Probing Times

a publication of Geoprobe Systems®

INNOVATIVE RIGS AND EQUIPMENT FOR THE
Environmental, Geotechnical, Geothermal and Mineral Exploration Industries

Spring 2012

Sometimes You Just Need More Power.

The Geoprobe® 8040DT.
Impressive Versatility.
Superior Direct Push Capabilites.
Powerful Rotary Features. All in an innovative package that gives operators a high-capacity combination rig able to tackle a wide range of field challenges.

Jordan Ernst and Jordan Wiggins, Drillers for Ernco Environmental Drilling & Coring in Sylvan Lake, AB, Canada, install monitoring wells to 70 feet for a global oil company using the Geoprobe® 8040DT.

A Celebration of Innovation

Geoprobe Systems® honors the past by celebrating 25 years in business, and embraces the future by looking forward to designing new and better products for companies worldwide.

Starting a business is all about having a vision in spite of experiencing empty pockets! The vision two young men had, who first met in a Sunday School class in 1980, holds true today. The passion they shared to innovate and make things was the seed that grew into Geoprobe Systems®, a small, manufacturing company that established its roots in the heart of Kansas in 1987. Twenty-five years ago, they promised their first customer a quality hole, a quantity of holes, an easier and safer working system, superior information about the subsurface, and a competitive advantage in the industry. While the machines and products the company now designs and produces have gotten much bigger and the demand now comes from all over the world, nothing much else has changed!

Founders Mel Kejr and Tom Christy, President and Vice President, respectively, of Geoprobe Systems®, teamed up because they wanted to be involved in making useful products, innovative products, unique products, quality products that customers need. They believed creativity in business reflects their sonship with God's creativity. To them, it meant being honest and straightforward in their business as it relates to each other, their employees, their vendors, their customers, and the industry. They set out to provide the best quality products and support at a good value price.

1988: Mel Kejr (left), President, and Tom Christy, Vice President, of the newly formed company, Geoprobe Systems®, stand with the first Geoprobe® machine sold.

As the company celebrates 25 years in business, the owners look back and see a valuable customer base who was willing to grow along with the company; they see loyal and faithful employees who accepted a unique business model and put in the extra effort to exceed the competition; and they see reliable vendors who have supplied a constant source of quality raw materials to work with.

(continued on page 3)

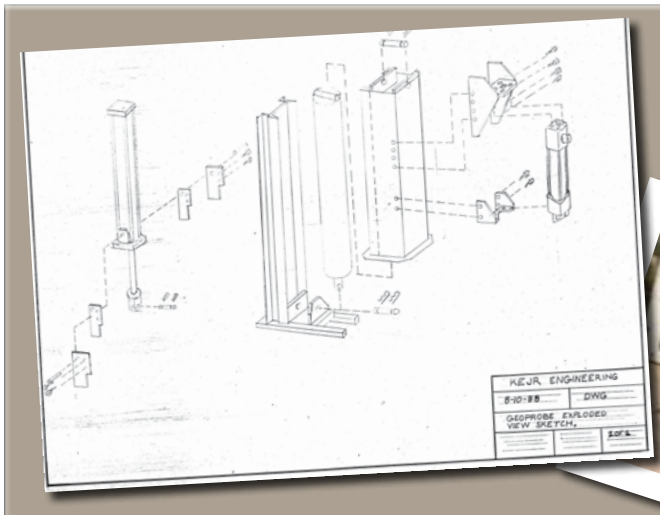
Statement of Objectives

Geoprobe Systems®

- To produce the best possible soil probing and drilling equipment.
- To create a work environment which allows our employees to grow in knowledge, capability, and market value.
- To provide top service, both for sales and for repair.
- To be an asset to our clients.
- To be honest in all of our business.
- To be a horizontal organization.
- To be an organization our employees are proud to work for.
- To glorify God in all we do. Restated: To be pleasing to God in all our actions. This is His business.
- To have an atmosphere of innovation.

1986: This is where it all began! In use today, the original Quonset building at 601 North Broadway in Salina, KS, is still an integral part of the manufacturing facilities for Geoprobe Systems®.

First Geoprobe® Machine



1988: The only surviving drawing (above) of the early Geoprobe® 8A machine. (Courtesy of Darin Garmen, Geoprobe® employee since 1988.) Tom Christy poses for early PR photos of the new Geoprobe® Direct Push machine. Mel and Tom needed a vehicle for that machine, but the banks had never heard of 'direct push', and knew little about the young environmental industry, so they would not grant a start-up business loan. They pooled their money to build most of the first machine, then went to the local Ford dealer for the van. They put the entire cost of the vehicle (down payment, sales tax, and tag) on a 3-year note.

A Grassroots Beginning for a Company That Goes Much Deeper!

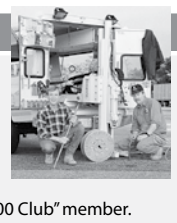
1987: The idea of an innovative, versatile, yet compact environmental direct push machine is born and the first Geoprobe® machine and soil gas sampling tools are purchased by U.S. EPA.

1991: Kansas Sampler and Large Bore Sampler are added to the tools inventory at Geoprobe Systems®.

1992: (Fall) The first Geoprobe® Model 5400 (equipped with a GH40 Hammer) was sold and quickly pushed a tool string to over 65 feet in Oregon!

1993: A Direct-Drive Electrical Sensor Probe (a.k.a. Electrical Conductivity Probe) is introduced.

1993: Oct. 15th, Land Tech Remedial in New York sets a probing record of 120 feet to become the first Geoprobe® "100 Club" member.



1995: First Model 5400 in a PC100 Probe Carrier sold to the MI Dept. of Transportation; and SP15 Groundwater Sampler and small-diameter Prepacked Screen Monitoring Wells introduced.

1996: (April) A party at Geoprob welcomes home Steve Fross an their mi Liberia v by a civi evacuat military

Honoring the Past Embracing the Future ...Part I

Celebrating 25 years in business is a milestone that many companies fail to achieve.

In 1987, Mel Kejr and Tom Christy established Geoprobe Systems® in an overgrown Quonset building in Salina, KS. They shared certain passions in life, among them the desire to innovate and make things that are useful; things that people could really appreciate for their utility and creative aspect. It's understandable that not everyone is motivated by these things, but with Mel and Tom, it was a constant topic of conversation. Their sense of innovation, creativity, and family remain strong 25 years later. They know the company has been fortunate to flourish and become a leading manufacturer in the drilling industry.

Mel and Tom knew each other well prior to starting the company. One of Mel's favorite books at the time was "Mover of Men and Machines," the story of R.G. LeTourneau. Mel loaned Tom a copy of the book. According to Tom, LeTourneau was a creative genius as well as a fellow who worked out his Christian faith in his daily working life. They both believed the book was a memoir with plenty of practical counsel.

Before there was discussion about forming a company, Mel was designing and developing agricultural equipment as well as farming. Mel attended Dallas Bible College and graduated from Kansas State University-Salina with a degree in Mechanical Engineering. Tom immigrated to Kansas from Missouri where he graduated with a BS in Civil Engineering from the University of Missouri-Rolla. Tom worked for an engineering firm and environmental laboratory in Salina, but left the states for a two-year missionary stay in the Republic of Congo (formerly Zaire, Africa) with his family (Lee Ann, Corrie, and Joel).

Tom had already been introduced to Mel's family. Tom and Larry Kejr, Mel's brother, first met in 1981 while volunteering on a construction project for the World Impact Ranch near Florence, KS. Tom's younger brother, Colin Christy, worked with Mel on summer wheat harvest for a number of years. When the time came to start up the new company, they would rely heavily on those family connections.

Part II of the Celebration of Innovation will appear in the Fall 2012 Probing Times.

First Soil Gas Sampling Probe

Prior to 1987 and before the words 'company' and 'business' were discussed in the same sentence, Tom and Mel hatched an idea to design and build a machine for a specific customer. They approached the customer with a proposal to make a device that could assist with the execution of an environmental contract the customer had recently secured. The concept was to build a hydraulically-operated device that could be folded out from the back of a van and push a 3/4 in. galvanized pipe three to eight feet into the ground. A vapor sample could then be collected through the pipe for analysis. After the required sample was obtained, the same device would be used to pull the rod back out of the ground. This sequence would be repeated again and again across the given property until the customer had a complete map of the solvent in the subsurface. After delivering the completed machine to the customer, Tom asked Mel, "Could this become a business for us?".

So toss the confetti and enjoy a big piece of cake, but the time to celebrate and honor the past is short. The old iron is fun to be around, but when it comes to getting something done, new products are more productive and easier to work with. The company is proud of the part they have played in the developing environmental industry but they are also ready to embrace the future and look ahead to having a similar impact on other industries. The small Kansas manufacturing company will continue to push the edge to seek and find new ways to make your business more productive.

Beginning with this issue and concluding in the upcoming fall issue of the newsletter, you'll have the opportunity to look inside the Geoprobe® walls and catch a glimpse of how things have progressed, grown, and changed during the past 25 years for the Geoprobe® facilities and family of employees. We hope you enjoy a peek into our past!

Original Manufacturing Facility

1986: Quonset

Now: Engineering Development and Machining

1986: Mel purchased the above buildings prior to any discussion about starting Kejr Engineering or Geoprobe Systems®, and used the buildings to support his harvesting business and assorted manufacturing projects. The location provided good exposure on the main highway into the City of Salina, and the price was in a range he could work with. However that price range required dealing with land that was overgrown with weeds and covered in junk, and buildings in need of repair and lacking basic services! Fortunately, since Geoprobe Systems® started at zero, the facility was adequate to support start-up needs! When it came time to start-up the company, Mel and Tom would rely heavily on family connections. You might say they substituted family labor for capital, as was the case with Tom's family. Tom's wife, Lee Ann, and their two children, Corrie and Joel (now a part of the Tools Group), kept busy early on with facilities upkeep! In 1988, a customer came to town to meet with Mel and Tom. After they had finished their discussion he asked Tom for a tour of the main offices. He was of the impresssion that this was a much larger company than what he was seeing in their humble facilities. Tom had to enlighten him that it was just he and Mel and a couple of employees. Mel and Tom were about the best innovations, the best products, the best support, and the best people before they invested in buildings and their curb appeal.

1987: Corrie Christy

Now: Corrie Christy

1987: Joel and Lee Ann Christy

Now: Joel and Lee Ann Christy

1986: Block Building & Bait Shop

Now: Inventory Management and Veris Technologies

1987 Headlines

- Black Monday: Wall Street crashes sending Dow Jones plummeting a record 508 points
- Best Actor was Michael Douglas in 'Wall Street'
- Best Picture was 'The Last Emperor'
- Paintball is introduced to the public
- Fox Broadcasting Co. made its prime-time TV debut
- Disposable contact lenses became available for commercial distribution
- Cellular telephone subscribers exceeded 1 million
- Electronic pocket calculator invented by Sir Clive Sinclair from Britain
- Microsoft releases Windows 2.0
- Best selling car was Ford Escort ($6,895)
- Movies: RoboCop, The Untouchables, Full Metal Jacket, Fatal Attraction, Lethal Weapon, Moonstruck, The Princess Bride
- Cost of Living: 1 gallon of gas was 89 cents, postage stamp was 22 cents, dozen eggs was 65 cents, loaf of bread was 55 cents• New York Giants beat Denver Broncos (39-20) to win the Super Bowl
- Richard Branson and Per Lindstrand make first transatlantic hot-air balloon flight
- Prime Minister Margaret Thatcher is re-elected for third time
- Minnesota Twins beat St. Louis Cardinals (4-3) to win the World Series
- First baseball world series where the home team won every game
- Alysheba won the Kentucky Derby
- Indiana beat Syracuse (74-73) to win NCAA Basketball Championship
- Bill Elliott won the Daytona 500
- Al Unser Sr. won the Indianapolis 500
- Dale Earnhardt Sr. won the NASCAR Championship
- Sugar Ray Leonard beat Marvin Hagler for Boxing Middleweight Championship
- Deaths: Rita Hayworth, Danny Kaye, Jackie Gleason, Andy Warhol, Lee Marvin, Fred Astaire

be Systems® d Mel Kejr after ssion trip to was interrupted l war requiring ion by U.S. helicopters.

1996: (December) Mark Abker & Tom Omli deliver a refurbished school bus and bicycles to a Guatemalan Orphanage.

1996: R&D Engineers introduce the Geoprobe® Model 54DT, GS1000 Grout Machines, and Membrane Interface Probe (MIP).

1996: (July) The new website www.geoprobesystems.com goes live! And 1.25 in. and 2.125 in. probe rods are introduced to the market.

1996: (September) Geoprobe Systems® mobilizes nearly half its employees and truckloads of machines and tools for first Direct Push Days event in Bellmawr, NJ.

1996: (October) The 500th Geoprobe® direct push machine rolls out the door headed for Singley Construction in Columbia, MS.

1996: (November) A field team for Fluor Daniel Fernald in Cincinnati sets a new "World Probing Record" of 159.4 feet with a Geoprobe® Model 5400 machine.

Lee Shaw, Geoprobe® Customer Service, demonstrates the use of DT 325 tooling with the 7822DT at the 2012 Open House in April. The 7822DT is fast becoming known as a real work horse in the field. Geoprobe® customer service staff almost daily receives feedback from the field that operators continue to discover new capabilities and uses for the rig including air rotary and wet rotary.

