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Fall, 2003

EXCITING TIMES / EXCITING YEAR! H-R BEGINS THIRD DECADE!

Message from the President

My message in our Fall 2002 newsletter started with the lines "these are exciting times at H-R. Our young NY/NJ office is bubbling with business, and we expect that office will continue to grow." For once, I got it right. We started with one geophysicist in our first satellite office in 2001. Soon we will have four geophysicists in that office, and we may make that five before the year ends. For a small company like H-R, these are exciting times indeed.

In fact, this has been the best, most exciting year in H-R's history. I know, that adjective is overworked. On one hand, our income climbed by more than 40% in 2003, an astounding figure for these tough economic times. On the other hand, the increase in project work has presented challenges in trying to staff the firm sufficiently to meet the growing needs of our clients.

Therein lies perhaps an even more exciting aspect of the year – watching H-R's wonderful existing staff members unfold their wings to embrace new growth, new responsibilities and adding new staff with the right stuff: talent, tenacity, and timbre. The new staff members have not only blended in seamlessly, they enhance our strengths and boost our capabilities. Read more about them inside.

*We've also reorganized to distribute the project management load a bit more broadly. **Jim Coffman** and **Steve Grant** were promoted to Senior Geophysicists, joining **Mark Kick** and **Jeff Reid**. They all naturally interact closely to keep work flowing smoothly. In addition, **Jim Coffman** transferred to New Jersey to head H-R's operations there.*

There is another major, I suppose exciting, milestone to note as well. This fall, H-R began its 20th year in business. That fact is simply hard for me to believe. We are always learning something new. We are always approaching a new threshold. We are always getting just a bit better. Bottom line – I still look forward to coming to work every day.

*Yes, H-R has come a long way, and yes, it has been quite a trip ... one might even call it exciting. We have not traveled alone, however. We are where we are because of the stimulus, impetus, and opportunity that you, our clients, provide in the increasingly complex geoenvironmental, geotechnical, and geo-archaeological projects that come our way. Come along and join H-R on an exciting geophysical journey into our third decade. **Call us!***

Cordially,

*Dorothy Richter
President*

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New Growth, New Responsibilities

Everyone at H-R has worked a lot harder and a lot smarter this year because the level of project work simply required us to respond appropriately. It was a case of fly or flee, and I am proud to say that the H-R staff chose not only to spread their wings to fly, but to soar. **Jim Coffman** and **Steve Grant** were promoted to Senior Geophysicist, and are smoothly writing more proposals and reports and managing more projects than before. **Jim Coffman** also transferred to New Jersey to anchor and lead H-R's office there. Senior Geophysicists **Mark Kick** and **Jeff Reid** each had more than his share of challenges this year. Geophysicists **Mohammed Hayat** and **Alexis Martinez** carried several critical projects and assumed new responsibilities in project management as well. **Bill Desmarais**, our CAD Operator, took on new guidance responsibility with the addition of a second CAD person to help keep up with the graphics output. **Lyn Mercer**, our Office Administrator, keeps up with the growing staff, growing client base, and growing growth without ever losing poise. **Gene Simmons**, Vice President, is our Energizer battery, showing by example that we can just keep on going, and going, and going . . .

H-R's Big Dig Staff Still Digging Their Project

We just do not get to see our four dedicated Big Dig staffers often enough and, in fact, they do not get to see much of each other either. They work at three different locations in Boston and each, in his/her own way, is helping keep the Big Dig on track. **Carl Gruszczak**, a geophysicist by training (and at heart), works downtown with the **BSC/Cullinan Joint Venture**, which provides survey management services for the Bechtel/PB team managing the entire project. **Caroline Devost**, Survey Task Manager, and **Mike Ryan**, CAD and Survey Support and also a

geophysicist by training, work in a Back Bay Big Dig project office of **Cullinan Engineering**, which provides various engineering survey services for the Project. **Jim Walsh**, Instrumentation Technician, works in the Project's engineering offices near Chinatown. All of them keep in touch, especially with **Lyn Mercer**, and remain dedicated to their important roles on Boston's Central Artery Project. We are proud of every contribution they make.

