BEFORE THE AIR QUALITY CONTROL COMMISSION
STATE OF COLORADO

REBUTTAL STATEMENT OF COALITION OF ENERGY PRODUCING ATTAINMENT COUNTIES (INCLUDING THE COUNTIES OF GARFIELD, MESA, MOFFAT, MONTEZUMA AND RIO BLANCO)

IN THE MATTER OF PROPOSED REVISIONS TO REGULATION NUMBERS 3, 6 AND 7 AS IT RELATES TO THE SCHEDULED OIL AND GAS RULEMAKING HEARING FEBRUARY 19-21, 2014

The Energy Producing attainment counties, through its undersigned counsel, hereby submits its Rebuttal Statement in this matter pursuant to Sections V.E.6.c. of the Procedural Rules of the Colorado Air Quality Control Commission ("AQCC" or the "Commission"), and pursuant to the Commission's December 10, 2013 Notice of Public Rulemaking Hearing ("Notice").

I. EXECUTIVE SUMMARY

The Energy Producing Attainment Counties (EPAC) coalition consisting of Garfield, Mesa, Moffat, Montezuma and Rio Blanco Counties support regional regulation of oil and gas operations and we support many of the Division's draft proposed rule changes. As EPAC reviewed the Division's draft rules and the prehearing statements and exhibits from the Division and other parties, we note one compelling fact and unity of opinion consistent with longstanding Division air quality designations—there are no locations in Colorado outside of the Northern Front Range and Denver Metropolitan Area non-attainment area (NAA) that fail to meet EPA National Ambient Air Quality Standards (NAAQS) for any criteria pollutant including ozone (McNally et al., 2009). This is based on ambient measurements from a substantial network of air quality monitoring stations throughout the region including western Colorado and the Commission should consider rules with flexibility to address the differential needs of attainment versus nonattainment areas.

The EPAC coalition is concerned that the Division's proposed rules and assertions made in their prehearing statement regarding development and application of a statewide emission control rule is counter to well established case law and Federal and state statutes. By rule, the air quality standards adopted by the Colorado Air Quality Control Commission (Commission) may vary for different parts of the state "as may be necessitated by variations in altitude, topography, climate, or meteorology." [CRS 25-7-108(1)(a)]. Expanding on the foregoing statutory language in light of apparent legislative intent, the Colorado Supreme Court found that the Commission regulations addressing those variables must be

formulated with regard to the various factors that constitute, produce or dispel air pollution, describe maximum concentrations of contaminants that can be tolerated, consider the degree to which particular types of emissions are subject to treatment, and consider the continuous, intermittent, or seasonal nature of the emission to be controlled. According to the Court, Commission's action must also be both reasonable and necessary. [see for example, Fry Roofing Co. v. State Department of Health Air Pollution Variance Board, 179 Colo. 223,499 P.2d 1176 (1972)]. In simplest terms, the Commission and the Division have ample legal precedent and applicable statutes to guide them toward a set of rules with flexibility to account for what are sure to be different tiers of cost and benefit for disparate areas such as attainment areas of western Colorado and the nonattainment areas of Eastern Colorado.

The Division's prehearing statement and draft proposed rules do not clearly show alignment between the new regulatory requirements and a demonstrated and feasible implementation plan that is enforceable by the Division without additional and unidentified dedicated resources. Other parties including the Local Government Coalition and the Conservation Groups have proposed draft rule revisions and alternate proposals that will compound the workload impact for the Division as relates to regulatory oversight and enforcement. We understand the Division proposes reducing APEN permitting requirements as one way to reduce staff workload but there still seems to be inadequate accounting for the resources needed to enforce the proposed regulations. EPAC's concern is that promulgation of even the best new regulations, absent a sound plan to enforce them and demonstrate to the public and the regulated community that the regulations are being enforced and are in fact providing the expected benefit could erode public confidence. We request the Commission and Division communicate an effective enforcement and evaluation strategy before approving new regulations.

Garfield County likely has implemented and self-funded the most comprehensive long-term baseline air quality monitoring program of any rural county in the United States. This is indicative of the concern the county has to ensure the best industry practices reasonably available are in place at all times and that we can directly measure pollutant concentrations rather than rely on easily generated and grossly inaccurate estimates of emissions as an indicator of what is in our air. This monitoring program requires annual investment of over $250,000 each year plus 1.5 staff positions dedicated to the monitoring program and related air quality management and improvement programs. Additionally, Garfield County recently committed $1,000,000 to a first-in-kind world-class study to directly measure air emissions from oil and gas drilling. Led by one of the world's premier scientists in the field, Dr. Jeffrey Collett, Colorado State University's Atmospheric Science Department is currently conducting experiments over three years in the Piceance Basin to help county commissioners make scientifically informed decisions. Following county leadership, the State of Colorado found merit in our study and has engaged the same scientists to similarly study drilling emissions in eastern Colorado, using our design. The point of this information is to advise the Commission that our western Colorado Counties are the first to step up to ensure the best science is developed to define and mitigate oil and gas impacts and we expect the Commission to

carefully consider this information to develop science-based regulations where practical as indicated in Federal and state statutes.

Calculated air quality trends associated with criteria and non-criteria air pollutant levels indicate baseline concentrations dropping over the past several years in EPAC counties, including Garfield County, where longstanding and uniquely comprehensive air monitoring for concentrations of 80+ criteria and noncriteria pollutants in western Colorado is apparently not being taken into consideration by the Division. EPAC believes the Division, in its prehearing statement and in the draft proposed rules, erred by omission in failing to discuss and account for substantial locally-funded (and Division supported and encouraged) long-term air monitoring networks that produce hundreds of samples each year for a broad suite of VOCs including many hazardous air pollutants (HAPs) and continuous monitor data for ozone and other criteria pollutants at many locations in the EPAC attainment area. This omission seems counter to applicable statutes. These monitoring data are readily accessible and should have been utilized by the Division and other Parties to the rulemaking for the purpose of developing science-based proposed rules and alternate proposals for attainment areas that may or may not mesh exactly with proposed rules for nonattainment areas. Our point is that the analysis and consideration of the voluminous ambient air quality data should be evaluated as new regulations are drafted. In rebuttal, EPAC provides Exhibits in the form of monitoring reports, statistical summaries and trends calculations for consideration by the Commission.

