

MONTHLY STAFF REPORT

December 2, 2002

I. STATISTICS

Our monthly statistics report is attached ([page 1](#), [page 2](#), [page 3](#)). Approved Applications for Permit-to-Drill ("APDs") through the end of November project an annual total of roughly 2100.

II. NORTHWEST COLORADO

® Northwest Colorado Oil and Gas Forum

The next meeting of the Forum, which is co-chaired by COGCC Deputy Director Brian Macke and Garfield County Commissioner Larry McCown and consists of representatives from federal, state and local government, the oil and gas industry and all interested citizens, is tentatively scheduled for Thursday, February 20, 2003 in the Rifle City Hall. Due to the lack of local issues being raised by citizens at recent Forum meetings, the forum participants have agreed to reduce the frequency of meetings during the year. The meetings are now planned to be held in the fall and in the spring during the Legislative session. Co-chairs Brian Macke and Larry McCown assured the forum participants that additional meetings could be scheduled during the year if changing circumstances create a need to do so. Please contact Brian Macke at 303-894-2100 x122 or brian.macke@state.co.us to submit agenda topics for the next meeting. Attached are newspaper articles about topics of local concern ("[Once-controversial method...](#)", [page 2](#), "[Garfield County hits a gusher](#)", [page 2](#), "[District ranger tapped...](#)", "[Commissioners expend some hot air...](#)", "[Producers put a lid...](#)", "[Parachute depends on natural-gas wells](#)", [page 2](#), "[Another method....](#)", [page 2](#)).

® Parachute Area Air Quality Monitoring Meeting

The Grand Valley Citizen's Alliance ("GVCA") has been concerned with the practice of flaring gas wells that are being completed in the area and with what is perceived to be emissions from producing wells. The GVCA has called on the Colorado Air Pollution Control Division ("APCD") and the EPA to become involved in the issue. The EPA has providing funding through their Emergency Response Program to perform a community based short-term ambient air screening study for oil and gas related activities in Garfield County.

Twenty air sampling canisters were distributed at seven different locations as follows: 1) a producing Williams Fork gas well that is equipped with a vapor combustion (odor reduction) unit, 2) a producing Williams Fork gas well that is not equipped with a vapor combustion unit, 3) a well that is undergoing completion operations and is being flared, 4) in the town of Parachute, down-valley from several gas wells, 5) near Parachute Creek, up-valley from several gas wells, 6) in the town of Newcastle to represent background town conditions similar to Parachute but without the nearby gas wells, and 7) near a residence in Red Apple subdivision in the Rulison Field. The sampled air was analyzed for organic compounds. The cost of the sampling and analysis was approximately \$1,500 per canister, with a total

cost of approximately \$30,000. In addition to the canisters, continuous air monitors were placed at the active well flaring site to evaluate air concentrations of nitrogen oxides and sulfur dioxide.

The APCD's final report was presented at the November 6, 2002 meeting of the GVCA in Battlement Mesa. Brian Macke and other COGCC staff attended, as well as representatives of Williams Production Company.

The APCD concluded the following:

"Based on an evaluation of the data collected during this investigation, none of the non-carcinogenic VOCs [Volatile Organic Compounds] were detected at concentrations that would pose a significant health risk to area residents. The maximum detected concentration of benzene, a carcinogenic chemical, was found to be in a range of risk generally considered acceptable by both EPA and the State." Benzene was found in small concentrations at the 50 foot perimeter sampling chambers at the producing well that is not equipped with a vapor combustion unit, in a small concentration at one downwind 50 foot perimeter sampling chamber at a well that is equipped with the vapor combustion unit, and in a small concentration in the town of Parachute. In no case were any benzene levels detected at sampling chambers located 300 feet from the gas wells. The maximum benzene concentration of 6.5 micrograms/cubic meter was at one of the 50 foot perimeter sampling chambers at the producing well that is not equipped with a vapor recovery unit, and is well within the Risk Based Ambient Air Concentration acceptable range established by the EPA which has a maximum of 23.1 micrograms/cubic meter. As a comparison, recently measured maximum 24 hour benzene levels in Grand Junction and Denver were 8.7 and 9.12 micrograms/cubic meter, respectively.

The complete report of the Garfield County Air Screening Study and the presentations given at the November 6 meeting are available at the COGCC website by clicking on Library.

Williams Production Company ("Williams") Increased Well Density Application

Since the October 2002 hearing, the COGCC has received one APD for the 20-acre infill area. The APD (Exxon/Mobil PA 343-32) is for one vertical well on a new surface well site north of the Colorado River and east of the town of Parachute.

COGCC staff continues to work closely with Williams permitting staff and Garfield County to ensure that the requirements of the 20-acre density order adopted during the October 2000 hearing are met in an efficient manner. To date, the COGCC has received 97 APDs submitted by Williams for the increased well density area.

Citizen's Group Community Forum in Craig

On November 16, 2002 an event titled "Our Land, Our Rights: A Community Forum on the Future of Energy in Northwest Colorado" was conducted in Craig, Colorado. The forum was sponsored by several groups, including the Western Colorado Congress, The Colorado Wilderness Network, The Sierra Club, The Wilderness Society, the Colorado Environmental Coalition, the Colorado Mountain Club, and the Oil and Gas Accountability Project. The forum was attended by numerous local citizens, representatives of the oil and gas and mining industries, and local government officials. Brian Macke attended on behalf of the

COGCC and participated in the afternoon panel discussion on state and local authorities with respect to oil and gas development. Other attendees at the meeting included Stan Dempsey with the Colorado Petroleum Association, who participated on the panel discussion of oil and gas impacts, Ken Wonstolen and Craig Mies with the Colorado Oil and Gas Association, and Grant Melvin with the Independent Petroleum Association of Mountain States. Moffat County Commissioner T. Wright Dickinson, who was also on the panel discussion about state and local authorities, demonstrated effective and balanced leadership in ensuring that all sides of the issues were represented at the meeting. Attached is a [newspaper article](#) about the forum.

III. NORTHEAST COLORADO

® Adena J Unit Update

On February 9, 1998, the Commission adopted Order No. 1-75, which encouraged the use of approximately 130 idle wells in the Adena J Unit located in Morgan County for enhanced oil recovery. There are an estimated 60 to 90 million barrels of residual oil in place in the unit. A pilot to utilize a polymer fluid to recover additional oil was started in 2001. A marginal oil response has been observed, but only about 1% of the estimated oil in place for the pilot area has been recovered. Staff is working with the current operator, Babcock & Brown to ensure mechanical integrity of the idle producing wells in the unit.

Order No. 1-75 also encouraged the use of some idle wells outside the Adena J Unit. The operator has decided to plug these wells; 30 will be plugged by the end of 2003.

® Ground Water Issues

Since 2000, COGCC staff has received complaints from eight landowners in Weld County alleging "gas" in their domestic water wells from oil and gas activities. All of these water wells are completed in the Laramie/Fox Hills Aquifer.

A total of fifteen Laramie/Fox Hills domestic water wells and fourteen oil/gas wells have been sampled. One water well was found to have no gas at all and laboratory results for the other four water wells have not been finalized. Tests indicated the presence of biogenic gas in four of the water wells, and thermogenic methane in six of the water wells. Benzene, toluene, ethyl benzene and xylenes (BTEX) were not detected in any of the water wells.

Biogenic gas occurs naturally in the Laramie/Fox Hills Aquifer; it is not a result of oil and gas activity. Although thermogenic gas is present in six of the water wells, the overall water quality is typical of the Laramie/Fox Hills Aquifer and does not appear to have been impacted by oil/gas wells. The potential sources of the thermogenic gas in four of the six impacted water wells have been identified. Three oil/gas wells have been repaired and additional mitigation measures have been implemented. The investigation to identify the potential source of the thermogenic gas in the other two impacted water wells continues.

IV. SOUTHEAST COLORADO

® Raton Basin Project

Water analysis data is being compiled and sent to Tony Gorody at Universal Geoscience Consulting, Inc. Mr. Gorody will evaluate the data, form conclusions and identify areas that need further study and changes in sampling protocol.

® Las Animas County Public Forum

Approximately fifty people attended a public forum held on November 20, 2002 in Trinidad to discuss issues concerning produced water from coalbed methane ("CBM") wells. The event was moderated by Shane Henry, Department of Natural Resources' Assistant Director for Energy, Land and Forestry. The following spokespersons participated: Director Rich Griebeling and COGCC staff Dave Dillon and Loren Avis, Dick Wolf and Glenn Graham of the Department of Water Resources/State Engineer's Office, and Chris Gates of the Colorado Department of Public Health and Environment. Spokespersons reviewed the following 1) the geology of the Raton Basin, 2) CBM production and COGCC regulations, 3) types of groundwater water quality, 4) water rights and ownership of water rights, 5) allowed use of CBM water and methods of disposal of CBM water, and responded to questions from the public.

V. SOUTHWEST COLORADO

® Oil and Gas Basics Conference

On November 6, 2002, the Oil and Gas Basics Conference was held at Ft. Lewis College to educate people interested in oil and gas who are unfamiliar with oil and gas operations. Commissioner Tom Ann Casey presented the geology of the San Juan Basin. Former Commissioner Mike Matheson discussed coalbed methane water and domestic water wells. COGCC Operations Manager, Morris Bell presented an overview of Colorado oil and gas operations and pertinent regulations. Attached is a [newspaper article](#) of interest.

® La Plata Gas and Oil Regulatory Team ("GORT") Meeting

The last GORT meeting was held at the La Plata County Fairgrounds on October 18, 2002. Only 12 people were present and the meeting lasted 1-1/2 hours. The major topic of discussion was industry's concern for a uniform fire prevention policy for next year.

Adam Keller recently resigned as the LGD for La Plata County. Once the position is filled, another GORT meeting will be scheduled.

® Record of Decision for Oil and Gas Development on Southern Ute Indian Reservation

The BLM's Colorado State Director and Southwest Regional Director have approved Alternative 3 – Enhanced Coalbed Methane Recovery ("ECBM") as described in the *Final Environmental Impact Statement, Oil and Gas Development on the Southern Ute Indian Reservation ("FEIS")*. Alternative 3 is the BLM, Bureau of Indian Affairs, and the Southern Ute Indian Tribe's preferred Alternative. This decision establishes a comprehensive oil and gas development strategy and establishes the environmental protection measures that are required of oil and gas management on the reservation. Alternative 3 specifically allows the drilling or recompleting of up to 70 injector wells for ECBM recovery and 636 production wells (269 conventional and 367 CBM) and all required support facilities on tribal surface and/or mineral estate including access roads, pipelines and other mineral related facilities. An estimated 1,306 acres of surface disturbance may result from this development. In addition, the FEIS Alternative 3 determined that development on adjacent non-tribal land could result in the drilling of another 67 injector wells and 519 CBM wells within the area studied. A copy of the Final FEIS is on file in the COGCC Public Room.

