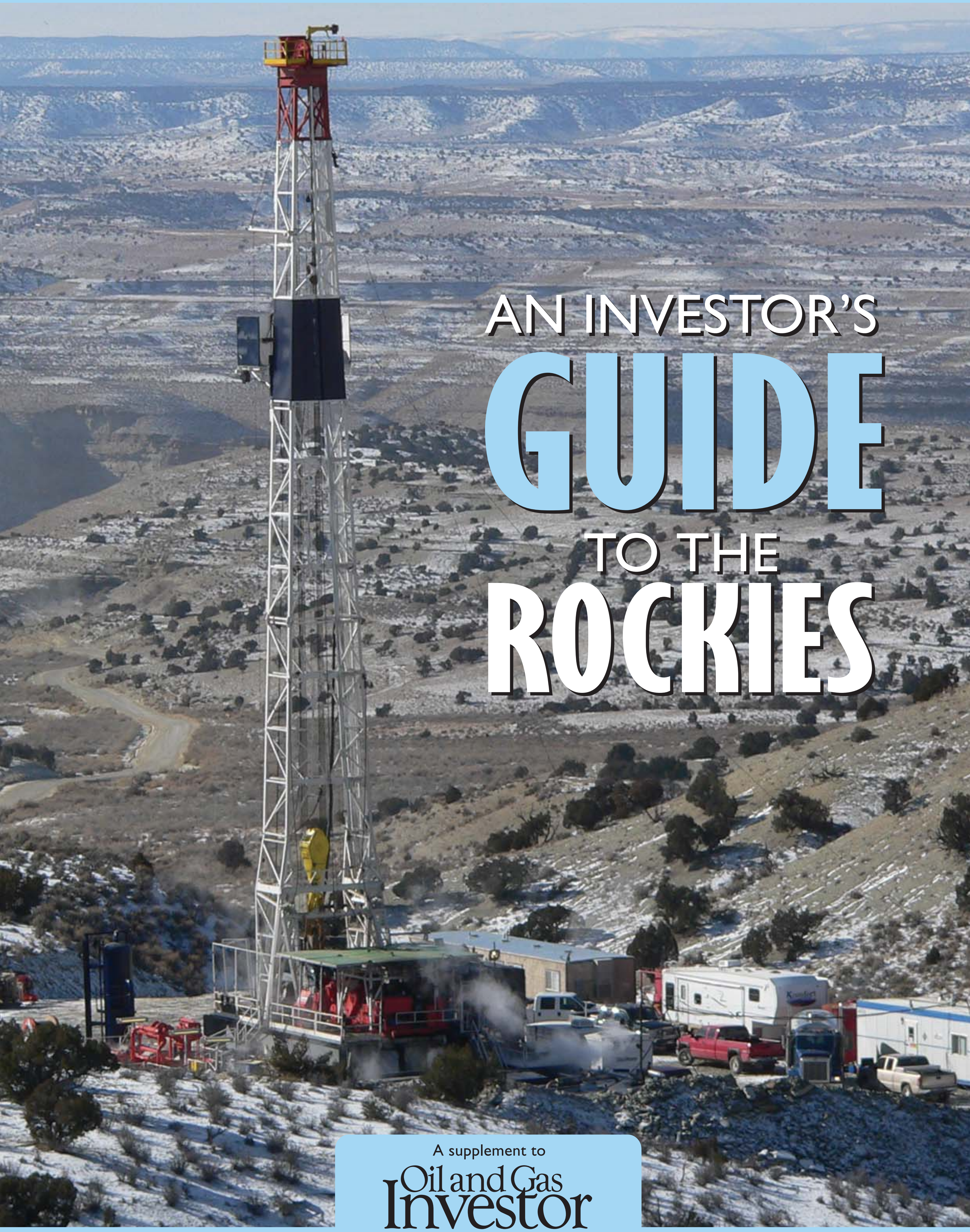
NOVEMBER 2006

AN INVESTOR'S GUIDE TO THE ROCKIES



A supplement to
Oil and Gas Investor


"There's energy in them thar hills!"

A supplement to:

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About the cover: Enduring Resources' Ensign 79 well drilling in the Uinta Basin in Utah. (Photo courtesy of Enduring Resources)

RIDE THE ROCKIES ROCKET

During the past 30 years, proved Rocky Mountain natural gas reserves have soared from 19 trillion to 57 trillion cubic feet, an astonishing record unmatched by any other U.S. basin, with the possible exception of the deepwater Gulf of Mexico.