The Local Community Organizations, in their prehearing statement has requested greater transparency through public access to site inspection and other compliance data. EPAC agrees with this concept within reasonable constraints and emphasizes the value of this transparency will come from an inspection program that also requires the Division to consistently review Leak Detection and Repair (LDAR) inspection reports and to publicly post periodic LDAR program information that informs the public and the regulated community how and if the program is achieving stated goals.

WPX Energy, in their prehearing statement at Exhibit A, Figure 4, has provided compelling information regarding the diminishing return on investment for repeated LDAR cycles. WPX requests reduced instrument based monitoring inspection frequencies within narrow circumstances including those where an operator demonstrates a high degree of success finding, repairing and ultimately preventing leaks going forward. Perhaps this is an area where some flexibility and difference between rules in attainment and nonattainment areas could be accommodated and where a statewide rule is not strictly required or supported by existing data. The EPAC coalition provides rebuttal data regarding ambient air quality conditions that supports the notion that air quality impacts (and emissions that cause them) within the EPAC area are declining rather than increasing as some prehearing statements seem to indicate. The EPAC coalition plans to provide testimony regarding the Division's proposed LDAR frequency and the more intensive LDAR proposals from other parties. Proposed regulations placing the burden of inspection

and reporting on the regulated community should apply common sense, non-punitive, approaches that will most optimally and cost effectively help the Division reach its stated emission-control goals.

The EPAC coalition requests the Commission consider flexible time frames for implementation of specific control measures and LDAR requirements in a manner that reasonably accounts for nonattainment versus attainment areas relative to immediate need to reduce ozone precursor emissions. Western Colorado, and the EPAC area in particular, is well within attainment and there should be some opportunity to allow our regulated community an opportunity to make the investments necessary to comply with new requirements that may be approved by the Commission.

The EPAC coalition restates from our prehearing statement our concern that the Division's cost benefit and regulatory analysis documents remain unavailable for review. Based on the information gaps evident in the Division's initial economic analysis and prehearing statement, EPAC requests the Commission ensure an adequate cost benefit analysis includes fiscal impacts to local, County, State and Federal governments. The Division cannot know if statewide rules are in fact the most reasonable and beneficial approach unless it also evaluates non-statewide approaches. The EPAC coalition expects and looks forward to reviewing a comprehensive cost benefit analysis document that recognizes and evaluates the differential costs that will be required of: 1) different operators large and small and 2) different oil and gas basins as well as the differential benefits to be derived between liquids-rich and dry gas basins.

The EPAC coalition supports stronger regulation of oil and gas emissions. However, there needs to be a demonstrated balance within these stronger regulations to scale differing emissions reduction potential and the implementation costs that certainly exist between liquids rich (and higher emission potential) basins in eastern Colorado and the dry gas basins of western Colorado. The Division's prehearing statement and the referenced Initial Economic Analysis seem to make the case for against a one-size-fits-all statewide rule: "…there are 6,422 tanks or tank batteries in the nonattainment area, and 8,080 tanks or tank batteries state-wide." The division then describes lofty growth projects for the liquids-rich DJ basin as justification for the proposed statewide rule—EPAC disagrees with these broad assumptions and mischaracterizations that so plainly ignore the differential benefits to be achieved between the nonattainment and attainment areas. The lack of provided information about costs and benefits significantly hinders our ability to effectively evaluate and provide definitive perspectives regarding the Division's proposed rule changes as currently drafted. We reserve the right to provide additional analysis, comment and alternative proposals as warranted, including discussion of fiscal impacts to local governments, once these crucial documents become available for review.

The Division's prehearing statement and other documentation for the draft proposed rules provides overly simplistic and exaggerated projections for growth in oil and gas activity in western Colorado oil and gas basins. EPAC requests the Commission and Division provide more substantial analysis of industry growth patterns and in a manner that reasonably addresses differences between western Colorado dry gas

basins and the liquids-rich basins in eastern Colorado. We note other parties, including the DGS group have provided growth projection data and studies that may help the Commission ensure new regulations are based on a sound understanding of the growth scenarios the regulations should account for. EPAC reserves the right to provide testimony at the hearing related to western Colorado oil and gas activity growth and retraction patterns characteristic of our area.

The EPAC coalition agrees with the prehearing statements made by several parties that note the stakeholder process and discussions leading up to this rulemaking emphasized the need to fully implement new EPA OOOO rules and to look for opportunity to reasonably reduce nonmethane VOCs. The original premise was that improved control of greenhouse gases such as methane would be a beneficial, albeit coincidental, outcome as reasonable control strategies were developed for the priority hydrocarbon emissions targeted during the stakeholder meeting process. Ultimately the Division partnered with only a fraction of the original stakeholder group and that smaller partnership developed draft rules with a scope and primary goal (greenhouse gas emission control) not contemplated by the full stakeholder group discussions over 8 months. EPAC remains challenged to fully endorse draft proposed rules that clearly lack the expected and required full stakeholder discussion process. We continue to review the draft rules and prehearing statements and look forward to reviewing rebuttal statements and especially the Division's regulatory and cost benefit analysis.

II. RESPONSE TO ISSUES RAISED BY PARTIES

The Air Pollution Control Division prehearing statement and statements from other parties including the Local Government Coalition and the Local Community Organizations advocate for a statewide one-size-fits-all set of rules as logical and appropriate. They hold to this position even as they fail to fairly and reasonably consider readily available air quality monitoring data and studies that may indicate a flexible science-based set of rules could equally, or perhaps more optimally and effectively, achieve stated emission control goals while encouraging control investments where they are most needed. Some of these same parties, including the Division, are the first to impress upon EPAC members such as Garfield County that they should continue to invest heavily in air monitoring and assessments, so it seems contradictory to then ignore this science at the critical moment when they can best be used to inform this critical rulemaking process.

Air quality resources throughout the west slope and within the EPAC boundaries are generally considered good to pristine and similar to background levels found throughout the rural western US. Based on available data, only in nearfield, source-dominated environments (e.g., along roadways, within city and town areas, and downwind of industrial or resource development facilities) are there measured concentrations above those background levels. In most cases these impacted receptors are nearfield to

the emission sources and not necessarily indicative of regionally persistent impacts. Only ozone data demonstrates an area and regional impact.

