STATE OF COLORADO OIL AND GAS CONSERVATION COMMISSION

IN THE MATTER OF THE APPLICATION OF ANTERO RESOURCES PICEANCE CORPORATION FOR AN ORDER ESTABLISHING AN APPROXIMATE 640 ACRE DRILLING AND SPACING UNIT FOR THE PRODUCTION OF GAS AND ASSOCIATED HYDROCARBONS FROM THE WILLIAMS FORK FORMATION AND ILES FORMATION OF THE MESAVERDE GROUP FOR CERTAIN DESCRIBED LANDS IN THE MAMM CREEK FIELD AREA GARFIELD COUNTY, COLORADO	)	**CAUSE NO. 191** **DOCKET NO. 1101-SP-02**

RESPONSE OF COUNTY COMMISSIONERS OF GARFIELD COUNTY, COLORADO, TO THE DIRECTOR'S ORDER FROM PRE-HEARING CONFERENCE

COMES NOW the Board of County Commissioners of Garfield County, Colorado (hereinafter "BOCC), acting by and through its local designee, Judy Jordan, and the Garfield County Attorney's Office, Cassandra Coleman, Assistant Garfield County Attorney, and in response to the Director's Order from the pre-hearing conference, states as follows:

1. The COGCC Rules are inadequate to address the impacts raised by the Application in this case. The Rules do not address cumulative impacts resulting from multiple wells. In cases such as this, where the Application is for increased well density, the major impacts are not solely from each individual well; rather, the major impacts are cumulative, resulting from the increased density of the well spacing and the increased number of wells and, therefore, the increased chance of accidental contamination and the increased activity attendant with gas production. As the number of wells increase, so do the number and intensity of the impacts and the chance of injury, exposure and contamination.

2. The COGCC Rules fail to address local jurisdictions' health, welfare and environmental concerns. The Rules purport to address these concerns through consultation with the Colorado Department of Public Health and Environment and the Department of Wildlife. However, these are State agencies not charged with addressing local impacts. Further, because the Rules do not even require Applicants to address local concerns, nothing in the Rules requires Applicants to comply with local mitigation efforts and regulations. The Rules do not require consultation with local health departments or any other local body. The only mechanism by which the local jurisdictions may address the impacts experienced by the citizens is through this intervention process.

I. The Impact From Increased Well Density Are Cumulative.

3. Impacts that increase cumulatively with increasing well density include, without limitation:

A. Increased duration of noisy, exhaust-emitting heavy equipment operating within residential areas;

B. Increased volume of fluids transported to and from the well sites by truck and pipeline through residential areas;

C. Increased number of times that trucks travel on undersized, inferior county roads through residential neighborhoods;

D. Increased number of attachment and detachment of hose clamps that drip hydrocarbon-contaminated produced water and condensate onto the ground and release volatile organic compounds to the atmosphere;

E. Increased amount of dust emitted to the air from mixing fracing components;

F. Increased amount of dust emitted to the air from trucks driving on dirt access roads and well pads;

G. Increased light pollution that deprives people of sleep and quiet enjoyment of their property;

H. Increased likelihood of the need for compressor stations that will create increased noise;

I. Increased number of times that crews create a borehole that can serve as a conduit for methane and other hydrocarbons to migrate through the subsurface to the water table aquifer, where it can transmit toxic and explosive contaminants to domestic wells and residences.

4. The above listed activities present a certain level of disturbance, nuisance and risk of exposure to toxic pollutants and physical hazards at the current default spacing. Increased well density will increase the level of disturbance and nuisance as well as increase the risk of accidents that result in exposures and other injuries and contamination.

II. The COGCC Rules Do Not Adequately Address These Disturbances, Nuisances and Risks.

5. Although the COGCC Rules purport to address impacts created by oil and gas production, the Rules fail to adequately address cumulative impacts, such as those that would be created by Antero in this case.

6. Rule 802 purports to "identify noise sources related to oil and gas operations that impact surrounding landowners and to implement cost-effective and technically feasible

mitigation measures to bring oil and gas facilities into compliance with the allowable noise levels identified in subsection c." Maximum noise levels addressed by Rule 802(c) apply only to "oil and gas operations **at** any well site, production facility, or gas facility." Rule 802(b) (emphasis added).

7. By their express language, the Rules do not apply to trucks traveling to and from gas facilities. Garfield County residents complain of oil and gas truck traffic on county roads that deprives them of sleep. The Rules are inadequate to protect the citizens from the impacts of increased well density that result in increased heavy truck traffic through residential neighborhoods, causing sleep deprivation and loss of quiet enjoyment of Garfield County residents' property.

8. Rule 803 states that "*to the extent practicable*, site lighting be directed downward and internally so as to avoid glare on public roads and building units within 700 feet" (emphasis added). Garfield County citizens' disturbance by light pollution is not mitigated to the extent that it is not practicable for the Applicant to turn off high-elevation rig lights at nighttime; therefore, the Rules do not adequately address public health, safety and welfare concerns regarding light pollution. The Applicant may assert it is impracticable to prevent such disturbance in the affected area, and in such case, the Rules would not adequately address this impact, which is only exacerbated by the increased well density and attendant increase in lights.