All that gas has come mostly from reserve extensions and revisions to existing fields, more than from discoveries, although there have been some spectacular discoveries as well.

Last year, every state in the region saw increased gas production except for New Mexico.

As unconventional or resource plays have mushroomed in popularity—in coalbed methane, tight-gas sands and deeper gas formations—the pace of drilling and the successes it caused has been impressive.

Now companies are turning those reserve numbers into increasing production.

Consulting and research firm Wood Mackenzie says the top 34 E&P companies working in the region today could drill as many as 43,000 wells in the next five years. The group has already publicly announced its plans to spend nearly $25 billion during that timeframe, based on proposed projects or those already under way.

Although ConocoPhillips (now incorporating Burlington Resources) is the top oil and gas producer in the region, closely followed by BP, many newcomers are entering the area as well, drawn by the vast gas reserve potential.

In this special report, we introduce you to some of the more established players and help you meet four start-up E&P companies whose strategies hinge on Rocky Mountain drilling success.

It's important to note, however, that drilling here can be a tough business. Drilling permits on federal lands are taking longer to come by—averaging 150 days— and once they are awarded, environmental groups often sue to block seismic and drilling activity, prolonging the cycle time for exploration and development.

Water disposal matters also frequently come to the fore, challenging the E&P companies, regulators and landowners alike. This report also covers these issues.

Once these issues are handled appropriately, there remains much more drilling to be done throughout the Rockies, one of the key regions in the U.S. for future sources of oil and gas supply.

—Leslie Haines, Editor-in-chief
Oil and Gas Investor

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READY FOR PRIME TIME

The Rocky Mountain region is moving front and center as operators embark on major drilling and acquisition programs as well as innovative pipeline expansions.

BY PEGGY WILLIAMS, SENIOR EXPLORATION EDITOR, *OIL AND GAS INVESTOR*

During the past three decades, Rocky Mountain natural gas reserves have soared from 19 trillion cubic feet (Tcf) to more than 57 Tcf. The region has assumed the mantle of a proved, key source of U.S. domestic supply, says Andrew Strachan, Houston-based research manager with Wood Mackenzie. The Rockies region holds more than 31% of the total proved gas reserves in the Lower 48, and its reputation of a stable, well-understood, low-risk region continues to grow.

So, after years of relative obscurity, the Rockies are glowing with industry interest. Bumped aside are the Gulf of Mexico and great gas fields of the Midcontinent and onshore Gulf Coast. These regions remain top-notch, but they no longer offer the growth cachet of the Rockies.

Expectations for the Rockies have grown with the nationwide interest in unconventional resources. After all, the Rockies are chock full of tight-gas basins, coalbed methane and thick shales. Operators in the region have been successfully turning these resources into producing assets for years.

Nonetheless, the preponderance of unconventional resources also means the cost to convert these into producing reserves is higher than for conventional gas. Drillers have to probe deeper, engineers must design extensive stimulations, and operators have to shave high water-handling costs. The resources are present, but they require strong efforts to extract. Operators now have confidence they can launch large-scale drilling programs and earn a decent return on their investments.

Overall, the industry in the Rockies looks toward a rosy future.

"If historical trends continue, the regions' reserves could exceed more than 130 Tcf by 2030," says Strachan.

He predicts the top 34 companies will drill some 43,000 wells in the region during the next five years. This group of firms has already proposed or announced drilling plans totaling nearly $25 billion through 2010.

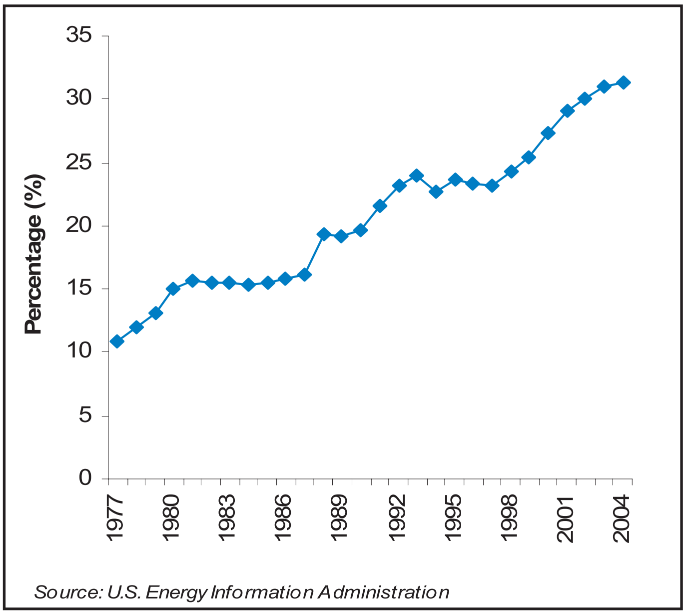
The next five years are going to be rousing times in the Rockies, if gas prices hold firm. "It's solely a question of price, but forward gas prices are definitely supportive of development," he says.

