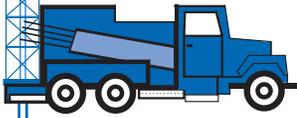
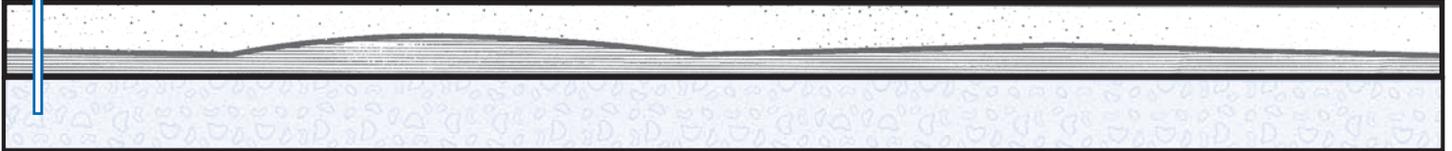

Minnesota Well Management News



A Minnesota Department of Health Publication



Volume 26, No. 2

Fall 2006/Winter 2007

“Minnesota Well Management News” to Change to Electronic Format

In an effort to improve efficiency, save money, and evolve with changing business practices, the Minnesota Department of Health (MDH) is switching from postal delivery of printed newsletters to electronic delivery of newsletters as of the spring of 2007. Consequently, after this issue of our newsletter, a paper copy of the newsletter will no longer be mailed to you.

The plan is to publish an electronic version of “Minnesota Well Management News,” that will be available on the internet at the Well Management Section’s web site. The new electronic version will contain the same information about upcoming training and regulatory updates as well as other news and feature stories. The newsletter will be produced semi-annually. E-mail will be used to notify interested persons when a new issue of the newsletter has been posted on the Well Management Section’s web site.

If you wish to receive an email notice telling you when the next issue of the newsletter is available, you must register by going to www.health.state.mn.us/divs/eh/wells/newsletter and clicking on the link to subscribe. With your subscription, you will automatically receive an e-mail message when a newsletter is published. The e-mail message will include a direct link to the Well Management Section’s web site: www.health.state.mn.us/divs/eh/wells/newsletter

The MDH will continue to send important notices about licensing and registration, continuing education, and regulatory changes by regular mail.

For those who do not have computers or internet access, check with your local public library. Many public libraries have computer stations available to the public and free internet access.

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New Well Disinfection Fact Sheet

The Well Management Section will be publishing a new fact sheet entitled “Well and Water System Disinfection for Private Wells” this fall. The fact sheet is intended for domestic wells with submersible pumps that either have a removable well cap or a well seal with a threaded plug in it. The publication provides step-by-step procedures for performing simple disinfection of private wells and water (plumbing) systems using chlorine bleach (sodium hypochlorite). A section is also included about disinfection of water softeners, water treatment equipment, and water using devices.

Copies of the fact sheet can be requested by calling 651/201-4600. In addition, it is available on our web site at: www.health.state.mn.us/divs/eh/wells/waterquality/disinfection.pdf.

New Special Well Construction Area Designated Eckles Township, Beltrami County

The Minnesota Department of Health (MDH) has established a new **Special Well Construction Area (SWCA)** that includes a portion of Eckles Township, northwest of the city of Bemidji, as shown on the accompanying map (Figure 1). The SWCA includes Sections 13, 14, 23, and 24 of Township 147 North, Range 34 West, Beltrami County. The SWCA became effective on September 1, 2006.

Groundwater in portions of the SWCA has been contaminated by previous agricultural practices. Nitrate concentrations in the surficial sand aquifer are as high as 27 milligrams/liter (mg/l). The drinking water standard is 10 mg/l. A clay confining layer, found at depths of 15-35 feet, and having a thickness of 15-50 feet, underlies portions of the area and provides protection to an underlying confined sand aquifer. The MDH has determined that additional measures are necessary in the construction, modification, and sealing of wells in the area to protect the groundwater and prevent further spread of the contamination.

The MDH has divided the SWCA into two zones as depicted in the accompanying map.

Zone A consists of the northeast quartile and the north half of the southeast quartile of Section 14, Township 147 North, Range 34 West. Within Zone A, construction, modification, or sealing of wells and borings cannot occur until plans have been submitted to and approved by the MDH. No potable water-supply wells may be completed in the surficial sand aquifer. For any well or boring penetrating the clay confining layer, the well or boring must be completely cased and grouted through the confining layer. Contractors must also notify the Bemidji District Office by phone at least one full business day (24 hours) prior to start of work.

