

BEFORE THE OIL AND GAS CONSERVATION COMMISSION
OF THE STATE OF COLORADO



IN THE MATTER OF A REQUEST TO ALLOW)
THE DISCHARGE OF TREATED PRODUCED)
WATER FROM THE WELLINGTON MUDDY)
UNIT INTO THE BOXELDER CREEK ALLUVIUM,)
LARIMER COUNTY, COLORADO)

CAUSE NO. 1
ORDER NO. 1-108

ORIGINAL

REPORT OF THE COMMISSION

This cause came on for hearing before the Commission on August 15, 2005 in the Weld County Department of Planning Services Hearing Room, 918 10th Street, Greeley, Colorado on the verified application for an order to allow the discharge of treated produced water from the Wellington Muddy Unit into the Boxelder Creek alluvium in Larimer County, Colorado.

FINDINGS

The Commission finds as follows:

1. Wellington Operating Company, LLC ("Wellington Operating"), as Applicant herein, is an interested party in the subject matter of the above-referenced hearing.
2. Due notice of the time, place and purpose of the hearing has been given in all respects as required by law.
3. The Commission has jurisdiction over the subject matter embraced in said Notice, and of the parties interested therein, and jurisdiction to promulgate the hereinafter prescribed order.
4. Rule 907.a. of the Rules and Regulations of the Colorado Oil and Gas Conservation Commission ("COGCC") establishes the policy of encouraging and promoting waste minimization by beneficial use, reuse and recycling.
5. Rule 907.c.(2)E. allows the discharge of produced water into the waters of the State of Colorado, and the beneficial use of this water in accordance with applicable state statutes and regulations governing the use and administration of water.
6. The Memorandum of Agreement between the COGCC, the Water Quality Control Commission ("WQCC") and the Water Quality Control Division ("WQCD") for the Implementation of SB89-181 Amendments to the Colorado Water Quality Control Act (August 28, 1990; the "Water Quality MOA") acknowledged the COGCC as the "implementing agency" for oil and gas activities under its jurisdiction that result in discharge to ground water, and for adopting points of compliance for such discharges to protect present and future beneficial uses of water.
7. Rule 907.c.(3) allows the reuse of produced water in a manner consistent with existing water rights and in consideration of water quality standards and classifications established by the WQCC for waters of the state, or any point of compliance established by the COGCC Director pursuant to Rule 324D.
8. Rule 904.a.(2) requires production pits in sensitive areas to be lined. The results of the Sensitive Area Decision Tree, Rule 901.e. and Figure 901-1, indicate that four (4) of the key sensitive area criteria are not met for Applicant's proposed project (e.g., the alluvial aquifer is not classified for domestic use, no well head protection area is impacted, the project is not close to domestic or public water supply wells, the depth to ground water is greater than 20 feet); nevertheless, the Applicant stated that by its nature, an aquifer recharge beneficial use project is "sensitive."
9. Rule 502.b. allows variances to COGCC rules and regulations. Rule 910.a. lists applicable ground water concentrations. Rule 901.d. allows operators to propose alternative methods for determining compliance with COGCC rules and regulations using alternative points of compliance.
10. On July 1, 2005, Wellington Operating filed with the Commission a verified application for an order to allow the discharge of treated produced water from the Wellington Muddy Unit into the Boxelder Creek alluvium in Larimer County, Colorado. The Applicant has obtained a classification from the Office of the State Engineer of "nontributary" for the produced water from the Muddy Unit,

and has developed the technical framework for the requested variance in consultation with the COGCC and WQCD staffs. The Applicant requests a variance from the requirement for lining the production pit (Rule 901.f. and Rule 904.a.(2)) as necessary to effect the beneficial use of the treated produced water. The requested variance is in conformance with values tabulated in Table 910-1 for organic constituents of concern [i.e., benzene, toluene, ethylbenzene and xylenes – (BTEX)]. The Applicant proposes an alternative point of compliance for the inorganic constituents of concern, total dissolved solids (“TDS”) and chloride, listed in Table 910-1, as well as other inorganic constituents of concern regulated by the WQCD such as fluoride, boron, and sulfate. The requested alternative point of compliance for inorganic constituents is at a downgradient monitoring well located on the southern boundary of the project site.