GROWTH AREAS

Sustained reserve growth has been the hallmark of the Rockies region. During the past three decades, the Rockies have produced an incredible 58 Tcf of gas, more than three times its reserves in 1976. This record has been achieved mainly through reserve growth and field extensions, although several mega-gas fields have also been discovered.

Gas-extraction technologies have been honed and refined during the years.

Basins that highlight the sway of the Rockies include the Piceance in northwestern Colorado, where ExxonMobil, EnCana Corp., The Williams Cos. and Bill Barrett Corp. have active drilling programs. Wood Mackenzie's analysis suggests the

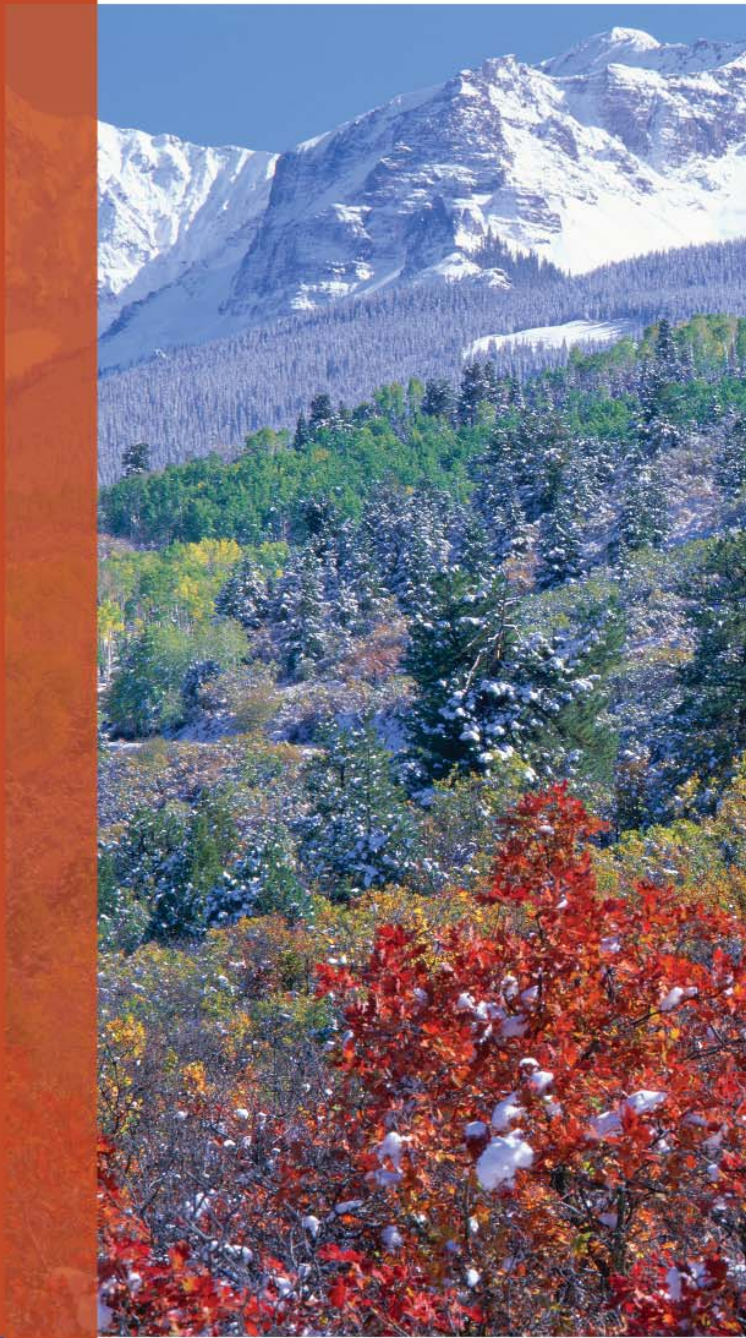


Rockies proved gas reserves as a percentage of Lower 48 proved gas reserves.

