

GKP Proactively Monitoring Air Quality with Polludrone to Protect Community Health

Our Client

Gulf Keystone Petroleum (GKP) is a leading oil and gas company operating in the Shaikan Field, approximately 60 km northwest of Erbil, in the Kurdistan Region of Iraq. Covering an area of 280 km², the Shaikan Field is one of the largest oil discoveries in the region, with GKP holding an 80% working interest under a Production Sharing Contract with the Kurdistan Regional Government. Since production began in July 2013, the field has produced over 124 million stock tank barrels of oil, playing a critical role in regional energy supply.



The Challenge

As the operator of one of the largest oil fields in Kurdistan, GKP's activities contribute to the region's industrial landscape but also pose challenges in managing emissions. Due to the refinery's operations, air quality was degrading, and surrounding communities were facing health issues, raising the need for a robust monitoring system. GKP recognized the importance of understanding the impact of its operations on the environment and the nearby village, ensuring the safety and well-being of local residents while staying compliant with environmental regulations. The company required a real-time, reliable solution that could accurately monitor pollutants and environmental parameters, giving insights into pollution dispersion and potential effects on the village.

The Solution

Oizom provided GKP with Polludrone, customized to monitor a wide range of critical pollutants and environmental parameters, including particulate matter (PM₁, PM_{2.5}, PM₁₀, PM₁₀₀), and gases like SO₂, NO₂, O₃, H₂S, CO, CO₂, TVOC, and CH₄. The Polludrone units were strategically installed within the refinery to track on-site emissions and in the nearby village to assess the pollution's impact on the community. The devices also track essential environmental parameters such as wind speed and direction, temperature, humidity, and pressure. This setup enables GKP to understand pollution dispersion patterns, especially in determining how refinery emissions may affect the nearby village. By monitoring real-time pollution data and providing insights into wind patterns, Oizom's system helps GKP pinpoint pollution sources, monitor how emissions may drift toward residential areas, and help them proactively manage air quality.



Installation Details

5 Units of
Polludrone Smart

The Result

Installing polludrone enables Gulf Keystone Petroleum to monitor harmful pollutants and manage the environment proactively. With Oizom's Polludrone system, they now have the infrastructure to monitor critical air pollutants and environmental conditions in real-time continuously. Monitoring data allows them to gain deeper insights into how emissions impact the nearby village, fostering a data-driven approach to environmental stewardship. By understanding the real-time effects of refinery emissions on air quality, GKP is better equipped to protect the community's health, ensuring safety and environmental responsibility.

Utilizing Envizom for comprehensive air quality reports and in-depth data analysis enables informed decision-making, empowering users to enhance operations, streamline processes, and ensure compliance with environmental regulations. This data-driven approach fosters continuous improvement, aligning with sustainability goals and industry standards.

Oizom is a company specializing in environmental monitoring solutions. They offer products to monitor air quality, weather conditions, and other environmental factors. Utilizing advanced sensor technology and data analytics, Oizom aims to provide actionable insights for construction, industrial compliance, and community awareness. Their solutions can be applied in various sectors including government, industries, and community initiatives.