

## Kubeczko, Dave

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**From:** Kubeczko, Dave  
**Sent:** Wednesday, June 06, 2012 6:01 PM  
**To:** Kubeczko, Dave  
**Subject:** FW: Dan A Hughes Company LP, San Francisco Creek #1 Pad, NWSE Sec 24 T39N R5E, Rio Grande County, Form 2A #400211669; COGCC's Response to LGD Comments  
**Attachments:** Scan No. 2034395\_Dan A Hughes Co, San Francisco Creek #1 Pad\_COGCC Response to Rio Grande County LGD and Public Comments (Complete)\_#400211669\_06062012.pdf  
**Categories:** Dark Teal Category

**Scan No 2034395**      **COGCC RESPONSE TO LGD and PUBLIC COMMENTS**  
**COPRESPONDENCE**      **2A#400211669**

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**From:** Kubeczko, Dave  
**Sent:** Wednesday, June 06, 2012 5:59 PM  
**To:** 'rgclanduse@riograndecounty.org'  
**Subject:** Dan A Hughes Company LP, San Francisco Creek #1 Pad, NWSE Sec 24 T39N R5E, Rio Grande County, Form 2A #400211669; COGCC's Response to LGD Comments

**Please disregard previous email, it had the wrong subject line, everything else was accurate.**

Rose,

COGCC appreciates Rio Grande County's participation in the LGD comment portion of the Form 2 and Form 2A permitting process. Attached is COGCC's Responses to Rio Grande County's (submitted on November 11, 2011) and the Public's Comments (submitted between October 17, 2011 and November 13, 2011) for the Dan A Hughes Company's, San Francisco Creek #1 Pad, Form 2#400210265 and Form 2A#400211669. These responses will become an attachment to the Form 2 and Form 2A. If you have any questions, please do not hesitate to call me at (970) 309-2514 (cell), or email. Thanks.

Dave

**David A. Kubeczko, PG**  
**Oil and Gas Location Assessment Specialist**

Colorado Oil & Gas Conservation Commission  
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Rifle, CO 81650  
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 *Please consider the environment before printing this e-mail*



June 6, 2012

Rio Grande County Board of County Commissioners,  
Planning and Zoning Board, and  
Land Use Planner - Rose Vanderpool

**925 6th Street, Room 208**

**Del Norte, CO 81132**

**Phone: (719) 657-4003**

**Fax: (719) 657-2514**

**Re: Dan A Hughes Company LP, San Francisco Creek #1 Pad, NWSE Sec 24 T39N R5E, Rio Grande  
County, Form 2#400210265 and 2A#400211669;  
COGCC's Response to Rio Grande County's LGD and Public Comments**

Dear Ms. Vanderpool,

The Colorado Oil and Gas Conservation Commission (COGCC) has received and reviewed comments pertaining to the Oil and Gas Location proposed by Dan A. Hughes Company on October 12, 2011 in the San Francisco Creek Ranch Subdivision area, south of Del Norte, Rio Grande County, Colorado. Dan A. Hughes has submitted one Form 2 (San Francisco Creek #1, Document No. 400210265) and one Form 2A (San Francisco Creek#1, Document No. 400211669).

By statutory mandate, the COGCC has adopted and enforces Rules regulating oil and gas development to protect public health, safety, and welfare, including the environment and wildlife resources. In 2009, amended Rules took effect and established the Form 2A, Oil and Gas Location Assessment process, which provides for a site-specific review of surface disturbance associated with a proposed Oil and Gas Location. In this review process, the COGCC utilizes onsite inspections, consultation and input from the Colorado Department of Public Health and Environment, Colorado Division of Wildlife, local governments, surface owners and interested public. Using this input, the COGCC reviews the Rules and the operator's proposed surface use plans and best management practices (BMPs) in consideration of all the geographic and environmental conditions observed and evaluated and may apply conditions of approval (COAs) to address situations that require additional safeguards beyond the extent of the Rules.

During the site specific Form 2A review process for the planned San Francisco Creek #1 Pad, the COGCC reviewed environmental information, including proximity to surface water and groundwater, soil type, topography, climate, and wildlife; cultural information, including housing density, proximity to residences and other public use areas, and traffic patterns; and planned activities for the location, including type of equipment, duration of planned activities, and operational plans and practices. The COGCC has carefully considered the input received from the county government and from the public on this subject. The COGCC has worked with the operator to refine a number of their proposed BMPs and we have developed 41 site-specific COAs (9 COAs for Water Resources Protection, 15 COAs for General Site Protection; and 17 COAs for Nearby Residential Area Protection) to provide additional protection for public health, safety, and

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welfare. These are provided as **Attachment A - Dan A. Hughes, San Francisco Creek #1 Pad, Conditions of Approval; Form 2#400210265; Form 2A#400211669**. These COAs and BMPs will require the operator to implement additional noise and lighting mitigation, traffic stipulations, safety measures, groundwater monitoring, emissions controls, and fluids containment to protect water resources, nearby residents, and the environment generally.

The COGCC has also required the operator of this location to notify us 48 hours prior to commencing construction, 24 hours prior to rig mobilization, and 48 hours prior to beginning fracture stimulation operations. This will allow for the COGCC to conduct coordinated inspections at critical times of operations and work with the operators to ensure that the prescribed measures are in place and effective. If warranted, the COGCC can work with the operator to further refine or enhance the measures taken.

The COGCC's Oil and Gas Location Assessment (OGLA) group, Permit group, and Engineering group reviews permits statewide with very similar issues and assesses each location's potential impact to both the public and the environment, and then places COAs that require the operator to conduct oil and gas activities in a safe (public health and welfare) and environmentally (water and wildlife resources) protective way. These COAs have been used statewide and have proved to be effective in protecting both the environment and the public, especially in residential areas and sensitive wildlife areas. The mission of the COGCC is to be both protective of the environment and the public, while developing the state's natural resources in a responsible way. The COGCC will continue to rely on the Rules, including the application of site-specific COAs and BMPs, to protect public health, safety and welfare, including the environment and wildlife resources.

COGCC has reviewed the 40 comments submitted on the Application for Permit to Drill, Form 2#400210265 and the 7 comments submitted on the Oil and Gas Location Assessment, Form 2A#400211669. Each original comment on the Oil and Gas Location Assessment, Form 2A#400211669 and Application for Permit to Drill, Form 2#400210265 has been given its own identification number (1 to 40 for the Form 2 and 41 to 47 for the Form 2A). These 47 comments have been provided as **Attachment B - Dan A. Hughes, San Francisco Creek #1 Pad, Renumbered Comments for Easy Reference; Form 2#400210265; Form 2A#400211669**, attached to this correspondence. We have also attached a Comment/Response Table (**Table 1 - COGCC's Response to Public and LGD Comments; Dan A Hughes Company, San Francisco Creek #1, Rio Grande County; Form 2#400210265; Form 2A#400211669**) that lists general responses to the issues and concerns identified in each of the comments along with references to either our rules or specific COAs that are applicable and been placed on the Form 2A or Form 2 to address those issues/concerns. Any and all comments that contained any reference to these particular issues/concerns are also listed on this table next to the appropriate issue/concern.

In addition, COGCC has reviewed the Rio Grande County LGD's comments and has either suggested revisions to the operator or made the changes. Below are the Rio Grande County LGD's Comments and brief responses (**in bold dark red text**) made by COGCC (more detailed explanation can be found in **Table 1 - COGCC's Response to Public and LGD Comments; Dan A Hughes Company, San Francisco Creek #1, Rio Grande County; Form 2#400210265; Form 2A#400211669** Comment/Response Table 1):

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**COMMENT NO. 47**

**LGD (10/27/2011; 11:43:20 AM)**

**Form 2A#400211669**

**The Rio Grande County Board of County Commissioners, Planning and Zoning Board, and the Land Use Administrator (LGD) have reviewed forms 2/2A, and submits the following comments:**

*Form 2A - Item no. 10: Current Land Use: (check all that apply) Only Non-crop land: Rangeland was checked. We feel Crop Land: Dry land and "Subdivided" and "Residential" should also have been checked. San Francisco Creek Ranch Filing No. 2 was subdivided and platted on Sept 6, 1996, Drawer 11, Map 25.*

***Land Use classification is used for reclamation purposes.***

*Item no. 11: Future Land Use: This land was developed primarily for residential uses. "Subdivided and Residential" should also have been checked. **Land Use classification is used for reclamation purposes.***

*Item no. 14: Water Resources: The San Francisco Creek drainage is a sensitive area in many ways, and should have been acknowledged as such. **Has been changed to "Sensitive Area".***

*Residential Area: Any exploration/drilling in the predominately residential area is a concern as any contamination of the underground water source that supplies the existing homes and future homes could occur. The town of Del Norte is located below (or to the north) of the proposed area. There is concern about the proximity of drilling activity to Del Norte's town ponds (roughly two to three miles to the west from the proposed site) and ensuing effects on the town's water supply. Allen Davey, an Engineer with Davis Engineering located in Alamosa Colorado, pointed out at a public forum held in Rio Grande County on January 26, 2011, that this site is located in the Conejos Formation. He talked about the unique hydrology of the San Luis Valley and its multiple aquifers. The San Francisco Creek drainage is a significant recharge area and is a tributary to the Rio Grande River. Any contamination from the San Francisco Creek drainage into the river would be detrimental. Mr. Davey suggested that cement casing be required to 3,000-4,000 feet or more. COGCC and operator engineers have reviewed the well cementing program. **The surface casing will extend to 1100 feet below ground surface and cemented. The entire borehole's production string will also be cemented.***

*There are natural ponds located on lots 44 and 46 that are year round spring-fed ponds within the one mile radius of the well site which is located on lot 46. The pond is in the northeast corner of the same lot, which is closer than the San Francisco Creek that is identified as the closest water source on Form 2A. Due to a dry winter and spring of 2011, the level of these ponds have dropped significantly, which is an example of how sensitive and changeable ground water in the area near the proposed site is to drought, and likely would also be to disturbances in subsurface water-bearing levels. Rio Grande County requests to COGCC that it help us enforce baseline well testing from the footprint of pad (Rio Grande County Oil and Gas Regulations (8.8.1.2.)). Craig Cotton, Division Three Engineer of the Colorado Division of Water Resources says that the San Luis Valley (Valley) is over-appropriated in terms of water and there can be no more demand on the aquifer system. Therefore, Dan Hughes Company (Hughes) will have to purchase water on the open market and change the decreed use to "commercial use" which could take some time; and any water taken has to be replaced. Dan Hughes did not state how it planned on replacing the water it uses.*

***This is regulated by the Division of Water Resources, not the COGCC.*** Rio Grande County feels that this is a Sensitive Area therefore a determination should be performed. The location pictures submitted do not accurately depict ALL the homes in the area. It is our belief, the pictures purposely mislead that this area is a very low density area which is not true. **Per COGCC rules, this subdivision is not considered to be High Density Residential.** There are a total of 106 lots in the San Francisco Creek Subdivision which is approximately at a 50% build out. There are 27 lots in the San Francisco Creek Subdivision Filing No.2 alone; 15 of these lots have homes on them. Specifically, lots with homes that surround the drill site are: Lots 44,

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47 - has 2 homes, 48 and 50. **Dan A Hughes has voluntarily begun a baseline groundwater and surface quality sampling program and the COGCC has placed a COA requiring sampling in the future.**

Lights and noise: There will be a significant impact in the area concerning use of lights and noise during the drilling process. **This has been addressed with COAs.**

Riparian area: The proposed drill site is not in a riparian area itself, but the riparian corridor along San Francisco Creek is approximately 1,750 yards east of the drill site on lot 46. Snow melt, rain runoff and spring waters across the open meadows in the area around lot 46 drains east toward that riparian area. This suggests that lot 46 lies within a sensitive watershed area.

Sensitive Wildlife Area: Lot 46 and the surrounding properties are within a summer and winter range of a herd of pronghorn antelope that are vulnerable to disturbance and changes of traffic, increased human activity, and noise. As indicated in the application in regards to the map, this is also winter range for significant herds of deer and elk. They are sensitive to human disturbance and deserve protection.

Sensitive Air Quality: Monitoring of air quality prior to and throughout any drilling operations, at the operator's expense is recommended by Rio Grande County to be included in COGCC's requirements to insure that air quality is not compromised or diminished. The Valley's clean and clear air is essential to our resident's health, and our tourism and a burgeoning solar production industry. Prevailing winds in the San Francisco Creek valley are from the west and south. Particulate matter from heavy traffic along dirt roads in the area and any release of methane, chemicals or volatile organic compounds generated by or used in drilling would be carried downwind to Del Norte, through other residential areas, across two school campuses, and on into the San Luis Valley floor. This poses a potentially serious threat to safety and health of people living and working here. **Air monitoring in and around the well pad will be conducted prior to and during drilling, during completion activities, and during production as required by a COA.**

Existing Roads: To clarify, there isn't a 'Del Rio' road as commented on page 1 in the Surface Plan. Wagon Wheel Road (a private road which is maintained by the homeowners association) and County Road 13 (CR 13) would be significantly degraded by the intensely heavy traffic needed to support a drilling operation. In the event of frequent use by large heavy vehicles, several areas along CR 13 would pose significant safety issues concerned with speed and weather conditions. To access the San Francisco Creek area, vehicles must turn from Hwy 160 onto French Street in the Town of Del Norte which will then first take the vehicles by the high school and a high density residential area; during sports activities (football, baseball, track and outdoor curriculum) the students, faculty and public have to cross French Street to get to the football/baseball field. Local high school students who are new drivers without long experience who frequently drive on this stretch of road would be vulnerable to the very heavy traffic associated with fossil fuel exploration. The County has an obligation to assure and protect their safety. There are no turnouts on either Wagon Wheel Road, or CR 13. The current surface of CR 13 may be inadequate for heavy industrial traffic and Wagon Wheel Rd. definitely is inadequate. Wagon Wheel which is a cul-de-sac, there is only one way in and one way out; Wagon Wheel Rd is only 20 feet wide edge to edge, and one of the two culverts in the section that Hughes will use is only 23ft long. Traffic flow could be impeded and other road users could be stuck if there is a truck on this section of Wagon Wheel Rd. The Valley can have an unpredictable spring weather pattern, and the start date of April 1, 2012 can be bad for driving on gravel roads. If the start date were after the end of the school year it might mitigate some road issues, not to mention safety issues. County Rd 13 is not accurately depicted on the topographical map provided, unless they are planning on rerouting the road. Again, we have concern for the large increase in the heavy volume of traffic on paved streets in the town of Del Norte (French Street). It is our belief that this street was not designed nor engineered with the thought of increased volume of heavy truck traffic. We also have great concern for our county roads as well. **Access Road has been revised. Several traffic related**



**COAs have been placed on the Form 2A to address concerns around the high school and other nearby roads.**

In regards to Form 2: Water Supply has not been secured/purchased, nor has an official agreement with the City of Monte been established to our knowledge. It has been discussed but that was two years ago. In regards to the "pad construction drawing" under "Notes", item no. 2 states that pit location and size to be determined at time of construction. Per the Rio Grande County Oil and Gas Regulations only closed looped systems will be allowed. (8.8.6.1.) this also does not match comments made on Page 3, #7. Page 3 of Surface Use Plan, #7: Methods of Handling Waste Disposal. Rio Grande County does not believe comments made about wastewater handling are adequate. How does Dan A. Hughes plan on disposal – offsite and if so, how?

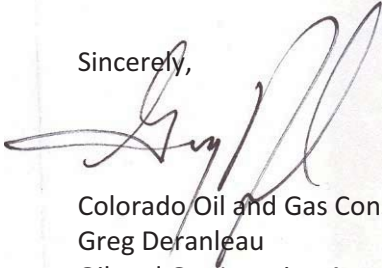
Summary of recommendations by Rio Grande County:

1. That Rio Grande County Oil and Gas regulations be followed; particularly water baseline studies at a minimum. **COGCC cannot and does not enforce any other agency's rules and regulations.**
2. Monitoring of air quality prior to and throughout any drilling operations, at the operator's expense. **Operator will conduct air monitoring at the well pad site, as previously stated.**
3. Consider a different start date. **Operator will try to avoid school sessions, but will be limited by other timing restrictions placed on the permit by BLM.**
4. Only a closed looped system should be approved. **Operator has specified that a closed loop system will be used.**
5. Any requirements should be "more restrictive" for first time applicants as this is an unknown area for all involved. **COGCC conducts thorough reviews of well permit applications throughout the state, many of which are investigating new areas.**
6. Roads and traffic need to be assessed. **An Emergency Management Plan and Traffic Control Plan have been requested from the operator and provided.**
7. Noise should be addressed. **Addressed by COA.**
8. Lights should be addressed. **Addressed by COA.**
9. The drilling company should file an Emergency response plan prior to any drilling. **Emergency Response Plan has been requested from the operator and provided.**
10. Chemical inventory: Owners or operators shall maintain a chemical inventory by well site for each chemical product used downhole or stored in an amount exceeding 500 pounds during any quarterly reporting period and the maximum capacity of fuel stored on the oil and gas location during drilling, completion, and work over operations including fracture stimulation. Entities maintaining chemical inventories under this section shall update these inventories quarterly throughout the life of the well site. These records must be maintained in a readily retrievable format. The county health department may obtain information provided to the department or director in a chemical inventory upon written request to the director. Where the composition of the chemical product is considered trade secret by the vendor or service provider, owners or operators shall only be required to maintain the identity of the trade secret chemical product and shall not be required to maintain information concerning the amounts of such constituents to make chemical product. **Chemical inventory will be provided by operator.**
11. Waste water needs to be better defined and more specific on its handling and disposal; particularly if off-site. **COGCC 900-Seires rules govern the handling of Exploration and Production waste, including water.**
12. Company work history and references. The County would like to request the company provide references to verify their previous work records. The County would also request that the company provided documentation from not only the state of Drilling/Completion Operations An APD, including a Surface Use Plan of Operations, which incorporates BLM BMPs, will be submitted to the COGCC and is included under attachments. **Not required by COGCC Rules.**

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We thank you for your participation in the process and recognize the valuable input you and the public have provided. If you have any questions, please do not hesitate to call me at (303) 894-2100 x5153 or Dave Kubeczko at (970) 309-2514 (cell), or email. Thanks.

Sincerely,

A handwritten signature in black ink, appearing to read 'Greg Deranleau', is written over a light-colored rectangular background.

Colorado Oil and Gas Conservation Commission  
Greg Deranleau  
Oil and Gas Location Assessment Supervisor

cc. Thom Kerr, Director, COGCC



**ATTACHMENT B - Dan A Hughes Company, San Francisco Creek #1 Pad, Rio Grande County; Renumbered Comments for Easy Reference; Form 2#400210265; Form 2A#400211669**

**COMMENT NO. 1**

**Public (11/13/2011; 05:39:22 PM)**

**Form 2#400210265**

San Francisco Creek Ranch OG APP for Permit

- On the application for permit the box for salt was marked NO. My question based on the visit to the LOT #46 Friday 11-4-11, while COGCC, BLM, COUNTY and other representatives looked the lot over, was the subject broached of a salt issue?
  - The restaking due to late filing for the application, is it only necessary to tie new ribbons on the old stakes? (orange to blue)
  - Also due to the amount of usage by the Antelope on this property, as you saw on the Friday visit mentioned, how will you prevent driving this very present herd off? No resident has so far caused an absence of this herd, OG should not cause absence. How will this be handled?
  - Is a pass on the application a known fact with the COGCC, based on the mineral rights being Federal, BLM? and how closely will the BLM the COGCC and the County work together?
  - Since Mark Weems has pass by his part in this application, does this mean the outside professionals from the area were contacted and used as complete representation of this very delicate matter?
  - How will you make reply to the Comments, giving answers?
- Thank You.

