



Statement of Qualifications for Design and Installation of Horizontal Remediation Systems

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INTRODUCTION TO DIRECTED TECHNOLOGIES DRILLING

Directed Technologies Drilling, Inc. (DTD) is the nation's most experienced provider of near-surface horizontal systems for environmental remediation and water resource development. DTD specializes in environmental applications of guided boring technology, including the installation of remediation wells, conveyance lines, wiring and control conduits, and related systems. DTD is managed and staffed by environmental professionals, including geologists, engineers, and construction managers. We are committed to maintaining our position as the leader in horizontal remediation systems through skilled project management, attention to detail, and continued training. Moreover, we are committed to continual innovation and improvement of horizontal systems for environmental cleanup and water resource development.

Directed Technologies Drilling, Inc. traces its roots to one of the pioneering firms in the industry, FlowMole Environmental Services Corporation. As a joint-venture between UTILX, a trenchless technology contracting company, and UNOCAL, a major oil production and retailing corporation, FlowMole Environmental Services was responsible for many of the technical achievements now routinely used in horizontal directional drilling for environmental applications. The FlowMole staff was responsible for the installation of nearly half of the horizontal environmental wells installed in the early 1990's.

Every DTD project is managed by an experienced project manager to ensure that each remediation system is installed safely and as designed. Horizontal well applications combine a variety of individual components into a complex system. The ultimate performance of each system depends on the proper design, selection, installation, and operation of all of these components.

Our goal is total quality performance. We are continually working to improve our equipment, methods of installation, and the materials we install to ensure that every system delivers the required performance. Our experience in the field enables us to conceive, design, and apply innovative approaches in equipment specification, installation techniques, and materials. As a result of this innovation, DTD and our employees either hold or have applied for several patents for a variety of HDD-related inventions.

SITE REMEDIATION



Horizontal wells have gained increasing recognition as efficient, cost-competitive mechanisms for delivering a wide range of site cleanup technologies. Horizontal directional drilling has been acknowledged as an innovative technology by the U.S. Environmental Protection Agency and many state agencies. It has been used in a variety of applications on commercial and industrial sites, as well as on Department of Defense,

Department of Energy, and other government sites. Horizontal wells can be technically superior and cost competitive in several circumstances, including sites where:

- Surface operations cannot be disrupted;
- Contamination has migrated off-site, or migrating plumes must be intercepted;
- Surface structures interfere with vertical wells and trenching;
- Trenching is difficult or disposal costs for excavated materials are high;
- Trenching will interfere with the permeability or transmissivity of the soil system;
- Soil permeability is such that an excessive number of vertical wells will have to be installed to meet the remediation objectives.

DTD has been at the forefront of this developing technology. Recently, we have worked with the nation's leading consulting firms in pioneering the latest application of horizontal wells for treatment of contamination by injecting chemical reducing agents or microbiological nutrients.

Horizontal wells can be used with virtually any technology that may be applied in a vertical well, often with significant advantages. Horizontal wells generally have a much larger ratio of screened-to-unscreened interval than vertical wells. Consequently, horizontal wells tend to intercept a larger volume of contaminated material per lineal foot of installed well than vertical wells.

Horizontal wells may also take advantage of commonly observed differences between horizontal and vertical permeability within soil horizons.

The ability to design horizontal well systems that don't disrupt the ground surface also frequently reduces installation costs. DTD, through review of preliminary client designs, has often saved clients thousands of dollars by reducing the complexity of manifolds and other piping required to tie a complex subsurface system in with above-ground treatment components.

Specific Applications

DTD has installed remediation systems for all of the remediation technologies currently in common use. Brief descriptions of these technologies include:

In-Situ Treatment Technologies

As the technologies for remediation have evolved, there has been a movement away from extractive methods that require ex-situ treatment, and a sharper focus on technologies that act directly on soil and groundwater contaminants. The injection of oxidizers or reducing agents into the soil formation can directly act to mitigate soil contaminants. Injection of nutrients can dramatically increase the biological activity associated with the natural degradation of organic compounds, or can create in situ conditions (such as a reducing environment) that alters the chemical properties of heavy metals or other pollutants.

Horizontal directional drilling is well-suited for in situ treatment systems, since it provides a continuous treatment path. Vertical well solutions often suffer from a “picket fence” effect, with the potential for uneven treatment or gaps in anti-migration barriers. Horizontal wells have been proven to be very effective when injecting nutrients or microorganisms to stimulate biodegradation of contaminants, and have been used successfully to inject a broad spectrum of treatment compounds.

