, safeguarding, and processing the necessary data to guarantee the data's timeliness, accessibility, and dependability for its users. The whole range of master data management for well and spatial-geophysical data for the oil and gas sector is covered in this training programme.

This training session on Course N Carry will emphasise:

- Data management throughout the duration of the data lifecycle
- Information's strategic relevance
- Customised procedures for collecting, managing, and analysing geophysical and well data
- Essentials of Master Data Management
- Techniques for data security
- Ensuring the accuracy of the data
- Framework for Professional Petroleum Data Management

Objectives

The primary objectives of this Advanced Data Management for Oil and Gas Professionals training course are to give participants the chance to learn about the fundamentals of data governance, guaranteeing the quality of the data, collecting and maintaining well data, identifying and classifying wells, geospatial data collection and

management, data security, record retention, data transfer, and results communication. The whole course aids students in becoming certified data analysts and helps them become ready for the position of petroleum data analyst.

Upon completion of this training programme, you will:

- Recognise the effects of data governance on the business.
- Learn about the data providers and data domains.
- Learn about the legal requirements for accurate identification.
- Discover how to plan and carry out data security procedures.
- Be able to calculate the timeline for data retention
- Find the legal docs outlining the master data management system.
- Discover how to collect, process, and use geographical data.
- Determine the connections between production and exploration and master data management.

Training Methodology

Several adult learning strategies that have been shown to be effective are used in this training programme. Additionally, theoretical presentations are combined with hands-on activities where participants learn how to prepare and implement retention schedules, define data architectures that are appropriate for their enterprise, and use data in exploration and production. The goal is to provide delegates with the tools they need to respond to inquiries that come up in a petroleum data analyst's daily work.

Organizational impacts

From being just necessary, data has evolved into the key component of sustainability and advancement. Acquiring, analysing, managing, storing, and safeguarding data appropriately gives businesses a significant competitive edge. But gathering, storing, and protecting data with several layers of IT security is insufficient; this strategy often results in stakeholders, customers, and developers losing patience, and it frequently violates data management regulations.

In addition to helping organisations comply with legal requirements, having sufficient knowledge of master data management, well-and spatial data storage and retention enables them to boost profits and optimise work with data-driven decision making, all while ensuring the quality, safety, and appropriate management of their data.

This course session will emphasise:

- Guidelines for accurate categorization and identification
- Standards for spatial data and the value of coordinate referencing
- How to properly maintain and handle corporate data
- The concerns and procedures for standard and contemporary data security that apply to data from exploration and production (E&P)

- How to make sure the data is of high quality
- Risks associated with data transmission and obligations for retention

Personal Imapct

The attendees will get knowledge from actual project experiences, including success stories, challenges, and even setbacks. This will enable them to steer clear of pitfalls and capitalise on insights gained from businesses who have effectively implemented master data management. Additionally, the delegates will be able to comprehend the significance of their work as Petroleum Data Analysts, whether they are employed now or in the future.

The representatives will obtain:

- Complete understanding of data lifecycle management
- An overview of national, international, and local data repositories as well as data sellers
- The connection between the data lifetime and the exploration and production (E&P) lifecycle
- Contemporary techniques for data transmission
- Overview of dangers and countermeasures pertaining to data security and quality
- A list of the oil and gas industry's data retention guidelines
- Applications and software that are now available for oil and gas master data management
- Retention requirements for data in joint ventures, firm transfers, and abandonment

Who should attend?

This training programme is intended for professionals whose work include collecting, analysing, and making decisions based on data. The goal is to help them either fully use the advantages of petroleum data analysis in their organisation or become certified petroleum data analysts.

A broad variety of professions may benefit from this training course, but the following are particularly noteworthy:

- Analysts of Petroleum Data
- Analysts of Systems
- Coders
- Analysts of Data
- Administrators of Databases
- Project Managers
- Programmers
- Supervisors
- Any Expert in Data Analytics
- Course Schedule

Course Outline

Day 1

Master Information Administration

- Management of Data Lifecycle
- Data as a Business Resource
- Information
- Conditions for Data Retention
- Frameworks for Data Governance
- DAMA
- DGI

Day 2

Data Collection and Data Integrity

- Sources of Data
- Relevant Data Rules for Classification and Well Identification
- Data Model for Professional Petroleum Data Management (PPDM)
- Functions of Data Management

Day 3

Geographic Information

- Geographic Information Architecture
- Geographical Data Banks
- Applications for Collecting and Analysing Geographic Data
- Databases Associated with Geographic Information Systems (GIS)
- Quality of Geomatics Data
- Storage, Analysis, and Retention of Geospatial Data

Day 4

Referencing and Master Data Management in Exploration and Production (E&P)

- Terminology for Exploration and Production (E&P)
- Master Information
- Citation Information
- Architecture for Data Warehouses and Business Intelligence
- Conceptual Model for Business

- Model of Logical Data
- Model of Physical Data
- Database Management
- Administration of Data Warehouses

Day 5

Data Security, Risks, and Management

- The CIA Triad: Data availability, confidentiality, and integrity
- Policy for Data Security
- Guidelines and Practices for Data Security
- Audit of Data Security
- Cloud Data Security
- Stakeholders, Users, Clients, and Government Agencies' Interaction