Zone B includes the remainder of Section 14 plus all of Sections 13, 23, and 24, Township 147 North, Range 34 West.

For wells constructed or modified in Zone B: Contractors must verbally notify the Bemidji District Office by telephone at least one full business day (24 hours) prior to the start of work.

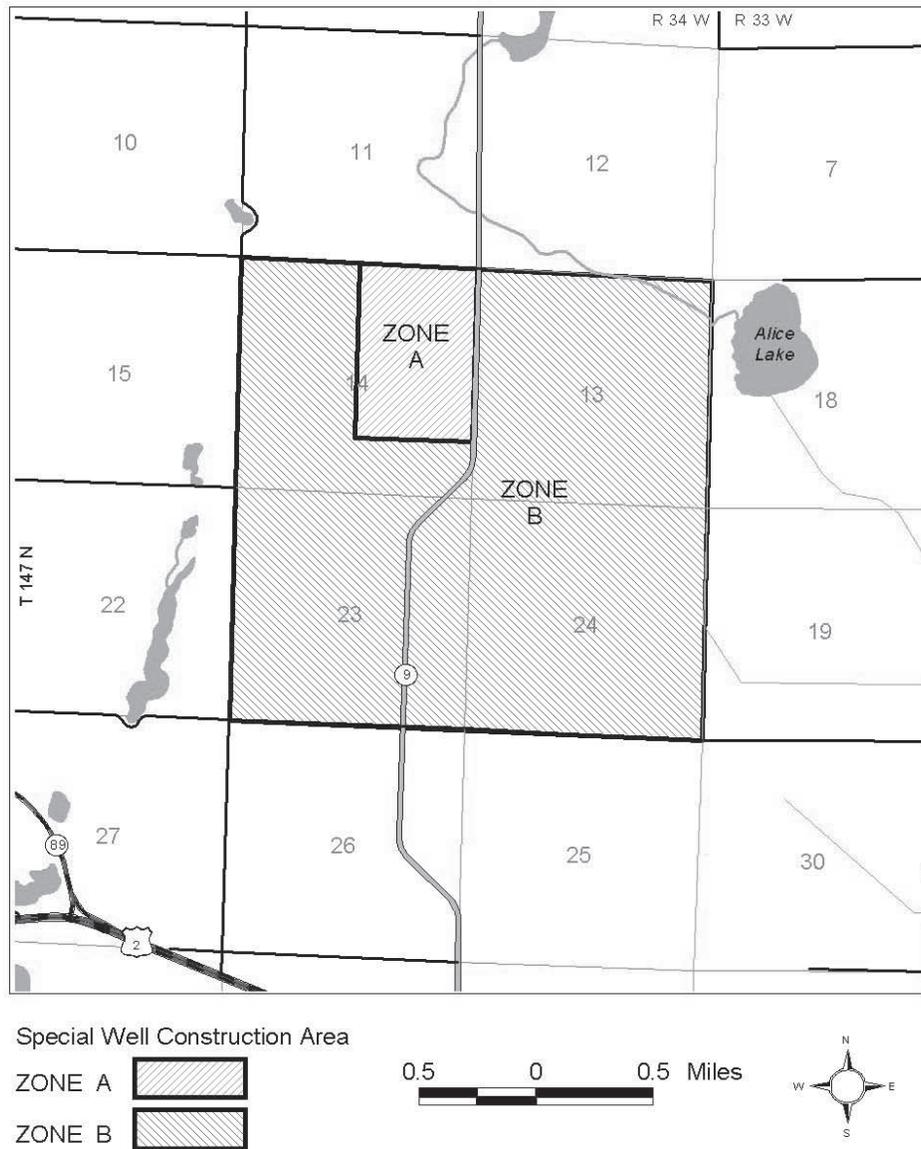
For wells to be sealed in Zone B: Contractors must submit plans to the MDH and receive approval by MDH prior to sealing a well or boring. Once well sealing plan approval has been approved by the MDH, contractors must also notify the Bemidji District Office by telephone at least one full business day (24 hours) prior to the start of well sealing work.

(continued on page 3)

The steps listed on page 2 are in addition to the written notification form or permit application form normally required prior to the start of construction or sealing of a well.

