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Soil and Ground Water Remediation

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GRI Standards:

306-3: Effluents and Waste

EXECUTIVE SUMMARY

Soil and groundwater remediation requires to take actions to avoid contamination due to spills and releases to soil, water and air, as well as ensuring the sites affected by past industrial activities do not pose undue risk for the health of employees and visitors, neighboring communities and the environment.

Sanofi's remedial work is carried out in accordance with the most stringent and recent environmental and technical regulations, which provide a set of requirements and good practices for assessing, preventing, monitoring and controlling possible sources of soil and groundwater contamination on the sites we currently operate and on the sites we operated in the past.

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1. Background

Soil and groundwater remediation at Sanofi addresses two issues:

- Sites currently operated by the Company that may have an impact on soil and groundwater
- Soil and groundwater contamination that may exist at certain sites as a result of past industrial activities

Today's environmental and technical regulations provide a stringent set of requirements for preventing and controlling possible sources of soil and groundwater contamination, such as spills and releases to soil, water and air.

However, some sites may have been operating for many decades, during times when environmental standards were less stringent than they are today, and when knowledge about the environmental impact of industrial contamination was limited. Thus, where past contamination exists, it may represent an environmental liability that the current site owner must manage.

2. Policy

Sanofi's policy addresses the prevention of spills and releases to avoid future soil and groundwater contamination, and remediation of historic soil and groundwater contamination.

To avoid future soil and groundwater contamination, each site maintains a procedure to assess, prevent and control the potential for spills and releases to air, water and soil. Each industrial and research facility complies with regulatory soil and groundwater contamination prevention principles and good practices, as outlined in both construction and environmental standards. This includes maintaining the integrity, containment and monitoring of above-ground and underground tanks, vaults, pipelines, loading and storage areas, and sewer systems containing materials that may be hazardous to the environment. In addition, spill-control kits are included as part of the emergency spill-response program wherever hazardous or potentially harmful liquids are stored or handled.

In terms of existing historic contamination of soil and groundwater, the objective is to take appropriate steps to ensure that the affected sites do not pose undue risk for the health of employees and visitors, neighboring communities and the environment.

All remedial work is carried out in accordance with the applicable current standards and regulations, and in co-operation with local authorities. However, as a general principle, Sanofi will take action to mitigate potential risks resulting from historic contamination and may take steps beyond those necessary for legal compliance where appropriate. Once the work is completed, the remediated property can generally be authorized for industrial or office use. Some remediation projects can be allocated for possible future residential use, following the relevant standards and in co-operation with local authorities.

3. Actions

3.1. SETTING UP A PROCESS FOR REMEDIATION OF CONTAMINATED SITES

Today, industrial engineering standards and technical monitoring methods make it possible to prevent and avoid most risks related to sub-soil and groundwater contamination.

Nevertheless, industrial practices used at certain sites in the past, when environmental standards were not as stringent as they are today, sometimes led to soil or even groundwater contamination when facilities were located near aquifers. Today's environmental laws and regulations require Sanofi to implement investigation and eventually remediation processes for contaminated sites.

These regulatory requirements concern sites where:

- Sanofi operates
- Sanofi (or legal predecessors) operated in the past
- Sanofi (or legal predecessors) may have disposed of waste

For this reason, financial provisions are established and adjusted every year taking into account new events that may have occurred, as well as updates of environmental assessments.

3.2. ASSESSING THE RISKS AND CONDUCTING SOIL REMEDIATION

Sanofi maintains a responsible approach to managing the sites where the Company (or legal predecessors) operates or operated in the past.

The Company systematically applies a multi-year soil and groundwater monitoring and evaluation program for Sanofi properties, both for those that are currently owned by the Company, and those that were formerly owned and/or operated by Sanofi.

