# Kansas Dry Cleaning Program

Semi-Annual Newsletter Fall 2005

## Status of the Kansas Dry Cleaning Facility Release Trust Fund

Fiscal year 2005 was an active year for the Kansas Dry Cleaning Program. Thirteen new contaminated sites were accepted into the Trust Fund for cleanup between July 1, 2004 and June 30, 2005. Even though trust fund sites are on the rise, dry cleaning facility registrations continue to steadily decline. As of August 1, 2005, 144 facilities registered with KDHE, compared to 159 in 2004 and 180 in 2003. The dry cleaning industry continues the trend of consolidation by moving dry cleaning operations to centralized plants and converting some former facilities to drop-off or "dry" stores.

Property transfers often follow dry cleaning facility closures and most lending agencies now require completion of Phase I and II environmental site assessments to determine the environmental condition of the property. The assessments help protect the lending agency and purchaser since they are completing their "due diligence" to determine if the property is contaminated. Phase I assessments are surficial evaluations that research the potential for contamination from substances, such as asbestos, lead, and radon, as well as underground contamination concerns related to past solvent use and waste discharge. Phase II environmental site assessments commonly include sampling of the building materials, indoor air, soil, and/or groundwater to determine the actual presence of contamination. Buyers and sellers alike are finding that lending agencies resist loaning money on contaminated sites unless funds are available for the site cleanup. Many lenders consider the Dry Cleaning Trust Fund a viable funding option for determining if money is available for future cleanup. Most lenders require acceptance into the Trust Fund prior to allowing the transaction to continue. Information regarding the application requirements can be found on our web page at www.kdheks.gov/dryclean/ or by calling KDHE at 785-296-6370.

### 2005 Registration Problems

Facilities not registering by January 31 continue to be a problem. Nonregistration carries a $200 penalty for the first occurrence, $400 for the second occurrence, and $500 for all subsequent occurrences.

### New On-Line Registration Payment Option

KDHE's on-line registration option previously only allowed for payment of the registration fee by credit card. The Web site has now been upgraded for 2006 to allow payment by electronic check. This feature will allow the registrant to pay the registration fee using their bank routing and account numbers. The $100 registration fee will be deducted from the bank account. This is beneficial when owners have separate bank accounts for their business, but no business credit card. A registrant can access the on-line Dry Cleaner Registration Web Page at www.kdheks.gov/dryclean/.

## Major Expenses Upcoming for 2005-2006

KDHE has several major groundwater cleanup projects underway or planned for 2005-2006. The combined cost of two projects in Downs and Hutchinson are expected to exceed $1.5 million. KDHE's contractors are installing a water treatment system in Downs that allows the city to begin reusing their top producing public water supply well. The well had previously been shut down due to tetrachloroethylene (PCE) contamination from a former dry cleaning facility. A granular activated carbon treatment system is expected to cost $450,000 and should be completed in December 2005.

A groundwater contaminant plume in Hutchinson, Kansas continues to challenge KDHE project managers as it shifts from its previous location due to changes in the regional groundwater flow. Changes in nearby land use (e.g. removal or addition of high-producing industrial water wells) can have a great impact on the hydrogeologic conditions at a site,

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### *Kansas Dry Cleaning Industry Loses a Colleague*

John Neal, Hutchinson, Kansas passed away on September 4, 2005. John owned Ineeda Cleaners in Hutchinson from 1969 to 2005. He was instrumental in preparing the legislation for the bill that became the current Kansas Dry Cleaner Environmental Response Act (DERA). John was a valued member of the Kansas Dry Cleaner Technical Advisory Committee that meets with KDHE semiannually to discuss the Kansas Dry Cleaning Program's activities. John often helped other dry cleaning business owners understand the environmental regulations and how the programs could benefit their facility. John is survived by his wife, Darla, and adult sons, Matthew and David.

## Meet the Staff

### Dawit Teclehaimanot - Project Manager

Dawit is a project manager for KDHE with responsibilities in the Kansas Dry Cleaning Program and Landfill Remediation Program. He is a native of Eritrea, which is in Eastern Africa along the Red Sea. Dawit has a bachelor's degree in geology from Asmara University in Eritrea and a master's degree in geology from the University of Missouri - Kansas City. He has experience with geographical information systems and groundwater modeling software. His work ethic and technical experience are very beneficial to KDHE's efforts to clean up our state soil and water.