BASIN	CAPEX (US$ millions)	PERCENTAGE
Big Horn	117	0.5
Paradox	131	0.5
Northern Great Plains	208	0.9
Wind River	338	1.4
Raton	572	2.3
Williston	1,289	5.3
Denver Julesburg	1,801	7.4
Powder River	1.966	8.1
San Juan	2,195	9.0
Greater Green River	6,265	25.7
Uinta-Piceance	9,535	39.1
Totals	**24,417**	**100**

Source: Wood Mackenzie

The top 34 Rockies drillers plan to spend nearly $25 billion in the region through 2010.



four companies could produce up to 23 Tcf of gas from a 10-year development drilling effort on their acreage.

The Washakie Basin is the focus of BP's Wamsutter project. The major says it will spend up to $2 billion on drilling in this area and plans up to 2,000 wells during the next 15 years.

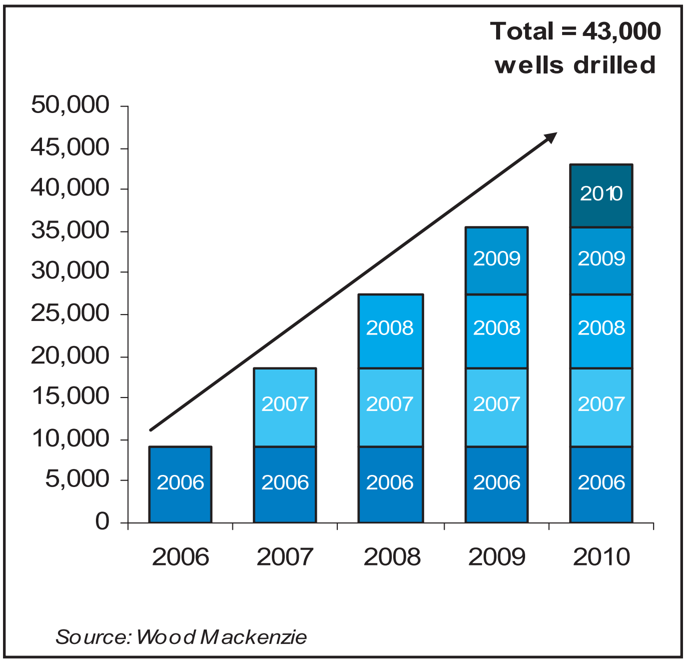
In addition, Ultra Petroleum and Questar Corp. have thousands of locations still to drill on the Pinedale Anticline in Wyoming's Green River Basin. Ultra has nearly 20 years of locations left at its current drilling pace.

Indeed, the hefty promises in the Western basins have also led to a flurry of mergers and acquisitions. Companies are lured by wells with impressive recovery rates and stout production lives.

"Many companies that had written off the onshore U.S. are coming back," says Strachan. "Whether on the bullish side or the bearish side, people still have a very strong view of growth in the Rockies area."

EnCana kicked off the rush into the Rockies with its purchase of Tom Brown Inc. It has been followed by such notable moves as Noble Energy's buy of Patina Oil & Gas Corp., Pioneer Natural Resources' acquisition of Evergreen Resources and Marathon's stunning $40,000-per acre purchase in Colorado's Piceance Basin.

"We've seen a good mixture of bigger companies moving into the Rockies, and deals will continue to be made across all levels," says Strachan.



Five-year cumulative forecast of new wells to be drilled.

PIPELINE PROGRESS

Poor connections to the nation's pipeline grid have been a perennial issue for Rockies producers. The region has long suffered from a lack of export pipelines, but the 1.8-billion-cubic-feet-a-day (Bcf) Rockies Express line marks a significant change in the status quo, says Skip Simmons, Houston-based principal with Wood Mackenzie.

"Rockies Express is a new strategy for Rockies producers, similar to what Canadian producers accomplished with the Alliance pipeline. Rockies Express is a great opportunity and will give producers access to high-value markets in the East," says Simmons.

