

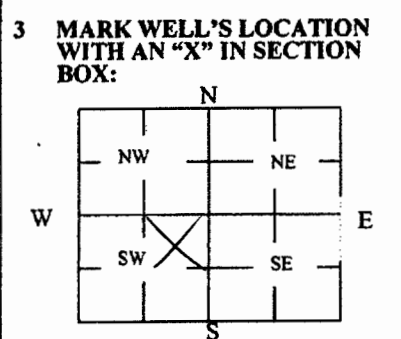
**WATER WELL PLUGGING RECORD Form WWC-5P KSA 82a-1212 ID NO.**

BID-1

**1 LOCATION OF WATER WELL:** Fraction ¼ NE ¼ SW ¼ ¼ Section Number 27 Township Number T 27 S Range Number 18  E  W  
 County: Neosho

Street/Rural Address of Well Location; if unknown, distance & direction from nearest town or intersection: If at owner's address, check here   
Approximately 1.5 miles SE of Downtown Chanute  
**2 WATER WELL OWNER:** City of Chanute  
 RR#, St. Address, Box #: 101 S. Lincoln, PO Bx 907  
 City, State ZIP Code: Chanute, KS 66720

**Global Positioning Systems (GPS) information:**  
 Latitude: \_\_\_\_\_ (in decimal degrees)  
 Longitude: \_\_\_\_\_ (in decimal degrees)  
 Elevation: \_\_\_\_\_  
 Datum:  WGS84,  NAD83,  NAD27  
 Collection Method:  
 GPS unit (Make/Model: \_\_\_\_\_)  
 Digital Map/Photo,  Topographic Map,  Land Survey  
 Est. Accuracy:  < 3 m,  3-5 m,  5-15 m,  > 15 m



**4 DEPTH OF WELL** 21.51 **ft.**  
 WELL'S STATIC WATER LEVEL 12.04 **ft**  
 WELL WAS USED AS:  
 Domestic  Public Water Supply  Dewatering  
 Irrigation  Oil Field Water Supply  Monitoring  
 Feedlot  Domestic (Lawn & Garden)  Injection Well  
 Industrial  Air Conditioning  Other \_\_\_\_\_  
 Was a chemical/bacteriological sample submitted to Department? Yes  No

**5 TYPE OF BLANK CASING USED:**  
 Steel  RMP (SR)  Wrought  Fiberglass  Other (Specify below)  
 PVC  ABS  Asbestos-Cement  Concrete Tile  
 Blank casing diameter 1 in. Was casing pulled? Yes  No  If yes, how much 21.51 feet  
 Casing height above or below land surface \_\_\_\_\_ in.

**6 GROUT PLUG MATERIAL:**  Neat cement  Cement grout  Bentonite  Other \_\_\_\_\_  
 Grout Plug Intervals: From 3 ft. to 21.51 ft., From \_\_\_\_\_ ft. to \_\_\_\_\_ ft., From \_\_\_\_\_ to \_\_\_\_\_ ft.  
 What is the nearest source of possible contamination:  
 Septic tank  Seepage pit  Fuel Storage  Other (specify below)  
 Sewer lines  Pit privy  Fertilizer storage  Landfill  
 Watertight sewer lines  Sewage lagoon  Insecticide storage  
 Lateral lines  Feedyard  Abandoned water well  Oil well/Gas well  
 Cess pool  Livestock pens  
 Direction from well? West  
 How many feet? \_\_\_\_\_

FROM	TO	PLUGGING MATERIALS	FROM	TO	PLUGGING MATERIALS
0	3	Native Soil			
3	21.51	Bentonite			

**7 CONTRACTOR'S OR LANDOWNER'S CERTIFICATION:** This water well was plugged under my jurisdiction and was completed on (mo/day/year) 3/17/2010 and this record is true to the best of my knowledge and belief. Kansas Water Well Contractor's License No. 708. This Water Well Record was completed on (mo/day/year) 7/8/10 under the business name of Aquaterra Environmental Solutions, Inc. by (signature) [Signature]

**INSTRUCTIONS:** Use typewriter or ballpoint pen. Please press firmly and print clearly. Please fill in blanks, underline or circle the correct answers. Send top three copies to Kansas Department of Health and Environment, Bureau of Water, Geology Section, 1000 SW Jackson St., Ste. 420, Topeka, Kansas 66612-1367. Telephone: 785/296-5524. Send one to Water Well Owner and retain one for your records. Visit us at <http://www.kdheks.gov/waterwell/index.html>.

