FREE GUIDE

50 Oil & Gas Interview Questions & Answers

Everything you need to walk into your next interview prepared

> Most candidates lose the room in the first five behavioral questions, long before the technical questions start. This guide covers both - 50 real questions across five categories, with concise, interview-ready answers.

Section A Behavioral & Fit (Q1-10)

Q: Tell me about yourself.
A: Give a 90-second career narrative that ends at why you want this role.

Q: Why oil and gas?
A: Show genuine interest in energy, not just the pay.

Q: Why this company specifically?
A: Reference their basin, asset, or technology - not a generic answer.

Q: Describe a time you solved a technical problem under pressure.
A: Use a structured story: situation, action, quantified result.

Q: Tell me about a time you disagreed with a supervisor.
A: Show respectful pushback and resolution, not conflict avoidance.

Q: How do you handle tight deadlines in the field?
A: Emphasize prioritization and clear communication with stakeholders.

Q: Describe your safety mindset.
A: Give a concrete example of stopping work or flagging a hazard.

Q: How do you handle working with cross-functional teams?
A: Highlight a specific collaboration across disciplines, e.g. drilling and geology.

Q: What is a mistake you made and what did you learn?
A: Own it fully and show the process change that followed.

Q: Where do you see yourself in five years?
A: Tie your ambition to the company's growth path, not just personal titles.

Section B Drilling & Completions (Q11-20)

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Q: What is the purpose of drilling mud?
A: Cooling and lubricating the bit, carrying cuttings to surface, and controlling formation pressure.

Q: Explain a kick and how it is detected.
A: An influx of formation fluid into the wellbore, detected via pit gain, flow rate increase, or pressure changes.

Q: What is casing design based on?
A: Burst, collapse, and tension loads across the well life, with appropriate safety factors.

Q: Difference between overbalanced and underbalanced drilling?
A: Whether mud hydrostatic pressure exceeds or is below formation pressure.

Q: What is a frac stage?
A: A discrete section of the wellbore isolated and hydraulically fractured in sequence.

Q: What factors affect lateral length decisions?
A: Reservoir geometry, frac design, takeaway capacity, and capital efficiency.

Q: What is proppant and why is it used?
A: Sand or ceramic material that holds fractures open to maintain permeability after frac pressure is released.

Q: Explain differential sticking.
A: Pipe sticks to the wellbore wall due to a pressure differential across a permeable, filtered zone.

Q: What is the role of a BOP (blowout preventer)?
A: Seals, controls, and monitors the wellbore to prevent uncontrolled flow.

Q: What is non-productive time (NPT) and how is it minimized?
A: Time lost to unplanned events, minimized via pre-job planning, maintenance, and real-time monitoring.

Section C Reservoir & Petrophysics (Q21-30)

Q: What is decline curve analysis used for?
A: Forecasting future production and estimated ultimate recovery from historical rate data.

Q: Difference between porosity and permeability?
A: Porosity is void space capacity; permeability is the ability of fluid to flow through that space.

Q: What is a material balance equation used for?
A: Estimating original hydrocarbons in place using production and pressure history.

Q: Difference between OOIP and reserves?
A: OOIP is total oil in place; reserves are the technically and economically recoverable portion.

Q: What is water cut and why does it matter?
A: The fraction of water in produced fluids; rising water cut affects lifting costs and economics.

Q: Explain relative permeability.
A: How the permeability to one fluid phase changes based on the saturation of other phases present.

Q: What is a type curve?
A: A representative production profile used to forecast new wells based on analog well performance.

Q: What is skin factor?
A: A dimensionless measure of near-wellbore damage or stimulation affecting well productivity.

Q: Difference between primary, secondary, and tertiary recovery?
A: Natural depletion, injection-assisted recovery such as waterflood, and enhanced methods such as CO2 or chemical EOR.

Q: What is a PVT report used for?
A: Characterizing fluid behavior - pressure, volume, temperature - for reservoir and production calculations.

Section D Production, Facilities & HSE (Q31-40)

Q: What is artificial lift and when is it needed?
A: Mechanical or gas-based methods to bring fluids to surface once natural reservoir pressure is insufficient.

Q: Name common types of artificial lift.
A: Rod pump, ESP (electric submersible pump), gas lift, and plunger lift.

Q: What is a separator used for?
A: Splitting produced fluids into oil, gas, and water phases for measurement and processing.

Q: What is the purpose of a choke on a wellhead?
A: Controlling flow rate and downstream pressure from the well.

Q: Explain LOTO (lockout/tagout).
A: A safety procedure ensuring equipment is de-energized and isolated before maintenance work.

Q: What is a JSA (job safety analysis)?
A: A pre-task review identifying hazards and controls before work begins.

Q: Difference between a near miss and an incident?
A: A near miss had potential for harm but caused none; an incident resulted in actual harm or loss.

Q: What is flaring and why is it done?
A: Controlled combustion of excess gas for safety or when no takeaway capacity exists; increasingly scrutinized for emissions.

Q: What is methane intensity?
A: A metric measuring methane emissions relative to production volume, tracked for ESG reporting.

Q: What is a permit to work system?
A: A formal process authorizing and controlling higher-risk work on a site.

Section E Business, Economics & Industry Awareness (Q41-50)

Q: How do you evaluate whether a well is economic?
A: Compare NPV/IRR against company hurdle rates using price decks and cost assumptions.

Q: What is a type well economics model?
A: A standardized economic model applied across a portfolio of similar wells to guide capital allocation.

Q: Difference between WTI and Brent?
A: Two major crude benchmarks - WTI is a U.S. benchmark, Brent is the global seaborne benchmark - with different quality and logistics factors.

Q: What is a DUC well?
A: A drilled but uncompleted well, held as inventory until completion is economic.

Q: How does OPEC+ affect your job?
A: Their production decisions shape price expectations, which flow into your company's capital budget.

Q: What is capital discipline and why does it matter now?
A: Prioritizing shareholder returns and efficiency over pure production growth, shaping which projects get funded.

Q: What is a breakeven price?
A: The oil or gas price at which a project or well becomes economically viable at a given return threshold.

Q: How do ESG considerations affect project decisions?
A: They increasingly factor into financing costs, permitting timelines, and investor perception.

Q: Difference between upstream, midstream, and downstream?
A: Exploration and production, transport and storage, and refining and marketing, respectively.

Q: Why should we hire you over another candidate?
A: Connect your specific technical strength and a proof point directly to this role's stated priorities.

Your move: Go through Section A first. It is where most candidates lose the interview before the technical questions even begin.