For additional information regarding this SWCA or to request a copy of the SWCA notice and map, contact either Mr. Michael Convery of the MDH Central Office at 651/201-4586 or Mr. Mark Malmanger in the Bemidji District Office at 218/755-6300. The MDH web site has information on all SWCA's at www.health.state.mn.us/divs/eh/wells/swca

Figure 1. Special Well Construction Area
Eckles Township, Beltrami County



National Ground Water Association Recognizes Minnesota's Well Sealing Efforts

On August 23, 2006, the National Ground Water Association (NGWA) announced that the Minnesota Department of Health (MDH) is the recipient of the **2006 NGWA Outstanding Ground Water Award in Ground Water Protection**. The award will be presented at the NGWA Ground Water Expo in Las Vegas, Nevada, on December 7, 2006. This award recognizes the successful efforts taken by the state of Minnesota to get abandoned wells permanently sealed. Minnesota leads the nation in well sealing.

As of September 2006, well and boring contractors licensed or registered in Minnesota have permanently sealed nearly 208,000 wells. Approximately 10,000-12,000 wells and borings are sealed in Minnesota each year. This accomplishment reflects the cooperative and dedicated efforts of the well and boring industry, the Minnesota Water Well Association, real estate professionals (realtors, title companies, county recorders/registrar of titles), state and local water resources agencies (Soil and Water Conservation Districts and Watershed Districts), and local and state well regulatory programs. Their collective efforts have focused attention and resources towards sealing wells and borings that are no longer in use and have gone a long way towards protecting groundwater quality and public health for future generations.

Permanently sealing an abandoned well or boring eliminates a direct pathway through which contaminants from the surface might otherwise travel and pollute groundwater. It also eliminates inter-aquifer mixing for wells and borings open to more than one aquifer. Abandoned wells are also a safety concern because individuals, animals, or equipment can fall into wells or well pits.

The MDH has seen some wells used for disposal of harmful materials. Some materials removed from wells include a wide variety of petroleum products, medical wastes, agricultural chemicals, dead animals, sewage, and pumps with PCB capacitors or mercury seals. Much work remains, however, as the MDH estimates that an additional half million unsealed, abandoned wells still exist in Minnesota.

City of Minneapolis Delegated Well Program Increases Fees

The delegated well program for the city of Minneapolis has increased the fees it charges for well permits. The new fees became effective on August 18, 2006. The new fees are:

Well Construction	\$195/well
Well Sealing	\$180/well
Well Maintenance	\$150/well
Temporary Well	No Fee

The well permit applications have not changed and are available on the city of Minneapolis web site at www.ci.minneapolis.mn.us. Remember to send a site map with all permit applications. Please allow one week processing time for permits.

If the work is to be performed on holidays, weekends or after 6 p.m. and before 7 a.m., you must obtain an after hours work permit from Ms. Anne Stahn at 612/673-5817.

If you have any questions about well work in Minneapolis, contact Ms. Allison Fong at 612/673-3179.

State Park Well Gets “Flushed”

Beautiful Camden State Park, located in Lyon County in Southwestern Minnesota, is back to normal after a strange and bizarre happening. Things were usually quiet and uneventful at this park until the morning of August 22, 2006. A registered camper from British Columbia who had been camping at the park decided that it was time to move on and hit the road at first light. Of course prior to doing this, RV owners know that you need to lighten your load before you leave. The camper went in search of the sewage dumping station. The park office had not opened for the day yet so there was nobody around to provide assistance. The camper did not see the sewage dumping station and signs adjacent to the registration station’s parking lot. Instead, what he did see was a piece of pipe sticking out of the ground with a concrete pad around it.



Water-supply well with cap and data logger mistaken for a sewage dumping station.

This pipe had a cover on it with only one bolt in it and the cover could swivel around that bolt. The pipe was actually a water-supply well and the cover was not properly attached. The Minnesota Department of Natural Resources (DNR) was using this old water-supply well as an observation well to measure static water levels. The DNR had a data logger in the well with the instrumentation box next to the well. The camper thought this data logger was some type of float switch for a dump station, and at 7:45 a.m. he stuck his RV sewer hose in the 6-inch diameter well casing and began emptying his sewage holding tanks into the well. Before the tanks were completely empty, a DNR employee, who was just arriving for work, stopped him. The actual volume of sewage dumped into the well is unknown, but sewage was dripping from the hose as it was removed.