VI. ENVIRONMENTAL ISSUES

® EPA's Draft Coalbed Methane Fracturing Report

Two years ago the EPA began an extensive study to determine if there is a threat to Underground Sources of Drinking Water ("USDW") from hydraulic fracturing of coalbed methane wells. Based on the information collected, the draft report finds that potential threats to USDWs posed by hydraulic fracturing of CBM wells are very low and do not justify additional study.

This study is the most thorough effort conducted to assess impacts to public health as a result of USDW contamination from hydraulic fracturing. The EPA investigated all the major CBM fields in the country. Thousands of CBM wells are fractured annually and yet the EPA did not find any evidence that CBM hydraulic fracturing had contaminated any drinking water wells.

The EPA also evaluated the theoretical potential for hydraulic fracturing to impact drinking water wells. In some cases, constituents of concern are injected into USDWs during the course of normal fracturing operations. However, EPA's determination is that the threat of contamination of drinking water supplies is low because concentrations are diminished by the ground water production aspect of coalbed methane development. Studies have found no observed breach of confining layers from hydraulically created fractures, consistent with theoretical understanding of fracturing behavior.

In November of 2001, Morris Bell served on a peer review group to provide comments on the first draft report. The EPA report contractor evaluated comments from the peer review group and incorporated some of the comments into the latest draft. COGCC staff have reviewed the latest draft of the EPA study and supplied additional comments. These comments are attached ([page 1](#), [page 2](#)).

® Quarterly WQCC/WQCD/COGCC Meeting

Future meetings of the Water Quality Control Commission, Water Quality Control Division, and COGCC will be held on a semi-annual basis. The last joint meeting was held on March 12, 2002. The next meeting will be scheduled sometime this fall, after the WQCD Director's position has been filled.

® GWPC Meeting on Beneficial Uses of Produced Water

The GWPC held a meeting on October 16 and 17, 2002 in Colorado Springs titled "Making Water Produced During Oil and Gas Operations a Managed Resource for Beneficial Uses". The meeting was attended by approximately 150 participants, including representatives of the oil and gas industry, state oil and gas regulatory agencies, the EPA, and the environmental community. Brian Macke presented the welcome address and served on a state regulatory panel discussion about the current practices and challenges to beneficially use produced water. Also participating on the panel was Dick Wolfe from the Colorado Division of Water Resources ("CDWR"), who provided valuable information about water rights as applied to the beneficial use of produced water in Colorado. This was invaluable in helping the audience to understand the complex legal and regulatory framework in Colorado for such use. Dick Wolfe and Glenn Graham, also with the CDWR, presented a

paper on the same topic during a later session in the meeting.

VII. ORGANIZATION

® Staff Organization

The application period for the NE Colorado Inspector position closed on November 27, 2002. It is anticipated that the position will be filled by the end of the year.

Our current organization chart is attached.

VIII. PLANNING/ADMINISTRATION/OTHER

® Rulemaking for the December Hearing

A copy of the revised 11/20/2002 draft of proposed Rules and the statement of basis and purpose for today's hearing has been provided to the Commissioners. An addendum to this revision and Statement of Basis and Purpose have also been provided. There are several areas of clean up and clarification in the proposal, in addition to the changes proposed at the September hearing.

® NGPA Well Determinations

Operators must submit FERC Form 121 and the COGCC Form along with the required materials to the COGCC for processing for well determinations. FERC Form 121 is available in hard copy at the COGCC. The COGCC form is available on the website by clicking on "General" then "Natural Gas Category Determination". Additional information available on the website includes a list of tight formation area designations and a list of all previously approved well determinations provided by the FERC. To date, 588 applications have been filed and processed, with 511 sent to FERC recommending approval. A regularly updated listing of all applications received and their status is available on our website at http://cogcc.state.co.us/general/NGPA/ngpa_determination.htm. For additional information, contact Tricia Beaver at (303) 894-2100 x115 or tricia.beaver@state.co.us.

® Penalties Status

Attached is a revised table showing the status of penalties paid and penalties pending collection.

® January Hearing Docket

A [preliminary docket](#) for the January 6 and 7, 2003 hearing has been provided. Hearing dockets are updated on the COGCC website by clicking on "Hearings", then "2003 Hearing Schedules, Dockets, Agendas and Minutes". Effective for the January hearing, the notices will now be provided through an e-mail to the general public. An e-mail will be sent out at least 20 days prior to the hearing date which will include a link to the hearing notices and applications. This service replaces the general mailing in an effort to be more efficient and reduce cost. Anyone wishing to sign up for the e-mail notice may contact Audra Serlet at (303) 894-2100 extension 114 for a form.

Effective with the July 2002 hearing docket, hearing applications may be viewed online by

opening the docket, then by clicking on the Docket Number. Once issued, the final Commission Order will be available by clicking on the Cause Number on the hearing docket.

® Data Processing and Staff Workload

The volume of data entry has increased significantly over the past year. With the current oil and gas prices, we are seeing an increase in drilling and completion activities. Additionally, the 1999 production reporting requirements significantly changed the number of lines of data submitted. In order to facilitate faster turnaround time of approvals and earlier data access to submitted data, all operators are being encouraged to submit their production and levy reports electronically. The COGCC is exploring ways to make forms available for submission on the Internet so that all forms can be submitted electronically.

Production data is complete through 2000. The 2001 data is the highest priority for the production/levy section with about 25% of the data remaining to be processed. The delay in processing was due to a vacant position and the recent hiring freeze. The position has been filled and the backlog of reports is rapidly being worked through.

Drilling permits are the highest priority of technical staff and will continue to be processed within the timeframes set up in the COGCC Rules and Regulations. Operators are encouraged to submit complete applications prior to end of the 30-day surface owner notice period to ensure that permits may be approved and available at the end of the notification holding period. Other forms are processed in the order in which they are received.

.. Colorado Farm Bureau Annual Policy Meeting

- The COGCC provided its exhibit display at the annual Colorado Farm Bureau Policy Meeting that was held at the Antlers Adams Mark hotel on November 22-24, 2002. The exhibit display included a large map showing where all active and plugged wells are in the state, statistical information about oil and gas in Colorado, photographs of oil and gas operations, and information about the COGCC website. COGCC informational brochures were available at the display, as well as a flyer that describes the COGCC role in payment of proceeds. The meeting was a good opportunity to provide information and outreach to the over 300 people in attendance.

® Rocky Mountain Association of Geologists ("RMAG") Fair

The COGCC attended the RMAG 2002 Prospect Fair and Technofest at the Denver Convention Center on November 11, 2002. Thom Kerr, Information Manager and Jim Milne, GIS Administrator demonstrated COGCC Internet information systems using a laptop computer and projector at the COGCC booth. The booth was well attended, and several questions about the COGCC Information Systems were answered.

® Monthly Report of Operations - Form 7

Since January 1999 production reporting (Monthly Report of Operations, Form 7) has been submitted by well by completed zone. This was a change from the previous format of reporting by lease where multiple formations and wells were reported as a single entity.

Beginning in January 2002, all production reports are to be submitted either in hardcopy on the new Form 7 (revision 10/22/01) or electronically. The new Form 7 can be identified by

the four black squares on the corners of the form. The squares are reference data blocks which are utilized by a software package to optically resize the form to allow for computer conversion of the data; this will eliminate manual data entry of paper forms. The COGCC website has these forms in a PDF format for downloading and printing. The form is letter size (8.5" x 11") and can be completed on a computer and then printed. Adobe Systems, Inc. sells Acrobat Approval (<http://www.adobe.com/store/products/acrapproval.html>) for \$39. This application allows the data to be saved to a computer.

There are currently more than 80 operators reporting electronically, accounting for 80.6% of the production reported in October 2000. This is an increase of twenty operators, or 7.3% of production reports, since June 2000. This significantly reduces the manual data entry volume. Thank you to all of the operators who are reporting electronically.

Sharon Tansey has been distributing an Excel spreadsheet that lays out the electronic format for the production report. Electronic submission may be made by e-mail attachment to ogcc.efrms@state.co.us, or by mailing a 3.5-inch diskette or CD. To assist operators in understanding the new production reporting form, the codes used on the form, and the data format for reporting electronically, a help document is available on the COGCC web site at <http://www.cogcc.state.co.us/forms.html> in the "instructions" column. Questions should be directed to Sharon Tansey at (303) 894-2100 x128.

A production reporting application for Internet filing of the Monthly Report of Operations is currently being tested and should soon be available as procedures and documentation are finalized.

® Conservation Levy-Form 8

The current Conservation Levy rate is set at eleven-tenths mill (\$0.0011) per dollar raised from eight-tenths mill as of July 2002. Beginning with the third quarter of 2001, Levy is filed on a new form and reported by operator, rather than on a lease basis. The new form and the electronic reporting format are available for download from the web at <http://cogcc.state.co.us/forms.html>. Please contact Sharon Tansey at (303) 894-2100 x128 with questions concerning new format requirements.

® Colorado Oil and Gas Information System ("COGIS")

The COGCC information system, COGIS, is made up of the database management system, the Geographic Information System ("GIS") and the document imaging system. All of these systems are available on the Internet and in the public room.

The database application consists of a form processor that stores entered data for review by appropriate technical staff for quality control and compliance. Data access is provided by an online query to view individual records on the computer screen. Reports are being developed to provide access to multiple record data sets.

The GIS is made up of two parts. The plat mapping tool spots wells, pits, and other associated facilities. The Internet available GIS tool is the AutoDesk Mapguide application that displays statewide data including wells, pits, land ownership, spacing, surface water, surface geology, municipalities, roads, etc. AutoDesk Mapguide allows for zooming, panning, printing and redirection to the database queries.

The document imaging system contains digital images of all paper records of the COGCC,

including well logs and oversize hearing exhibits.

The impact of these new systems substantially affects the processes that COGCC staff uses to complete its work. Work continues on program fixes (bugs), training, documentation, and modifications to the workflow to fit the new methods of data processing. As these issues are worked through, delays in form approvals and data distribution experienced by COGCC customers should be resolved. Data migration and cleanup continues and although this will be a long-term project, the results will be well worth the effort.