11. On August 3, 2005, Doug Ryan, on behalf of Larimer County Department of Health and Environment filed with the Commission a written request for party status in the matter.

12. On August 8, 2005, Wellington Operating filed with the Commission a prehearing statement. On August 11, 2005, Wellington Operating filed with the Commission a rebuttal statement to Larimer County’s August 3, 2005 letter.

13. The Commission heard testimony from Brad Pomeroy, President of Wellington Operating, regarding the history of the Wellington Field which was discovered in 1923 by Union Oil, the estimate that only eight percent (8%) of the calculated original oil in place has been produced, and that the produced water from the field is highly treatable.

14. The Commission heard testimony from Richard Seaworth, the surface owner who testified that he was in support of Wellington Operating’s project because of the additional water it will provide to an area of the state that needs water.

15. The Commission heard legal opinions from Steven Bushong, Attorney for Wellington Operating, regarding jurisdictional authority by the WQCD and the COGCC over the proposed plan. He stated that, based on federal law construing EPA’s authority, Wellington Operating’s position is that the WQCD has jurisdiction over the project and not the COGCC.

16. The Commission received a copy of a letter dated August 10, 2005 from the attorney for the WQCD (after conferring with the Commission’s attorney) setting forth the reasons (a) federal law is not pertinent in construing Colorado’s Water Quality Control Act, (b) the Commission has jurisdiction over Phase I of Wellington Operating’s project and (c) the WQCD has jurisdiction over Phases II and III. Phase I is a discharge into ground water of water produced from oil and gas operations. Under Senate Bill 89-181, the Commission is the implementing agency charged with regulating that activity and, therefore, Phase I. Phases II and III involve direct discharges of pollutants to surface waters and would be regulated by the WQCD.

17. The Commission heard expert testimony from David Stewart, PhD, P.E. and President of Stewart Engineering who provided background information on the administration of water rights and the appropriation system in Colorado. Mr. Stewart testified as to Wellington Operating’s Production Water Treatment Facility proposal and the intent to use the produced water as a water resource asset. He testified that as nontributary water, Wellington Operating is the only entity that can withdraw the produced water from the field. Mr. Stewart testified that the water is physically separated from any surface water and therefore the proposed project does not injure any existing water users in northern Colorado.

18. The Commission heard additional testimony from Mr. Stewart who described the proposed project as: First Phase - construct the produced water treatment plant; Second Phase – construct the reverse osmosis drinking water plant with a new tributary well; and Third Phase – create a shrimp farm aquaculture plant. Mr. Stewart testified that the different waste streams would be combined into an infiltration basin, with two (2) waste streams permitted by the WQCD and one (1) waste stream permitted by the COGCC. In addition, he testified as to the water treatment process, the cost for the treatment plant infrastructure, and the amount of water the system will be able to treat.

19. The Commission heard further testimony from Mr. Stewart who testified about the hydrology of the area, the design of the infiltration basin, flow and quality of treated water, and dissolved substances contained in the treated water and their lack of toxicity. Mr. Stewart testified that the only wells between the infiltration basin and the proposed point of compliance are irrigation wells owned by Mr. Seaworth, and that the cost to remove non-toxic parameters increases the project cost by fifty percent (50%) with no benefit.

20. The Commission heard testimony from Mr. Stewart regarding establishment of the property boundary as the point of compliance, obtaining a variance for an unlined pit, and the proposed monitoring frequency.

21. Doug Ryan, Environmental Health Planner for the Larimer County Department of Health and Environment presented a written hearing statement and testified that the point of compliance should be the water treatment facility, that the discharge standard for the treatment system should be in compliance with concentrations established in Table 910-1 of the Commission's Rules and Regulations, and that continuous monitoring should occur at the water treatment facility.