EMISSIONS

The EPAC coalition area, like many western Colorado regions, is in a relatively complex terrain and mostly rural setting. Air pollutant emissions at most western Colorado locations can be dominated by mobile sources (e.g., diesel trucks, automobiles industry and farm equipment), biogenic sources (e.g., forest turpine and forest fires), residential heating (e.g., natural gas and wood), oil and gas exploration and production, and electric power generation (CDPHE, 2013). Although it is understandable that the VOC emissions are dominated by E&P and naturally occurring biogenics, total annual VOC emissions are still considered relatively low, relative to urban airsheds.

The EPAC coalition review of the Division's and other parties prehearing statements indicate they are flawed to the extent they propose statewide control measures but fail to consider that over the past 6 years, the oil and gas industry in western Colorado has implemented enhanced emissions control technology and made operational changes to reduce volatile organic compounds (VOCs) and hazardous air pollutants (HAPs). For instance, industry began implementing green completions as early as 2002 and this practice became a requirement in the 2008 COGCC rule making. Enclosed vapor combustors were added to control emissions from condensate tanks with the potential to emit more than 20 tons of VOCs per year and in Garfield, Mesa, and Rio Blanco Counties (2008 COGCC rule making). These vapor combustors typically reduce VOC emissions by over 98%. Enclosed vapor combustors were also added to condensate, crude oil, and produced water tanks with the potential to emit more than 5 tons of VOCs per year located within a quarter mile of a building. Glycol dehydration units located in Garfield, Mesa, or Rio Blanco Counties which have the potential to emit move than 5 tons of VOCs per year located within a quarter mile of a building are also required to be controlled and reduce VOC emissions by at least 90 percent.

Industry has also reduced VOC and HAP emissions by constructing centralized water management facilities that significantly reduce truck traffic and associated emissions. These facilities also include rigorous control technologies that satisfy the State's Regulation 7 RACT requirements. These centralized water management strategies have replaced trucks that were needed for well servicing and reduced truck traffic (36,100 fewer water truck trips in Garfield County for WPX Energy in 2013) (Tyler Bittner, Engineering team lead, WPX Energy written commun. Jan. 29, 2014). Finally, Industry has also removed and replaced high bleed pneumatic devices with low or no bleed units in response to 2008 COGCC rule making and in preparation of NSPS Subpart OOOO and proposed state Regulation 7 requirements.

All of these technology and operational changes have resulted in reduced impacts to air quality resources in the region. This is reflected in the Garfield County ambient air quality data and data for the surrounding

west slope. With current state and federal E&P regulatory programs already in place combined with the economic incentives to minimize emissions and capture product for sale, the proposed statewide rulemaking requirements seem unlikely to have the intended and proportional beneficial impact on air resources for the disproportionate costs to industry.

Ozone on the other hand is not a directly emitted pollutant but requires a complex combination of oxides of nitrogen (NOx) and volatile organic compounds (VOCs) in significant quantity, plenty of solar energy, and extended residence time (days) to form at elevated concentrations. These characteristics make localized formation in remote locations difficult to achieve. Measured ambient ozone concentrations in isolated rural areas like Garfield and surrounding counties are believed to be primarily the result of regional and long range transport into the area as evidenced by ozone data compiled by the Division (CDPHE, 2014). Modeling studies indicate that on average, 95% of the peak predicted ozone (i.e., 82 ppb) and 92% of the fourth highest predicted ozone (i.e., 74 ppb) in 2008 at monitors in Garfield county are primarily due to precursor emissions and ozone coming from outside the state of Colorado (Environ, 2013). This reflects long range contribution from natural sources (e.g., stratospheric injection, western US forest fires, etc.), from western U.S. urban centers (e.g. Los Angeles, San Francisco, Las Vegas, etc.), and from international transport into North America (e.g., Lin et al., 2014). This is additionally exacerbated by naturally occurring biogenic contributions upwind from the surrounding region.

Emissions of HAPs such as benzene, formaldehyde, polyaromatic hydrocarbon, etc. are highly localized and generally associated with short-term events with limited exposure. An important example of these emissions, relevant to air quality resources on the west slope, include formaldehyde and benzene from internal combustion engines, exploration and production, diesel particulate matter and associated polyaromatic hydrocarbons (PAHs), and benzo(a)pyrene and benzene from wood smoke, all of which are proven human carcinogens. These sources are prevalent on the west slope.