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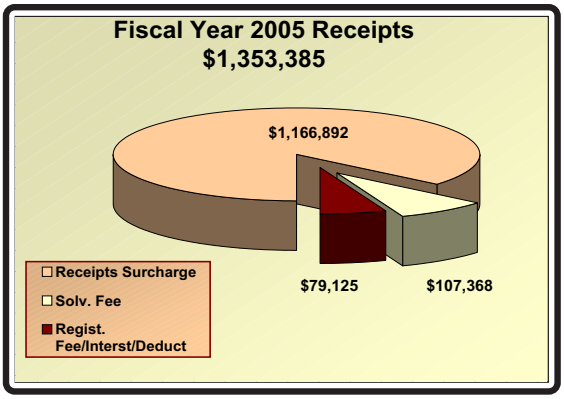
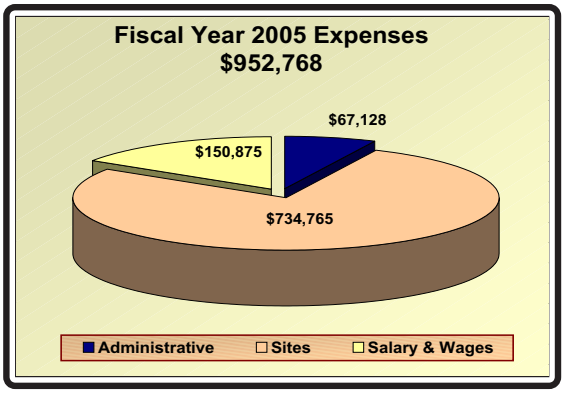
which impacts the contaminant plume. In the late 1990s, a local industry that pumped approximately 2,000 gallons per minute (gpm) of groundwater shut down operations. When its pumps shut down, the regional groundwater flow was drawn to the south by another industry over one mile away from the site. The second industry's groundwater pumping started pulling the PCE-contaminated groundwater toward its pumping wells which caused KDHE to change our design to accommodate the new hydrogeologic conditions. The revised groundwater treatment system will treat up to 500 gpm of contaminated groundwater before reinjecting the water back into the aquifer. The system is anticipated to cost approximately $1 million. The source for this contamination is approximately 2.5 miles from the leading edge of the contaminant plume.

Natural disasters and demand for construction materials over the past 6 to12 months has resulted in an increase of up to 25 percent for groundwater cleanup projects. Metal and plastic prices have risen dramatically due to increased overseas commercialization and recent hurricane damage at refineries in the gulf states. These increases greatly affect KDHE's budgets for remediation sites.




## FISCAL YEAR 2005 RECEIPTS and EXPENDITURES

Receipts for the Kansas Dry Cleaning Program come from a 2.5 percent environmental surcharge, solvent fees, drycleaning facility registrations fees, interest earned by the trust fund, and deductibles for sites in the dry cleaning trust fund. The receipts for fiscal year 2005 (July 1, 2004 though June 30, 2005) are shown on the top graph. The total of $1,353,385 is relatively consistent with previous years' receipts.

Expenses are documented in the bottom graph . The total expenses of $952,768 are slightly below normal spending as KDHE continues to prepare for the costly remediation projects noted on page one. The Kansas Dry Cleaning Facility Release Trust Fund currently has 117 sites with 59 under corrective action. Corrective action is defined as assessing, remediating, or monitoring soil and/or groundwater contamination. Contamination was determined to be below cleanup levels at three sites and therefore no corrective action was required. Remediation of the soil and/or groundwater contaminants has been initiated at 35 sites. Site closure is pending at seven of those sites following additional confirmation sampling.

***Answering Machine Message***

*"Hi, we aren't in at the moment, if you are trying to sell us something please start speaking now and hang up at the beep, everyone else start speaking at the beep and hang up when you've finished."*

# Site Remediation Profile - Former Bentley's Cleaners, Neodesha, Kansas
## Multi-Stage Diffused Bubble Aeration

The Kansas Dry Cleaning Program is constantly looking for cost-efficient methods to remediate groundwater contaminated by dry cleaning solvents. The former Bentley's Cleaners in Neodesha is an example of a site where KDHE needed to evaluate all the environmental concerns in the area prior to designing a remediation system. Neodesha was home to a petroleum refinery which operated from 1897 to 1970. A large petroleum contaminant plume extends from the refinery under a large portion of the City of Neodesha. This plume is within approximately two blocks of the former Bentley's Cleaners. KDHE's task was to ensure a dry cleaning remediation system did not adversely affect the refinery's remediation system. The refinery was installing a pump and treat system to capture the contaminated groundwater. Additional complications are that Neodesha High School is located between the two contaminant plumes and the Neodesha City Swimming Pool is directly over the dry cleaning plume. KDHE needed to contain the dry cleaning plume to prevent the refinery site's remediation system from "pulling" the dry cleaning plume under the school.