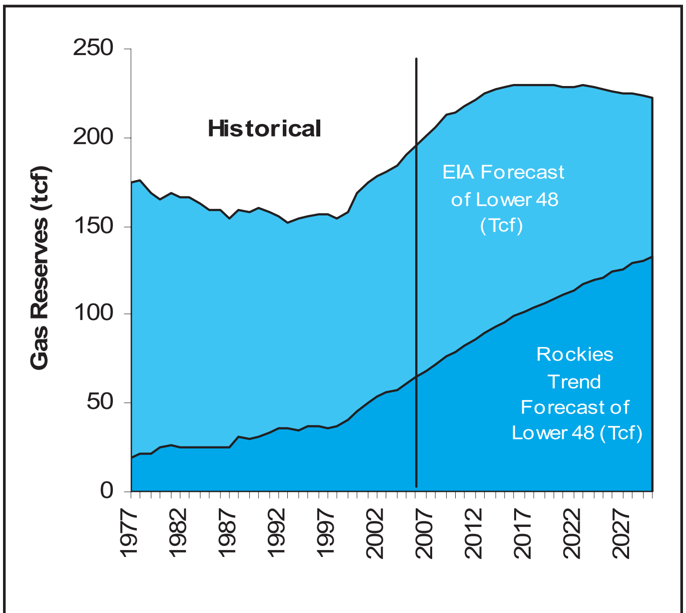
In the past, regional and export project thinking was often the domain of pipelines. Producers were offered routes requiring the least investment on the part of the pipeline firms and least long-term commitment by the producers.

"Recently, Rockies gas has been gathered and transported to Cheyenne, Wyoming, and from there it might access capacity to Oklahoma. But Oklahoma isn't the highest-value market for natural gas, and gas must compete there with native Midcontinent regional supply," he says.

Pipeline companies were naturally driven by their desires to integrate and expand their overall corporate systems, while the producers were reluctant to commit to long, large projects. Pipeline firms also had lots of other downstream lines in places like Oklahoma, Kansas, Iowa and even as far away as Mississippi for which they wanted to secure stable supplies.

U.S. producers are taking a page from their Canadian neighbors and taking steps to ensure their gas is not trapped.

"The Alliance pipeline found a market for natural gas and natural gas liquids that created a whole infrastructure change in the Chicago area and caused a lot of commercial recontracting," says Simmons.



Source: EIA and Wood Mackenzie

Lower 48 and Rockies gas reserves trend model forecast.

Now, Rockies Express, a venture of Kinder Morgan, Sempra and ConocoPhillips, will move 1.8 Bcf of gas per day from Cheyenne to eastern Ohio. It will skip the Chicago and Midwest markets to access the high-value Eastern markets.

"Rockies Express will have a similar impact, but not quite as drastic as Alliance, because it stops at the Pennsylvania-West Virginia border instead of going all the way to New Jersey," he says.

The building of this major long-haul pipeline will allow Rockies gas to effectively compete with Gulf Coast gas, and the project's size means future pipeline capacity from the Rockies will closely track Wood Mackenzie's projected production rates of 12 Bcf per day from the region.

"Bottlenecks will occur here and there, of course," says Simmons. "Some of the export capacity will not be in exactly the right spots, and there will still be location or price issues for some operators. But, overall, huge volumes will be exported from the region every day."

Furthermore, although the impact of liquefied natural gas (LNG) has been floated as a potential drag on Rockies markets, Simmons is not too concerned. Liquefied natural gas hasn't come on stream as quickly as expected, and the majority will reach the market after 2010.

"There's plenty of room in the markets for all the Rockies gas and future LNG," says Simmons. "When LNG finally gets here, we expect it to affect the onshore Louisiana and Texas markets much more than the Rockies."

Burlington Resources 2005 Top Oil Producer In Rocky Mountain Region

Oil production is up 10% in the region.

Last year, oil production in the Rocky Mountain region reported a healthy increase compared with the previous year. Total barrels of oil produced in the region for 2005 were about 165.5 million, up a little more than 15.2 million compared with 2004 totals of about 152 million. Representing an increase of about 10%, a good chunk of this can be attributed to the horizontal drillbit.

Montana and North Dakota reported increases of 32% and 15% respectively, primarily from the horizontal Bakken and Red River. These two states account for about 41% of the Rocky Mountain region's total oil output for 2005.