AMBIENT AIR IMPACTS

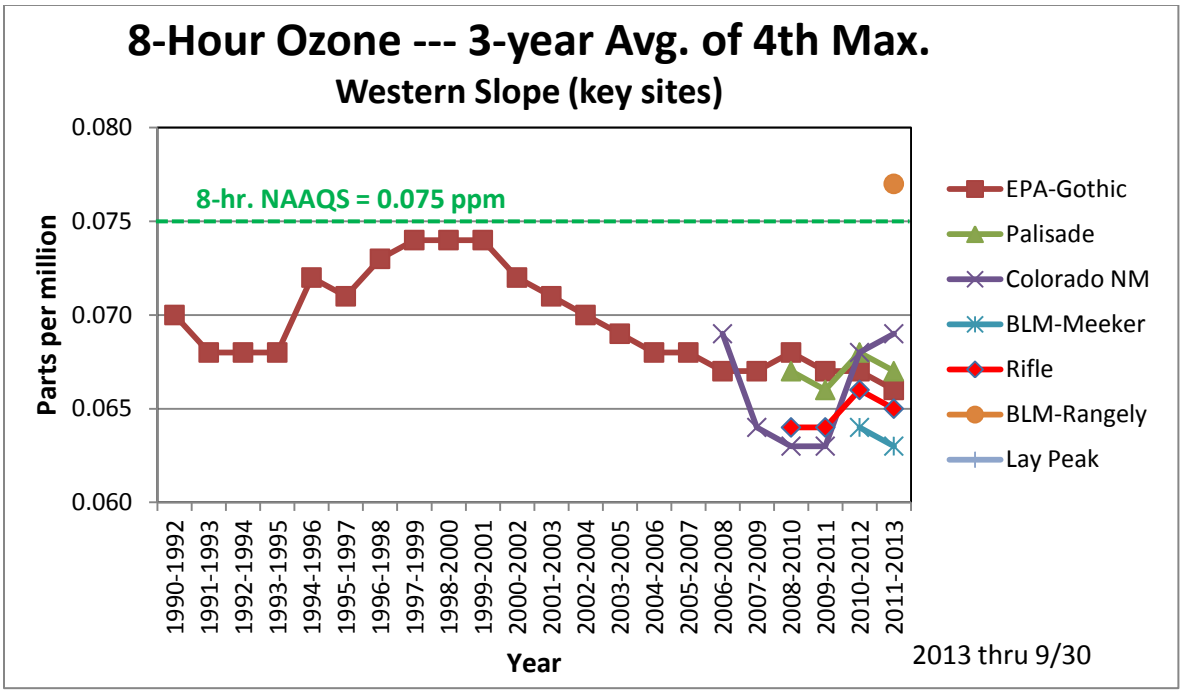
Criteria Pollutants

Ambient air quality monitoring is a direct measurement of air quality impacts at any given receptor. Based on the Garfield County 2012 Air Quality Monitoring Summary (Exhibit 1), concentrations of all criteria pollutants measured are well-below applicable NAAQS thresholds. This includes continuous monitoring of ozone, nitrogen dioxide and particulate matter. Concentrations of carbon monoxide, sulfur dioxide, and lead in western Colorado are extremely low, at or near instrument detection levels (Air Pollution Control Division, 2013) and are not routinely monitored because of a lack of significant emissions.

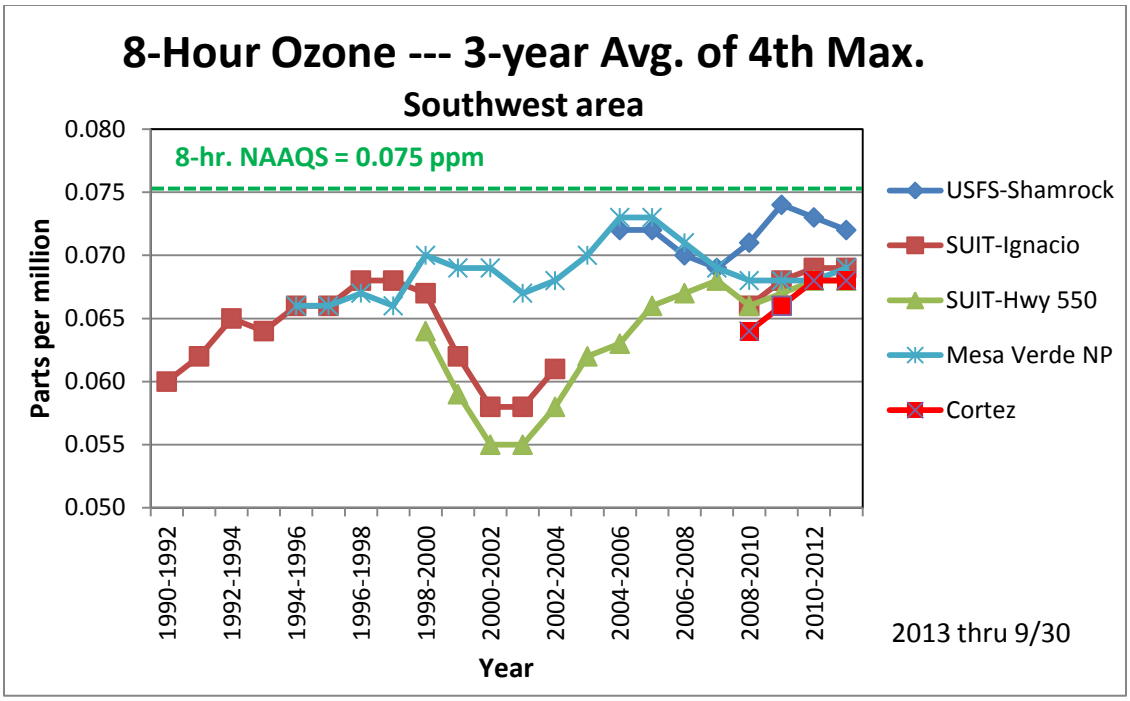
Summer Ozone

As rebuttal to Division and other prehearing statements that statewide control measures will improve ozone levels statewide, including within the EPAC area, a review of a Division-provided compilation of

ambient data, summary statistics and data graphs of collected ozone data are provided (CDPHE, 2014). Central and western Colorado over the past 23 years show background contribution to Garfield County ozone levels unchanged or slightly lower since 1990. The Gothic station, located between Gunnison and Crested Butte, is isolated from E&P development and other localized and near-region air emissions and would be considered representative of background ozone levels into Garfield County. Ozone data collected for Gothic shows 3-year averages of the 4th highest 8-hour concentrations at 70 ppb for the period 1990-1998 and lower at 70 ppb for 2004-2013 (EPA, 2014a). These data also indicates ozone concentrations in Garfield County and Mesa County are well below the applicable ambient air standard.



Ozone data collected at southwest Colorado stations upwind of Garfield County in the summertime include Mesa Verde and Ignacio (CDPHE, 2014). This ozone data at Mesa Verde and Ignacio show identical characteristics with 3-year averages of 4th highest 8-hour concentrations for 1994 through 2001 averaging 67 ppb and 66 ppb respectively (EPA, 2014b). This pattern repeats for the period, 2008 through 2013, with Mesa Verde 69 ppb, Ignacio 67 ppb, and Cortez 67 ppb and Rifle the lowest at 65 ppb (EPA 2014b). This clearly demonstrates measured ozone impacts in Garfield County are the result of transport into the region from outside the state and not the result of localized emissions impacts. This pattern repeats itself throughout western Colorado and re-enforces the belief that the proposed rulemaking would have no effect on ozone impacts in western Colorado.