Groundwater Extraction

Horizontal wells have several similarities with vertical wells for extracting groundwater. A screened section of casing is emplaced in the zone targeted for groundwater extraction. The screened casing is connected to blank casing leading to the ground surface. Water from the surrounding formation enters the screened section and is pumped to the surface using a submersible pump. The advantages that horizontal wells offer include:

- Much greater screen length within the contamination zone.
- Interception of contaminant plumes along a continuous screened interval, rather than the “picket fence” approach of closely spaced vertical wells, which can leave gaps in coverage.
- The ability to intercept groundwater under buildings, tanks and other surface or subsurface obstructions.

The design and materials for groundwater extraction wells vary considerably depending on site-specific circumstances such as yield rate, grain-size distribution, type of contaminant, and length and depth of the well. These designs should only be undertaken by professionals with experience in horizontal well installations.

Soil Vapor Extraction

Horizontal wells can be used to extract soil vapor with greater efficiency than vertical wells. This increase in efficiency is due to improved ratio of screen to riser pipe and the fact that a horizontal well screen can provide enhanced recovery in the horizontal dimension, creating a much greater zone of influence than typically can be achieved with vertical wells. An additional benefit of horizontal wells is that communication of the well with the open atmosphere is eliminated or greatly reduced, compared to

trenched SVE systems where porous backfill often permits leakage of air from the surface, which reduces efficiency and prolongs treatment time.

Soil vapor extraction lines in a horizontal system act as both the recovery and the transmission or conveyance lines. The same pipe includes both the screened section to extract vapor and a blank section to carry the vapor back to the surface. A single pipe can thereby replace both a series of vertical wells and the near-surface trenched conveyance lines required to transport the extracted vapor to the treatment system. Great care must be taken in designing these systems to ensure that the wells have uniform flow along the entire length of the screen.

Air Sparging

Soil vapor extraction and bioremediation can often be enhanced by air sparging. Horizontal wells provide a very effective mechanism for distributing air throughout the contaminated region. Air sparging systems can be installed under a wide variety of conditions to induce more effective soil vapor extraction. In addition, air sparging can increase natural biological remediation and act as an “in-situ stripper” for groundwater contamination, carrying the contaminants in the vapor phase to an extraction line above and parallel to the sparge line.

Where semi-volatile compounds are to be extracted – often the case where contaminants include old, weathered petroleum or organic products – designers often specify the injection of steam or heated air to mobilize the contaminants. DTD has experience in the selection and installation of specialty stainless steel or synthetic well casings that are suitable for use in these applications.

Free Product Recovery

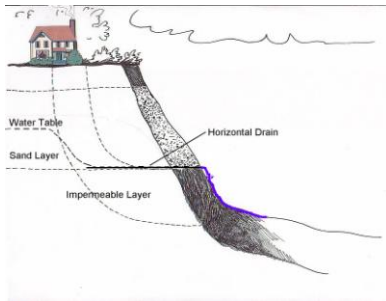
In areas affected by floating product, horizontal wells can be used to draw down the water table and extract free product. Actual design of a recovery system will depend on site-specific circumstances, but all of the general advantages of horizontal wells can be applied to free product recovery. Where water tables fluctuate and targeted contaminant zones move vertically, *dual phase extraction* systems are sometimes used to capture groundwater, product, or soil vapor simultaneously.

WATER RESOURCES DEVELOPMENT

Horizontal wells are extremely well-suited for developing water resources from shallow, thin aquifers. The extended length of well screen within the saturated zone avoids a point-centered cone of depression, which generally limits the yield of vertical wells that are installed in thin aquifers. Horizontal wells can be installed in a variety of these situations, including the perched potable water aquifers found on island or near-shore locations.

Horizontal wells can also be effective for subsurface discharge of brine or brackish water from desalination plants or treated water from other industrial sources. DTD has recently completed the only desalination plant brine discharge reinfiltration well to date, in California.

SLOPE STABILIZATION



Landslides and slope failures are a major problem in many areas of the western United States. These problems have been exacerbated by the recent changes in rainfall and accompanying ground movement. DTD has many years' experience using horizontal directional drilling to dewater saturated hillsides and stop soil movement. In one recent project, we were able to prevent a large mansion from sliding into Hood Canal in western Washington

by installing ten horizontal drains above and below the site. This success and others experienced by the Washington Department of Transportation provide a solid track record for engineers on which to base dewatering plans.

