

January 29, 2010

Colorado Oil and Gas Conservation Commission
Attn: Mr. David S. Neslin
Executive Director
1120 Lincoln Street, Suite 801
Denver, Colorado 80203

Re: Application for Grant from Environmental Response Fund/
Corsentino Dairy Farms, Inc.

Dear Mr. Neslin:

This application is filed on behalf of Corsentino Dairy Farms, Inc. (“Corsentino Dairy”) pursuant to Rule 503.b(10) of the Rules and Regulations of the Colorado Oil and Gas Conservation Commission (“COGCC”). Corsentino Dairy has been directly and adversely affected and aggrieved by the conduct of Petroglyph Energy, Inc.’s¹ (“Petroglyph”) coal-bed methane gas operations in Huerfano County, Colorado (“CBM Operations”). Corsentino Dairy is hereby requesting a grant of funds from the Oil and Gas Conservation and Environmental Response Fund (“Response Fund”) to mitigate the losses incurred in the value of its property and its operations as a result of Petroglyph’s CBM Operations, the discharge of produced water and the delay by Petroglyph in addressing this matter. Corsentino Dairy hereby respectfully requests that this matter be considered by COGCC at its earliest opportunity.

Background

Corsentino Dairy is located east of Walsenburg on Highway 10 and operates as a dairy farm with about 450 head of dairy cows. Corsentino Dairy has been in operation since 1935, involving four generations of the Corsentino family. The family operation has approximately 350 acres of farm land that is used to raise irrigated corn and rye to feed the dairy herd. Irrigation water for the farm land is diverted from the Cucharas River under high-priority, adjudicated water rights dating back to the early 1900’s. Approximately 135 acres of the farm land are irrigated through ditch irrigation which is diverted directly from the Cucharas River to the fields. Approximately 215 acres of the farm land are irrigated through pivot irrigation systems with water stored in a reservoir, known as Holita Reservoir, which is filled with water diverted from the Cucharas River. Water from the Cucharas River also is used as drinking water for the dairy herd.

¹ Petroglyph Energy, Inc. is identified as the operator in Cease and Desist Orders issued by COGCC in 2007 and 2008. A wholly owned subsidiary of Petroglyph Energy, Inc., Petroglyph Operating Company, Inc., is the named operator for the point source water discharge permit, No. CO-0048020, issued by the Colorado Water Quality Control Division. The corporate relationships of the various Petroglyph entities are provided in Exhibit A.

From approximately 1999 to 2007, Petroglyph discharged produced water from its CBM Operations into the Cucharas River, upstream of Corsentino Dairy. The produced water is groundwater pumped from deep coal seams to depressurize the system and allow the desorption of methane gas from the coal. During the eight-year period, Petroglyph discharged up to 6.5 million gallons per day of produced water to the Cucharas River. The largest volume of produced water discharged by Petroglyph occurred from 2003 to 2007.

Deep groundwater from CBM dewatering operations is typically high in sodium (Na). The produced water from Petroglyph's CBM Operations had a sodium content of approximately one ton per acre-foot (up to 39,896 lbs/day).

Petroglyph stopped its CBM Operations and ceased discharging produced water into the Cucharas River in July 2007 following meetings with COGCC staff regarding the potential threats to public health, safety, and welfare, and the environment related to the presence of methane gas in domestic water wells. The Director of COGCC issued a Cease and Desist Order on October 16, 2007 shutting down Petroglyph's CBM Operations. Subsequent orders were issued by the Director in November 2007 and January 2008, extending the Cease and Desist Order and requiring Petroglyph to implement a Methane Investigation, Monitoring and Mitigation Plan. This matter remains pending before COGCC.²

Petroglyph holds a point source water discharge permit issued by the Colorado Water Quality Control Division ("CWQCD") of the Colorado Department of Public Health and Environment ("CDPHE"), Permit No. CO-0048020, for the discharge of produced water. Petroglyph has applied for a renewal of the permit. In considering Petroglyph's renewal application, the CWQCD recognized the adverse impacts to agricultural uses, and specifically those suffered by Corsentino Dairy, by allowing the discharge of untreated produced water from Petroglyph's CBM Operations because of the high sodium concentrations and high sodium adsorption rate ("SAR"). The discharge permit held by Petroglyph during its discharge of produced water to the Cucharas River from 1999 to 2007, and during the high-volume discharges from 2003 to 2007, did not provide any limitations or standards for the quality of the water discharged related to sodium or the SAR.

