

**Statement of Basis, Specific Statutory Authority, and Purpose
New Rules and Amendments to Current Rules of the Colorado Oil and Gas
Conservation Commission, 2 CCR 404-1**

**Cause No. 1R Docket No. 1211-RM-03
Statewide Water Sampling and Monitoring (Rule 609)**

This statement sets forth the basis, specific statutory authority, and purpose for new rules and amendments to the Rules and Regulations and Rules of Practice and Procedure (“Rules”) promulgated by the Colorado Oil and Gas Conservation Commission (“COGCC”) on November 14, 2012 concerning statewide water sampling and monitoring.

These rules are promulgated to protect public health, safety, and welfare, including the environment and wildlife resources, from the impacts resulting from oil and gas development in Colorado. They are intended to foster the responsible and balanced development of oil and gas resources in Colorado.

In adopting the new rules and amendments, the Commission will rely upon the entire administrative record for this rulemaking proceeding, which formally began on October 1, 2012 and informally began in the summer of 2012. This record includes the proposed rules and numerous recommended modifications and alternatives; public comment, written testimony, and exhibits; and hours of public and party hearings. In formulating its water sampling and monitoring rule, the Commission staff benefitted from experience with similar existing area-specific baseline sampling rules and discussions with stakeholders. The Colorado Oil and Gas Association voluntary baseline sampling and monitoring program provided insight in how a rule like Rule 609 would work.

Statutory Authority

Section 34-60-105(1), C.R.S. (Commission has the power to make and enforce rules); and § 34-60-106(2)(d), C.R.S. (Commission has authority to regulate “Oil and gas operations so as to prevent and mitigate significant adverse environmental impacts on any air, water, soil, or biological resource resulting from oil and gas operations to the extent necessary to protect public health, safety, and welfare, including protection of the environment and wildlife resources, taking into consideration cost-effectiveness and technical feasibility.”).

Purpose

The purpose of the new and amended water sampling rules is to gather baseline water quality data prior to oil and gas development occurring in a particular area, and to gather additional data after drilling and completion operations. The water quality data generated under the rules will be publicly available on the Commission’s web site. Acquiring this data and making it publicly available will inform relevant stakeholders, including public officials, of baseline groundwater quality, and may aid in early detection of any adverse impacts related to oil and gas activity. Similarly, the sampling program may identify

existing groundwater contaminants, which can then be properly treated. Commission staff receive more complaints related to water quality than any other type of complaint.

Because contaminants can occur in groundwater naturally (e.g., arsenic, selenium, radionuclides, methane), and due to agricultural activity, septic system use, household chemical use/disposal, the age and composition of the plumbing pipes (e.g., lead), or industrial activity, it is important to collect groundwater samples prior to drilling and completion operations to establish baseline water quality conditions. Additional testing following drilling and completion activities is equally important to monitor for potential changes in water quality or the presence of contaminants over time.

Amendments and Additions to Rules by Series

300 Series Rules

Prior to this rulemaking, the Commission had not promulgated a statewide rule requiring baseline water sampling and monitoring of non-coal bed methane wells. However, it had previously passed an area-specific rule requiring water sampling and monitoring in the Greater Wattenberg Area (“GWA”) as defined by the Commission Rules. Specifically, GWA water sampling was required under Commission Rule 318A(I).e.(4) and Commission Rule 318A(II).e.(4). By passing a statewide rule of general applicability, the Commission has made a conforming change to the 300 Series GWA rules to indicate that testing in the GWA shall conform to the statewide requirements set forth in new Commission Rule 609 (Statewide Groundwater Baseline Sampling and Monitoring).

600 Series Rules

The primary purpose of Rule 609 is to set forth a statewide rule for groundwater sampling and monitoring. The rule is entirely new. The quality of groundwater can affect not only human health, wildlife resources and the environment, but also society and the economy. Groundwater contamination can adversely affect property values, the image of a community, economic development, and the overall quality of life. The Commission proposed Rule 609 to protect and preserve Colorado’s groundwater resources, detect potential contamination and inform all stakeholders of groundwater quality both before and after oil and gas development.

Rule 609 does not apply to water sampling and monitoring associated with coalbed methane wells, which is addressed under Rule 608 and numerous Commission orders. By passing Rule 609, the Commission does not intend to alter or amend any of the requirements of Rule 608 and related orders concerning water sampling and monitoring associated with coalbed methane wells.

Rule 609.a. sets forth the regulatory requirements concerning the number of groundwater samples operators must obtain to satisfy the rule, the location of such samples relative to the proposed Oil and Gas Location, and the hierarchy of preferred sampling locations. Commission staff determined that a rule requiring operators to obtain water samples from two sample sites at each oil and gas location would provide valuable information for Commission staff and the operators to assess water quality,

particularly where the rule requires such samples to be taken on opposite sides of the location. Commission staff also determined that a rule requiring such samples to be taken within a half mile of the proposed Oil and Gas Location was appropriate because, should contamination from oil and gas activity occur, it would be detectable within a relatively close proximity of the location. Rule 609.b. provides that operators may extend the sampling radius to one mile when sampling locations within one half mile of the proposed location are nonexistent or unavailable. A waiver to the sampling requirements is available for good cause.

The hierarchy of preferred water sources set forth in Rule 609.a. reflects staff's vision of what constitutes the best sampling location. It is the intent of the rule that decisions made by the 609.a criteria are self executing by the operators, and that pre-approval of sample sites is not required. Lastly, Rule 609.a.(6) provides that operators may rely on other recent water samples in the vicinity to satisfy one of the two samples required under the rule. Commission staff determined that enabling operators to use recently collected data for one of the sampling locations strikes an appropriate balance between meeting the minimum requirements of the rule and oversampling specific areas.

Rules 609.c. and 609.d. provide the general timing requirements for baseline sampling and follow up monitoring. The initial sample will assess pre-development groundwater conditions. The first follow-up sample assesses whether any short-term impacts related to drilling and completion may have occurred, while the second subsequent sample evaluates potential long-term impacts. As stated above, the Commission believes that baseline water sampling is critical to assessing groundwater quality prior to oil and gas development. Baseline testing will benefit all water users by informing them of the quality of the water source tested, including any potential existing contamination. In the event existing pollutants are identified, water users can to take appropriate treatment and remediation measures. Knowing the pre-development groundwater quality will also be valuable in resolving conflicts that may arise over whether oil and gas operations have caused adverse impacts to groundwater resources.

Rules 609.e.(1) and (2) provide sampling procedures and a comprehensive set of analytical testing requirements applicable to all sampling conducted under the rule. The analytes to be sampled for are those generally used by Commission staff to evaluate complaints regarding domestic well water quality. Commission Rule 609.e.(3) also addresses the potential presence of methane gas in any sample and requires the operator to notify the Commission and the relevant well owner of potentially dangerous levels of gas. Under Rule 609.e.(4), sampling results must be provided to the Director in an electronic format; all data provided to the Director will be posted to a searchable water quality database accessible through the Commission's website.