DRILLING EQUIPMENT, MATERIALS & SPECIFICATIONS

DTD owns and operates a fleet of drill rigs manufactured by Vermeer, CMS, and American Augers, and modified for our specific use. These rigs range in size from small rigs suitable for back-lot operation in residential areas, to large rigs suitable for extended and difficult well installations. With our equipment inventory, we can select the appropriate drill rig to install remediation systems ranging from a few tens of feet of small diameter PVC pipe, to systems of 2000 feet in length with large diameter steel casing. DTD's current equipment inventory includes:

Rig	Thrust/Pullback	Torque
Vermeer 10x15	10,000 lbs	1500 ft-lbs
Vermeer 24x40	24,000 lbs	4000 ft-lbs
CMS 6015	60,000 lbs	15,000 ft-lbs
American Augers D210	210,000 lbs	25,000 ft-lbs



Figure 1 DTD American Augers D210

Horizontal directional drill rigs used by DTD advance a boring through the soil using a combination of thrust (equivalent to "downpressure" on a vertical rig) and cutting at the face of the drill head, using small high pressure jets of drilling fluid or mechanical cutting heads. The fluid jets cut the soil and then very quickly lose their cutting power. As a result, excessive soil erosion and overcutting do not occur using either cutting method. This process has been proven

for boring under roads, in sandy areas, coral, and other difficult drilling conditions unsuitable for conventional utility water-boring techniques. By physically cutting a hole and removing excess spoils, the transmissivity and permeability of the borehole are not compromised. This is a frequent problem with drilling methods that simply displace and compact spoils into the borehole walls.



Figure 2
DTD Vermeer 24x40 rig

We have worked with manufacturers to improve rig performance in environmental work, and to improve the specialized drilling, reaming, and navigation tools we use in the field.

DTD field crews typically range from three to eight people, managed by an experienced supervisor, who also acts as the site Health and Safety officer. All of our field employees have completed OSHA HAZWOPER 40 hour training, and are current with refresher training prior to field operations. Our field managers have additional HAZWOPER management training, and can operate field monitoring instruments, if needed, to assure health and safety of field operations. In addition to the HAZWOPER training, our crews also hold credentials authorizing them to work on sites secured under a variety of Homeland Security agencies.

Support Equipment

Mud Systems

In addition to our drill rigs, DTD owns mud mixing and recycling systems that are matched to drill rig capacities, as well as a wide array of pumps, hoses and piping, and ancillary support equipment. We also own self-contained, totally enclosed trailer for equipment and tool transport. These trailers improve site security and prevent equipment theft and vandalism, as well as providing a discreet appearance at sensitive environmental remediation sites.



Figure 3 - DTD Mud Recycler

Drilling Tools

DTD works closely with manufacturers and custom machinists to fabricate specialized tools for installing remediation systems. Some examples of custom tools designed and fabricated to our specifications include pilot drills for hard coral formations and soft sand, borehole reamers, forward reaming assemblies, pipe-pulling assemblies, and discrete soil sampling tools. In addition to these tools, DTD engineers and geologists

have also invented and patented specialized well casing and well construction methods, adapted to specific horizontal well applications.

Tracking and Steering Systems



Drill head tracking and steering systems used by DTD are designed and built by several manufacturers, and have been selected on the basis of their applicability our typical drilling scenarios and conditions. Tracking and steering the drill head are related functions based on detecting and interpreting a signal transmitted from the drill head during installation of the pilot hole.

Figure 4 - Walkover navigation system

DTD uses navigation systems that can operate at depths up to approximately 100 feet, depending on site conditions. We have walkover and remote systems available, and can typically maintain an accuracy of approximately two inches down to a depth of approximately 12 feet. Below 12 feet, we often maintain an accuracy of two percent.

We can choose from different navigation systems, depending on whether or not we have walkover access above the bore path, or if surface access is restricted or obstructed. Accuracy will depend on several factors, including soil conditions, proximity to metal or RF interference, and buried objects. Our capability for accuracy is increasing through continuing innovations in locating equipment.

Well Design and Materials Selection

Well screen selection is nearly always a compromise, balancing the desire to optimize flow rate with the need to control sedimentation within the well. Horizontal remediation well designers must juggle these same variables, but must also consider the difficulties of construction to a greater extent than they would in a vertical well.