New Options Shown at 2012 Open House for Geoprobe® Work Horse

At the 2009 Geoprobe® Open House, the company released a machine ... the 7822DT ... with real engineering improvements over the previous 6620DT product. Day One the new 7822DT was solid! Since that time, this proven platform continues to be equipped with numerous options that expand the machine's utility across a wider range of project types. 7822DT owners find this machine has high utilization rates which ultimately makes customers profitable. This year's Open House attendees once again got to see the newest offerings available for this rig.

According to Tom Omli, Director of Sales for Geoprobe Systems®, "The variety of options available for this track-mounted machine makes it well suited for the geotechnical and mineral exploration industries. It's a well-engineered piece of equipment that keeps customers busy. And that's our goal."

From the GH64 Hammer with Modular Percussion Power Cell and an industry-first integrated two-speed, bi-directional rotation, to the 500 rpm at the spindle for coring bedrock, the 78 Series machines are fast becoming the most popular model ever offered by Geoprobe Systems®.

"This is a great time of year to come to Kansas and take one of the new 78 rigs for a test drive," Tom added. "It's one thing to read about a machine's capabilities on paper, but we think kicking some 'tires' and seeing it operate is the best way to evaluate equipment value."

Geoprobe® 7822DT owners have confidence that the machine can get the job done. "I've purchased many drill rigs in my career at Vortex Drilling," said Donny May, Operations Manager for Vortex Drilling in San Antonio, TX, "and I can say that the Geoprobe® 7822DT is a superior piece of equipment that's extremely versatile, well made, and backed by unbeatable service."

With its compact size, similar to a skid-steer, the 7822DT is easy to transport to and from job sites.

> "Our 7822DT is so versatile. We don't worry when we send it out on a project. We are totally confident it can get the job done."
>
> **... Gene Burke, President, Ground Zero Field Services, Partlow, VA**

(above and below) New 78 series 6-in. single clamp breakout.

Driven by a desire to conform to the new 2012 CE safety standards, the new control panel design for the 7822DT with new Operator Interface has a digital display screen with multi-function output and advanced warning displays.

Quinton Wilson uses the 7822DT equipped with a new interlocking Rotational Safety Cage with a GA4000 Auger Head. He was setting 4.5 in. conductor casing in preparation for wireline coring.

NEW! 6712DT

First Introduced at 2012 Open House.

The new Geoprobe® 6712DT separates into three sections for easy transport. Mark Abker (left) and John Frost, both Geoprobe® Engineers, reassembled the rig at Open House in 10 minutes.

Mark Abker uses DT22 tooling with the 6712DT.

Modular Machine Design Makes it Heli-Portable for Remote Field Work

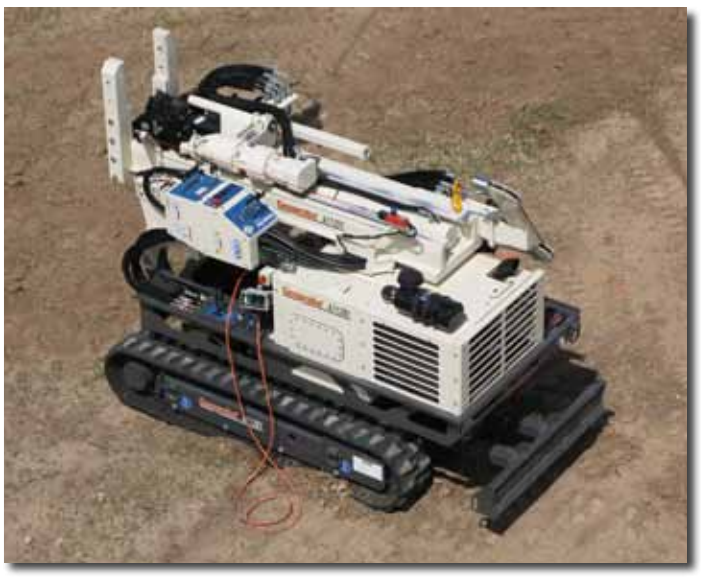
- Modular Machine Design Disassembles into Three Sections
- Approximate Weight ... 6,000 lb (2,724 kg)
- Heavy-Duty Track Drive System
- GH63 Hammer with Single-speed Bi-directional Rotation and Modular Power Cell
- All Manual Controls
- Optional GA2500 Two-speed Auger System
- Optional Mast and Winch System
- Rear Blade Assembly for Tooling Transport and Machine Stabilization
- Easy Access to Key Service and Maintenance Components
- Replaces 66DT/6610DT machines first introduced in 1998.
- Frame Rail System

Model 6712DT Specifications

Stroke	66 in	1676 mm
Weight (w/o Auger Head, Mast & Winch)	5,900 lb	2681.8kg
Weight (w/ Auger Head, Mast & Winch)	6,480 lb	2945.5 kg
Width	52 in	1321 mm
Length (folded)	115 in	2921 mm
Height (folded)	83 in	2108 mm
Height (unfolded)	153.5 in	3899 mm
Foot Travel	30 in	762 mm
Extension	15.75 in	400 mm
Down Force	36,800 lb	164 kN
Retraction Force	49,000 lb	218 kN
Hydraulic Pressure (system)	2,500/3,400 psi	172/234 bar
Hydraulic Flow Rate (system)	24 gpm	90 Lpm
Hammer System	GH63	
Percussion Rate	32 Hz	
Torque (hammer motor)	560 ft. lb	759 N•M
Rotation Rate (hammer motor)	240 rpm (bi-directional)	
Fuel Capacity (diesel)	14 gal	53 L
Engine (diesel)	Kubota, 4-cylinder turbo	
Engine Power	44.2 hp	33 Kw
Rear Blade Travel	29 in	737 mm
Travel Speed	0-2.5 mph	0-4 kph
Surface Load @ 5,900 lb	4.3lb/in2	0.3 kg/cm2
Surface Load @ 6,480 lb	4.7lb/in2	0.33 kg/cm2
Winch Rating	2,500 lb	1,136 kg
Winch Speed	0-110 fpm	0-33.5 m/min

Augerhead Specifications

Torque (high torque/low speed)	2,500 ft. lb	3389 N•m
Torque (low torque/high speed)	1,250 ft. lb	1694 N•m
Hex adapter	1-5/8 in	41 mm
Rotation speed (low speed/high torque)	0-70 rpm	
Rotation speed (high speed/low torque)	0-150 rpm	



(above) Mark Abker, Lead Design Engineer for 6712DT.

(left) The new 6712DT is equipped with the GH63 Hammer with single-speed, bi-directional rotation and modular power cell for easy service.

8040DT Has It All ...

Direct Push and Rotary Functions Help Keep Work on Track and Under Budget

"We could consistently drill to 30 ft. in the large cobble, sand and gravel conditions, and perfectly install prepacked screen monitoring wells with our 8040DT."

Gerald Ernst, Manager,
Ernco Environmental Drilling & Coring, Sylvan Lake, AB Canada

Air rotary drilling was used with the 8040DT to advance casing for monitoring well installation at a site in southwestern Alberta in Canada. Assisting Jordan Ernst (right), Driller for Ernco, was Brett Nixey (left of rig), Driller's Assistant. Two representatives of the consulting firm appear to the left.

It's a good day when you can complete a project on time, save the client money, and have no injuries or safety incidents. "And our 8040DT's continue to do that for us, time and again," said Gerald Ernst, Manager of Ernco Environmental Drilling and Coring in Sylvan Lake, AB, Canada. "When we quote a job, we're confident we can do what we say, thanks to our field team and the versatility and power of our 8040DT. The 8040DT has it all ... direct push, powerful rotation, and the ability to mobilize just about anywhere!"

Most recently, Ernco was given a scope of work for a global oil company as part of a Master Service Agreement Ernco has with them.

The scope of work was for soil sampling and monitoring well installations at a site north of Waterton Lakes National Park in southwestern Alberta. Ernco was one of four drilling contractors asked to bid on the project. The work was planned to span a period of six weeks. "Because of our realistic and competitive quote, our reputation for quality work, and our impeccable safety record with the global client as well as the consulting firm in charge of the work, we won the bid!" Gerald said. "The reliable capabilities of our Geoprobe® 8040DT allowed us to guarantee the best quality samples available in the industry. The 8040DT allowed us to advance to desired depths in rocky soil conditions that would have presented major challenges for conventional rotary drilling equipment. We have a lot of experience with drilling in large cobble and sand and gravel material, and that was primarily what the site consisted of."

Leading up to the kickoff of the work, the project manager for the consulting firm was very concerned that Ernco was tackling more than they could handle. "He hadn't personally seen the 8040DT in action, and was very concerned that we may be unable to push through the rocks and cobble on the site," Gerald said. "I was able to reassure him that we had, and could, consistently drill to 30 ft. in the existing conditions, provide quality samples, and with the use of the Geoprobe® prepacked well screens, complete perfect monitoring well installations."

Ernco drilled ten boreholes to approximately 80 ft. Using the direct push feature of the 8040DT, they pushed the rods to 30 feet, then advanced the remaining 40 ft. using air rotary drilling technology and 2.25 in. drill rods. The monitoring wells were installed using Geoprobe® 2-in. and 1.5-in. prepacked screens.

"We completed the entire scope of work exactly to the day that we had estimated, and came in approximately $2,000 under budget. Most important of all, we completed the work with no injuries or safety incidents," Gerald added. "Bottom line, we were able to deliver everything we said we could to the consultant and client ... on time and under budget."

(l to r) Brett Nixey, Driller's Assistant, and Jordan Ernst, Driller for Ernco, use the 8040DT to complete boreholes to approximately 80 ft. for the installation of prepacked screen monitoring wells.

(lower right) Jordan Ernst, Driller, works his magic at the controls of one of Ernco's 8040DT's under the gorgeous blue sky at the foot of the Canadian Rockies in Southwestern Alberta, Canada. Ernco and the 8040DT were at the site in March of this year.

Why the 8040DT?

We asked Gerald Ernst, Manager of Ernco Environmental Drilling and Coring, what features of the 8040DT are important to his business and clients ....

- **Versatility**: The multiple features on the CB8 Combo Head provide us with drilling options that impress drillers who have been in the industry for over 30 years. We can direct push for continuous samples, for monitoring well installation, or for geotechnical testing. We can use the rig's rotational power to drill with solid or hollow stem augers, or core from the surface to any reasonable depth through nearly any material. These capabilities, coupled with our 53-ft. customized semi-trailer units, allow us to carry all of the equipment, tooling, and materials required to perform any of these work functions on any given day.
- **Direct Push Power**: The power of the 8040DT to advance the 4.5-in. tooling is a huge advantage for us, and ultimately our clients. We regularly advance 45 to 60 ft. of casing per borehole, and we seldom have any problems reaching that depth. These depths usually exceed anything required for environmental purposes, so our clients are very pleased that we can come to the site and know we can meet their specifications. We can install 2-in. prepacked well screens and perform Standard Penetration Testing directly through the cutting shoe, all while the borehole remains cased. Installation of prepacked well screens inside the tooling, with no sloughing, allows us to be confident that our installations will exceed specified performance expectations. This also allows us to provide our clients with accurate, reliable results.
- **Rubber Track Mounted**: Many of the jobs we're awarded are because our 8040DT is equipped with rubber tracks. They cause much less damage to ground surfaces which allows us to promote minimal disturbance drilling. The tracks also provide excellent traction and flotation.
- **Compact Size/Remote Control**: The 8040DT is a powerhouse in a very compact package. The remote control feature is perfect when operating in tight conditions, as the operator can be exactly where he needs to be to maneuver the unit into position.
- **Safety Features**: Many clients are impressed with the number of safety features incorporated into the 8040DT. They especially like the emergency shut-off switches that are easily accessible around the rig, and they're particularly impressed with the cable shutdown that runs vertical from top to bottom of the mast.

8140
Rotary Sonic

8x10 Industry Standard Sampling with 10-inch Casing

The Geoprobe® 8140, available either as an LC (low clearance model) or LS (long stroke), was designed specifically for the technical drilling industry. This mid-sized rotary sonic offering features a patented GV4 Sonic Head designed, manufactured and supported by Geoprobe Systems®. The GV4 oscillator drive has the dynamic force required to advance 3.5 in. to 10 in. casing during sampling tasks. And with up to 3,500 ft-lbf of torque and up to 130 rpm, the two-speed rotation on the GV4 has the torque needed to maintain rotation in tight formations. "Much of the feedback we hear from our customers is consistent," Tom Omli said, Director of Sales for Geoprobe Systems®. "They find that their Geoprobe® sonic has surprising power, numerous operator-friendly features, and unbeatable Genuine Geoprobe® service support."

Contact Tom today at 1-800-436-7762 for more information on the compact and powerful Geoprobe® rotary sonic offerings.