The DNR then contacted local well contractors and the Minnesota Department of Health (MDH) for advice on how to clean out the well. A local contractor was hired to disinfect, flush, and airlift the well. The well was pumped extensively and disinfected a second time. After extensive pumping, water samples were collected by MDH staff and were analyzed for coliform bacteria. The water sample results came back negative. A new well cap was securely attached to the well casing to prevent this from happening again.

This well was constructed in March 1977 and was used to supply water to the park until 1991. It is 345 feet deep and is constructed with 6-inch diameter steel casing to a depth of 335 feet and has a 10-foot stainless steel well screen.

The park discontinued using the well in 1991, and currently obtains water from the Lincoln Pipestone Rural Water system. The DNR Division of Waters continues to use the well as an observation well to monitor the static water level in the area. The nearby Archer Daniels Midland corn plant has four large production wells within a mile of this site.



The sewage dumping station the camper did not see...

Unsealed, Abandoned Well Causes Bacteria Problems for Noncommunity Public Water-Supply Well

Over the past two years, a business owner in Morrison County, Minnesota, has been working closely with a Minnesota Department of Health (MDH) sanitarian attempting to clear up a persistent total coliform bacteria problem with their noncommunity public water-supply well. Water from the well originally tested positive for total coliform bacteria two years ago. Since that time, the well has been disinfected with liquid bleach (sodium hypochlorite) several times. The well was retested after each disinfection and was found to be initially negative for total coliform bacteria; but, on the 30-day verification sample, the results always came back positive.

After this approach failed to resolve the problem, the well owner contacted a local well contractor to inspect the 24 year old, 57-foot deep, 4-inch diameter well. The well contractor decided to pull the submersible pump, clean the well casing, air develop the well and screen, flush the well with chlorinated water, and inject several hundred gallons of chlorinated water (50 ppm chlorine) into the well. After the well contractor completed the described work on the well and the submersible pump was reinstalled, chlorinated water was pumped into the pressure tank and throughout the water distribution system. Twelve hours later, the well and water system were pumped to flush out the chlorinated water. The following week another water sample was collected. The results came back negative for total coliform bacteria, however, the 30-day resample once again was positive.

During a conversation with the well owner, well contractor, and MDH staff, about the history of the business, building additions, remodeling, and plumbing upgrades, it was determined that the business was in operation several years prior to the construction of the present well. Therefore, there must have been another well that served the business prior to the construction of the subject well. The MDH did not have a sealing record for any well on the property. Consequently, it appeared that there might have been an unsealed, abandoned well on the property. If so, could it be the source of the bacteria problem?

MDH staff made a visual search of the property and found no evidence of another well. A metal detector was then used to survey the area around the existing well. It was determined that the missing well was likely located less than 10 feet from the active well. An excavation was made with a backhoe, and 7 feet below ground level they found an uncapped, open 4-inch diameter well casing. The static water level in this well was measured at 15 feet below the ground surface; the same as found in the well in use on the property, indicating a hydrologic inter-connection between the two wells. The unused well was open to 25 feet below the ground surface and the original depth of this well was unknown.

The casing of the unused well was extended above grade and the excavation back filled. A drill rig using chlorinated water was used to flush out the well casing. Thirty-five feet of sand and debris was flushed out of the well to a total depth of 60 feet, almost the same depth as the well in use on the property. The unused well was then disinfected and properly sealed with high-solids bentonite grout.

The well in use was once again disinfected, and the first water sample collected from it after disinfection was negative for total coliform bacteria. A second water

(continued on page 7)



Abandoned well near water-supply well is permanently sealed.

sample was collected after 30 days and it was negative for total coliform bacteria as well. It appears that the unused well may have been the source of the bacteria problem here. Hopefully, this problem has been resolved.

This case serves as a good reminder to not only consider the “in use” well as the possible source of a bacteria problem in a water-supply system, but also to ask questions about the location and status of past wells on the property.

Plumber from Wisconsin Improperly Seals Water Well in Minnesota

The Minnesota Department of Health (MDH) received a complaint that a plumber from Wisconsin improperly sealed an old water-supply well in Minnesota. The complainant stated that the pump was left in the well and the well was filled with bentonite chips. Minnesota Statutes, Chapter 103I requires that a well must be sealed by a Minnesota licensed well contractor or well sealing contractor. Minnesota Rules, Chapter 4725 does not allow bentonite chips to be used to seal a well, and requires removal of the pumping equipment or other obstructions prior to sealing the well with bentonite grout or neat-cement grout.