9. Rule 805 states that oil and gas facilities and equipment shall be operated in such a manner that odors and dust do not constitute a nuisance or hazard to public welfare, but the Rules do not proffer standards of particulate concentrations above which citizens are subjected to nuisances and hazards. Therefore, the Rules are inadequate to address public concerns about particulates. Since the Rules were implemented in June 2009, Garfield County has received 41 odor complaints related to oil and gas operations. Each of these constitutes a nuisance, which the Rules purport to disallow. But, the Rules are written in such a way to lack definition and, therefore, lack effective enforcement.

10. The Rules do not contain maximum permissible emission concentrations or list specific constituents, and concentrations of those constituents, that may produce toxic effects on humans and which are emitted by oil and gas operations. Rule 805(2)(A)–(E), in recognition that volatile organic compounds (VOCs) may have adverse effects on humans, indicates technologies and practices to be applied to reduce emissions of VOCs from oil and gas facilities. Similarly, the Rules do not specify emission levels below which toxic effects will not impact neighboring Garfield County residents. Therefore, the Rules are not adequate to protect public health, safety and welfare in a residential area.

11. Rule 906(a) states "[S]pills/releases of E&P waste shall be controlled and contained upon discovery." At least two instances of pipeline leaks have been discovered in Garfield County in the last six months. Both leaks were detected because fluids happened to have been discovered at the surface at some unknown time after the leak occurred underground. The Rules are entirely inadequate to prevent the contamination of groundwater and surface water used for human drinking water and livestock watering from leaks that do not fortuitously present themselves visibly at the surface. More than 140 spills/releases to the ground surface in reportable quantities have been reported by oil and gas production operators in Garfield County

since July 2009. Despite the requirement that operators determine the cause of spills and releases and implement measures to prevent spills and releases in the future, spills and releases have continued to occur. Nowhere do the Rules effectively address prevention of water contamination. If the Rules were adequate, these and other pollution and contamination events would not continue to occur.

12. Rule 906(b) requires that releases of E&P waste of greater than 20 barrels be reported to COGCC. Nineteen barrels of E&P waste could spill near the Ware and Hines or Roseman ditches, which supply recharge water to the water table aquifer and domestic wells, contaminating approximately four miles of ditch at an approximate concentration of 100 ppm benzene. Such a spill would not require any reporting. This is 20,000 times as much as allowed in COGCC Rule Table 910-1 (5 ug/L3 in groundwater). Since the Rules allow for unreported spills of significant volumes of condensate in the residential neighborhood, the Applicant could contaminate substantial numbers of irrigated properties and water wells without ever being reported. That would subject Garfield County residents to harmful levels of contaminants without notice. The Rules are wholly inadequate to protect the residents from threats to their health, safety and welfare.

13. Although Rules 317(a)–(p) detail well construction measures to be taken to prevent contamination emanating from a borehole into the surrounding media, including groundwater, many cases of groundwater contamination have resulted from oil and gas well construction and development in Garfield County. These include those documented by COGCC, such as the contamination of Prather spring, the Deitrich well, the Moon well and the Miller well. By way of example, COGCC staff told the Garfield County BOCC in July 2010 that remedial cementing performed at COGCC's direction on the Arbaney gas well were ineffective at preventing further contamination of water and soil of the Moon property and that remedial measures cannot correct the well integrity problems. Obviously, Rules 317(a)–(p) are inadequate to protect public health, safety and welfare. The efforts the COGCC took in previous contamination cases have been entirely ineffective at ensuring the health and safety of Garfield County citizens.

14. Rule 706 requires operators to provide financial assurance to "ensure protection of the soil, the proper plugging and abandonment of the well, and the reclamation of the site in accordance with the 300 Series of drilling regulations, the 900 Series of E&P waste management, the 1000 Series of reclamation regulations, and the 1100 Series of flowline regulations." For wells 3,000 feet deep or deeper, financial assurance is required in the amount of $20,000. COGCC staff has reported that plugging and abandonment alone, without the need for groundwater remediation, may cost in excess of $70,000 for a single well. Additional financial assurance is not required for pipelines or other facilities that could cause physical injuries, fires or contamination. Therefore, if the Applicant or its successor posted a $20,000 well bond or a $100,000 maximum statewide blanket bond and filed for bankruptcy, there would not be sufficient funds required Rule 706(a) and (b) to cover the cost of investigatory and remedial action of contamination resulting from improperly constructed or operated wells and ancillary facilities. Therefore, the Rules are inadequate to protect the health, safety and welfare of Garfield County residents.

