

Is a Horizontal Remediation System the Right Choice for my Project?

Things to consider and site data necessary to make the right choice

So your remediation project is moving towards a choice of remedy, whether it involves dual phase extraction, total phase extraction, biosparging, Soil vapor extraction (SVE) , Air sparge/SVE, biosparge, or chemox delivery, or any combination of the above. You have read the case studies, been to the conferences, and the concept of horizontal remediation wells (HRW's) for your site seems intriguing.

So what do you need to consider before proposing a HRW system for your site?

Utilizing HRW's for the application of any of the remediation techniques has the benefits of providing enhanced coverage within, above or below the body of the contaminant plume. The horizontal wells have more contact with the contaminated zone(s) and bisect the zone to provide enhanced influence to the area requiring treatment. Horizontal wells follow the lateral plane of the contaminant zone, rather than simply piercing the smear zone numerous times.

Other factors to consider in making the HRW choice are the lack of site disruption, especially in operating facilities, and simplification of above ground treatment systems due to the limitation of multiple remediation wells.

The most important data necessary to make an intelligent, cost effective decision to the applicability of HRWs on your site is gained through the performance of a scaled down remedial feasibility study for the site. Critical data to design the optimum system are not just limited to "High Resolution" drilling programs, but also the performance of pump tests, SVE tests, Air Sparging tests, etc. to determine critical design criteria for any remediation well network. Contaminant plume maps, drill logs and cross sections are also required for optimum well design.

After review of this data, and extrapolation of necessary vertical well coverage over the site, determination of the costs for plumbing, electrical installation, power consumption, and O&M, the project team can then compare those costs with the costs of HRW's. The reduced costs of infrastructure and O&M often show remarkable cost savings by utilizing HRWs. In addition, the short duration of the remediation phase often achieved utilizing HRWs provides further overall project cost reductions.

Directional Technologies can provide insight to the best application of the horizontal technology for your site based on 24 years of experience in the design, installation, operation and maintenance of HRWs. By providing the above mentioned remedial feasibility data to our specialists for review, we can together determine the optimum horizontal well layout to achieve maximum performance for your remediation technique of choice.

Contact us at [877-788-4479](tel:877-788-4479) or drilling@directionaltech.com.