

Form
No.
GWS-21
10/2011

STATE OF COLORADO
OFFICE OF THE STATE ENGINEER
1313 Sherman St. Ste 821 Denver, CO 80203
(303) 866-3581

For Office Use Only

NOTIFICATION OF DRILLING CONTRACTOR

Insert the Well Permit Number _____.

Well permittee information:

Name(s) _____

Mailing Address _____

City, St. Zip _____

Phone (_____) _____

The licensed well construction contractor or private driller who will construct the well authorized under the permit number indicated below is or has been changed to:

Name of Contractor _____

License number _____.

The anticipated date of beginning well construction is _____.

I (we) claim and say that I (we) (are) the owner(s) of the well described above and that the statements made herein are true to my (our) knowledge.

Please print the Signer's Name & Title

Signature(s)

Date

INSTRUCTIONS:

This form is for use concerning well permits approved pursuant to the provisions of Colorado Revised Statutes 37-90-137(4). It must be filed 10 days prior to commencement of construction of the well as required by Statewide Nontributary Ground Water Rule 5A(12).

Type or print neatly in black ink. This form may be reproduced by photocopy or word processing means.

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ADDITIONAL INFORMATION REGARDING WELL CONSTRUCTION AND WELL ABANDONMENT REGULATIONS.

WELL CONSTRUCTION AND PUMP INSTALLATION BY THE WELL OWNER You may construct the well and/or install the pump yourself if the well is entirely for your own use, is on property you own, and is constructed, or pump equipment is installed, with equipment **owned** and **operated** by you, and provided you have passed a required examination as prescribed by the State Board of Examiners of Water Well Construction and Pump Installation Contractors ("Board"). It is your responsibility to complete and submit the Well Construction and Test Report (Form No. GWS-31) and/or the Pump Installation and Test Report (Form No. GWS-32). These forms are available from our website at the following link: <http://www.water.state.co.us/pubs/wellforms.asp>, or from any Division of Water Resources office. The well must be constructed and the pump installed in accordance with the well construction standards of the Board.

The **WATER WELL CONSTRUCTION RULES** state that all wells of this type must be disinfected after construction and after pump installation.

The **WATER WELL CONSTRUCTION RULES** and the **BOARD OF EXAMINERS RULES** can be obtained from our website at the following link: <http://www.water.state.co.us/boe/>, or purchased from any Division of Water Resources office for a small fee. The rules cover well construction, pump installation, disinfection, abandonment and contractor licensing regulations. If you are constructing your own well or installing pumping equipment, it is recommended that you obtain a copy of these rules for reference.

WELLS TO BE PLUGGED AND ABANDONED MUST BE PLUGGED IN ACCORDANCE WITH RULE 16 (SHOWN BELOW) OF THE WELL CONSTRUCTION AND PUMP INSTALLATION RULES. A WELL ABANDONMENT REPORT, FORM NO. GWS-9, MUST BE SUBMITTED TO CONFIRM THE PLUGGING OF THE WELL. This form is available from our website at the link stated in the first paragraph on this page, or from any Division of Water Resources office.

RULE 16 STANDARDS FOR PLUGGING, SEALING, AND ABANDONING WELLS AND BOREHOLES

16.1 General - The plugging, sealing and abandonment of all wells, monitoring and observation wells, monitoring and observation holes and test holes that are no longer intended for use, and the plugging, sealing, and abandonment of dry holes, collapsed or unusable boreholes, and other incomplete wells or excavations is necessary to prevent contamination of ground water and the migration of water through the borehole. It is the ultimate responsibility of the well owner to have an existing well properly plugged, sealed and abandoned. The well construction contractor or authorized individual is responsible for notifying the well owner in writing of these plugging requirements.

16.1.1 In the event a borehole(s) is not completed for the intended purpose, the contractor will notify the well owner of the well owner's responsibility for the proper abandonment of the borehole(s) according to Rule 16.1. If the well owner does not agree to allow the contractor to abandon the borehole(s), the contractor shall notify the Board of Examiners, in writing, of the existence of the borehole(s) and the contractor's effort to notify the well owner of the well owner's abandonment responsibilities under Rule 16.1

16.1.2 Persons authorized to install pumping equipment may plug, seal and abandon wells that do not require the removal of casing that penetrates more than one aquifer or the ripping or perforating of casing opposite confining layers.

16.1.3 Materials used for backfilling shall be clean, inert, and free from contaminants. The well casing may be cut off below land surface so that it will not interfere with the anticipated use of the land. If the casing is cut off below land surface, the uppermost five (5) feet of the remaining casing shall be filled with grout or a watertight cover shall be permanently attached to the remaining casing and the excavation shall be filled with materials that are not more permeable than the surrounding soils and adequately compacted to prevent settling.

