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Kentucky Water Well Drillers Newsletter

An Occasional Publication of the Groundwater Section
of the Watershed Management Branch
Kentucky Division of Water
Department of Environmental Protection
Energy and Environment Cabinet

Special points of interest:

- **New Bacterial Report Form available at website**
- **New Board Members**
- **Geothermal Driller certification Bill Dies in Senate**
- **Well Records to be viewable on Kentucky Geological Survey Website**
- **New Tradeshow and Workshop Venue**

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Kentucky Water Well Drillers Certification Program Board Member Replaced

In May 2013 the Governor appointed Kevin Moses of Moses Drilling to complete the term of Jim Bates II which was set to expire in August 2013.

Jim Bates II, recently closed his drilling company to accept a position with his local county government.

Jim was certified in Kentucky to construct both water wells and monitoring wells. Jim was a cable tool driller and used this method as a primary means for constructing water wells. Jim constructed wells mostly in the Eastern Kentucky Coal Field physiographic region of the state.

Upon closing his company he became ineligible to serve on the Water Well Drillers Certification Board. During the first quarter board meeting on February 28, 2013 the Water Well Certification Board members sent a nomination to The Board of Commissions requesting a replacement for Jim Bates subject to approval from the Governor.

Several other board members terms expired in August 2013, including Danny Kelly of Kelly Well Drilling, Orris Hayes of Hayes Brothers Drilling Co., Bart Davidson of the Kentucky Geological Survey, and Roy Toney the Public at Large representative.

All expressed a willingness to continue to serve on the board and their names were resubmitted to the Governor for reappointment. All were reappointed to the board to serve another three year term. Please feel free to congratulate them on their reappointments.

Kentucky Water Well Drillers Newsletter

Kentucky Groundwater Association Tradeshow and Workshop 2013

Program Coordinator's Notes

More changes are ahead for the Water Well Drillers Certification Program. New electronic fillabe forms have been places on our website.

Our review process of well records has changed for water wells. If you submitted an incomplete well log between 2009 and present day you may received a Technical Notice of Deficiency (TNOD).

This form will be sent out each time information is missing from the well construction record. You may also received a TNOD for incorrect information or for not properly installing the water well.

Errors that seem to be reoccurring vary but include: borehole diameter is insufficient for the correct annular space. requirement Either the drill bit being used needs to be larger or it is being improperly reported. The annular space between the borehole wall and casing is required to be 1.75 inches, and 2.0 inches between the outer and inner casing. In measuring and reporting casing diameters please be accurate.

A 6.0 inch diameter PVC schedule 40 casing has an outside diameter of 6.625 inches. An 8 inch diameter borehole will leave a 1.375 annular space which is insufficient and does not meet regulatory requirements. In this case the boring must be a minimum of 8.375 inches in diameter to be in compliance.

Another issue that is common is not reporting the stickup above ground and not reporting the type well cap being used.

A common mistake we find is not reporting the bentonite seal at the base of the casing. A minimum of two feet is required at this location to seal off the casing.

So please be careful and complete your logs accurately.

"Orris Hayes stated that the Kentucky Groundwater Association believes the Bill has a good chance of being passed by both the House and Senate in this 2014 legislative session."

Geothermal Bill to be Resubmitted in Senate

An amendment to KRS 223.400 is to be submitted to the 2014 Legislative Sessions. This amendment will require certification of geothermal drillers.

The amendment will be submitted to the Kentucky Senate by the Kentucky Groundwater Association. The Bill is sponsored by Stan Humphrey and others.

The Board Chairman, Danny Kelly urges everyone who supports the amendment to contact their representatives and senators as soon as possible during this session of the General Assembly and voice your support.

The Bill was submitted in the House of representatives in 2013 and was passed favorably but did not make it out of committee in the Kentucky Senate in 2013.

Orris Hayes stated that the Kentucky Groundwater Association believes the Bill has a good chance of being passed by both the House and Senate in this 2014 legislative session.

The board members have all communicated with various members of congress and this lead s them to think the amendment will pass this session.

Kentucky Water Well Certification Program Board Meeting in June 2013

Kentucky Groundwater Association Chooses Next Expo and Well Drillers Workshop Meeting Location

Scott Kelly president of the Kentucky Groundwater Association has informed the cabinet of a venue change for their Annual Tradeshow and Workshop.

The next Kentucky Groundwater Association Annual Water Well Driller Workshop and Expo will be held at the **Holiday Inn Louisville East.** The Hotel is located at:

1325 S. Hurstbourne Parkway in Louisville, KY.

The dates for the tradeshow and Workshop have been set for **March 6th, 2014 and March 7th, 2014**.