In the Fact Sheet published in connection with the issuance of a draft renewal of Petroglyph's discharge permit, the CWQCD recognized the adverse impacts that resulted from Petroglyph's discharge of untreated produced water:

² COGCC Cause No. 1, Order No. 1C-4, IN THE MATTER OF VIOLATION OF THE RULES AND REGULATION OF THE OIL AND GAS CONSERVATION COMMISSION BY **PETROGLYPH ENERGY, INC.**, HUERFANO COUNTY, COLORADO, Cease and Desist Order, October 16, 2007.

COGCC Cause No. 1, Order No. 1C-5, IN THE MATTER OF VIOLATION OF THE RULES AND REGULATION OF THE OIL AND GAS CONSERVATION COMMISSION BY **PETROGLYPH ENERGY, INC.**, HUERFANO COUNTY, COLORADO, Cease and Desist Order, November 14, 2007.

COGCC Cause No. 1, Order No. 1C-6, IN THE MATTER OF CEASE AND DESIST ORDER NO. 1C-5; **PETROGLYPH ENERGY, INC.**, HUERFANO COUNTY, COLORADO, Supplemental Order, January 15, 2008.

First, the continued practice of discharging the untreated produced water (i.e., high Sodium Adsorption Rate, SAR, values and high sodium concentrations) into the Cucharas River, under specific hydrologic conditions, creates a known threat to the beneficial agricultural use of this state water by impairing the suitability of this river water when diverted for agricultural uses. This threat is heightened when there exists minimal upstream flow in the river to dilute the effluent entering from several tributaries. **Specifically, there has been damage to corn fields, soils, and dairy cattle when water was diverted (Holita Ditch) from the Cucharas River to a storage pond (Holita Reservoir) and then routed to the Corsentino Dairy for these agricultural uses.** The damage was first reported in 2006 and has been confirmed by soil scientists from Colorado State University and USDA's National Salinity Team. ***

Third, the CBM operator [Petroglyph] has been aware of the SAR and high sodium problems in the produced water for several years and has taken steps to identify and characterize treatment technologies that will be evaluated for use in addressing this problem. The application for the renewal permit identifies a site for the treatment facility with a design capacity of 10 MGD [million gallons per day]. [emphasis added].

To address the serious adverse impacts of the discharge of untreated produced water from CBM Operations, the CWQCD has adopted a narrative standard for Agriculture Use Protection. In the renewal water discharge permit recently issued by CWQCD, Petroglyph is required to treat its produced water prior to discharge and is subject to water quality limits relating to electric conductivity and SAR levels.

As a result of Petroglyph's discharge of untreated produced water, Corsentino Dairy has suffered devastating financial losses and hardships, including lower milk production, increased mortality rates and decreased herd pregnancy rates. During the period of Petroglyph's discharge of untreated produced water, Corsentino Dairy's milk production dropped in half, from 84 lbs. per cow to 42 lbs. per cow. In the year following the cessation of Petroglyph's produced water discharges in 2007, milk production recovered to 62 lbs. per cow. During the period of Petroglyph's discharge of untreated produced water, Corsentino Dairy also suffered increased herd death loss and a decrease in pregnancy rate. After Petroglyph stopped its discharges into the Cucharas River, Corsentino Dairy's herd death loss improved 64% and its pregnancy rate increased from 39% to 59%. There is a clear and direct correlation between Petroglyph's discharge of CBM produced water to the Cucharas River and the adverse impacts on Corsentino Dairy's milk production, herd death losses, herd pregnancy rates and other operational losses.

