

Bureau of Water
Geology and Well Technology Section
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Susan Mosier, MD, Secretary

Department of Health & Environment

Sam Brownback, Governor

July 31, 2015

Joshua Boeckmann
Corps of Engineers, KC District
Department of the Army
635 Federal Building
601 E. 12th St
Kansas City, MO 64106-2824

Subject: Waiver Request – Flush-Mount Well Completion of Groundwater Monitoring Wells at the Former Forbes Atlas Missile Site S-2, E 750 Rd, Baldwin City, Douglas County, KS

Dear Mr. Boeckmann,

On July 16, 2015, the Kansas Department of Health and Environment, Bureau of Water (KDHE-BOW), received the above referenced request for waiver for five (5) shallow monitoring wells to be installed at the above referenced site. KDHE-BOW has reviewed the waiver request materials and provides approval to complete the proposed groundwater monitoring wells at grade (flush-mount).

In accordance with K.A.R. 28-30-6(s), please provide a scaled map showing the locations and latitude and longitude coordinates for each monitoring well to KDHE-BOW along with the water well record (WWC-5 Form) for one of the five wells completed under this waiver. Please include information on the flush-mount well completion method in appropriate areas of each WWC-5 Form as well as the name of the approving KDHE contact person.

While requests for waiver to allow less than the minimum grout interval of 20 feet (K.A.R. 28-30-6(b)(1)) are not required if the grout modification is based solely on targeting shallow groundwater, the reason for modifying the grout interval must be indicated on the WWC-5 Forms for the appropriate wells. Information provided in your request adequately justifies the shallow nature of the proposed monitoring wells.

If you have any questions concerning this letter or if you need assistance, feel free to contact me by telephone (785-296-3565), fax (785-296-5509), or email (pchaffee@kdheks.gov).

Sincerely,

Pamela K. Chaffee, P.G., Chief, Water Well Unit
Geology & Well Technology Section, Bureau of Water
Kansas Department of Health and Environment
1000 SW Jackson, Suite 420
Topeka, KS 66612-1367

Copy: File – BOW-GWIS-Douglas County



DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, KANSAS CITY DISTRICT
636 FEDERAL BUILDING
801 E 12TH STREET
KANSAS CITY MO 64106-2824

July 14, 2015

Environmental Programs Branch
Planning, Programs and Project Management Division

Kansas Department of Health and Environment (KDHE)
Bureau of Water – Geology Section
1000 S.W. Jackson, Suite 420
Topeka, Kansas 66612-1367

Ms. Pamela Chaffee:

Submitted for your review is a request for a waiver to allow the installation of flush mount groundwater monitoring wells. The U.S. Army Corps of Engineers (USACE), Kansas City District and its subcontractors will be performing Remedial Investigation activities at the former Forbes Atlas Missile Site S-2 located in Douglas County, Kansas. Field activities are being conducted in accordance with a Work Plan (WP) approved by KDHE and Environmental Protection Agency (EPA). To complete the investigation, 5 shallow permanent groundwater monitoring wells will be installed by a KDHE-licensed Water Well Contractor (KS #597, Steve Johnson). The wells will be placed in the parcels identified in Figure 1 and as depicted on Figure 2. The shallow wells will have a target depth of 30 feet and will have 10-foot screens. The depth of the shallow monitoring wells and screen placement will be determined in the field based on the observed saturated zone in cores to be collected from the well boreholes and the depth of perched groundwater encountered during drilling. Previous studies at this site have measured the shallow groundwater levels ranging from 7 to 9 feet below ground surface (bgs). These conditions will likely result in screens being placed at shallow depths bgs that will not allow for a full 20 feet of grout to be placed in the remainder of the borings. The wells will be grouted from the bentonite seal above the screen and filter pack to approximately 1 foot bgs as shown in Figure 3. If settling occurs after removal of drilling tools, additional grout will be added. The shallow monitoring wells will be completed as flush-mount wells, each with a 8-inch diameter protective cover, a 2-foot x 2-foot square concrete pad, and expandable well plug. The flush-mount installation was requested by the property owners.

Please see the next page for site information. If you have any questions, please contact me at (816) 389-3328 or by email at Joshua.R.Boeckmann@usace.army.mil.

Sincerely,

BOECKMANN.JOSHUA
A.RYAN.1385638406

Josh R. Boeckmann
Project Manager

Digitally signed by
BOECKMANN.JOSHUA.RYAN.1385638406
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