Winter Ozone

Where ozone is considered a summertime pollutant, over the past few years there have been several elevated ozone events in winter-type conditions in the intermountain region (i.e., Utah, Wyoming and Colorado) that have exceed the NAAQS threshold. Importantly, where ozone is considered a summertime pollutant, this has occurred in wintertime conditions and in select E&P source-dominated locations with unique and easily identifiable topographical settings. Referred to as cold pool ozone, to form it requires sustained snow cover; shallow and persistent (i.e., days) stable atmospheric layer at ground level and; accumulation of trapped pollutants in a restricted dispersion topography (e.g., basin-type) with little air exchange (Lyman et al., 2013). As can be seen by the regional 8-hour average data previously discussed, this pollution cannot be transported to other locations, including Garfield County. Any winds capable of advecting this cold, dense air would mix and dilute the plume thereby reducing the concentrations to background levels. Rangely and Dinosaur, both unique in their topographical setting, have documented these events which are under intense study by industry and research community. However, both locations cannot be generalized as typical statewide exposures. This suggests statewide rulemaking for a unique exposure is not economically responsible nor an efficient strategy. More needs to be learned about this unique condition before an emissions control strategy is developed for the Rangely area.

Non-Criteria Air Pollutants

In rebuttal to prehearing statement assertions by the Division and others that statewide emissions controls are advisable without first reviewing relevant and available data, the EPAC coalition provides

rebuttal exhibits and data summaries. Garfield County likely has implemented the most comprehensive long-term baseline air quality monitoring program of any rural county in the United States. This is indicative of the concern the county has to ensure the best industry practices are in place and that we can directly measure ambient pollutant concentrations rather than rely on easily generated and grossly inaccurate estimates of emissions as an indicator of what is in our air. This program requires annual investment of over $250,000 each year plus 1.5 staff dedicated to the monitoring program and related air quality management and improvement programs. This does not include the $1,000,000 Garfield County recently committed to first-in-kind world-class study to directly measure air emissions from oil and gas drilling. Led by one of the world's premier scientists in the field, Dr. Jeffrey Collett, Colorado State University's Atmospheric Science Department is currently gathering data over three years in the Piceance Basin to help commissioners make scientifically informed decisions. Following county leadership, the State of Colorado found merit in our study and has engaged the same scientists to similarly study drilling emissions in eastern Colorado, using our design. The point of this information is to advise the Commission that our western Colorado Counties are the first to step up to ensure the best science is utilized to define and mitigate oil and gas impacts and we expect the Commission to carefully consider this information to develop science-based regulations where practical as indicated in Federal and state statutes.

We operate five long-term air quality monitoring stations located in Parachute, Battlement Mesa, Rifle, Carbondale, and mobile collection equipment that collects air quality samples every six days (Exhibit 1 and Exhibit 2). Unlike many monitoring programs, ours continually invests in data review and interpretation including annually published summary reports (ARS 2009, 2010, 2011 and 2012) and invited public health risk assessments (CDPHE, 2010) which enables us to keep the pulse of air quality in our area. Annual reports and other County air monitoring efforts have produced an unparalleled data set–one that shows we have very good air quality and it is improving every year. These monitoring data are well known to the Division, readily accessible and should have been utilized by the Division and other Parties to the rulemaking for the purpose of developing science-based proposed rules and alternate proposals for attainment areas that may or may not mesh exactly with proposed rules for nonattainment areas.

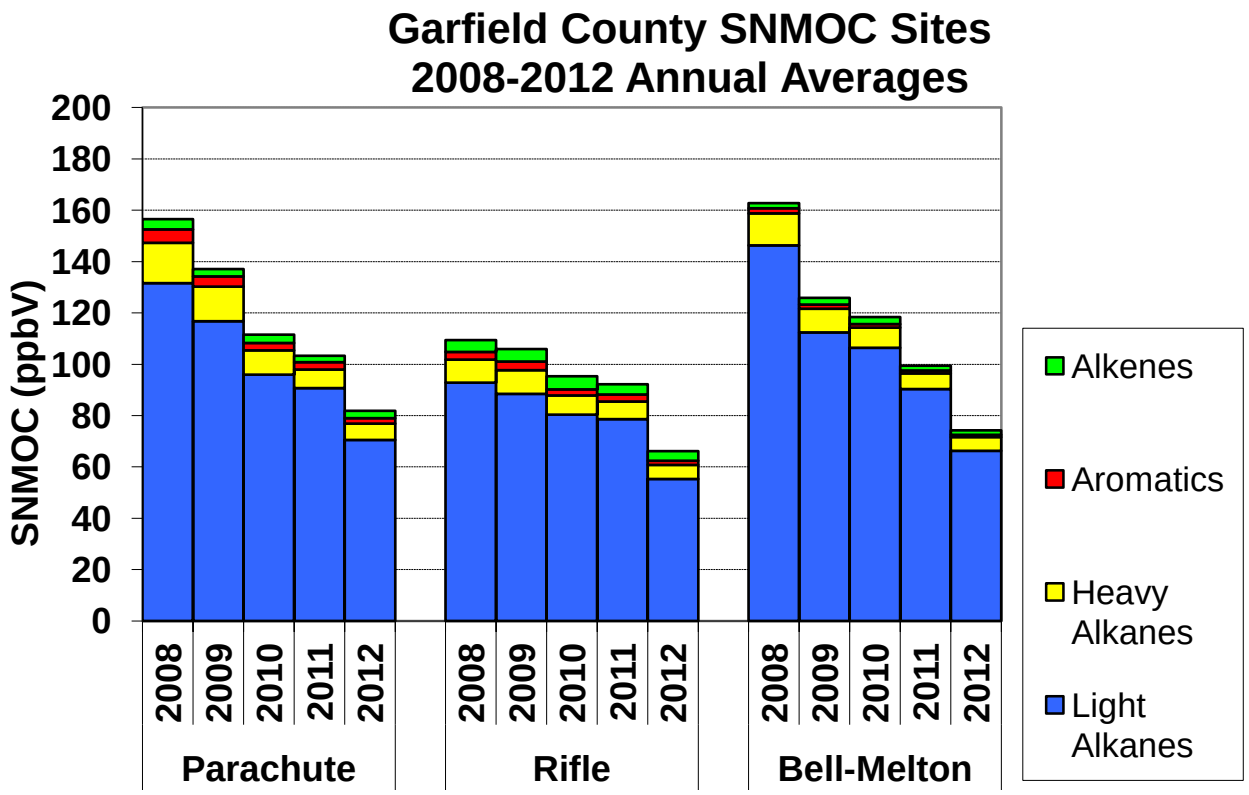
These data include speciated VOCs and other hazardous air pollutants such as formaldehyde, benzene, polyaromatic hydrocarbons. Although not widely monitored throughout western Colorado, non-criteria pollutant data are densely collected in Garfield County and show decreasing annual trends in measured ambient concentrations throughout the county from 2008 to 2012 (Air Resource Specialists, 2013).. These concentrations are generally well below significance level or potential adverse human heath thresholds.