® New GIS TOOLS

New tools are available that expand the functionality of the GIS for the end user. One tool allows users to add points, lines, polygons, symbols and text to the viewed map. The users can then save their work to their hard disk and re-access it later. The other tool allows users to select exactly which layers they wish to view on the selected map area. They can then save that setup on their hard disk and call it up later with the same settings. An example of how this could be used is to send the setup file to a partner with the selected layers and notes. The partner could then go to the COGCC website, use the map tools to load the new setup file and view the other partner's work. These tools are new; please report any problems to Jim Milne at james.milne@state.co.us or 303-894-2100 x117 so they can be corrected.

® Imaging

All of the COGCC paper records (wells, pits, hearings, and operators) are available for review on the Internet. Hearing files may be selected from the imaging page by inputting the order number, i.e. 112-2, in the "Cause Number" field. The best way to navigate to other records is through the database queries for wells, pits, and operators; navigate to the facility scout card, then select the "doc" icon.

The division's open hole well log electronic imaging project approved for the fiscal year 2000/2001 budget is completed. The goal of this project was to image all of the historically submitted well logs. A total of 100,707 well logs have been scanned.

Internet viewing and printing of the logs follows the procedure outlined in the "Printing Logs" link on the help page. Additional information will be added to the document as we gain experience. Viewing the logs is very memory intensive; it is best to save the document to your hard disk and then open it later. Even with the performance gains achieved in the last few months, the well log files download slowly because of their large size.

® COGCC on the Internet

The COGCC homepage has a new design that provides improved navigation and information organization. We hope that the changes have not caused any inconvenience. We will continue to make changes so that the site is more functional and intuitive in its accessibility.

The comments we receive are encouraging and continue to deliver the message that we are on the right track in providing our customers with the right product.

® Image Indexing and Data Cleanup

The goal of Image Indexing is to go through all imaged documents to input the name and receipt date for easy selection of a desired document image. This will greatly enhance the functionality and decrease the time needed to select any document image. Over 63,000 well files have been fully indexed and rescanned where necessary. The project is being completed; if you run into a well file that has not been indexed please let us know.

The goal of Data Cleanup is to review well file records to verify and update all records in the new database supplying information that was not migrated or available in the old database system. The project is fully staffed with four people editing and reviewing records. Due to intensive training and increasing comfort with the data and the software application, productivity levels have begun to increase with over 7,500 wells reviewed and updated.

® Local Government Information

Letters (approximately 300) were sent in August, 2001 to all Colorado counties, cities, towns, municipalities and special districts advising them of the site, along with a new Local Governmental Designee form for those local governments who wish to participate under Rule 214. To date, 118 forms (43 counties and 75 cities) have been returned with 103 (42 counties and 61 cities) wishing to participate as Local Governmental Designees. To access the local government information, go to the COGCC website and click on the "Local Gov" button. At the Local Government Search screen, a local government name or a legal description may be entered and searched for approved permits, pending permits, operator changes and plugged wells within that governmental area. In addition, statewide searches for the same information may be conducted from this screen.

VIII. VARIANCES

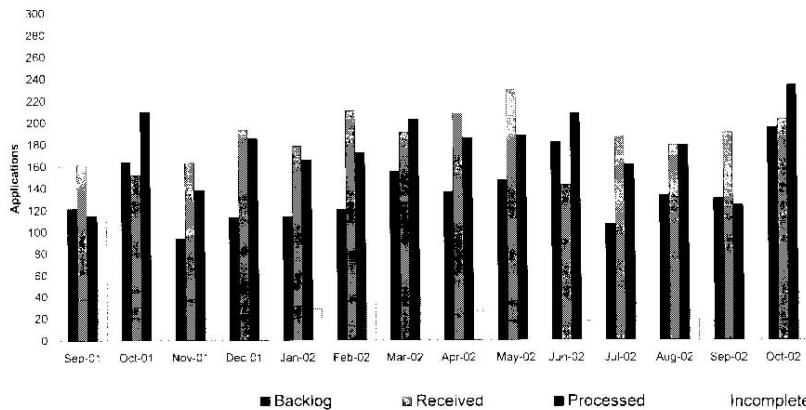
ChevronTexaco was granted a Rule 502.b. variance for a six-month time extension to the monitoring and reporting requirements established by Order No. 112-161 for their Wheeler 12-4U Well. This is a Fruitland coal well in the SE¼ NE¼ of Section 12U, Township 34 North, Range 10 West that was originally permitted by Texaco Exploration & Production. This variance was requested due to delays in field activities that were necessary because of the forest fires and extreme drought conditions that existed this summer and fall, and because of administrative complications that resulted from the merger.

Colorado Oil & Gas Conservation Commission

Monthly Breakout of Drilling and Recompletion Permits

	Backlog	Received	Processed	Withdrawn	Rejected	Incomplete	In-Process	Remaining
Drilling								
Sep-01	116	149	109	5	0	108	43	151
Oct-01	151	144	202	11	0	30	52	82
Nov-01	82	155	122	6	0	19	90	109
Dec-01	109	188	182	7	0	22	86	108
Jan-02	108	175	160	7	0	26	90	116
Feb-02	116	204	164	4	0	32	120	152
Mar-02	152	180	194	6	0	38	94	132
Apr-02	132	195	176	10	0	26	115	141
May-02	141	203	172	6	0	24	142	166
Jun-02	166	126	182	9	0	16	85	101
Jul-02	101	166	140	0	0	33	94	127
Aug-02	127	169	176	3	0	16	101	117
Sep-02	117	174	118	1	0	10	164	174
Oct-02	174	186	207	3	0	43	107	150
Recompletion								
Sep-01	6	13	6	0	0	2	11	13
Oct-01	13	8	8	1	0	1	11	12
Nov-01	12	8	16	0	0	1	3	4
Dec-01	4	5	3	0	0	0	6	6
Jan-02	6	3	5	0	0	2	2	4
Feb-02	4	6	8	0	0	1	1	2
Mar-02	2	10	8	0	0	0	4	4
Apr-02	4	12	9	2	0	0	5	5
May-02	5	26	15	1	0	1	14	15
Jun-02	15	16	25	1	0	1	4	5
Jul-02	5	20	20	0	0	0	5	5
Aug-02	5	9	2	0	0	10	2	12
Sep-02	12	15	7	0	0	0	22	20
Oct-02	20	15	25	0	0	0	10	10
Total								
Sep-01	122	162	115	5	0	110	54	164
Oct-01	164	152	210	12	0	31	63	94
Nov-01	94	163	138	6	0	20	93	113
Dec-01	113	193	185	7	0	22	92	114
Jan-02	114	178	165	7	0	28	92	120
Feb-02	120	210	172	4	0	33	121	154
Mar-02	154	190	202	6	0	38	98	136
Apr-02	136	207	185	12	0	26	120	146
May-02	146	229	187	7	0	25	156	181
Jun-02	181	142	207	10	0	17	89	106
Jul-02	106	186	160	0	0	33	99	132
Aug-02	132	178	178	3	0	26	103	129
Sep-02	129	189	123	1	0	10	186	194
Oct-02	194	201	232	3	0	43	117	160

Incomplete are permits that have missing or inaccurate data and cannot be approved



Backlog = Incomplete + In-process = Remaining permits from previous month

Colorado Oil Gas Conservation Commission
Monthly Statistics

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YEAR	MO	Baker - Hughes rig count	Permits				Injection		Pits		Active Wells	Unedited Historic Records	Public Visits			Well Oper Change
			Drilling	Recompletion	Injection	Pits	Apvd	Rcvd	Apvd	Rcvd			Data	Office	Internet	
			Apvd	Rcvd	Apvd	Rcvd	Apvd	Rcvd	Apvd	Rcvd			1624	2840	15239	2186
1999	Total		1010	1057	86	87	10	7	158	146						
2000	JAN	18	71	99	7	7	0	0	3	6			140	92	3025	287
	FEB	17	114	152	16	22	2	2	16	15			123	126	3432	249
	MAR	18	116	130	17	12	1	1	5	17			126	172	3611	189
	APR	18	103	133	4	3	2	2	5	54	21989		108	169	3219	360
	MAY	17	129	128	14	17	0	1	71	34	22098		131	218	3664	156
	JUN	16	122	198	14	20	0	0	18	10	22103		106	117	3391	396
	JUL	19	148	123	9	6	4	8	35	30	22190		100	172	3384	229
	AUG	16	107	154	7	16	1	0	22	40	22247		103	75	3759	196
	SEP	16	138	140	37	34	1	4	51	37	22175		66	208	4941	346
	OCT	19	155	145	11	13	0	0	42	22	22224		99	205	4863	300
	NOV	22	135	181	7	10	1	1	51	34			82	155	4704	182
	DEC	24	191	162	9	14	0	2	9	6	22228		80	135	4143	215
2000	Total		1529	1745	152	174	12	21	328	305			1264	1844	46136	3105
2001	JAN	26	203	217	48	40	5	2	26	8	22240		89	136	6974	280
	FEB	29	193	195	5	10	0	0	16	18	22225		75	113	4900	499
	MAR	26	192	137	10	8	0	2	3	41	22487		78	107	6448	205
	APR	32	242	275	16	12	1	2	4	5	22714		87	143	6110	700
	MAY	36	241	238	8	7	0	2	0	7			72	157	6693	492
	JUN	36	194	257	12	14	2	3	10	49	22712		65	106	6090	650
	JUL	35	216	182	8	9	4	2	23	3	22742		81	116	10473	791
	AUG	37	177	151	22	17	3	4	25	18			67	75	12727	1527
	SEP	38	108	149	6	13	3	0	83	27	22795		60	69	10416	169
	OCT	36	201	144	8	8	3	3	2	3	22824		84	105	11943	209
	NOV	33	123	155	16	8	0	0	18	24			63	78	11542	170
	DEC	24	183	188	3	5	1	2	25	43	22879		104	101	10508	203
2001	Total		2273	2288	162	151	22	22	235	246			925	1306	104824	5895
2002	JAN	25	161	175	3	4	2	0	43	27	22873		73	95	11673	1063
	FEB	27	164	204	5	3	2	1	9	25	22911		76	68	13679	196
	MAR	25	194	180	8	11	0	3	31	11	22930		58	55	13184	179
	APR	28	176	195	9	12	1	4	2	26	23040		65	67	12935	714
	MAY	33	172	197	15	26	5	6	41	10	23098		64	90	14492	225
	JUN	34	182	126	25	16	0	1	1	4	23156		57	69	13747	145
	JUL	31	140	166	20	20	2	1	7	30	23242		51	105	14801	194
	AUG	30	176	169	2	9	0	1	36	14	23273		50	71	15554	308
	SEP	24	106	174	5	15	2	3	13	12	23352		65	46	15810	182
	OCT	25	207	186	25	15	2	2	12	9	23488		45	59	18423	154
2002	Total		1678	1772	117	131	16	22	195	168			604	725	144298	3360