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**COMMENT NO. 2**

**Public (11/10/2011; 04:50:13 PM)**

**Form 2#400210265**

The above application for Oil and Gas from Hughs Oil should be denied for the following:

- I will enumerated several factual reasons below that Hughs carelessly misrepresented, and the first fact being if the Hughs company cannot send in a correct application on it's face without gross misrepresentations of fact, then the whole application should be thrown out until they can answer the questions correctly. Every governing body abides by this rule.
  - The water/aquifer should be marked as highly sensitive because of riparian area within feet of the site, endangered species within proximity.
  - County Road 13 is not an industrial type road unable to support heavy truck traffic without dust pollution.
  - CR 13 goes directly through a school crossing zone with heavy student foot traffic. Heavy trucks and semi's hauling 8,000 gallons of water weighting 30k to 80k GVW do not mix with foot traffic on a daily basis.
  - CR 13 is a one way access only for fire and ER vehicles
  - SLV has very limited Hasmat Spill assistance and with only two suits in the SLV..and chemicals used by Hughs can remain unidentified and a danger to responders.
  - Only one way out for residents and school in the event of a fire or chem. spill
  - Hughs did not correctly list the land site as Rural Residential, they listed it as Rangeland. This land is much different than the Eastern Plains rangeland.
  - Hughs bought a private lot in SFC subdivision and signed covants agreeing to no commerical use. The covenants are a legal filing and require specific clauses concerning no business use.
  - Hughs lists no impact on wildlife. This area is a wildlife preserve that has many, many species of sensitive and endangered wildlife and fish and birds.
  - Hughs said on the application they would obtain water from the City of Monte Vista.. Monte Vista City Manager has no agreement with them as of this date. This is fabrication.
  - To my knowledge this is a wildcat operation that has never drilled in Colorado or a Mountain Alpine area.
  - In general, Hughs company and its representatives have grossly misrepresented the impact of their operation from the get go, and have not been upfront with citizens and county officials and the the CCOCG application process. I have been to every meeting and seen all of their presentations from the beginning, which minimized everything and were as vague as possible showing outdated diagrams and oid boiler plate information that does not even pertain to this situation.
- Thank you for your consideration.
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**ATTACHMENT B - Dan A Hughes Company, San Francisco Creek #1 Pad, Rio Grande County; Renumbered Comments for Easy Reference; Form 2#400210265; Form 2A#400211669**

**COMMENT NO. 3**

**Public (11/09/2011; 04:44:54 PM)**

**Form 2#400210265**

This letter is to request a Mandatory Best Management Plan for drilling in Rio Grande County, Colorado. The reasons for the request are:

- 1) The presence of the Conejos Fault which could allow chemicals or minerals to move between geologic formations;
- 2) The presence of warm springs nearby the site proposed for a test well;
- 3) The presence of native cutthroat trout in the lower regions of San Francisco Creek fed by a tributary of which is located within 1/2 mile of the proposed test site;
- 4) The seismology of the area which may require frequent pressure testing of well casings;
- 5) The federally designated critical winter range for 3 species of ungulate within 1/2 mile of the proposed test site;
- 6) The livestock and human uses of the ground and well waters, locally and downstream of the area;
- 7) The presence of archeological artifacts in the area;
- 8) The residential nature of the area which is governed by codes, covenant and restrictions which do not allow commercial or industrial uses and which were agreed to by all property owners in San Francisco Creek Ranch. Specifically we would like scientific measurements to be made of all factors which may affect any of the above characteristics of our pristine area. A Mandatory Best Management Plan would serve to hold developers accountable.

Thankyou for your attention,  
Sincerely,  
Cristi Larsen, San Francisco Creek Ranch property owner

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**COMMENT NO. 4**

**Public (11/09/2011; 01:47:52 PM)**

**Form 2#400210265**

F\*r\*a\*c\*K NOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOO

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**COMMENT NO. 5**

**Public (11/09/2011; 01:39:15 PM)**

**Form 2#400210265**

It's time to stop damaging the earth and the aquifers to have fuel for transportation. Would you rather have fuel or clean drinking water? The sun can provide plenty of energy and we should focus on harnessing solar and wind energy which are compatible with saving our environment. Oil and gas exploration in the San Luis Valley? No fracking way!

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**ATTACHMENT B - Dan A Hughes Company, San Francisco Creek #1 Pad, Rio Grande County; Renumbered Comments for Easy Reference; Form 2#400210265; Form 2A#400211669**

**COMMENT NO. 6**

**Public (11/07/2011; 03:09:03 PM)**

**Form 2#400210265**

November 7, 2011

Re:APD, Document 400211669

Dan A. Hughes Company, Operator #10346

Location:San Francisco Creek #1, Rio Grande County

To the COGCC Permitting Review Staff

Bill Yokely, Permitting Tech

Mark Weems, Engineer

Dave Kubeczko, Oil and Gas Location Assessment Tech

Dear Sirs:

The Board of Managers of the San Francisco Creek Ranch Landowners Associations wishes to bring to your attention essential information related to the location of the proposed well named in APD Document 400211669. The site identified in Form 2A lies within the boundaries of the San Francisco Creek Ranch subdivision. This land is not "rangeland" as indicated in the form, but is zoned rural residential by Rio Grande County. The property is governed by the San Francisco Creek Landowners Association Protective Covenants filed with the Office of the Rio Grande County Clerk.

All individuals who purchase property and take title to land within San Francisco Creek Ranch do so subject to the governing covenants of our Association and they must abide by the conditions and protective restrictions stated therein. As the owner of Lot #46 (site of the proposed well) in this subdivision, the Dan A. Hughes Company must likewise comply with all restrictions stated in the covenants. San Francisco Creek Ranch Landowners' Association Covenants Section 3, Item H., specifically prohibits the use of any lot for commercial purpose.\*

The San Francisco Creek Ranch Board of Managers has the obligation to assure that the landowners of the 93 properties within our subdivision will continue to have the protection of all the agreements under which they purchased their properties. These protective covenants were in place well in advance of the purchase of any mineral leases in the San Francisco Creek subdivision. Establishment of a commercial operation on property in San Francisco Creek Ranch is a direct violation of the San Francisco Creek Ranch Protective Covenants. We ask that you carefully consider these points of fact in your review of the pending application for a drilling permit filed by the Dan A. Hughes Company. Honor and safeguard the rights of the landowners who own and live on these properties.

Sincerely,

The Board of Managers, San Francisco Creek Ranch

Nancy Neal, Secretary

\*Excerpt of the Declaration of Protective Covenants, San Francisco Creek Ranch Section 3, Item L.:  
Commercial Use – No Lot shall be used for commercial purposes.

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**COMMENT NO. 7**

**Public (11/07/2011; 01:08:44 PM)**

**Form 2#400210265**

To Whom it may concern, the actions of the COGCC are appalling in that they choose to not listen to the public on this matter. It is especially disheartening to see the blatant disregard for our unique geological area and the preciousness of our water. With the San Luis Valley being such a large area for agriculture, water is very important to sustainability for our future. We can also look at a number of other sites around Colorado where there is contamination, explosions, a lesser quality of life and even a lesser quality of health. Once the land is damaged there is no going back. Before the permit is even considered we need to see a full review of the EIS and how it will harm our area. The citizens of the Valley have the right to know what could and will happen to our beautiful land if these fracking contaminants are dispersed into our air and water.

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**ATTACHMENT B - Dan A Hughes Company, San Francisco Creek #1 Pad, Rio Grande County; Renumbered Comments for Easy Reference; Form 2#400210265; Form 2A#400211669**

**COMMENT NO. 8**

**Public (11/07/2011; 10:36:06 PM)**

**Form 2#400210265**

Thank you for the opportunity to express my concerns. I am a local property owner and a lifetime resident of Colorado, and I am concerned about the proposed permit and the potential impacts to the local environment and the potential adverse affects to the surface and sub-surface water users. The depth of the well will likely have unknown present and long term effects. This type of unknown risk should not be attempted. All chemicals used during the exploration should have known ecotoxicological impacts and if not no exploration should be implimented. I demand no adverse impacts to surface and sub-surface waters in the present and foreseeable future. It is time to update an antiquated mineral exploration law. There are to many unknowns to make this type of risk for the benefit of a few people. This landscape has provided a high quality of life in the past and in the present and should continue to provide for the people of the future.

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**COMMENT NO. 9**

**Public (11/06/2011; 10:31:27 PM)**

**Form 2#400210265**

To:Members of the Permitting Review Staff

We wish to submit urgent concerns regarding the APD (Document Number 400210265) filed for Rio Grande County, which is currently under your consideration. There are significant factors associated with potential fossil fuel development on this site that pose serious risks to public health and safety and the natural resources, and environment in the area. For the following reasons, we feel that activity associated with oil and gas exploration is distinctly inappropriate within the valley of the San Francisco Creek.

**PUBLIC HEALTH AND SAFETY**

\*Roads: The roads in this rural area are rough-surfaced with sections of narrow winding roadways and blind curves. They are constructed only for residential and recreational use and are profoundly inappropriate for heavy traffic, large trucks and equipment, and for the transfer of hazardous materials. Weather conditions in this area are frequently harsh, winter and summer, and pose additional dangers of heavy snow, ice, blowing dust, poor visibility, torrential rains and wet slick surfaces, raising the dangers of heavy traffic. Large deer populations living in the area constitute a driving danger because they behave erratically, running into the roadway and presenting a risk for accidents – an especially serious threat to commercial vehicles and trucks carrying hazardous materials.

\*Student safety: The sole access to the proposed site passes through a high school campus. There is frequent foot traffic and heavy use by young drivers along this road, making it inappropriate as a route for commercial or industrial traffic.

\*Exposure to toxic substances. The significant dangers of chemical spills, fire and explosion that accompany oil and gas exploration pose an unconscionable risk to the citizens who live, work, learn and play in this area.

\*Public safety infrastructure: In the event of drilling activity at the proposed site, the traffic on state highways, county and city roads serving the area would increase exponentially. The work to monitor, enforce and respond to road safety issues would seriously stress state and local government resources and economies needed to assure safety.

\*Emergency response: The proposed drilling site is 5 miles from the town of Del Norte and its small volunteer fire, emergency and ambulance force. This distance, limited response force, and rural roads do not support rapid response efforts. In the event of explosion, fire, toxic spills or human injury, when immediate action is critical, delays and insufficient human resources are likely and pose a serious threat to public health.

\*Wind: The west and south prevailing winds across the proposed site are strong and persistent. Any particulate matter, methane, volatile organic chemicals, and airborne contaminants generated in oil and gas exploration would be carried downwind, across rural homes, livestock, schools, the town of Del Norte, the Rio Grande Valley and on into the greater San Luis Valley. Air pollution would have serious negative impacts on the growing solar industry in the San Luis Valley. The vulnerability of human, animal and plant life, pure water and air is too great to justify an industrial operation within this populated, fragile environment

\*Disposal of drilling cuttings and waste water: The proper and safe management of by-products of drilling is of ultimate concern. Rio Grande County regulations do not allow any on-site storage, necessitating a clear plan of how and where such materials will be disposed. Specific arrangements for off-site disposal of these toxic by-products have not been outlined. Water, soil and air must be protected from contamination at any designated disposal location and the safe transfer of these materials on our roadways, guaranteed.

**ENVIRONMENT**

**ATTACHMENT B - Dan A Hughes Company, San Francisco Creek #1 Pad, Rio Grande County; Renumbered Comments for Easy Reference; Form 2#400210265; Form 2A#400211669**

\*Water resources: The high water demands that accompany oil and gas exploration are of significant concern to residents living near the proposed site and in the towns of Del Norte and Monte Vista. Water in the entire San Luis Valley is already seriously over-appropriated. The operator's plan for water acquisition has not been clearly defined and its delineation is of highest concern.

\*Sensitive watershed: Snow melt, rain runoff and spring waters flow across the open meadows surrounding the proposed drilling site and drain east toward a sensitive riparian corridor along San Francisco Creek. The potential at the proposed site for toxic spills, inappropriately managed waste materials, soil disruption and erosion, or interruption of water flows constitutes a serious risk to the quality and health of this vital waterway that feeds downstream water rights and the greater Rio Grande Water Compact.

\*Water quality: The potential for contamination or pollution of domestic water supplies on properties in proximity to and below the proposed site has raised serious alarm. Baseline testing of water wells, surface water and San Francisco Creek is of up most importance. Rio Grande County has requested that COGCC conduct baseline testing and ongoing monitoring at regular intervals of waters within a 3-mile radius of the proposed site. This should be mandatory. A certified laboratory, at the operator's expense, should carefully corroborate any water testing that the operator performs.

\*Air quality: The risk to clean air above and downwind of the proposed site that could be caused by oil and gas exploration is of grave concern. There is no state regulation for monitoring or protecting air quality and this alone should constitute a moratorium on drilling in this location until baseline data and a stronger regulatory framework have been established.

\*Noise: The proposed drilling site is located in a quiet rural setting and pristine foothills valley prized for its solitude. Introduction of heavy traffic and mechanization involved in support of drilling operations would significantly alter the essential resource of silence, an integral component of the health of wild and residential life. The impact on animal and health could have serious repercussions.

**WILDLIFE**

\*Pronghorn antelope habitat: The proposed site sits in the center of year-round range of a pronghorn herd that is highly vulnerable to human activity, noise and disruption of its food and water sources. Drilling activity in this location would seriously impact their well-being and health.

\*Elk and deer winter range: The elk and deer populations that live in the area surrounding the proposed site are vital to the local ecosystem, hunting, and the regional economy. Human interference and activity could seriously impair herd movement and health, interrupt access to food and water supplies, and disrupt mating and calving cycles. This is a resource that cannot bear undue pressure.

\*Swainson hawk migration flyway: The Swainson hawk biannual migration passes through the valley of the San Francisco Creek. Mineral exploration's disruption of this species' food supply and environment could seriously endanger the success of the migration and flock numbers.

\*Other animal and bird species: The pressures of heavy traffic, noise, displacement, and pressures on food supply would impact dozens of other species in the area's ecosystem.

\*Aquatic life in San Francisco Creek: Species depending on the waters along San Francisco Creek, especially cutthroat trout, live within the watershed from the proposed site and stand at significant risk from seepage or spills of toxic contamination, silting, or interruption to water supply that are known to occur with oil and gas development.

**LIFE QUALITY**

\*Zoning: The proposed drilling site is within a subdivision developed on land zoned residential/agricultural. The San Francisco Creek subdivision has been covenanted against any commercial activity within its premises. An industrial operation such as oil and gas exploration is completely inappropriate in this location.

\*Right to quality of life: The noise, disruption of pristine environment, and threat to rural solitude that would accompany oil and gas exploration is in direct conflict to the lifestyle that the residents of the San Francisco Creek valley and Del Norte have chosen and worked so hard to acquire and maintain. Establishment of a drilling operation in this location would be a distinct violation of personal rights. We urge that in reviewing the Dan A. Hughes APD, you give thoughtful and extended consideration to the health, safety and well being of the people of the San Francisco Creek and San Luis Valleys who will be profoundly impacted by your decisions. We are relying on you to insure that our water, air, health, and life quality are afforded the safety and quality we deserve.

Thank you for your careful attention to these comments.

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**ATTACHMENT B - Dan A Hughes Company, San Francisco Creek #1 Pad, Rio Grande County; Renumbered Comments for Easy Reference; Form 2#400210265; Form 2A#400211669**

**COMMENT NO. 10**

**Public (11/05/2011; 11:34:09 AM)**

**Form 2#400210265**

I definitely agree with the other comments I read here on this website, that there should be no fracking or drilling for natural gas or oil near the town of Del Norte. The water system in the San Francisco Creek area would be in great danger which would effect not only the people who live there but the animals including the endangered species Cutthroat Trout.

This is not acceptable to most of the people who live in Del Norte and surrounding areas. Drilling has been tried before in this area and produced nothing, so why 'TRY' again? Another reason for not drilling in this area is the air polution and physical danger of large diesel trucks coming into Del Norte, turning left right in front of our one grocery store (Jacks Market), also slowing to turn in front of the High Valley Community Center which often has children playing in the yard, then traveling out the road that goes right by the Del Norte High School and their athletic fields. The road itself is small and winding and eventually dirt, not a good infrastructure for large truck heavy traffic.

Please, refuse Hughes the right to do any drilling in this area.

Thank you.

Konnie

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**COMMENT NO. 11**

**Public (11/04/2011; 05:12:18 PM)**

**Form 2#400210265**

Please ensure that this operator will follow COGCC Rule 1002(f)(23) and maintain Best Management Practices regarding control of stormwater runoff. Also, please ensure that this operator follow the Water Quality Control Act administered by the Water Quality Control Division. This APD site could damage the water supply for the Town of Del Norte, the Rio Grande River which supplies agricultural and personal water to all those down stream, as well as wildlife. It is vital that any drilling operation respect the Rio Grande River and our acquifer.

Thank you.

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**COMMENT NO. 12**

**Public (11/01/2011; 04:07:53 PM)**

**Form 2#400210265**

Now, I will be the first to say that I am no expert on the topic but I do feel very strongly against this type of mining in such a beautiful and prestine area that has a high rate of tourism.A new project of this sort will surely create pollution that will cause economic changes and more importantly to me changes in the ecosystem.

This area has been a place that my family has hunted for generations of time. The meat that we gather from these hunts provide food for my immediate family and some of my extended family. If this were to impact my families traditional way of live, I would be forever regretting that I would not continue a family tradition for my children, grandchildren and generations yet to come, especially knowing that I could have done something about it. So here I am giving my unease about this propostition to allow Oil and Gas drilling in such a beautiful area. Thanks for your time and hopefully this message will be seen by those who will at least consider the impact it will have, both good and bad.

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**ATTACHMENT B - Dan A Hughes Company, San Francisco Creek #1 Pad, Rio Grande County; Renumbered Comments for Easy Reference; Form 2#400210265; Form 2A#400211669**

**COMMENT NO. 13**

**Public (11/01/2011; 02:51:25 PM)**

**Form 2#400210265**

I am no expert, but my understanding is that the consequences of fracking on groundwater, terrain, and air are as yet unknowable. We live in a fairly fragile ecosystem here, with a groundwater system that is absolutely essential to our survival. I therefore respectfully ask that you deny this request.

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**COMMENT NO. 14**

**Public (11/01/2011; 02:43:27 PM)**

**Form 2#400210265**

I would rather not see gas drilling taking place in the San Luis Valley. We have a unique double aquifer that is essential for our agriculture and way of life here. Pollution of that resource would harm over 8000 square miles of agricultural land as well as peoples homes and lifestyles. Please consider not approving this permit. Thanks

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**COMMENT NO. 15**

**Public (11/01/2011; 10:27:44 AM)**

**Form 2#400210265**

I strongly oppose the drilling and fracking here in the San Luis Valley. Water is the most essential element in the universe and is the most precious resource that God provided the earth. Without water, we have nothing. We must maintain the high quality of water that we have here in the San Luis Valley. The drilling and fracking process will have a detrimental effect on the water and the environment. TEXAS DO NOT MESS WITH COLORADO; especially THE SAN LUIS VALLEY'S WATER AND OUR QUALITY OF LIFE.

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**COMMENT NO. 16**

**Public (11/01/2011; 10:14:58 AM)**

**Form 2#400210265**

I am opposed to the proposed drilling in the San Luis Valley for oil or gas because it poses too high risk to our most valuable resource which is water and water quality. This area is also rich as a solar resource and it seems completely unnecessary to risk contaminating this valuable land and resources for a future power source that has already proven to cause so many problems. Instead, money, time and effort should be spent trying to find other alternatives to serve our voracious appetites for power and energy.

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**COMMENT NO. 17**

**Public (11/01/2011; 09:54:50 AM)**

**Form 2#400210265**

In reference to the comment of dependency on usage of a product... The way the product is acquired is the issue here not the need. It is how the industry of OG goes about getting the product. If knowing you are possibly going to contaminate and this causing many consequences even death, because we need to be self reliant we should allow such bad behavior?

If you decide you are above the law, then speed around on the highway ending up hitting another vehicle, causing a life changing event to another, even possible death, you will be held accountable for your choice. OG has proven all over the world, just take a drive through Garfield County Co. and see, they are above the law and have damaged many even to death. They are not charged with manslaughter.... So unless you have allowed this in your backyard and your values are affected, you have had to fight for just your right as a property owner, due to knowing the contaminations this industry has gotten by with, may your input be disqualified.

**COMMENT NO. 46 (same as Comment No. 9 from Form 2A#400210265 and Comment No. 46 from Form 2A#400211669)**

**Public (10/31/2011; 01:44:38 PM)**

**Form 2#400210265**

We wish to submit urgent concerns regarding the APD (Document Number 400210265) filed for Rio Grande County, which is currently under your consideration. There are significant factors associated with potential fossil fuel development on this site that pose serious risks to public health and safety and the natural resources, and environment in the area. For the following reasons, we feel that activity associated with oil and gas exploration is distinctly inappropriate within the valley of the San Francisco Creek.

**PUBLIC HEALTH AND SAFETY**

\*Roads. The roads in this rural area are rough-surfaced with sections of narrow winding roadways and blind curves. They are constructed only for residential and recreational use and are profoundly inappropriate for heavy traffic, large trucks and equipment, and for the transfer of hazardous materials. Weather conditions in this area are frequently harsh, winter and summer, and pose additional dangers of heavy snow, ice, blowing dust, poor visibility, torrential rains and wet slick surfaces, raising the dangers of heavy traffic. Large deer populations living in the area constitute a driving danger because they behave erratically, running into the roadway and presenting a risk for accidents – an especially serious threat to commercial vehicles and trucks carrying hazardous materials.

\*Student safety. The sole access to the proposed site passes through a high school campus. There is frequent foot traffic and heavy use by young drivers along this road, making it inappropriate as a route for commercial or industrial traffic.

\*Exposure to toxic substances. The significant dangers of chemical spills, fire and explosion that accompany oil and gas exploration pose an unconscionable risk to the citizens who live, work, learn and play in this area.

\*Public safety infrastructure. In the event of drilling activity at the proposed site, the traffic on state highways, county and city roads serving the area would increase exponentially. The work to monitor, enforce and respond to road safety issues would seriously stress state and local government resources and economies needed to assure safety.