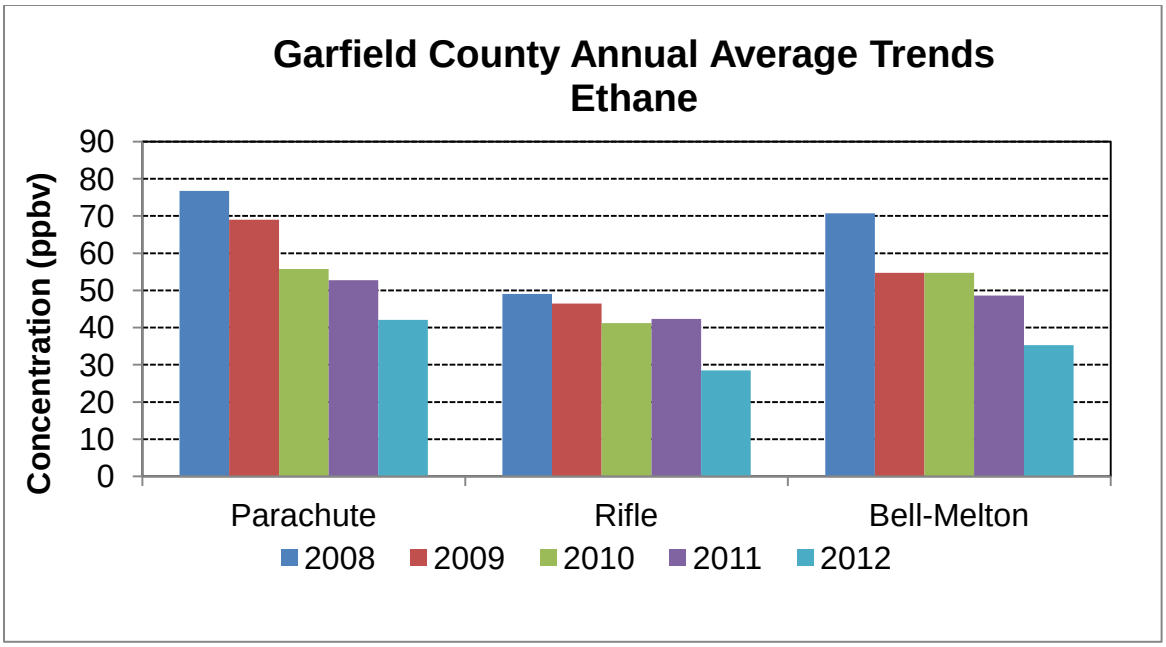
Table 4-1 from Rebuttal Exhibit 1 Garfield County 2012 Air Quality Monitoring Summary.

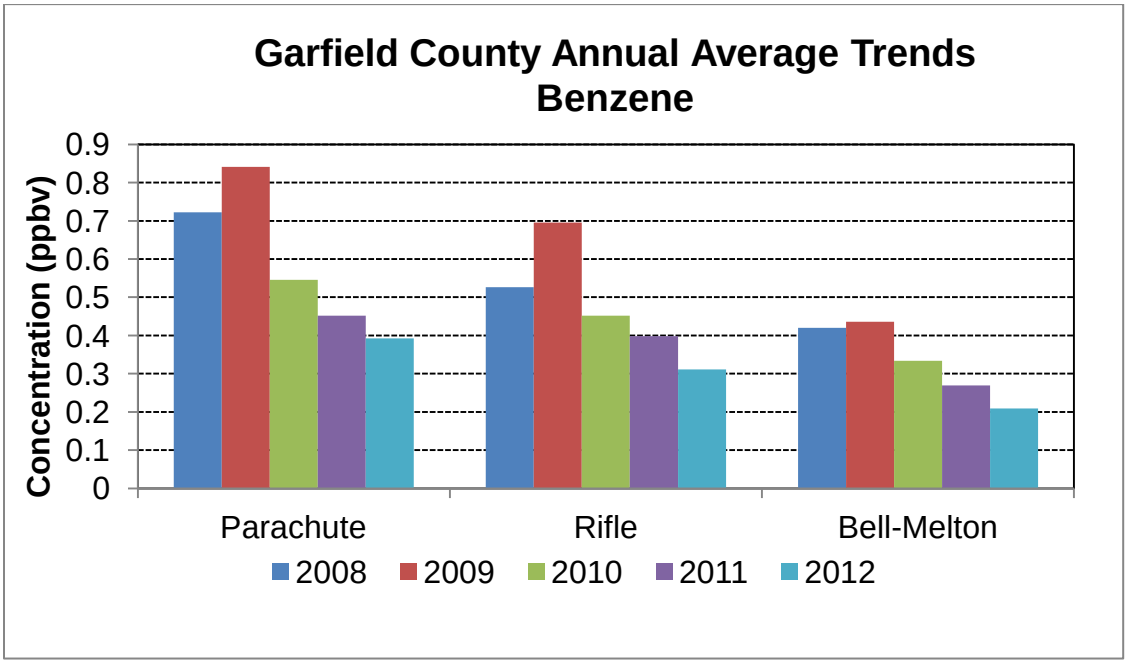
Parachute Site
Annual Average Mass Trends (HAPs Parameters)
2008-2012
p-value in bold blue indicates significantly decreasing 2008-2012 concentration trend