Kentucky Well Driller Training Information

Note that 5 hours of annual training are required for certification renewal. These can be earned at the workshop.

In addition drillers can receive 1 hour of credit from the annual OSHA Hazwopper 8 hour refresher course if they submit a current copy of the certificate.

Renewal Time

It is nearing that time of the year again to renew your driller's certification.

All water well and monitoring well driller certifications expire on June 30, 2014. The renewal period will begin on May 1, 2014 and will expire on August 31, 2014. If you do not renew your certification you will not be licensed to practice well drilling in Kentucky after the August 31st deadline without retaking the required examinations.

The cost for renewal is $100.00 payable to the Kentucky State treasurer. To renew your license you must show proof of liability insurance , five CEUs of training and a current surety bond in the amount of $5,000.00.

You can submit your renewal certification application via the mail to:

Water Well Drillers Certification Program

Kentucky Division of Water

200 Fair Oaks Lane

Frankfort, KY 40601

Or you can renew online if your insurance, training and bond are up to date in the DOW's database.

Banquet at last years Kentucky Groundwater Association's Annual Drillers Tradeshow and Workshop in Louisville, Kentucky

New Total Coliform Rule and Kentucky Bacterial Report Form

In an attempt to bring our program more inline with Safe Drinking Water Act (SDWA) rules and regulations, the Water Well Drillers Certification Program has modified the Kentucky Water Well Bacterial Report Form to reflect recent changes in the Total Coliform Rule (TCR).

401 KAR 6:310 requires a driller to collect a fecal coliform sample from a well that is intended for potable use. This sample must be analyzed within 30 days of completion of the well. This requirement is out of step with current USEPA requirements for Public Drinking Water Systems which require them to test for *E. coli.* Therefore, most drinking water laboratories no longer test for fecal coliform due to these new standards.

Even though private water well use is not regulated by the SDWA, The Water Well Drillers Certification Program believes that it is in the best interest of its driller's and the public to bring our program inline with these new standards. Notice: as of now, an ***E. coli* analysis** can officially substitute for the **fecal coliform analysis** as required by 401 KAR 6:310.

The adoption of this new standard has led to some confusion over the laboratory analysis and reporting requirements for drillers. The SDWA sets a zero tolerance or maximum contaminant level (MCL) for bacteria in public drinking water supplies. This MCL applies to a group of bacteria that are characterized as Total Coliform (TC). TC is a group of closely related, mostly harmless bacteria that live in soil and water as well as the gut of animals. E. coli is a subset of these bacteria. The extent to which TC are present in the well water can indicate the general quality of that water, however it is also used as an indicator to the potential that the well water is contaminated by *E. coli*.

The TCR requires laboratories to first test for TC to determine if bacteria are present in the water. The lab will report this result as **"Absent" or "Present",** or it will report the bacteria colonies as a **"most probable number"** (MPN). If bacteria are reported in the TC analysis, then the TCR stipulates repeat sampling of the water source to determine if *E. coli* is present.

This is where the driller must be cautious. The above described laboratory procedure can result in a number of well analysis being conducted in order to meet the requirements of 401 KAR 6:310. For example, if the driller takes a sample into the lab and request a bacteriological analysis, he will most likely get an analysis for TC. If there is no TC in the analysis, the driller is in good shape and he will meet his reporting requirements. If there are TC in the sample, the lab will report this to the driller, and he will likely have go back to the well to collect another sample to determine if it is contaminated with *E. coli*. Note: labs do not automatically test a sample for *E. coli* just because it tested positive for TC.

Therefore, to avoid repeated trips to the wellhead and additional sampling requirements, a smart driller will request in advance that the laboratory test for E. Coli, if and only if, his sample is positive for Total Coliform bacteria. **Requesting the lab to test for E-coli keeps you in compliance with the regulations.**

The new Kentucky water well bacteriological report form can be downloaded from the Kentucky Division of Water's website at http://water.ky.gov. Follow the links from Programs to Groundwater to Well Drillers Certification Program to Forms and Applications.

New Board Member Kevin Moses

SEND FEE FOR TRADESHOW AND WORKSHOP TO:

Kentucky Ground Water Association

P O Box 945
Mayfield, KY 42066
Phone: 270-247-6658

kygwa75@yahoo.com

Contact Melody Burgess to register for 2013 tradeshow and workshop

**********Contractors Membership Application********

Name_____

Company_____

Address_____

City_____

State_____Zip_____

Fax_____

Telephone_____

Email address_____

This membership is for 1 year. I would like to apply for:_____Business Company $100.00 (only 3 members per Co.) _____Additional Company members $25.00 each. _____Individual $75.00

Please enclose $55.00 if you are a member of the KYGWA and $90 if you are not a member. If you are not register 2 weeks (by February14th, 2014) prior to the show, the cost for members will be $65.00 and non-members is $100.00.

