

Задание 1. Переведите предложения, содержащий термины и аббревиацию. Запишите перевод ТОЛЬКО терминов/аббревиации, выделенных жирным шрифтом в именительном падеже (см. «Критерии оценивания»).

1. Workovers are often necessary in older wells, which may need smaller diameter tubing, scale or paraffin removal, repeated acid matrix jobs, or even completing new zones of interest in a **shallower reservoir**.
2. Nowadays such **EOR techniques** as polymer flooding and gas injection are frequently used to increase oil production and offer high efficiency.
3. **FPSO** units produce and store hydrocarbons offshore in varying water depths; they also receive the complete wellstream, separate the oil, water and gas, store the oil and offload the stabilized crude oil to export tankers.
4. A **BOP** is basically an assembly of safety valves that are designed to seal a well automatically in case of a blowout; it is installed in between the wellhead system and the drill floor before any drilling activities into the reservoir zone actually begin.
5. Usually the gas or oil is under pressure in the ground. To stop wasteful and dangerous gushers, a set of valves called a **Christmas tree** is fitted to the well head to control the flow of fluids from the well.
6. Sometimes, surveys show that a structure is present which may contain oil and gas. If so, exploratory well or **wildcat well** is drilled.
7. The elevation profile of the pipeline determines the lengths of the hydrostatic test sections because elevation changes affect the internal pressure. Water for hydrostatic testing is typically taken from rivers and lakes along **ROW**.
8. The **recovery factor** – the amount of oil that can be economically extracted compared with the total amount estimated to be in the ground - varies widely. Twenty years ago a recovery factor of about 30 percent was normal, today the average is about 45 percent.
9. In a **cased-hole completion**, small hole called perforations are made in the portion of the casing which passed through the production zone, to provide a path for the oil to flow from the surrounding rock into the production tubing.
10. **Tie-in welding** is an important step in the pipeline construction when individual pipe string ends are cut and trimmed to join the pipe strings with external clamps accurately aligning the pipe.

Задание 2. Прочитайте текст на английском языке и сделайте пересказ текста на русском языке. Прочитайте текст на английском языке и сделайте пересказ текста на русском языке. Объем русского текста должен быть 150-160 слов. Текст, объем которого меньше 135 или больше 180 слов, не проверяется.

Impact of Technology on the Oil and Gas Industry

Technological advancements have impacted the exploration and production processes of petroleum industry, leading to significant improvements in efficiency. For example, the use of 3D and 4D seismic imaging has revolutionized the way subsurface geological formations are visualized, allowing for more accurate drilling and production operations.

Additionally, digital twin technology has emerged as a game-changer, enabling the simulation of production processes and the prediction of outcomes. This technology has proven its effectiveness in empowering better decision-making and optimization of production processes, leading to higher yields and profits. Innovative exploration and production technologies have played a key role in driving the oil and gas industry towards cost savings and

increased profitability. The use of cutting-edge robotics and automation has allowed for the implementation of more efficient operational processes, leading to a significant reduction in labor costs while at the same time improving overall operational efficiency. In addition, the use of advanced data analytics and artificial intelligence has enabled companies to better predict maintenance needs and optimize production processes. By analyzing large data sets, companies are able to identify potential issues before they become major problems, resulting in significantly reduced downtime and improved overall profitability.

Furthermore, the use of advanced exploration technologies, such as 3D seismic imaging and directional drilling, has enabled companies to identify and extract oil and gas reserves that were previously thought to be inaccessible. This has led to increased production volumes and improved profitability. As a result, the oil and gas industry has seen significant advancements in technology in recent years, resulting in increased efficiencies and cost savings. Innovative technologies have significantly contributed to minimizing the environmental impact of oil and gas operations. The use of unmanned aerial vehicles is one example of how technology has advanced oil and gas operations. These vehicles can be used to monitor and inspect offshore installations without any human intervention, reducing the risk of environmental accidents.

Moreover, blockchain technology has revolutionized oil and gas operations by enabling the tracking of the carbon footprint of oil and gas products. This means that it is now easier to implement carbon reduction measures.

Other innovative technologies are being developed to minimize the environmental impact of oil and gas operations, as well. Some companies are researching and developing technology that can be used to capture and store carbon dioxide. This process is known as carbon capture and storage. By capturing and storing carbon dioxide, oil and gas companies can reduce their carbon emissions and minimize their environmental impact.

Technology has played an important role in enhancing the safety of workers in the oil and gas industry. In fact, the use of cutting-edge technology has revolutionized the way the industry operates.

There are numerous other technological advancements that have contributed to the safety of workers. For instance, the use of drones for aerial inspections has made it easier to access hard-to-reach areas, ensuring that inspections are carried out more efficiently and safely.

Moreover, the use of wearable technology, such as smart helmets and safety vests, has made it easier to monitor workers' health and safety in real-time, preventing accidents before they happen. The development of new materials and technologies has also led to the creation of safer equipment, such as explosion-proof devices and fire-resistant clothing. These technological advancements have had a significant impact on the safety of workers in the oil and gas industry, enabling them to carry out their work more efficiently.