Apvd = Approved Rcvd = Received, Inc = Individual, Bltkt = Blotter, Apps = Application for Hearing, NOAV = Notice of Alleged Violation, AOC = Administrative Order of Consent, OFV = Order Finding Violation, Crmp = Complaint, Comp = Completed

Colorado Oil Gas Conservation Commission
Monthly Statistics

Page 2 of 2

YEAR MO		Bonds														Remediation						Field Insp
		Operators		Release		Claim	Hearings		Violations				Spills	Projects								
		New	Inactive	Ind.	Blnt		Replace	Ind.	Blnt	Apps.	Order	NOAV		AOC	OFV	Cmplt	Rcvd	Comp				
1999	Total	55	41	45	25	61	1	2	31	36	196	8	12	123	211	83	24	7627				
2000	JAN	4	8	3	6	5	1	0	1	1	30	0	1	8	36	5	0	783				
	FEB	7	5	7	0	6	0	0	1	3	10	6	4	38	22	9	2	733				
	MAR	4	6	6	2	3	0	0	5	2	15	0	0	24	27	17	10	638				
	APR	5	12	11	4	2	0	0	6	4	16	0	0	29	22	12	8	675				
	MAY	7	11	10	4	2	0	0	1	1	45	0	0	27	22	9	6	847				
	JUN	5	8	5	5	7	0	0	1	1	39	0	0	41	21	12	16	413				
	JUL	10	7	6	3	5	0	0	5	7	28	2	0	11	26	18	11	739				
	AUG	7	10	8	2	7	0	0	0	0	30	0	0	9	23	14	15	647				
	SEP	10	7	3	7	2	0	0	0	0	16	2	0	10	17	20	31	595				
	OCT	7	10	4	7	4	0	0	14	7	9	2	2	23	20	15	20	489				
	NOV	6	5	2	5	6	1	0	NA	NA	10	NA	NA	16	34	12	13	659				
	DEC	4	0	0	0	6	0	0	13	9	6	1	0	10	13	2	8	482				
2000	Total	76	89	65	45	55	2	0	47	35	254	13	7	246	283	145	140	7700				
2001	JAN	7	8	6	3	10	0	0	12	8	14	1	0	10	35	17	8	718				
	FEB	6	2	3	1	3	1	0	2	4	9	1	0	10	7	4	7	793				
	MAR	5	3	6	0	9	0	0	2	3	4	1	0	9	11	12	3	854				
	APR	8	7	2	0	12	0	0	9	7	57	2	0	14	14	4	6	542				
	MAY	7	4	2	4	8	0	1	1	3	7	0	2	30	17	13	19	761				
	JUN	7	9	0	5	4	0	0	NA	NA	9	NA	NA	17	17	8	6	414				
	JUL	5	2	1	2	14	0	0	9	7	18	4	0	13	16	8	10	578				
	AUG	4	6	1	3	10	0	0	4	3	25	0	0	45	20	4	3	761				
	SEP	10	8	7	4	3	0	0	2	NA	40	0	0	14	20	8	10	309				
	OCT	5	6	5	3	9	0	0	5	4	45	0	0	22	17	8	11	717				
	NOV	5	0	0	0	12	0	0	NA	NA	14	NA	NA	20	12	8	7	410				
	DEC	8	2	0	3	10	1	0	7	1	17	0	0	13	16	3	8	385				
2001	Total	77	57	33	28	104	2	1	53	40	259	9	2	217	202	97	98	7242				
2002	JAN	7	9	3	3	6	0	0	6	7	17	1	2	15	20	17	0	404				
	FEB	10	4	1	0	5	0	0	6	4	33	0	1	11	27	6	6	444				
	MAR	6	8	3	3	10	0	0	3	2	18	0	2	5	31	10	5	571				
	APR	7	10	8	3	10	1	0	5	4	27	0	0	9	11	9	10	348				
	MAY	5	11	6	14	6	0	0	NA	NA	22	NA	NA	12	19	4	7	738				
	JUN	5	12	3	10	8	0	1	6	4	17	0	1	7	20	5	8	776				
	JUL	2	6	2	7	12	1	0	6	5	25	2	0	17	13	9	3	853				
	AUG	6	11	6	5	8	0	0	5	4	70	1	1	14	13	2	2	579				
	SEP	4	5	8	3	8	0	0	17	16	11	0	14	15	12	2	2	192				
OCT	3	12	8	6	5	0	0	3	2	8	0	0	9	8	7	0	159					
2002	Total	55	88	48	54	78	2	1	57	48	248	4	21	114	174	71	43	5064				

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4K ★ DENVER POST NOV. 17, 2002

THE DENVER POST

New direction in drilling gains fans

WELLS from Page 1K

because it's too late for us," she said. "There wasn't any real buy-in or foresight given to directional drilling as a legitimate, effective and useful mechanism."

Broderick blames producers for not adopting the technique sooner, and state regulators for not imposing it routinely on applications for drilling permits.

Energy officials respond that although directional drilling has been experimental for several decades, it only recently became technically and economically efficient.

Colorado gas-drilling patriarch Bill Barrett, founder of Denver-based Barrett Resources, tried directional drilling in the 1980s to increase gas production in western Colorado.

He hoped that a slanted well bore would tap more gas pockets than a bore that went straight down.

However, Barrett found that the process was costly and failed to produce more gas.

"Since then, the technique has improved incredibly over the years," said Scott Brady, a former Barrett Resources employee who now serves as drilling superintendent for Tulsa-based Williams Production, which acquired Barrett Resources last year for \$2.8 billion.

But as recently as two years ago, the technique was not embraced by gas drillers.

Barrett Resources sought state permission in 2000 to drill a well

on every 20 acres, instead of the previously approved 40-acre spacing, on property south of the Colorado River in Garfield County.

In a landmark decision, the Colorado Oil and Gas Conservation Commission ruled that Barrett must use existing well pads to drill directionally, instead of building new pads on every 20 acres.

The decision incensed gas producers. Ken Wonstolen, an executive of industry trade group Colorado Oil and Gas Association, described it as opening a "Pandora's box" of regulatory intrusion.

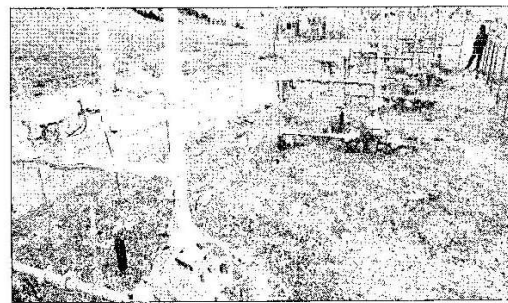
But in the two years since the decision, the industry attitude has changed. Many producers now embrace directional drilling as economically justifiable and a way to deflect environmental critics.

Since 2000, 51 percent of the wells drilled in Garfield County's four main gas fields have been directional.

"We know that vertical wells are easier and less expensive, but directional wells give us synergies and cost savings with fewer access roads and fewer pipelines," said Doug Jones, a Denver-based land negotiator for EnCana Corp., based in Calgary, Alberta.

Jones noted that directional drilling can't be done with every well because of varying geologic conditions. Some gas formations can be reached only with vertical wells.

Energy experts say the industry's acceptance of directional drilling stems from improved tech-



Special to The Denver Post / Ed Kosmicki

Five well heads, each drilled in a different direction, minimize the environmental impact of this natural-gas operation near Parachute.

nology and heightened public resistance to the impacts of drilling.

"The business climate in Colorado has gotten very tough," said Greg Schnacke, executive vice president of the Colorado Oil and Gas Association. "Companies do take into account the political and business climate when they're making decisions on whether or not to drill wells."

Although state regulators have not imposed directional drilling as a mandate on any application since Barrett Resources' in 2000, many companies — including Barrett successor Williams Exploration & Production — have voluntarily adopted the technique.

"Williams has gone way beyond the order, and they're drilling directionally even where they don't have to," said Rich Griebeling, director of the Oil and Gas Conservation Commission, the state agency that grants drilling permits. "They're seeing that it's more efficient for them."

The technique also is advanta-

geous for drilling under rough terrain where it would be difficult to build a well pad.

Denver-based Mesa Hydrocarbons has employed directional drilling to find gas under hilly property in the Mamm Creek production area south of Rifle.

Neither Williams nor EnCana, the two largest producers in Garfield County, have precisely studied the economics of directional and vertical drilling.

"Maybe it seems like I'm making all kinds of money with saving on roads and other costs, but I pay a heck of a lot more for people, design and equipment for directional drilling," said Brady of Williams.

Brady estimated that Williams pays \$30,000 to \$80,000 more per well for directional drilling.

It's money well spent, said Gwen Lachelt, executive director of the Oil & Gas Accountability Project, a Colorado environmental group.

"When there are ongoing oil and gas operations," Lachelt said, "and you have the option of reducing your impact, we say go for it."

THE DENVER POST NOV. 17, 2002

Once-controversial method gains acceptance

By Steve Raabe
Denver Post Business Writer

RIFLE — David Grisso and Doug Jones slog through ankle-deep mud to check three new EnCana Corp. natural-gas wells in the heart of the gas-rich Piceance Basin.

Mud is pervasive — covering boots, drilling equipment, pickup trucks and office-trailer floors.

But it could be worse. Thanks to a technique known as directional drilling, Jones and Grisso must plow through only one patch of muck to see all three wells.

Without directional drilling, monitoring the wells would require three trips to three separate well sites some distance from each other.

Once the root of a bitter dispute between state regulators and the energy industry, directional drilling has become a widely accepted practice in just the past two years as technological changes have made the process more feasible.

Analysts view directional drilling as a vital ecological and economic innovation for a Colorado petroleum industry that produces \$3.2 billion a year and employs 14,000 workers.

The technique can, in some cases, save money for producers. In many cases, it mitigates criticism

the industry receives from environmentalists and landowners, although some Grand Valley homeowners say directional drilling has come too late to protect the already heavily drilled area.

"What we're experiencing here in the Grand Valley is probably beyond salvation, but for other communities, directional drilling is a good approach," said Janey Hines Broderick, president of the Grand Valley Citizens Alliance, an environmental group.

The process involves drilling several wells in different underground directions from the same surface location.

For EnCana Oil & Gas, special equipment and technical consultants required for directional drilling increase costs by up to \$100,000 more than its typical \$1 million expense for a vertical well on Hunter Mesa southeast of Rifle.

But at least part of the extra drilling cost is recovered through savings on road building and maintenance.