As in years past, Wyoming led the region, producing about 51.1 million barrels, up 337,918 compared with the 50.8 million barrels produced a year earlier. Following Wyoming, North Dakota was the second-highest producer in the region for the year producing 34.9 million barrels, up 4.6 million as opposed to the 30.3 million produced in 2004. By far the most impressive oil-producing state was Montana, which reported oil production figures of about 32.8 million barrels, up 8 million compared with 2004. The Bakken formation produced 15.7 million bbl from 372 wells last year, representing about 48% of the state's total output.

Looking at last year's oil-producing counties within the state, Richland County, the hotbed of horizontal Bakken drilling, increased its oil production from the previous year by nearly 8 million barrels.

In looking at the top oil producers in the region, another change has occurred that can be directly related to sideways drilling. Burlington Resources (BR) has replaced Marathon Oil as the No. 1 company, having produced 13.7 million barrels compared with the nearly 8.4 million barrels produced in 2004. This increase by BR can largely be attributed to the company's increase of 4.2 million barrels from horizontal Red River production in Bowman County of North Dakota compared with 2004 figures. The majority of Burlington's oil production is coming from the Williston Basin.

Dropping to second place in the Rockies for oil production last year was Marathon Oil. The company posted a decrease of 215,961 barrels for a yearly number of 9 million. All Marathon's production comes from Wyoming, primarily from aging oil fields on the flanks of the Big Horn Basin in the northwestern corner of the state. Marathon has commenced a remedial drilling program in some of these older oil reservoirs to reverse the natural decline.

The third top producer in the Rockies was Chevron. The major reported nearly 7.3 million barrels of oil last year, down 66,001 compared with a year earlier. About 74% of Chevron's production is coming from the Rangely Field complex in Rio Blanco County in Colorado. The remainder of Chevron's production comes primarily from the Overthrust region of Wyoming and Utah.

Jumping from eighth place to fourth place, Enid, Oklahoma-based Continental Resources had a yearly production figure of about 7.1 million barrels, which represents an increase of about 3.14 million barrels as opposed to the 4 million produced in 2004. Continental's increase is related to the company's ongoing horizontal Bakken and Red River program in Montana and North Dakota.

Rounding out the top five oil producers last year was Encore Operating. The company had production figures of 7 million for the year, up slightly compared with the 6.8-million barrels produced in 2004. All of Encore's production is coming from the greater Cedar Creek Anticline in Montana and North Dakota. ■

TOP-10 OIL PRODUCERS IN 2005

RANK	OPERATOR NAME	YTD MILLION BARRELS OF OIL
	Rocky Mountain Totals 2005 (barrels)	165.5
1	BURLINGTON RESOURCES O&G CO*	13.7
2	MARATHON OIL CO.	9
3	CHEVRON USA INC.	7.3
4	CONTINENTAL RESOURCES INC.	7.2
5	ENCORE OPERATING LTD. PARTNERSHIP	7
6	MERIT ENERGY CO.	6.3
7	NANCE PETROLEUM CORP.	5.7
8	CITATION OIL & GAS CORP.	4.5
9	WESTPORT OIL & GAS CO. LP	4.4
10	HOWELL PETROLEUM CORP.	4.2

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Drive

Burlington Resources 2005 Top Gas Producer In Rocky Mountain Region

The region's gas production hits 4.65 trillion cubic feet, setting a record.

Last year, gas production in the Rocky Mountain states exceeded 4.65 trillion cubic feet (Tcf), a new record for the region. Buoyed by strong prices, more outlets being constructed, coalbed methane (CBM) projects coming on stream and new gas prospects being generated and drilled, it appears this trend will continue for the foreseeable future. This 141-billion cubic feet (Bcf) growth represents about a 3% increase compared with the 4.5-Tcf produced in the Rockies in 2004.

As in years past, Wyoming led the Rocky Mountain states in gas production accounting for about 42% of the gas. The state generated 1.9 Tcf up about 54 Bcf as opposed to the 1.92 Tcf produced in 2004. More than half of the gas production in Wyoming is coming from federal lands.

Maintaining its second-place standing, Colorado is credited with producing 1.1 Tcf, up about 57 Bcf compared with the 1 Tcf produced a year earlier. Colorado's gas increase can largely be attributed to the aggressive drilling program underway in the Piceance Basin and the increased CBM gas coming out of the Raton Basin.