HAP	Average Mass (µg/m^3)					Slope (µg/m^3 per year)	p-Value
	2008	2009	2010	2011	2012		
1,2,4-Trimethylbenzene	0.91	0.62	0.42	0.43	0.39	**-0.11**	**0.04**
1,3,5-Trimethylbenzene	0.61	0.51	0.40	0.22	0.18	**-0.11**	**0.01**
1,3-Butadiene	0.08	0.12	0.10	0.10	0.09	0.00	0.59
Acetaldehyde	1.11	0.99	0.92	0.90	0.75	**-0.08**	**0.01**
Acetone	3.42	3.28	2.67	2.79	2.34	**-0.26**	**0.04**
Benzene	2.31	2.69	1.74	1.44	1.31	**-0.28**	**0.04**
Crotonaldehyde	0.10	0.10	0.12	0.09	0.08	-0.01	0.24
Cyclohexane	3.92	3.77	2.90	2.22	1.99	**-0.54**	**0.01**
Ethylbenzene	0.59	0.44	1.04	0.32	0.17	-0.10	0.12
Formaldehyde	1.74	1.73	1.53	1.64	1.27	**-0.11**	**0.04**
Isopropylbenzene	0.09	0.08	0.07	0.08	0.06	**-0.01**	**0.04**
Methylcyclohexane	9.24	9.43	6.41	4.65	4.19	**-1.47**	**0.04**
m-Xylene/p-Xylene	3.91	3.63	2.20	1.11	1.15	**-0.84**	**0.04**
n-Hexane	5.78	5.64	3.93	3.34	3.01	**-0.75**	**0.01**
n-Nonane	2.20	2.01	1.13	0.97	0.61	**-0.40**	**0.01**
n-Propylbenzene	0.18	0.15	0.13	0.10	0.10	**-0.02**	**0.01**
o-Xylene	0.77	0.65	0.43	0.40	0.27	**-0.13**	**0.01**
Propionaldehyde	0.12	0.09	0.09	0.09	0.07	**-0.01**	**0.04**
Propylene	0.57	0.57	0.62	0.55	0.69	0.03	0.41
Styrene	0.12	0.08	0.12	0.13	1.56	**0.04**	**0.04**
Toluene	9.86	5.83	3.96	5.79	4.27	-1.38	0.12

Benzene is one of the non-criteria pollutants measured that has its origin from E&P gas production, gasoline burning engines, and wood combustion. Over the past 5 years (2008-2012), average benzene concentrations have dropped throughout Garfield County with current annual average concentrations less than 0.3 ppb and maximum levels for the most recent 2 years, generally less than 1.5 ppb. For comparison the Alberta, Canada Ambient Air Quality Objective (Standard) for benzene (Alberta Government, 2013.) is 9 ppb for a 1-hour average and 0.9 ppb for an annual average. That is 3 times higher than the Garfield County annual average at a Canadian location that has seen significant E&P development. National Institute of Occupational Safety and Health (NIOSH) and the Occupational Safety and Health Administration (OSHA) have set chronic exposures at or well above 100 ppb, nearly one thousand times higher than Garfield County averages.




Garfield County Annual Average Trends
Ethane
Concentration (ppbv)
90
80
70
60
50
40
30
20
10
0
Parachute
Rifle
Bell-Melton
2008
2009
2010
2011
2012


Garfield County Annual Average Trends
Benzene
Concentration (ppbv)
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
Parachute
Rifle
Bell-Melton
2008
2009
2010
2011
2012

Legal Analysis

The EPAC coalition is concerned that the Division's proposed rules and assertions made in their prehearing statement regarding development and application of a statewide emission control rule is counter to well established case law and Federal and state statutes. By rule, the air quality standards adopted by the Colorado Air Quality Control Commission (Commission) may vary for different parts of the state "as may be necessitated by variations in altitude, topography, climate, or meteorology." [CRS 25-7-108(1)(a)]. Expanding on the foregoing statutory language in light of apparent legislative intent, the Colorado Supreme Court found that the Commission regulations addressing those variables must be formulated with regard to the various factors that constitute, produce or dispel air pollution, describe maximum concentrations of contaminants that can be tolerated, consider the degree to which particular types of emissions are subject to treatment, and consider the continuous, intermittent, or seasonal nature of the emission to be controlled. According to the Court, the Commission's action must also be both reasonable and necessary. [see for example, Fry Roofing Co. v. State Department of Health Air Pollution Variance Board, 179 Colo. 223,499 P.2d 1176 (1972)].

Western Colorado is remotely populated with a complex terrain setting characterized by good to pristine air quality resources. This is much different than exists within the Denver and Northern Front Range urban corridor that is also within the State's only nonattainment area. The source-receptor geometry and atmospheric dispersion conditions are also substantially different between the two. Western Colorado ambient air quality data is compelling and shows trends that reflect successful implementation of advanced emissions control technologies. Therefore, there does not appear to be sufficient reason to simply assume the proposed rulemaking, in current form, will have any reasonably predictable effect on impacts to air quality resources on a statewide basis and for western Colorado in particular. For this reason, the EPAC coalition again requests the Commission closely scrutinize the available air quality data available within this rebuttal statement and elsewhere and ensure the best science is applied in the place of loosely estimated calculations of air quality benefits and a less than rigorous attempt to adhere to the prevailing statutes and case law that urge caution before ignoring ready opportunities to understand the air quality dynamics of an area before attempting to impose new regulations.

III. LIST OF WITNESSES

At this time the EPAC Coalition is unable to determine all rebuttal witnesses who may be called upon until we are afforded opportunity to review the unreleased regulatory analysis and cost benefit analysis and have opportunity to review the rebuttal statements from other parties. As a result, EPAC not only reserves the right but expects to list further witnesses either jointly or as individual counties in response to other parties' rebuttal statements.

Witnesses may include EPAC coalition county staff and elected officials. Selected consultants and topical experts as may be needed to provide rebuttal testimony, including, without limitation:

Dr. Robert A. Arnott, Principal/Owner, Strategic Environmental Analysis. Dr. Arnott may testify regarding the Division's proposed regulatory changes as well as any issues raised in connection with these issues. Dr. Arnott may testify regarding timelines for regulation implementation and relationships to cost benefit claims made by any party. Dr. Arnott testify regarding any alternative proposals submitted by other parties. Dr. Arnott may testify regarding the relationship of methane emissions to ozone NAA impacts. Dr. Arnott may testify regarding issues other parties raise regarding EPAC prehearing statements, rebuttal statements, alternative proposals and testimony.

