

11/1/02-03545

 Geophex, Ltd.

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The Shaw Group  
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Phone (770) 667-7798

Subject: Geophysical Survey, MCB Camp Lejeune, NC Geophex Job#1218

Dear Mr. Brown:

On October 30<sup>th</sup>, 2002, Geophex personnel performed electromagnetic (EM), magnetic, and ground penetrating radar (GPR) surveys at a construction site, on the Marine Corps Base at Camp Lejeune, NC. The originally proposed 150' x 150' survey area was adapted on-site, under the direction of Shaw Group personnel (Mr. Randy Smith). The area surveyed maximized data collection at the eastern end, and adjacent to the northeastern corner, of the existing stormwater management pond excavation.

The magnetic vertical gradient data is shown in Figure 1. This data summarizes the locations of ferrous metal debris buried beneath the surveyed area. Four large targets and three smaller targets have been circled. Standing water at the site prevented detailed GPR analysis of all these targets. Figures 3a. and 3b. indicate the large anomaly in the northern portion of the survey grid to be a hole at least 20-feet wide and approximately 10-feet deep, filled with debris. Diffractions within the debris indicate some cylindrical targets, possibly drums. Similarly, the GPR profile in Figure 3b. shows an individual target that may be a buried drum.

The survey data is presented in Figure 1. rectified to North Carolina State Plane coordinates (NAD 1983).

Please call (919-839-8515) or email ([cmellor@geophex.com](mailto:cmellor@geophex.com)) me if there are any questions regarding this survey.

Thank you for choosing Geophex, Ltd. to perform this work. We look forward to continuing our working relationship with the Shaw Group.