MDH field staff investigated the complaint and inspected the well. They found the well casing filled with bentonite chips. A Notice of Violation was issued to the plumber requiring him to hire a well contractor licensed by the state of Minnesota to clean out the well and properly seal it. The plumber subsequently hired a Minnesota licensed well contractor to clean out the well and reseal it in accordance with the rules.

The well contractor used a hand auger to clean out hydrated bentonite chips from the well. Less than a foot into the well a steel stroke pump rod was encountered. The contractor attempted to remove the rod and was able to retrieve 40 feet of it. He then continued to use a hand auger to remove the hydrated bentonite chips. At approximately 12 feet below grade, the bentonite chips were dry and could no longer be removed with the hand auger. To remove the dry bentonite chips a 2-inch PVC pipe was connected to a sewer vacuum truck and the dry bentonite chips were easily removed to a depth of 20 feet below grade where a hard obstruction was encountered. The obstruction encountered at 20 feet below grade was the threaded end of a drop-pipe. In addition to the drop-pipe, a 4-inch diameter liner casing was now visible within the 5-inch outer casing. The contractor was able to screw onto the drop-pipe in the well and remove the drop-pipe and pump cylinder. Fortunately for the plumber, the 4-inch liner casing came out of the well along with the drop-pipe and cylinder. With the obstructions cleared from the well, the well was properly sealed with neat-cement grout.

Five Year-Old Boy Rescued from Well in Northern India

(From “St. Paul Pioneer Press,” July 24, 2006)

In July 2006 the Associated Press and the British Broadcasting Corporation reported on the story of a five year-old boy who had fallen down an irrigation well that was under construction in the town of Aldeharhi in northern India. The well was 60 feet deep and had not yet encountered groundwater. The well had been covered with only a jute sack when workers stopped work for the day. The boy, who went by the name “Prince,” had been playing nearby and fell down the well.

(continued on page 8)

After local residents and police were unable to rescue him, Indian Army engineers were called in. Using an adjacent well located approximately 10 feet away from the new well, rescuers constructed a tunnel, reinforced with pipe, connecting the two wells. One report referred to the adjacent well as an abandoned well, while another identified it as the village well. Fifty hours after falling down the well, the rescuers were able to pull Prince through the tunnel and up the existing well. He was not injured.

During the ordeal, oxygen was pumped into the well and biscuits, chocolate, and milk were lowered down to the boy. A local crew from Zee News lowered a camera down the well, vividly capturing the sad predicament of the boy. The attention of all of India was riveted to the rescue attempt. Some television stations suspended regular programming to cover the event around the clock. Christians, Hindus, Muslims, and Sikhs, in a show of united concern, publicly prayed for a successful rescue. Zee News received thousands of phone calls from viewers for updates. Even the Prime Minister of India, Manmohan Singh, prayed for success and good health. He also promised to pay any medical costs. To make the rescue even more joyous, Prince was rescued on his birthday.

New Contractors

The following persons have become certified representatives for licensed/registered contractors since the last issue of this newsletter was published and distributed.

Well Contractor

William K. Keller
Mora Well Company
Mora, Minnesota

Troy R. Kuck
Searles Well Drilling, Inc.
New Ulm, Minnesota

Gary R. Shawver
Shawver Well Company
Fredericksburg, Iowa

Monitoring Well Contractor

Wayne W. Wittman
Baumgartner Environics, Inc.
Olivia, Minnesota

Pump Installer

James P. Foster
Minnesota Valley Irrigation, Inc.
Wadena, Minnesota

Jeffrey F. Minett
Minett Well Repair, Inc.
Ruthton, Minnesota

Bryan J. Stevens
Stevens Well Service
LeCenter, Minnesota

Explorer

Paul B. Albers
Duluth Metals Limited
Toronto, Ontario

David R. Melling
Duluth Metals Limited
Toronto, Ontario

Pitless/Screen Contractor

Bryan J. Stevens
Stevens Well Service
Le Center, Minnesota

MINNESOTA WELL MANAGEMENT NEWS

Published twice per year by the Well Management Section of the Minnesota Department of Health.

Editor: Patrick Sarafolean, 651/643-2110

Contributors: Well Management Staff unless otherwise noted.



To request this document in another format, call 651/201-4600 or TDD through the Minnesota Relay Service, 800/627-3529 (ask for 651/201-4600).

