JUPITER PRIME

Consulting • Training • Advisory

جوبيتر برايم للاستشارات والتدريب

COURSE BROCHURE

Pipeline Hydrotest, Dewatering and Drying Training Course

23 – 27 August 2027
Dar es Salaam

jupiterprime.uk

info@jupiterprime.uk

Registered in the United Kingdom and Saudi Arabia

Pipeline Hydrotest, Dewatering and Drying Training Course

Ref: 2882_110203 **Date:** 23 – 27 August 2027 **Location:** Dar es Salaam **Fees:** 7900 GBP

Pipeline Hydrotest, Dewatering and Drying is a 1-week training course for pipeline construction and commissioning engineers who prove a new line strong, tight and dry before first product, leaving with a written hydrotest and pre-commissioning procedure. Owners now expect audit-proof test records and lines free of moisture and debris. Jupiter Prime Training delivers this course on pipeline hydrotest, dewatering and drying.

Why Pipeline Hydrotest, Dewatering and Drying Matters Now

Three pressures shape this work today. Owners and insurers read hydrotest charts as evidence of strength, so a missing temperature correction can delay acceptance for weeks. Scarcer water and tighter discharge rules make sourcing and disposal of test water an environmental decision. Operators also demand low residual moisture, because free water drives corrosion and hydrates. A crew that plans sections, reads the pressure record and dries to a verified dew point hands over cleanly; one that improvises inherits retests and disputes.

Who Gains Most from Pipeline Hydrotest, Dewatering and Drying

- Engineers who split a pipeline into test sections and set test pressures against elevation profiles
- Commissioning staff who supervise filling, pressurisation, hold periods and acceptance of the test record
- Contractor supervisors responsible for pig trains, dewatering runs and drying spreads
- Owner representatives who witness tests and sign off pressure-volume plots and dew point readings
- Environmental and site specialists who manage test water intake, chemical treatment and discharge

A project group that sends its test engineer, pigging supervisor and owner witness together gains most, sharing one acceptance language.

Pipeline Hydrotest, Dewatering and Drying Capabilities

Participants move from the strength test through water removal to a dry, inert line, practising the calculations and judgements each stage demands.

- Calculate test section limits and test pressures from elevation data — the owner deciding section breaks
- Specify test water source, filtration, inhibitor and biocide dosing — the permit holder
- Assess pressure-volume plots with temperature correction — the acceptance witness
- Design dewatering and gauging pig runs that prove the bore — the pigging contractor
- Weigh air, vacuum and nitrogen drying routes against moisture targets — the commissioning manager
-

Build a hydrotest and pre-commissioning procedure an auditor can trace — the handover team

Key Pipeline Hydrotest, Dewatering and Drying Terms

- Test section — a length of pipeline isolated and filled for one pressure test.
- Hold period — the time a test section stays at test pressure while pressure and temperature are logged for acceptance.
- Pressure-volume plot — a graph of added water against pressure used to detect trapped air and yielding.
- Temperature correction — the calculation that adjusts recorded pressure change for temperature movement during the hold.
- Gauging plate — a soft metal disc carried by a pig that records dents or ovality restricting the internal bore.
- Water dew point — the temperature at which moisture in the drying gas condenses, used as the measure of line dryness.

Pipeline Hydrotest, Dewatering and Drying Day by Day

Day 1: Test Philosophy and Section Planning

- Strength Versus Leak Test Objectives — What Acceptance Must Prove
- Elevation Profile Analysis — Setting Low Point and High Point Pressure Limits
- Test Section Break Selection — Valve Locations, Access and Water Volume
- Test Head and Temporary Piping Design — Safe Pressurisation and Isolation
- Exclusion Zones and Stored Energy Hazards — Protecting Crews During Pressurisation

Day 2: Test Water and Filling

- Water Source Assessment — Volume, Quality and Intake Approval
- Filtration, Inhibitor and Biocide Dosing — Limiting Internal Corrosion After Testing
- Filling Pig Selection and Air Removal — Avoiding Trapped Air Pockets
- Thermal Stabilisation Before Pressurising — Timing the Start of the Hold
- Discharge Treatment and Disposal Routes — Meeting Environmental Permit Conditions

Day 3: Pressure Records and Leak Investigation

- Pressure-Volume Plot Interpretation — Detecting Air Content and Yield Onset
- Temperature Correction Calculations — Separating Thermal Drift From True Loss
- Deadweight Tester and Recorder Calibration — Trusting Every Logged Reading
- Leak Location Methods — Sectionalising, Acoustic Listening and Tracer Checks
- Retest and Repair Decisions — When a Failed Hold Restarts the Sequence

Day 4: Dewatering, Cleaning, Gauging and Drying

- Dewatering Pig Train Design — Driving Gas Pressure, Speed and Backpressure
- Cleaning Runs and Debris Monitoring — Judging When the Bore Is Clean
- Gauging Plate Results — Accepting or Excavating Dents and Ovality
- Air, Vacuum and Nitrogen Drying Routes — Moisture Target Versus Schedule
- Nitrogen Purging and Inerting — Oxygen Limits Before Product Introduction

Day 5: Practising the Hydrotest and Pre-Commissioning Procedure

- Section Plan and Pressure Calculation Exercise — Applying Elevation Limits to a Route
- Pressure Record Acceptance Case — Applying Temperature Correction to Real Charts
- Drying Endpoint Verification — Applying Dew Point Readings to Handover
- Test Pack and Witness Records — Documents Owners Require at Acceptance
- Hydrotest and Pre-Commissioning Procedure — Completing the Crew-Ready Document

Applying Pipeline Hydrotest, Dewatering and Drying After the Course

- Check the next test section plan against its elevation profile.
- Apply temperature correction to the latest hold record with the owner witness.

Pipeline Hydrotest, Dewatering and Drying Questions FAQ

What is pipeline hydrotest, dewatering and drying, and why does it matter now?

It is the sequence that proves a new pipeline's strength with water, then removes that water and dries the line. It matters now because owners demand defensible records and product specifications tolerate little moisture.

Which roles gain most from pipeline hydrotest, dewatering and drying training?

Construction and commissioning engineers gain most. Test engineers, pigging supervisors and owner witnesses also benefit, because each signs part of the record.

How does pipeline hydrotest, dewatering and drying differ from a pipeline construction course?

It starts where construction ends. A construction course covers routing, welding and laying; this one covers proving the finished line and preparing its bore for product.

What do you bring back from pipeline hydrotest, dewatering and drying training?

You bring back a hydrotest and pre-commissioning procedure built during the course, plus worked section calculations and an acceptance checklist.

Pipeline Hydrotest, Dewatering and Drying: The Way Forward

The hydrotest and pre-commissioning procedure first informs where test sections break and what pressure each holds. Test engineers, pigging contractors and owner witnesses use it to agree acceptance before filling. After its first use on a crude oil line or a water transmission main, revisit the drying endpoint and discharge sections, where site conditions most often change the plan.