Environmentalists and energy producers don't often concur on much, but they agree that the drilling practice reduces the scarring that gas production leaves on lands.

Many producers see the technique as helping defuse the controversy over the impact of drilling.

"It works to our advantage, and it also works to the advantage of the surface owner," said Grisso, operations superintendent in Rifle for EnCana.

By drilling multiple wells from the same location, gas producers build fewer "well pads" — the bulldozed areas on which drilling rigs and gas recovery systems are placed.

Multiple wells at one location also reduce the number of new roads and pipelines that must be built to serve the wells.

In addition, gas-field workers can limit the number of trips they take to monitor and maintain wells, minimizing traffic, noise and dust for nearby property owners.

"It makes environmental sense, and it makes economic sense for producers because their costs are lower," said Broderick.

While she supports the idea, Broderick said she's bitter that much of the drilling that has occurred in Garfield County has been the conventional vertical style, in which just one well is located on each of the hundreds of well pads built in western Colorado.

"If I sound jaded and angry, it's

Please see **WELLS** on 4K



Special to The Denver Post / Ed Kosmicki

INSIDE

■ Flame out

A new technique to capture the waste from gas wells may end controlled burning that sends flames 50 feet into the air (pictured at left).

■ Easier on the eyes

A pattern of wells that reach into coal beds could reduce the surface damage in gas-producing regions.

STORIES, PAGE 4K

Actual value of county's real estate, property \$5.15 billion

Valuation

continued from page 1

interest in American Soda, the sodium bicarbonate plant in Parachute. American Soda properties hold the fourth and 10th place spots on the valuation list, at \$23.2 million and \$9.3 million.

Other gas companies among the top 15 taxpayers are Ballard Petroleum L.L.C. at No. 2 with \$34.7 million in assessed value, Mesa Hydrocarbons Inc. at No.

5, Calpine Natural Gas Co. at No. 7, Tom Brown Inc. at No. 9, and Grand Valley Gathering at No. 11.

Three other energy companies made the top 15 list: electric providers Public Service Co. of Colorado at No. 6 and Holy Cross Energy at No. 14, and oil shale company Oxy USA Inc. at No. 15.

Qwest Corp., the telephone company, holds the No. 8 spot, and Union Pacific Corp. the Omaha-based railroad, holds the

No. 12 spot.

The non-industrial oddball in the group, Crystal River Limited Partnership, is developing River Valley Ranch in Carbondale. It ranks No. 13 in assessed value at \$4.5 million.

For these commercial properties, the assessed value is 29 percent of the actual value. It's the assessed value that's used to calculate taxes paid to school districts, the county and other taxing districts.

Residential properties are

taxed at 9 percent of actual value.

Hurst said the actual value of real estate and property in Garfield County is more than \$5.15 billion.

Assessed value is about 20 percent of actual value.

County-wide, Hurst's staff counted \$362 million in actual value for vacant land, \$3.2 billion in value for residential property, \$535 million in commercial property, \$125 million in industrial property, \$29 million in

farm and ranch property, \$8 million in natural resource properties such as gravel pits and coal mines, \$352 million in oil and gas properties, and \$186 million in utilities.

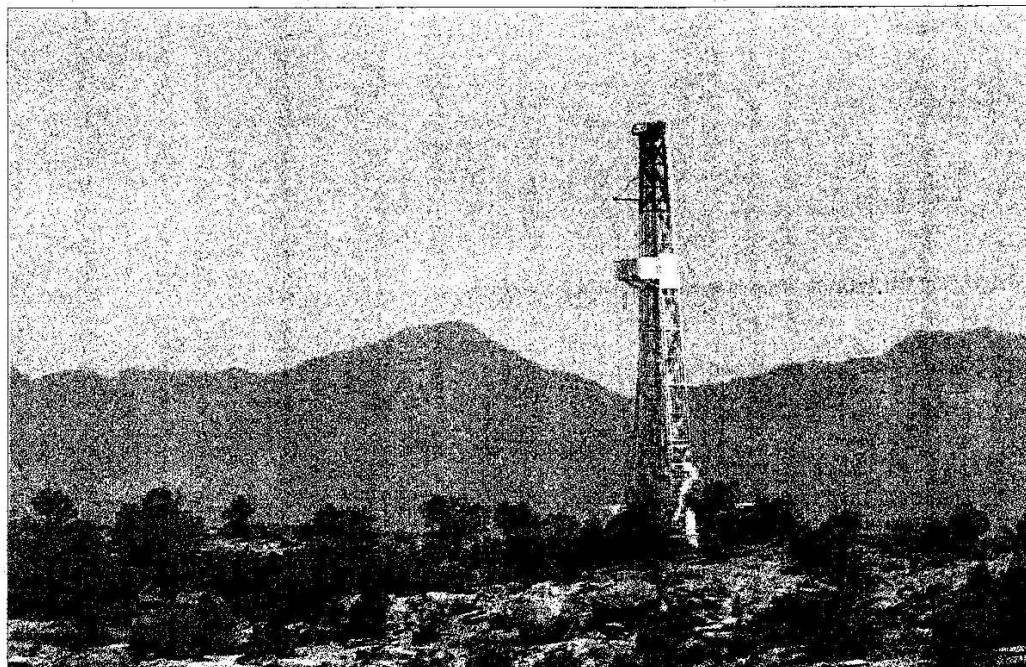
Another \$325 million in actual value of property, or \$97 million in assessed value, is exempt from property taxation. This includes federal, state, county and town-owned lands, railroad rights-of-way, schools, churches and property owned by charitable groups.

POST INDEPENDENT

October 29, 2002 • Vol. 112 No. 259 • Glenwood Springs, Colorado • FREE

GLENWOOD SPRINGS POST/INDEPENDENT OCT. 29, 2002

Garfield County hits a gusher



A gas well south of Silt, as viewed from Owen Drive in the Dry Hollow area. Energy development has helped drive Garfield County's assessed valuation over \$1 billion. Post Independent file photo by Kelley Cox.

Oil, gas pushes assessed valuation over \$1 billion

By Lynn Burton
Staff Writer

Fueled by the growing oil and gas industry, Garfield County's assessed valuation topped the \$1 billion mark this month, said County Assessor Shannon Hurst.

"The values went up quite a bit this year," Hurst said, referring to a 24 percent increase over 2001.

Of the county's top 15 taxpayers, seven are gas companies. They account for \$231.5 million of the county's overall assessed value — 23 percent of the total.

And properties held by Williams Co. of Tulsa, Okla., account for four spots in the top 10 and a total of \$182.5 million in assessed value.

Williams Production Co., a gas drilling and production company purchased from Barrett Resources in 2001, takes the first and third place spots, with \$118.7 million and \$31.3 million in assessed value.

Williams also holds a majority

Valuation
continued on page 10

GLENWOOD SPRINGS "POST/INDEPENDENT" NOV. 19, 2002

District ranger tapped for BLM post

By Lynn Burton
Staff Writer

Dillon resident Jamie Connell has been named the new manager of the Bureau of Land Management Glenwood Springs Field Office — and Connell said one of her first tasks will be to meet with local folks, including environmental groups such as the Grand Valley Citizens Alliance.

"It's always best to try to deal with people up front," said Connell, who starts at her new job in early January. "That way you can build consensus from the get-go."

That goal may be put to the test in one of the next major items on her agenda in her new position, the Roan Plateau management plan.

Connell, 39, is currently a district ranger for the White River National Forest. She holds a bachelor's degree in petroleum engineering from Montana Tech University in Butte, and has worked for both the BLM and Forest Service.

Connell said her familiarity with both agencies should help in her new job with the BLM. "We'll have many opportunities to share customer service

and expertise," Connell said. "There are things we can do well when we work together. I hope to try to build a closer relationship."

In her Forest Service and BLM career, Connell has lived throughout the West. Her first BLM assignment was in the Missouri Breaks region in northeast Montana. "I was 40 miles south of Canada. It's beautiful up there."

She was later BLM field manager in

BLM

continued on page 9

BLM head partial to Glenwood

BLM

continued from page 1

Idaho, before jumping to the White River National Forest's Dillon Ranger District. She has visited Glenwood Springs often, including while on firefighter duty on the Coal Seam and Springs Creek wildfires last summer. "It's a really good community, where people are really tied to the land."

The Glenwood Springs Field Office is drafting its first management plan for the Roan Plateau northwest of Rifle. The six alternatives range from extensive oil and gas exploration and production, to preserving the area's natural character.

"It's a really good community, where people are really tied to the land."

— Jamie Connell

agement plan for the Roan Plateau northwest of Rifle. The six alternatives range from extensive oil and gas exploration and production, to preserving the area's natural character.

Connell said she is wrapping up some environmental impact statements in her current position, and has not yet reviewed the Roan Plateau plan. "I'll get into it when I get to Glenwood Springs," she said.

When asked about her background as a petroleum engineer, Connell said the BLM hires specialists from a number of educational backgrounds, including wildlife, timber, recreation, minerals and economics.

"It's very common for someone with resource-specific background to move into management," Connell said. "It's good to have a broad understanding of resource issues."

The BLM received more than 20 applications for the Glenwood Springs Field Office job. Former manager Anne Huebner held the position for two years before resigning last summer.

6 Glenwood Springs Post Independent • Thursday, November 21, 2002

Commissioners expend some hot air on gas liaison position

But decision will have to wait until next month

By Lynn Burton
Staff Writer

The Garfield County Commissioners debated adding a gas industry liaison position to the 2003 budget, but won't make a decision for another month.

Garfield County Commissioners John Martin, Larry McCown and Walt Stowe discussed creating the liaison position at Tuesday's public hearing for the 2003 budget.

The liaison, also known as a local government designee (LGD), would be a go-between for the oil and gas industry and residents in western Garfield County, where hundreds of gas wells have been drilled over the past decade.

The draft budget puts the LGD's total annual cost at \$80,677 for salary, bene-

fits and related expenses. Stowe put the total at \$120,000.

"I'm not sold on it yet," Stowe said. "It's a \$120,000 decision."

The county's 2003 draft budget calls for \$41.7 million in total revenues and \$38.7 million in expenses.

Martin said he favors the position, while McCown and Stowe were more difficult to read.

"We already have one," McCown gruffly told supporters of the new county post.

Stowe said he isn't necessarily against a liaison, but the county should consider hiring a contract employee rather than creating a new position.

Martin said if the county doesn't hire a liaison, it is "falling down on its citizens."

The commissioners are expected to vote thumbs up or down on the liaison position when it approves next year's budget on Monday, Dec. 16.