Mr. Kirby Wynn, Oil and Gas Liaison for Garfield County. Mr. Wynn may testify regarding the Division's proposed regulatory changes as well as any issues raised in connection with these issues including other parties' alternative proposals and rebuttal statement and the cost benefit and regulatory analysis. Mr. Wynn may testify regarding issues other parties raise regarding EPAC prehearing statements, rebuttal statements, alternative proposals and testimony.

Dr. Jim Wilkinson, senior consultant with Golder Associates. Dr. Wilkinson may testify regarding the Division's proposed regulatory changes as well as any issues raised in connection with these issues including other parties' alternative proposals and rebuttal statements. Dr. Wilkinson may testify regarding the relationship of methane and nonmethane hydrocarbon emissions to ozone NAA impacts and other impacts. Dr. Wilkinson may testify regarding issues other parties raise regarding EPAC prehearing statements, rebuttal statements, alternative proposals and testimony.

IV. EXHIBITS AND REFERENCES

Exhibit 1, Air Resource Specialists (ARS). 2013. *Garfield County 2012 Air Quality Monitoring Summary.* Produced for Garfield County Public Health Department. Available online at http://www.garfield-county.com/air-quality/documents.aspx.

Exhibit 2, 2013, Garfield County air quality monitoring program design.

Exhibit 3, Two Regional Ozone plots inserted to rebuttal statement text: Colorado Department of Public Health and Environment, Air Pollution Control Division. "Western Colorado Ozone Graph". 17 January 2014. Gordon Pierce written communication.

Exhibit 4, Air Resource Specialists (ARS). 2014. Letter transmittal of data and results

References cited

Air Resource Specialists (ARS). 2009. *Garfield County 2008 Air Quality Monitoring Summary.* Produced for Garfield County Public Health Department. Available online at http://www.garfield-county.com/air-quality/documents.aspx.

Air Resource Specialists (ARS). 2010. *Garfield County 2009 Air Quality Monitoring Summary.* Produced for Garfield County Public Health Department. Available online at http://www.garfield-county.com/air-quality/documents.aspx.

Air Resource Specialists (ARS). 2011. *Garfield County 2010 Air Quality Monitoring Summary.* Produced for Garfield County Public Health Department. Available online at http://www.garfield-county.com/air-quality/documents.aspx.

Air Resource Specialists (ARS). 2012. *Garfield County 2011 Air Quality Monitoring Summary.* Produced for Garfield County Public Health Department. Available online at http://www.garfield-county.com/air-quality/documents.aspx.

Air Resource Specialists (ARS). 2013. *Garfield County 2012 Air Quality Monitoring Summary.* Produced for Garfield County Public Health Department. Available online at http://www.garfield-county.com/air-quality/documents.aspx.

Alberta Government. "Alberta Ambient Air Quality Objectives and Guidelines Summary." August 2013. Available online at http://environment.gov.ab.ca/info/library/5726.pdf

Garfield County Public Health Department. December 2007. *Garfield County Ambient Air Quality Monitoring Summary: June 2005-May 2007.* Available online at http://www.garfield-county.com/air-quality/documents.aspx.

Colorado Department of Public Health and Environment, Air Pollution Control Division. "2013 Stakeholder Meeting #2". 28 February 2013. PowerPoint Presentation.

Colorado Department of Public Health and Environment, Air Pollution Control Division. "Colorado Air Quality Data Report." November 2013. Available online at http://www.colorado.gov/airquality/tech_doc_repository.aspx

Colorado Department of Public Health and Environment, Air Pollution Control Division. "Western Colorado Ozone Graph". 17 January 2014. Gordon Pierce written communication.

Colorado Department of Public Health and Environment, Disease Control and Epidemiology Division. “Garfield County Air Toxics Inhalation: Screening Level Human Health Risk Assessment: Inhalation of Volatile Organic Compounds Measured in 2008 Air Quality Monitoring Study.” June 2010. Available online at http://www.garfield-county.com/environmental-health/human-health-risk-of-oil-gas.aspx

Environ. “Western Regional Air Partnership (WRAP) West-wide Jump-start Air Quality Modeling Study (WestJumpAQMS): Final Report.” September 2013. Prepared for Tom Moore, Western Regional Air Partnership. Prepared by Environ International Corporation, Alpine Geophysics, LLC, and University of North Carolina.
www.wrapair2.org/pdf/WestJumpAQMS_FinRpt_Finalv2.pdf,
www.wrapair2.org/pdf/Appendix_B_O3_10hi_Model_Days.xlsx

EPA (2014a). CASTNET, Download Data, Ozone 8HR DMAX.
http://java.epa.gov/castnet/epa_jsp/prepackageddata.jsp
EPA (2014b). AirData. http://www.epa.gov/airdata/ad_data_daily.html
EPA (2013a). Curently Designated Nonattainment Areas for All Criteria Pollutants.
www.epa.gov/oaqps001/greenbk/ancl.html

Lin, Jintai; Pan Da; Davis, Steven J.; Zhang, Qiang; He, Kebin; Wang, Can; Streets, David G.; Wuebbles, Donald J.; and Guan, Dabo. “China’s international trade and air pollution in the United States.” PNAS 2014 ; published ahead of print January 21, 2014.
www.pnas.org/content/early/2014/01/16/1312860111.full.pdf+html?with-ds=yes

Lyman et al. 2013. *2013 Uintah Basin Winter Ozone & Air Quality Study*. Utah State University.

McNally, D. E., C. Loomis, R. Morris, and T. Saskulyanontvittaya “Draft Final Report: 2020 Ozone Source Apportionment Modeling for the Denver Area.” 2009.
http://www.ozoneaware.org/postfiles/documentsandpresentations/modeling/Draft%20Final%202020_OSAT_Report.pdf

Respectfully submitted this 30th day of January, 2014:

Garfield County, Colorado

By: _____
John Martin
Chairman
Garfield County Board of Commissioners

For the Energy Producing Attainment Counties: Garfield County, Mesa County, Moffat County, Montezuma County, Rio Blanco County