Sincerely,



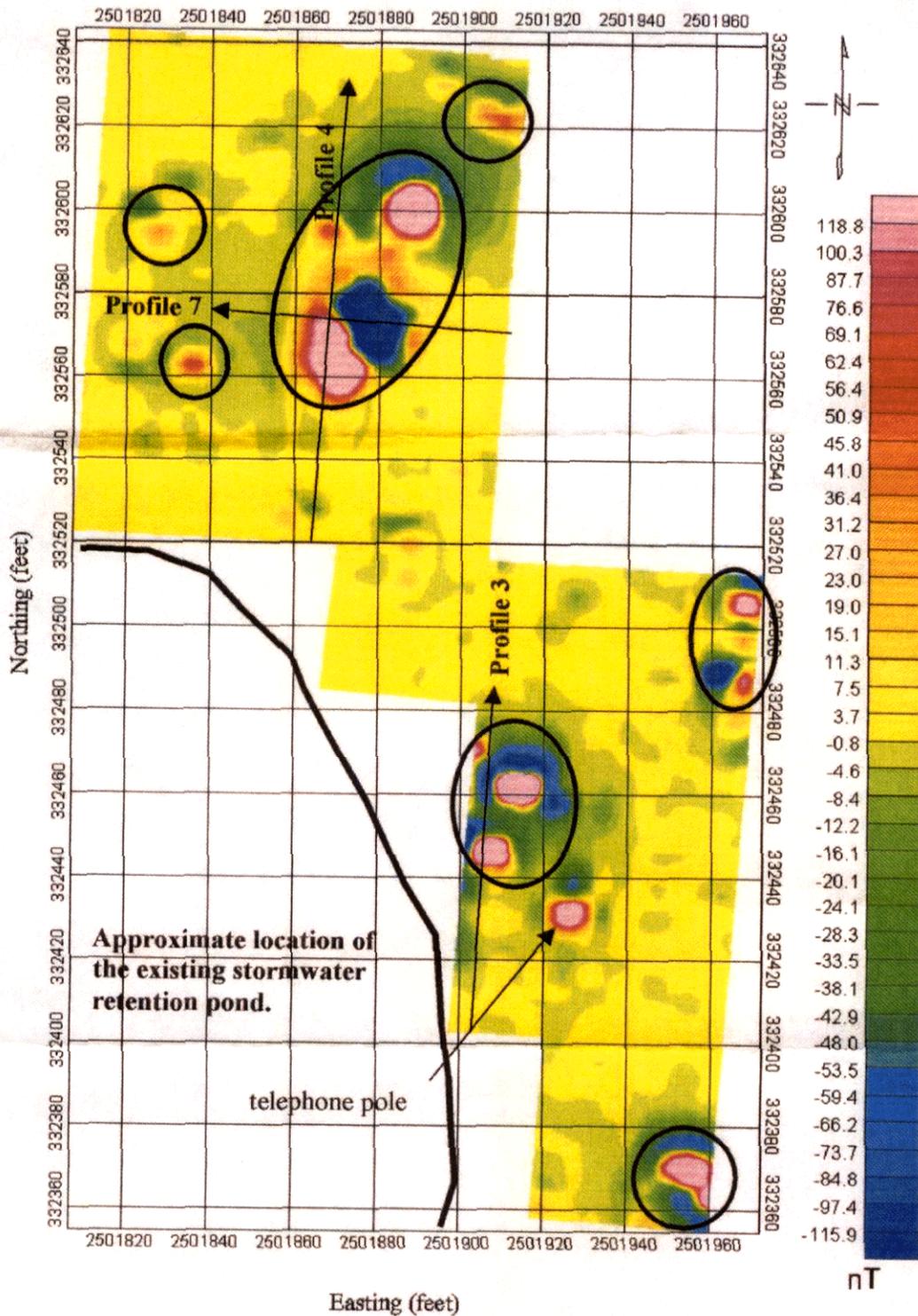
Colin Mellor  
Geophysicist

cc. Mr. Randy Smith

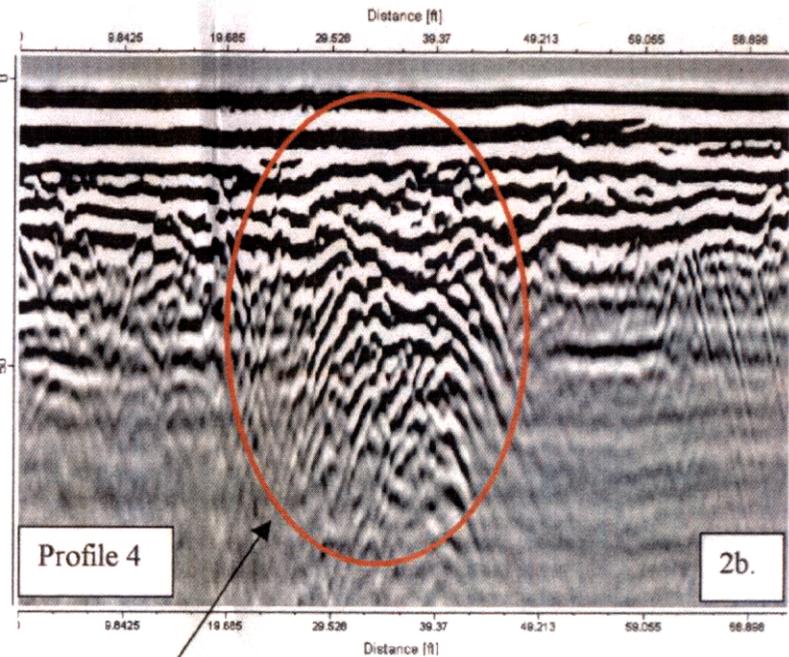
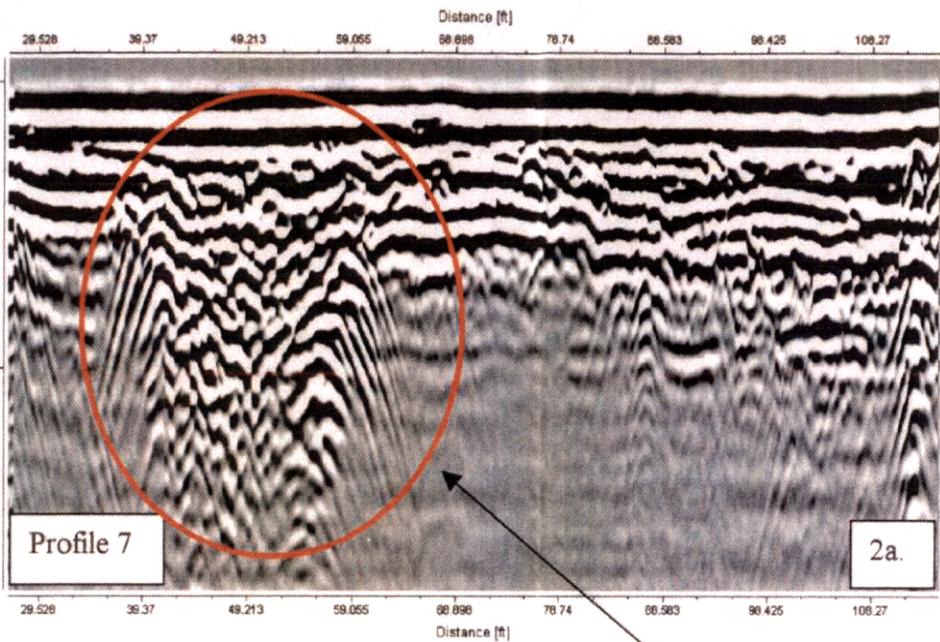
Boston, MA  
(508) 393-4600

Macon, GA  
(912) 929-2827

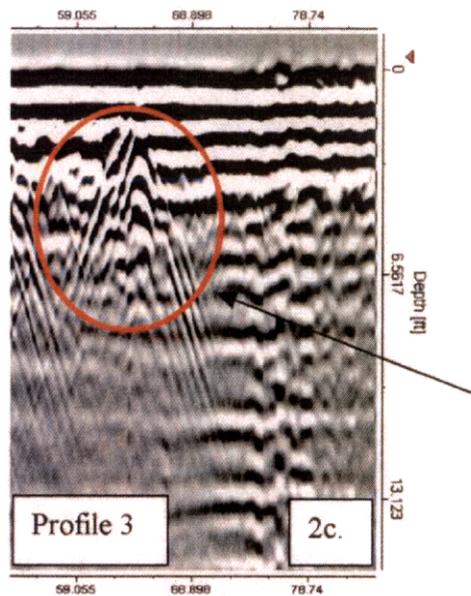
Alexandria, VA  
(703) 548-5300



**Figure 1.** Magnetic vertical gradient data. Four major, and three minor buried ferrous metal targets are circled. GPR profile locations shown in Figure 2 are indicated with black arrows. The survey grid is presented rectified to North Carolina State Plane coordinates (NAD 1983)



Debris filled subsurface hole. Diffractions within the anomaly suggest cylindrical targets, possibly drums. See Figure 1 for Profile locations.



Individual cylindrical anomaly. Figure 1 for Profile location.

Figure 2. Selected 250 MHz GPR profiles collected across anomalies identified in the EM and magnetic data.