\*Emergency response. The proposed drilling site is 5 miles from the town of Del Norte and its small volunteer fire, emergency and ambulance force. This distance, limited response force, and rural roads do not support rapid response efforts. In the event of explosion, fire, toxic spills or human injury, when immediate action is critical, delays and insufficient human resources are likely and pose a serious threat to public health.

\*Wind. The west and south prevailing winds across the proposed site are strong and persistent. Any particulate matter, methane, volatile organic chemicals, and airborne contaminants generated in oil and gas exploration would be carried downwind, across rural homes, livestock, schools, the town of Del Norte, the Rio Grande Valley and on into the greater San Luis Valley. Air pollution would have serious negative impacts on the growing solar industry in the San Luis Valley. The vulnerability of human, animal and plant life, pure water and air is too great to justify an industrial operation within this populated, fragile environment.

\*Disposal of drilling cuttings and waste water. The proper and safe management of by-products of drilling is of ultimate concern. Rio Grande County regulations do not allow any on-site storage, necessitating a clear plan of how and where such materials will be disposed. Specific arrangements for off-site disposal of these toxic by-products have not been outlined. Water, soil and air must be protected from contamination at any designated disposal location and the safe transfer of these materials on our roadways, guaranteed.

**ENVIRONMENT**

\*Water resources. The high water demands that accompany oil and gas exploration are of significant concern to residents living near the proposed site and in the towns of Del Norte and Monte Vista. Water in the entire San Luis Valley is already seriously over-appropriated. The operator's plan for water acquisition has not been clearly defined and its delineation is of highest concern.

\*Sensitive watershed. Snow melt, rain runoff and spring waters flow across the open meadows surrounding the proposed drilling site and drain east toward a sensitive riparian corridor along San Francisco Creek. The potential at the proposed site for toxic spills, inappropriately managed waste materials, soil disruption and erosion, or interruption of water flows constitutes a serious risk to the quality and health of this vital waterway that feeds downstream water rights and the greater Rio Grande Water Compact.

\*Water quality. The potential for contamination or pollution of domestic water supplies on properties in proximity to and below the proposed site has raised serious alarm. Baseline testing of water wells, surface water and San Francisco Creek is of up most importance. Rio Grande County has requested that COGCC conduct baseline testing and ongoing monitoring at regular intervals of waters within a 3-mile radius of the proposed

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site. This should be mandatory. A certified laboratory, at the operator's expense, should carefully corroborate any water testing that the operator performs.

\*Air quality: The risk to clean air above and downwind of the proposed site that could be caused by oil and gas exploration is of grave concern. There is no state regulation for monitoring or protecting air quality and this alone should constitute a moratorium on drilling in this location until baseline data and a stronger regulatory framework have been established.

\*Noise: The proposed drilling site is located in a quiet rural setting and pristine foothills valley prized for its solitude. Introduction of heavy traffic and mechanization involved in support of drilling operations would significantly alter the essential resource of silence, an integral component of the health of wild and residential life. The impact on animal and health could have serious repercussions.

**WILDLIFE**

\*Pronghorn antelope habitat: The proposed site sits in the center of year-round range of a pronghorn herd that is highly vulnerable to human activity, noise and disruption of its food and water sources. Drilling activity in this location would seriously impact their well-being and health.

\*Elk and deer winter range: The elk and deer populations that live in the area surrounding the proposed site are vital to the local ecosystem, hunting, and the regional economy. Human interference and activity could seriously impair herd movement and health, interrupt access to food and water supplies, and disrupt mating and calving cycles. This is a resource that cannot bear undue pressure.

\*Swainson hawk migration flyway: The Swainson hawk biannual migration passes through the valley of the San Francisco Creek. Mineral exploration's disruption of this species' food supply and environment could seriously endanger the success of the migration and flock numbers.

\*Other animal and bird species: The pressures of heavy traffic, noise, displacement, and pressures on food supply would impact dozens of other species in the area's ecosystem.

\*Aquatic life in San Francisco Creek: Species depending on the waters along San Francisco Creek, especially cutthroat trout, live within the watershed from the proposed site and stand at significant risk from seepage or spills of toxic contamination, silting, or interruption to water supply that are known to occur with oil and gas development.

**LIFE QUALITY**

\*Zoning: The proposed drilling site is within a subdivision developed on land zoned residential/agricultural. The San Francisco Creek subdivision has been covenanted against any commercial activity within its premises. An industrial operation such as oil and gas exploration is completely inappropriate in this location.

\*Right to quality of life: The noise, disruption of pristine environment, and threat to rural solitude that would accompany oil and gas exploration is in direct conflict to the lifestyle that the residents of the San Francisco Creek valley and Del Norte have chosen and worked so hard to acquire and maintain. Establishment of a drilling operation in this location would be a distinct violation of personal rights.

We urge that in reviewing the Dan A. Hughes APD, you give thoughtful and extended consideration to the health, safety and well being of the people of the San Francisco Creek and San Luis Valleys who will be profoundly impacted by your decisions. We are relying on you to insure that our water, air, health, and life quality are afforded the safety and quality we deserve. Thank you for your careful attention to these comments.

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**COMMENT NO. 18**

**Public (10/31/2011; 10:43:48 AM)**

**Form 2#400210265**

While the SLV and Rio Grande county is not in the anadarcos basin, I do believe that there is a supply of Oil and Gas in the Valley. as is evident with the gas capture devices in the Mosca Hooper area that have been there for over 75 years. I believe that we should reduce the dependency on Foreign sources as much as possible. Keeping the dollars at home would be a great benefit and reduce tax revenue so that the nonprofits that fight such development will have a source of revenue to keep their employees from going hungry. As I have noticed most all of them drive more than 5 miles to work and live in communities that are isolated from the rest of the world and drive to buy every thing that is needed for the household more than 5 miles except for a carton of milk or loaf of bread.

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**COMMENT NO. 19**

**Public (10/31/2011; 08:58:45 AM)**

**Form 2#400210265**

I am writing to request that you do NOT approve this application to drill. As an avid outdoorsman, I have spent many hours on public lands surrounding the proposed drill site. This is beautiful country and inappropriate for drilling, with nearby residential houses. Oil and gas development in and around the San Luis Valley would destroy the unique recreational experiences offered in this area and would turn away those of us who go there for recreation. I also have first hand experience living with oil and gas development in the San Juan Basin and can attest that this industry does NOT belong in a residential subdivision or on Public Lands. It is too dangerous, too dirty and it puts at risk our water which is much more important to our lives than oil and gas will ever be. Approval of this permit will permanently ruin a very nice residential subdivision and nearby public land. Please Do Not Allow This Permit to Pass!

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**COMMENT NO. 20**

**Public (10/29/2011; 09:20:56 PM)**

**Form 2#400210265**

Obviously, it is the hope of residents whose lives and livelihoods will be most impacted by this application, that those govt bodies/persons conducting this review, and charged with ensuring that the Environmental Impact Requirements are met, fulfill their mandate rather than continue their past practice of bending the rules for big business. Do the job you are mandated to do.

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**COMMENT NO. 21**

**Public (10/28/2011; 11:02:01 PM)**

**Form 2#400210265**

As a resident of Rio Grande County, I have the following three main concerns about the permit for drilling in San Francisco Creek: (1) Property owners' rights. My understanding is that the landowner of the potential well site is under the legal obligation to abide by the homeowner association's restrictions, which include no industrial or commercial use of the land in this residential area. By breaking this contract, Hughes company would be illegally devaluing the residential property value of surrounding landowners. (2) Environmental impacts. Professors Robert Howarth and Tony Ingraffea of Cornell University have called for a moratorium on shale gas development to allow for better regulatory frameworks to be developed and to allow for better study of the cumulative risks to water quality, air quality, and global climate. I wholeheartedly agree. It is clear that under the last Bush administration, oil and gas industry leaders were favored and allowed exemption from EPA restrictions to allow for maximum industry development, thus putting corporate interests over public health interests. (3) Economic impacts. Rio Grande County has a thriving and growing tourism industry. Gas exploration and development threatens tourism, including hunting, as it damages the area's natural beauty and its reputation as a pristine wilderness. Further, as has been seen in other areas of Colorado, Wyoming, and New Mexico, ranching on private and BLM land has been threatened by oil and gas development because of poor disposal practices (and poor regulation of industry practices) that allowed pollution of surface water. In addition, the potential for groundwater pollution threatens the farming industry in the SLV.

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**COMMENT NO. 22**

**Public (10/28/2011; 04:34:54 PM)**

**Form 2#400210265**

- The Water/Aquifer should be checked on the application as highly sensitive.
- County Rd. 13 is inadequate for heavy industrial truck traffic. County Rd. 13 is a dirt road after Pronghorn Subdivision with many blind corners.
- Air quality on the valley floor would be compromised due to inversion and prevailing winds from the southwest, especially during the winter months. There have already been some air quality issues due to winter time inversions.
- Residential area and heavy industrial activity (SFC is not zoned for heavy industrial) are not compatible.
- The impact on local wildlife could be negative (some of which may be endangered, i.e. linx)
- The only way in and out of SFC is on Co. Rd. 13, which passes through the Del Norte School campus and bus garage. There is heavy foot traffic between the school and football/track field.
- Should there be a chemical spill, there are no near by hazmat emergency resources to handle such an event. There are currently only two hazmat suits located in the SLV, and they are in Conejos county. Is there a plan in place in case of emergency? How could a doctor treat someone who was contaminated by a chemical spill if the doctor doesn't know what chemicals he is dealing with?
- Will there be a plan to safely evacuate nearby residents who cannot leave on the subdivision road in the event of an explosion, fire, or spill?
- Will the Hugh's company be held accountable for the misinformation on their application to drill; for example, the land in question is not rangeland, but residential. The water source has not been secured from the city of Monte Vista.
- The water in the area was not marked as being sensitive.
- The property was purchased and is owned by Hughs and should be subject to subdivision covenants, which were in place and disclosed to the buyer. The buyer agreed to abide by the covenants when they signed the contract to buy the lot, which says there will be no commercial or business use on the property. (Surface use) The covenants are a legal filing.
- Although we are not presently land owners in the subdivision, but former owners, we believe this is not just a Del Norte or San Francisco Creek issue. We feel that the whole valley could be negatively impacted by a drilling operation.

Thank-you for taking our concerns into consideration.

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**COMMENT NO. 23**

**Public (10/28/2011; 02:06:53 PM)**

**Form 2#400210265**

I am 100% opposed to any oil and gas exploration in San Francisco Creek, in Rio Grande County, or anywhere else in the San Luis Valley. This is my HOME, along with the thousands of others living here in RGC and the rest of the San Luis Valley. Yet, had I been informed initially of the proposed hydraulic fracturing to be done within the boundaries of this subdivision, to be sure, I would have chosen to settle elsewhere. But don't think for one minute that IF there are any accidents resulting from hydraulic fracturing in SFC that it will not affect the pristine and ancient aquifer below that we drink from, Del Norte, the Rio Grande River, Monte Vista, Alamosa, and the rest of the agricultural watershed farther downriver. Residents of this beautiful and wild valley with its fragile ecosystem, cannot afford to just HOPE nothing will go awry with these proposed explorations. We can no longer feign ignorance after years and years of past mistakes made by OG all over the world. How many careless mistakes resulting in permanent damage and health risk will it take for us to wake up? We now know, on no uncertain terms, that oil/gas leaks or spills can NOT be cleaned up to any point of certainty or safety for any human or animal living within miles of the site... lasting wayyyyyy beyond our lifetime, our children's lifetimes, and their children's children's lifetimes. Understand, this is right NOW, and gone will be gone... forever. This just doesn't happen on the news to someone else, it could now very likely happen to us ALL here in Rio Grande County and beyond. Understand that I am not against OG exploration... for sure, I drive a vehicle and I heat my home just like everyone else in this world. I am saying there are better places to explore and drill before we have to invade residential areas and endanger the well being of its inhabitants, human, animal, and plant. Rio Grande County cannot afford to let this happen EVER, for so many reasons, on so many levels.

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**COMMENT NO. 24**

**Public (10/28/2011; 01:10:26 PM)**

**Form 2#400210265**

There are lots of reasons for NOT drilling. Approving this permit will only benefit Western Land Service. It will not benefit the people of Rio Grande County, Del Norte, or San Francisco Creek Subdivision. Listen to what the people are saying, and stop giving permission for the drilling

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**COMMENT NO. 25**

**Public (10/28/2011; 12:05:39 PM)**

**Form 2#400210265**

No! What else can humans do to the environment to make the locals sick? This is not why I moved to the Valley 21 years ago. I want peace and good living; not cancer. I feel we are once again raping the land and making life more difficult for our children. Stop it!

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**COMMENT NO. 26**

**Public (10/28/2011; 11:29:26 AM)**

**Form 2#400210265**

As a resident of Rio Grande County I oppose any drilling in the entire valley. I live surrounded by agriculture which depends on water to grow vital food that feeds not just the San Luis Valley but throughout the country. When we are repeatedly pushed by fear mongers who think that we are in instant need of gas and oil it becomes annoying to listen to their BS. Whenever an issue such as this arises it is soon discovered that all those proposing to drill for gas and oil are ill informed yet ignore the information. We as citizens are better informed than they are and we know that it would not be a good choice to enter the San Luis Valley or any other vital area of the U.S. and destroy as we know they will do. It is so obvious what destruction occurs and yet is ignored.

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**COMMENT NO. 27**

**Public (10/28/2011; 10:30:00 AM)**

**Form 2#400210265**

Less scars and more healing, this is our Earth the one and only place we have to live in.

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**COMMENT NO. 28**

**Public (10/27/2011; 05:06:20 PM)**

**Form 2#400210265**

In terms of potential of degradation, yes this is true. WLS quote

-A slim chance of degradation to there is always a chance WLS quote

-These are documented quotes from two men working for Western Land Services (WLS) while questioning them about water contamination from a proposed drill by Dan A Hughes for Oil or Gas here in the San Francisco Creek Ranch LOA.

-From reviewing this application WLS placed with the COGCC, it appears the most honest thing so far from WLS are the quotes on degradation of water, from prior contact.

-To the fact that the prior comments by others address the concerns and requests, clearly, this comment will be made based on those.

-If such a permit application were considered without all corrections needed, many safety issues addressed, what type of drilling job and future would this County face dealing with OG.

-There is not a Regulator close enough in proximity that would be capable of keeping the integrity needed to protect this County from a drill done by a OG Company contracting Companies that put such an application together.

-Regulations themselves are not sufficient enough as it is, therefore making the application process of the highest in standards, becomes vital.

-The OG Industry has much to be accountable for and if this application is not denied in its present state, high-toned concern is placed on the people that understand the dangers and consequences this Industry has brought about.

-The OG Industry has seemed to come mainly from a base that screams PRO LIFE.....

-Let's be politically correct in understanding putting such Industries above the Law of the Land, Regulations protecting each of us, just as a common citizen must abide by, has and will continue to cause deaths that could have been avoided.

-So, WLS when you say there is the potential of degradation to a water supply that people depend on, you are saying you know you just might violate the Regulations set up to protect these people.

-NO DEGRADATION!

-NO DRILL!

-COGCC, Dan A Hughes, WLS, BLM, is the degradation to water, air, life, worth the consequence of living with your conscience, per-chance there is degradation?

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**COMMENT NO. 29**

**Public (10/27/2011; 06:35:45 AM)**

**Form 2#400210265**

There are several reasons to disapprove this permit I am submitting only a few of them. I request that you disapprove this permit or at least postpone approval until the following issues are resolved.

1. Western Land Services marked "Rangeland" as the land use in the proposed well site area. It is a vacant lot in RESIDENTIAL SUBDIVISION where people live year round not rangeland. Do not approve this permit.
2. Commercial activities are expressly prohibited in this particular subdivision by the Covenants of the San Francisco Creek Land Owners Association. Dan A Hughes LP is in violation of the covenants if they start drilling. They will be Breaking The Law! Do not approve this permit.
3. They will be using Hwy 160 and increasing traffic between Monte Vista and Del Norte. Do not approve this permit.
4. The access roads, CR 13 and Wagon Wheel Road, are not suitable for heavy industrial traffic. Require improvement before approving the application.
5. The access road CR 13 passes the only grocery store in town, bisects the Del Norte HS campus, goes through a high density residential area, and passes the Del Norte Cemetery before it goes into more open land. Do not approve this permit.
6. The access road CR 13 is only partially paved and much of the proposed route is gravel/dirt and has many tight curves. The time that they want to drill is when this road gets particularly sloppy and heavy industrial traffic would make this much worse. Additionally there are no turnouts so local traffic, residents and recreational traffic, will not be able to pass slow moving vehicles. Require improvement before passing this permit.
7. The access road Wagon Wheel Rd. is a Cul-de sac so if there is an explosion, toxic chemical release or fire the residents on properties beyond Lot #46 have no means of egress. The only way out of these lots would be over rough terrain and in many areas restricted by fencing and arroyos. Do not approve this permit.
8. The access road Wagon Wheel Rd. is too narrow for industrial truck traffic. The road would need to be widened and improved and at least one culvert replaced before activities start. Require improvement before passing this permit.
9. The water in the SLV is over allocated and changing the water use needed from more traditional uses such as agriculture and recreational to industrial/commercial would irreversibly and negatively affect the area's landscape and population. Also The Division of Water Resources requires returning the water to the system and the application does not state how this will be done. Do not approve this permit.
10. Contaminated water and mud from drilling will be collected on site and taken away to a disposal facility but no specific disposal facility is named in the permit and there is none available nearby. Do not approve this permit.
11. Western Land Services has submitted incorrect information about water wells within a one-mile radius of the drill location. Locations of these wells are inaccurately depicted on the Well Location Map they submitted and some of these wells were never located by GPS. Require this be corrected before approving this permit.
12. Western Land Services employed a person to sample water from domestic wells and surface waters that is not licensed and did not follow usual protocol for collecting and transporting samples. He did not wear gloves during sample taking and did not follow chain of custody protocol afterwards. Require redo of the water sampling before approving this permit.
13. The domestic water well sampling data that Western Land Services is submitting is over a year old. Karen Spray of COGCC recommends that water testing should be conducted as close to the time of actual drilling as possible, at least within a 6 months time frame. Western Land Services should be required to repeat this testing and follow acceptable protocol before approving this permit.
14. Western Land Services has checked that they do not anticipate encountering salt water nor are they planning on using salt water to drill this well yet in their Surface Use Plan they indicate permanently installing (2) 400 BBL salt water tanks on site if the well produces. What are these for if salt water is not involved? What is Western Land Services trying to hide? Do not approve this permit.
15. Western Land Services has declared that they will be using a closed loop system on the Pad Location and Construction Drawings they state "PIT LOCATION AND SIZE TO BE DETERMINED AT TIME OF CONSTRUCTION" Sounds like a pit will be constructed to me and this is not allowed. Do not approve this permit.
16. There are no fire hydrants in the San Francisco Creek subdivision and Del Norte has a Volunteer Fire Department. Western Land Services says "Fire suppression equipment will be available to suppress any wildfires caused by construction or related activities. In the event of a wildfire, call the Pueblo Interagency Fire Dispatch Center (719-553-1600)" How long is that going to take? And if they use Del Norte's fire dept who will be available for responding in the event someone else needs them? They do not say who will be furnishing

**ATTACHMENT B - Dan A Hughes Company, San Francisco Creek #1 Pad, Rio Grande County; Renumbered Comments for Easy Reference; Form 2#400210265; Form 2A#400211669**

this fire protection at the site or what exactly this will be. There is no water well on Lot #46 so where will the water come from to fight a fire, the neighbor's domestic wells? Do not approve this permit.

17. Del Norte has a hospital but no decontamination unit. Western Land Services is applying for "1 well" and says that they will not be fracking but using traditional vertical drilling. But what they have said in meetings with Rio Grande County Commissioners, members of the San Francisco Creek LOA, and the general public is that if the well produces either oil or gas they plan to develop it and could drill up to 8 wells from this pad alone. They also spoke about "fracking" and directional drilling. They have not volunteered to participate in the COGCC Comprehensive Drilling Program that makes their future development plans transparent to the public and would allow the town to ask for support to develop needed infrastructure for extensive drilling operations. Dan A Hughes holds leases to 3,000+ acres of mineral rights in this area so development is not just the 520 ac in this application. What really is his plan? What are they trying to hide? Require a comprehensive drilling plan before approving this permit.

18. Western Land Services does not identify methods for controlling air pollutant emissions and there is no baseline data on air quality and no plan to obtain baseline data prior to developing this well. There is no plan for air monitoring during operations. Address this issue before approving this permit.

19. There is no comprehensive Health Assessment completed for either Rio Grande County or Del Norte that establishes baseline data in the event that oil and gas development expands beyond this first well. The impact of drilling in this unique area cannot be adequately addressed without first having baseline data. Delay approval until this assessment can be done.

20. Air pollution, exposure to toxic chemicals and contaminated drinking water can cause acute illness, chronic health problems and in some instances even death. There is no bond requirement of Dan A Hughes identified in the application and there is no requirement for the company to establish and pay for a medical fund to pay for adverse health effects caused by oil and gas development activities. At least one of these should be required before approving this permit.