Reprinting of articles in this newsletter is encouraged. Please give credit to the Minnesota Department of Health or noted source.

Advisory Council on Wells and Borings Upcoming Vacancies

The Advisory Council on Wells and Borings advises the Minnesota Department of Health (MDH) on technical matters related to the construction, maintenance, and sealing of wells and borings, and on licensure and registration of well and boring contractors. The council meets quarterly (usually on the first Wednesday of March, June, September, and December). There are a total of 18 members on the advisory council including six well contractors, four limited or specialized well and boring contractors, two public members, and six representatives of various State agencies (including MDH). Terms of appointment are for four years.

In 2007 the terms of 7 members will expire including three well contractors, one explorer, one vertical heat exchanger contractor, one public member, and one monitoring well contractor (vacant since 2004).

Persons interested in serving on the Advisory Council must submit an application to the Secretary of State, who handles all applications for open appointment for State boards, councils, and other groups. The Commissioner of the MDH makes the actual appointments to the council. Members receive a \$55 per diem for each meeting attended and lodging, meal, and travel expenses are reimbursed. State agency representatives are assigned by their respective commissioners and do not receive per diem.

Application forms and related information can be obtained by contacting the Secretary of State at:

Secretary of State – Open Appointments
State Office Building, Room 180
100 Rev. Dr. Martin Luther King Jr. Boulevard
St. Paul, Minnesota 55155-1299
Phone: 651/296-2803, Fax: 651/296-9073
E-mail: open.appointments@state.mn.us
Web site: www.sos.state.mn.us

If you have further questions about the advisory council, you may contact Mr. Michael Convery at 651/201-4586.

Passing of Ms. Judith Bougie

Ms. Judith Bougie passed away on June 19, 2006, following a sudden illness. Ms. Bougie worked in the Minnesota Department of Health's Well Management Section for the past six years as an Office and Administrative Specialist, Intermediate. She was quick to identify and correct administrative problems and to help on major projects. She also assisted with production of the section's newsletter, "Minnesota Well Management News." Previously, Judy worked for the Minnesota Department of Employment and Economic Development. She was always very dedicated, thorough, and professional in her work. She had a wonderful sense of humor and was a very good friend to those who worked with her. Judy is survived by a daughter, two sons, and three grandchildren to whom she was the perfect doting grandmother.

CONTINUING EDUCATION CALENDAR

November 8-9, 2006

**51st Midwest Ground Water Conference
Convergence of Rural and Urban Ground
Water Issues**

(Pre-Conference Field Trip, November 7)
Lincoln, NE

Call Jacki Loomis @ 402/472-7550
www.snr.unl.edu/Midwest
(6 Credits)

November 2006 – June 2007

**Minnesota Rural Water Assoc (MRWA)
Cross Connections and Backflow Prevention**
- Nov 21, 2006 St. Cloud, MN
(6 Credits)

Class E Small Public Water Systems

- Nov 14, 2006 Elbow Lake, MN
- Dec 5, 2006 Rochester, MN
(4 Credits)

Water Operation & Maintenance

- Dec 6, 2006 Biwabik, MN
- Dec 13, 2006 Waite Park, MN
- April 11, 2007 Elbow Lake, MN
- June 19, 2007 Wahkon, MN
(6 Credits)

**23rd Annual Water and Wastewater Technical
Conference**

- March 6-8, 2007 St. Cloud, MN
Call Lori Blair @ 800/367-6792
www.mrwa.com/trainingcalendar
(6 Credits Pending)

November 14, 2006

**Minnesota Ground Water Association
(MGWA)
Ground Water Management – The Minnesota
Model**

Data, Tools, Techniques & Organization
Continuing Education and Conference Center
University of Minnesota
St Paul, MN
Call Dale Setterholm @ 612/627-4780, Ext. 223
www.mgwa.org/meetings/meetingf2006.html
(6 Credits)

November 29-30, 2006

**Vermilion Community College
Sampling and Testing for Small Water System
with Hach Chemicals**

Ely, MN
Call Mary Klein @ 800/ 657-3608 or 218/365-
7281
www.vcc.edu/departments/swamp/drinkingwaterclass-3.htm
(6 Credits)

December 5-8, 2006

**National Ground Water Association
2006 NGWA Conference and Expo**
Las Vegas, NV
Call Kevin McCray @ 800/551-7379
www.ngwa.org/expo2006/main.cfm
(6 Credits)

