

deficiencies, which makes it possible to really solve the problem, rather than to work exclusively with its external manifestations.

Thus, all the elements of the presented diagnostic complex are closely related to each other and are built in a clear sequence of their application. The implementation of this set of methods and tools of analysis gives the enterprise management an opportunity to identify reserves and focus its efforts on the most significant problems.

## **THE STATE OF OIL AND OIL PRODUCTS POLLUTION OF THE CASPIAN SEA IN THE TERRITORY OF AZERBAIJAN**

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As it is known, environmental problems arise during the search for oil fields in the Caspian Sea, its extraction, and transportation. First of all, referring to the technical literature dedicated to the extraction of oil in the sea, it can be said that the organization of the mining industry in sea conditions, the exploration, and the drilling of exploitation facilities is a very difficult and complex process. Despite this, in the Caspian Sea, a large number of oil fields have been organized, in the field of application of high technology, exploration and exploitation work has been carried out even in the deep areas of the sea.

Between 150 and 1,604 tons of oil can be spilled into the sea each year, depending on the amount of oil recovered from the sea and the loss assumed. The surface area of the Caspian Sea is 355-400 thousand km<sup>2</sup>. 12.3 thousand tons of oil is enough to completely cover its surface with a monomolecular oil film. Sometimes the amount of pollutants is so high that the sea is unable to break down and neutralize all the pollutants poured into it through its natural self-purification process. In such cases, the amount of decomposed and not neutralized substances in the sea increases every year, weakening the self-cleaning process of the sea.

Terrible hydrometeorological and ecological conditions arise when one-time and long-term oil products are spilled into the sea as a result of accidents. In such extreme cases, measures are prepared and implemented for the neutralization of oil and oil products spilled on the sea surface. This is done by collecting oil products from the sea surface or by applying certain chemical reagents.

Although the importance of keeping the Caspian Sea clean is confirmed by all the Caspian states, it continues to be polluted as always, and the main place in this pollution is oil and oil products, followed by chemical pollution.

Based on the observations, it can be said that chemically treated and barite-weighted clay solutions have destructive effects on fish and invertebrates that are their

food base in the sea and increase the degree of sea pollution. For this reason, it can be said that the fish in the part of the Caspian Sea belonging to Azerbaijan, which is famous for various valuable fish species, have been completely destroyed. In good development, the water environment is mixed with clay solution, oil, oily water, condensate, mineralized water, surfactants, acid, chemical solvents, and chemical reagents.

Certain technical measures are being implemented to prevent the pollution of the Caspian Sea with mining waste. The following can be attributed to these measures: - Collecting and transporting the sludge generated during drilling to the shore; - Sludge collection and disposal on stationary platforms and floating drilling rigs. - Regeneration of processed products - Collection, treatment, and reuse of wastewater generated during drilling.

One of the wastes that pollute the Caspian Sea is oil. The main users of oil products are concentrated in big cities. These include transport enterprises, and various branches of industry - machine building, chemistry, petrochemical, metallurgy, pulp and paper, and others. Lubricating oils in fuel, washing liquids, and substances obtained from oil refining are widely used in such industries.

Based on statistical data, it can be said that nearly 50,000 birds have perished in the coastal waters of the Caspian Sea. In addition, as a result of the washing of oil-rich lands with rainwater, the rainwater flowing into the sea also creates major environmental problems. Oil-fueled seepage water has made kilometers of coastal areas unusable along the coast of the Caspian Sea.

Giving wide space to oil and gas exploitation hurts the fishing industry. Extreme water pollution is causing serious damage to the fishing industry. According to estimates, the damage to the sturgeon industry is 6 billion dollars, and the damage to the caviar business is 10 billion dollars. Not only one state but 5 coastal countries must take care of the Caspian Sea. Unless the status of the Caspian Sea is fully determined, the sea's stock of sturgeon fish, the diversity of living things and its ecosystem may decline. In short, it is very important to take a comprehensive approach to the environmental problems of the Caspian Sea.

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