22. The Commission heard testimony from Debbie Baldwin, Environmental Supervisor for the Commission regarding concerns of the COGCC staff with Wellington Operating's proposal, the likelihood of similar future proposals, the potential need for COGCC rules to address these types of proposals, and the need to establish bonding requirements. The COGCC staff believes that the proposed project is in an area where there is an aquifer that would be recharged by percolation of produced water from an unlined pit and therefore would be considered a sensitive area. Ms. Baldwin presented COGCC staff recommendations for the establishment of points of compliance and other monitoring wells related to Wellington Operating's proposal. She testified regarding the need for Wellington Operating to provide additional data to demonstrate the range in produced water quality and the quality of the ground water in the alluvium of Boxelder Creek, and to define more precisely the site specific aquifer characteristics including flow rate and mixing. Ms. Baldwin testified regarding the need to have Wellington Operating test, on a regular and agreed to schedule, downgradient water wells, including irrigation wells for major anions and cations, BTEX, and other parameters of concern, and prepare a plan addressing operation and maintenance, response to upset conditions and breakdowns, effluent monitoring, and long term pit maintenance. She testified that the differences in the chemistry of the produced water, which is primarily sodium-chloride-sulfate type water and the water in the alluvium of Boxelder Creek which is primarily calcium-sulfate-bicarbonate type water, and the potential impacts to soil and plants from irrigation with water having higher sodium concentrations.

23. Michael Liuzzi, Environmental Protection Specialist, Permits Unit, for the WQCD stated at the hearing that he has worked with Stewart Engineering regarding Wellington Operating's proposal and he is comfortable with the proposal.

24. Based on the facts stated in the verified application and the testimony and exhibits presented at the hearing, the Commission finds that the COGCC staff should be allowed to approve Wellington Operating's variance request which will allow discharge of treated produced water from the Wellington Muddy Unit into the Boxelder Creek alluvium, and to impose conditions of approval including the amount of financial assurance to be provided, identification of the responsible party(ies), establishment of points of compliance (POC) closer to the infiltration pit than the property boundary, installation of additional monitoring wells spaced at regular intervals across the paleo-channel of Boxelder Creek and between the POC and the infiltration pit, establishment of type, monitoring frequency and location of each monitoring well, preparation of a contingency plan, and establishment of a process for immediate notification of COGCC and WQCD staffs if an upset occurs, monitoring of irrigation wells, along with any other conditions COGCC staff, in consultation with WQCD, believes are appropriate.

25. Wellington Operating Company, LLC agreed to be bound by the Commission's jurisdiction and by oral order of the Commission.

26. The COGCC staff should provide an update to the Commission on the status of its approval process for Wellington Operating's variance at the September 7, 2005 Commission hearing.

ORDER

NOW, THEREFORE, IT IS ORDERED, that COGCC staff is hereby authorized to process and approve a variance from Rule 901.f. and Rule 904.a.(2) for Wellington Operating Company, LLC to allow the discharge of treated produced water from the Wellington Muddy Unit into the Boxelder Creek alluvium in Larimer County.

IT IS FURTHER ORDERED, that COGCC staff shall impose conditions of approval on the variance, including the amount of financial assurance that shall be provided, identification of the responsible party(ies), establishment of points of compliance (POC) closer to the infiltration pit than the property boundary, installation of additional monitoring wells spaced at regular intervals

across the paleo-channel of Boxelder Creek and between the POC and the infiltration pit, establishment of type, monitoring frequency and location of each monitoring well, preparation of a contingency plan, and establishment of a process for immediate notification of COGCC and WQCD staffs if an upset occurs, monitoring of irrigation wells, along with any other conditions COGCC staff, in consultation with WQCD, believes are appropriate.

IT IS FURTHER ORDERED, that COGCC staff shall provide an update to the Commission on its approval status of Wellington Operating Company, LLC's variance at the September 7, 2005 Commission hearing.

IT IS FURTHER ORDERED, that the provisions contained in the above order shall become effective forthwith.

IT IS FURTHER ORDERED, that the Commission expressly reserves its right, after notice and hearing, to alter, amend or repeal any and/or all of the above orders.

IT IS FURTHER ORDERED, that under the State Administrative Procedure Act the Commission considers this order to be final agency action for purposes of judicial review within thirty (30) days after the date this order is mailed by the Commission.

IT IS FURTHER ORDERED, that an application for reconsideration by the Commission of this order is not required prior to the filing for judicial review.

ENTERED this -2ND day of September 2005, as of August 15, 2005.

OIL AND GAS CONSERVATION COMMISSION
OF THE STATE OF COLORADO

By Patricia C. B.
Patricia C. Beaver, Secretary

Dated at Suite 801
1120 Lincoln Street
Denver, Colorado 80203
September 2, 2005