21. Western Land Services says they will be using diesel motors to run their equipment. Electric motors can be used and there is electrical service available to this lot. Because this is a residential subdivision all efforts should be made to keep intrusions at a minimum. Electric motors should be required before approving this permit.

22. There is no mention of lighting that will be used during or after drilling operations. Lighting is restricted in this residential subdivision by LOA Covenants and since Dan A Hughes is also the landowner he must be required to comply with Covenant lighting requirements. The state needs to be aware of this conflict and correct it before approving this permit.

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**COMMENT NO. 30**

**Public (10/26/2011; 04:38:53 PM)**

**Form 2#400210265**

Dear COGCC,

The Jynnifer drill site that was drilled in the 1980's in Rio Grande County was left abandoned and leaking contaminates into the soil. Why would COGCC approve another drill attempt in that area before the Jynnifer site is cleaned up? That area is in a residential area. For God sake, Rio Grande County is home of the headwaters of the Rio Grande river! We depend on tourism. Tourist aren't going to come to a high traffic, air poluted place. The risk is too great to drill. Protect Rio Grande County!!

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**COMMENT NO. 31**

**Public (10/26/2011; 04:03:43 PM)**

**Form 2#400210265**

I believe that fracking should not be allowed in the San Luis Valley. The SLV is a habitat to many rare animals and ecosystems. Fracking would cause damage to these fragile ecosystems through land degradation and water contamination. As a Resident of the SLV I would be devistated if you began fracking here.

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**COMMENT NO. 32**

**Public (10/26/2011; 02:14:07 PM)**      **Form 2#400210265**

I have encountered so many people recently who are so frightened about big companies coming into the valley and drilling on their land. They are so frightened about their safety and the safety of their families concerning the reprocutions that drilling has had on previous families. I feel for all of them so deeply and only wish I could do something more than leave a comment here. I have been to many events concerning oil and gas drilling and feel that the big oil companies are trying to cover up the fact that there are serious reprocutions with drilling near peoples homes. The water that is contaminated is the same water that many families need to survive. Also the large amount of water used in drilling seems like a huge waste. Hopefully we can fight the big companies and save our water and keep our earth clean.

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**COMMENT NO. 33**

**Public (10/26/2011; 02:07:33 PM)**      **Form 2#400210265**

I believe that allowing for natural gas drilling in Rio Grande County is a grave mistake. The amount of natural gas accessible in the San Luis Valley has always been low, and it is unlikely that nearly enough will be produced to compensate for the damage caused by drilling in the area. This will disturbed local residents, and disrupt the local economy.

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**COMMENT NO. 34**

**Public (10/26/2011; 02:02:24 PM)**      **Form 2#400210265**

I am very much opposed to drilling for oil gas in Rio Grande County (and the entire San Luis Valley)! The risks to our water, agricultural life, tourism and standard of living are too high!!! We choose renewable energy. No Fracking Here

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**COMMENT NO. 35**

**Public (10/25/2011; 02:26:39 PM)**      **Form 2#400210265**

I oppose the proposed drill area because it is near water sources and near the Rio Grande river which supplies human and agricultural water to Southern Colorado, New Mexico and Texas. The San Luis Valley is an agricultural and ranching area that depends on clean water. Most residents of the Valley live here because of the clean air, water and beauty of the land and/or as a place for their livelihoods as ranchers, farmers, or in the tourist industry which conflicts with oil gas development.

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**COMMENT NO. 36**

**Public (10/21/2011; 05:05:11 PM)**      **Form 2#400210265**

Dear COGCC:

This well, to be located in the San Luis Valley, is one that can have irreversible impacts upon the income and welfare of a people who depend upon the water not just for drinking, but for their very welfare. It will impact agriculture, wildlife, tourism, and the legal water compact with neighboring states. Granting such a permit will create precedent leading to a very serious impact upon these resouces and committments. It is not a worthy compromise for the entire welfare of a valley, its ecosystem, and the region's states lying within the Rio Grande watershed and valley. Therefore, I urge you to deny this request.

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**COMMENT NO. 37**

**Public (10/21/2011; 11:24:46 AM)**

**Form 2#400210265**

Dear COGCC,

Adams State College hosted an Oil Gas Forum just a few days ago. During that forum, experts from a variety of fields (geophysics, conservation, economics, land use, legal, etc) discussed the impacts drilling would have on the Valley. Economic development surveys indicate that the majority of the residents would like the Valley to be a drill-free zone and more effort directed towards solar, wind and tourism development. This was also the consensus of the attendees at the oil gas event. Being the headwaters of the Rio Grande and an important agricultural area for the State, please decline Hughes application.

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**COMMENT NO. 38**

**Public (10/21/2011; 10:58:44 AM)**

**Form 2#400210265**

By the sloppy and incomplete permit that was turned into the COGCC, Western Land Services did a great injustice to Hughes Oil, Rio Grande County, and the people of San Francisco Creek Subdivision. Hughes Oil of Beesville TX. Now believes that they will be drilling on Rangeland, not in a subdivision, in the middle of 4 residential homes. Hughes also believes that that water well testing was done by a professional hydrologist not the father of the Land services manager who is not qualified. Hughes believes that the water well map is accurate, which it is not. Hughes Oil believes that April 1 2012 is a good start date, when they should have been advised that April is the areas destroying month for County Roads. Plus the High School is still in session for the 45 day drilling period, so now all of those trucks can drive through a school zone with students present. No mention of the Conejoes formation, so the casements will be inadequate. No mention of the Waggoner Well that produced hot water but no OIL OR GAS. No mention that the narrow private subdivision road needs to be improved for the heavy truck traffic. No advisement from Western Land Services or the COGCC that the old Jynniifer Well might already be contaminating the Conejos Formation Aquifer because LG Mosley or the COGCC, or the EPA never did an integrity test on the 8000 foot pipe that by law should have been tested 20 years ago. Not to mention the surface contamination that nobody wants to deal with. Hughes Oil is unaware that their property will be subject to lien according to HOA rules once drilling begins. Monta Vista City might not have water to sell due to the drought. The Western Land Services Permit will be taken for face value by the COGCC and the BLM, then it will be dump on the Rio Grande County Land Use Administrator to deal with all the local issues. This permit needs to be rejected until an proper permit can be presented for the benefit of Hughes Oil, Rio Grande County, and the San Francisco Creek Subdivision.

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**COMMENT NO. 39**

**Public (10/17/2011; 08:48:02 PM)**

**Form 2#400210265**

Dear COGCC,

This permit in question representative of the worst practices of the COGCC that will scar the image of the Oil and Gas Industry in Colorado for ever. As you know, the drill location is within an established residential deveopment in Rio Grande County. You are imposing an incompatable industrial use on a residential area and therby diminishing property values and quality of life. COGCC as agency of the state are knowingly depriving it's residents of monetary value and public health and safety. The granting of this permit is a gross violation private property and public rights. It is your duty to deny this permit.

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**COMMENT NO. 40**

**Public Room (11/11/2011; 10:27:04 AM)**

**Form 2A#400211669**

November 9, 2011

Colorado Oil and Gas Conservation Commission

1120 Lincoln Street, Suite 801

Denver, Colorado 80205

Re: Public Comments on Application for Permit to Drill

Document Number: 400210265/400211669

Dan A. Hughes Company LP, Operator #10346

Location: Rio Grande County, San Francisco Creek #1

To members of the Permitting Review Staff:

The San Luis Valley Ecosystem Council (SLVEC) would like to thank Rio Grande County for requesting and COGCC for extending the public response period. It has provided a greater opportunity for the public to be involved and to respond to this application in a more thorough manner. SLVEC could have used more time but we will focus on the more salient points.

The Dan A Hughes Application is requesting a permit for a exploratory oil well in a remote area of the San Luis Valley that has not experienced any success with previous exploratory drilling proposals in past decades.

There is no infrastructure here for oil and gas drilling and transport.

Question: Will Hughes have to reapply to COGCC if they want to turn this exploratory drilling proposal into a production well? This application is woefully inadequate if that is indeed the case.

Request:

SLVEC respectfully requests a hearing before the COGCC commission to clarify the above issue and others that are being brought up in public comment. The San Luis Valley, due to it's unique hydro-geology, has not had any successful oil and gas drilling in the past. Since this proposal is so unique to the areas current land use, and this specific area has changed significantly in the past 20 years, which is now placing this drilling proposal in the middle of a residential sub-division, we believe that the current application is inadequate and environmental impacts will be significant.

Form 2A

Section #5 is misleading in that it is very possible Hughes will need more facilities than is indicated in the checklist they have briefly filled out. For example, previous drilling in the area punctured a pressure zone into a deep aquifer and according to locals who were observing at the time, had a difficult time managing the water. It took them days to get it under control. How will this be managed this time around? What planning process will be put in place? According to their drilling plan #400214874 "Cuttings will be disposed of Properly", what does that mean and why isn't there further explanation?

Sec #5 "facilities" indicates one gas or diesel motor and one electric generator will be needed. Have they researched commercial (grid) electricity to see if it is available which would eliminate a source of noise and air pollution?

Section #6, date planned for construction 04/01/12 is extremely optimistic. They are assuming that this sensitive area will not require more baseline research on their part. Also, "muds will be disposed of "off site", there is not much explanation as to how that will occur and where they are taking them.

Section #9, Cultural and Archeological concerns (Rule 603.b.): It is stated in the Surface Use plan #400212548 that "Metcalf Archaeological Consultants and one prehistoric lithic scatter was identified." It went on to state that "Metcalf Archaeological Consultants recommended this site as not eligible for inclusion on the National Register of Historic Places and further recommended a finding of "no historic properties affected".

SLVEC was not able to locate this reference material on the COGCC website. Has Hughes submitted this material to COGCC? Locals will tell you that there are cultural and archeological sites in proximity to the exploratory drill site location. This issue needs to be taken more seriously by COGCC and SLVEC asks that Metcalf's response be posted on the COGCC website.

From Rio Grande County Comments

"Section #10, Current Land Use: Only Non-crop land: Rangeland was acknowledged. Crop Land: Dry land and "Subdivided" and "Residential" should also have been checked. San Francisco Creek Ranch Filing No. 2 was subdivided and platted on Sept 6, 1996, Drawer 11, Map 25.

Section #11, Future Land Use: This land was developed primarily for residential uses. "Subdivided and Residential" should also have been checked. Residential Area: Any exploration/drilling in the predominately residential area is a concern as any contamination of the underground water source that supplies the existing homes and future homes could occur. The town of Del Norte is located down grade (or to the north) of the proposed area. There is concern about the proximity of drilling activity to Del Norte's town ponds (roughly two



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to three miles to the west from the proposed site) and ensuing effects on the town's water supply. Allen Davey, an Engineer with Davis Engineering located in Alamosa Colorado, pointed out at a public forum held in Rio Grande County on January 26, 2011, (attended by COGCC staff) that this site is located in the Conejos Formation. He talked about the unique hydrology of the San Luis Valley and its multiple aquifers. The San Francisco Creek drainage is a significant recharge area and is a tributary to the Rio Grande River. Any contamination from the San Francisco Creek drainage into the river would be detrimental. Mr. Davey suggested that cement casing be required to 3,000-4,000 feet or more." (Please see US Fish and Wildlife Service 43 terms and conditions for the Baca National Wildlife Refuge, Lexam Explorations, complexity of aquifer and casing is explained there.) Attached.

Sec 14" Water Resources" This section should invoke Rule 901E, "Sensitive area determination".

From Rio Grande County comments "There are natural ponds located on lots 44 and 46 that are year round spring-fed ponds within the one mile radius of the well site which is located on lot 46. The pond is in the northeast corner of the same lot, which is closer than the San Francisco Creek that is identified as the closest water source on Form 2A. Due to a dry winter and spring of 2011, the level of these ponds have dropped significantly, which is an example of how sensitive and changeable ground water in the area near the proposed site is to drought, and likely would also be to disturbances in subsurface water-bearing levels. Rio Grande County requests to COGCC that it help us enforce baseline well testing from the footprint of pad (Rio Grande County Oil and Gas Regulations (8.8.1.2.).

Craig Cotton, Division Three Engineer of the Colorado Division of Water Resources says that the San Luis Valley (Valley) is over-appropriated in terms of water and there can be no more demand on the aquifer system. Therefore, Dan Hughes Company (Hughes) will have to purchase water on the open market and change the decreed use to "commercial use" which could take some time; and any water taken has to be replaced. Dan Hughes did not state how it planned on replacing the water it uses. Rio Grande County feels that this is a Sensitive Area therefore a determination should be performed. The location pictures submitted do not accurately depict ALL the homes in the area. It is our belief, the pictures purposely mislead that this area is a very low density area which is not true. There are a total

of 106 lots in the San Francisco Creek Subdivision which is approximately at a 50% build out. There are 27 lots in the San Francisco Creek Subdivision Filing No.2 alone; 15 of these lots have homes on them. Specifically, lots with homes that surround the drill site are: Lots 44, 47 - has 2 homes, 48 and 50."

"Riparian area: The proposed drill site is not in a riparian area itself, but the riparian corridor along San Francisco Creek is approximately 1,750 yards east of the drill site on lot 46. Snow melt, rain runoff and spring waters across the open meadows in the area around lot 46 drains east toward that riparian area. This suggests that lot 46 lies within a sensitive watershed area." Significant recharge area In 1998, Colorado House Bill 98-1011 was passed requesting that, due to insufficient knowledge, a confined aquifer study be conducted in the San Luis Valley: "Concerning the replacement of depletions from new withdrawals of groundwater division 3 that will affect the rate or direction of movement of groundwater in the confined aquifer, and, in connection therewith, authorizing the State Engineer to promulgate rules that optimize the use of the groundwater and provide alternative methods to prevent injury". In section (3) (a), the Water and Irrigation Act states that: "The hydrologic system in water division 3 and, in particular, the hydrology and geology of the shallow aquifer and confined aquifer systems and their relationship to surface streams in water division 3 are unique and are among the most complex in the state....there is

currently insufficient comprehensive data and knowledge of the relationship between the surface streams and the confined aquifer system to permit a full understanding of the effect of groundwater withdrawals, affecting the confined aquifer upon the natural stream and aquifer systems in water division 3....(b)1.. [rules promulgated by the State Engineer] shall be based upon specific study of the confined aquifer system and shall be promulgated prior to July 1, 2001...the State Engineer and the Colorado Water Conservation Board shall proceed with diligence to complete needed studies". This act is important for two reasons: 1) It underscores the complex and poorly understood nature of the regions hydrogeology, even of the relatively shallow unconfined and confined aquifers and; 2) It addresses the need for further studies in order to better understand and inform water-related policy.

Wildlife and Endangered Species

Rio Grande County comments state "Sensitive Wildlife Area": Lot 46 and the surrounding properties are within a summer and winter range of a herd of pronghorn antelope that are vulnerable to disturbance and changes of traffic, increased human activity, and noise. As indicated in the application in regards to the map, this is also winter range for significant herds of deer and elk. They are sensitive to human disturbance and deserve protection." Please consult with Colorado Parks and Wildlife (See Elemental Occurance Map).

Endangered Species Consultation

Has Section 7, Endangered Species determination been applied to this location?

This includes, but is not limited to the following: Southwestwillow Flycatcher. (see map) The Federally endangered, globally critically imperiled Southwestern willow flycatcher (*Empidonax traillii extimus*), is known

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to occur in several sites in the San Luis Valley including the Rio Grande and Higel State Wildlife Areas, 40 miles southwest, and Alamosa NWR, 40 miles east, of the Proposed Area.

Rio Grande Cutthroat Trout- the population has already been impacted in this area. What mitigation measures will Hughes be implementing so the population will not be impacted further? This is considered accumulative impact. (Data on Rio Grande Cutthroat populations: Alves 1999a), Harig and Fausch (1996), and John Alves annual survey reports (Alves 1996, 1997, 1998ab, 1999ab, 2000). Table 7. Populations effected by either water diversion, mining or development. StreamJurisdictionStateGenetic puritySource indicating threatThreat San Francisco CreekFrisco Cr RanchColoradoPureAlves 1997 Harig and Fausch 1996Water diversion and housing development

Canadian Lynx habitat & determination. Lynx habitat needs to be mapped for this area, to determine whether Lynx Analysis Units (LAUs) need to be designated. This includes mapping key linkage areas, and demarcating shrub-steppe habitat.

#### Wetlands

SLVEC requests that a wetlands delineation/determination should be applied to this location, see Baca National Wildlife Refuge, Lexam Exploratory Drilling Environmental Assessment 2.4 Alternative C – Maximum Protection of Refuge during Exploration, Section 8 (attached). "Lexam must provide the Service with a wetland delineation/determination of the project area, which must be performed prior to any ground-disturbing activities. Protocol for the wetland delineation must follow Part IV, "Methods," of the 1987 Corps of Engineers Wetlands Delineation Manual (manual), and the approved Corps of Engineers regional supplement to the manual. The regional supplement generally used for the San Luis Valley, Colorado, habitats is the "Regional Supplement to the Corps of Engineers Wetland Delineation Manual:

Arid West Region (Version 2.0)," dated September 2008. Wetland delineation on areas subject to surface disturbance by Lexam's activities will require utilizing the manual's "comprehensive approach," which involves a highly detailed quantitative procedure. These areas include Lexam Road, proposed access roads to well pads and Baca #5 and Baca #7 well pads, as well as a 50-foot buffer from these areas.

Delineation on the remainder of the project area will follow the manual's routine approach, using Level 3 (Part IV, Section D, Subsection 3). A level 3 assessment utilizes a combination of onsite inspection and remote sensing. All wetland determinations will occur during the active growing season and then hydrology is normally present (June 1 through July 15). Delineation/Determination efforts should also include a basic micotopo map, full plant list, photo point establishment (baseline), and Global Positioning System (GPS) coordinates for each point sampled. In addition reference sites for all impacted areas should be located with GPS coordinates and approved by the Refuge Manager or designee prior to any

ground-disturbing activities. Sample points will also contain some measure of compaction that could be used as a mitigation reference. This is important to ensure proper hydrological function (post activity/reclamation). If potentially disturbed wetlands are identified and are directly connected to wetlands outside the project area, Lexam will be required to conduct a wetland delineation on those wetlands outside the project area as well. The U.S. Army Corps of Engineers (USACE) would also need to be contacted if any wetlands may be disturbed by the proposed exploration activities.

This measure is important to determine if the following rules apply:

- COGCC rule 303(f) – "Oil and gas locations in wetlands. In the event that an operator, otherwise required to file a Form 2A, acquires an Army Corps of Engineers permit pursuant to 33 U.S.C.A. §1342 and 1344 of the Water Pollution and Control Act (Section 404 of the federal "Clean Water Act") for construction of an oil and gas location, the operator shall so indicate on the Oil and Gas Location Assessment, Form 2A."
- COGCC rule 1002(e)(2) – "Operators shall avoid or minimize impacts on wetlands and riparian habitats to the degree practicable." SLVEC requests that Rule 317B "Surface water area supply buffer" be researched. We could not find it in COGCC rules, but are concerned about the two spring fed ponds in the proposed drilling area. APD comments-From Hughes Surface Use Plan #400212548

"5. Location and Type of Water Supply: All water needed for drilling purposes will be municipal water purchased from the town of Monte Vista, Colorado." According to individuals we talked with, this has not been decided, please check to make sure there aren't any assumptions here.

#### 7. Methods of Handling Waste Disposal

"Wastewater will not be discharged on the surface at this site and the drilling of the well will not require a wastewater management plan." This is an inadequate response considering past experience regarding water management that occurred at a location near this site. They are ignoring the water pressure in this area and that issue needs to be addressed.

#### Recommendation for a Resource Monitoring Plan, Resource Inventory and Monitoring Plan (RIMP)

An RIMP is used to determine baseline conditions and quantify any changes from the existing physical environment that may be affected during the construction and drilling of exploration wells. It is prudent that Hughes be required to sample before, during, and/or after construction of access roads and well pads and drilling of the exploratory well depending on the type of resource (e.g., soil, air quality, water,

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vegetation, visual, and sound resources) that may be affected during each step of the proposed exploration. This may determine whether the APD needs to be modified to minimize negative impacts, if monitoring indicates the need. Hughes should be required to submit a RIMP to the COGCC for approval prior to the initiation of ground-disturbing activities.

In summary,

SLVEC requests:

- 1.A Special Hearing before the COGCC, per regulation 305(d)2
- 2.A Resource Inventory and Monitoring Plan (RIMP) needs to be conducted for this proposal, (see section 4.13, attached)
- 3.Rule 901E be applied, "Sensitive Area Determination"
- 4.Wetland delineation/determination applied to the project area
- 5.Cultural Resources and review material needs to be posted on COGCC website.
- 6.Correct Land Use determination
- 7.Wastewater Management Plan needs to be conducted for this area
- 8.Section 7, Endangered Species consultation needs to be conducted
- 9.Have Material Safety Data Sheets (MSDS) been submitted to COGCC?, SLVEC respectfully requests a copy.
- 10.Rule 317B "Surface water area supply buffer" be researched for this area
- 11.Consultation with various agencies before APD is approved including: CO Parks and Wildlife, US Fish and Wildlife Service, Bureau of Land Management (BLM), US Army Corps of Engineers, CO Water Quality Control Division and CO Dept. of Transportation

Thanks for your time and consideration in this matter.