15. An example that the COGCC Rules regarding financial assurances are inadequate to protect the health, safety and welfare of Garfield County residents, is that COGCC staff has

acknowledged that another operator, Maralex Resources, has been out of compliance with COGCC pit Rules at their Soldier Canyon location since at least 2009, but the COGCC has failed to take enforcement action for fear that the operator will declare bankruptcy and leave the state with a cleanup bill. Since there are no COGCC Rules that compel the agency to undertake enforcement action, COGCC could allow future cases of air and water contamination, the probability of which increase with increased activity brought about by reducing downhole spacing to 1 per 10 acres, to persist on Silt Mesa/Peach Valley and fail to compel corrective action out of concern that the remediation bill would be foisted on the State. This would leave the local government and residents with the bill or unabated contamination. The COGCC Rules that purport to address remediation costs and require financial guarantees are entirely inadequate.

16. Rule 710 requires that the Oil and Gas Conservation and Environmental Response Fund retain a minimum balance necessary to ensure there are adequate funds to address environmental response needs, but COGCC staff have stated that they have inadequate funds to perform baseline and ongoing sampling on Silt Mesa/Peach Valley and to plug and abandon all the orphaned oil and gas wells that should be plugged and abandoned. Rule 710, as applied, is inadequate to protect the health safety and welfare.

17. Rules 1101(a)-(e) and 1102(a)–(e) govern pipeline installation, reclamation, operation, maintenance, and repair. These Rules do not require that pipelines be installed according to manufacturer specifications to ensure that proper backfill prevents punctures and leaks. Therefore, these Rules are inadequate to prevent leaks or releases that could result in soil, air and water contamination that in turn could cause harmful exposures to county residents. Further, Rules 1101-1102 do not require that pipeline excavation backfill not be composed of trash or potentially hazardous materials that could contaminate soil and water. The rules regarding pipelines, Rules 1101-1102, do not require that pipelines on slopes be properly secured while transported or emplaced.

18. None of the Rules *require* the COGCC staff to perform any particular number of inspections of well drilling or completion of pipeline installation operations to ensure that operators and contractors follow the Rules that are intended to protect health, safety and welfare. Because noncompliant practices have resulted in numerous instances of noncompliance, which in turn resulted in fires, and air, soil and water contamination, and losses of control incidents when inspectors were not present, the Rules are inadequate to protect health safety and welfare.

19. The lands in and around the Application sections are generally zoned "rural" and generally allow for subdivision of residential lots in sizes of between 2 and 6 acres. The Application areas are mostly in unincorporated Garfield County, and a ½ mile radius around the Section 31 lands reaches into the Town of Silt. The report "Northwest Colorado Socioeconomic Analysis and Forecasts," written by BBC Research and Consulting and published on April 4, 2008, predicted that Garfield County's population would increase from approximately 50,000 people to over 150,000 people within the expected life of Piceance basin wells (30 years). By 2035, the Town of Silt is expected to grow in population from approximately 3,000 to 9,390. Unincorporated Garfield County is expected to grow from about 25,000 to over 61,000 by 2035. In the future, the residential use will grow denser, and there will be newcomers who "come to the nuisance," in the Silt Mesa/Peach Valley area without a full understanding of the risks of invisible contamination of soil, air and water.

20. Some of the property in and around the Application sections are owned by the Bureau of Land Management (BLM) and used extensively by the general public for intense recreational activity, including four-wheeling and shooting. The Rules do not adequately address drilling activity in areas of public recreation.

21. In December 2010, Chris Mobaldi died from health problems that she and her husband alleged were caused by exposures to toxins from living near oil and gas activities when they lived in Garfield County. In March 2008, Verna Wilson complained to Judy Jordan that dust exposure kicked up by oil and gas trucks on County Road 309 was causing her such severe asthma that she was unable to speak, and she moved temporarily out of the area. She returned and died in June 2008. The family of Jose Lara is pursuing damages related to his death from pancreatic cancer, which the family alleges resulted from Mr. Lara's exposure to frac chemicals from cleaning tanks for six years.

22. Federal agencies have published concentration limits for known constituents of oil and gas emissions. No agency, including the COGCC, can guarantee the Garfield County residents that exposures to oil and gas emissions will not produce illness or latent effects, including death.

Based on the foregoing, the BOCC asserts that the COGCC Rules fail entirely to address cumulative impacts related to increased well density. The COGCC Rules do not adequately address local concerns regarding well applications, nor do they provide any enforcement remedies to ensure compliance with local jurisdictions' efforts to mitigate the impacts of oil and gas activity.

DATED: January 13, 2011.

Respectfully submitted,

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CERTIFICATE OF SERVICE

I, the undersigned, hereby certify that true and accurate copies of the foregoing RESPONSE OF THE BOARD OF COUNTY COMMISSIONERS OF GARFIELD COUNTY, COLORADO, TO THE DIRECTOR'S ORDER FROM PRE-HEARING CONFERENCE, were emailed and deposited in the United States Mail, postage prepaid, this 13th day of January, 2011, to the following:

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