Please send a name for each person you are registering from your company.

Name Driller

_____

_____

_____

_____

Don't forget you must have a name tag to be able to go through the Buffet lines. We have to have a head count, so everyone can eat. The cost of you spouse attending is $30.00. Only SPOUSES!!!!

Note: This is not the Renewal Fee for your Kentucky Driller Certification Due for 2014.

Kentucky Well Driller Training Information

Note that 5 hours of annual training are required for certification renewal.

The Date and Location for the

Annual Kentucky Groundwater Association Trade Show and Water Well Driller Workshop have been set:

Holiday Inn Louisville East.

The Hotel is located at:
1325 S. Hurstbourne Parkway

in Louisville, KY 40222.
1.800.315.2621
The dates for the tradeshow and Workshop have been set for March 6th, 2014 and March 7th, 2014.

They are located directly off I-64 East at exit 15c. Once you exit the expressway they are next to Thorton's Gas Station. Or you can get on Taylorsville road and then turn onto Hurstborne Parkway.

Kentucky's Water Well Records Now Available online at KGS

Kentucky Uniform Construction Well Records are viewable on line at the Kentucky Geological Survey Website http://www.uky.edu/KGS. Bart Davidson is the KGS contact for the Groundwater Data Repository. The repository database currently contains information for over 92,000 water wells, 5,100 springs, and 58,000 suites of water-quality analyses (millions of individual analyte results).

Currently you can search on line for wells and other data.

Search for Water Well & Spring Records
http://kgs.uky.edu/kgsweb/DataSearching/waterseach.asp

Search for water well and spring data by county, quadrangle, AKGWA number, or radius around a point of interest. Returned data includes information about location, useage, construction, and when available, the lithology and casing data for a well. You can also download the well and spring locations and the lithology and casing data. Map links are also given for plotting on the groundwater map service.

Bart Davidson Manager Kentucky Groundwater Repository and Board Member, Kentucky Water Well Drillers Certification Program.

Scanned Images Now Available from Kentucky Groundwater Data Repository

Nearly 300,000 scanned images of well and spring records have recently been added to the Kentucky Groundwater Repository, which is managed by KGS. The repository was created in 1990 and now contains information about more than 92,000 water wells, 5,100 springs and 58,000 sets of water-quality analyses. The data are available online at www.uky.edu/kgs; click on the "Data" link and then on "Groundwater" link.

The information is collected by State agencies, other organizations, and independent researchers. Historically, the water well records have included location ,usage, depth, and static water level, among other information. Now, with the permission of the Kentucky Division of Water, scanned images of water well records, spring inventory forms, plugging records, and various types of water-quality analyses are also available in the repository. These images are generated by the Division of Water as a result of their Certified Well Drillers Program, which requires that every water well in Kentucky be installed by a certified driller. KGS received the images from the Division of Water in July, and they were processed and placed online on October 1.

Well and spring searches in the repository's database will produce PDF files for every record for which images are available. "We are very much appreciate the Division of Water for providing scanned images to enhance the repository," says KGS geologist and repository manager Bart Davidson. They provide additional information that is not otherwise obtainable, such as drillers' notes on lithology at the time of drilling. The images will not only assist the general public, but also drillers themselves as they assess possible drilling locations."

Users of the repository should note that only records coming from the Division of Water (denoted by having AKGWA numbers starting with "0" for water wells or records starting with "9" for springs) have these images available. Not every record will have an images. The PDF files may contain one or more pages, with each page corresponding to a scanned document associated with that well or spring record.

Copied from Kentucky Geological Survey Newsletter,- Kentucky Cross Section Fall 2013.

The NGWA EXPO was Held in Nashville, Tennessee in December 2013

Division of Water employees David Jackson and Scotty Robertson attended the 2013 NGWA Expo held in Nashville, TN in December of 2013.

There were plenty of learning opportunities to be had at this event. They attended multiple talks and demonstrations and spent half a day viewing hundreds of exhibitors booths. There were a several beautiful new drill rigs on exhibit. Along with accessories and grouting equipment, well construction materials, pulling trucks, track drill rigs and direct push equipment.

Scotty and David met hundreds of people at the expo along with several certified drillers from Kentucky and Tennessee.

Danny Kelly, Scott Kelly, and John Bowman from Kelly Well Drilling were there. So were Alan and Melody Burgess from Burgess Well Drilling. Christopher Tucker, Garner Houston and his grandson Randy Tatum were there.

