

Remediation



A&G has the knowledge and experience needed to respond effectively to all current topical issues related to soil remediation. The soil in a large number of areas in industrialised countries is contaminated in many different ways. A&G possesses the expertise for excavation work, in-situ remediation, groundwater remediation and soil remediation. For years, we have been carrying out projects completely tailor-made to individual customers' requirements from the preliminary survey to the completion phase.

Controlling the problem

A&G can assume complete responsibility for all your contamination problems. We offer total solutions with insight into the costs, a large amount of flexibility and participation, which makes us the ideal partner for developers and government public authorities.

Excavation

The quickest way of restoring a site is to excavate the contaminated soil. Whether we opt for this method depends on the remediation requirements, the available time and the (future) designated use of the site. To carry out excavation projects, we use specialist equipment. The safety and quality of our work are guarded in different inspections and certificates.

The advantages of excavation are the short remediation time, its proven effectiveness and the certainty of the final result.

In-situ remediation

If excavation is too expensive or unsuitable because the site is in a built-up area or due to the presence of pipelines and tanks, we can opt for in-situ remediation. With this technique, all processes take place underground with hardly any nuisance or inconvenience above ground.

▪ Guarantees

We use water, air, nutrients or an aggregating compound to tackle contamination in the soil and/or groundwater. This leads to the removal,

biodegradation or fixation of the pollutant.

A prerequisite for in-situ remediation is understanding of the local geology and the groundwater conditions. With our in-company developed tests, we can obtain accurate insight into the degree of contamination, achievable final concentrations and the best remediation technique to use in a given situation. This enables us to give firm guarantees for the final result.

▪ Customised solutions

The quality of in-situ remediation depends among other things on the effectiveness of the infiltration and extraction system in conjunction with the applied treatment and purification technique. Due to our years of experience, the versatility of our engineering department and the support provided by our knowledge centre, we are always able to offer a customised solution. As a result, the costs and targeted results are always clear.

Water purification

In practically every case of soil pollution, also the groundwater is affected. A&G employs modern techniques to survey the site accurately and to deal with the contamination carefully and responsibly, for example, using our own water treatment systems. We draw on our experience to make clearly defined agreements about final concentrations, the duration of remediation operations and the costs.



What can A&G do for you?

- consultation with the competent authorities regarding remediation solutions
- preparation of remediation plans and arrangement of permits and licences
- pump&test
- pilot studies and feasibility studies of remediation solutions
- design and dimensioning
- design, construction and installation of water purification systems
- maintenance and operation
- directional drilling
- placing sheet-piling
- purchase, lease and rental of treatment equipment
- the provision of solutions for all types of soil contamination (soil, soil vapour and groundwater) soil excavation, transport and treatment
- own Knowledge Centre
- innovation
- on-line process control
- auto-sampling



Applied techniques

We apply a number of techniques for removing contaminants from the soil, soil vapour and groundwater,

For example:

- Pump & Treat for removing all water-soluble contaminants
- IWAS®: the removal of organic compounds (oil, aromatics, solvents)
- CHLORIADE®: the biological degradation of chlorinated hydrocarbons (VOC, such as Tetrachloroethene and Trichloroethene)
- VER®: the use of high-vacuums for removing pollution (e.g. LNAPL)
- Biodegradation for the removal of biologically degradable contaminants (oil, aromatic) by soil vapour extraction, airsparging and/or biosparging
- UV light for removing CN, VOCI and PAH
- ISMP for immobilising metal contaminants at soil particles in the saturated zone of the subsoil
- NALyzer: modelling the natural attenuation of contaminants



About A&G

Decontamination, remediation, waste and building materials - the four operational pillars with which A&G provides customers in the Netherlands and other countries total solutions for all their contamination, pollution and waste issues. Our years of experience and in-depth knowledge of environmental legislation provide customers the certainty and reliability they need for projects of every size.

Our expertise encompasses tackling on-site pollution, remediation of contaminated soil and cleaning up mineral residues. We are active in soil clean-up operations, remediation, immobilisation, waste management and the production of secondary building materials in different product groups and with an effective regional coverage.

All the work we carry out is based on our commitment to sustainability and protecting the environment. The safe processing, storage or immobilisation of waste is the only way we can guarantee a healthy environment for future generations. In our Knowledge Centre, we work continually on developing the most effective methods for finding tailor-made solutions to the widest possible spectrum of environmental issues.



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