With more than 400 wells installed, under a variety of subsurface conditions and many different installation environments, DTD has gained significant experience in determining well configurations that can be practically constructed and will continue to operate effectively. We frequently work with clients to optimize their designs, and can assist with the design and layout of remediation systems, including well configurations, slot sizing and spacing, etc. We have also developed unique well designs for challenging site conditions, and we hold and have applied for patents on innovative well screen materials and well construction methods.

Drilling Fluids

Drilling fluids are used to cut the soil, cool the drill bit, increase borehole integrity, and transport soil cuttings out of the borehole. Spent drilling fluids from environmental remediation installations constitute potentially hazardous wastes and must be handled in strict accordance with applicable laws and regulations.

DTD has worked closely with drilling fluid manufacturers such as Baroid and CETCO to assist in the development of drilling muds that are optimized for use in the

environmental remediation industry and work well for horizontal well applications. Our experience with the use of these biodegradable polymer muds is unsurpassed within the HDD environmental industry. Our use of mud recyclers, where appropriate, reduces costs for clients through re-use of drilling fluids during well drilling operations, and through waste reduction, reducing the volume of contaminated fluids that must be disposed.

GENERAL SPECIFICATIONS FOR HORIZONTAL REMEDIATION WELLS

Boreholes:

- *Depth:* 3-400 feet below ground surface
- *Diameter:* 2-24 inches
- *Length:* Up to 4,000 feet (Note: the above specifications are co-dependent and will tend to limit one another as the maximum of each range is approached. Other factors can also greatly influence the achievable borehole configuration.)
- *Accuracy:* Horizontal wells can be placed with an accuracy of approximately 2 inches to a depth of 12 feet and approximately 2% at depths greater than 12 feet, depending on conditions.
- *Soil types:* Drilling is possible in most soils. We have installed wells in solid granite to intercept fracture flow. Large cobbles and unconsolidated materials require larger drill rigs.
- *Approach length to desired screen depth:* Approximately 3-4 feet horizontal for every foot of depth to the screened interval is required for all horizontal wells; a staging area may also be needed for some types of well materials.
- *Drilling fluid:* DTD is experienced in the use of various biodegradable polymers or gum-based fluids, including various additives to meet specific site conditions. Typical drilling fluid additives include guar gum and xanthan based products. Because they are difficult to clear from the well, and can severely reduce the permeability of soils surrounding the well, high-solids fluids such as bentonite are typically used only for conveyance lines. Several wells have been installed using mixed-metal hydroxides, which require acidification to remove the drilling mud.
- *Drilling spoils:* Drilling activities will typically produce spent fluids equal to approximately one or two times the volume of the borehole (e.g., 1-4 gallons per foot for a 6 inch borehole), although the actual volume of spoils will depend on the type of soil and site drilling conditions.
- *Site requirements:* A source of water is required to mix drilling fluids; a fire hydrant is typically used. The drilling systems are otherwise self-sufficient. We need a disposal location for unused, uncontaminated drilling fluids.
- *Well development:* A variety of enzyme and other drilling fluid thinning agents can be used to clear the well of drilling fluids and thereby reduce skin damage to the surrounding formation. DTD has developed several specialized delivery and purging systems to aid in the proper development of horizontal wells.

- In situations where drilling using standard equipment is difficult or impossible, DTD can provide larger mid-size drilling equipment, micro-tunneling, or jack-and-bore services through subcontractors. These drilling techniques, while expensive, may be appropriate in some instances. DTD engineers are able to help clients decide which option is best for their particular conditions.

DESIGN, ENGINEERING, AND MODELING

DTD is the only HDD environmental firm that offers a complete range of design services to complement our drilling services. Horizontal well remediation systems have been designed for a variety of applications, including soil vapor extraction (SVE), dual phase extraction (DPE), air sparging, bioventing, and ground water recovery. Design of horizontal fluid delivery or recovery systems requires that the flow capacity of the installed conduits match the capacity of the soil matrix. In addition, the depth and aerial location of the installed conduits must be such that the contaminant of concern is affected. Special design consideration is also required to ensure that uniform fluid inflow or discharge from the well occurs along the entire length of the well screen or perforated section.

