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Oil and gas training specialists

2018 courses

London 19-21 June

Bali 24-26 Sept

Atyrau 9-11 Oct

Bahrain 6-8 Nov

Kuala Lumpur 21-23 Nov



Well Cost Control and Forecasting 3 DAY COURSE

Course Overview

Subject to participant requirements

The course begins with discussion of the fundamentals of Well Cost Control & Forecasting.

The course refreshes the student in the principles of the well cost improvement cycle.

Starting with an overview of the technical side to well construction and cost, through to the relationship with finance and partners in the well we then look at the authorisation for expenditure (AFE) process followed by a practical example.

We then focus on the importance of cost tracking, how it fits in the finance teams monthly reporting cycle, and how it benefits the wells engineering team.

An in depth practical exercise follows where we go through the process of creating and updating the daily cost tracker, using it to create the value of work done

(VOWD), how to use this VOWD as part of the financial month end process and how this feeds into the longer term forecasting model. Next we look at the final cost review and post well reconciliation process through a practical example with the creation of the well review file also known as the well rec. Finally we look at how to pull all the disciplines together into the well cost improvement cycle and how this benefits the organisation's annual budgeting, cost estimation, cost tracking, reconciliations, finance & partner reporting, and overall value adding information to the internal management team. During the course we have exercises in each discipline that allow participants to perform the actual roles required in this niche area. Putting the theory firmly into practice.

Learning Objectives

Learn or refresh the principles behind well cost control and forecasting

Discuss the practical use of well cost control

Learn the methods to ensure accurate cost control

Learn to create financial control documents: AFE's Cost Trackers Well Reconciliations

Learn how to create the value of work done and apply this to month end reporting and overall project forecasting

Use what you learn to improve the overall cost improvement cycle

How to report and present this financial information and add value to your organisation

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The course is designed for

The course is designed for Finance Teams & Cost Engineers with an interest in Well Cost Control & Forecasting principles. Also for attendees with little or no experience in Well Cost Control & Forecasting to pick up the principles and run a Cost Tracking Model for very simple to more complex types of wells (batch drilling). The course pulls all the principles together and shows how the role fits in an Oil & Gas Operator's organisation and how add value for management.

Course outline

How oil companies decide where to drill wells

Exploring for oil and gas, a process of reducing uncertainty
Objectives of drilling a well: presence, geology, and evaluation data

Overview of well construction

Well drilling process from surface to reservoir
Formation evaluation
Well completion
Well design and preparation of the drilling plan
Roles of operator, contractor and company man
Technical reporting whilst drilling

Well cost reporting

Reporting daily, weekly and monthly estimated drilling cost report
Understanding the array of well cost reporting and how to analyse them
Preparing drilling cost reports
Graphs – cost plan v actual, Cost per foot
Other well reporting

Role of the AFE

Preparing a well AFE, setting up an AFE tracking system
Using project management techniques to plan, organise and control resources
Rig contract and support services for drilling
Materials and supplies used in well drilling
Typical well cost breakdown - onshore well
Typical well cost breakdown - offshore well

Well drilling cost

Overview of planning, preparation and drilling a well
Pre drill – well permitting, surface survey, access and site preparation
Rig related – inspection, mobilization, day work, standby and directional drilling
Crew related – travel, accommodation & subsistence
Power generation, fuel and water, transportation & logistics
Materials and supplies
Equipment, surface, casing handling, solids control and downhole tools
Site preparation – cellar construction, surface casing and intermediate hole

Formation evaluation costs

Mud logging, wellsite geologist and cutting samples
Surveys and electric logging
Coring
Drill stem testing

Well completing costs

Wellhead equipment, production casing & accessories
Logging / cement bond
Perforating, stimulation – acid or fracking
Testing, pressure surveys, gas/liquids analysis
Completion fluid
Snubbing, nitrogen

Miscellaneous & geology

Main components of well costs
Difference between exploration and development wells
Geology and reservoir rocks
Acid type and fracking success

Designing a well

Geological prognosis and well design
Selecting the rig
Drilling equipment rental
Casing and cementing program
Drilling muds and completion fluids
Drill Bits
Formation and well evaluation information

Planning and drilling the well

Key contract awards and commitment timing
Monitoring drilling operations
Well control issues
Mud control and testing
Casing and cementing operations

Drilling rig contract

Tendering for a drilling rig, spec
Rig contracts, key commercial terms, standard clauses difference between onshore and offshore contracting – rate and multi-year contracts
Impact of Gulf of Mexico spill on rig contracts
Recent case in London Commercial court

Building a well costing database

Financial commitments – contracts, purchase and service orders
Developing cost information relating to key day rate costs for equipment, services & personnel (restocking charge, repair/refurbishment costs)
Developing cost information relating to materials & supplies
Drilling supervision, safety, waste management and communications
Engineering support, overheads, insurance and site clean-up
Contractor help with costings, helicopter, telex, pay invoices

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Course outline Continued

Building a robust well cost estimating model

Simple model
Main categories of cost
Introducing complexities
Reports and analysis, cumulative cost control

Cost tracking model

Specific to circumstances
AFE template, entering data, Using Enterprise Resource Planning (ERP) solutions to develop meaningful well cost control and variance reporting
Keeping an audit trail

What happens when it doesn't go to plan

Stuck pipe
Overpressures
Lost circulation
Kicks
Impact of above on costing model

Risk management of drilling operations

Managing risk to raise the bar for operations and well management safety
Mitigation of risk is directly related to on-target performance and operational excellence
The role of well costing in OEMS

Controlling actual well costs

Controlling and reporting financial commitments
Role of the cost tracker in relation to well operations, drilling and the company man
Comparing invoiced costs to tracked costs and reporting variances
How to identify cost over-runs and prepare information for an AFE supplement

Post drilling reconciliations

Methodology for detailed well cost reconciliations to required industry standard

How to perform monthly materials usage stock reconciliations
Discussion of audit trails, reporting and liaison with accounting
Audit rights under JOA and preparation for JV audit
Final well cost review and materials usage reports

Accounting for well expenditure - financial accounting

Breakdown of costs – internal reporting to partners
Work in progress – accounting while drilling
Successful efforts v full costs accounting
Accounting depends on where you are in project lifecycle
Keeping well costs in pending – statutory auditors

Advantages of close cooperation with accounting staff while drilling

Areas where accountants add value
Five areas of improvement

Course instructor: Simon Law

Simon Law is a results driven, self-motivated and resourceful senior cost engineer and accountant with a proven ability to provide key financial data, support, and reporting to assist in key business decisions. He has excellent communication skills and is able to build strong relationships both within and outside of the finance department, as well as effective communicating of financial information to non-finance colleagues. He possesses strong financial control and reporting skills and rigorously ensures that all statutory and corporate obligations are met.

AREAS OF EXPERTISE

- Joint venture operations accounting
- Planning and forecasting
- Business plan development
- Inventory management
- Contracts & supply chain management
- Process improvement and automation
- Financial and management accounting

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