Randy Tatum took and passed his Kentucky Water well Exam at the show. Afterwards he submitted his application for certification to the DOW, which was approved.

So, welcome Randy Tatum to your ranks

Several monitoring well drillers were also at the Expo, including Jason Anderson and Timothy Cechini.

Scotty and David attended the Sweethearts of the Rodeo performance and vendors reception. They enjoyed lunch at Jimmy Buffet's Margaritaville. They also enjoyed BBQ and the local Music Row sites.

Please consider visiting next years NGWA Expo.

New Fillable Forms Now on the DOW Drillers Website

The Division of Water has updated the forms on its website. Fillable PDF versions of the well reporting form are now available for download and use on the Drillers program Forms/ Application page (http://water.ky.gov/groundwater/Pages/FormsApplications.aspx).

Well Reporting Forms

Combined Kentucky Well Construction / Plug Record Combined Kentucky Well Construction / Plug Record (Fillable)	All Kentucky Certified Well Drillers should use this form only to report installation/subsequent plugging (within 72 hrs) of temporary monitoring or water wells.
Uniform Kentucky Well Construction Record Uniform Kentucky Well Construction Record (Fillable)	All Kentucky Certified Well Drillers should use this form only to report installation of monitoring or water wells.
Uniform Kentucky Well Maintenance and Plugging Record Uniform Kentucky Well Maintenance and Plugging Record (Fillable)	All Kentucky Certified Well Drillers should use this form only to report plugging, modification or maintenance of monitoring or water wells.
Water Well Bacterial Report (DEP 2012) Water Well Bacterial Report (DEP 2012) (Fillable)	All Kentucky Certified Water Well Drillers should use this form to report results required for KRS 223.400-223.460 and 223.991 (Kentucky Water Well Construction Practices Standards Act).

Submitting Well Records in a Timely Manner

We here at the Division of Water always appreciate when our certified drillers submit their well construction and maintenance and plugging records.

However, the Division of Water recently received 202 plugging records on the same date for plugging activities performed spanning almost a year (some of the records date all the way back to early February 2013).
While we do appreciate the effort the driller spent to get his records caught up to date, it is difficult for our staff to process this many records within a normal turn -around time when we received such large batches all at once.

Therefore the cabinet would like to remind our constituents of the well construction standards and practices regulations in 401 KAR 6:350 require of its certified drillers.

Section 1 (3), states that "Within sixty (60) days after completion, modification, or abandonment of a monitoring well or temporary monitoring well, the certified monitoring well driller shall submit a report of well construction to the cabinet."

Section 11 (d)1, further states that "A record of the monitoring well abandonment shall be submitted by the certified driller on the Uniform Kentucky Well Maintenance and Plugging Record to the water well drillers program within sixty (60) days from the date abandoned."

The cabinet also wants to remind everyone that according to Section 6 Subsection (1) of 401 KAR 6:320 certification of water well drillers, "A driller shall be subject to disciplinary action if the driller: does not use reasonable care or judgment in the performance of duties or fails to apply knowledge in the performance of duties or Is incompetent, unable, or unwilling to properly perform duties."

Not submitting well records within the required time limits is a violation of the regulation and makes the driller subject to disciplinary action. The type of sanctions that can be placed on the driller depend on the severity, duration, and number of the violations, but include: probation, not to exceed one (1) year; suspension of the driller's certificate, not to exceed one (1) year, during which the certificate shall be considered void; temporary revocation of the driller's certificate for greater than one (1) year and not more than four (4) years; or permanent revocation of the driller's certification with civil or criminal penalties against the driller.

As the water well certification program coordinator, I do not wish to penalize anyone for submitting well records late so please in the future submit your well records in a timely manner. Thank you all for your continued participation in the Water Well Drillers Certification Program.

Water Well Drillers Certification Board Meeting

Kentucky Division of Water Logo

"A record of the monitoring well abandonment shall be submitted by the certified driller on the Uniform Kentucky Well Maintenance and Plugging Record to the water well drillers program within sixty (60) days from the date abandoned."

Kentucky 811 Call Before You Dig Logo

How do I know if I must develop a GPP?

