Massachusetts Military Reservation
Impact Area Groundwater Study Program

AUGUST 2005 **J-1 RANGE BOUNDARY INVESTIGATION** **FACT SHEET 2005 - 02**

The U.S. Army Environmental Center's Impact Area Groundwater Study Program, in cooperation with the U.S. Environmental Protection Agency (EPA) and the Massachusetts Department of Environmental Protection (MADEP), is conducting an investigation into groundwater contamination at Camp Edwards on the Massachusetts Military Reservation (MMR).

Recent preliminary sampling results from a groundwater monitoring well drilled as part of investigations into an area known as the J-1 Range located near the MMR's boundary with Forestdale showed detections of the explosives compound RDX above the 2 parts per billion (ppb) federal lifetime health advisory. As a result of this detection, off-base monitoring well locations have been selected to help define the nature and extent of the groundwater contamination. Several locations are in the Grand Oak neighborhood in Forestdale.

This fact sheet provides answers to "frequently asked questions" concerning the Groundwater Study Program's investigation in this area.

INVESTIGATION RESULTS

Q: What have you found and where is it?
A: RDX has been found in the groundwater approximately 120 to 170 feet below Camp Edwards. Detections, ranging from 0.34 ppb to 290 ppb, were found in preliminary samples taken during drilling of small diameter wells near the MMR Boundary with Forestdale. A monitoring well, (J1-P33 on attached figure), is being installed at the location of the highest detection, (DP-384 on attached figure), to collect groundwater samples that will help confirm these detections. Contamination may have migrated off MMR, under the area bounded by Grand Oak Road and Grandwood Drive. Thus, our off-base investigation currently is focused in the area southwest of the base. A map showing this area is attached to this fact sheet. All of the homes in this area are connected to town water, which means that their household water comes from a public water supply and not from groundwater beneath their homes.

Q: What is RDX?
A. RDX is an explosive compound used in munitions and identified by the EPA as a drinking water contaminant. The EPA has issued a Lifetime Health Advisory for RDX of 2 ppb. A Lifetime Health Advisory is the amount that could be consumed on a daily basis over a lifetime without having adverse affects.

Q. What is the extent and impact of the contamination?
A. It is too early in the investigation to determine the extent of contamination; however, every effort is being made to determine the scope of the contamination. As the investigation proceeds, precautions are being taken to ensure there is no risk to the public from these detections. There are no public water supply wells located in the path of groundwater flowing from the area of the detections. Homes in the area closest to the detections are connected to town water. We have identified several homes that may have private wells located approximately one mile downgradient of the detections. We have contacted those homeowners for information on their wells and requested permission to sample them, if necessary.

WELL DRILLING IN FORESTDALE

Q. In what neighborhoods are you planning to drill wells?
A. We currently are considering three locations on Little Acorn Lane and Grand Oak Road in Forestdale. A map of the locations is attached to this fact sheet. Groundwater Study Program representatives will coordinate all drilling activities with town officials and will send notices and hold meetings to advise residents in the neighborhoods where drilling is planned. Every effort will be made to minimize the disruption to residents and the neighborhood.

Q. If a well is drilled in my neighborhood, what disruption should I expect?
A. We will try to minimize the disruption to residents and the neighborhood as much as possible; however, drilling will require a drill rig (see photo on p. 2) to be in place for approximately one week during drilling and another week to install the well screens. There will be noise associated with the drilling during the hours of 8:00 a.m. to 5:00 p.m. Other disruptions might include clearing vegetation from the drilling area, lane or road closure and temporary installation of safety fencing. Driveways will not be blocked during installation. After construction is complete, any disturbed areas will be restored to preexisting conditions.

Q. What permanent impacts will there be from monitoring well installation?
A. The finished well will be flush-mounted to have minimal affect on the surrounding neighborhood. It will consist of an eight-inch well cover, which will allow future sampling, mounted in a concrete pad that will measure approximately 2 feet by 2 feet (see photo on p. 2).

Q. Are their any safety issues related to the well drilling?
A. The Groundwater Study Program and their contractors will take all necessary measures to protect the safety of residents and visitors to the neighborhood during the drilling and installation of wells. Safety measures will be similar to precautions taken at any road construction work site. This might include installing a temporary fence around the work area and equipment and closing off a portion of the road. The local police department and department of public works will be advised of the work in the neighborhood. Residents and their children are advised not to enter the construction area at any time.

Q. I would be willing to have a well installed on my property, who should I contact?
A. Contact Jay Ehret of the US Army Corps of Engineers at 508-563-7859 x 186 or 978-318-8186, or one of the contacts listed on this fact sheet for the Groundwater Study Program. They will determine if your property's location is appropriate to provide information for the investigation and discuss other related access issues with you.

PRIVATE WELL SAMPLING

Q: Why are you looking for private wells?
A. We routinely identify and offer to sample residential wells that are located near groundwater contamination or near the path in which groundwater flows from the area of contamination. This helps with the investigation and ensures drinking water supplies aren't being impacted by the contamination.

