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OIL AND GAS INDUSTRY IN UZBEKISTAN

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ANNOTATION

In this article is given information about the oil industry, gas industry, our country has become a major exporter of gas, polyethylene and refined petroleum products, oil and gas business is one of the most lucrative and labor-intensive industries of our time, it is processed to extract the necessary substances in the oil, the first step in the extraction of oil is the separation of colorless substances - gasoline and gasoline fractions, and the product of each fraction.

KEYWORDS

oil industry, gas industry, oil and gas business, gasoline and gasoline fractions, product.

INTRODUCTION

Petroleum (in Turkish neft, in Persian, neft), black - a liquid combustible mineral, a substance consisting of a complex mixture of organic compounds, mainly hydrocarbons.

It is located mainly in the porous or loose rocks (sand, sandstone, limestone) of the underground domes at a depth of 1.2-2.0 km. The oil is extracted mainly from drilled wells.

The oil is black or brown, sometimes light brown in color, and has a distinctive odor. Density 750–970 kg/m^3. The density is 20° in 850 kg/m^3 oils lighter than 851 –885 kg /m^3 — in average weight and 885 kg /m^3 and more is a heavy oil. Boiling point above 28°. Freezing point -60° to -26°, viscosity at 50° 1.2-55 mm^3/s, specific heat capacity 1.7-2.1 kJ/(kg .K), combustion temperature 43.7-46, 2 MJ / kg is equal. Flash temperature 35-120°. Soluble in organic solvents, insoluble in water, but forms a stable emulsion with water.

The gas industry is the extraction of natural gas from the earth's crust, the production of artificial gas from solid and liquid fuels, the supply of gas from pipelines for domestic and industrial supply, and the production of chemical products from gas. The main type of gas is combustible natural gas, which occurs in the porous rocks of the earth's crust at a depth of 200-7000 m. It is composed of methane (SN4). 1 m^3 of natural gas gives 8000-8500 kcal of heat. There are also gases that are released from the oil, which come out of the oil fields along with the oil. Such gases emit up to 10,000 kkal/m^3 of heat. Synthetic gases are formed by thermal processing of solid and liquid fuels and conversion of coal into underground gas. Generator gases, such as coke oven gas, are artificial gases. 1 m^3 of generator gas gives 1000-1050 kcal of heat. Gas is delivered to consumers through main gas pipelines, complex compressor stations that deliver gas at a certain pressure, and underground gas storage facilities.

The oil and gas industry is one of the leading sectors of the country's economy. Uzbekistan is one of the world's leading producers of natural gas. During the years of independence, radical changes have taken place in the oil and gas industry of our country. Our country has become a major exporter of gas, polyethylene and refined petroleum products. Liberalization of the

economy, all its sectors, in particular, special attention is paid to creating a favorable investment climate for the further development of the oil and gas sector. The construction of new facilities, reconstruction and modernization of existing ones in accordance with modern requirements is in full swing. Favorable conditions, opportunities and benefits are being created to increase production efficiency, increase the share of local products in the domestic market, expand localization, and develop cooperative relations.

Today, our country processes oil, produces gasoline, diesel fuel, fuel oil, petroleum oils, bitumen, jet fuel. The refineries plan to expand production of liquefied natural gas and polyethylene.

Consistent reforms aimed at the development of the heat supply system and the further development of hydropower in our country are yielding great results. In this regard, the program of measures for further development of hydropower in 2017-2021 is an important guide in the creation of new energy facilities and modernization of existing ones through the widespread use of environmentally friendly sources of renewable energy in Uzbekistan. Oil and gas is one of the most lucrative and labor-intensive industries of our time. This is true not only in Uzbekistan, but in all countries of the world. Uzbekistan has vast oil, gas and coal reserves.

Our country is in the top 15 in the world in terms of gas production. The largest gas fields in the country are in Gazli, Mubarek, Shurtan, Kokdumalak, which contain 90-96% of methane. Natural gas also includes associated gases from oil and coal fields. After natural gas is extracted, it is first cleaned of non-combustible impurities.

The moisture content of the gas is reduced and nitrogen, carbon dioxide, hydrogen sulfide are removed, because these gases are not suitable for use due to the presence of sulfur compounds. In the first processing, along with natural gas, sulfur is also produced.

It should be noted that, on the one hand, it is not easy to work in the oil and gas sector, and on the other hand, without this sector, development will be lagging behind. That is why every specialist can become a “star” of the industry.

All the young people who have chosen the “oil profession” should know exactly what processes the specialists in this field are involved in, they do not know what tasks they will perform or what their responsibilities will be. For example, let's talk about the processes involved in the primary processing of oil and gas.

Oil is a dark brown, water-insoluble liquid with a distinctive odor. In nature, oil is found underground and consists of a mixture of different hydrocarbons: a solution of gases, liquids and solids.

It is processed to extract the necessary substances from the oil. Oil refining is divided into primary and secondary refining.

The basis of primary refining is oil drilling. In this case, the substances contained in the oil are divided into different fractions depending on the boiling point. When pumping oil, first colorless substances - gasoline and gasoline fractions are separated. Then colored products - ligroin, kerosene, gas oil are separated.

Let’s take a closer look at this process.

Oil is pumped in the jet column. The oil is first heated in a kiln and sent to a 40-meter-high column in the form of a mixture of steam and liquid. There are flat plates with holes through

which the heated oil vapor rises and cools and turns into a liquid. Light volatile gas oil is separated first, then paraffin, ligroin, gasoline and finally gasoline fractions. A portion of the separated gasoline is sent back to the column as refrigerant.

At this stage, 20% of the oil is extracted as gasoline. At the end remains a dark black mass - fuel oil. Various surkov oils, paraffin and vaseline are obtained by vacuum distillation of fuel oil, the remaining residue is called “petroleum ash” or tar.

Each fractional product has its own field of application:

- Gasoline is used as a fuel, solvent, and extractor for automobiles and aircraft.
- Ligroin is a diesel fuel used as a solvent in the paint industry and as a raw material for gasoline.
- Kerosene - jet engines, used as a household fuel, as a solvent, in medicine.
- Solar oils - used as motor fuel.
- Vaseline - used in medicine and technology.
- Fuel oil - used as a raw material in the production of gasoline, surkov oil and as a fuel in boilers.
- Tar - used as a base material in the production of asphalt.

Uzbekneftegaz is implementing a number of projects with institutes and universities of the Academy of Sciences of Uzbekistan to introduce new technologies. Thanks to innovative projects implemented by research institutes in our country, many new types of products are being produced in the oil and chemical industries. The quality of our products is improving and we are gaining a strong foothold in the world market.

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