A GPP is required if you conduct any of the activities listed in Section 2(2) of 401 KAR 5:037. Activities that require a GPP (Section 2(2)(a through p):

- Pesticide or fertilizer storage and handling for commercial purposes or distribution to a retail sales outlet.
- Pesticide or fertilizer application for commercial purposes, public right-of-way maintenance, or institutional lawn care.
- Land treatment or land disposal of a pollutant.
- Storage, treatment, disposal, or handling of hazardous waste, solid waste, or special waste in landfills, incinerators, surface impoundments, tanks, drums, or other containers or in piles.
- Commercial or industrial storing or related handling in bulk quantities of raw materials, intermediate substances or products, finished products, substances held for recycling, or other pollutants held in tanks, drums, or other containers or in piles.
- Transmission in pipelines of raw materials, intermediate substances or products, finished products, or other pollutants.
- Installation or operation of on-site sewage disposal systems.
- Storing or related handling of road oils, dust suppressants, or deicing agents at a central location.
- Application of related handling of road oils, dust suppressants, or deicing materials.
- Mining and associated activities.
- **Installation, construction, operation, or abandonment of wells, bore holes, or core holes.**
- Collection or disposal of pollutants in an industrial or commercial facility through the use of floor drains that are not connected to on-site sewage disposal systems, closed-loop collection or recovery systems, or a waste treatment system permitted under the Kentucky Pollutant Discharge Elimination System (KPDES).
- Impoundment or containment of pollutants in surface impoundments, lagoons, pits or ditches.
- Commercial or industrial transfer, including loading and unloading, in bulk quantities of raw materials, intermediate substances or products, finished products, substances held for recycling, or other pollutants.

Who is qualified to develop a GPP?

Anyone who needs a GPP may develop a GPP—no professional certification is required.

Where do I get my GPP application form?

There are no forms to fill out. For the guidance on how to develop a GPP, download Preparing a Groundwater Protection Plan. This guidance will be appropriate for most facilities. However, review the other available guidance documents below for one that may be more suited to your facility activities.

http://www.KentuckyUnbridledSpirit.com

The Energy and Environment Cabinet does not discriminate on the basis of race, color, national origin, sex, age, religion or disability and provides, on request, reasonable accommodations including auxiliary aids and services necessary to afford an individual with a disability an equal opportunity to participate in all services, programs and activities.

In Memory of Roy Bingham

Age 75, Roy Bingham of Eddyville, KY died Monday, September 2, 2013 at his home following a short illness. He was president and owner of Bingham Drilling Company, retired with 30 years at B.F. Goodrich plant, and was a former president of the Kentucky Water Well Association.

He is survived by his wife, Mary Rogers Bingham, Eddyville, KY; one son, John Bingham & wife Gini, Eddyville, KY; one daughter, Sandy Kaminskas & husband Mark, Eddyville, KY; six grandchildren; five great-grandchildren; one sister, Shirley Lee Shipley, Baxter Springs, KS; and one niece, Rhonda Williamson.

In Memory of Charles William Ritchie

Surround by his family, Charles William Ritchie, 75 passed away Tuesday, August 20,2013, at Frankfort Regional Medical Center.

Funeral services were held Saturday, August 24, 2013, at Harrod Brothers Funeral Home. His son-in-law, Johnathan Shepard, officiated. Burial Followed in Peaks Mill Cemetery. He was born May 25, 1938, in Jefferson County, Kentucky and was reared in West Point Kentucky. Mr. Ritchie was a veteran of the Army National Guard proudly serving his country during the Vietnam War. He was a Civil engineer and Retired from the Department of Environmental Protection, Kentucky State Government. Mr. Ritchie was a member of the American Society of Civil Engineers.

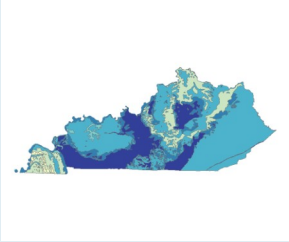
He is survived by his wife of 47 years, Louise Goad Ritchie; a son Craig Coleman Ritchie; a daughter, Claire Ritchie Shepherd (Jonathan); two grandsons, Charles Conor and Elijah Jonathan Shepherd; and two brothers, Robert Coleman Ritchie (IVA) and Gordon McCallum Ritchie (Bonnie).

Water Well Certification Board Meetings Held

The Water Well Drillers Certification Program Board met four times in 2013. The board met and announced submittal of an amendment to certify geothermal drillers in February of 2013.

In June, Orris Hayes reported on the failed amendment to require certification for geothermal drillers. The Bill passed the House with flying colors but died in the Senate committee on Natural Resources.

In September and December, the board discussed steps to assist drillers having troubles passing National Groundwater Associations General Drilling Exam, such as, additional training or an apprenticeship program. No action was taken.

The Board also discussed the Total Coliform sampling requirements. It was determined that a statute revision would be required to remove this requirement.

The next Board Meeting will be held in Louisville, Kentucky on March 6, 2014.