Q. I have a private well and live in an area that I heard might be affected by the recent contamination discovery. Do I need to have my well sampled?
A. Letters have been sent to those homeowners in the area of our investigation that may have residential wells. If you have not received a letter, you most likely are not in an area that could be affected by the recent detections. However, if you would like to verify this, or you have a well we may not know about, please call one of the contact numbers listed on this fact sheet.

Q: I have received a letter. Could the contaminants you've detected be in the water in a residential well that far from the base?
A: From the location of the contamination and the location of the homes with residential wells, we don't think that is the case. However, we are identifying wells in this area and may request to sample your water to determine the presence or absence of contaminants.

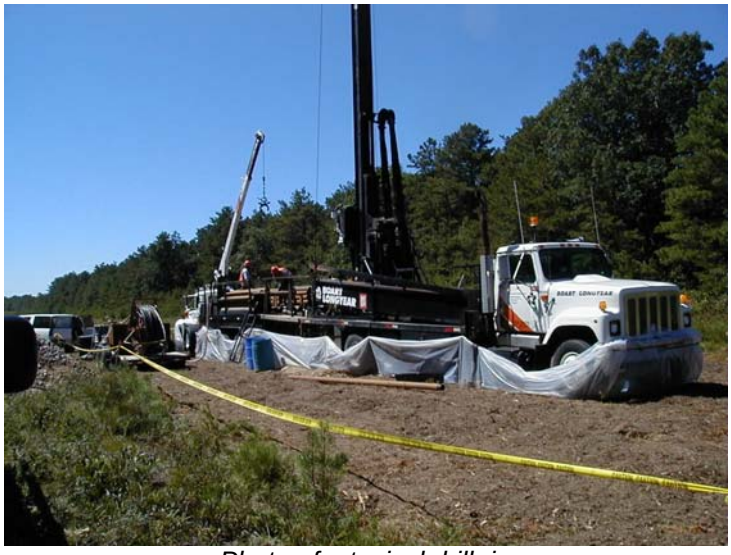

Photo of a typical drill rig

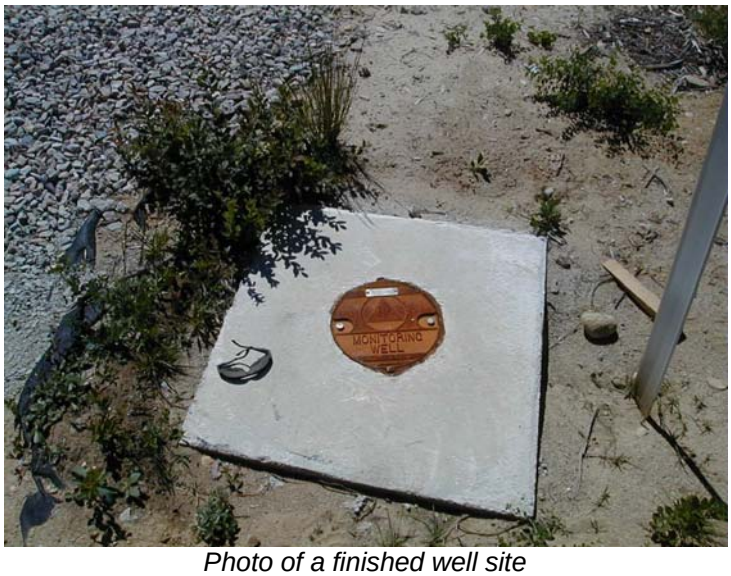

Photo of a finished well site

FOR MORE INFORMATION

Q. Who should we contact regarding questions?
A. We will continue to keep the public informed as we learn more about the nature and extent of contamination in this area. For more information or questions regarding the investigation you can contact:

Impact Area Groundwater Study Program
Kristina Curley, 508-968-5626
Kristina.curley@ma.ngb.army.mil
Or
Pamela Richardson, 508-9685630
Pamela.richardson@ma.ngb.army.mil

U.S. Environmental Protection Agency
Jim Murphy, 617-918-1028
Murphy.jim@epa.gov

Massachusetts Department of Environmental Protection
Ellie Grillo, 508-946-2866
Ellie.Grillo@state.ma.us

Proposed Drilling Locations Southeast of the J-1 Range

FIGURE

DRAFT

Data mapped to UTM Zone 19, map grid units in meters.

JACOBS
Bourne, Massachusetts

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proposed_dp_se_j1_range.mxd
August 16, 2005 Jim Picciuto Checked by Lonnie Fallin

Impact Area Groundwater Study Program

Legend

- Recently Drilled Monitoring Well
- Older Monitoring Well
- Potential Drive Point Location Installed Through Bottom of Existing Monitoring Well
- Recently Drilled Direct Push Well
- Contingent Direct Push Well
- Proposed Monitoring Well
- Contingent Monitoring Well
- RDX SE Ranges Plumes
- Perchlorate SE Ranges Plumes
- Proposed Grand Oaks Neighborhood Drilling Swath
- MMR Boundary
- Geophysical Grid (2)

0 225 450 Feet

Location Map