KDHE looked at a variety of technologies before deciding to install a pumping well in a collection trench and treating the water using a multi-staged diffused bubble aeration system (MSDBA) to remove contaminants from the pumped water.

Installation of an interceptor trench across the dry cleaning solvent plume was difficult because the trench needed to be installed between a row of large trees and the city pool. Open trenching could destabilize the soil around the pool. KDHE opted to use a continuous one-pass trenching system that allows the contractor to simultaneously excavate the trench, install a well connected to a perforated drain pipe and backfill the trench with pea gravel in one continuous pass (see picture). The trench was approximately 20' deep x 2' wide x 100' long.

The MSDBA system pumps contaminated groundwater from the remediation well through a poly tank and sparges air from a compressor into the tub through numerous perforated small diameter pipes along the bottom of the poly tank. Sparging is similar to blowing air into a glass of water through a straw. The sparging helps strip the contaminants out of the water. Baffles inside the tank help retain the water by limiting the flow through the system. KDHE salvaged the tank and bubbler system from a old gas station remediation site and added new equipment including, a compressor, pumps, flow meters, gauges, and remote monitoring system. Since the system is near a city pool, KDHE added a vapor treatment system to ensure the air in the vicinity of the pool did not contain contaminated vapors stripped from

the groundwater. The remediation components are housed inside a wood building constructed over an existing manhole. The treated water is disposed into the sanitary sewer system. KDHE coordinates the pumping rates for the Bentley's system with the refinery's system to ensure neither site is negatively affecting the other party's contamination. The system has a remote monitoring component since the site is not near any of our consultant's offices. The remote system allows KDHE to use computer software to dial up the remediation system and view system settings such as flow rates and pressure levels. The remote system can notify KDHE via fax machine when a sensor notices a problem and shuts down the system as a precautionary measure. The system has been operating efficiently for over a year while treating approximately 8 to 10 gallons per minute (gpm) of contaminated groundwater.

The installation cost plus start-up was approximately $170,000. KDHE has spent a total of $225,000 to date on the assessment, remediation, and operation and maintenance of the remediation system. The project is a prime example of the type of effort valued by KDHE. The City's staff, KDHE'sconsultant, worked together to complete the project in a timely manner. The city helped coordinate numerous projects such as trimming trees, hauling excavated soil, building the remediation building, and completing the driveway. KDHE anticipates the system will need to operate at least 10-15 years.

## Frequently Asked Questions

***I am closing my dry cleaning facility, do I need to contact KDHE?*** Yes, dry cleaning regulations and statutes require removal of all waste and solvent within 45 days of ceasing use of a dry cleaning machine. Please notify KDHE of the date of facility closure and date the solvents and waste are removed from the site. This includes all solvent in the machines. A copy of the Facility Closure form is on our web page at www.kdheks.gov/dryclean/ under the Download Page. Please remember to keep all hazardous waste manifests for your files.

***If I buy a dry cleaning facility from a previous owner who had already registered this year, do I need to notify KDHE?*** Yes, anytime a dry cleaning facility changes ownership, the new owner must register within 30 days with the new ownership information, even if the facility retains the same name. The new owner can register on-line at www.kdheks.gov/dryclean/, download a hard copy of the registration form from the Web page, or call 785-296-6370 to request a paper copy be sent to your address. Each new registration requires a $100 registration fee.

***Yogi Bera At His Best***

- *"Baseball is ninety percent mental. The other half is physical."*
- *For a spring training drill, Yogi instructed his players to: "Pair off in threes."*
- *"I never said most of the things I said."*

## Who to contact if you have questions


**KDHE:** Bob Jurgens, Unit Manager
Kansas Dry Cleaning Program
1000 SW Jackson, Suite 410
Topeka, KS 66612-1367

Phone: 785-291-3250
Fax: 785-296-4823
e-mail: bjurgens@kdhe.state.ks.us
Web site: www.kdheks.gov/dryclean/


### Drycleaning Technical Advisory Committee

- Scott Shmalberg: (785) 843-0639
  Scotch Fabric Care, Lawrence
- Robert Bayless: (620) 793-3576
  Bayless Cleaners, Great Bend
- Brian Gieber: (785) 539-4211
  Stickel Cleaners, Manhattan
- Ross Markle: (913) 682-3535
  Harris Brothers Cleaners, Leavenworth
- Dan Miller: (316) 942-5180
  Miller Cleaners, Wichita
- Darrell Spoon: (816) 444-7774
  Olathe Cleaners, Olathe


Kansas Dry Cleaning Program
Kansas Dept. of Health & Environment
Bureau of Environmental Remediation
1000 SW Jackson, Suite 410
Topeka, KS 66612-1367
264-27