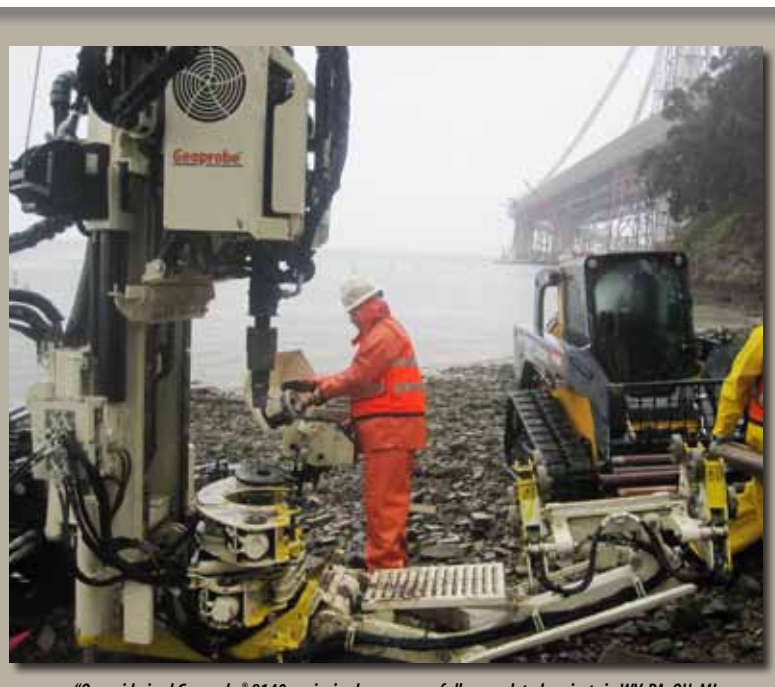
(above) 8x10 angle sampling with 8140LC and 10-in. Geoprobe® sonic casing.

"Our 8140 sonic rig has been performing very well. We installed monitoring wells and performed soil sampling to depths up to 125 feet inside a closed manufacturing facility. Our client was extremely pleased with the small amount of cuttings, and we were happy with the performance of the rig."

Ben Huss, Owner,
Huss Drilling, Dade City, FL

"Major Drilling has been able to complete projects in a safe and timely manner with our 8140 series sonic. This rig is proving to be a well versatile and powerful rig for its size. We've taken delivery of seven rigs and have plans of expanding our fleet with more 8140's. We're looking forward to many years of services from Geoprobe® amd these machines."

Ricky Davis, Operations Manager,
Major Drilling Environmental, Huntsville, AL



8140LC "Exceeded Our Expectations"

"The Geoprobe® sonics we run have pleased our drillers, our company, and most importantly our clients. These machines are well built, and with the customer support we get, it makes them a must-have to satisfy our clients. We've been from 0 to 160 ft. through sands, tills, and bedrock and at a wide variety of locations many rigs cannot get to. We are proud to say that they are part of making our company successful."

Daniel Harrison, Field Operations Supervisor,
WDC Exploration & Wells

"Our mid-sized Geoprobe® 8140 sonic rigs have successfully completed projects in WV, PA, OH, MI, KY, IN, IL, KS, and LA working in a wide variety of site conditions ranging from off-road, inside low overhead clearance, and even from a swamp buggy. They complement our sonic fleet nicely by giving us the ability to work with a much smaller footprint when needed, increasing our value to our clients."

Jeffrey Stone, Business Development,
WDC Exploration & Wells, Midwest Region

"The Geoprobe® track-mounted sonic platform has exceeded our expectations in terms of power and performance in such a small package. We're able to provide full-strength rotary sonic capabilities at sites where we would have never dreamed of using sonic before. Whether it's inside a building, in the middle of a soft, rain-soaked field, or on a remote beach, accessible only by boat, the rig has done what we needed it to do."

Jacob Gallagher, Business Development,
WDC Exploration & Wells, San Francisco Bay Area

It's Made At Geoprobe®

We hear the question many times and from a lot of people, and our answer is always the same ..."we make it at Geoprobe®." The 'it' refers to machine components, such as the GV4 Sonic Head, the CB8 Combo Head for the 8040DT machine, the GH60 hammers, probe rods and casings, groundwater and soil samplers, MIP logging tools, injection and grout machines ... and the list goes on and on. From the inside out, Geoprobe® machines and equipment are made by Geoprobe® employees at the company's headquarters in Salina, KS.

Research and development is a huge investment Geoprobe Systems® commits to in order to develop cutting edge technology. Our extensive engineering staff is paired with inhouse high-precision machines, computer systems, and most importantly, skilled shop technicians. The result is industry-leading equipment that's in demand around the world.

Ryan Kejr, Project Engineer and Machine Group Manager, and Mike Carlin, Project Engineer and Tools Group Manager, know the end product is only as good as the build process. The cycle of design, building and testing continues until a quality product emerges.

"For some time, the trend in manufacturing has been to outsource more of the process," Ryan stated. "At Geoprobe®, we've found the opposite to work better. By keeping product inhouse, we have better control on quality, find design flaws quicker (speeding up the engineering process), and more easily respond to customer needs. Of course that doesn't mean we build every component. Obviously we spec and purchase engines, pumps, valves, etc. And there are some custom parts that are a commodity (for example, we outsource some of our sheet metal parts). But if it's critical, we like to do it ourselves. This includes the obvious, like the GV4 Sonic Head and our drill rod. But also the not-so-obvious, like the track carbody weldments and the design of our electronic controls."

"No one knows the needs or the concerns of our customers better than we do," Mike said. "We cater our product design and manufacturing processes to our customers. You can't do that if other suppliers or vendors are making tools or parts for you. It's our reputation that's at stake."

Still not convinced? Come see for yourself. The visitor's door is always open for a visit and tour at Geoprobe Systems®.

GV4 Sonic Head on 8140 Sonic ... made by Geoprobe®

CB8 Combo Head on 8040DT ... made by Geoprobe®

GH64 Hammer on 7822DT ... made by Geoprobe®

Meet Rod the Robot who makes probe rods in the Geoprobe®Machine Shop.

Geoprobe® Machine Assembly Facility

Geoprobe® Paint Facility

Probe Rod/Casing Sizes (1.25 in. thru 6.0 in.) ... made by Geoprobe®

GV4 Sonic Head subassembly on 8140DT ... made by Geoprobe®

8040DT Combo Rig Shows Versatilty

Taking advantage of the power and multiple functions afforded by the Geoprobe® 8040DT, EnviroProbe Integrated Solutions, Inc. in Nitro, WV, completed an environmental site assessment (ESA) using both drilling and direct push applications. The results of the ESA indicated the need for installation of permanent groundwater monitoring wells on the residential property to depths of 85 feet. A previous drilling company was unsuccessful in setting the wells using HSA (hollow stem auger) methods, primarily due to the heaving/flowing sands in the subsurface. The EnviroProbe field team, with the 8040DT combo rig, completed the ESA work with no problems.

At a later date, EnviroProbe used their 8040DT to install two 2-in. prepacked screen monitoring wells, each to a depth of 85 ft. using the direct push feature of the rig. For the process, the field team used DT45 tooling to collect continuous soil samples. A 6-in. diameter cutting shoe with expendable knock-out was used to allow for the installation of the 2-inch monitoring wells that meet the minimum borehole diameter for a 2-in. well. Once at depth, the field team knocked out the expendable shoe and installed the PVC well through the DT45 casing. As the rods were extracted, Dale Kestner, EnviroProbe's driller, installed additional filter sand, a bentonite filter pack seal, and annulus space seal.

"Our 8040DT rig continues to perform for us," Rod Moore, Owner of EnviroProbe Integrated Solutions said. "The advantages of owning and using this rig make our jobs easier. It allows us to complete a wide-range of jobs with just one rig."

Rod listed several reasons why the 8040DT with the DT45 tooling scored big for this project: Time. Cuttings. Subsurface Conditions. Safety. Cross Contamination.

Time ... In approximately six hours, EnviroProbe set up, collected two soil borings (continuous dual tube soil sampling), set two 2-in. PVC wells to 85 ft. bgs, and cleaned up the site. Using the standard methodology (HSA and continuous SPT sampling), this project would have required a three-man drill crew and approximately 2-3 days minimum to complete while causing damage to the residential yard. "Our method saved our client a minimum of $2,500 and 1-2 days field time," Rod said.

IDW (Minimal investigation-derived waste) ... EnviroProbe produced less than one drum of soil cuttings during the ESA. Normal HSA drilling would have probably produced a minimum of eight to ten 55-gal. drums of cuttings which would have required disposal. "This also saved our client at least $2,500 in transport and disposal costs," Rod added.

Heaving/flowing sands ...The use of the DT45 system eliminated the heaving or flowing of sands into the rod string. "Prior to our arrival onsite," Rod stated, "the HSA method caused significant heaving/flowing sands through the liquefaction and mixing of the sandy saturated zone."

Safety ... Using the direct push feature of the rig and the DT45 tooling, the field team avoided the need for rotary drilling and eliminating the risk associated with turning augers.

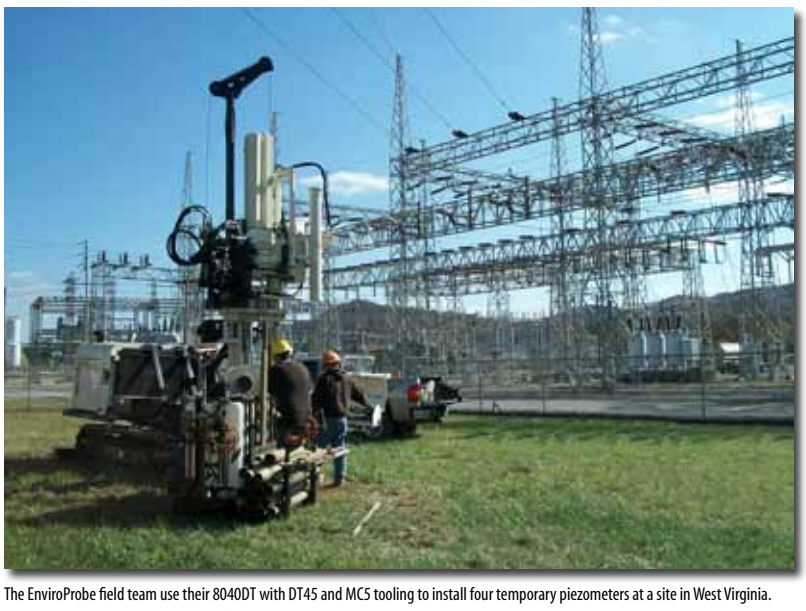
No Cross Contamination ... HSA methods typically will promote drag-down (cross contamination) of shallower contaminants into the subsurface and groundwater. The ability to push/hammer the DT45 casing eliminates the effects of drag-down.

"Sometimes we wonder whether the job will be too much for our 8040DT rig, but it continues to do a great job for us," Rod said. "We're especially pleased with the power this rig has. It hasn't disappointed us yet!"

The EnviroProbe Integrated Solutions field team uses the 8040DT with DT45 and MC5 tooling to collect soil cores at an industrial site. Up to three discrete groundwater samples were collected per location using the SP16 Groundwater Sampler.

The EnviroProbe 8040DT pairs up with DT45 tooling to collect soil samples at an abandoned grain handling and storage facility in West Virginia.

Two-inch monitoring wells are being installed at this residential area using DT45 tooling and the 8040DT.



The EnviroProbe field team use their 8040DT with DT45 and MC5 tooling to install four temporary piezometers at a site in West Virginia. Operating the rig were Dale Kestner (left), Driller, and Chris Henderson, Field Services Manager.

Geoprobe® Tools Engineers at the height of their creativity! (l to r) Jed Davis, Kyle Riedel, David Golden, Mike Carlin, Joel Christy.

Our Tools Engineers Are Always Looking For New Ideas

Visiting customer believes engineers are as "thick as gnats" at Geoprobe® HQ.

Rich Stock, Owner of Stock Drilling in Ida, MI, had just completed a couple days of MIP training at the Geoprobe® campus, and took time to check out some of the new rigs that were running in the 'backyard.' "I was both amazed and impressed by the number of engineers that were on your staff and providing training and demonstrations," he said. "They were as thick as gnats! It shows you guys are serious about your products."

Focus on Engineering. Yes, they're everywhere! It's not by chance either. Geoprobe Systems® has invested heavily in engineering because we believe a quality product starts with a quality design. But that doesn't mean we get it right the first time. In fact, over the years we've had some pretty spectacular failures in the prototype stage! Whatever the final product, Geoprobe® engineers know that the job starts with a well-planned design then progresses to hours and hours of testing. Then more testing. And then still more testing, even when the Kansas temperatures reach 110 degrees in the summer or drop below zero in the winter.

Guys Like Dirt. "We just like making holes in the ground," said Joel Christy, a member of the Tools Group who has spent the last four years testing sonic equipment. "There's always an element of surprise when you conceive and engineer a product," he said. The outside temperatures don't seem to phase these guys, "except when it dropped to 10 degrees last winter," added Jed Smith, another Tools Engineer. "Because of the high winds we were having trouble keeping the water useable with the sonic rig. The water would hit the swivel then spray us in the face with ice pellets!"