January 25-26, 2007

**Iowa Water Well Association
78th Annual Convention and Trade
Show**

Sheraton West
Des Moines, IA
Call Heather Tamminga @ 515/243-1558
www.iwwa.org/calendar.htm
(6 Credits Pending)

January 28-31, 2007

**Minnesota Water Well Association
85th Annual Convention and Trade
Show**
Mankato, MN
Call Dave Schulenberg @ 651/290-6285
www.mwwa.org/MWWAcexhprsp.pdf
(6 Credits Pending)

January – March 2007

**Wisconsin Water Well Association and
Department of Natural Resources
2007 Wisconsin Ground Water
Conference**
- Jan 11, 2007
Wisconsin Dells, WI
(5 Credits Pending)

**2007 Wisconsin Trade Show and
Seminars**

- Jan 12, 2007
Wisconsin Dells, WI
(4 Credits Pending)

**2007 Wisconsin Continuing Education
and Pump School Seminar**

- Jan 4, 2007 Minocqua, WI
- Feb 13, 2007 Eau Claire, WI
- Feb 14, 2007 Green Bay, WI
- Feb 15, 2007 Middleton, WI
- March 13, 2007 Hayward, WI
- March 14, 2007 Stevens Point, WI
- March 15, 2007 Waukesha, WI
Call Cindy Denman @ 608/875-2062
www.wisconsinwaterwell.com
(6 Credits)

Feb 7-9, 2007

April 25-27, 2007

August 15-17, 2007

**International Ground Source Heat
Pump Association (IGSHPA),
Accredited Installer Workshop**

On-Campus
Stillwater, OK
Call John Clapp @ 405/744-5175
www.igspha.okstate.edu/training/training_events.htm
(6 Credits)

February – March 2007

**Goodin Company
Mud, Pump, Treatment School**
- Feb 8, 2007 Detroit Lakes, MN
- March 22, 2007 Duluth, MN
Call Kenny Guenther @ 612/287-1136
- March 1, 2007 Minneapolis, MN
Call Dave Williams @ 651/287-1231
www.goodinco.com
(6 Credits Pending)

February 14, 2007

**First Supply Rochester
Pump Dealer Meeting**
Apache Best Western
Rochester, MN
Call Charlie Peterson @ 507/536-2631
www.1supply.com
(6 Credits Pending)

February 27 - March 1, 2007

**Minnesota Pollution Control Agency (MPCA)
2007 MPCA Air, Water, and Waste
Environmental Conference**
Sheraton Hotel,
Bloomington, MN
Call Kelly Turner @ 651/297-5754
(6 Credits Pending)

February 28, 2007

**First Supply LaCrosse
Pump Show and Dealer Meeting**
Call Jim Peterson @ 608/784-3839
(6 Credits Pending)

March 9, 2007

**Preferred Pump
Customer Appreciation Spring Contractor
Show**
Kelly Inn
St. Cloud, MN
Call Joe Thein @ 320/253-8664
(6 Credits Pending)

March 14, 2007

**First Supply Brainerd
Well and Septic Seminar**
Baxter, MN
Call Bruce Haberman @ 218/829-6910
www.1supply.com
(6 Credits Pending)

March 30, 2007

**St. Hilaire Supply Company
Spring Dealer Show**
St. Hilaire, MN
Call Gary Sorvik @ 218/964-5222
(6 Credits Pending)

April 12-13, 2007

**Kansas Geological Survey and the University
of Kansas Joint Meeting
41st North-Central Geological Society of
America Meeting**
Lawrence, KS
Call Greg Ohlmacher @ 785/864-2194
www.geosociety.org/sectdiv/northc/07nc-scmgt.htm
(6 Credits Pending)

April 17-18, 2007

**Shallow Exploration Drillers Clinic (SEDC)
2007 SEDC
April 19, 2007
American Society of Civil Engineers (ASCE)
ASCE Geotechnical Conference**
Iowa State University
Ames, IA
Call Jacki Loomis @ 402/472-7550
sedc.unl.edu
(6 Credits Pending)

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May 2007
Friends of the Pleistocene
53rd Midwestern Field Conference
Wisconsin
(6 Credits Pending)

May 10-11, 2007
Institute on Lake Superior Geology
53rd Annual Institute on Lake Superior
Geology
Lutsen, MN
Call Laurel Woodruff @ 763/783-3291
www.lakesuperiorgeology.org
(6 Credits Pending)