New Staff With the Right Stuff

Okay. I hinted that we have added some pretty good new staff members this year. I was not kidding. H-R warmly welcomes and is pleased to introduce:

Suzanne LeFrançois, a Geophysicist based in our Salem, New Hampshire headquarters. Suzi has a B.A. in Geology from the University of Pennsylvania and an M.S. in Geosystems, an interdisciplinary degree from the Massachusetts Institute of Technology. Suzi's masters thesis, bridging geotechnical engineering and geophysics by using GPR to evaluate foundation & groundwater conditions of historic buildings in Boston's Back Bay, seemed 'right up the alley' for some H-R projects. Suzi's strong field and computer skills have made her an instantly vital member of the H-R team.

Robert Garfield, a Geophysicist based in our Orange, New Jersey office. Rob received a B.S. in Geology from Bucknell University. Rob's undergraduate thesis involved analysis of some pretty sophisticated borehole geophysical logging, including acoustic televiwer logging. Since H-R has had several large ATV and other borehole geophysical logging projects this year, Rob made an ideal candidate to join the H-R team. He has plunged into field work and data processing for surface and borehole geophysical surveys with a natural feel for the technical aspects of geophysics and a critical eye for detail.

Oren Hunt, Jr., a CAD Operator/Field Technician based in our Salem, New

Hampshire office. Oren has been working with **Bill Desmarais**, our CAD Operator, on streamlining our CAD operations when he has not been in the field assisting with geophysical surveys. Oren's true love, however, is participating in revolutionary war era battle re-enactments as a field medic – and sometimes not merely pretending to tend to wounds. It's a good thing that he is also a certified EMT!

José Carlos Cambero Calzada, a Geophysicist to be based in our Orange, New Jersey office. José Carlos is joining H-R in December after he arrives from Spain, where he has worked for 13 years as a senior staff member of an international firm specializing in engineering geophysics. José Carlos has a degree in Mining Engineering from the Madrid School of Mines and impressive experience in applied geophysics for tunnel projects and in karst terrain. He brings H-R additional expertise in crosshole seismic tomography as well as a new perspective on surface and borehole geophysics for geo-engineering investigations.

If you have not used H-R for your geophysical needs before, just think about the exceptional caliber of our staff. Then *call us!*

H-R in the Big Apple

New York City has been the location of several projects for H-R this year. The largest project has been to provide geophysical services for the preliminary design of the 2nd Avenue Subway for **DMJM Harris • Arup JV**. H-R has conducted acoustic televiwer logging (ATV) in dozens of boreholes up and down 2nd Avenue, drawing more than a few puzzled stares from passersby. That project will also involve conducting GPR surveys in some of the existing rail and subway tunnels that cross the 2nd Avenue subway alignment.

Other work in the Big Apple has included a **Crosshole Seismic** survey at the Tri-Borough Bridge, completing **Downhole Video Documentation** of rock socket conditions in deep drilled shafts at Seven World Trade Center, **Borehole Geophysical**

Logging at a variety of privately owned facilities, a **Seismic Reflection** survey in the Bronx Zoo, a **GPR** survey to search for voids under the foundation of historic Federal Hall on Wall Street, a **GPR** survey to map rebar in a large retail facility, and more **UST** and utility location surveys using **GPR** and Precision Utility Location (**PUL**) methods than we can easily count. In the pipeline are a **seismic refraction survey** to determine depth of bedrock in Manhattan, **borehole geophysical logging** and hydraulic fracturing in the Bronx, and **GPR/PUL** surveys at several large sites in Manhattan.

The seismic reflection survey in the Bronx Zoo naturally had to be performed at night after the zoo closed to the public, but we thought it funny when the aviary zoo-keepers told our field crew, **Jeff Reid** and **Suzi LeFrançois**, to postpone work at one location to another night because they had forgotten to tell the birds that we would be working there.