Sincerely,

Christine Canaly

Director

San Luis Valley Ecosystem Council

P.O. Box 223

Alamosa, CO 81101

(719) 589-1518

slvwater@fairpoint.net

slvec.org

Resources:

- Environmental Assessment of Proposed Oil and Gas Exploration, Baca National Wildlife Refuge, Saguache County, Colorado, April 2011
  - Southwest Willow Flycatcher Map, ERO Resources Group, Denver, CO. 2007
  - Alves, J. 2000. Fisheries Inventories, Rio Grande River Basin, Rio Grande cutthroat trout (*Oncorhynchus clarki virginalis*). State of Colorado Department of Natural Resources, Division of Wildlife.
  - Colorado Natural Heritage Program, Center for Native Ecosystem Elemental Occurance Map
-

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**COMMENT NO. 41**

**Public Room (11/11/2011; 10:25:03 AM)**

**Form 2A#400211669**

**The following comments were received by the COGCC via email on Friday 11/11/11 @ 9:01 AM**

Please find attached my comments regarding Document Number 400211669, Dan A. Hughes Application for oil and gas drilling in the San Francisco Creek area, south of Del Norte, Colorado.

Joyce Housden

Lot 83, San Francisco Creek Ranch development

664 Cattle Drive Road

Del Norte, Colorado 81132

November 10, 2011

To: Bill Yokely, Permit Reviewer, and Dave Kubcecko, Oil and Gas Location Assessment Reviewer

I have reviewed Form 2A and have the following comments:

1.Item 5: Facilities: According to the application, only 5 pieces of equipment will be needed. This is misleading as drilling fluids will need to be stored in many containers on site. Many lights are also needed. Drilling operations will require a lot of equipment on the surface which is needed for commercial use. This is in direct conflict with zoning and a local covenant. Many containers will need to be on the site to store the well drilling and fracking fluids. Water will be stored on site requiring equipment. The drilling area will require many lights. San Francisco Creek Land Owners Association (SFCRLOA) passed a covenant to reduce light pollution [Amended Declaration of Protective covenants (filed 7/26/2004), Section 3-General Provisions, M. Night Lights]. This covenant states, "All outdoor lights of 100 watts or more shall be shielded, hooded, or capped, to prevent light from being cast upward or outward. Motion sensor lights are exempt from this requirement. Lights already in use at the recording of this amendment shall be capped at the expense of the property owner." The lights needed for a drilling operation will be much more than the typical one yard light on SFCRLOA properties. This area is zoned rural residential, not commercial, not industrial.

2.Item 6: Construction: Mud Disposal: The "offsite" box is checked. Mud disposal should not occur on properties within the San Francisco Creek development as it is zoned rural residential (see 4. Below).

3.Item 10: Current land use: "Rangeland" is currently checked, and is incorrect. This designation is misleading as this area is zoned rural residential (see 4. Below). "Subdivided" and "Residential" should be checked as they are the correct designations.

4.Item 11: Future land use: the land described is part of the San Francisco Ranch which was developed for residential use. "Subdivided" and "Residential" should also be checked. Zoning: The location identified lies within and is a part of the San Francisco Creek Ranch development. It is zoned by the county as rural residential. As a result, a covenant for San Francisco Creek Ranch specifically states that No Lot shall be used for commercial purposes [Amended Declaration of Protective covenants (filed 7/26/2004), Section 3-General Provisions, L. Commercial use].

Noise: There will be a significant amount of noise with the drilling operation and from all of the traffic going to and from the site. I am concerned about the negative impacts from vehicles using County Road 13 from Hwy. 160. to the proposed drilling location.

1.French Street from Highway 160 through the residential area in town This road would be degraded from the heavy increase in traffic especially with semi-trucks hauling fracking fluids and water. Hundreds of truck trips will need to be made up and down the road for hauling the drilling fluids, water, employees and other drilling services. I have safety concerns about the public's use of French Street from Hwy. 160 south. Many students walk north from the high school campus along French Street to Jack's Market for lunch. Also, the students access the football field/track, baseball and soccer fields for events throughout the school year, where they have to cross French Street again creating a safety concern. I am also concerned about the safety of the many Del Norte High School students who drive to and from school, and drive off campus for lunch. Many of these students are not experienced drivers having just come of age to obtain a driver's license.

2.County Road 13. I am concerned that under current road design, the remainder of County Road 13 would be degraded with heavy traffic associated with the drilling operation. Hundreds of heavy vehicle trips will be made. County Road 13 wasn't built to handle heavy vehicle traffic as stretches of it can't handle the traffic it receives now. In particular, there is hardly any road base on the road from Frisco Pass Road turnoff north. Soon after the county road department grades the road, washboards appear.

3.Air and water quality in snowmelt and rain. Heavy vehicle traffic will create a constant air problem releasing dust in the air. With our dry climate, fronts, storms, winds and wind gusts, any chemicals and fluids which leak from the vehicles associated with the drilling operation can become airborne and be carried to other properties in the San Francisco Creek development. The airborne particles will mix with rain or snow and be transported down to the Rio Grande via tributaries and creeks as the snow melts. A potential breathing hazard can occur from the airborne particles anywhere from the operation north along and around County Road 13. I am concerned that the application was hastily done as shown by the misleading and inaccurate statements

**ATTACHMENT B - Dan A Hughes Company, San Francisco Creek #1 Pad, Rio Grande County; Renumbered Comments for Easy Reference; Form 2#400210265; Form 2A#400211669**

pointed out earlier. With such inaccuracies on a written document, I am concerned that this is an indication of future performance if approved. This use is not compatible with county zoning nor with our land owner's association covenant, which should first and foremost be considered before moving any further on the application.

Sincerely,

/s/ Joyce Housden

Joyce Housden

Lot 83, SFCLOA

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**ATTACHMENT B - Dan A Hughes Company, San Francisco Creek #1 Pad, Rio Grande County; Renumbered Comments for Easy Reference; Form 2#400210265; Form 2A#400211669**

**COMMENT NO. 42**

**Public Room (11/11/2011; 10:24:35 AM)**

**Form 2A#400211669**

**The following comments were received by the COGCC via email on Friday 11/11/11 @ 7:51 AM**

November 10, 2011

Colorado Oil & Gas Conservation Commission

Bill Yokely, Permitting Technician; bill.yokely@state.co.us

Dave Kubeczko, OGLA Specialist; dave.kubeczko.state.co.us

Dear Mr. Yokely and Mr. Kubeczko:

We are writing to submit our comments as a part of the public comment process for the Dan A. Hughes Company, LP's permit application 400210265, which is pending for Rio Grande County. We own a home in the San Francisco Creek Ranch Subdivision, which is located on Wagon Wheel Road, Lot 55. Our lot is just down the road from Lot 46, which is the site of the proposed drilling and owned by the Dan A. Hughes Company, LP. The San Francisco Creek Ranch Subdivision covenants, which were in effect at the time the Dan A. Hughes Company, LP purchased Lot 46, prohibit all commercial use of property within the subdivision. The subdivision is comprised of 93 tracts of 35 or more acres each. There are currently 41 homes within the subdivision, with associated outbuildings and fencing. The subdivision includes San Francisco Creek and is a part of the watershed to the Rio Grande River. Our lot and well are located "downstream" from the proposed drilling site. The Dan A. Hughes Company, LP, which we shall refer to hereafter as "the Company", has informed us that they have leased subsurface mineral rights associated with our Lot 55 and surrounding property. Lot 46 is included in the lands subject to their lease, and they are applying for a permit to drill on that property. The lease document the Company provided to us indicates that they paid the sum of \$780.00 to lease the mineral rights associated with a 520 acre tract of land.

1. Compliance Concerns. We are concerned about compliance issues if the Company is granted a permit to drill. We have had limited time to research the Company's history of compliance with prior permit conditions, but we have still found cause for concern. Given the fragility of the environment where drilling is proposed and the potential for irreparable damage, we believe that it is critical that those who control the permitting process fully consider not only the potential protections that can be afforded through the regulation of drilling and post-drilling reclamation but also the history that the applicant may have for compliance with such regulations and procedures in the past. We were provided with a copy of the BLM lease that the Company claims to have with respect to the mineral rights and subsurface estate under our property by an employee of the Company. We believe it is the same lease that purports to grant the Company mineral rights associated with Lot 46 of the San Francisco Creek Ranch Subdivision, which is the lot where the Company proposes to drill. The copy of the lease we were given is not signed. The terms of the lease itself provide just above the signature line provided for the Lessee: "This offer will be rejected and will afford offeror no priority if it is not properly completed and executed in accordance with the regulations..." 43 CFR §3102.4 requires that a lease be signed and dated by or on behalf of the lessee. We contacted the County Clerk's Office for Rio Grand County and confirmed that the copy of the BLM lease recorded with the county by the Company is not signed either. That means that the Company has recorded an ineffective lease with the county. We believe that the Company does not have an effective lease to drill and develop the mineral rights that it claims. We do not believe that the failure to sign the lease can be cured retroactively by signature at this time, as the lease filed with the county contained the original defect. The Company, if it wishes to proceed, should reapply for appropriate leases, follow the BLM procedures as published, and file any valid and complete leases that they might then obtain with the county at that time. We have also checked with the Secretary of State via its website and discovered that the formation date of the Dan A. Hughes Company, LP, as a foreign limited partnership registered to do business in the State of Colorado, was May 17, 2010. In the Statement of Foreign Entity Authority on file with the Secretary of State, the Company states that it expects to begin transacting business in the State of Colorado on May 13, 2010. The copy of the BLM lease that we were provided by the Company (which has not been signed and accepted by a representative of the company) is dated February 13, 2006, by the BLM Land Law Examiner. It appears that the Company was doing business in the State of Colorado prior to its formation date as a company authorized to do business in this state. Again, we do not believe that there is a retroactive cure for this oversight. We have not been able to investigate the Company's history of compliance with regulations and remediation requirements in other jurisdictions, partly because the investigation process snowballed when we discovered that the Company has previously done business under several other names. We did obtain information that the Company was the settling defendant in a federal law suit in the United States District Court for the Eastern District of Texas in which the plaintiff(s) claimed that the Company failed to timely and properly refund to the affected royalty interest owners, overriding royalty interest owners, and non-operating interest owners their proportionate share of tax refunds due them from the Company. We were told that the Company was behind in payment of its property taxes in Rio Grande County and its homeowners' association dues for the San Francisco Creek Ranch Subdivision. Upon further inquiry



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we were told that the taxes were not paid when due but were eventually paid before the publication of delinquencies occurred; however, the homeowners' association dues remain unpaid for Lot 46 of the San Francisco Creek Ranch Subdivision, which is the site of the proposed drilling.

The Company may claim that it should not be deprived of the benefit of its investment by complaints of technical non-compliance. To such an assertion we would answer that the minimal investment - \$780 - made by the Company to acquire the lease at issue in no way justifies the Company's disregard for the regulations and procedures that govern this process. The documents filed with the county, if anything, justify the public in believing that no effective lease exists and that permission to drill will, therefore, be denied. Any promise to cure such defects which the Company might make at this time should not be considered a legitimate substitute for strict compliance with clear regulations at the time of application for the lease and should not give any sense of security to controlling authorities that the Company will comply with regulations and future reclamation conditions in the future.

2. Environmental Concerns. We are also concerned about the specific impacts on the fragile environment of the San Francisco Creek Ranch Subdivision and the damage to the character of and quality of life in the subdivision, if drilling activities are permitted. Potential environmental impacts must be thoroughly investigated, and there should be full and open public comment on the outcome of that investigation. As you are aware, there is increasing concern throughout Colorado and the nation about the potential impact of "fracking" on water quality, air quality, and other aspects of the environment, including wildlife generally and endangered species in particular. The risks of drilling for and developing oil and gas in the fragile ecosystem that comprises the watershed for the Rio Grande River must be evaluated before a permit is granted. In considering the effectiveness of post-drilling remediation, the difficulty of re-establishing vegetation in a desert environment is a factor.

We understand the interest in developing oil and gas resources, but that interest must be weighed against the equally compelling interest in the preservation of clean water supplies and the character of rural non-commercial subdivisions. We ask that the fullest assessment of environmental risk be done and that the public be given the opportunity to comment on any impact statement provided to and considered by the COGCC.

3. Suspension of Proceedings / Extension of Time.

First, we ask that the permitting process for this application be suspended or terminated. Based on the documents of record with Rio Grande County and the Secretary of State, it appears that the Company does not have a valid BLM lease to drill for or develop the minerals in question. It is our position that such a fundamental oversight should not be overlooked and can only be resolved by the BLM, not the COGCC. The Dan A. Hughes Company should not be permitted to proceed and its application should be denied at this time. Second, if the COGCC decides to proceed, we strongly urge that the maximum amount of time possible be allowed for full investigation, assessment and discussion of the issues raised in this letter and by other concerned citizens. A comprehensive dialogue and careful consideration of the issues can only contribute to a well-considered decision. Further investigation may unearth additional areas of concern. We believe that deficiencies in the application for a drilling permit filed with the COGCC have been addressed by others, and we join them in their concerns. The point that we wish to make in this letter is that there are enough red flags here to question whether the Company (a) has the authority as a legitimate BLM leaseholder to pursue drilling in Rio Grande County and (b) whether the company will responsibly and faithfully comply with the regulations and conditions established by Colorado authorities, including the COGCC, to protect the public's interest in the environment and the interests of other property holders in area affected by the proposed drilling. We do not believe the record supports the Company on either count.

Respectfully,

Elizabeth Callard, James R. Callard

cc: Christine Canaly, San Luis Valley Ecosystem Council; Nancy Neal, Secretary, San Francisco Creek Ranch Subdivision Homeowners Association Board of Managers

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**ATTACHMENT B - Dan A Hughes Company, San Francisco Creek #1 Pad, Rio Grande County; Renumbered Comments for Easy Reference; Form 2#400210265; Form 2A#400211669**

**COMMENT NO. 43**

**Public Room (11/11/2011; 09:40:14 AM)**

**Form 2A#400211669**

**The following comments were received by the COGCC via email on Friday 11/11/11 @ 8:17 AM**

I was not able to submit these comments via your web site, so please accept these comments directly. Please send an email response back to me that you received these comments and that they were timely (received within your time frame). Thank you for your careful consideration of my comments.

Dean Erhard  
664 Cattle Drive Rd.  
Del Norte, CO 81132  
(719) 657-2083  
derhard4@hotmail.com  
Lot 83 SFCRLOA

Form 2A Oil and Gas Location Assessment—comments to an application submitted by Dan A. Hughes Company. Comments are provided below and are specifically identified for each numbered box on the State of Colorado Oil and Gas Conservation Commission Form 2A submitted by Dan A. Hughes Company (hereafter referred to as Hughes).

1-Consultation—no comments.

2-Operator—no comments.

3-Contact Information—no comments.

4-Location—Meridian shown as “N” on the application. This is incorrect terminology—it is the “New Mexico Principal Meridian.” Elevation is incorrect—it should be 8,542 feet based on plotting the proposed well location Lat/Long into topographic software (see Figure 1 below).

5-Facilities—this appears to be understated. There is likely a known need for additional storage facilities (i.e., for hydraulic fracturing fluids, oil/gas, etc.), pit(s) for polluted waste water, and road infrastructure to access the proposed well. A portable trailer may be needed to serve as an on-site office or worker preparation area out of the elements.

6-Construction—the proposed commencement date of 4/1/2012 is unrealistic. Hughes’ proposal will be required to comply with the National Environmental Policy Act (NEPA) requirements, including public scoping, and the public will be allowed an opportunity to comment on the sufficiency of the environmental analysis. It is unclear how and where the drilling mud will be disposed of offsite? Environmental requirements must be complied with including suitable (and verifiable) monitoring to ensure public health and safety.

7-Surface Owner—no comments.

8-Reclamation Financial Assurance—the “well Surety ID” is checked but no ID number is provided. The application is silent on a reclamation plan, monitoring, safety, quality assurance, etc.

9-Cultural—the nearest railroad is 4.7 miles (Denver and Rio Grande Western line) running east and west around Del Norte. The nearest public road (County road 13) is 1,900 feet from the proposed well site. San Francisco Creek Ranch Land Owners Association (SFCRLOA) roads are not public roads.

10-Current Land Use—the application should have also checked “subdivided” and “residential.” The application is invalid with this omission.

11-Future Land Use—the area is zoned “rural residential” by Rio Grande County. Industrial use (oil and gas development) is not compatible with “residential” zoning. The SFCRLOA covenants do not allow any “commercial use” of any kind on any lot. No variance has been issued and recorded with Rio Grande County for the affected lot. This proposal is in violation of the applicable SFCRLOA covenant<sup>1</sup>. This application should be rejected.

12-Soils--no comments.

13-Plant Community—ring muhly (*Muhlenbergia torreyi*) does not occur in this specific area. It is typically found on sandy soils in the eastern portion of the San Luis Valley. The proposed well site is dominated by clayey and loamy soils.

14-Water Resources—the distance to the nearest surface water is a pond (to the northeast—see Figures 1 and 2) and it is approximately 3,938 feet from the proposed well site. Intermittent streams surround the proposed well site and one is within 653 feet (see Figure 2). These drainages connect to San Francisco Creek. San Francisco Creek should have been acknowledged as a sensitive riparian area. See Figure 2 for an aerial view of the drainage network which shows the proximity of wet areas to the proposed well site.

15-Comments—Hughes should be cognizant that the proposed Surface Use Plan of Operations will be required to undergo BLM and public review by complying with NEPA. Consequently, additional mitigation to reduce negative environmental effects may become a condition of the permit to drill. Water testing must be extended beyond a one-mile radius of the proposed well location since contaminants can travel well beyond this reach in fractured bedrock. Allen Davey (Davis Engineering) commented at a public forum (1/26/2011) that

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the proposed site is in the Conejos Formation which is fractured and geologically complicated. The implication is that any contaminant from this proposed action could readily affect a much broader area. 1 See the Amended Declaration of Protective Covenants San Francisco Creek Ranch Amended Filing No. 1, Filing No. 2, and Filing No. 3 (recorded 7/26/2004) on file with Rio Grande County (attachment 1 to this document).

**Additional Comments**

Form 2A appears to have several errors, misrepresentations, and omissions as identified above. I did not have access to the "Attachment Check List" attachments referenced on Form 2A, but I am aware that Rio Grande County did comment on those attachments. It is important to note that the County also identified numerous errors and concerns with those attachments. This should create concern to the State as well.

My understanding is that hydraulic fracturing (or termed "fracking") involves injecting between 200,000 to 6 million gallons of water, sand, and a proprietary mixture of chemicals (many of which are known to be toxic) as far as 10,000 feet below the ground surface under thousands of pounds of pressure per square inch. This requires hundreds of semi-tanker trucks to deliver the necessary water. Additional semi-tanker trucks (number unknown) are needed to deliver the fracking chemicals. A large, open waste water pit/reservoir is needed to capture recovered polluted water from the drilling process. Storage tanks are then needed for capturing the natural gas. Finally, natural gas will need to be trucked off-site to another larger storage facility (location unknown). Consequently, there are numerous potential serious negative environmental impacts associated with oil and gas development. Hughes' proposal on Form 2A generates many unanswered questions/concerns as follows:

1) How is this proposed commercial enterprise compatible with Rio Grande County zoning of rural residential? There are numerous residential dwellings within close proximity of the proposed oil/gas well (see Figure 3). As pointed out above, this proposal violates the plain covenant language prohibiting "commercial uses" on any lot within the SFCRLOA.

2) Where is the large amount of water (needed for fracking) going to come from? The water must be purchased and the decreed use changed to commercial use. Again, any kind of "commercial use" of SFCRLOA lots is strictly prohibited. Where is the polluted waste water from the drilling operation going to be taken and how will it be treated? What mitigation will be in place to ensure that there is no contamination of surface waters? What verifiable monitoring will be in place to ensure that any foreseeable spill, leak, etc. is quickly identified and properly remediated?

3) How many trucks (and what kind of trucks, gross vehicle weight, etc.) will it take to support this commercial enterprise? Over what duration will this increased traffic use the existing road network? Is the road infrastructure (from Del Norte to the proposed well site) designed for this use? If not, how will road degradation be addressed? Have safety issues related to heavy truck traffic been identified and mitigated (truck traffic will travel through Del Norte, along French Street (through a residential area), past a public high school, up County Road 13, and eventually onto private SFCRLOA roads to the well site? How will the resultant increased dust/particulate matter be addressed and mitigated? What will be the hours of

operation (e.g., 12-hr. shifts, 24 hrs/day, 7-days/week)? How will increased noise be addressed and mitigated?

4) What will be needed for lighting (amount, intensity, and duration) at the drilling platform/rig? The SFCRLOA covenants say, "All outdoor lights of 100 watts or more shall be shielded, hooded, or capped, to prevent light from being cast upward or outward."