Make Great Things Better. The Geoprobe® engineering staff relies heavily on customer feedback to know if their products are heading in the right direction. "We're in the unique position to be able to make great things better," said Mike Carlin, Tools Group Leader. "We also want to make things easier for our customers," David Golden said, member of the Tools Group. "Because we do so much testing and know how to use the equipment, we're able to tweak the design to make it work better." Kyle Reidel, who's been with the Tools Group for only a few weeks, sat behind a desk for the past six years doing vibration analyses on helicopters. "This is great here! By both designing and testing you experience the whole range of the process," he said.

The Innovators. When Geoprobe Systems® first entered the business world 25 years ago, who knew the largest group in the company would eventually be ... engineers! The two driving forces behind the company in 1987 were two men (the only two people on the payroll) who liked to design and build innovative machines and tools. They really enjoyed it, and still do! Sometimes that might mean improving an existing tooling system (for example, the MC5 soil sampler), or it could be the development of a completely new offering, such as the 6712DT or the GV4 sonic head.

If you plan a visit to Geoprobe® HQ, beware of the engineers. They're everywhere!

"You just can't see the geology unless you're looking at a good sonic core! Our sonic tooling performed as we had expected. Carbide dual tube bits cored soils and boulders that the direct push and HSA could not. Previous contractors had tried to advance an air hammer, but the unconsolidated material, ground water had more resistance than the equipment. Our 8140LS combined with water and or mud effectively penetrated any of the formations which were dense till material overlying liquidified sands to 80 ft. Below 80 ft. gravel lenses and boulder layers were to depth at 150 ft. The sands were cored using open barrel 10-ft. cores. Holes were over cased to 120 ft. and finished with dual tube."

Mark Schock, Owner
Glacier Drilling, Durham, CT

"We recently used the Geoprobe® sonic tooling on a project involving drilling, soil and groundwater sampling, well construction to depths of approximately 100 ft. at ten locations."

Peter Byer, President
SAEDACCO, Fort Mill, SC

(above left) Geoprobe® Tools Engineers display DT60 sonic cores collected from the backyard between 100 and 200 feet. (above) Native Kansas limestone was retrieved at the 200-ft. mark in February using the 8140LC and DT60 system.

100 Percent Sample Recovery ... Throughout The Project

(above) The McMillan Drilling field team maintained 100 percent sample recovery throughout their project using the DT45 system and their 8140LS rotary sonic, drilling to depths of 75 ft. SPT test were conducted at 5 ft. intervals.

(right) Geoprobe® DT60 and DT45 Sonic Sampling Systems.

McMillan Drilling Services is on site with their 8140LS (long stroke) rotary sonic rig in Canterbury, New Zealand. The field team used the DT45 sonic sampling system for the geotechnical work.

"We enjoyed 100 percent sample recovery throughout our drilling project using the Geoprobe® 8140LS, DT45 sonic tooling system and a carbide casing shoe, and without flushing fluids," reports Iain Haycock, Manager of McMillan Drilling Services in Canterbury, New Zealand. "To our knowledge, there are no other conventional drilling systems that can achieve this to the degree that the DT45 system can. We're finding the DT45 is far superior to the alternative bottom-out sampling techniques, mainly as the sample integrity is maintained throughout the drilling process," he said. The benefit to McMillan's clients is that they're able to easily distinguish between matrix or inter-particle support within the gravel units that drillers typically deal with in Canterbury. McMillan Drilling used their Geoprobe® 8140LS rotary sonic and the DT45 sampling system on the geotechnical project for a proposed Transit New Zealand highway upgrade in Canterbury. "We were required to drill to depths of up to 75 ft. (25 m) and obtain high-quality 'intact' samples for lithological logging. SPT tests were conducted at 5-ft. (1.5 m) intervals using the auto drop hammer and a piezometer installed on completion," Iain added. "We were really pleased with the performance of the rig and tooling. It's a great system for us." The rig has been so busy for McMillan Drilling, their second sonic will be delivered this summer.

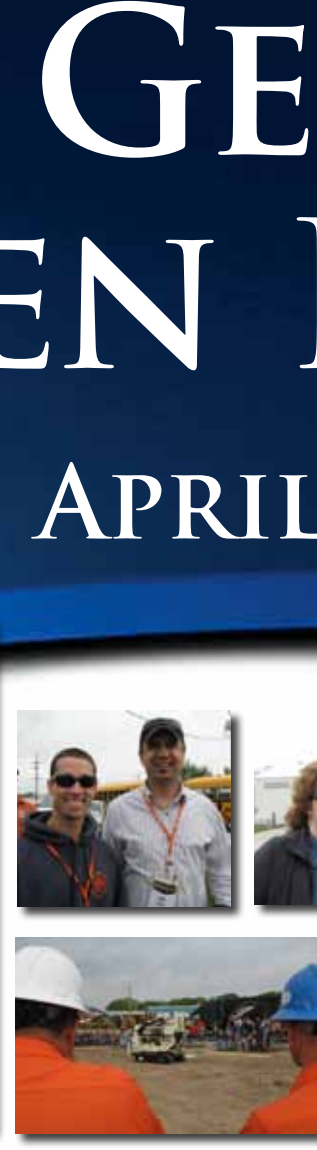
2012 Ge
Open
April

NEW Products Demonstrated at 2012 Open House

- .. 8140LC Rotary Sonic
- .. 8140LS Rotary Sonic
- .. DH104 Auto Drop Hammer for 8140LC
- .. Sonic Rod Handling System
- .. 7822DT Control Panel (2012 CE)
- .. 7822DT Breakout Clamp
- .. 7822DT Safety Cage
- .. 7822DT Mast & Winch System
- .. 6712DT Machine
- .. 10-in. Sonic Casing
- .. 10-ft. Sonic Tooling
- .. Sonic DT45 Tooling
- .. Sonic DT60 Tooling
- .. Sonic Geothermal Knock-out Point
- .. Direct Push 3.5 in. Tooling
- .. DT35 Tooling for 8040DT
- .. GH80 Concrete Breaker System for 8040DT

"We almost decided not to come, but we're really glad we're here. It is so good to experience this first hand. There was so much time and effort put into this. We really appreciate what you've done here".

Gene Burke, President
Ground Zero Field Services, Partlow, VA



"I've been in the drilling industry for 20 years and this is the best drilling show I've ever been to. You all really put forth the effort. It was great. The service workshop was really helpful for us. I learned more in 30 minutes about our rig's electrical system then I would have in a year just working with the rig. It probably saved you guys a lot of phone calls from us".

Dean Bryant, Owner
Mad Dawg Inc., Iron Station, NC

OPROBE® HOUSE

L 19TH

"This was great! Seeing all of the equipment side-by-side and seeing the new 6712DT was great! A lot of money is spent in Canada building ice roads to get to remote places. The 6712DT is a great alternative to avoid the cost of new roads and just use a helicopter to bring a machine in."

Josh Ernst, Owner
Ernco, Sylvan Lake, AB, Canada

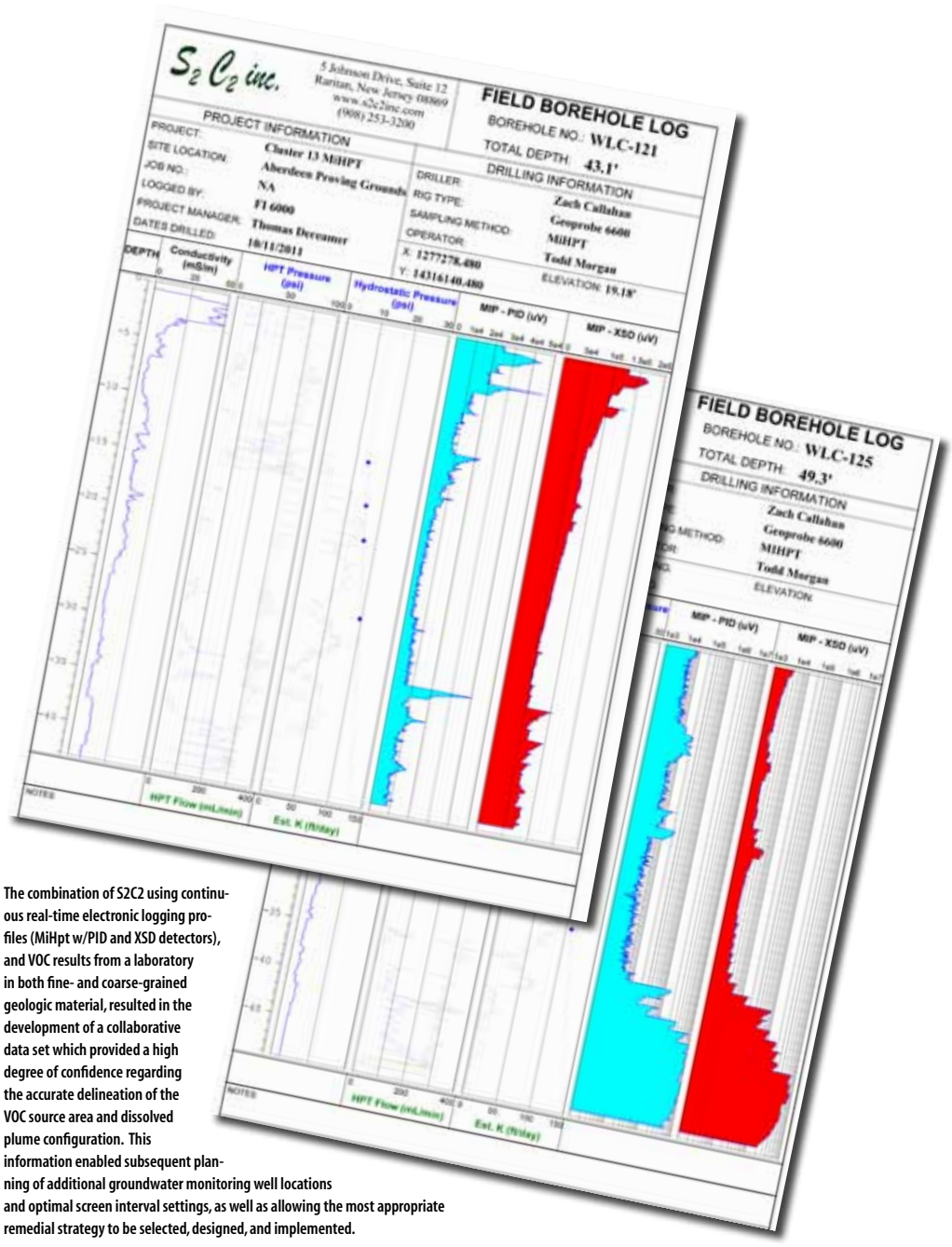
First Commercial Application of New Direct Image® MiHpt Logging Tool

S2C2 in New Jersey puts the new combined MIP/EC/HPT Probe to the test, and the results prove the new tool is a winner.

S2C2, Inc. of Raritan, NJ, was scheduled to perform an MIP [Membrane Interface Probe] logging project that would include subsequent HPT [Hydraulic Profiling Tool] logging at offset locations. So S2C2 approached the Geoprobe® Direct Image® department with an offer: Would Geoprobe Systems® consider allowing them to beta test the new MiHpt probe, then under development, on this project? "The project was a good fit for us," stated Tom Christy, Geoprobe® DI group leader. "Clearly the consultant on the project realized they had a need for the permeability information of the HPT probe in addition to the VOC log from the MIP. Plus we have a high degree of confidence in S2C2 as field operators. The timing was just right. Our DI research team had done extensive logging with the new MiHpt tool ourselves and now we needed to see how our clients did with it."

S2C2, under contract to Sovereign Consulting Inc., deployed the new MiHpt logging system in October 2011 at the Aberdeen Proving Grounds (APG) in Maryland. The work, performed under contract with the APG Directorate of Public Works, Environmental Division, took place at the U.S. Army Garrison, Cluster 13 Site. Cluster 13 contains shallow groundwater which has been impacted by chlorinated volatile organic compounds (VOCs). The groundwater was impacted during the 1950s from the Army's use of solvents in decontamination and laundry operations performed after chemical warfare-related testing and training activities.

Tom DeReamer, Senior Geologist with Sovereign, suspected that a majority of the contaminant mass was bound up in the low permeability silt/clay zones underlying the site. However, past EC [Electrical Conductivity] surveying data was unable to provide the level of stratigraphic detail required to define these zones due to the unresponsive nature of the site-specific silt/clay materials to the EC probe. "The addition of the HPT to the MIP provided such a high level of detail," Tom said, "that our theory regarding the relationship between contaminant distribution and stratigraphy was proven correct." The direct



The combination of S2C2 using continuous real-time electronic logging profiles (MiHpt w/PID and XSD detectors), and VOC results from a laboratory in both fine- and coarse-grained geologic material, resulted in the development of a collaborative data set which provided a high degree of confidence regarding the accurate delineation of the VOC source area and dissolved plume configuration. This information enabled subsequent planning of additional groundwater monitoring well locations and optimal screen interval settings, as well as allowing the most appropriate remedial strategy to be selected, designed, and implemented.

S2C2 used their 7822DT and 6620DT (not pictured) supported by a six-wheel-drive Gator® for the direct sensing project in Maryland.

image logging results obtained from the MiHpt (i.e. stratigraphy, relative VOC concentrations at depth, and subsurface permeability), provided the necessary information to meet the site characterization objectives. "Our previous use of the EC tool alone was, at times, inadequate in determining the thickness of inter-fingered sands and silts," he added, "but the combination probe using the HPT component proved to be extremely useful in determining both the vadose zone and aquifer hydraulic characteristics."

