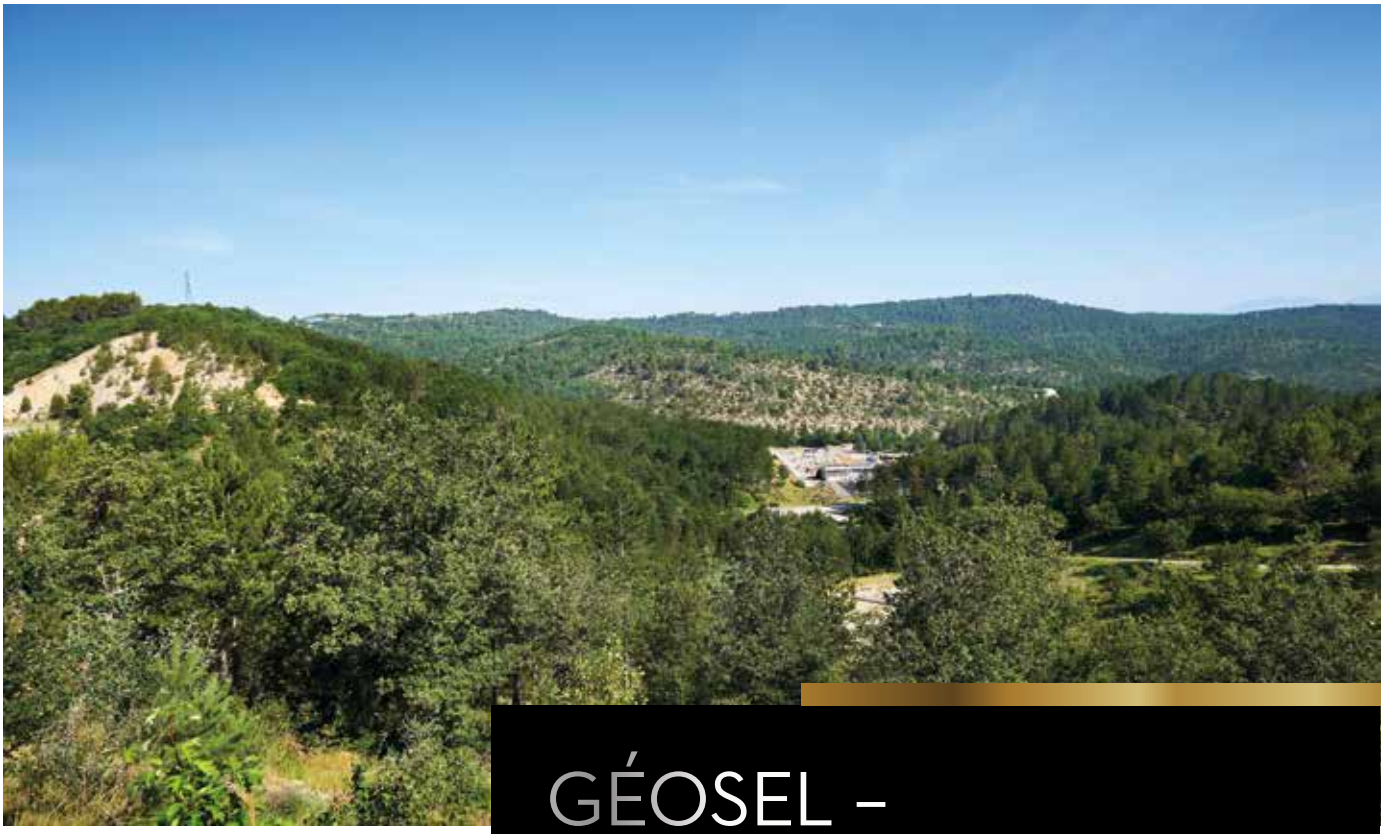

GÉOSEL – UNDERGROUND *and* EFFICIENT

The Géosel-Manosque underground storage facility, in excess of nine million cubic meters and located in south-eastern France, near Marseille, is one of the largest European sites for operational and strategic storage of oil products from crude oil to refined products including biofree diesel, gasoline, naphtha and heating fuel.

The site is also well connected, via its own pipeline network, to the refineries and petrochemical plants of the Fos/Lavéra area, the Marseille oil port, the European SPSE, SPMR and NATO pipeline networks and the depots located in the area, making it a key element in French and European oil logistics.

Underground storage of oil products is cost efficient, an advantage that traders value in contango periods. Additionally, from an environmental and energy transition viewpoint, underground storage of oil products overcomes many detrimental effects on the environment that traditional surface storage creates with tank farms.

Géosel has 30 salt caverns distributed across eight hectares, each with an individual storage capacity between 100,000 cbm and 600,000 cbm and totalling a capacity over nine million cbm, is a great example of liquid bulk storage solutions that have minimal impact on the environment. The site has a low visual impact as it is embedded in a public forest spanning 180 hectares.

The depth of the caverns range between 600 and 1000 metres. Their integrity can be guaranteed thanks to the porosity of the salt, and the right choice of the geologic framework as well as the hydrologic conditions (monitoring of the pressure, temperature and flow during operation). These ensure there is no leakage or contamination and the emissions of volatile organic compounds (VOCs) are very limited.

Petroleum products are stored in the salt caverns with the use of a hydraulic compensator using saturated brine. This process allows Géosel to operate the storage system efficiently, with a low consumption of energy. The company explains that when the petroleum products are injected into the caverns, the brine is removed, similarly when the petroleum products go out, the brine is injected. The caverns are always maintained and operated full of product and / or brine.

In addition to the product qualities stored in the caverns, specific products such as jet fuel and condensates can also be transported between the various sites connected to the Géosel network, only in the context of transfers.

Géosel's infrastructure provides full operation availability. It is able to offer complete automatic caverns management, oil product movements

François Billard

Elodie Zausa

The site can still be extended to up to 13 million cbm by re-leaching existing caverns or creating new ones

and ship loading and unloading, 24/7 control from an automated control room located on the storage site, permanently monitoring with rapid intervention capability by operators on the network stations when needed.

Recently, Transport Stockage Hydrocarbures (a consortium between EDF invest and Ardian) became the main shareholder of Géosel, alongside Petroineos and Total, giving the company the ability and aim to become a key player in the petroleum products supply chain in France and Europe. The company says its strategy is to continue to improve and increase its range of services. Keeping this in mind, Géosel will open its doors to a large variety of customers (traders, operators, refiners and European agency).

Following this dynamic and focusing on a long-term business model, it is permissible for Géosel to work on new projects to develop its activity, increase its storage capacity, and improve its network, with the objective to improve satisfaction levels of its existing and new customers and meet their requirements.

The site can still be extended to up to 13 million cbm by re-leaching existing caverns or creating new ones, says Géosel. The last of its current storage caverns were operational in 2013 and the company acquired its third pipeline between Manosque and the Fos/Lavera oil port in 2018. **www.geosel.fr** ■