5) How will Hughes address/mitigate changes in air quality from the proposed activity and how will this be specifically monitored (and verified to be reliable)? Air quality will be negatively impacted from increases in dust, vehicle exhaust, methane, and volatile chemicals tied to fracking and the polluted waste water. Numerous residences and eventually the town of Del Norte are all downwind of the proposed drilling site. How will Hughes address/mitigate odor from the drilling operation and from the large waste water pit that is planned? The SFCRLOA covenants state, "...nor will any Owner build, maintain, operate or construct...any condition causing an obnoxious odor."

6) Does Hughes plan on using a mobile office at the site? The SFCRLOA covenants state, "No mobile homes or double-wide mobile homes shall be allowed to be placed on the property."

7) How does a commercial drilling enterprise comply with the SFCRLOA covenant stating, "...each Lot Owner shall, to the best of his ability, maintain the Lot in good repair and appearance, at all times"? If I brought in hundreds of trucks, erected a tower, installed lights, created noise 24 hours per day, increased dust, created a large waste water pond, generated odor, and erected storage tanks I would clearly be in violation of the SFCRLOA covenants. A lien would be placed against my lot until I eliminated this commercial (clearly not "residential") activity.

8) The proposed drilling is expected to penetrate the Conejos Formation which is known to be highly fractured. What assurances can be made that the drilling/fracking activity will not contaminate ground water? There is no track record of demonstrated success in this specific area. Anything less than 100% confidence that there will be no contamination leaves the SFCRLOA lot owners and the town of Del Norte vulnerable to a potential pollution disaster. Will Hughes agree in writing up front to compensate every affected lot owner and every

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affected resident of Del Norte if they contaminate the water resource? If not, then why would this activity be allowed leaving the residents to assume all the risk?

9) The potential risk of contamination of the aquifer suggests that extensive, independent water testing must be established to create an impartial, known baseline for every potentially affected well. There is little to no information regarding Hughes' plan for monitoring water resources. Ideally, a baseline of well monitoring would be established from several miles above the well site all the way down to the town of Del Norte in order to carefully establish water quality data before, during, and after drilling in order to track any changes in water quality over time. Without this, it will be difficult, if not impossible, to establish any reliable cause-effect consequences from drilling. Private wells are not routinely tested for pollutants from drilling or any other industry, and there are no federal regulations to ensure their safety. I am concerned that the State and the County will not have sufficient resources to ensure our water is protected sufficiently in order to challenge Hughes in the future in case there is a suspected water quality issue.

10) Additionally, the elements/compounds in the fracking fluids must be disclosed in order to later make comparisons to the baseline well studies. Without this information, it will be difficult, if not impossible, to link a well contaminate to the source. Hughes' confidence in their drilling ability and integrity should be demonstrated by a willingness to extensively and independently monitor water wells, including revealing all chemical elements/compounds used in fracking.

11) There is a cloak of secrecy surrounding fracking that makes residents very uncomfortable. Publicly, at county commissioner meetings, Hughes' representatives and their legal representative strongly objected to baseline monitoring and have resisted mitigation of environmental effects. This does not set the stage for trust and confidence in Hughes' ability to conduct this proposed operation with utmost environmental care.

12) Protection of water resources is dependent on the integrity of the entire drilling process. What assurances can be made that the drilling will be done correctly, including independent verification? What requirements are in place to ensure that the well cement will be applied correctly and that it will be allowed to harden properly? What will be done if the concrete cracks as it dries and expands? What will be done if the concrete slips into cavities in the rock due to erosion by drilling fluids or slips into large natural gaps or cracks? Will the integrity of the concrete and casing be tested and independently verified to be sound before exposing it to thousands of pounds of pressure under fracking? How far down does the casing and cementing need to be completed in order to protect the water resource? Who will make that determination and what is the confidence of making that determination? Typically, a percentage of gas wells are known to "lose circulation," meaning the fracking pressure did not build up as expected. This means that fluids seeped out somewhere on the way down. If the geology is fractured, then this could readily connect contaminates to the aquifer. How will Hughes ensure that this does not happen? There simply is no margin for error in this area. What kind of well pressure monitoring and verification will be in place? Who will be conducting the monitoring and who will independently verify this? What kind of track record does Hughes have in independent and verifiable effectiveness of cementing and casing gas wells? How often have they experienced a loss of circulation with fracking (and this answer needs to be independently verified)?

13) There is little to no information on emergency spill plans or contingency plans for leaks either at the drill site or in the transport of hazardous chemicals to and from the site. Also, what are the emergency plans to address a gas spill as it is being transported off the site?

In summary, the proposed well site is in a residential area. It is not in remote rangeland or in remote public land. The proposed well site is not in an area platted for industrial/commercial use nor is it in an established industrial park with similar/compatible heavy industry. The homes in the SFCRLOA are in a platted subdivision and they are exclusively dependent on wells for clean water. The SFCRLOA covenants prohibit many of the activities that are proposed in this commercial enterprise. Clearly, the SFCRLOA covenants were intended to protect residential home and property values from non-compatible uses. Since the proposed well would penetrate the Conejos Formation (known to be geologically fractured), then there is an unknown and very dangerous risk of contaminating the water supplies of SFCRLOA residences and the residences of the town of Del Norte. Any contamination of surface waters and residential water wells would be catastrophic to the affected residences. The proposal by Hughes is incompatible with Rio Grande County zoning, it is clearly in violation of SFCRLOA covenants, and it creates unacceptable risk to residences in the vicinity of the proposed well all the way down to the town of Del Norte and beyond. I urge you to protect the citizens of this area and deny this application from Hughes. Thank you for the opportunity to comment.

Respectfully submitted,

DEAN H. ERHARD Lot 83 Owner and year-round resident 11/11/2011

Figure 1. Topographic map of the proposed well location in San Francisco Creek Ranch Land Owner's Association subdivision.

Figure 2. Aerial view of the drainage area around the proposed well location (yellow thumb tack).

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Figure 3. Residential dwellings in close proximity (encircled in red ellipses) to the proposed well site (yellow thumb tack).

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**COMMENT NO. 44**

**Public. (11/10/2011; 8:03:55 PM)**

**Form 2A#400211669**

I have already posted a comment on Form 2 but to save space I am referring you to it and ask that you to also consider it here. But, I would like to add this following comment as well:

I hear all about the need for developing our energy resources, for the good of our country, for the good of ourselves, and our children. I too have a desire to see all good things happen for us and am not opposed to developing resources to make our country strong and to leave a home for the next generation of children that is comfortable and clean and gives them opportunity to grow and prosper. That is why I am asking you to deny this application to drill in this area. There is an opportunity right now to spare a virgin area, to deny the intrusion into her soils to steal her ancient fuel and to instead save her pristine surfaces for accoutrements of glittering sun catchers and whirligigs that transform and renew Creator's energy instead of using it up. Now is the time to invest in our future energy sources, not to continue in our old ways. There are already plenty of finished wells that have been capped, poised and ready to drag whatever is left out of our earth. There is no need to drill in this place at this time. It can take but one person to begin the change by making the responsible decision, please make that decision now and deny this well.

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**COMMENT NO. 45**

**Public Room (11/5/2011; 7:33:55 AM) Form 2A#400211669**

COGCC, Thank you for the comment opportunity. I am not for the drill due to the severity of the issues of the process and chances being taken for a water supply that is vital to a Valley. This said there are several concerns to the application by Dan A Hughes, and you being the professionals may not need informed or educated on, but may this bring to light serious issues.

Reference to the land: The RANGELAND Statement for use now and future is false due to this being a RESIDENTIAL Subdivided Developement. There are EIGHT homes within sight of the property and 5 are full time residents. Hughes has never gone about getting a rezoning for his little plot. Because Hughes bought to bring in Oil and Gas, does not change the obvious, it is still RESIDENTIAL. If Hughes were required to put his own water well in and put some residential investment into the piece of property in the Association, only being able to use the water for up to 1 acre of vegetation or animals or himself (by law), Rangeland becomes very clearly false. The Ranch was taken from status of Homesteaders Act in the late 1990's, Dan A Hughes owns as a RESIDENT of an Association, (under Hughes Branch, Hubetex).

LOT#46. The property taxes have not been paid by the owner Dan A Hughes, for several years. He is part of an Association that is Covenanted for NO COMMERCIAL BUSINESS. He knew this and has set out only as a Business venture and dismissed the RESIDENTIAL part.

Roads: The fact that there only appears to be ONE well and its slight chance of hitting the target, should not give this Company any exceptions to the fact the private road to be used is NOT made for such traffic! This is a residential dirt road that the residents MUST use, there are no alternatives. OG would make a great demand for what the residential road was placed there for. The JOB needs to be done right from the beginning (Hughes owner of the Association and Community has shown such disregard to this point as to his duties as an owner), that IF there is a OG boom here, the job to do it right later becomes so much more difficult, if not impossible. Oil and Gas comes into a neighborhood and wants to be the exception to the rule. This is unacceptable. Mineral rights may supercede the surface but nothing should supercede common sense in this matter.

Water Sensitive: NO??? it is not water sensitive? This is blatant disregard to the danger this drill could be. The previous few drills in the vicinity have shown the professionals the danger to the water for the valley. The people of powers that be in the valley for water clearly have stated the sensitivity for the drill to take place at the prospective drill sight. Shawn Burd being at the Commissioners and COGCC meeting in January of 2011 heard Professional information on the dangers of drilling due to water sensitivity. Shawn Burd of Western Land Services stated in correspondence that degradation to the water could come from draught. Has this past year not shown there is already draught issues? YES! The Aquifer this company wants to drill through is LOW! It is a water source to the Valley. Why take more water to chance getting some mineral that if it ends up being Natural Gas will not even do us ANY good. Maybe some will benefit, but then that would be most likely from exporting it over seas. There is so much Natural Gas in The United States and no where demanding the use in this Country.

Where is the water really coming from to drill? When the Valley has a low amount and are committed to fulfill prior contracts for water, how is water for a drill priority. To the replacement of the water, where will the water come from? Where is the waste going to be taken? These are very clear concerns in a Community where life is valuable. COGCC committed from the start to plugging and completion of a drill:

We are now dealing with the possibility of an approval of a very poorly done application to drill in the Rio Grand Valley, when the completion of a OLD Jennifer well has yet to be plugged and completed in a timely manner. The Oil and Gas Regulations are so lax as it is that to take lightly into consideration that a well cannot even get plugged and completed from years ago, does not give confidence in this process.

Emergency: How long before a truly prepared, knowledgeable Group of personnel needing to take care of a contaminating spill would make it to the aid of this community? And I don't mean volunteer minimal status well meaning people. Not to make this part of requirements is flagrant disregard to the people. Is someone in the profession going to educate the school body or residents how to deal with an accident from the Industry? You may say some concerns should go to the other agencies. But if this passes as is by state we all know the status of the drill. COGCC is a pivoting point of doing this right. All Government Agencies need funding and we want NO PASS based on the dividing of royalties. In the state of Texas, Hughes OG has violated the Regulations by continuing to produce product while NOT having the permit to do so. They went for more than a year and a half in this practice before being corrected to do right. Is there other cases that question the integrity of the Company? Incompetency is not an excuse. This is not the kind of business that makes the OG Industry appear to be anything more than corrupt. I ask Dan A Hughes, WLS and the Governing Agencies to thoroughly consider these issues requiring at the minimal a correct application be done and showing business to be of the highest standard.

Thank you

**COMMENT NO. 46**

**Public Room (10/31/2011; 5:05:28 PM)**

**Form 2A#400211669**

We wish to submit urgent concerns regarding the APD (Document Number 400210265) filed for Rio Grande County, which is currently under your consideration. There are significant factors associated with potential fossil fuel development on this site that pose serious risks to public health and safety and the natural resources, and environment in the area. For the following reasons, we feel that activity associated with oil and gas exploration is distinctly inappropriate within the valley of the San Francisco Creek.

**PUBLIC HEALTH AND SAFETY**

\*Roads. The roads in this rural area are rough-surfaced with sections of narrow winding roadways and blind curves. They are constructed only for residential and recreational use and are profoundly inappropriate for heavy traffic, large trucks and equipment, and for the transfer of hazardous materials. Weather conditions in this area are frequently harsh, winter and summer, and pose additional dangers of heavy snow, ice, blowing dust, poor visibility, torrential rains and wet slick surfaces, raising the dangers of heavy traffic. Large deer populations living in the area constitute a driving danger because they behave erratically, running into the roadway and presenting a risk for accidents – an especially serious threat to commercial vehicles and trucks carrying hazardous materials.

\*Student safety. The sole access to the proposed site passes through a high school campus. There is frequent foot traffic and heavy use by young drivers along this road, making it inappropriate as a route for commercial or industrial traffic.

\*Exposure to toxic substances. The significant dangers of chemical spills, fire and explosion that accompany oil and gas exploration pose an unconscionable risk to the citizens who live, work, learn and play in this area.

\*Public safety infrastructure: In the event of drilling activity at the proposed site, the traffic on state highways, county and city roads serving the area would increase exponentially. The work to monitor, enforce and respond to road safety issues would seriously stress state and local government resources and economies needed to assure safety.

\*Emergency response: The proposed drilling site is 5 miles from the town of Del Norte and its small volunteer fire, emergency and ambulance force. This distance, limited response force, and rural roads do not support rapid response efforts. In the event of explosion, fire, toxic spills or human injury, when immediate action is critical, delays and insufficient human resources are likely and pose a serious threat to public health.

\*Wind: The west and south prevailing winds across the proposed site are strong and persistent. Any particulate matter, methane, volatile organic chemicals, and airborne contaminants generated in oil and gas exploration would be carried downwind, across rural homes, livestock, schools, the town of Del Norte, the Rio Grande Valley and on into the greater San Luis Valley. Air pollution would have serious negative impacts on the growing solar industry in the San Luis Valley. The vulnerability of human, animal and plant life, pure water and air is too great to justify an industrial operation within this populated, fragile environment.

\*Disposal of drilling cuttings and waste water: The proper and safe management of by-products of drilling is of ultimate concern. Rio Grande County regulations do not allow any on-site storage, necessitating a clear plan of how and where such materials will be disposed. Specific arrangements for off-site disposal of these toxic by-products have not been outlined. Water, soil and air must be protected from contamination at any designated disposal location and the safe transfer of these materials on our roadways, guaranteed.

**ENVIRONMENT**

\*Water resources: The high water demands that accompany oil and gas exploration are of significant concern to residents living near the proposed site and in the towns of Del Norte and Monte Vista. Water in the entire San Luis Valley is already seriously over-appropriated. The operator's plan for water acquisition has not been clearly defined and its delineation is of highest concern.

\*Sensitive watershed: Snow melt, rain runoff and spring waters flow across the open meadows surrounding the proposed drilling site and drain east toward a sensitive riparian corridor along San Francisco Creek. The potential at the proposed site for toxic spills, inappropriately managed waste materials, soil disruption and erosion, or interruption of water flows constitutes a serious risk to the quality and health of this vital waterway that feeds downstream water rights and the greater Rio Grande Water Compact.

\*Water quality: The potential for contamination or pollution of domestic water supplies on properties in proximity to and below the proposed site has raised serious alarm. Baseline testing of water wells, surface water and San Francisco Creek is of up most importance. Rio Grande County has requested that COGCC conduct baseline testing and ongoing monitoring at regular intervals of waters within a 3-mile radius of the

**ATTACHMENT B - Dan A Hughes Company, San Francisco Creek #1 Pad, Rio Grande County; Renumbered Comments for Easy Reference; Form 2#400210265; Form 2A#400211669**

proposed site. This should be mandatory. A certified laboratory, at the operator's expense, should carefully corroborate any water testing that the operator performs.

\*Air quality: The risk to clean air above and downwind of the proposed site that could be caused by oil and gas exploration is of grave concern. There is no state regulation for monitoring or protecting air quality and this alone should constitute a moratorium on drilling in this location until baseline data and a stronger regulatory framework have been established.

\*Noise: The proposed drilling site is located in a quiet rural setting and pristine foothills valley prized for its solitude. Introduction of heavy traffic and mechanization involved in support of drilling operations would significantly alter the essential resource of silence, an integral component of the health of wild and residential life. The impact on animal and health could have serious repercussions.

**WILDLIFE**

\*Pronghorn antelope habitat: The proposed site sits in the center of year-round range of a pronghorn herd that is highly vulnerable to human activity, noise and disruption of its food and water sources. Drilling activity in this location would seriously impact their well-being and health.

\*Elk and deer winter range: The elk and deer populations that live in the area surrounding the proposed site are vital to the local ecosystem, hunting, and the regional economy. Human interference and activity could seriously impair herd movement and health, interrupt access to food and water supplies, and disrupt mating and calving cycles. This is a resource that cannot bear undue pressure.

\*Swainson hawk migration flyway: The Swainson hawk biannual migration passes through the valley of the San Francisco Creek. Mineral exploration's disruption of this species' food supply and environment could seriously endanger the success of the migration and flock numbers.

\*Other animal and bird species: The pressures of heavy traffic, noise, displacement, and pressures on food supply would impact dozens of other species in the area's ecosystem.

\*Aquatic life in San Francisco Creek: Species depending on the waters along San Francisco Creek, especially cutthroat trout, live within the watershed from the proposed site and stand at significant risk from seepage or spills of toxic contamination, silting, or interruption to water supply that are known to occur with oil and gas development.

**LIFE QUALITY**

\*Zoning: The proposed drilling site is within a subdivision developed on land zoned residential/agricultural. The San Francisco Creek subdivision has been covenanted against any commercial activity within its premises. An industrial operation such as oil and gas exploration is completely inappropriate in this location.

\*Right to quality of life: The noise, disruption of pristine environment, and threat to rural solitude that would accompany oil and gas exploration is in direct conflict to the lifestyle that the residents of the San Francisco Creek valley and Del Norte have chosen and worked so hard to acquire and maintain. Establishment of a drilling operation in this location would be a distinct violation of personal rights. We urge that in reviewing the Dan A. Hughes APD, you give thoughtful and extended consideration to the health, safety and well being of the people of the San Francisco Creek and San Luis Valleys who will be profoundly impacted by your decisions. We are relying on you to insure that our water, air, health, and life quality are afforded the safety and quality we deserve. Thank you for your careful attention to these comments.

Sincerely,

Dave and Nancy Neal

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**COMMENT NO. 47**

**LGD (10/27/2011; 11:43:20 AM)**

**Form 2A#400211669**

**The Rio Grande County Board of County Commissioners, Planning and Zoning Board, and the Land Use Administrator (LGD) have reviewed forms 2/2A, and submits the following comments:**

Form 2A - Item no. 10: Current Land Use: (check all that apply) Only Non-crop land: Rangeland was checked. We feel Crop Land: Dry land and "Subdivided" and "Residential" should also have been checked. San Francisco Creek Ranch Filing No. 2 was subdivided and platted on Sept 6, 1996, Drawer 11, Map 25. Item no. 11: Future Land Use: This land was developed primarily for residential uses. "Subdivided and Residential" should also have been checked.

Item no. 14: Water Resources: The San Francisco Creek drainage is a sensitive area in many ways, and should have been acknowledged as such.

Residential Area: Any exploration/drilling in the predominately residential area is a concern as any contamination of the underground water source that supplies the existing homes and future homes could occur. The town of Del Norte is located below (or to the north) of the proposed area. There is concern about the proximity of drilling activity to Del Norte's town ponds (roughly two to three miles to the west from the proposed site) and ensuing effects on the town's water supply. Allen Davey, an Engineer with Davis Engineering located in Alamosa Colorado, pointed out at a public forum held in Rio Grande County on January 26, 2011, that this site is located in the Conejos Formation. He talked about the unique hydrology of the San Luis Valley and its multiple aquifers. The San Francisco Creek drainage is a significant recharge area and is a tributary to the Rio Grande River. Any contamination from the San Francisco Creek drainage into the river would be detrimental. Mr. Davey suggested that cement casing be required to 3,000-4,000 feet or more. There are natural ponds located on lots 44 and 46 that are year round spring-fed ponds within the one mile radius of the well site which is located on lot 46. The pond is in the northeast corner of the same lot, which is closer than the San Francisco Creek that is identified as the closest water source on Form 2A. Due to a dry winter and spring of 2011, the level of these ponds have dropped significantly, which is an example of how sensitive and changeable ground water in the area near the proposed site is to drought, and likely would also be to disturbances in subsurface water-bearing levels. Rio Grande County requests to COGCC that it help us enforce baseline well testing from the footprint of pad (Rio Grande County Oil and Gas Regulations (8.8.1.2.)). Craig Cotton, Division Three Engineer of the Colorado Division of Water Resources says that the San Luis Valley (Valley) is over-appropriated in terms of water and there can be no more demand on the aquifer system. Therefore, Dan Hughes Company (Hughes) will have to purchase water on the open market and change the decreed use to "commercial use" which could take some time; and any water taken has to be replaced. Dan Hughes did not state how it planned on replacing the water it uses. Rio Grande County feels that this is a Sensitive Area therefore a determination should be performed. The location pictures submitted do not accurately depict ALL the homes in the area. It is our belief, the pictures purposely mislead that this area is a very low density area which is not true. There are a total of 106 lots in the San Francisco Creek Subdivision which is approximately at a 50% build out. There are 27 lots in the San Francisco Creek Subdivision Filing No.2 alone; 15 of these lots have homes on them. Specifically, lots with homes that surround the drill site are: Lots 44, 47 - has 2 homes, 48 and 50.