With the use of the S2C2 7822DT and 6620DT machines, supported by a six-wheel drive Gator®, "the required logging depths to 45 feet, where thick clay was encountered, was easily achieved in extremely difficult areas to access," added Todd Morgan, Vice President of S2C2 and lead of the company's direct sensing field team. The S2C2 field team performed standard quality assurance testing between MiHpt log locations to ensure that the various sensors were operating properly and would provide high-quality reliable data. Follow-up SP22 groundwater sampling and MC5 soil sample collection with subsequent laboratory analysis was used to verify the VOC log from the MIP (MIP-XSD).

The HPT component of the MiHpt probe enabled S2C2 to log the permeability of the underlying unconsolidated sediments. Zones of low HPT pressure were found to correlate with sands while zones of high HPT pressure correlated with clays. The HPT accurately identified higher permeable zones (sands and gravels) where groundwater samples were collected and subsequently allowed well installation with appropriate pre-determined well screen intervals for each location.

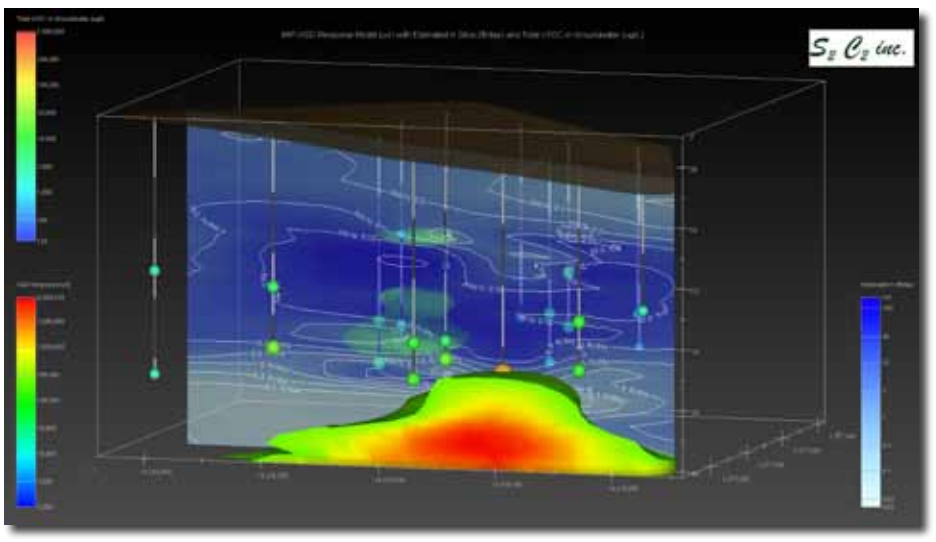
Todd Morgan (left) and Zach Callahan use the new MiHpt logging tool at a residential site in New Jersey.

The HPT capability identified the low permeability zones, and combined with the MIP (PID/XSD) data and laboratory verification results, indicated that the highest VOC concentrations were found to be present within the less permeable, fine-grained material (silts and clays).

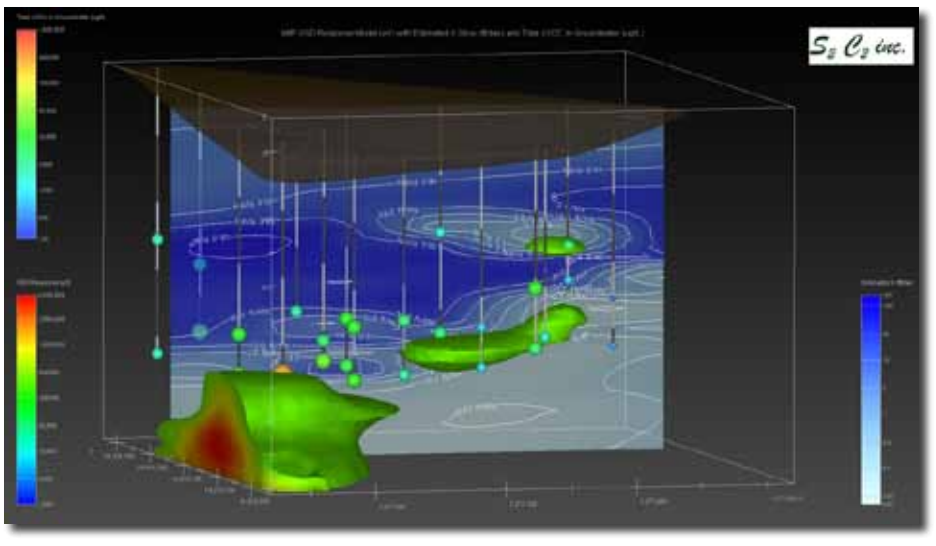
Based on the HPT results, two out of 17 locations were determined to be 'dry holes' thereby eliminating the installation of ineffective groundwater monitoring wells at these locations. "The confirmed accuracy of the borehole logs with MiHpt eliminated the need to conduct standard soil sampling during conventional well drilling activities," Todd said, "saving our client time and money."

The S2C2 direct sensing team for this project included Zach Callahan, Tom Koester, and Todd Morgan. Doug Koehler, Geoprobe® Customer Service and Direct Sensing Specialist, was on-site to observe and support the S2C2 team during the first commercial application of the MiHpt logging tool.

S2C2 was pleased with the reliability and performance of the new MiHpt probes, trunklines and logging system. They have continued to use the combined probe on a number of projects following their initial project described here. Several members of the S2C2 team have predicted that a time will come when the vast majority of their MIP projects will be performed with the MiHpt probe.



S2C2 presented the MiHpt and associated groundwater quality data to Sovereign as a 3D visual image with the use of C-Tech Development Corp's Mining Visualization System software. The addition of HPT-generated estimated K values enabled the S2C2 direct sensing team to achieve a much more complete and accurate understanding of subsurface site conditions and contaminant distribution. (above) 3D color map showing distribution of contaminants in the formation based on XSD detector response. Red means high concentration. Blue means low concentration. (below) 3D color map showing distribution of hydraulic conductivity in the formation based on HPT Est. K log. Red means high hydraulic conductivity. Blue means low hydraulic conductivity.



One Push. One Probe. Multiple Results For Direct Push Logging.

Geoprobe Systems® announces the latest direct push logging tool ...
the ***Direct Image® MiHpt Probe***.
The MiHpt is a combination probe that can perform
MIP, HPT, and EC measurements in ONE push with ONE probe.

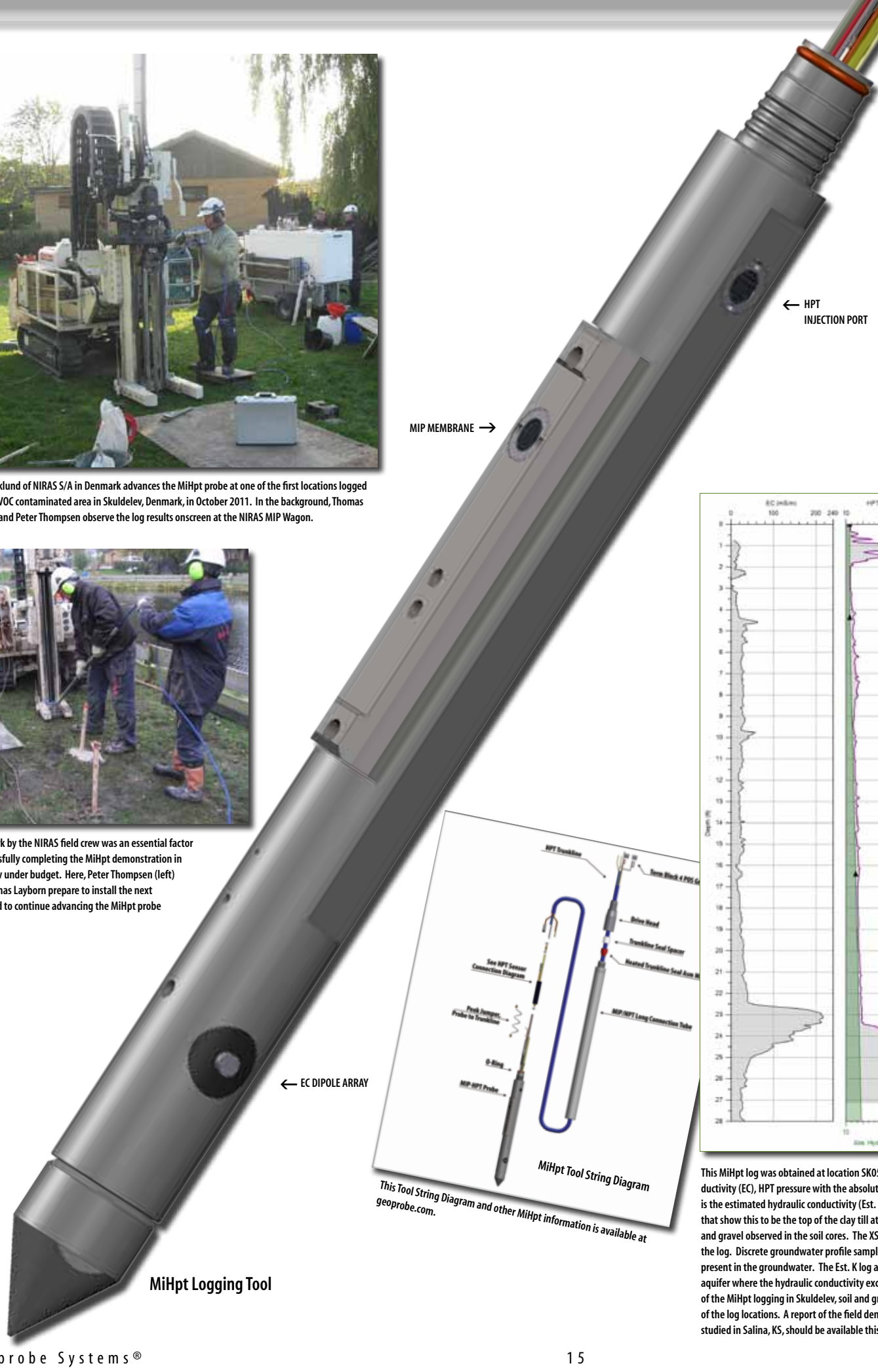
The new MiHpt probe detects volatile contaminants with the MIP (Membrane Interface Probe), measures soil electrical conductivity with a standard (MIP) dipole array, and measures HPT (Hydraulic Profiling Tool) injection pressure using the same downhole transducer as the Geoprobe® stand-alone HPT system. In post-processing the log data with Geoprobe® DI Viewer software, the user is able to estimate hydraulic conductivity (K) and water table elevation, as well as prepare graphic outputs of the log data.

The MiHpt probe has undergone extensive testing in the U.S. and in Denmark, both by the Geoprobe® Direct Image® engineering team and as beta releases with field users.

The new tool is currently available as a 1.75-in. (44.5 mm) OD probe (MH6530) for deployment with Geoprobe® 1.5 in. (38 mm) rods. An MiHpt probe for deployment with 2.25 in. (57 mm) rods will be released in the third quarter of 2012.

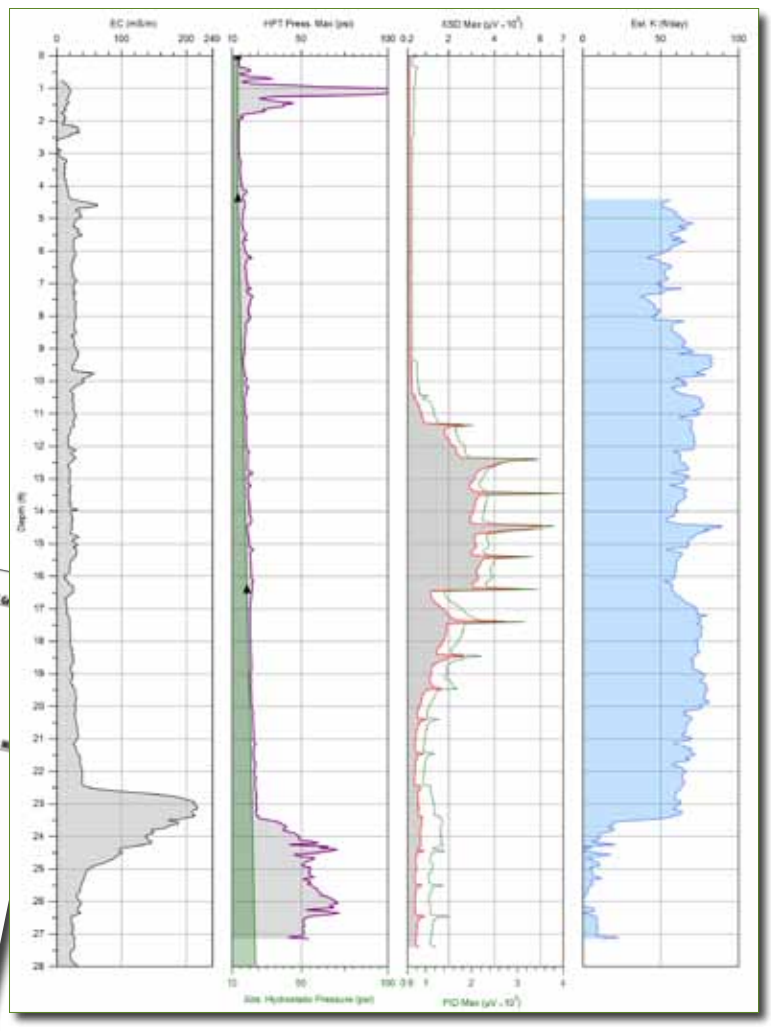
Martin Eklund of NIRAS S/A in Denmark advances the MiHpt probe at one of the first locations logged at the X-VOC contaminated area in Skuldelev, Denmark, in October 2011. In the background, Thomas Layborn and Peter Thompsen observe the log results onscreen at the NIRAS MIP Wagon.