In addition, when used for irrigation of crops, the high sodium content of the produced water reduced crop yield and lowered the nutrient value of the silage. The result to Corsentino Dairy was reduced crop yield and increased reliance on alternative feed sources. Use of sodium-contaminated irrigation water from Petroglyph's produced water discharges impaired the soils of Corsentino Dairy's fields for the production of feed for the dairy herd.

Site investigations conducted in 2008 and 2009 indicated that soils on the farm have higher SAR levels than is considered optimum for agricultural soils, and also exhibit characteristics of sodic soils. The soils in these fields have accumulated Na as a result of high-Na irrigation water from the Cucharas River. Combined with low Ca and Mg, the Na accumulation causes poor soil physical conditions as well as stunted crop growth. The soil Na concentration in some areas of the Corsentino's farm is higher than that which corn, the most salt-sensitive crop grown on the farm, can tolerate.

The financial impact of Petroglyph's *past* operations has been devastating to Corsentino Dairy. The losses incurred by Corsentino Dairy are presented in the following table:

Table 1
Corsentino Dairy Farm
Summary of Loss Calculation from Water
1/1/02 Thru 12/31/08 plus future years

Year	Loss of Milk Production	Loss of Cattle	Loss of Corn Silage	Additional Cost for Corn to Ration	Totals
2002	\$18,418.01	\$107,269.83	\$0.00	\$0.00	
2003	\$91,411.03	\$70,720.54	\$0.00	\$0.00	
2004	\$191,080.63	\$32,771.97	\$0.00	\$0.00	
2005	\$311,980.69	\$74,331.91	\$0.00	\$0.00	
2006	\$432,047.76	\$79,201.12	\$255,190.00	\$131,638.16	
2007	\$609,137.52	\$0.00	\$171,525.00	\$146,377.32	
2008	\$382,876.21	\$0.00	\$233,625.00	\$120,201.90	
Losses Thru 12/31/08	\$2,036,951.85	\$364,295.37	\$660,340.00	\$398,217.38	\$3,459,804.58
Future Year Losses					
Per Year Loss	\$338,930.64		\$229,425.00	\$89,976.25	\$658,331.89

Corsentino Dairy also has suffered a significant loss in property value, including the value of its adjudicated water rights. As of August 24, 2004, an independent appraiser valued the Corsentino Dairy property at \$2,750,000. In stark contrast, as of June 16, 2009, an independent appraiser valued the Corsentino Dairy property at \$1,260,000, a loss in value of \$1,490,000.

Corsentino Dairy has repeatedly demanded that Petroglyph compensate them for their losses. Petroglyph has refused to make any restitution or otherwise compensate Corsentino Dairy for the losses directly caused by Petroglyph's discharges of produced water from its CBM Operations.

As a result of efforts of Executive Director Neslin, and the COGCC staff, Petroglyph has agreed to a Form 27 Site Investigation and Remediation Workplan, approved on November 30, 2009. The Form 27 requires Petroglyph to conduct sampling and analysis of the Corsentino Dairy farm soils and to undertake certain remediation activities pursuant to a Workplan. However, a final Workplan has yet to be completed and approved. Additionally, a Supplement to the Form 27 requires Petroglyph to reimburse Corsentino Dairy for the costs of the purchase and delivery of supplemental feed for the dairy herd in amounts and quality necessary to meet the feed requirements of the herd over and above the feed that can be supplied from its crop production during 2009 and 2010. The agreement to reimburse Corsentino Dairy for such supplemental feed costs extends only through the end of 2010. It is anticipated that the remediation of the Corsentino Dairy fields will not be completed until a much later date. Reimbursement payments have been made to Corsentino Dairy by Petroglyph under this Supplement to Form 27.

The delay, however, in undertaking the remediation activities has been costly to the Corsentino's. The lack of production of corn and silage from Corsentino Dairy's farmland as a result of the damage caused by the Petroglyph discharges has taken a heavy toll on the Corsentino family and their operations. Until the soils are fully remediated, the losses continue to mount.

