Production Accounting & Material Balance

Liquid & Gas Balances - Measures & Metering - Production Reporting

3 days **BILMAT-EN-P**

Overview

LEVEL

Knowledge

PURPOSE

This course provides the fundamental knowledge for understanding production balance, linking relevant operations and production figures which impact issues such as transfer fee, exchange between fields, field use…

LEARNING OBJECTIVES

Upon completion of the course, participants will be able to:
establish production balance from basic data (well tests, process measurements, fiscal data),
explain performance monitoring mechanisms and production reporting tools,
assess impact of field operations on material balances,
describe accounting and back allocation rules specific to process or production mode.

WAYS AND MEANS

Highly interactive and applied course by industry specialist lecturers.
Numerous illustrations and cases studies.

LEARNING ASSESSMENT

Assessment by test at the end of the course.

PREREQUISITES

In order to be able to follow this training, trainees are asked to fulfill at least one of the criteria below:
either have an engineer level or equivalent,
or proven professional experience in production operations or mass balance of at least 6 months,
or to have followed a discovery course of the entire oil chain from the reservoir to the export point.

Agenda

THE PRODUCTION CHAIN FROM THE RESERVOIR TO THE EXPORT POINT — 0.5 d

Field operations mapping.
Nature and characteristics of fluids accounted for.
Field processing of well effluent: surface facilities.
BFD studies.

MEASURES & METERING SYSTEMS ALONG THE CHAIN — 0.5 d

Well measurements and production tests.
Metering systems and their location in the plant:
Technology, accuracy, calibration.
“Filter” concept of a metering system.
Process metering.

Transactional metering.
Tank gauging.

LIQUID & GAS BALANCES

1.25 d

Production accounting rules.
PFD studies of Oil & Gas treatment units.
Liquid balances: oil balance, condensate balance, LPG balance, water balance.
Gas balances: dry gas and wet gas field cases.
Case studies:
Study of oil and condensate balances.
Reconstruction of a natural gas and associated gas balance (Oil & Gas cap ring).

PERFORMANCE MONITORING & PRODUCTION REPORTING

0.25 d

CASE STUDY & PRODUCTION BALANCES RECONSTRUCTION: BACK ALLOCATION, SATELLITE FIELDS, MAIN PRODUCTION CENTERS

0.5 d