Monthly Courses 2006/2007
Franklin Electric
Submersible Motor Workshop
Siloam Springs, AR
Call 800/348-2420
www.franklin-electric.com/Subm_text/training.asp
(6 Credits)

For additional information about any of these training opportunities, call the contact person listed for the program of interest. For general information about continuing education, more current CEU listings, or to request approval for other continuing education activities not listed here, contact Mr. Tom Alvarez, Minnesota Department of Health (MDH), Well Management Section training coordinator at 651/201-4581, or tom.alvarez@health.state.mn.us. Also, see the MDH, Well Management Section, Continuing Education Web site at: www.health.state.mn.us/divs/eh/wells/lwcinfo/training.html

Obituaries

Virgil C. Minett, age 70, formerly of Minett's Well Drilling Service, Russell, Minnesota, passed away unexpectedly at his residence on April 25, 2006.

Virgil Clarence Minett was born to Charles Deloss and Ruby V. (Hokins) Minett in Ruthton, Minnesota, on July 13, 1935. He, along with his family, owned and operated Minett's Well Drilling Service in Russell, Minnesota. On July 23, 1987, Virgil was united in marriage to Beverly Cleveland of Marshall, Minnesota. He and his family continued in the well drilling business and he eventually retired in 2005. Virgil enjoyed watching the Vikings games, yard work (especially mowing with his riding lawnmower), gardening, and tinkering in the garage. The well drilling business and his family were the loves of his life.

Virgil is survived by his wife, Beverly Jane Minett of Russell, Minnesota; four children, two step-children, four grandchildren, three step-grandchildren, a sister, Garnet (and Les) Peterson of Minneapolis; and many other relatives and friends. Virgil was preceded in death by his parents; two brothers: Marvin and Arden; son, Todd; and half-sister, Darlene Sampica.

Harold "Wayne" Riethmiller, 88, President of Tri-State Drilling, Inc., Plymouth, Minnesota, died on May 16, 2006, tragically in a car/bicycle accident.

Wayne Riethmiller was born on August 18, 1917, in Martins Ferry, Ohio. He earned a Mining Engineer degree from Ohio State University and worked in the mines in Arizona until WWII began. He promptly enlisted and achieved the rank of captain in the Army Air Corps, while stationed in England. After returning from the war, Wayne did test drilling for coal, then water well drilling and finally foundation drilling. In 1955, he established Tri-State Drilling, Inc. with Robert Melcher, Ralph Eisele, and Clarence Berthiaume, in Plymouth, Minnesota. Tri-State has become one of the leading power line foundation companies in the country. Wayne enjoyed spending time with his grandchildren, golfing, fishing, and watching westerns.

Wayne is survived by his wife Colette, 6 children, 12 grandchildren, former wife Mary Reese, and brothers Ray and Roy. Wayne was preceded in death by his parents and brother Robert.

(continued on page 12)

LeRoy Amos Frost, 89, formerly of Frost Well Service, died on June 2, 2006, at his home in Mankato, Minnesota.

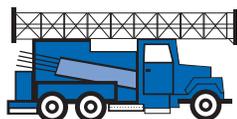
LeRoy Amos Frost was born on April 17, 1917, to William Elmer Frost and Orpha Rice Frost. LeRoy was a self-educated man in many respects and was a man of many talents. He worked for G.A. Wilson Co. as an electrician, then for the United States Geological Survey (USGS) before joining the U.S. Army for four years; three years at the Aberdeen Proving Ground, and one year in the Philippines. Upon returning home from the military, LeRoy worked for Surge Milking Company, and then started his own business, Frost Well Service. He owned and operated that business for 47 years.

LeRoy loved the outdoors and was an avid hunter and fisherman. He is survived by his wife of 61 years, Antoinette "Nettie" (Salfer) Frost of Mankato, Minnesota; four children, 8 grandchildren, and 4 great grandchildren. His grandparents, parents, and one sister, Leola Prange, preceded him in death.

Charles "Charlie" A. Adelman, 79, of Dependable Well Company, Bloomington, Minnesota, died in July 2006.

Charlie Adelman founded his well drilling business, Dependable Well Company, in 1955. He previously worked as a plumber. He viewed himself as a simple man, but his keen wit and spirit were legend.

Charlie was preceded in death by his wife Elizabeth and one granddaughter. He is survived by 9 children, 17 grandchildren, 16 great grandchildren, and his brother, Leo.



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