Oil and Gas Conservation and Environmental Response Fund

The Response Fund is established under C.R.S. §34-60-124. Section 34-60-124(4) provides in part:

- (4) The oil and gas conservation and environmental response fund may be expended:
 - (a) By the commission, or by the director at the commission's direction, prior to, during, or after the conduct of oil and gas operations to:
 - (I) Investigate, prevent, monitor, or mitigate conditions that threaten to cause, or that actually cause, a significant adverse environmental impact on any air, water, soil, or biological resource;

The implementation of the Response Fund is specified in Rules 710 and 701 of the COGCC's Rules and Regulations and Rules of Practice and Procedure, respectively, as recently amended.

Rule 710 provides:

The Commission shall ensure that the two-year average of the unobligated portion of the Oil and Gas Conservation and Environmental Response Fund is maintained at a level of approximately, but not to exceed, four million dollars (\$4,000,000), and that there is an adequate balance in the fund to address environmental response needs, which may be used in accordance with the Act and Rule 701.

Rule 701 provides, in part:

The rules in this series pertain to the provision of financial assurance by operators to ensure that performance of certain obligations by the Oil and Gas Conservation Act (the Act), §34-60-106(3.5), (11), (12) and (17) C.R.S., as well as the use of the Oil and Gas Conservation and Environmental Response Fund, §34-60-124 C.R.S., as a mechanism to plug and abandon orphan wells, perform orphaned site reclamation and remediation, and to conduct other authorized environmental activities.

Sections 34-60-106(3.5), (11), (12) and (17) provide additional powers of the Commission and include the following:

(3.5) The commission shall require the furnishing of reasonable security with the commission by lessees of land for the drilling of oil and gas wells, in instances in which the owner of the surface of lands so leased was not a party to such lease, to protect such owner from unreasonable crop losses or land damage from the use of the premises by said lessee. The commission shall require the furnishing of reasonable security with the commission, to restore the condition of the land as nearly as is possible to its condition at the beginning of the lease and in accordance with the owner of the surface of lands so leased.

(11)(a) By July 16, 2008, the commission shall:

(II) Promulgate rules, in conjunction with the department of public health and environment, to protect the health, safety, and welfare of the general public in the conduct of oil and gas operations.

(12) The commission, in consultation with the state agricultural commission and the commissioner of agriculture, shall promulgate rules to ensure proper reclamation of the land and soil affected by oil and gas operations and to ensure the protection of topsoil of said land during such inspection.

(17)(a) The commission has exclusive authority to regulate the public health, safety, and welfare aspects, including the protection of the environment, of the termination of operations and permanent closure, referred to in this subsection (17) collectively as “closure”, of an underground natural gas storage cavern.

Discussion

We submit that the intent and spirit of the legislative and regulatory mandates associated with the Response Fund warrant the expenditure of monies from the fund to assist Corsentino Dairy in mitigating the adverse impacts caused by Petroglyph’s CBM Operations, especially since prevention is no longer an option.

The Colorado General Assembly has stated its concern that we protect the “health, safety, and welfare of the general public in the conduct of oil and gas operations.” Sections 34-60-106(11)(a)(II), quoted above, charges COGCC to “Promulgate rules, in conjunction with the department of public health and environment, to protect the health, safety, and welfare of the general public in the conduct of oil and gas operations.” Further, with regard to the closure of natural gas storage caverns, COGCC is provided the “exclusive authority to regulate the public health, safety and welfare aspects, including the protection of the environment.” Section 34-60-106(17)(a).

The General Assembly also has charged COGCC to provide financial assurances to protect surface owners from “unreasonable crop losses and land damages” from oil and gas operations. Section 34-60-106(3.5).

Further, in 2007 the General Assembly passed legislation increasing COGCC’s regulatory authority and oversight obligations to better address the potential adverse impacts that can accompany oil and gas development. The General Assembly declared that: “it is the public’s interest to foster the responsible, balanced development of Colorado’s oil and gas resources consistent with the protection of public health, safety, and welfare, including protection of the environment and wildlife resources.” C.R.S. §34-6-102(1).