One of most effective uses of horizontal wells is for bioventing vadose zone soils and groundwater contaminated with dissolved hydrocarbons. These systems involve relatively simple air injection systems to stimulate in-situ biodegradation of the contaminants. To ensure success of these processes, soil and ground water samples are typically analyzed in a microbiological laboratory for the presence of contaminant-degrading bacteria and biologically toxic components such as heavy metals. For more complex projects, soil and ground water samples are tested in laboratory respirometers or on-site respirometry tests are conducted to predict biorespiration rates.

Each horizontal well application is designed to prevent silting of the well and prevention of biofouling of the screen slots or perforations. A variety of techniques are used including pre-pack well screen with natural and synthetic granular packing, open screen, filter wrap, and appropriate selection of slot width or perforation size. Each of these design selections is made on the basis of soil matrix grain size, well screen, weight, length of the well, and expected fluid flow rates.

The projects listed in this SOQ also contain the names of contact persons. Many horizontal drilling firms may claim to have installed horizontal systems but the systems do not perform as planned. Our references will corroborate our claim as a leader in the design and installation of horizontal remediation systems.

HEALTH AND SAFETY

Our health and safety program addresses the potential for both physical and chemical hazards associated with guided boring in contaminated soils and groundwater. Our project managers are experienced site health and safety officers, and they understand the importance of a high level of care in addressing potential hazards.

DTD operates under a health and safety program that has been reviewed by federal and state agencies. Under this program, DTD prepares a specific health and safety plan for every job. Incorporating the special health and safety requirements of our clients is a normal part of our business, and we routinely work with clients to ensure that all field operations are consistent with client expectations. Our EMR is 0.9.

All field staff members are fully trained in accordance with CFR 1910.120 (e), and are subject to applicable medical surveillance requirements. Personal protective equipment is provided to meet expected site conditions; field staff are fully trained in the use of appropriate personal protective equipment. Daily safety meetings are held to ensure that health and safety measures are adhered to and to provide a mechanism for communicating and discussing potential safety issues. All field project managers have current first aid and blood borne pathogen training.

PERSONNEL

Company & Operations Management

James M. Doesburg, P.G., Founder and Chairman, DTD

Mr. Doesburg is responsible for all business operations of DTD. He is a registered professional geologist with over 25 year's experience in environmental investigations and restoration. His career has included work as a regulator, research scientist, and environmental project manager. He has extensive experience designing and implementing environmental remediation systems and has patented groundwater sampling systems while working at Battelle Pacific Northwest Laboratories. Prior to launching DTD, Mr. Doesburg was General Manager of FESC, and served as the General Manager of Battelle's Environmental Management Operations in Richland, Washington.

Daniel W. Ombalski, P.G. – President, DTD

Mr. Ombalski has more than 10 years experience in environmental consulting and engineering with varied experience including water supply development, karst hydrogeology and managing remediation at contaminated RCRA sites. He has managed DTD operations, and has installed dozens of horizontal wells at sites throughout the United States. Mr. Ombalski developed many of the design tools used by DTD for calculating slot sizes, slot spacing, open area, pipe sizing, and other parameters for extraction and injection wells.

Project Management and Field Operations

Directed Technologies Drilling, Inc. project managers are responsible for all aspects of planning and execution on assigned projects. Each project manager works directly with the client to clearly define the scope of services, coordinates schedules and material delivery, and oversees on-site drilling and well completion. All DTD jobs have an assigned project manager to provide a single point of contact for our clients.

Michael D. Lubrecht – Senior Engineering Geologist

Mr. Lubrecht has over 20 years experience in environment consulting and geotechnical engineering. He has extensive experience UST cleanup projects, RCRA/CERCLA investigations and remediation, critical facilities construction QA/QC, and transportation engineering studies. He has installed horizontal wells and managed horizontal sampling in projects in Alaska, California, Florida, Illinois, Louisiana, Michigan, New Jersey, Ohio, and Washington.

James Ditto – Senior Drilling Supervisor

Mr. Ditto has over 20 years of drilling experience, with many years of experience as a project manager and drilling supervisor with Mears drilling. He has completed numerous large scale drilling projects, with large diameter bores of hundreds to thousands of feet in length. Prior to joining DTD, Mr. Ditto worked with DTD personnel on DTD/Mears joint venture projects.

Travis Edwards – Drilling Supervisor

Mr. Edwards has several years of intensive drilling experience, installing several dozen environmental and water resources wells on the DTD team. He is an experienced equipment operator, certified to run all heavy construction equipment used in drilling operations.