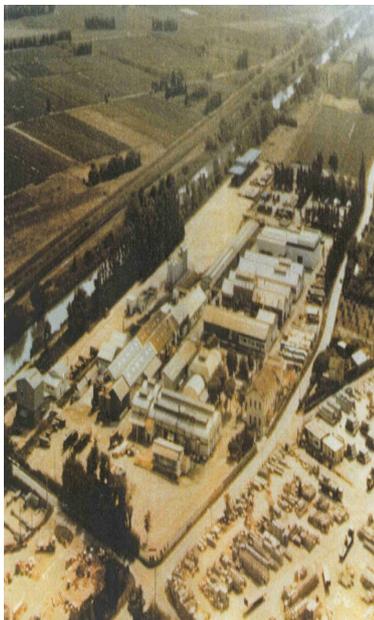
Sanofi relies on detailed risk evaluations of soil and groundwater contamination. These evaluations are carried out, when necessary, at the Company's sites or former sites. Remediation projects are initiated either by local authorities or by Sanofi. Remediation is currently underway at over 20 Sanofi sites worldwide, as well as several other sites that have been sold to third parties, with guarantees from the Company with respect to environmental liabilities.

In total, remediation costs amounted to €49 million in 2021 (compared to a total of €55 million in 2020).

For more information, see: [Form 20-F 2021](#), Environmental Risks of Our Industrial Activities section.

4. Case study: former Beaucaire agrochemical site (France)

Historical view



During the works (2016 -2020)



After the works (2020)



Site characteristics:

- 10 Ha
- 100 km north-west of Marseille, France
- Mixed environment (industrial, commercial, agricultural and residential)

4.1. PAST SITUATION

The former agrochemical site of Beaucaire (30) was operated between 1917 and 1996 by several successive operators (SPCIV, PROCIDA and AGREVO PRODETECH) for industrial activities related to the processing of wine and phytosanitary products. The end of activity was notified to the authorities on September 3, 1997.

In 2002, AVENTIS AGRICULTURE, a subsidiary of the SANOFI company, became the owner of the former agrochemical site following a business acquisition. It is worth noting that AVENTIS AGRICULTURE never operated this site for industrial purposes.

4.2. THE REMEDIATION PROJECT

After the end of site operations, different phases of environmental investigations were conducted, which identified sources of contamination in the soil as well as impacts in groundwater. Consistent with historical activities at the site, the main contaminants identified were arsenic, lead, pesticides and hydrocarbons. In parallel to such investigations, AVENTIS AGRICULTURE carried out various phases of remediation works between 2002 and 2013. These measures were carried out in alignment and under control of the competent authorities (DREAL) and were governed by a Consent Order.

Despite of the above works, additional investigations in 2014 revealed significant residual contamination at the center of the site. In accordance with the national methodology for the management of Polluted Sites and Soils updated by the Ministry of the Environment, a Management Plan was developed to determine the measures required to complete the remediation of the site in order to have it suitable with an industrial type of use. This final phase of remediation was imposed by a supplementary Consent Order dated December 17, 2014.

Remediation works implemented before 2014 mainly concerned demolition operations, targeted excavation of soil sources of contamination and/or buried waste, and the treatment of a floating liquid non-aqueous phase that had been identified in the groundwater at the center of the site.

The final phase of site remediation took place between 2016 and 2020 and mainly involved removal of residual soil sources of contamination at the center of the site and treatment of groundwater impacts at the bottom of the excavation areas. At the end of the work, the site was completely reprofiled and an impermeable surface sealing was reconstituted.

The remediation works were carried out in accordance with the supplementary Consent Order governing it.

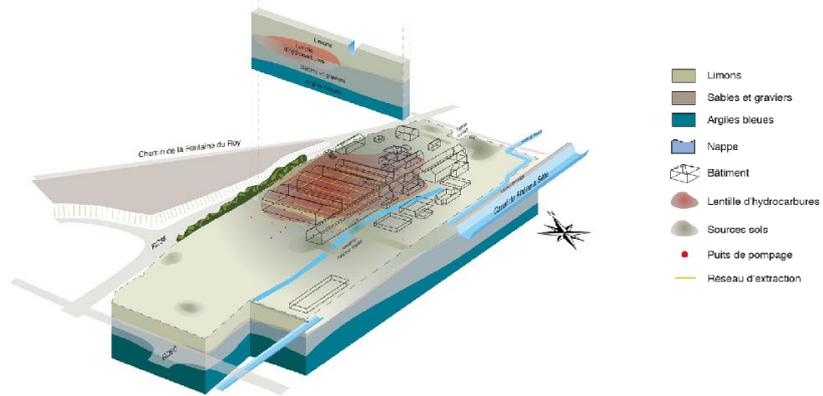
In the course of the works substantial masses of contamination were removed: 24t of Arsenic, 35t of Lead, 29t of Volatile Organic Compounds and 11t of Pesticides.

