

well drilling operations geology
 Petroleum onshore offshore wellbore hydraulics refining
 polymers raw materials injection molding extrusion

GEOLOGICAL ENGINEER

Task 1. Read the text and complete the sentences with the correct words from the box.

DETERMINES ANALYZES WORKS PROVIDES
 OPTIMIZE PLAY ESTIMATES

The geological engineer _____ a key role in the exploration, evaluation and exploitation of oil deposits. Thanks to his skills in geology and his in-depth analysis of data, he _____ crucial information for decision-making.

Key Responsibilities:

- **Geological Formation Evaluation:** _____ drilling data, rock samples, and seismic data to study the structure and properties of petroleum reservoirs.
- **Oil Reserve Forecasting:** _____ oil reserves using geological models, production data, and simulation techniques.
- **Borehole Planning:** _____ the best locations for drilling to maximize oil recovery.
- **Interdisciplinary Collaboration:** _____ with production engineers, geophysicists, and technicians to _____ oil extraction and reservoir understanding.

Task 2. Match the words with their correct definitions.

Well:	a) The entire process of drilling a well, including planning, preparing the site, operating the drilling rig, monitoring progress, and ensuring safety and efficiency during the drilling process.
Drilling Operations:	b) The practice of analyzing rock and fluid samples brought to the surface by drilling mud during the drilling of a well. It provides real-time data about underground formations.
Geology:	c) A deep hole drilled into the ground to reach a reservoir of natural resources like oil, gas, or water.
Mud Logging:	d) The application of physical methods (like measuring seismic waves, gravity, or magnetism) to study and map the Earth's subsurface without direct drilling.
Geophysics:	e) The science that studies the Earth's structure, materials (rocks, minerals), and the processes that shape the Earth over time.

PETROLEUM ENGINEER

Task 3. Read the text and put the words in bold in the correct

Today, I _____ START my morning checking the drilling progress of a new **wellbore**. It's an important part of the operation because it helps us reach the **petroleum** trapped underground.

Our team currently _____ WORK **onshore**, but next month I _____ TRAVEL to an **offshore** platform in the sea. Both locations require different safety checks and equipment.

In the afternoon, I reviewed the **hydraulics** system that helps move drilling tools deep into the well. Proper hydraulics are essential _____ CONTROL pressure and avoid accidents.

Later, I attended a meeting about **refining** plans. After we extract the petroleum, it needs _____ SEND to a refinery to turn it into gasoline and other useful products.

_____ WORK as a petroleum engineer means solving problems and making sure everything runs smoothly — both on land and at sea!

Task 4. Choose the correct answer.

1. Where is the petroleum engineer currently working?
A) Offshore
B) Onshore
C) In a refinery
2. What part of the drilling operation did the engineer check in the morning?
A) Refining process
B) Hydraulics system
C) Wellbore
3. What helps move the drilling tools deep into the well?
A) Petroleum
B) Offshore platforms
C) Hydraulics
4. What will the petroleum be turned into after refining?
A) Gasoline and other products
B) Materials for making plastics
C) Water for hydraulics
5. What is the main purpose of the hydraulics system mentioned in the text?
A) To move drilling equipment smoothly
B) To clean the drilling tools
C) To control pressure and avoid accidents
6. What does the petroleum engineer plan to do next month?
A) Start a new refining project
B) Work on an offshore platform
C) Build a new onshore office

PLASTIC ENGINEER

polymers raw materials injection molding extrusion

Task 5. Some phrases have been removed from the dialogue below. Fill in the blanks with the most suitable phrases from the list provided.

- a) temperature and pressure in injection molding to avoid defects
- b) help keep the plastic smooth and consistent
- c) for quality before injection molding
- d) Is the screw speed and barrel temperature set correctly
- e) but for detailed parts, injection molding is better
- f) the plastic's heat resistance during molding

Tom: Have we checked the polymer raw materials 1)_____?

Frank: Yes, the pellets are good. I added some additives to improve 2)_____.

Tom: That will help. We need to carefully control the 3)_____.

Frank: Right. Also, cooling time is important — too short, and parts can warp; too long, and the process slows down.

Tom: How about extrusion? 4)_____?

Frank: Not yet. I noticed the melt isn't flowing evenly. Adjusting the temperature along the barrel will 5)_____.

Tom: Good. Extrusion works well for making sheets or tubes, 6)_____.

Frank: Exactly. Let's run a test with these settings and see how the parts turn out.

Task 6. Read the definitions of some terms related to the topic Plastic Engineer and type the term.

polymers raw materials injection molding extrusion

_____ a process where melted polymer is injected into a mold to form a specific shape, like phone cases or toys.

_____ the main chemical substances used to make plastic.

_____ a method where melted polymer is pushed through a shaped opening to make long items like pipes or plastic films.

_____ substances added to polymers to improve their properties or processing.

_____ the polymer pellets or powders used to produce plastic parts.