Teamwork by the NIRAS field crew was an essential factor in successfully completing the MiHpt demonstration in Skuldelev under budget. Here, Peter Thompsen (left) and Thomas Layborn prepare to install the next probe rod to continue advancing the MiHpt probe to depth.



Peter Thompsen (left) and Thomas Layborn of NIRAS S/A in Alleroed, Denmark, review the MIP detector results and HPT pressure log onscreen as the MiHpt probe is advanced. Having the HPT pressure log along with the detector results is useful in understanding how the lithology controls contaminant migration.

This Tool String Diagram and other MiHpt information is available at geoprobe.com.



This MiHpt log was obtained at location SK05 in Skuldelev, Denmark. This is typical log layout with (l to r) electrical conductivity (EC), HPT pressure with the absolute hydrostatic pressure line, XSD and PID detector responses, and at far right is the estimated hydraulic conductivity (Est. K) log. The HPT pressure increases at about 23.5 ft. correlating with soil cores that show this to be the top of the clay till at this location. Above this the low EC and HPT pressure agree with the sand and gravel observed in the soil cores. The XSD and PID detectors display elevated response between about 10 to 20 ft. in the log. Discrete groundwater profile samples across this interval found that PCE, TCE, c-1,2-DCE and vinyl chloride were present in the groundwater. The Est. K log allows us to see that the contaminant plume is moving in the coarse-grained aquifer where the hydraulic conductivity exceeds 50 ft/day. Down gradient receptors would be at risk. After completion of the MiHpt logging in Skuldelev, soil and groundwater samples were collected at targeted intervals adjacent to several of the log locations. A report of the field demonstration results for the Skuldevel site, as well as two initial test sites studied in Salina, KS, should be available this fall at geoprobe.com.

It's Safety First for EPI Field Operations

Contributed by Tony Pressimone, Operations Manager
Environmental Probing Investigations, Cream Ridge, NJ

Tony Pressimone, Operations Manager
Environmental Probing Investigations

Safety. Safety. Safety. Signs of its importance are everywhere you look and its one of the first topics that comes up when I speak to most of our clients these days. Our management team at Environmental Probing Investigations (EPI), firmly believes that the safety of our employees, the public and our clients cannot be compromised by our operations. For this reason we will always place safety ahead of our production goals. If a job cannot be accomplished safely, it will not be done. That's why EPI believes that no project can be considered a success without each of its employees returning home safely each evening to a warm meal and the television remote.

Because we're in the drilling industry and because of the type of equipment we operate, the importance of safety and complying with today's standards is why we've partnered with Geoprobe Systems® for our field equipment. Geoprobe Systems® has stepped up to the next level on the safety ladder as they engineer safety into each rig while it's still on the drawing board.

A.J. Benjamin, Rig Operator for Environmental Probing Investigations, installs 70 ft. deep 2 in. monitoring wells using the 7822DT.

As the Operations Manager for EPI, I value the progressive approach of implementing safety features Geoprobe Systems® has taken while manufacturing their rigs. Because of my several visits to Geoprobe® HQ in Kansas, I know that the engineers that design the rigs also field-test them, and then use them in the field after the rigs leave the company's assembly area. They know what we need in the field.

Last year, EPI purchased its fourth track-mounted rig, a Geoprobe® 7822DT. As the rig rolled off the delivery transport, we immediately noticed all of the Emergency Stops (E-Stops) integrated into the rig's design. Based on a thorough understanding of the equipment and associated control systems, Geoprobe® engineers placed five E-Stops at key locations on the rig where operators might be working. There's an E-stop on the control panel; one on the tethered remote, and one is located at each of the leading corners of the engine compartment. The most visible E-stop is a safety pull cable mounted adjacent to the control panel. The proper placement and ease of access of these E-stops helps ensure the safety of the people and machinery by delivering a consistent and predictable fail-safe response. Because the E-stops are easily accessible, anyone near the rig ... the rig operator, driller's assistants, or even a client ... can immediately shut down all functions of the rig should an emergency arise.

Vic Rotonda, Geoprobe® Customer Service for the Mid-Atlantic Region, unloads EPI's fourth Geoprobe® rig, a 7822DT.

The 7822DT also has numerous internal safety features working behind the scenes each time you energize the rig. Those features were designed to make servicing the unit easier and safer, to monitor the hydraulics and filtration systems, to provide maintenance warnings, and to monitor hydraulic oil temperatures, just to name a few.

At EPI, our culture of safety has been driven by our managers and our own in-house safety professional that constantly assess and improve our safety processes, training, and communication. Having a safe work site is extremely important, not only for the safety of our own personnel, but also for our clients and the public. This proactive teamwork approach eliminates accidents and injuries, and improves the total performance of the entire company.

(above) The 7822DT rig operator has easy access to the E-stop (red) on the machine's control panel. A new integrated electronic diagnostic system provides numerous display screens to provide real-time diagnostic feedback to the rig operator. (right) A very visible E-stop (red) with cable is located next to the rig operator's work space, accessible to trip for any emergency during operation.

Mike Santore (left) and A.J. Benjamin install monitoring wells for SHAW Environmental in Burlington County, NJ. The cabled E-stop, next to the control panel, can be accessed by either worker.

The commitment of Geoprobe® to design and manufacture equipment with quality and safety built into each unit has made it a pleasure to own and operate their rigs. And our newest unit, the 7822DT, does not disappoint. It's easy to see how robust this rig is when we perform our daily rig inspections. The commitment to continually improving their product line and the support they give us is why EPI chooses Geoprobe® products.

SAFETY First!

- Locate ALL Underground Utilities Before You Dig
- Properly Service Your Geoprobe® Rig
- Train All Rig Operators on Safe Operation of Rig and Tooling
- Read Owner's Manual for Your Geoprobe® Rig
- Provide Field Team with Personal Protective Equipment (PPE)
- Keep Public Away from Work Site
- Work Smart! Take No Unnecessary Risks

Standard PPE (Personal Protective Equipment) Gear for the Field: Hard Hat, Steel-toed Work Shoes, Eye and Ear Protection, and Gloves.

Geoprobe® Customer Service Team: (l to r) Kenny Thompson, Roman Burrows, Todd Ewing, Doug Koehler, Brian Rogers, Darren Stanley, Lori Christensen, Greg Johnson, Todd Courbot, Lee Shaw, Bryan Lorenson, Tony Bowell, Quinton Wilson, Joyce Smith, Vic Rotonda, Dave Ernst, Tom Omli, John Martinuzzi, Michelle Dunlap, and John Froome.

Customer Service: It's What We Do Best

Random thoughts from the Over-Active Mind of Tony Bowell, Geoprobe® Customer Service

Tony Bowell
Geoprobe® Customer Service

It could be argued by a non-biased person, such as me, that the Geoprobe® Customer Service Team, that I'm a member of, stands head and shoulders above the rest of the people at Geoprobe Systems®. No, not because of our sharp intellects or our stunning good looks. It's because we stand on the shoulders of all the great people throughout the company! The privilege of being ambassadors of our company and interacting with you is something we take seriously. Being on the frontlines we are often reminded of why we do what we do.

We're at our best when we know who you are and what you need. We're driven by the objectives of the company, but we're truly inspired when we are face-to-face (or phone-to-phone) with the end users of our products.

For example, we know that Rob has a UPS guy that stacks liners in Rob's garage when he's out in the field, so we ship Rob's orders via UPS to achieve the best result for Rob. And there's Jesse. Knowing that he took a huge risk starting a business with a wife and young children at home emphasizes the value of having someone in his area to help with choosing the right machine and tooling to win bids.

We know that John works alone and loves to take time off to ride his bike. We can help John design a complete system (machines and tools) and stock all of his tooling from one source. Every trip he eliminates walking back and forth to his work trailer is one more time he gets to ride down a trail somewhere.

Meet Adrianna Larabie. She was born January 25, 2012. Her parents are Marques and Angela, and her dad works for Aquifer Drilling and Testing in Bloomfield, CT. This is one of the reasons we do what we do at Geoprobe Systems®.

Having a powerful customer data system is critical when you understand that Marques just had a beautiful baby girl. You see, little Adrianna doesn't yet understand that 'night time' is 'sleeping time,' so Dad may not remember the right part number the next morning! We're there to help.

We also know that Dennis is a dreamer! He's always thinking outside the box. So when he asks for more inches of stroke from a cylinder to make running augers easier, we see his vision instead of feeling criticized. His comments are shared with our engineering team, and by doing so, a key feature of a better line of equipment is realized.

And when Willie says, "Baby, send me the same stuff as last time ... in a hurry!", we know he needs a pallet of prepacked well supplies to keep multiple crews running. The supplies arrive there quickly and protected so installation for his guys goes smoothly.

Speaking of leaving here, how about the crew that picks, packages and ships every piece of tooling and equipment that leaves Geoprobe® HQ? Our Distribution team is a wonder of efficiency! To do this, John Froome keeps a good supply of boxes, a calm demeanor, a few reliable fulltime workers, and a steady stream of part-time workers and students to get the job done. The steady stream of part-timers is necessary because, quite frankly, in our haste to get orders processed, we sometimes ship the part-timers in the boxes! (I, myself, have been shrink wrapped to a pallet of liners when walking through the area. It was pretty traumatic.) Those guys are fast! The only thing that slows them down is a good snack tray or a kettle of campfire blueberry cobbler from Todd Ewing in Service.

Lee Shaw (left), Geoprobe® Customer Service, and John Grider, SES Environmental in Ft. Wayne, IN, share an appreciation for John's G & L SC3 electric guitar.

And the guys in Service.... They're equal parts Engineer, Mechanic, Faith Healer, and Hostage Negotiator. They can diagnose an issue over the phone and talk you through the repair without skipping a beat. They can also talk you down off a ledge when you thought all was lost. They are true 'difference makers' to crews in the field by keeping those almond and black beauties purring along.

"To be an asset to our clients." It's been one of our company's objectives for 25 years. We talk about it every week. So it only makes sense to keep the names, faces, and stories attached to the word 'clients' so we can walk (or run) with you during our next 25 years. Who knows ... maybe little Adrianna will someday stand at the rig controls operating a Geoprobe® of the future!

Lisa Doan, Sr. Project Geologist with Superior Environmental Remediation in Mishawaka, IN, keeps us posted on her 'kids', Ben (left) and Lucy, both Belgian Malinois. Both are rescue dogs. Ben was rescued from a hoarder in Ohio, and suffered from a number of injuries, including a ruptured globe on his right eye. Lucy just joined the family in March. Lisa recently drove a partial leg of a rescue transport which placed three dogs in new homes, including Ben.

And so it goes for the Customer Service Team. Vic Rotonda gets to help a young family reach a dream. Lee Shaw helps to free up a guy to ride his bike. And Kenny Thompson gets to send "that thing" to a crew in the field ... the exact part they needed.

Every part. Every tool. Every machine. They all end up with a person away from the Geoprobe® campus. Sometimes that's you. Our job and our pleasure, as the Geoprobe® Customer Service Team, is to get to know you and to make your road tomorrow less bumpy. You go home earlier in the evening because we've done our job right, and we drive home to kids who think we've saved the world ... all because you've chosen to do your job with us.

Todd Ewing, Geoprobe® Customer Service, with a kettle of campfire Blueberry Cobbler.

Thank you!

Hurricane Destroys A Sea Wall Along Connecticut Coastline

Versatility of 7822DT helped field team collect critical data so repairs to an important sea wall could begin immediately.

Hurricane Irene and a full moon were a nasty combination for the Atlantic coastline last August. The coastline of Connecticut was hit especially hard due to a full moon high tide occurring at the same time the hurricane blew ashore. A massive tide surge destroyed the sea wall on Long Island Sound in Branford, CT.

In the wake of the hurricane, American Environmental Assessment Corp. of Hartford, CT, took to the beach with their new 7822DT to help evaluate the sea wall. The 7822DT proved to be a great tool to the design team that needed to quickly identify the depth to competent rock so repairs could get underway.

The compact size of the 7822DT and its tracked undercarriage allowed the American Environmental field team to drive along the bulkhead and operate right on the beach. "We only had to be on the site for one day," said Dirk Barry, Northeast Regional Manager for American Environmental. "The versatility of the 7822DT allowed us to drive right along the beach. A conventional rig would have needed to lay tracking pads and could have taken weeks to collect the data the engineers needed right away."