Lights and noise: There will be a significant impact in the area concerning use of lights and noise during the drilling process.

Riparian area: The proposed drill site is not in a riparian area itself, but the riparian corridor along San Francisco Creek is approximately 1,750 yards east of the drill site on lot 46. Snow melt, rain runoff and spring waters across the open meadows in the area around lot 46 drains east toward that riparian area. This suggests that lot 46 lies within a sensitive watershed area.

Sensitive Wildlife Area: Lot 46 and the surrounding properties are within a summer and winter range of a herd of pronghorn antelope that are vulnerable to disturbance and changes of traffic, increased human activity, and noise. As indicated in the application in regards to the map, this is also winter range for significant herds of deer and elk. They are sensitive to human disturbance and deserve protection.

Sensitive Air Quality: Monitoring of air quality prior to and throughout any drilling operations, at the operator's expense is recommended by Rio Grande County to be included in COGCC's requirements to insure that air quality is not compromised or diminished. The Valley's clean and clear air is essential to our resident's health, and our tourism and a burgeoning solar production industry. Prevailing winds in the San Francisco Creek valley are from the west and south. Particulate matter from heavy traffic along dirt roads in the area and any release of methane, chemicals or volatile organic compounds generated by or used in drilling would be carried downwind to Del Norte, through other residential areas, across two school campuses, and on into the San Luis Valley floor. This poses a potentially serious threat to safety and health of people living and working here.

Existing Roads: To clarify, there isn't a 'Del Rio' road as commented on page 1 in the Surface Plan. Wagon Wheel Road (a private road which is maintained by the homeowners association) and County Road 13 (CR



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13) would be significantly degraded by the intensely heavy traffic needed to support a drilling operation. In the event of frequent use by large heavy vehicles, several areas along CR 13 would pose significant safety issues concerned with speed and weather conditions. To access the San Francisco Creek area, vehicles must turn from Hwy 160 onto French Street in the Town of Del Norte which will then first take the vehicles by the high school and a high density residential area; during sports activities (football, baseball, track and outdoor curriculum) the students, faculty and public have to cross French Street to get to the football/baseball field. Local high school students who are new drivers without long experience who frequently drive on this stretch of road would be vulnerable to the very heavy traffic associated with fossil fuel exploration. The County has an obligation to assure and protect their safety. There are no turnouts on either Wagon Wheel Road, or CR 13. The current surface of CR 13 may be inadequate for heavy industrial traffic and Wagon Wheel Rd. definitely is inadequate. Wagon Wheel which is a cul-de-sac, there is only one way in and one way out; Wagon Wheel Rd is only 20 feet wide edge to edge, and one of the two culverts in the section that Hughes will use is only 23ft long . Traffic flow could be impeded and other road users could be stuck if there is a truck on this section of Wagon Wheel Rd. The Valley can have an unpredictable spring weather pattern, and the start date of April 1, 2012 can be bad for driving on gravel roads. If the start date were after the end of the school year it might mitigate some road issues, not to mention safety issues. County Rd 13 is not accurately depicted on the topographical map provided, unless they are planning on rerouting the road. Again, we have concern for the large increase in the heavy volume of traffic on paved streets in the town of Del Norte (French Street). It is our belief that this street was not designed nor engineered with the thought of increased volume of heavy truck traffic. We also have great concern for our county roads as well. In regards to Form 2: Water Supply has not been secured/purchased, nor has an official agreement with the City of Monte been established to our knowledge. It has been discussed but that was two years ago. In regards to the "pad construction drawing" under "Notes", item no. 2 states that pit location and size to be determined at time of construction. Per the Rio Grande County Oil and Gas Regulations only closed looped systems will be allowed. (8.8.6.1.) this also does not match comments made on Page 3, #7. Page 3 of Surface Use Plan, #7: Methods of Handling Waste Disposal. Rio Grande County does not believe comments made about wastewater handling are adequate. How does Dan A. Hughes plan on disposal – offsite and if so, how?

Summary of recommendations by Rio Grande County:

1. That Rio Grande County Oil and Gas regulations be followed; particularly water baseline studies at a minimum
  2. Monitoring of air quality prior to and throughout any drilling operations, at the operator's expense
  3. Consider a different start date
  4. Only a closed looped system should be approved
  5. Any requirements should be "more restrictive" for first time applicants as this is an unknown area for all involved.
  6. Roads and traffic need to be assessed
  7. Noise should be addressed
  8. Lights should be addressed
  9. The drilling company should file an Emergency response plan prior to any drilling
  10. Chemical inventory: Owners or operators shall maintain a chemical inventory by well site for each chemical product used downhole or stored in an amount exceeding 500 pounds during any quarterly reporting period and the maximum capacity of fuel stored on the oil and gas location during drilling, completion, and work over operations including fracture stimulation. Entities maintaining chemical inventories under this section shall update these inventories quarterly throughout the life of the well site. These records must be maintained in a readily retrievable format. The county health department may obtain information provided to the department or director in a chemical inventory upon written request to the director. Where the composition of the chemical product is considered trade secret by the vendor or service provider, owners or operators shall only be required to maintain the identity of the trade secret chemical product and shall not be required to maintain information concerning the amounts of such constituents to make chemical product.
  11. Waste water needs to be better defined and more specific on its handling and disposal; particularly if off-site.
  12. Company work history and references. The County would like to request the company provide references to verify their previous work records. The County would also request that the company provided documentation from not only the state of Drilling/Completion Operations An APD, including a Surface Use Plan of Operations, which incorporates BLM BMPs, will be submitted to the COGCC and is included under attachments.
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## **Water Resources Protection COAs:**

**COA WR1** - Operator must ensure 110 percent secondary containment for any volume of fluids contained at well site during drilling and completion operations; including, but not limited to, construction of a berm or diversion dike, diversion/collection trenches within and/or outside of berms/dikes, site grading, or other comparable measures (i.e., best management practices (BMPs) associated with stormwater management) sufficiently protective of nearby surface water. Any berm constructed at the well pad location will be stabilized, inspected at regular intervals, and maintained in good condition.

**COA WR2** - Due to the steeper slopes to the south, this location is in an area of moderate to high run off/run on potential; therefore the pad shall be constructed as quickly as possible and appropriate BMPs need to be in place both during, after well pad construction completion, as well as during all drilling and well completion operations. Standard stormwater BMPs must be implemented at this location to insure compliance with CDPHE and COGCC requirements and to prevent any stormwater run-on and /or stormwater runoff.

**COA WR3** - Operator must implement best management practices to contain any unintentional release of fluids, including any fluids conveyed via trucks, temporary surface pipelines, or buried permanent pipelines.

**COA WR4** - Location is in a sensitive area due to shallow groundwater; therefore, a closed loop drilling system (which operator has indicated on the Form 2A) must be implemented.

**COA WR5** - Location is in a sensitive area because shallow groundwater; therefore, no subgrade pits are permitted.

**COA WR6** - To protect aquifers and ensure zonal fluids isolation at the wellbore face, operator will adhere to the following Well Design and Quality Assurance Measures (including but not limited to; placing a cement sheath that is followed by steel casing placed successively against and bonded to all exposed formations).

Conductor Casing: To prevent surface and shallow boulders from falling in and impeding drilling progress, sixteen inch (16") outside diameter conductor pipe will be set at depth of eighty (80) feet below ground surface (bgs).

Surface Casing: To protect shallow aquifers, a twelve and one quarter inch (12 ¼") diameter bit will be used to drill the surface casing hole to a depth of eleven hundred feet (1100') bgs. Nine and five eighths inch (9 5/8") outside diameter steel casing will then be placed in the wellbore from surface to a depth eleven hundred feet (1100'). To ensure the isolation of formation strata and its respective fluids, cement will be placed in the annular space found between the wellbore and casing from surface to a depth of eleven hundred feet (1100'). If the top of cement at the surface drops out of eyesight, a temperature survey will be run from a depth of eleven hundred (1100') all the way to surface to determine the depth to the top of the cement. Additional cement would then be placed behind the casing from the top of cement to surface to ensure the protection of shallow aquifers and prevent the wobbling of the casing while drilling the rest of the well. Shortly thereafter the surface casing and casing seat at the formation will be pressure tested for leaks.

Intermediate Casing: Should conditions require, operator may install intermediate casing, as necessary. Materials for intermediate casing string shall be secured such that they can be on location within 24-hours, per Form 2 Application for Permit to Drill.

Production Casing: A seven and seven eighths inch (7 7/8") outside diameter bit will then be run inside the surface casing and a new wellbore will be drilled another fifteen feet (15') past the base of the surface casing and will be pressure tested to ensure a good seal on the base of the surface casing. The rest of the well will be drilled to a total depth of sixty-six hundred feet (6600'). To ensure the isolation of deeper formation strata with their respective fluids from all shallow aquifers, five and one half inch (5½") outside diameter steel production casing will be run inside the well from surface to a total depth of sixty-six hundred feet (6600'). Cement will then be placed



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in the annular space found between the production casing and wellbore from total depth to approximately nine hundred feet (900') from surface or two hundred (200') above the base of the surface casing bottom. The operator will then run a radial cement bond log (CBL) to assess the quality of the cement job as well as determining the actual depth to the top of cement. Any significant insufficiencies in the cement job will be remediated with additional cementing.

**COA WR7** - Provided sufficient water exists in the Classified RSO Segment, operator shall collect baseline and follow-up surface water data immediately downgradient of the oil and gas location consisting of a pre-drilling surface water sample and a follow-up surface water sample collected at the same location three (3) months after the conclusion of any drilling or completion activities. The sample parameters shall include: field observations (turbidity, odor, sample location description); pH; alkalinity; specific conductance; major cations/anions (chloride, fluoride, sulfate, sodium); total dissolved solids (TDS); benzene, toluene, ethylbenzene, total xylenes (BTEX); gasoline range organics (GRO); diesel range organics (DRO); total petroleum hydrocarbons (TPH); polyaromatic hydrocarbons (PAH's [including benzo(a)pyrene]); and metals (arsenic, barium, calcium, chromium, iron, magnesium, selenium).

**COA WR8** - Copies of all test results, field parameters and field observations collected from nearby surface sampling water locations and sampled water wells shall be provided to the COGCC and the water well owner within three (3) months of collecting the samples (provided well-owner approval of disclosure is obtained) or Form 2A approval. All analytical data and surveyed well locations shall also be submitted to the COGCC in an electronic data deliverable format. The data shall be sent via email to the COGCC OGLA Specialist for Southern Colorado (Arthur Koepsell; email [arthur.koepsell@state.co.us](mailto:arthur.koepsell@state.co.us)), with a copy provided to the COGCC Environmental Protection Specialist for Southwest Colorado (Karen Spray; email [karen.spray@state.co.us](mailto:karen.spray@state.co.us)).

**COA WR9** - Water Testing: Prior to drilling, operator shall sample the two (2) closest domestic water wells, springs, or surface water features within a one (1) mile radius of the proposed oil and gas location. Testing preference shall be given to domestic water wells and springs over surface water. Testing of surface water features shall only be conducted if two (2) water wells or springs do not exist within a one (1) mile radius of the selected oil and gas location. If possible, the water wells or springs selected should be on opposite sides of the oil and gas location not exceeding a one (1) mile radius. If water wells or springs on opposite sides of the oil and gas location cannot be identified, then the two (2) closest wells or springs within a one (1) mile radius of the oil and gas location shall be sampled. The sample location shall be surveyed in accordance with Rule 215.

Initial baseline testing shall include laboratory analysis of all major cations and anions, total dissolved solids, iron and manganese, nutrients (nitrates, nitrites, selenium), dissolved methane, pH, specific conductance, and benzene, toluene, ethylbenzene, and xylenes ("BTEX"). Sampling shall be performed by qualified individuals using methods consistent with commonly accepted environmental sampling procedures. Field observations such as pH, temperature, specific conductance, odor, water color, sediment, bubbles, and effervescence shall also be included.

After 90 days, but less than 180 days of completion of the first proposed well a "post-completion" test shall be performed for the same analytical parameters listed above and repeated one (1), three (3) and six (6) years thereafter. If no significant changes from the baseline have been identified after the third test (i.e. the six-year test), no further testing shall be required. Additional "post-completion" test(s) may be required if changes in water quality are identified during follow-up testing. The Director may require further water well sampling at any time in response to complaints from water well owners.

If free gas or a methane concentration level greater than 1 mg/l is detected in a water quality testing well, gas compositional analysis, and stable isotopes of both the carbon and hydrogen isotopes of methane shall be performed to determine gas type (thermogenic, biogenic or a mixture).

Copies of all test results described above shall be provided to the Director and the landowner where the water quality testing well is located within three (3) months of collecting the samples used for the test. The analytical data and surveyed well locations shall also be submitted to the Director in an electronic data deliverable format.

**ATTACHMENT A - Dan A Hughes Company, San Francisco Creek #1 Pad, Rio Grande County; Conditions of Approval; Form 2#400210265; Form 2A#400211669**

**General Site Protection COAs:**

**COA GS1** - Notify the BLM, NFS, Rio Grande County, City of Del Norte, City of Monte Vista, the COGCC Oil and Gas Location Assessment (OGLA) Specialist for Western Colorado (Dave Kubeczko; email dave.kubeczko@state.co.us), the COGCC Environmental Protection Specialist for Southwest Colorado (Karen Spray; email karen.spray@state.co.us), and the COGCC Field Inspection Supervisor for Southern Colorado (Mike Leonard; email mike.leonard@state.co.us) 7 days prior to access road and well pad construction activities to set up an onsite pre-construction meeting to discuss details of the access road and well pad construction including, but not limited to, proposed schedule, pad layout, stormwater management, traffic plan, and emergency response plan.

**COA GS2** - Notify the local emergency responders (Fire/Police), BLM, NFS, Rio Grande County, City of Del Norte, City of Monte Vista, the COGCC Oil and Gas Location Assessment (OGLA) Specialist for Western Colorado (Dave Kubeczko; email dave.kubeczko@state.co.us), the COGCC Engineer for Southwest Colorado (Mark Weems; email mark.weems@state.co.us), the COGCC Environmental Protection Specialist for Southwest Colorado (Karen Spray; email karen.spray@state.co.us), and the COGCC Field Inspection Supervisor for Southern Colorado (Mike Leonard; email mike.leonard@state.co.us) 7 days prior to well spud to set up an onsite pre-spud meeting to discuss details of the drilling program including, but not limited to, proposed schedule, water management, cementing, traffic plan, and emergency response plan. If operator schedule permits, this meeting may be concurrent with pre-construction meeting described above.

**COA GS3** - Due to the possibility of encountering abundant water during drilling (based on another operator in the past encountering abundant water and having a massive loss of circulation), the operator will place approximately six (6) to eight (8) 500-barrel frac tanks on the well pad in an area with additional downgradient perimeter berming. The area where these tanks will be stored must be constructed to be sufficiently impervious to contain any spilled or released material. The tanks will be manifolded together and connected to the drill rig's closed loop mud circulation system/tanks. Any change in the well pad size will be documented with updated Construction Layout Drawings and Location Drawing and be submitted to the COGCC OGLA Specialist for Western Colorado (Dave Kubeczko; email dave.kubeczko@state.co.us) via a Form 4 Sundry Notice. Additional drilling mud will be available onsite, per Form 2, Application for Permit to Drill, and additional casing shall be available within 24-hours should intermediate casing be deemed necessary.

**COA GS4** - A spill response trailer will be on location 24 hours a day, 7 days a week during construction, drilling, and completion operations to facilitate a timely response to any spills that may occur.

**COA GS5** - Appropriate heavy equipment (e.g., a backhoe) will be staged at the location during all drilling and completion operations so that any emergency diversions or pits to contain spills can be built immediately upon discovery of a spill or release.

**COA GS6** - If the well is to be completed; flowback and stimulation fluids must be sent to tanks, separators, or other containment/filtering equipment before the fluids can be placed into any pipeline or into tanker trucks for offsite disposal. The flowback and stimulation fluid tanks, separators, or other containment/filtering equipment must be placed on the well pad in an area with additional downgradient perimeter berming. The area where flowback fluids will be stored/reused must be constructed to be sufficiently impervious to contain any spilled or released material.

**COA GS7** - If the well is to be completed; notify the COGCC Oil and Gas Location Assessment (OGLA) Specialist for Western Colorado (Dave Kubeczko; email dave.kubeczko@state.co.us) and the COGCC Field Inspection Supervisor for Southern Colorado (Mike Leonard; email mike.leonard@state.co.us) 48 hours prior to start of completion operations.

**COA GS8** - The moisture content of any drill cuttings in a cuttings pit, trench, or pile shall be as low as practicable to prevent accumulation of liquids greater than de minimis amounts. At the time of closure, if drill cuttings are to remain/disposed of onsite, they must also meet the applicable standards of table 910-1.

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**COA GS9** - Berms or other containment devices shall be constructed to be sufficiently impervious to contain any spilled or released material around crude oil, condensate, and/or produced water storage tanks, including temporary facilities.

**COA GS10** - An emergency spill response program that includes employee training, safety, and maintenance provisions is required for this location. In the event of a spill or release, the operator shall immediately implement the emergency response procedures in the above-described emergency response program. If a spill or release impacts or threatens to impact an RSO stream, the operator shall notify the Colorado Department of Parks and Wildlife (CDPW) immediately following discovery of the release, and the spill or release shall be reported to the Commission in accordance with Rule 906.b.(3), and to the Environmental Release/Incident Report Hotline (1-877-518-5608) in accordance with Rule 906.b.(4).

**COA GS11** - All personnel working at the location during all drilling and completion operations will receive training on spill response and reporting. Documentation of this training will be maintained in the operator's office/onsite trailer.

**COA GS12** - At a minimum, weekly spill prevention meetings will be held identifying staff responsibilities in order to provide a quick and effective response to a spill. Appropriate documentation will be maintained in the operator's office/onsite trailer.

**COA GS13** - Operator will conduct daily inspections of equipment for leaks and equipment problems with appropriate documentation retained in the operator's office/onsite trailer. All equipment deficiencies shall be corrected. Daily monitoring should end approximately 14 days after well completion and/or after production has been stabilized; however, timely inspections shall continue during the production phase.

**COA GS14** - Operator will use adequately sized containment devices for all chemicals and/or hazardous materials stored or used on location.

**COA GS15** - Operator will provide an increased testing frequency (at least every fourteen [14] days) of blowout prevention equipment (BOPE) during drilling operations.



**Nearby Residential Area Protection COAs:**

**COA R1** - Prior to starting construction of the well pad and access road, operator will submit an air quality monitoring plan to COGCC for approval. This plan should include, at a minimum, one-time continuous air emissions monitoring at this well site such that among other things, the air monitoring effort is designed to adequately characterize the air emissions profile for the following stages of gas development: Prior to any drilling or completion activities; During drilling activities; During completion activities; and During normal production operations. Each of these air monitoring events will be designed at a minimum such that the air monitors are positioned at a distance not to exceed 500 feet from the San Francisco Creek #1 well site to collect the following information: 1) using a sample location downwind of the well site emission sources in the primary wind direction and 2) using a sample location in the direction of the nearest residence downwind of the well site emission sources; 3) monitor for non-methane organic compounds/volatile organic compounds (NMOCs/VOCs) using continuous monitors (to include total non-methane hydrocarbons and benzene, at a minimum); and 4) monitor for meteorological parameters, including wind speed, wind direction and temperature during each sampling event.

**COA R2** - Operator will prepare a job specific Emergency Management/Response Plan that has been reviewed with the local emergency responders (Fire/Police). Operator will provide temporary engineering controls to prevent uncontrolled public access during drilling and completion activities. Site security shall include, but not be limited to, appointing a Health and Safety Officer that will insure the Emergency Management/Response Plan is adhered to and who is authorized to shut down operations at any time when health and safety risk is present.

**COA R3** - Operator will review local governmental requirements for access from public roads. At a minimum the following traffic requirements will apply: (1) a traffic control plan will be in place; (2) additional signage on major and/or local roads will be employed to warn the public of increased truck traffic; (3) all oil and gas related construction, drilling, and operational traffic shall access the location from a single point; (4) designate haul routes to avoid school zones; (5) no oil and gas related traffic shall be permitted on neighborhood roads in the city of Del Norte; (5) schedule work to avoid peak traffic flow; (6) schedule heavy equipment movement to avoid local school and school bus operation hours; (7) provide and require safe driving training for employees and contractors; and (8) when using subdivision roads, reduced speed limits should be established.

**COA R4** - Operator will implement sufficient public notification of proposed oil and gas activities, including: (1) provide 30-day notice and community awareness to neighborhood and meet with the neighborhood residents regarding schedule and activities, include local emergency response agencies (Fire/Police); (2) posting schedule changes at a location convenient to residents, as well as notifying local emergency response agencies (Fire/Police) of schedule changes; and (3) notify all homes within a ¼-mile radius and local emergency responders (Fire/Police) 7 days prior to mobilization in, rig up (MIRU).