The assessment of residual risks conducted in accordance with the national methodology for Polluted Sites and Soils confirms the compliance of the remediated site with a future industrial/administrative use. Deed restrictions have been recommended to ensure that conditions minimizing health and environmental risks will be properly maintained.

With this final phase of works the remediation of the former agrochemical site is considered complete. AVENTIS AGRICULTURE has met all regulatory obligations related to the stop of activities and remediation of the site under the French Environmental Code.

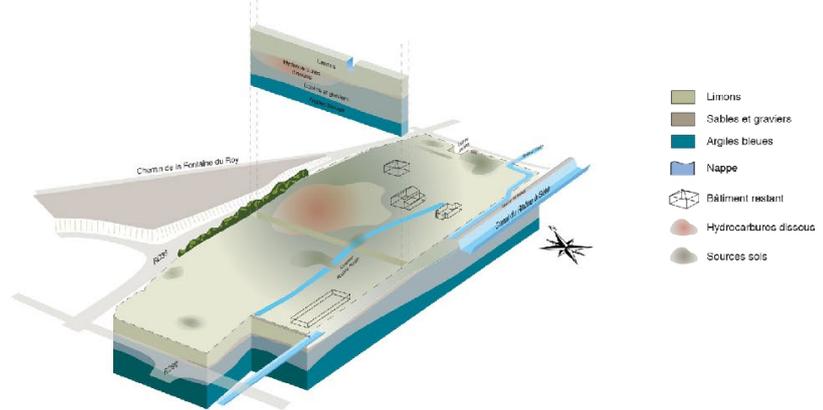
SITUATION 2004

- Industrial buildings still present
- Presence of a lens of hydrocarbons (floating)
- Presence of soil contamination



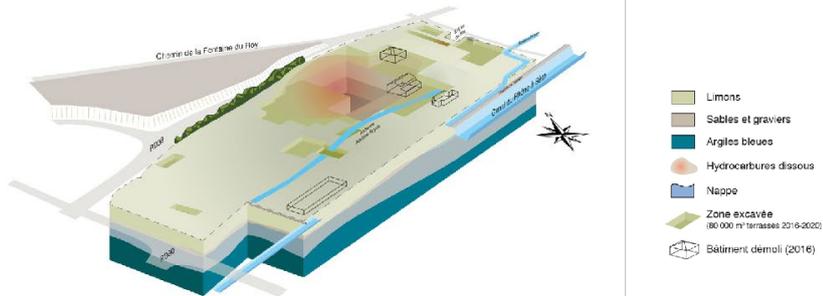
SITUATION 2013

- Main industrial buildings dismantled
- Treated hydrocarbon lens (float removed, dissolved hydrocarbons remaining)
- Presence of soil contamination



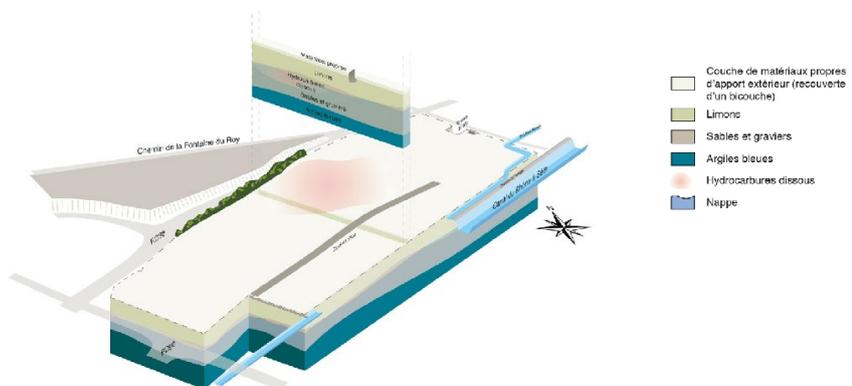
**SITUATION 2016-2020 -
Last phase of work
of rehabilitation**

- Dismantled buildings and networks
- Groundwater: Chemical treatment of the most relevant impact
- Removed soil contamination



CURRENT SITUATION (2020)

- Site reprofiled, covered with a layer of proper external material and resealed



4.3. CURRENT SITUATION

The site is being divested for use of solar energy generation (installation of solar panels).