Gene Simmons gave an invited presentation, "Seeing into the Subsurface of New York City with Geophysical Methods," to 150 or so project managers at the **NYC Department of Design & Construction** at one of their DDC Talks in July. He returned with a handsome movie-like poster made for the talk by DDC that we framed and now hangs in our foyer.

In the Big Apple, Boston, Baltimore, or the back forty anywhere, H-R is ready to help you look good to your clients. There is no better time than now to *call us!*

H-R & the Historians & Archaeologists

Everyone at H-R loves to work on projects with historic and archaeological interest. We have had the privilege to work at some notable landmarks, including the Statue of Liberty, the Vietnam Veterans Memorial, the Jefferson Memorial, and the Bunker

Hill Monument. This year, we worked at Federal Hall National Memorial, at the site where George Washington was sworn in as President. **Jim Coffman** and **Alexis Martinez** 'bent over backwards' to conduct a GPR survey, part of which was in a sub-basement about 4' high.

During the summer, **Jim Coffman**, **Alexis Martinez**, **Rob Garfield**, and **Mohammed Hayat**, used multiple geophysical methods to survey sections of a large potters field in Secaucus, New Jersey for **The Louis Berger Group**, whose archaeologists investigated the site for the New Jersey Turnpike Authority. The potters field is located where a new turnpike interchange is to be built. Over 3000 sets of human remains were to be disinterred and re-interred at another location. The devotion and tender care with which the Berger archaeologists treated the remains and their personal artifacts were breath-taking.

Back in New England, H-R conducted GPR surveys in some historic cemeteries and again at the Lexington Battle Green, where a PBS crew filmed **Mohammed Hayat** at work near the Buckman Tavern. Look for H-R in an episode of *The American Experience* sometime in 2004.

Also in New England, **Dorothy Richter** found herself facing a paneled-room full of historians and history buffs when she gave a seminar at the Massachusetts Historical Society on the environmental history of the use of building stone in Boston. Boy, talk about a tough crowd.

Whether searching for artifacts of the past or preparing a site for its future, there is no doubt that you should *call us!*

H-R Service Areas

- **Surface Geophysics** – Ground Penetrating Radar (GPR), Seismic Refraction & Reflection, Electromagnetic Induction (EM31, EM61), Resistivity Soundings and Imaging, Magnetism, VLF, Blast/Vi-

bration Monitoring, Subsurface Utility Detection/Designation, and more.

- **Borehole Geophysics** – Borehole Geophysical Logging (ATV, HPPM, Fluid Temp., Fluid Res., Natural Gamma Ray, SP, Normal Res., EMI conductivity, etc.), Borehole Video Logging, Video Inspection of Deep Drilled Shafts, Crosshole Seismic, Borehole Radar, and more.
- **Non-Destructive Testing Services (NDT)** – Piles and Foundations, Void Detection, Rebar Detection.
- **Dimension Stone Testing & Evaluation Services** – ASTM Testing, Failure Analysis, Quarry Evaluations.
- **Litigation Support Services** – Document Review, Consulting, Expert Testimony.

Our Mission

To fulfill our clients' needs in geoscience, using experienced professionals who enjoy their work and are totally committed to quality and professional development.

WBE/DBE Certifications

- New Hampshire DOT
- Vermont AOT
- Maine DOT
- SOMWBA (Massachusetts)
- Mass Highway, MassPort, MBTA
- Connecticut DOT
- Rhode Island Dept. of Development
- Empire State Development (NY)
- New York State DOT
- Metropolitan Trans. Authority (NY)
- The Port Authority of NY & NJ
- New Jersey Dept. of Commerce
- New Jersey DOT
- New Jersey Transit Authority
- Ohio DOT
- Indiana DOT
- Illinois DOT
- Texas DOT

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