

SUBSURFACE DATA MANAGEMENT AND GOVERNANCE FOR BROWNFIELDS



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TRAINING CENTER



Introduction

Subsurface Data Management and Governance for Brownfields Training Course gives geoscientists, data managers, and asset teams the practices that keep mature field data trustworthy and usable. Brownfield assets carry decades of legacy data, inconsistent formats, and undocumented decisions, and poor data directly damages reservoir decisions. This programme addresses that reality. It covers subsurface data types, data quality workflows, master data governance, and regulatory reporting obligations. Furthermore, it applies PPDM and OSDU standards alongside data governance frameworks. In addition, participants clean and reconcile a realistic legacy dataset. As a result, they can turn accumulated data into a reliable asset.

Subsurface Data Management and Governance for Brownfields Course Objectives

- Classify subsurface data types: seismic, well logs, cores, and reservoir models.
- Apply PPDM data model conventions and OSDU data platform principles.
- Assess and remediate legacy data quality in mature assets.
- Build master data standards for well, field, and formation naming.
- Establish data governance roles, stewardship, and accountability structures.
- Manage data lifecycle, retention, and archival requirements.
- Define custody, access control, and confidentiality for licensed data.
- Integrate data quality checks into operational workflows.
- Comply with regulatory reporting and data submission obligations.
- Build data catalogs and metadata standards for discoverability.



Course Methodology

This course combines technical presentations, standards walkthroughs, and hands-on data exercises. Participants review a legacy brownfield dataset, apply quality rules, and reconcile naming conflicts into a master register. In addition, they design a data governance charter and catalog structure. Templates, data rule sets, and peer review support immediate workplace application.

Who Should Take This Course

- Subsurface and reservoir data managers.
- Geoscientists, petrophysicists, and reservoir engineers.
- Asset team leads in mature field developments.
- Information management and data governance professionals.
- Exploration and production IT and reporting specialists.

Subsurface Data Management and Governance for Brownfields Course Outlines

Day 1: Subsurface Data Landscape in Brownfields

- Data types: seismic, well logs, cores, tests, and models.
- Legacy data challenges in mature assets.
- Data as an asset: valuation and risk of poor quality.
- PPDM data model overview and conventions.
- OSDU data platform principles and architecture.
- Regulatory and partner data obligations.

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- Case study: a decision spoiled by bad data.

Day 2: Data Quality Assessment and Remediation

- Data quality dimensions: accuracy, completeness, consistency.
- Profiling legacy datasets and identifying defects.
- Quality rules, validation scripts, and exception handling.
- Naming convention conflicts and harmonisation.
- Unit conversion and depth reference standardisation.
- Prioritising remediation by business impact.
- Workshop: remediating a legacy dataset.

Day 3: Master Data and Governance Structures

- Master data concepts for wells, fields, and formations.
- Reference data and code lists management.
- Data governance roles: owners, stewards, custodians.
- Data governance charter and policy design.
- Decision rights and change control for reference data.
- Data stewardship in asset team workflows.
- Exercise: designing a data governance charter.

Day 4: Lifecycle, Access, and Security

- Data lifecycle: creation, use, archiving, disposal.
- Retention schedules and regulatory requirements.
- Custody, ownership, and licence conditions.
- Access control and confidentiality classification.



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- Third-party and partner data sharing protocols.
- Disaster recovery and business continuity for data.
- Simulation: handling a data access request.

Day 5: Catalogs, Metadata, and Assurance

- Metadata standards and data catalog design.
- Search, discovery, and lineage tracking.
- Data quality monitoring and reporting metrics.
- Assurance reviews over data management practice.
- Data maturity assessment for assets.
- Embedding governance into daily workflows.
- Action planning for data improvement.

Conclusion

By successfully completing the Subsurface Data Management and Governance for Brownfields Training Course, participants will have acquired the knowledge to classify subsurface data, remediate legacy quality issues, and establish governance structures that keep data trustworthy. They will understand how PPDM and OSDU conventions, master data standards, and lifecycle controls support sound reservoir decisions. As a result, they can raise data maturity across their assets. Gentex Training Center delivers this programme with practical tools participants apply directly.

FAQs for the Subsurface Data Management and Governance for Brownfields course





Q1 What is the "Subsurface Data Management and Governance for Brownfields" course about?

It covers how mature oil and gas assets manage and govern subsurface data. The course deals with legacy data quality, master data standards, governance roles, access control, and regulatory reporting, so asset teams can trust the data behind reservoir and development decisions.

Q2 What are the key benefits of the "Subsurface Data Management and Governance for Brownfields" course?

Participants gain a practical route from messy legacy data to a governed, usable asset. The course reduces decision risk from unreliable data, shortens time spent searching and reconciling records, improves regulatory readiness, and builds governance structures that survive staff turnover.

Q3 What skills will I gain from the "Subsurface Data Management and Governance for Brownfields" course?

Participants develop subsurface data classification and quality assessment, legacy data remediation and master data management, data governance and stewardship design, and data lifecycle, access and catalog management. These four skills form the core capability set the course reinforces through its exercises.



Q4 What tools, methods, or standards are covered in the "Subsurface Data Management and Governance for Brownfields" course?

The course covers the PPDM data model, OSDU data platform principles, data quality dimensions and validation rules, naming convention standards, unit and depth reference standardisation, master data and reference data management, data governance charters and stewardship models, retention schedules, access control and confidentiality classification, metadata standards, data catalogs and lineage tracking, and data maturity assessment frameworks.

Q5 How is the "Subsurface Data Management and Governance for Brownfields" course applied in real-world practice?

Professionals apply it by profiling legacy datasets against quality rules, harmonising well and formation naming into a master register, and publishing a governed data catalog. They also classify data access against licence conditions, embed validation checks in operational workflows, and report data quality metrics to asset leadership.