

Specialist Press Release

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World's largest reed bed treatment plant in operation for 10 years

Nimr, Oman – In the middle of a desert landscape in Oman, BAUER Nimr LLC, a local subsidiary of BAUER Resources GmbH, has now been operating the world's largest commercial reed bed treatment plant for ten years. With an area of 13.5 km², it is roughly the size of 1,600 football fields. It can even be seen on satellite images. The plant is a multi-award winning flagship project for the biological cleaning of polluted water from oil production at the Nimr oil field in the south of the country, with the first phase of the project completed by Bauer Nimr in 2011.

After just three weeks, the plant achieved its first milestone: "We were able to significantly outperform the contractually agreed cleaning capacity of 45,000 m³ per day," reports Ulrich Emmer, Managing Director of Bauer Nimr. Construction work was successfully completed in 2019 with the third and final expansion. At peak times, up to 175,000 m³ of polluted water currently runs through the plant in one day, and a total of 370 million m³ water has been cleaned so far with an excellent cleaning performance: At the end of the process, a hydrocarbon content of less than 0.5 mg/l is achieved. Nearly 95% of the crude oil in the water can be removed or recovered without the use of energy or chemicals.

What makes this innovatively constructed wetland one-of-a-kind is not only its size and remarkable cleaning performance, but also the new standards it sets for sustainability: By treating contaminated water using natural flow processes in the form of graduated settling pits and reusing the purified waste water on the surface, it is no longer necessary to use energy-intensive pumps for circulation or for discharging residual amounts into the subsoil. "After ten years of operation, a total of approx. 1.275 million tons of CO₂ emissions have been saved – according to estimates, by the end of operations in 2044, it will save 4.5 million tons of CO₂," explains Dr. Roman Breuer, Managing Director of BAUER Resources GmbH. In addition to this, with approx. 1.5 billion reed plants, the former desert landscape also provides a habitat for more than 140 animal species including numerous birds, fish and reptiles.

"With an order volume of roughly 600 million US dollars over its entire period of operation, the reed bed treatment plant in Oman is one of the most significant projects run by Bauer Resources and we will continue operation for another 23 years," concludes Dr. Roman Breuer.

Images: 2021-01_BAUER_Nimr Water Treatment Plant ...



(1) With an area of 13.5 km², the world's largest commercial reed bed treatment plant is roughly the size of 1,600 football fields.



(2) At peak times, up to 175,000 m³ of polluted water runs through the plant in one day.

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About BAUER Resources Group

The regionally organized BAUER Resources GmbH is aligned to projects around the world with its subsidiaries in Germany, Africa, the Middle East and South America and has extensive expertise in the areas of drilling services and water wells, environmental services and constructed wetlands. With 30 years of experience, BAUER Resources GmbH's Bauer Umwelt business division is one of the leading specialists in site remediation, soil remediation and waste disposal, both in the domestic market and internationally. As an expert in pollution reduction, Bauer Umwelt offers a diverse range of services for all environmental issues. Other companies of the BAUER Resources Group are the GERMAN WATER and ENERGY GROUP (GWE) – manufacturers of pioneering products and developers of integrated applications for well-drilling and geothermal – as well the Site Group for Services and Well Drilling Ltd. in Jordan. More at bre.bauer.de



About Bauer

The BAUER Group is a leading provider of services, equipment and products dealing with ground and groundwater. With over 110 subsidiaries, Bauer can rely on a worldwide network on all continents. The Group's operations are divided into three forward-looking segments with high synergy potential: Construction, Equipment and Resources. Bauer profits enormously from the collaboration of its three business segments, enabling the Group to position itself as an innovative, highly specialized provider of products and services for demanding projects in specialist foundation engineering and related markets. Bauer therefore offers suitable solutions to the world's greatest challenges, such as urbanization, the growing infrastructure needs, the environment, as well as water, oil and gas. The BAUER Group was founded in 1790 and is based in Schrobenhausen, Bavaria. In 2019, it employed about 12,000 people in around 70 countries and achieved total Group revenues of EUR 1.6 billion. BAUER Aktiengesellschaft is listed in the Prime Standard of the German Stock Exchange. More information can be found at www.bauer.de. Follow us on [Facebook](#), [LinkedIn](#) and [YouTube](#)!