CORPORATE EXPERIENCE

Directed Technologies Drilling, Inc. is the nation's leading team for near-surface environmental horizontal well design and installation. Since our inception, our team has installed over 400 wells throughout the country. The specific experience gained by DTD in the design and installation of horizontal extraction wells for environmental remediation is unparalleled by any other drilling or construction organization. Projects listed below are representative of the types of project that DTD has successfully completed.

SHAW

Camp Bullis, San Antonio, TX |

Blind Injection Wells

February 2008

Bill Foss (713) 996-4580

DTD designed (slotting pattern and bore path) and installed five injection wells approximately 10-15 feet below ground surface and under a munitions landfill at the Camp Bullis Facility north of San Antonio, Texas. No access was allowed to the landfill and all locating was required from remote positions as far as 120 feet from the drill bit. The wells were designed to inject a remedial solution across the full length of the well screen. Each of the wells was drilled through the Glen Rose Formation, a fractured limestone. Two-inch diameter fiberglass reinforced epoxy was used for the well materials, and each well was successfully injected with approximately 5,000 gallons of injection solution during February and March 2008.

CH2MHill

Kinder Morgan Charlotte Refueling Terminal

Blind Air Sparge Well

September 2007

Mark Strong (704) 329-0072

DTD designed and installed a 500 foot long horizontal sparge well approximately 35 feet below ground surface at a fuel storage and refueling terminal in Charlotte, North Carolina. The well is designed as part of a system to degrade hydrocarbons from beneath the refueling terminal. The blind borehole was drilled through over 300 feet of hard saprolitic soil weathered from granite. This project was completed on time and on budget.

Earth Tech
Edwards Air Force Base
Injection Well
April 2007

Karl Eggers – (562) 951-2000

DTD designed and installed one 1,140' long injection well at a depth of approximately 50 feet below ground. The screened interval was oriented to cross the short axis of a long contaminate plume. The borehole was drilled in through heterogenous sediments with the 700' screened section set in fine to medium sand. The well materials were 3-inch diameter carbon steel casing and stainless steel screen. The system was installed on time and within budget.

SHAW
Moody Air Force Base
Injection/extraction well pair
February 2005

Randy Kurth – (865) 694-7356

DTD installed two horizontal wells approximately 850 feet long 45 feet below ground surface in sand. The wells were designed by CH2M as an injection/extraction pair. The system was installed on time and under budget and has degraded contamination to state mandated levels in less than 2 years.

ERG
San Diego
Blind Dual Phase Extraction Wells
June 2006

Jeff Fujita (formerly with TerraVac) – (949) 280-5600

DTD installed one SVE and one Dual Phase Extraction well at a site along Hawthorn Street in San Diego. The blind boreholes were approximately 250 feet long and passed beneath a warehouse, an active manufacturing facility, and Hawthorn Street in the Little Italy portion of San Diego. The bores were drilled at 18 and 35 feet and were installed without disruption to the local businesses or traffic. The system was installed on time and within budget.

Environmental Technology Initiatives
Prague, Czech Republic, 1997
Buenas Aires, Argentina

PRC Environmental/U.S. EPA

Mark Evans (703) 287-8811

Prague

DTD was selected as one of fifteen firms from a nation-wide search to demonstrate an innovative remediation technology at a refinery site outside of Prague in the Czech Republic. Over 150 firms competed for the opportunity to demonstrate their technologies.

The objective of the project was to install a horizontal soil vapor extraction well in an area of known contamination. DTD teamed with a group of U.S. and Czech manufacturers to demonstrate the drilling technology, vapor extraction technology, and a sampling technology.

The well was installed as planned at the site, despite changed conditions in the soil and severe logistical difficulties. The well exceeded our anticipated contaminant load for the vapor extraction system and demonstrated to the Czech engineers the feasibility of using horizontal wells for soil remediation.

Buenos Aires

DTD was again selected to demonstrate horizontal remediation systems to engineering firms in South America. DTD teamed with Vermeer Underground to present a full range of drilling technologies to over 300 engineers and planners as part of this EPA sponsored demonstration.

Westinghouse Savannah River Company
Savannah River, GA
Soil Vapor Extraction Well
February, 2004

Richard Hunter (803) 952-6098

DTD designed and installed one 600 foot long horizontal vapor extraction well approximately 60 feet below a landfill. The well is part of a larger remediation system to remove chlorinated compounds from the soil.

The well was constructed of stainless steel on carbon pipe screen with steel risers. The well was installed on schedule and within budget.