DeAnna Woolston, an organizer for Western Colorado Congress, provided the job description for the LGD in La

Plata County, where drilling has been more intense to date. The position is spelled out in state regulations.

McCown asked Woolston and Parachute Creek resident

Sid Lindauer the extent of the LGD's tasks. He predicted that Western Colorado Congress will want the liaison to be "all seeing," and get involved in everything from dusty roads to well locations.

"And that individual is not empowered to do that," McCown said.

McCown said the county has an LGD in Mark Bean, who handles those duties while managing the county's Building and Planning Department.

In the past, McCown said, residents have not contacted Bean about their concerns. Woolston countered that Bean doesn't have time to deal with gas drilling issues.

McCown noted that the Colorado Oil and Gas Conservation Commission already has an office with two staffers in Parachute to handle residents' complaints and concerns.

"I fought for that office. It was going to Weld County," McCown said. "We are fortunate to have one that close."

Martin argued nearly as forcefully in favor of the LGD position. He said a liaison could work with the county assessor, treasurer, clerk, planning office and county commissioners.

The LGD discussion concluded Tuesday's public hearing.

"I'm not sold on it yet."

— Walt Stowe

"We already have one."

— Larry McCown

Producers put a lid on gas wells' shooting flames

By Steve Raabe

Durham Post Business Writer

PARACHUTE — Mysterious fires flickering in the Grand Valley may soon be snuffed.

Mysterious, anyway, to passing motorists and visitors who don't know the origin of the shooting flames that can reach as high as 50 feet.

They stem from the controlled burning of natural gas — "flaring," an industry parlance — from freshly drilled gas wells.

But a new technique will help eliminate flaring by capping wells with a device that captures waste gas and funnels it into pipelines for eventual sale.

Williams Exploration & Production, the Grand Valley's largest gas producer, is using the anti-flaring units on almost all of its new wells.

Another major producer, EnCana Corp., began experimenting this year with the devices.

Because the equipment offers environmental and economic benefits, its use is expected to grow throughout the industry in coming years, experts say.

Williams officials said they make money with the devices — not much, but enough to cover costs and turn a small profit.

Cutting back on flaring also will be a relief to Garfield County emergency-service providers.

"It's quite a significant impact on us," said Ron Van Meter, spokesman for the Garfield County Sheriff's Department.

"People who don't live in this area don't know about flaring, and they'll want to be good Samaritans by giving us reports of wildfires," Van Meter said. "It's a nuisance type of call, but it warrants 100 percent of our attention until we know for sure what it is."

Concerns about flaring heightened during the past year's

'People who don't live in this area don't know about flaring, and they'll want to be good Samaritans by giving us reports of wildfires.'

Ron Van Meter
spokesman for the Garfield
County Sheriff's Department

drought, particularly after the Coal Seam fire torched more than 12,000 acres and destroyed 29 homes near Glenwood Springs. The fire originated from a long-smoldering underground coal seam west of the city.

"Everybody has been real nervous," said Bob Kibler, director of emergency communications for Garfield County.

Calls to the agencies are common from motorists on Interstate 70 who spot flaring from natural-gas wells that dot the sagebrush-covered landscape from Parachute to Silt, an area known as the Grand Valley.

The new anti-flaring device was developed jointly by Williams and a Vernal, Utah-based petroleum equipment firm.

Flaring occurs after drillers inject water and sand into new wells to fracture tight geologic formations and release trapped gas.

The freed gas pushes the water and sand byproducts back to the surface in a pressurized mixture that can't be placed in pipelines be-

cause of the sand's abrasiveness.

When the gassy mixture reaches the surface, producers ignite it, causing the flare.

The new equipment captures the mixture and sends it through two vertical tanks that separate the gas, sand and water.

Recovered gas is placed in pipelines, water is discharged or reused, and sand is dumped in a waste pit near the wells.

Flared or vented natural gas accounts for 1 percent of the world's greenhouse gas emissions, according to a study by the World Bank.

Grand Valley environmentalists say flaring produces a smoky haze and aggravates respiratory illnesses.

Flaring of gas wells has been one of the biggest public concerns about energy development, said Brian Macke, deputy director of the Colorado Oil and Gas Conservation Commission.

"We think (the new device) is just tremendous," Macke said. "It's a huge advancement."

Williams Exploration & Production uses five of the anti-flaring devices, enough for the company to handle most of its newly drilled wells.

The wells shift from producing waste mixtures to normal gas, thus eliminating the need to flare, and the units are moved on to new wells.

EnCana Energy, another Grand Valley producer, is renting two of the units and testing them to see how effective they are.

Scott Brady, a drilling superintendent for Williams, said the anti-flaring mechanism benefits the public. The economic advantages to producers, he said, are not quite as easy to see.

Although one of the units can capture as much as 1.5 million cubic feet of gas per day — worth \$4,500 at current Rocky Mountain prices — much of the revenue is

offset by the cost of operating and staffing the devices.

"One of the worst complaints in this industry is why do we have to flare the gas?" Brady said. "So we've found a way. There's not great money there, but we're proud that we are dealing with the issue."

4B The Daily Sentinel - Sunday, October 27, 2002

PARACHUTE: Garfield County gets checks in the range of \$6 million for property taxes from Williams

Continued from page 1B

another Parachute Creek venture, American Soda LLP, which supplies ingredients used in the toothpaste you use in the morning as well as the glass in the mirror you use to inspect the job.

With Williams, the economic portent for Parachute Creek finally is being fulfilled. It's being done, though, with fewer people, fewer scars and paint mixed to match the landscape.

The Roan Cliffs still loom over Interstate 70 but they're not immediately threatened with the prospect of being cleared away to make room for development of oil shale.

Careful examination, however, reveals a network of interconnected wellheads, pipes and treatment facilities scattered around Parachute Creek and surrounding lands.

The development of the area is coordinated out of Williams' Parachute office, which employs 50 people and is responsible for the employment of some 400 more people who work for contractors, consultants and others, said Steve Soychak, district manager for Williams.

Most of those people, about 60 percent, live in Mesa County and the remainder in Garfield County, meaning the economic benefit of Williams' ventures is spread across western Colorado.

Garfield County, however, gets checks in the not-inconsiderable range of \$6 million for property taxes from Williams, Soychak said.

Williams brings in contractor drilling services to punch holes 5,000 to 8,000 feet into the ground in search of the natural gas that awaits deep in the Williams Fork member of the Mesa Verde

"The estimates we have heard is roughly 60 billion cubic feet of gas per square mile. Everybody considers the Piceance Basin to be a major natural-gas field. It's a tremendous resource for Colorado, and it's going to have the ability to be further developed for a number of years."

GREG SCHNACKE

Executive director of Colorado Oil and Gas Association

formation.

Frequently, the company uses the same drilling pad for three holes drilled directionally — meaning that the drill bit can be guided off into any direction that Williams believes will produce the most natural gas.

Once the hole is drilled, the gas-bearing sands have to be fractured so as to provide a path for the gas up to the surface.

That's where Grand Junction-based Halliburton comes in. Crews of 23 run the "fracking" process.

Williams is Halliburton's biggest customer in the area and as Williams' has continued exploration, Halliburton has grown, said Larry Kent of the Grand Junction Halliburton office.

Halliburton now has an annual payroll of about \$7 million, Kent said, much of it related to the Williams work.

Williams, he said, has been the only company to consistently explore in western Colorado for the last dozen years.

"Even when things were lean and other companies stopped operating, Williams was kind enough to keep some activity going and support the infrastructure they had helped build," he

said.

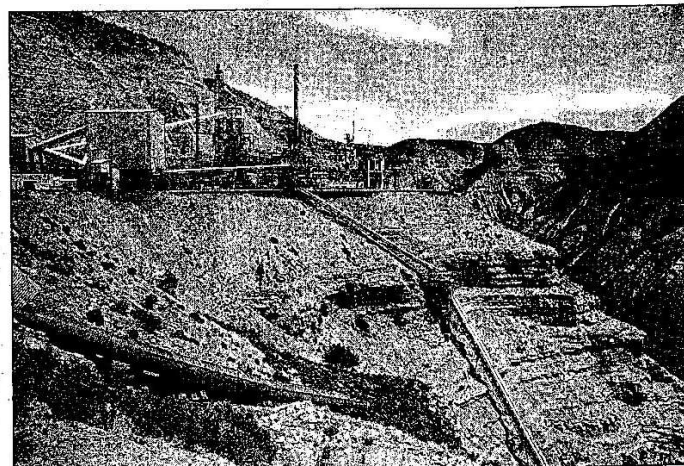
Companies such as Monument Well Services get involved when wellheads are completed, closing the link between processing plants and wells.

Labor intensive as the exploration and development processes are, Williams holds down costs of maintenance by monitors and remotely operating wells via computer links.

Keeping track of the wells on a computer monitor allows the company to make once weekly visits to the heads, cutting costs, as well as dust from vehicles — a prime cause of complaints from residents about the industry, Soychak said.

Williams is completing a second processing plant along the banks of Parachute Creek. Natural gas is separated in the plants before it is sent through pipelines to far-flung customers.

Also along the creek is the American Soda plant, where Williams is a partner in an effort to mine nahcolite — sodium bicarbonate — from the Piceance Creek Basin. The nahcolite is dissolved and piped from the Piceance Basin to the Parachute Creek plant, where it's reconstituted into sodium bicarbonate and sent to manufacturers as diverse as the



CHRISTOPHER TOMLINSON/The Daily Sentinel

WHILE THE UNOCAL OIL SHALE PLANT rusts on Roan Cliffs at the end of the road that parallels Parachute Creek, in this 1985 photo, another source of fuel from deep in the earth is being tapped — natural gas. Much of the natural gas taken from the Parachute section of the Piceance Basin is piped to other parts of the United States, as is the case with about half the gas produced in Colorado.

makers of toothpaste and pharmaceuticals and into soda ash, where it is used to make such products as glass and soap.

American Soda employs 135 people, including the management and sales staff, and ships its product by rail and truck from Parachute Creek to destinations around the world.

Company officials say both sides of the Williams investment will take years to play out.

The Piceance Creek Basin has been estimated to contain 29 billion metric tons of nahcolite, and

the company estimates the area around Parachute has reserves of about 64 billion cubic feet of gas.

"The estimates we have heard is roughly 60 billion cubic feet of gas per square mile," Schnacke said.

"Everybody considers the Piceance Basin to be a major natural-gas field. It's a tremendous resource for Colorado, and it's going to have the ability to be further developed for a number of years."