The field team had a short timeframe to complete the work, so only being on site for one day was a huge advantage to the project and the citizens of Branford. Structural engineers were able to put together an emergency design plan so repairs were completed before other storms arrived. Without an intact storm wall, the town of Branford is very susceptible to damage from even a minor storm.

American Environmental utilized 2.25 in. rods and the DT22 sampling system to obtain cores and find competent rock which was at 8- to 40-ft. below grade surface. Thirty to 40 samples were collected in just a few hours. Floyd Cross was the lead driller for the American Environmental field team.

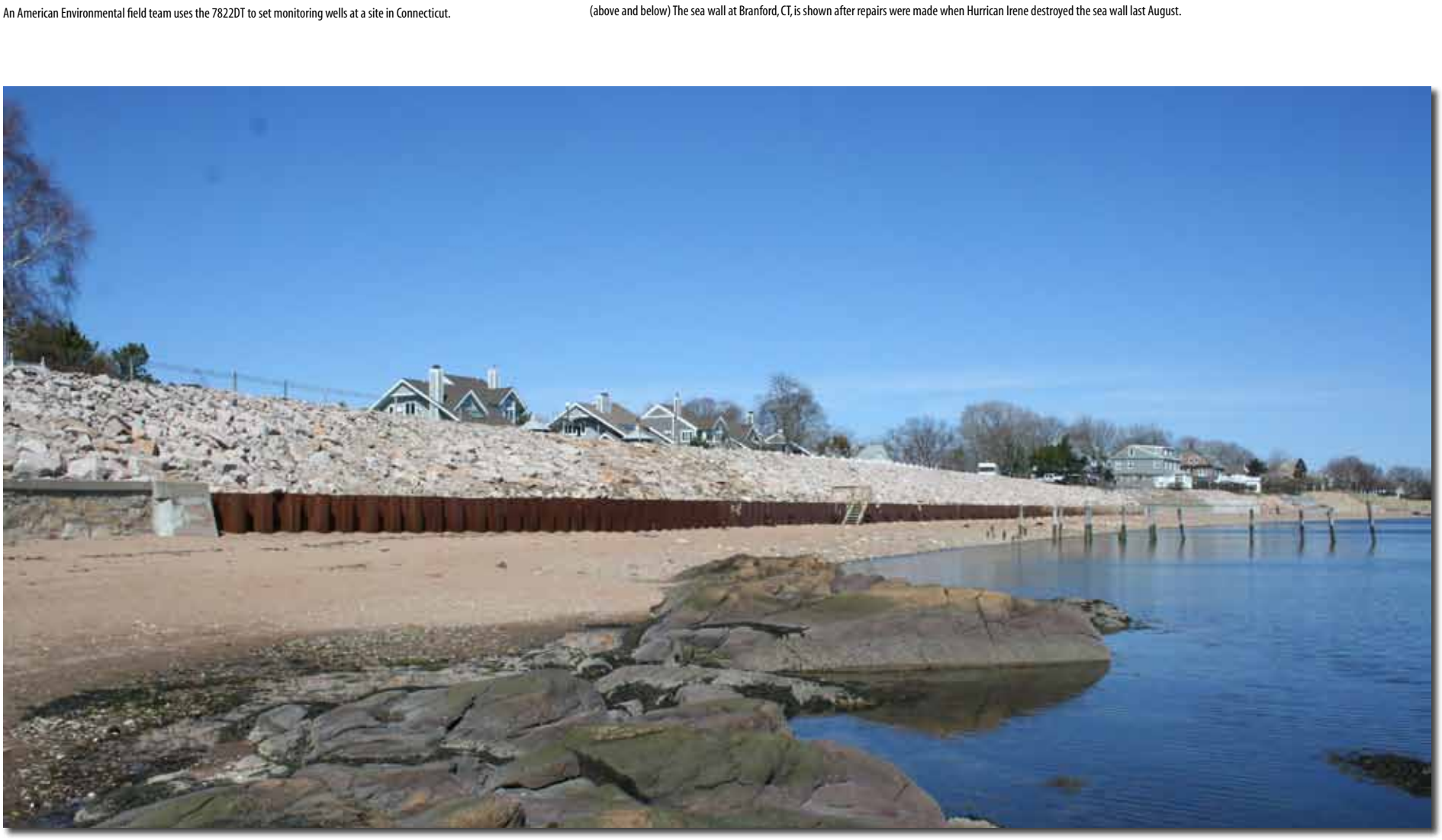
"The 7822DT made an otherwise difficult project just another day at the beach for us," Dirk added. "I've worked with Geoprobe® rigs since the early 90s, and recall working with the first 5400 truck unit in Connecticut. Since then I've utilized two 54 LTs, two 5400 pickup units, a 7730DT, and now the 7822DT. Perhaps it time for an 8000 series rig?"

Hurricane Irene first made landfall on Puerto Rico and maintained hurricane-force winds for nearly a week, at one point reaching 120 mph. Over 50 deaths were attributed to the storm. Damage in the U.S. alone was estimated at nearly $7 billion.

The 7822DT, with Floyd Cross, Driller for American Environmental, at the controls, took DT22 samples along the destroyed sea wall in Branford, CT. The task was to identify the depth to competent rock so repairs to the wall could be designed and constructed in a short amount of time. Because of its compact size and light weight, the 7822DT was able to drive along the beach without laying tracking pads unlike conventional drill rigs.

An American Environmental field team uses the 7822DT to set monitoring wells at a site in Connecticut.

(above and below) The sea wall at Branford, CT, is shown after repairs were made when Hurrican Irene destroyed the sea wall last August.



7822DT "Practically Runs Itself!"

"Since taking delivery of our 7822DT, our machine has been in near constant operation on both environmental and geotechnical projects around the Chicagoland area. The 7822DT has been used extensively on the O'Hare Modernization Project, one of the largest construction projects in the country at one of the world's busiest airports".

Anne Leslie, Owner and President, Raimonde Drilling, Addison, IL

Dave Breede, Drill Operator for Raimonde Drilling, works at a location where a light-weight and portable drill rig was requested by the client. The project was completed without disturbing the riverside park's natural grasses and mature foilage.

"From the very beginning, the Raimonde group was eager and receptive to learning the in's and out's of the 7822DT," Lee Shaw, Geoprobe® Customer Service, said. "Since delivery, they've pushed the envelope to become very efficient with their field work, and have become very proficient in the field."

Anne Leslie, Owner and President of Raimonde Drilling in Addison, IL, said since purchasing the rig, it has been in "near constant operation on both environmental and geotechnical projects around the Chicagoland area. The versatility of the machine has enabled us to meet our clients' sampling needs; so much so that they now request our Geoprobe®."

Raimonde Drilling has used the 7822DT extensively on the O'Hare Modernization Project in Chicago, one of the largest construction projects in the country at one of the world's busiest airports. The modernization project included the addition of two new runways, the extension of an existing runway, construction of several enabling projects, and construction of a new Western Terminal facility.

According to Anne, the DT325 sampling system has partnered well with the 7822DT, especially because of the rig's ability to efficiently turn hollow stem augers in a single mobilization. "The ability of the unit to perform multiple tasks in a single mobilization has allowed us to reduce our client's time and expenses," she said. "We've also been able to reduce impact to the sampling locations."

Because of the compact size and power of the 7822DT, the Raimonde field team has been able to sample in hard-to-reach locations to depths up to 60-ft., obtain both environmental and geotechnical soil samples, obtain in-situ groundwater samples, and install groundwater monitoring wells.

Drill operator Dave Breede said not only is the 7822DT easy to use, "it practically runs itself! And the customer support staff at Geoprobe Systems® is responsive and very knowledgeable about the equipment. Some repairs have been diagnosed over the phone which really helps us keep the machine operational and making money for us."

Dave added, "The versatility and mobility of the 7822DT are invaluable on heavy construction projects with time-critical schedules, and for projects that require sampling in hard-to-reach or environmentally-sensitive areas." His field team appreciates the convenience of the rod carrier system. "Our operators can move tooling without unnecessary physical lifting."

Dave also likes the hydraulic liner extruder, one of the many options available for the 7822DT. "The liner extruder minimizes downtime and eliminates the frustration of a stuck liner."

For you trivia buffs, O'Hare airport was named after Edward O'Hare, the U.S. Navy's first flying ace and Medal of Honor recipient in World War II.

Young Michigan Engineer Designs New Geoprobe® Rig

Stevie Govan, New Hudson, MI, budding engineer and designer, appears with his LEGO 8040STV rig.

(above) Stevie Govan (brown jacket) works with his brother, Will, while their dad, Dean Govan uses an 8040DT to install a backup well at the family home.

(right) The Govan family, circa 2008 (l to r) Dad Dean, Will, Stevie, Benjamin, Mom Suzy, Adam, and Audrey.

Geoprobe® Machine Engineers have been left scratching their heads based on reports of a new Geoprobe® rig entering the market. Michigan news sources report that the developer of this new machine, a young man working with a long-time Geoprobe® customer, appears to have a great future ahead of him in the engineering world.

The 8040STV is named after its young designer, Stevie Govan. Made entirely with LEGOs, the first prototype went to the field in March of 2012 right under the nose of a Geoprobe® representative who was, at the time, meeting with the designer's father! Insiders say the 8040STV is modeled after Stevie's father's Geoprobe® rig, an 8040DT. Dean Govan, Stevie's dad, owns GeoServ in New Hudson, MI, and provides environmental and geotechnical services to area clients.

The 8040STV retains much of the same standard equipment plus many options of the 8040DT, including swing-out control panel, rubber tracks, drop rack system, overhead winch, probe rods, and side-shift hammer.

Stevie turns 11 this July, is in the 5th grade, and enjoys designing and building things. Our Geoprobe® representative says Stevie is a great guy, likes working with his hands, and is preparing his resume to submit to Geoprobe® HQ. So it appears the Geoprobe® machine group can relax and look forward to his arrival in a few years.

Stevie worked alongside his dad on a project where he was extremely helpful with unloading supplies, mixing cement, cleaning up the work site, and providing companionship for the long drive home. It seems the highlight of the job for him was stopping at his cousin's house on the return trip and taking home a kitten to live with the family.

We think Stevie will be a great addition to the Geoprobe® team at some point in the future. We look forward to seeing his next project.

Congratulations, Stevie!
Great Job!!!

The 8040STV was made by Stevie Govan, New Hudson, MI. Steve designed and assembled the rig in approximately one hour using LEGOs.

Selected for its compact size and dependable power, Darin Bromley (left) and Ryan Roodbol, with Direct Push Services in Salt Lake City, use the Geoprobe® 7730DT to collect soil cores and install temporary piezometers at over 400 locations for a mineral exploration company.

Mineral Exploration Sampling in Utah Lake Bed Sediment

Direct Push Services, LLC, based in Salt Lake City, UT, was contracted by a mineral exploration company to collect continuous soil cores and install 1-in. temporary piezometers at over 400 locations. The piezometers were set to a maximum depth of 70 ft. The work area consisted of a 30-mile radius of lake bed sediment, primarily soft saturated clays, with lake water depths up to 2 ft.

Phase I of the project took place in the lake bed sediment area in the saturated clays. A 6600 rig, owned by Direct Push Services, was removed from the truck carrier and mounted on a heavy-duty Sno-Cat® trailer that was pulled behind a heavy-duty diesel Sno-Cat® with 5-ft. wide tracks.

Phase II consisted of collecting soil cores and setting wells in the lake area that still contained water (typically 3 in. to 2 ft. in depth) with several mud bars throughout the lake area. Marsh air boats were used to transport the crew to and from the drill locations each day. A larger airboat/barge with four engines that powered fans was built for transporting the Geoprobe® rig to each location. These barges were also used as the deck for drilling activities. "We used our 7730DT and 66DT," added Chad Russell, Co-Owner of Direct Push Services, "for sampling and setting wells in the shallow water and soft clays."

Phase 1 work was completed in 30 days, working ten days on and four days off. While working on the water during Phase II, the field crew switched to six days on and one day off for an additional 40 days.

"The work was completed quickly and effectively because of the hard work of all individuals involved," Sean said, "and because of the skill and professionalism of our rig operators, Darin Bromley and Ryan Roodbol. Because of their innovative design, we were able to use three different Geoprobe® drill rigs that we have and rely on the features of each rig to get the entire project completed."

A marsh airboat was used to maneuver the 66DT in areas of the lake that still contained water; typically 3 in. to 2 ft. in depth. The field team collected soil cores from the lake bed sediment and installed small diameter temporary piezometers throughout the 30-mile radius of the lake.

Direct Push Services removed their 6600/BP power unit (above right) from its truck carrier vehicle and mounted it on a heavy-duty Sno-Cat® trailer which was pulled behind a heavy-duty diesel Sno-Cat® with 5-ft. wide tracks (above left).

The Sno-Cat® configuration was used to transport the rig between locations and to provide a working base for the Direct Push Services field team members. The company's 7730DT was also used. "We also simultaneously used our 7730DT and the 6600 configuration in these areas to speed up the installation process which enabled us to enter difficult areas only accessible with tracked equipment," said Sean Bromley, Owner of Direct Push Services.