In the December 11, 2008 amendments to its Rules and Regulations, COGCC took note of the responsibility to protect the public health, safety, and welfare. In the Statement of Basis, Specific Statutory Authority, and Purpose, COGCC notes:

- ✓ Page 1, first paragraph: “These rules are promulgated to protect public health, safety, and welfare, including the environment and wildlife resources, from the impacts resulting from the dramatic increase in oil and gas development in Colorado.”
- ✓ Page 2, first paragraph: “In addition, as the level and extent of drilling activity has increased, so has the public concern for the health, safety and welfare of Colorado’s residents.”
- ✓ Page 6, bottom paragraph, continuing on page 7: “The rules are grounded in the police powers of the State and are designed to protect Colorado’s public health, safety, and welfare, including its environment and wildlife resources. The Commission believes that

such protection is necessary for all lands, regardless of surface ownership. This protection cannot be achieved if it is contingent on surface ownership. Rather, public health, safety, and welfare, including the environment and wildlife resources, are affected by oil and gas operations regardless of who owns the surface.”

Corsentino Dairy is presented with a conundrum. As presented in Table 1, the financial impacts have been substantial and through 2008 total \$3,459,804.58, and they continue to mount. Petroglyph has refused to make restitution for these losses, which could have been prevented or mitigated had Petroglyph acted, or been forced to act more promptly. Only recently, and pursuant to the Executive Director’s Form 27, has Petroglyph taken any responsibility for the harm caused by its CBM Operations. It has been suggested that the Corsentino’s recourse is to seek damages in the courts. There are numerous practical limitations to this suggestion. Litigation is an expensive proposition. And even if the resources were available for the Corsentino’s to litigate against Petroglyph, proving liability and damages does not always translate into an immediate financial recovery. Corsentino Dairy is a family operation – there are no public shareholders or wealthy private investors – the family’s resources are limited to what is produced by its dairy operations and their sweat and hard work. Without question, the resources provided by the dairy operations have been severely impacted by Petroglyph’s actions. The Corsentino’s know only too well that agricultural operations in general, and dairy operations specifically, are a tough business, but to ask the Corsentino’s to further suffer the burdens imposed by Petroglyph is unfair.

Conclusion

Corsentino Dairy does not expect that all of its losses suffered as a result of Petroglyph’s discharge of untreated produced water be mitigated by the Response Fund. Essentially, Petroglyph is a recalcitrant operator that has failed to meet its obligations to protect the public health, safety, and welfare from its operations. Corsentino Dairy has limited options available to correct this wrong. Under such circumstances, we submit, it is appropriate to use monies from the Response Fund to afford mitigation of the impacts from Petroglyph’s CBM Operations.

Rather than present a specific dollar amount request, Corsentino Dairy offers to work with COGCC to determine what could be an appropriate response to the circumstances presented by this request.

The Corsentino’s greatly appreciate your thoughtful consideration.

Respectfully submitted,

s/ John D. Faught

John D. Faught
Attorney for Corsentino Dairy Farms, Inc.

cc: Joe Corsentino
Frances Corsentino
Brett Corsentino

Exhibit A

PETROGLYPH ENTITIES

- **Petroglyph Operating Company, Inc.**
 - Kansas Corporation
 - Wholly-owned subsidiary of Petroglyph Energy, Inc.
 - Develops and produces natural gas from deposits located in the Raton Basin
- **Petroglyph Energy, Inc.**
 - Idaho Corporation
 - Wholly-owned subsidiary of III Exploration Company
 - Parent company of Petroglyph Operating Company, Inc.
 - General partner of III Exploration II LP
 - Doing business in Huerfano County
- **III Exploration Company II LP**
 - Idaho Limited Partnership
 - Petroglyph Energy, Inc. is general partner
 - Principal place of business is Boise, Idaho
 - Holds leaseholds and certain oil and gas property and equipment in Raton Basin
- **III Exploration Company**
 - Idaho Corporation
 - Wholly-owned subsidiary of Intermountain Industries, Inc.
 - Holding company of Petroglyph Energy, Inc.
 - Principal place of business is Boise, Idaho
- **Intermountain Industries, Inc.**
 - Idaho corporation
 - Privately held
 - Holding company
 - Principal place of business is Boise, Idaho