Check one:  White Copy  Blue Copy  Pink Copy

August 2, 2010

Mr. John Venneman  
Public Works Supervisor  
City of Chanute  
101 South Lincoln  
Chanute, Kansas 66720

**COPY**

Re: **Well Abandonment – BIP and PRB Wells**  
Chanute Sanitary Landfill  
Kansas Solid Waste Permit Number 274  
Aquaterra Project Number 2112.10

Dear Mr. Venneman:

On March 17, 2010, Aquaterra Environmental Solutions, Inc. (Aquaterra) abandoned fifteen monitoring wells (BIU-1 through BIU-5, and BID-1 through BID-10) located at the Chanute Sanitary Landfill in Chanute, Kansas. An additional 42 monitoring wells (RBU-1 through RBU-6, RBD-1 through RBD-24, and PRB-1 through PRB-12) were abandoned by Aquaterra on June 23, 2010. This letter briefly summarizes the abandonment activities.

#### **SITE INFORMATION**

The Chanute Sanitary Landfill is located at 2201 E. 14th Street in Chanute, Neosho County, Kansas. The approximate total area of the facility property is 80 acres located in the East ½, Southwest ¼ of Section 27, Township 27 South, Range 18 East. Fifteen Bioremediation Enhancing Injection Point (BIP) wells were installed on the property during pilot test activities completed by Aquaterra in 2002/2003.

A 35-acre low concentration chlorinated aliphatic hydrocarbon (CAH) impacted groundwater plume emanating from the Chanute Sanitary Landfill was discovered in the late 1980s. Based on historical investigations at the site, the impacted groundwater traveled east/northeast from the landfill, and some of the groundwater eventually discharged via riverbank seeps into the Neosho River.

BIP pilot tests began in September 2002, in conjunction with three other remedial technologies aimed at addressing the CAH impacted groundwater plume: Permeable Reactive Barriers (PRB); Landfill Cap Drainage Improvements and Evapotranspiration (ET) - Tree Cap; and, Deep Planted Poplar Trees. In September 2002, five upgradient (BIU-1

through BIU-5) and ten downgradient (BID-1 through BID-10) mini-wells were installed around the BIPs. Based on the results of the remedial pilot testing, the BIP and PRB wells were no longer needed. KDHE requested that the BIP and PRB wells be properly abandoned.

### **ABANDONMENT ACTIVITIES**

Aquaterra performed well abandonment activities on March 17 and June 23, 2010. The City of Chanute provided a backhoe/operator during both events, which was used to remove the PVC casing at wells BIU-1 through BIU-5, BID-1 through BID-10, RBU-1 through RBU-6, RBD-1 through RBD-24, and PRB-1 through PRB-12. The boreholes were backfilled with medium bentonite chips from the bottom of the borehole to within approximately 3 feet bgs and hydrated. Native soils were used to backfill the remaining 3 feet and bring the boreholes flush with the ground, restoring the surface to conform to current property use. Copies of the completed Water Well Plugging Records (Forms WWC-5P) are attached.

Aquaterra appreciates the opportunity to provide environmental services to the City of Chanute. If you have any questions or need additional information, please do not hesitate to contact our office at (913) 681-0030.

Sincerely,

**Aquaterra Environmental Solutions, Inc.**



Anne S. Melia, CHMM  
Project Manager



Susan McCart, P.E., P.G.  
Senior Project Manager

Attachments

Cc: Mr. Scott Yankey, KDHE-BER  
KDHE-BOW, Geology Section