(left) Ryan Roodbol (left), Darin Bromley, and Dusty Swant use the 7730DT to collect continuous soil cores from the lake bed while sampling through shallow depths of water. The rig is carried on a marsh airboat for the project while core samples were taken and temporary piezometers were installed at over 400 hole locations. (above) Field team members: (l to r) Ryan Roodbol (seated), Dusty Swank, Clay Smith, Darin Bromley, Verl King and Trevor Pulham. Two marsh airboats were used to transport the 66DT and 7730DT across the lake bed. While working on the water, the field team encountered wind, rain, and snow with temperatures ranging between 50 degrees to below freezing.

You've Come A Long Way, Baby!

What a difference 25 years makes! The first Geoprobe® machine, an 8A (right) in 1988 with Tom Christy, Vice President of Geoprobe Systems®, is a testament from where Geoprobe Systems® has come. The 8A had 12,000 lb. of pull compared to today's 8040DT's retraction force of 80,000 lb. The 8A pushed 3-ft. long, 1-in. probe rods "to typically over 30 ft." Now, 10 in. casing, up to 10 ft. in length, is used with our sonic rigs. The 8A was impressive at the time; not so much now, though. But it was the seed, the beginning of Direct Push Technology, and the first step in the development of new generation machines currently manufactured by and available from Team Geoprobe®. Many of you have partnered with us for a long time, and for that we're grateful. For the newer Geoprobe® owners, we're glad to have you on the team. It's enjoyable to reflect upon and remember the past, but we have our sights set on the road ahead. We invite you to join us for the ride!

8A ▲
First Model

8140LS ▲
(Long Stroke)
Rotary Sonic

8140LC ▲
(Low Clearance)
Rotary Sonic

◀ 8040DT
(Direct Push & Rotary)
High-Capacity, Combo Rig

7822DT ▲
Compact. Powerful.

7800 ▲
Truck-Mounted

◀ 6712DT
Easily Transportable

6622CPT ▲
CPT Platform

54LT ▲
Shallow Sampling

540MT ▲
Limited Access

420M ▶
Unique Applications

Minimizing Major Service Questions

> "It was very valuable for our employees to learn the trouble shooting and maintenance tips that you provided. Hats off to the Geoprobe® team for putting on a very professional and informative training session."
>
> Kevin Heinrich, Field Supervisor
> Major Drilling Environmental, Huntsville, AL

Thirteen Major Drilling Environmental field and maintenance staff and drillers from offices in Alabama and Oregon attended a Geoprobe® Service Training Session to hone service skills for their fleet of Geoprobe® 8140 Rotary Sonic rigs. The Geoprobe® Service Resource Center team led the two-day event and also brought in Geoprobe® research and development engineers for specialized product training.

"Our goal," explained Todd Ewing, Geoprobe® Service team member, "was to reduce downtime for the Major Drilling guys, to educate them to be better troubleshooters when a problem arises, and to help us provide better support for them. Now we know everyone is 'speaking the same language' during service calls!"

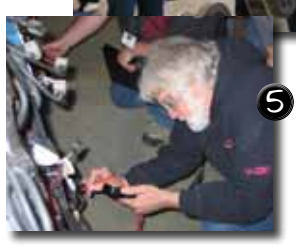
"The training was very valuable for our us," said Kevin Heinrich, Field Supervisor for Major Drilling Environmental from the Huntsville, AL, office. "Our goal was to reduce downtime and unnecessary costs in the field. This was beneficial not only to Major Drilling and Geoprobe Systems®, but also to all of our clients as well."

Session topics covered basic hydraulics, system electronics, using the rig's integrated electronic diagnostic system on the control panel, servicing accessory pumps and rig components, and changing out the GV4 Sonic Head.

"It was also great to meet all of the Geoprobe® emploees who continually help us when we have challenges in the field or when we just need information," Kevin added.

Service Training information is available by contacting Darren Stanley, Geoprobe® Service Director, at 1-800-436-7762.

Major Drilling Environmental employees from the Sherwood, OR, and Huntsville, AL, branch offices (with the Geoprobe® Customer Service Team) are: (l to r) Ken Gobell, (Bryan Lorenson, Quinton Wilson, Ryan Kejr) Nick Moreno, Jeremy Ray Wesley Casteel, Matthew White, Steven Gautney, Haz Huntoon, Tyler Hayworth, Kevin Heinrich, Steve Zimmerman, Jeffery Johnson, Kaleb Charters and David Dickenson (Darren Stanley and Todd Ewing).



1. Todd Ewing (orange shirt), reviews service check lists for routine maintenance that included where fluid levels are checked, the location of grease points, how to take oil samples, and suggested service intervals. 2. Brian Rogers (black jacket), leads Hydraulics 101 and explains the location of 8140 components and what they do. 3. Bryan Lorenson (kneeling, orange shirt), explains the use/location of fuses and relays on the 8140. 4. Brent Kejr, Geoprobe® Design Engineer, discusses the steps involved with replacing the GV4 Sonic Head. 5. Kevin Heinrich, from Major's Huntsville office, checks wire continuity on the live wiring harness display. 6. Quinton Wilson, Geoprobe® Customer Service, dicusses different rig operations, cold and hot weather operations, angle drilling, and transportation options of the 8140 rotary sonic. 7. Quinton Wilson, Geoprobe® Customer Service, demonstrates new tooling available for the 8140 Rotary Sonic rigs. 8. Jeffrey Johnson (left) and Kaleb Charters, from Major's Sherwood office, change the packing in the rig's water swivel.

Ryan Kejr, Geoprobe® Product Development Engineer, provides an overview of the 8140 Rotary Sonic monitoring system and the electrical diagnostic abilities of the entire machine that simplifies electrical trouble shooting ... all displayed from the rig's integrated control panel. Kevin Heinrich (center), Wesley Casteel, and Matthew White, representated the Huntsville branch of Major Drilling Environmental.

Call Darren Stanley, Geoprobe® Service Director, at 1-800-436-7762 for more information about scheduling a Service Training Session for your company.

(l to r) Darren Stanley, Brian Rogers, Todd Ewing, Bryan Lorenson, Roman Burrows

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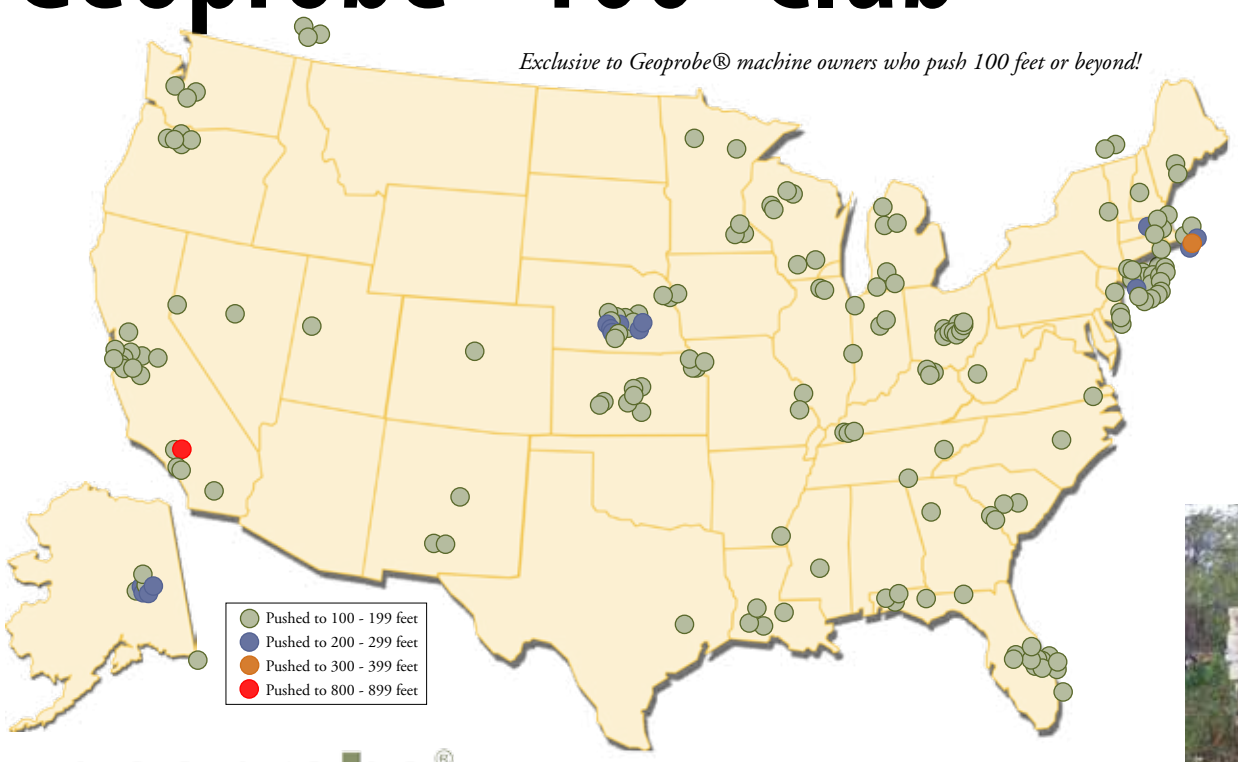

geoprobe® 100 club

100 feet

ERNCO – Canada

--- FIELD NOTES ------
Field Team: (l to r) **Jordan Wiggins and Jordan Ernst**
Depth/Date: **100 feet / February, 2012**
Geoprobe® Owner: **ERNCO, Sylvan Lake, AB, Canada**
Field Data: **Model 8040DT. Air rotary. Encountered several lenses of rock-like material, 5-6 ft. thick.**

110 feet

Stock Drilling – Michigan

--- FIELD NOTES ----------
Field Team: (l to r) **Austin Goldsmith and Jacobe Bacome**
Field Site: **Ft. Custer Military Base, Battle Creek, MI**
Depth/Date: **110 feet / October, 2011**
Geoprobe® Owner: **Stock Drilling, Ida, MI**
Field Data: **Model 7822DT. 1.5 in. rod and SP16 Groundwater Sampler.**

--- FIELD NOTES ----------
Field Team: (l to r) **Paolo Ciucci, MIP Field Geologist from INFOGEO and Massimo Squarzino, Operator from IST**
Field Site: **Italy**
Depth/Date: **117.65 feet / August, 2011**
Field Data: **Model 7822DT. Large and deep MIP project.**

117.65 feet

INFOGEO and IST – Italy

127 feet

JFA Geological & Environmental – Puerto Rico

--- FIELD NOTES ----------
Field Site: **Maunabo, Puerto Rico**
Depth/Date: **110 feet / October, 2011**
Geoprobe® Owner: **JFA Geological & Environmental, Puerto Rico**
Field Data: **Model 7730DT.**

180 feet

Terratest Environmental Pty Ltd. – Australia

--- FIELD NOTES ----------
Field Team: (l to r) **Dan Jones and Nic Hopson**
Field Site: **Kapooka, NSW, Australia**
Depth/Date: **180 feet / November, 2011**
Geoprobe® Owner: **Terratest Envrironmental, Sydney, Australia**
Field Data: **Model 7822DT. Soil and groundwater sampling using MC5, surface conductor casing, and 4-in. down hole hammer.**

geoprobe® 200 club

277 feet

--- FIELD NOTES ------
Field Team: **Zack Simantel (Geotechnician) & Ken Tullar (COO & Director)**
Field Site: **central Nevada**
Depth/Date: **202-277 feet / various dates**
Geoprobe Owner: **Nevada Exploration, Sparks, NV**
Field Data: **6600. SP16 Groundwater Sampler and 1.5 in. tooling. Most recent event was 202 ft. on March 9, 2012.**

The *Probing Times* is the official newsletter of Geoprobe Systems®. Suggestions for future newsletter articles or submission of information are encouraged.
Call Gayle Lacey at 1-800-436-7762 or email probingtimes@geoprobe.com.
An online version of the newsletter is available at www.probingtimes.com

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New Rig Information!
New Tool String Configurations!
Announcements of Events
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Grab a cup of coffee and check out the new look of the Geoprobe® website. Updates nearly every day to keep you informed. We want to keep you ahead of the competition and in-the-know about all of the updates coming from Geoprobe Systems®.

It May Be A Bulk Purchase But Customer Service Comes With It Every Time!

Tony 'Bulk' Bowell
Geoprobe® Customer Service

Sometimes Tony 'Bulk' Bowell, Geoprobe® Customer Service, really gets wrapped up in his work! He wants all Geoprobe® customers in the U.S. to know about the 'pallet-load' of savings they'll enjoy when purchasing liners in bulk. He also wants you to know that every bulk shipment that leaves Geoprobe® HQ includes our special brand of customer service you just don't get anywhere else. Once you call Tony, he'll give you a quote ... in a matter of minutes ... that includes delivered price and expected time of arrival, which is typically just a few days.

Most orders are shipped the same day he receives them.

According to Tony, "There's real value in knowing in advance the cost of consumables for quoting jobs. You probably won't go through a pallet of liners in a few days, but it's nice to know that the bid you put out there two months down the road will be profitable because you have accurate information regarding product and delivery costs."

If you haven't been participating in the Geoprobe® Bulk Purchase Program you're missing out ... and wasting money!

Tony's the guy to contact at 1-800-GEOPROBE.

Call him today for more information or a quote.

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