**COA R5** - Notify the local emergency responders (Fire/Police), BLM, NFS, Rio Grande County, City of Del Norte, City of Monte Vista, the COGCC Oil and Gas Location Assessment (OGLA) Specialist for Western Colorado (Dave Kubeczko; email dave.kubeczko@state.co.us), the COGCC Environmental Protection Specialist for Southwest Colorado (Karen Spray; email karen.spray@state.co.us), and the COGCC Field Inspection Supervisor for Southern Colorado (Mike Leonard; email mike.leonard@state.co.us) 48 hours prior to mobilization in, rig up (MIRU).

**COA R6** - Temporary perimeter sound walls (consisting of a combination of earthen berms, stacked hay bales, and/or metal or wood sheeting, or other engineered sound-damping devices) shall be used on the west, north, and east perimeters of the well pad location during construction, drilling and completion activities to provide noise relief to nearby residents. Operator shall conduct noise monitoring as described in 802.c. at a minimum once during each phase of activity (pad construction, drilling, completion and production), and submit the results to the Director. The COGCC may require additional noise mitigation if measures taken are deemed insufficient.

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**COA R7** - Operator will take aggressive action to establish vegetation on cut and fill slopes to prevent storm water erosion and the generation of fugitive dust. Operator shall install and maintain permanent vegetative visual buffering on the west, north, and east sides in conjunction with interim reclamation. Visual mitigation shall also include the use of low profile tanks. Interim reclamation will commence immediately upon conclusion of completion operations.

**COA R8** - Lighting abatement measures beyond the requirements of Rule 803. shall be implemented, including the following, at a minimum: (1) rig oriented to direct light away from nearby residents; (2) install lighting shield devices on all of the more conspicuous lights; (3) low density sodium lighting; and (4) rig shrouded on the west and east sides.

**COA R9** - Air quality and odor controls will be implemented and will include the following : (1) flowback stream to be routed from wellhead to a separator and then to a sealed flowback tank, with non-salable gas sent to a temporary flare or VOC combustor; (2) oil or condensate captured during separation process will be sent to a tank with emissions controls (see COA R10); (3) frac/flowback storage tank hatches should be closed and latched until the tanks are prepared to receive flowback water, then hatches should be closed but unlatched when receiving flowback fluids, and then operate with hydrocarbon absorbing blankets when full to control odors; (4) daily odor monitoring should be conducted during well completions using a Nasal Ranger to monitor compliance with detectable odor limits in Colorado Regulation 2, documentation of such monitoring shall be submitted to COGCC; and (5) maintain a portable meteorological weather station during well drilling and completion operations, that includes a data logger to archive wind speed/direction, temperature, and humidity with information provided to COGCC and CDPHE.

**COA R10** - For purposes of reducing impacts to nearby residents, flares (such as a portable flare with high combustion rate, low noise, and low visibility flare) will be utilized.

**COA R11** - Emissions from condensate, crude oil, and produced water tanks and from glycol dehydrators shall be controlled as described in Rule 805.b.(2), notwithstanding the exceptions for production facilities emitting less than five tons per year (TPY) of volatile organic compounds (VOC).

**COA R12** - Access roads to well sites, completion staging sites and production facilities shall be constructed to meet the requirements of emergency responders, including all weather surface.

**COA R13** - Land-farming of E&P waste is prohibited on the location. This shall not preclude onsite disposal of E&P waste in accordance with COGCC Rules and permit conditions.

**COA R14** - Interim reclamation will commence immediately upon conclusion of completion operations.

**COA R15** - Provide temporary engineering controls to prevent uncontrolled public and wildlife access during drilling and completion activities.

**COA R16** - All drilling, completion, and production operations must also comply with the COGCC's **600-Series Rules, Safety Regulations and 800-Series Rules, Aesthetic and Noise Control Regulations.**

**COA R17** - Fugitive dust emissions from the graveled portion of the County maintained access road from the edge of paving to the well pad access entrance will be controlled during drilling and completion operations. Such practices shall include but are not limited to the use of speed restrictions, regular road maintenance, and restriction of construction activity during high-wind days. Additional management practices such as road surfacing, wind breaks and barriers, dust suppression using water or other materials.

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Summary of Issue	Number of References Within Comments	Public Comment Number(s)	Applicable Rule Citation(s)	Applicable COA(s)	COGCC Response
<b>General Water Quality</b> - General and non-specific concerns regarding water quality and this drilling operation as a potential threat to water quality.	31	3, 7, 8, 9, 10, 11, 13, 14, 15, 16, 19, 21, 22, 23, 26, 28, 29, 30, 31, 32, 34, 35, 36, 38, 40, 41, 42, 43, 45, 46, 47	317; 319; 324A; 906; 909; 910	WR6, WR7, WR8, WR9	COGCC drilling Rules (317) provide mandatory guidance on well installation and surface casing installation such that groundwater aquifers are protected. In this case, the COGCC Engineer's review of the drilling program resulted in a Condition of Approval (COA) that ensures that the well bore will have cement coverage from total depth to the surface. Additionally, COGCC has Rules in place to prevent adverse impacts to air, water and soil, including incorporation by reference of the Water Quality Control Commission water quality standards for waters of the state.
<b>Land Use (Residential)</b> - Specifically the incompatibility of drilling in a residential area	18	2, 3, 9, 19, 21, 22, 23, 29, 30, 38, 39, 40, 41, 42, 43, 45, 46, 47	600-series	R2, R3, R4, R5, R6, R8, R15, R16	The COGCC has safety Rules which govern the manner in which operations must be conducted in proximity to residences. Further, the COGCC has applied site-specific COAs to provide additional measures of protection to this residential area. However, issues concerning Dan A Hughes Company's right to conduct these operations within the San Francisco Creek Subdivision due to civil contracts and association restrictions are outside the mandate and purview of the COGCC. These are private civil matters which must be negotiated by the parties involved.
<b>Groundwater - Sensitive Area Determination and drinking water protection</b>	18	2, 3, 5, 8, 9, 11, 13, 14, 21, 22, 29, 32, 38, 40, 43, 45, 46, 47	317; 324A; 901; 906; 909; 910	WR4, WR5, WR6, WR8, WR9	<p>COGCC drilling Rules (317) provide mandatory guidance on well installation and surface casing installation such that groundwater aquifers are protected. In this case, the COGCC Engineer's review of the drilling program resulted in a COA that ensures that the well bore will have cement coverage from total depth to the surface. COGCC Waste Management Rules (900 series) require that operations in sensitive areas are conducted in a manner that is protective of water resources and ensure compliance with concentrations in COGCC Table 910-1 and Water Quality Control Commission standards. COGCC has determined the proposed location is in a sensitive area. The operator has indicated that a closed loop system will be used for drilling operations; however COGCC has applied COAs requiring that any pits, if constructed, must be lined. Production pits, if constructed, require a Pit Permit be approved by COGCC prior to use, generating an additional level of review specific to a production pit. Additionally, in accordance with Rule 303.d.(2)A., the addition of a drilling or production pit to the location would trigger the requirement for the submittal of an amended Form 2A, subject to comment, review and approval.</p> <p>A formal Sensitive Area Determination is made in accordance to COGCC Rule 901.e. which requires site-specific hydrogeologic data be collected. In lieu of requiring the collection of this data, COGCC staff has determined the location is in a sensitive area and is requiring operations be conducted as such including: closed loop drilling and several COAs addressing groundwater protection.</p>



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Summary of Issue	Number of References Within Comments	Public Comment Number(s)	Applicable Rule Citation(s)	Applicable COA(s)	COGCC Response
<b>Surface Water -</b> General surface water protection and the protection of the town water supply	16	2, 3, 8, 9, 10, 11, 21, 23, 35, 36, 40, 41, 42, 43, 46, 47	317B; 324A; 910; 906; 909; 910	WR1, WR2, WR3, WR7, WR8, WR9, GS3	COGCC Rule 317B addresses Drilling, Completion, Production and Storage Operations in Surface Water Supply Areas by specifying certain operating requirements depending on the distance of the proposed operations from the Surface Water Supply. The proposed Dan A. Hughes location is greater than ½ mile from a designated Public Water System as defined in Rule 317B.b. and therefore not subject to Rule 317B. In addition, the Town Ponds are located three miles west of the proposed Dan A. Hughes location and on the opposite side of a drainage divide. COGCC Waste Management Rules (900 series) require that operations in sensitive areas are conducted in a manner that is protective of water resources and ensure compliance with concentrations in COGCC Table 910-1 and Water Quality Control Commission standards. COGCC has determined the proposed location is in a sensitive area and applied COAs requiring secondary containment and the implementation of BMPs to prevent a release of any fluids associated with the drilling from impacting surface water, specifically San Francisco Creek, and its tributaries.
<b>Permit Errors</b>	14	1, 2, 6, 22, 28, 29, 38, 39, 40, 41, 42, 43, 45, 47	303	None	COGCC Rule 303 specifies the requirements for a Form 2 APD and Form 2A location assessment. Rule 303.g. and 303.i. grant the operator and the Director the ability to make revisions to the Form 2 and Form 2A during the review process. COGCC staff has authority to contact operators when additional information or clarifications are needed to conduct a complete review of the applications. This process continues during the open public comment period and as long as necessary to obtain sufficient information needed for the Director to make a decision as to whether to approve, conditionally approve, or deny an application. Significant changes to a permit application are documented by COGCC Staff in the comments on the permit or as attached correspondence as appropriate.
<b>Wildlife - Sensitive Wildlife Habitat (SWH)</b>	14	1, 2, 3, 9, 10, 11, 12, 22, 31, 36, 40, 42, 46, 47	306.c.; 1201; 1202; 1203; 1204; 1205	WR1, WR7, R15	COGCC Rule 306.c. provides for consultation with Colorado Parks and Wildlife (CPW). COGCC Rule 1201 requires that CPW consult with the COGCC, the surface owner, and the Bureau of Land Management (BLM) as necessary for oil and gas locations proposed in areas designated to be either sensitive wildlife habitat or restricted surface occupancy. The COGCC, CPW, BLM and Western Land Resources participated in onsite consultations on May 10, 2010, November 4, 2011, and April 18, 2012. Because this location requires a Federal APD with BLM, the CPW will continue to consult BLM to apply appropriate conditions necessary to adequately protect wildlife species potentially affected by the operations. The BLM and COGCC have entered into a Memorandum of Understanding that requires consultation between COGCC, BLM and CPW to ensure that necessary BMPs and/or COAs are enacted on both federal and state issued permits. The CPW will recommend appropriate BMPs to the Federal APD due to the presence of elk winter range and mule deer habitat and proximity of the location to cutthroat trout habitat and antelope habitat.
<b>Air Quality and Monitoring</b>	14	9, 10, 13, 21, 22, 28, 29, 30, 35, 40, 41, 42, 46, 47	324A; 805	WR1	COGCC Rule 324A prohibits degradation of the environment. Rule 32A.c. prohibits violation of any local, state or federal air quality law or permit. Rule 805 prohibits oil and gas equipment that emits greater than 5 tons / year from being closer than ¼ mile to a building unit (including schools, offices, and houses). Air quality sampling is will be conducted by the operator throughout the not technically or economically feasible for an exploratory well.

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Summary of Issue	Number of References Within Comments	Public Comment Number(s)	Applicable Rule Citation(s)	Applicable COA(s)	COGCC Response
<b>Water Allocation</b> - lack of available water for drilling and completion	12	2, 9, 22, 29, 32, 36, 38, 40, 43, 45, 46, 47		None	The Colorado Department of Natural Resources, Division of Water Resources (DWR) regulates the allocation of water resources in the state. COGCC does not regulate the purchase of water.
<b>Road and infrastructure impact</b>	11	2, 9, 10, 22, 29, 38, 41, 43, 45, 46, 47	334	R2, R3, R4, R5, R12, R15	COGCC has applied COAs to the Form 2A requiring the operator to adhere to several traffic restrictions, including consultation with local governmental requirements.
<b>Public Health</b>	10	7, 9, 21, 23, 29, 32, 39, 43, 46, 47	324A	R3, R6, R8, R9, R10, R11	COGCC rule 324A prohibits pollution of the environment in order to protect public health. In addition, COGCC has applied several COAs that require the operator implement dust suppression, traffic restrictions, noise control and fugitive light control.
<b>Baseline Sampling</b>	8	3, 9, 29, 38, 40, 43, 46, 47		WR7, WR8, WR9	COGCC has applied COAs to the Form 2A that require the operator to conduct baseline sampling and post drilling and completion sampling from surface water in tributaries to San Francisco Creek and from nearby water wells.
<b>Traffic Safety</b>	8	9, 10, 22, 29, 38, 41, 46, 47		R3, R12	COGCC has applied a COA to the Form 2A requiring the operator adhere to traffic restrictions, including consultation with local government and the implementation of a traffic control plan.
<b>Public Safety</b>	8	9, 28, 29, 32, 39, 43, 46, 47	600	R2, R3, R12, R15	COGCC 600 Series Rules specify minimum safety requirements necessary to protect the public. COGCC has applied a COA to the Form 2A requiring the operator to develop a site-specific emergency response plan and to review the plan with local emergency responders. COGCC has applied a COA requiring an onsite safety officer be present.
<b>Waste Management</b>	8	9, 21, 29, 40, 41, 43, 46, 47	907	R13	COGCC Rule 907 defines acceptable methods for exploration and production waste management. If an operator believes the waste management methods allowed by Rule 907 are not practical for the operations, then the operator can formally propose and request approval of an alternate waste management method. COGCC has requested greater specificity of the operator for mud disposal. COGCC has applied a COA prohibiting the onsite treatment of E&P Waste at this location.
<b>Emergency Response</b>	8	2, 9, 22, 29, 43, 45, 46, 47	210.a.	R2, R4, GS1, GS2	COGCC has applied COAs requiring the operator to provide initial notice prior to commencing operations and notice of schedule changes to the public and to emergency responders. COGCC is requiring the operator to prepare and maintain an emergency response plan and requiring an onsite safety officer be present as described above. COGCC Rule 201.a. requires operators to maintain signage directing emergency crews to locations where drilling is taking place.
<b>Hydrogeology</b>	6	3, 14, 38, 40, 43, 47	303.d.; 317; 324A; 341	WR4, WR5, WR6, WR8, WR9, GS3	Rule 324A prohibits both significant adverse impacts to state waters and violations of state water quality standards and classifications. This prohibition is supplemented by Rule 341, which requires stimulation fluids to be confined to the objective formations during treatment, and by Rule 317, which mandates well construction, casing and cementing practices. Rule 303.d. provides for a review of the hydrogeologic setting during review of the Form 2A with the application of COAs including baseline and post-completions water sampling.

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Summary of Issue	Number of References Within Comments	Public Comment Number(s)	Applicable Rule Citation(s)	Applicable COA(s)	COGCC Response
<b>Noise</b>	6	9, 29, 40, 41, 46, 47	802	R6	Rule 802 defines statewide noise abatement requirements. COGCC is requiring the operator to institute engineering controls to reduce the sound impact to the neighborhood.
<b>Timing</b>	5	29, 38, 40, 43, 47	MOU among BML, USFA and COGCC	None	The BLM, as the permitting authority for federal minerals, will apply timing restrictions that BLM deems appropriate as determined during BLM review of the APD.
<b>Spills</b>	5	9, 23, 43, 46, 47	600-series; 900-series; 1000-series	WR1, WR3, GS4, GS5, GS9, GS10, GS11, GS12, GS13	COGCC Rules 906a and 906b discuss spills. <b>General.</b> Spills/releases of E&P waste, including produced fluids, shall be controlled and contained immediately upon discovery to protect the environment, public health, safety, and welfare, and wildlife resources. Impacts resulting from spills/releases shall be investigated and cleaned up as soon as practicable. The Director may require additional activities to prevent or mitigate threatened or actual significant adverse environmental impacts on any air, water, soil or biological resource, or to the extent necessary to ensure compliance with the concentration levels in Table 910-1, with consideration to WQCC ground water standards and classifications. <b>Reportable spills and reporting requirements for spills/releases.</b> Spills/releases of any size which impact or threaten to impact any waters of the state, residence or occupied structure, livestock, or public byway shall be reported on COGCC Spill/Release Report, Form 19, and shall also be verbally reported to the Director as soon as practicable, but not more than twenty-four (24) hours, after discovery.
<b>Geology</b>	4	3, 40, 43, 47	303.d.; 317; 324A; 341	WR4, WR5, WR6, WR7, WR8, WR9, GS3	Rule 324A prohibits both significant adverse impacts to state waters and violations of state water quality standards and classifications. This prohibition is supplemented by Rule 341, which requires stimulation fluids to be confined to the objective formations during treatment, and by Rule 317, which mandates well construction, casing and cementing practices. Rule 303.d. provides for a review of the hydrogeologic setting during review of the Form 2A with the application of COAs including baseline and post-completions water sampling.
<b>Reclamation</b>	4	29, 40, 42, 43	1003; 1004	R7, R14, WR1, WR2	COGCC Rules 1003 and 1004 set requirements for interim and final reclamation of oil and gas locations. COGCC is requiring the operator to begin interim reclamation immediately after well completion. Interim reclamation includes reducing the size of the oil and gas location, revegetation and continued maintenance to prevent erosion, chemical or produced oil and water releases, and weed infestation.
<b>Pit concerns - drilling pit or production pits</b>	3	29, 43, 47	303.d.; 902; 903; 904; 905	WR4, WR5	The operator has not requested to construct any pits on the location. The operator has indicated that a closed loop system will be used for drilling operations; however COGCC has applied COAs requiring that a closed loop system be implemented and no subgrade pits will be allowed. Production pits, if constructed, require a Pit Permit be approved by COGCC prior to use, generating an additional level of review specific to a production pit. Additionally, in accordance with Rule 303.d.(2)A., the addition of a drilling or production pit to the location would trigger the requirement for the submittal of an amended Form 2A, subject to comment, review and approval.

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Summary of Issue	Number of References Within Comments	Public Comment Number(s)	Applicable Rule Citation(s)	Applicable COA(s)	COGCC Response
<b>Jynnifer</b> - inadequate reclamation of former well sites	3	29, 41, 47	1003; 1004	R7, R14	COGCC Rules 1003 and 1004 require the operator to properly reclaim the location both during production and upon the plugging and abandonment of the well including the removal of all equipment and revegetation of the location. The operator will be held liable for reclamation of the location until the location passes a final inspection by COGCC.
<b>Lighting</b>	3	29, 41, 47	803	R8	Rule 803 defines statewide lighting abatement requirements. COGCC is requiring the operator to institute engineering controls, to the extent practicable, to reduce site lighting by directing lights downward and internally so as to avoid glare on public roads and building units within seven (700) hundred feet.
<b>Regulations</b>	2	28, 42	200-Series thru 1200-Series	None	The permits have been reviewed and they satisfy the current COGCC rules and regulations.
<b>Pollution</b> - general concerns	2	12, 42	324A; 906	WR1, WR2, WR3, GS4, GS5	COGCC rule 324A prohibits operators from creating significantly adverse environmental impacts. COGCC Rule 906 dictates how spills and releases must be reported and remediated.
<b>Archaeology</b>	2	3, 40		None	The minerals are federally owned. The BLM as the Federal permitting authority will conduct an archaeology review and apply appropriate conditions of approval to the Federal APD to protect archaeological resources.
<b>Dust Control</b>	2	41, 47	805	R17	COGCC Rule 805 requires the control of fugitive dust. COGCC has applied a COA requesting several measures that should be implemented to control fugitive dust.
<b>Stormwater Control</b>	1	11	1002.f.	WR1, WR2, WR3	CDPHE issues stormwater permits during the construction phase. COGCC Rules require the operator to develop a Post-Construction Stormwater Program upon the termination of the CDPHE stormwater permit. BMPs must be implemented and maintained until final reclamation is achieved.
<b>Chemical Inventory</b>	1	47	100-Series; 205.c.; 205.d.; 205.e.; 205.f.; 206.b.(1); 205A		Rule 205.c. states that operators shall maintain a Chemical Inventory by well site for each Chemical Product used downhole during drilling, completion, and workover operations, excluding hydraulic fracturing treatments, in an amount exceeding five hundred (500) pounds during any quarterly reporting period. Operators shall also maintain a chemical inventory by well site for fuel stored at the well site during drilling, completion, and workover operations, including hydraulic fracturing treatments, in an amount exceeding five hundred (500) pounds during any quarterly reporting period. Hydraulic fracturing chemicals are to be reported in accordance with Rule 205A. <b>HYDRAULIC FRACTURING CHEMICAL DISCLOSURE.</b>
<b>Comprehensive Drilling Plan</b>	1	29	216	None	Comprehensive Drilling Plans (CDP) are initiated by the operator. A CDP submittal for one exploratory well would be premature. If the operator determines that development of an oil and gas field is feasible, a CDP may be necessary at that time.