16.2 Wells or Boreholes in Type II and Type III Aquifers - Wells completed into unconfined aquifers and unconsolidated aquifers shall be plugged, sealed and abandoned by filling the well to the static water level with drill cuttings, clean sand or clean gravel, then with clean native clays, cement or high solid bentonite grout to the ground surface. The uppermost five (5) feet of casing shall be filled with grout or a permanent watertight cover shall be installed at the top of the casing. If casing is removed, the hole shall be filled as described above to within five (5) feet of the ground surface. The top five (5) feet of the hole shall be filled with materials less permeable than the surrounding soils that are adequately compacted to prevent settling.

16.2.1 Dewatering wells, horizontal drains, monitoring and observation holes, percolation holes, piezometer holes, sumps, test holes and dry holes shall be plugged, sealed, and abandoned either pursuant to Rule 16.2 or by removing all casing that was installed and by filling the hole(s) with drill cuttings, clean native clays, cement or high solid bentonite grout to within five (5) feet of the ground surface. The top five (5) feet of the hole shall be filled with materials less permeable than the surrounding soils that are adequately compacted to prevent settling.

16.3 Wells or Boreholes in Type I Aquifers - Wells which were constructed through more than one aquifer shall be plugged and sealed by placing a cement grout plug at the confining layer above each aquifer. If records do not show that the casing opposite each confining layer has been grouted when originally installed, the casing shall be either completely removed from the hole, or perforated or ripped opposite such layer prior to placing the grout plug. Plugs shall be no less than forty (40) feet in length and shall be designed to withstand the maximum potential hydrostatic pressure differential between the aquifers. The well casing, except for the grout plug intervals, shall be completely filled to the land surface with clean native clays, cement or high solid bentonite grout. A watertight cover shall be permanently welded or attached to the top of the casing.

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THE ISSUANCE OF THIS PERMIT DOES NOT CONFER A DECREED WATER RIGHT.

Well Permit information for permits approved pursuant to CRS 37-90-137(4) (Irrigation, Commercial, Industrial, Municipal and other uses). Please note carefully the conditions of approval on the attached copy of your permit. The conditions must be complied with in order for the permit to remain valid.

THE PERMIT EXPIRATION DATE IS ONE YEAR FROM THE DATE ISSUED. The well permit number is located in the upper right hand corner of the permit, and the expiration date is located in the lower right hand corner. The well must be constructed and/or pumping equipment installed, and a **WELL CONSTRUCTION AND TEST REPORT (FORM NO. GWS-31)** and a **PUMP INSTALLATION AND TEST REPORT (FORM NO. GWS-32)** received by the Division of Water Resources prior to the expiration date of the permit.

THE WELL MUST BE CONSTRUCTED AND THE PUMP INSTALLED BY CONTRACTORS WITH CURRENT LICENSE(S) ISSUED BY THE STATE OF COLORADO unless exempted as described below. The well construction and pump installation reports must be submitted to the office of the State Engineer within sixty (60) days of completion of the work or prior to the expiration date of the permit, whichever is earlier. Your contractor must provide you with a copy of the work report(s) filed with the State Engineer. The Well Construction and Test Report and the Pump Installation and Test Report forms are available from our website at the following link: <http://www.water.state.co.us/pubs/wellforms.asp>, or from any Division of Water Resources office.

You have been provided with at least one copy of the well permit. Keep a copy for your records. You will need to make additional copies for the well construction contractor, if you select one different from the one indicated in your permit application, and the pump installation contractor.

The following, and other requirements are spelled out in the Statewide Nontributary Ground Water Rules. Forms are available from the Division of Water Resources offices.

- If the name and license number of the Colorado licensed well construction contractor was not specified on the well permit application, or has changed, the permittee must notify the State Engineer in writing of the name and license number of the contractor on a **NOTIFICATION OF DRILLING CONTRACTOR** (Form No. GWS-21) at least **10 days prior to commencement of construction** of the well.
- If a well permitted pursuant to C.R.S. 37-90-137(4) will not be constructed and/or pumping equipment installed prior to the expiration of the permit, the permittee may submit to the State Engineer a **REQUEST FOR EXTENSION OF WELL PERMIT EXPIRATION DATE** (Form No. GWS-64). The expiration date of the permit may be extended one time only for a period not to exceed one year. If an extension of time is necessary to construct the well and/or install pumping equipment, you must file the written request on the form or by letter to this office along with a \$60 filing fee prior to the expiration date. In the request, it is necessary to provide reason(s) why the well cannot be constructed and/or pumping equipment installed prior to the expiration date. **The request must be received by the Division of Water Resources prior to the permit expiration date.**

Metering and Reporting Withdrawals from Wells Permitted Pursuant to C.R.S. 37-90-137(4): In order to administer these wells, the State Engineer shall require the permittee to install and maintain a totalizing flow meter to measure all withdrawals from the well. As a minimum, the meter shall be installed according to manufacturer's recommendations and shall contain sufficient recording digits to assure that "roll over" to zero does not occur within three years. The meter shall be maintained by the permittee so as to provide a continuous, accurate record of withdrawals. If the meter is not operational, the well shall not be pumped. The State Engineer may approve a substitute totalizing measuring device if it is capable of recording or can be used to calculate the total volume pumped. The permittee shall report the amount of withdrawal from the permitted well as reasonably required by the State Engineer.