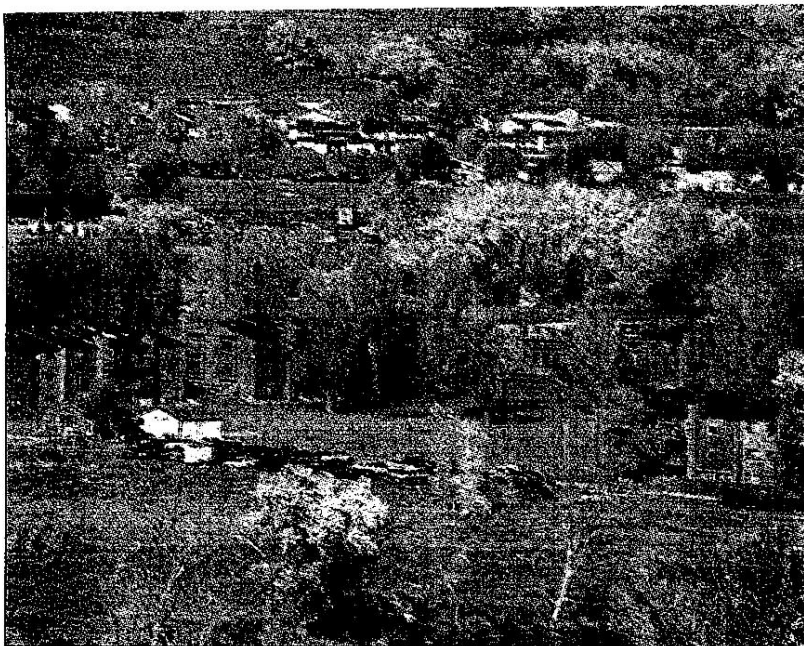
Things haven't worked out exactly as forecast in the late 1970s,

said Ed Cooley, who worked in oil shale before the bust and now is manager of environmental safety and health for American Soda.

Controls on growth are stronger than they were three decades ago, Cooley said, but much of the Piceance Basin's promise is being fulfilled, albeit in a lower-impact fashion.

"It's moving forward," he said. "I think on a much better scale than would have happened."

Gary Harmon can be reached via e-mail at gharmon@gids.com.



CHRISTOPHER TOMLINSON/The Daily Sentinel

THE ROAN CLIFFS LOOM OVER the American Soda LLP plant and the town of Parachute. Williams Production RMT Co. operates 707 wells in the area producing 218 million cubic feet of natural gas per day.

GRAND JUNCTION "DAILY SENTINEL" OCT. 27, 2002

Parachute depends on natural-gas wells

By GARY HARMON
The Daily Sentinel

Once upon a boom, Parachute Creek was to have been the place from which the world's energy would spring forth.

That idea died 20 years ago, when the economy built around oil shale took a precipitous drop and western Colorado's economy was forced off the boom-bust dole of extractive industry.

In the passing decades, as tourism and grapes moved to the fore, the business of mining the earth seemed to have been relegated permanently to second-class economic status.

Today, Parachute Creek still winds its way down the glorified arroyo that begins at the edge of the Roan Plateau, and the tiny hamlet of Parachute seems

largely untouched, but for the hint of a tourist economy in the form of a modern motel fronting Interstate 70.

Back up Plateau Creek, though, there is evidence that the natural-resources industry has taken up deep roots, drill-rig-driven roots that won't easily be washed away.

With old oil shale giants such as Exxon, Unocal, Shell and others reduced to the status of caretaker or experimental researcher, the Williams Co. now is carving out the future for Parachute Creek. It's one that is strikingly similar — and strikingly different — to the one of two decades ago.

While the Unocal oil shale plant rusts up at the end of the road that parallels Parachute Creek, another source of fuel from deep in the earth is being

tapped.

Williams, operating west of Parachute as Williams Production RMT Co., operates 707 wells producing 218 million cubic feet of natural gas per day. The average house uses 100,000 cubic feet of natural gas each year.

Much of the natural gas taken from the Parachute section of the Piceance Basin is piped to other parts of the United States, as is the case with about half the gas produced in Colorado.

"We're producing 730 billion to 750 billion cubic feet of gas a year in Colorado and roughly half of that is consumed" in the state, said Greg Schnacke, executive director of the Colorado Oil and Gas Association.

Williams also is an owner of

See PARACHUTE, page 48 ➤

THE DENVER POST NOV. 17, 2002

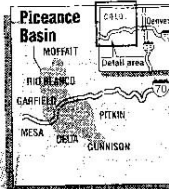
NEW DIRECTION IN GAS DRILLING

Drilling from a different angle

Directional drilling reduces the number of drilling sites necessary to extract natural gas from the Piceance Basin by allowing energy companies to drill multiple holes from one site. Here's how it works:

The Piceance Basin

Energy experts say Colorado's Piceance Basin may hold up to 31 trillion cubic feet of natural gas.



Target

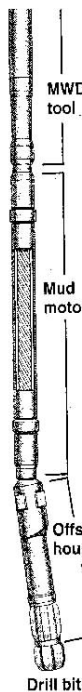
Based on information provided by geologists, engineers and the drilling superintendent, a target is selected. The greater the distance from the drilling rig, the greater the problems incurred, so in the Piceance Basin, the practical distance is kept within a 1,200-foot horizontal radius of the hole at the surface.

Path

A drilling plan is developed. One of the challenges is to make the path to the target with smooth transition angles. The actual path will vary somewhat, but the goal is to be within a 200-foot radius of the target.

Drilling and monitoring

Following the drilling plan and hitting the target depends on a series of tools located just behind the drill bit.



MWD tool

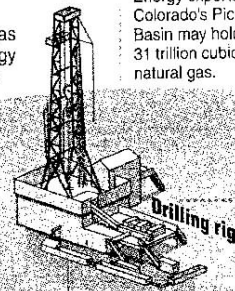
The Measure While Drilling tool sends a continuous signal to the surface indicating the angle, location and direction of the drill bit. Vibrations from drilling and other factors interfere with the readings, so drilling is stopped for more accurate surveys.

Mud motor

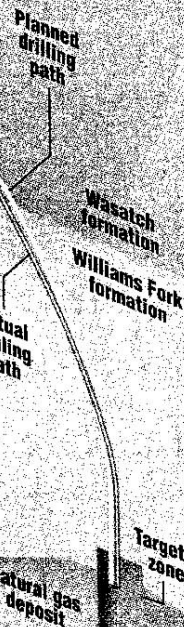
The mud motor drives the drill bit when the rest of the drill string isn't rotating. (The drill string consists of drill pipe, any tools attached to the pipe and the bit.) The motor is powered by the mud (water and bentonite) that circulates through the drill string and hole.

Offset housing

The offset housing, which has a slight bend, aims the drill bit in the desired direction. The MWD tool knows the offset housing's inclination, and adjustments are made by rotating the drill string. While drilling at an angle, only the bit rotates, so that the offset housing tool maintains its intended direction.



Optimal drilling distance lies within a 1,200-foot radius.



Paydirt

In the Piceance Basin, the Williams Fork formation holds most of the gas. It lies about 3,500 feet below the Wasatch formation and extends to a depth of about 8,500 feet.

The Denver Post / Andrew Lerner

THE DENVER
POST

Sunday, November 17, 2002

Another method lets 1 pad drain 1,200 acres

By Nancy Lofholm
Denver Post Western Slope Bureau

A Dallas-based energy company is drilling elaborate patterns of wells into coal beds in the Piceance and San Juan basins of western Colorado using exploratory technology that could decrease surface impacts to the state's gas-producing areas.

In its first use of the patented technology in the Rocky Mountains, CDX Gas has drilled wells in the Four Corners area and in eastern Mesa County that are capable of draining the gas from up to 1,200 acres from one drill pad.

CDX's technique, already used in the Appalachians and in Oklahoma and Illinois, involves placing two intersecting wells about 150 feet apart on one drill pad. The main production well is drilled straight down. It is intersected by the second well, which makes a horizontal turn underground. A network of multiple far-reaching bores in patterns that resemble feathers or pitchforks is connected to this horizontal well. That well is plugged before production begins, and the gas drawn from the network comes to the surface in the vertical well.

When this multilateral drilling system is used in tight coal bed formations, as much as 85 percent to 90 percent of the gas can be removed in three to four years, said Doug Wight, CDX vice-president of corporate development.

That compares to about 20 percent gas removal over 30 to 40 years for conventional wells.

The technology has won endorsement from an environmental group, the San Juan Citizens Alliance, and has raised interest at the Colorado Oil and Gas Conservation Commission.

"From our standpoint, it's very intriguing. We're certainly hopeful," said Rich Griebeling, director of the oil and gas commission. "It's very early on to say how promising it is here, but we're always interested in wells that draw from

larger areas with fewer surface impacts."

The San Juan Citizens Alliance formally asked the Bureau of Land Management and the U.S. Forest Service this summer to include CDX's drilling method as an alternative as it considers new drilling permits in the Four Corners area.

Rebecca Kocppen, a representative of the alliance, said she considers the method "very promising."

"If there has to be more gas wells, we'd like to have them have less surface impacts like this would," she said.

Wight said the multilateral drilling technique, originally developed as a safety measure to remove potentially hazardous methane gas from coal mines, won't work in all areas where coal-bed methane is being tapped by conventional wells.

The elaborate drainage wells don't work well in very porous coal deposits or where the coal beds are interspersed with sandstone or limestone. The coal beds need to be thick and continuous.

For example, in Delta County, where plans for drilling have created controversy and lawsuits, the technique might not work, Griebeling said. The coal beds there are mixed with sandstone.

"We know it's not going to work everywhere," Wight said.

Having just one well reduces the need for so many landscape-scarring roads and pipelines and compressor stations in addition to drastically reducing the number of wells. In parts of the Piceance Basin, wells are spaced as close as every 20 acres.

The method also "protects ground water pretty well," Griebeling said.

Wight said the company, which holds seven patents related to gas drilling and has 55 more patents pending, is also developing a way to remove gas and move water out of coal beds without having to bring the water to the surface.

"That's another huge, huge potential benefit," he said.

GRAND JUNCTION "DAILY SENTINEL" NOV. 17, 2002

Gas wells pit counties against state

By MIKE McKIBBIN
The Daily Sentinel

CRAIG — Decisions about where natural-gas wells should be drilled are best made at the local level, commissioners from two Colorado counties said Saturday in Craig. The commissioners have challenged the state's authority on the issue.

Josh Joshwick of La Plata County and Dan Ellison of Routt County participated in a daylong conference on oil and natural-gas development, sponsored by several conservation groups. The

"So we haven't slowed down development, we don't feel. It's all about politics when it comes to decisions, and when a county isn't given its full authority under the statutes, they can't make the best decision."