Geophysical logs will be required for all wells permitted pursuant to C.R.S. 37-90-137(4) unless there is an existing geophysical log from that aquifer located within 1,320 feet of the proposed well which is acceptable to the State Engineer and is representative of aquifer conditions at the location of the permitted well. The permittee will be

responsible for obtaining and submitting a copy of the existing geophysical log unless it is currently on file in the State Engineer's Office.

If the new well is geophysically logged, the permittee is responsible for obtaining and submitting those required geophysical logs to the State Engineer's Office. The minimum requirement will be for both resistivity and spontaneous potential (SP) logs, which must be obtained prior to the installation of well casing. The resistivity log must record values at approximately one-and three-foot depths of investigation. The vertical scale shall be either one inch equals twenty feet or one inch equals fifty feet. If additional types of logs, including gamma, neutron, porosity, sonic, single-point resistance, and caliper, are obtained, copies of these logs shall also be submitted to the State Engineer's Office. The entire set of logs must be submitted to the State Engineer's Office within sixty days following collection of the data. If a permittee, or an applicant drilling a test hole, desires to use other geophysical logs to meet the minimum requirement, he must apply in writing to, and obtain approval from the State Engineer's Office prior to well construction. In the event that the data provided contain trade secrets, privileged information, or confidential commercial, financial, geological or geophysical data, the State Engineer shall deny the right of inspection of such data to any person and keep the data confidential pursuant to C.R.S. 24-72-204(3)(a)(IV), provided the applicant notifies the State Engineer in writing requesting such protection.

The State Engineer may require the applicant to submit the geophysical well logs prior to the casing of the production well in order to determine the appropriate producing interval. In such a case, the State Engineer shall inform the applicant of the appropriate producing interval within two working days of receipt by the State Engineer of the geophysical logs.

GEOPHYSICAL LOGGING REQUIREMENTS

Please note that the conditions of approval on the well permit require that the hole be geophysically logged prior to the installation of the casing. Listed below are standards acceptable to the State Engineer, which must be met to fulfill this logging requirement.

- 1) Resistivity and Spontaneous Potential (SP) logs are required.
- 2) The resistivity log must record values at approximately one foot and three foot depths of investigation (commonly called short and long normal).
- 3) Single point Resistance logs are not acceptable.
- 4) For wells that penetrate the Denver, Arapahoe, and/or Larimie-Fox Hills formations, a Natural Gamma log is also required.
- 5) The vertical scale of the logs shall be either one inch equals twenty feet (1" = 20') or one inch equals fifty feet (1" = 50').
- 6) The Resistivity and Spontaneous Potential logs may be supplemented by Gamma, Neutron, Porosity, Sonic, Caliper, or other logs at the applicant's option. If these logs are run, the applicant shall submit copies to the Division of Water Resources.
- 7) Logs shall be submitted to the Division of Water Resources no more than sixty (60) days after completion of the work or seven (7) days after the expiration date of the well permit, whichever is less. The logs shall be identified by the well permit number.
- 8) Any variance to geophysical logging requirements must receive prior written approval of the Division of Water Resources Geotechnical Section.

The original permit is on file in the Denver Office Records Section. Additional copies may be obtained for a fee of 50 cents per page. Statutes require that any change of mailing address or ownership be reported to the State Engineer. Use Form No. GWS-11. There is no filing fee.

If you have questions, contact the Denver Office, or the Division Office in the area where your well is located.

DIVISION 1
810 9th St. Ste. 200
Greeley CO 80631
(303) 352-8712
Fax (303) 392-1816

DIVISION 2
310 E Abriendo Ave. Ste B
Pueblo CO 81004
(719) 542-3368
Fax (719) 544-0800

DIVISION 3
301 Murphy Drive
Alamosa CO 81101
(719) 589-6683
Fax (719) 589-6685

DIVISION 4
1871 East Main St.
Montrose CO 81401
(970) 249-6622
Fax (970) 249-8728

DIVISION 5
Direct mail to Box 396
Glenwood Spgs. CO 81602
202 Center Drive
Glenwood Spgs. CO 81601
(970) 945-5665
Fax (970) 945-8741

DIVISION 6
Direct mail to Box 773450
505 Anglers Dr. Suite 101
Steamboat Springs CO 80487
(970) 879-0272
Fax (970) 879-1070

DIVISION 7
160 Rockpoint Dr.,
Suite E
Durango CO 81301
(970) 247-1845
Fax (970) 259-0944

DENVER OFFICE
1313 Sherman St.
Ste 821
Denver CO 80203
(303) 866-3581
Fax (303) 866-3589