JOSH JOSHWICK

La Plata County commissioner

conference was to educate residents about issues surrounding potential energy development.

Joshwick outlined his county's history in dealing with a sudden

increase in coalbed methane wells around 1990. The interest, spurred by federal tax credits to energy companies, put La Plata County at "ground zero,"

Joshwick said.

"It was a new process at the time, so we asked the federal government if they could do an environmental impact study" on the plans, he said. "They said no, so we turned to the (Colorado Oil and Gas Conservation Commission, which regulates oil and gas development in the state) but they weren't responsive either."

The county then adopted land-use regulations in 1991 to try to regulate gas wells. The state challenged the regulations and the Colorado Supreme Court ultimately ruled in favor of the

county. "So long as what we required had no operational conflict with the state regulations," Joshwick said.

A later attempt in response to a 160-acre spacing proposal also led to a legal battle between La Plata County and the state, he said.

"They disagreed with our process regarding letting the surface owner determine where a well is drilled if they don't own the mineral rights," Joshwick said. The county changed the

See WELLS, page 11B

WELLS: Moffat County owns some mineral rights, official says

Continued from page 1B

process and now surface owners in La Plata County have more control over the drilling of wells in such cases, he said.

Since the county adopted its regulations, more than 2,000 gas wells have been drilled, Joshwick said.

"So we haven't slowed down development, we don't feel," he said. "It's all about politics when it comes to decisions, and when a county isn't given its full authority under the statutes, they can't make the best decision."

Routt County Commissioner Dan Ellison said his county had never turned down a coal mine or gas well in 30 years. But Ellison also wondered if the Oil and Gas Commission "thinks counties are important players" in energy development.

"There should be a role for both in the decision-making process," Ellison said. Routt County has also stressed the need to allow surface owners to have more of a say about placement of wells on their property, he said.

Moffat County Commissioner T. Wright Dickinson noted his county is unique because it owns some of the mineral rights in the county. He said they were obtained when private owners didn't pay their taxes on the rights during the Depression years.

Moffat County also has oil and gas lease requirements for the lands it has mineral rights on, Dickinson said.

"It also requires a surface-use agreement before a well is drilled," he said.

"We believe we can build relationships between surface owners and the companies with these agreements. It's important to get to know your neighbors if you don't own the mineral rights. It's not the county government's responsibility to inform you who owns the rights.

"If you get educated, we can avoid these big train wrecks" between surface and mineral rights owners.

Mike McKibbin can be reached via e-mail at mmckibbin@gjds.com.

Couple irate over neighbor's criticism of gas well

BP America helping landowners screen site with native grasses, shrubs and trees

By Jim Greenhill
Durango Staff Writer

A Durango couple is angry that a neighbor found fault with a gas well site on their property and started a Web site they contend is misleading.

Walt Walker and Tom Ann Casey own 29 acres in the Meadows subdivision on the Florida Mesa, and

they plan one day to build their dream house there. BP America recently drilled a new well on the property on a well pad that was first used to drill a 1989 well.

Heath Anderson, a neighbor, is upset about the new well, saying it is an eyesore and threatens the environment. He started a Web site, www.stopbpamerica.com.

The Web site uses the well as an

example of Anderson's complaints about gas wells in La Plata County and urges visitors to take action by contacting legislators and officials.

But Walker and Casey don't mind the well. In fact, they're mad at Anderson. Walker — who is a commissioner on the Colorado Oil and Gas Conservation Commission — called Anderson's Web site "inaccurate, filled with lies and stolen photos."

"I wish that they would point out some specifics as to inaccuracies or lies," Anderson said late Friday

"There's a lot of opinion there. I provide my opinion — but I think it's a rather prevailing opinion in Durango." As for the photos? "I snapped them myself."

In an interview at *The Durango Herald* on Friday, Casey emphasized that she was speaking as a landowner and not as a COGCC member. The couple spoke out after the *Herald* on Nov. 3 reported Anderson's views in an article about a new county impact report that said a gas well on a property has a negative effect on its property value.

Walker and Casey say there was a gas well on their land before they bought it in 2001. "We certainly could not get the (seller) to drop the price because there was a well on the property," the couple said in a written statement. "Unfortunately for us."

"We bought this property well aware that we didn't own the mineral rights," Walker said in the interview. "As landowners, we have absolutely no problems with this well."

■ See WELL, Page 10A

Well: Efforts to object did no good, man says

Continued from Page 1A

Walker and Casey said Anderson's family bought his property across the road about the same time they bought theirs, in 2001 — a decade after the original well was drilled on their land.

"If he was offended by it when he bought his property, it certainly wasn't enough to not buy," Walker said.

The couple said Anderson had plenty of opportunities to object to the well. Those included a notice from BP America telling him about the company's plans for the well and a meeting with the Meadows subdivision homeowners association, they said.

"It should be a success story," Casey said. "What more can you do?"

BP America is helping the couple to plant native grasses, shrubs and trees on terms that will screen the well. The company is painting the well equipment — which is silent and does not include a gas compressor — in colors that will make it blend in to the environment.

The company has said it will decrease the size of the well pad and replace the fencing with something more attractive.

The company donated money to the subdivision's homeowner association. BP America offered to do water testing on any domestic well in the subdivision.

The well itself is a directional well, which means that it is drilled at an angle to get to gas reserves that are not directly below it. That allowed BP to avoid putting a new well site in the subdivision north of the Walker/Casey property. Putting the well on the existing well pad also avoided further surface disturbance.

"We are proud to have been involved in a project that minimized impacts, improved our property value, is environmentally friendly and is good for our neighbors," the couple wrote.

Walker and Casey say people buying property should research mineral rights and the possibility of more wells. "It's kind of like buying property next to U.S. Highway 550," Walker said.

Anderson has said his efforts to contact people to object to the gas well did no good. BP on Friday said he never contacted the company.

"I did not know who to go through at BP," Anderson said. He

said he also felt the company would be biased and so contacted government officials.

"I was very proud of this (well)," said Scott Thompson, director of small land operations for BP America Production Co.'s Durango Operations Center. "It's kind of shocking when all this started happening. This was a poster child for an operation."

As for the county impact report, which said that a gas well on a property can reduce the property value by up to 22 percent, Casey, who has a master's degree in geography from Stanford University — said the area used for the county study was too limited and the sample properties with gas wells on them too small and unrepresentative of the county as a whole.

She and Walker called for the county report to be investigated and to undergo a peer review and said its statistics are questionable.

"This just looks like 'bad science' to me," Casey wrote.

The report's authors could not be reached for comment Friday night.

Reach Staff Writer Jim Greenhill at jm@durangoherald.com.



DEPARTMENT OF NATURAL RESOURCES
Bill Owens, Governor
 1120 Lincoln St., Suite 801
 Denver, CO 80203
 Phone: (303) 894-2100
 FAX: (303) 894-2109
www.oil-gas.state.co.us

October 24, 2002

Comment Clerk
 Docket Number W-01-09
 Water Docket (MC 4101), Rm EB 57
 U.S. Environmental Protection Agency
 1200 Pennsylvania Ave, NW
 Washington, DC 20460

Dear Ladies or Gentlemen:

Thank you for the opportunity to comment on the subject report. On behalf of the Colorado Oil & Gas Conservation Commission and after consultation with the Department of Natural Resources, attached please find my comments for the draft of the Evaluation of Impacts to Underground Sources of Drinking Water by Hydraulic Fracturing of Coalbed Methane Reservoirs. As one of the peer reviewers of the first draft, I believe report has improved since the last draft.

Executive Summary

An executive summary of 19 pages is excessive. The information included here is useful, but most of it should be included in the body of the report and not in the Executive Summary.

1. Tables ES-1,2,3,4,5 and Figs. ES-2,5,6 should not be included in the Executive Summary. These tables and figures contain important information but should be discussed in the body of the report.
2. ES-1 should not be in the Executive Summary but in the introduction.
3. Fig. ES-1 should remain as it is important in understanding the range of the coalbed methane wells.
4. ES-3 should end after the paragraph that states that "aquifers with greater than 500 mg/L TDS are rarely used for drinking water supplies,".
5. ES-4 should remain unchanged because it is general in nature and discusses the project's overall approach.
6. ES-5 and 6 should be removed from the Executive Summary and be discussed in the body of the report. They are too specific and detailed to be discussed in the Executive Summary.
7. ES-7 should remain with Table ES-4 removed.
8. In section ES-8, Table ES-5 and the reference to the table should be deleted. The rest of the text should be left intact. Again, too much specific information has been included in the Executive Summary. Also, Table ES-5, a Summary of Reported Incidents that Associate Water Quality/Quantity with Coalbed Methane (CBM)

DEPARTMENT OF NATURAL RESOURCES: Greg E. Walcher, Executive Director
 COGCC COMMISSION: Tom Ann Casey - Brian Cree - Michael Klish - Peter Mueller - J. Thomas Reagan - Lynn Shook - Stephen Sonnenberg
 COGCC STAFF: Richard T. Gnebling, Director - Brian J. Macke, Deputy Director - Morris Bell, Operations Manager
 Patricia C. Beaver, Hearings Manager - Thomas J. Kerr, Information Manager

Activity, when placed in the Executive Summary without appropriate discussion indicates that there are significant impacts from hydraulic fracturing of CBM wells. This would contradict the statements on the preceding page, in the second paragraph of ES-9.

A suggestion that the last sentence in the first paragraph be changed to "Based on the information collected, the potential threats to USDWs posed by hydraulic fracturing of CBM wells **are** low and do not justify additional study."

Also, the first sentence of the fourth paragraph on page ES-1 should be changed to "Although the threat to public health from hydraulic fracturing **is low**, ...". The

Chapter 7

Since there has been no conclusive evidence that the loss of water quality is a direct result of the practice of hydraulic fracturing, the fourth paragraph on page 7-1 should be changed to read "the potential threats to USDWs posed by hydraulic fracturing of CBM wells **are not** substantial and do not justify additional study."

Thank you again for the opportunity to comment of this report.

Sincerely,

Morris Bell, P.E.
Operations Manager

January 2003 Hearing Docket

Page 11038000

Docket No.	Applicant(Affected Party)	Date Rec'd	Field Formation	Staff	Remarks
Docket No.	Applicant	Rec'd	County	Staff	Notes
0000-000-00	Baker, L. Robert, Baker, L. Robert	11/18/00	Blaine Nevada	Request for an order to enforce the Publication Order filed to enforce the Additional work in Township 8, Range 35 West and Sec 34, 35, 36, and 37 and 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 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