Coming in third place for the Rockies was New Mexico. Comprising only those counties in the northwestern sector of the state, *New Mexico contributed slightly more than 1 Tcf of gas last year, down slightly compared with the 1.04 Tcf produced in 2004. The majority of New Mexico's production is coming from the prolific San Juan Basin. New Mexico was the only major gas-producing state in the Rockies that did not show an increase in production.

Of the 853 companies that reported gas production in the region, Burlington Resources was the largest producer. The company produced 548.6 Bcf, down about 4 Bcf compared with the 552.8 Bcf from 2004. About two-thirds of Burlington's production came from the San Juan Basin of northwest New Mexico with the remaining one-third being produced primarily in Wyoming. Look for Burlington Resources to disappear as the region's top gas producer and be replaced by ConocoPhillips, which purchased Burlington for $35.6 billion.

BP America Production, which in past years was perennially the top gas producer in the Rockies, continued in second place, having generated sales on 496.38 Bcf. This represents a decrease of production of about 9.8 Bcf compared with the 506.21 Bcf produced in 2004. The majority of BP's gas came from the San Juan Basin in Colorado and New Mexico with the remainder being produced primarily from the Overthrust and Greater Green River Basin in Wyoming.

EnCana Oil & Gas (USA) was the third-largest gas producer in the Rockies last year. The company produced 442.9 Bcf, up from the 413.19-Bcf extracted in 2004. EnCana, which is exclusively chasing gas reserves, is producing the majority of its gas from the Piceance Basin in Colorado and the Jonah Field and Pinedale Anticline area of the Greater Green River Basin in Wyoming. Look for EnCana to increase its production in the Rockies as the company is exploiting and exploring known and unknown reserves in the Wind River Basin and the Paradox Basin via the company's purchase of Tom Brown Inc.'s undeveloped acreage position in both basins. ■

**New Mexico includes San Juan, Rio Arriba, McKinley and Sandoval counties only.*

TOP-10 GAS PRODUCERS IN 2005

RANK	OPERATOR NAME	YTD MILLION CUBIC FEET
1	BURLINGTON RESOURCES O&G CO.*	548.6
2	BP AMERICA PRODUCTION CO.	496.3
3	ENCANA O&G (USA) INC.	442.9
4	CONOCOPHILLIPS CO.	294
5	EXXONMOBIL PRODUCTION CO.	275.9
6	WILLIAMS PRODUCTION RMT CO.	198.3
7	CHEVRON USA INC.	174.7
8	XTO ENERGY INC.	100.7
9	DEVON ENERGY PRODUCTION CO. L P	87.7
10	ULTRA RESOURCES INC.	86.2

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Rocky Mountain Prospect Panorama

1 Richland County, Montana, has delivered more high-volume horizontal Bakken producers to operators. A horizontal well with an initial potential of 1,542 bbl. of oil and 617,000 cu. ft. of gas a day rewarded **Slawson Exploration Co. Inc.**, Wichita, Kan. The company's #1-16H Bearcat-State, in Section 15-24n-53e, was drilled with three open-hole laterals and sidetracks from two of the laterals, all reaching bottomhole locations in the northwestern, southwestern and southeastern corners of the same section. The producing intervals range from 10,561 to 15,306 ft. The company reported an average production of 919 bbl. of oil per day during a 10-day period.

IHS Energy reported that another Richland County well delivered 381 bbl. of oil, 196,000 cu. ft. of gas and 45 bbl. of water a day to **Headington Oil L.P.**, Dallas. The company's #31X-2 Steinbeisser wildcat produced through a fractured Bakken interval between 10,558 and 19,727 ft. in a lateral that extended to the south into Section 11.

2 Companies are pushing the red-hot Bakken play from its roots in Richland County deep into North Dakota. **Petroleum Development Corp.** is making plans to drill eight horizontal wildcats on the Fort Berthold Indian Reservation in an area of southwestern Mountrail County. The Bridgeport, W. Va.-based company applied to the North Dakota Industrial Commission for orders creating eight 1,280-acre Bakken drilling units in township 151n-93w.

In separate activity in Mountrail County, Denver-based **Whiting Oil & Gas Corp.** completed a horizontal Bakken discovery. The #44-1H Bartleson, also on the Fort Berthold Indian Reservation, is in Section 1-152n-93w. It is producing from an openhole lateral extending from 11,405 to 16,771 ft.

EOG Resources, Houston, is developing its Parshall Field discovery in the county. The company has scheduled its fourth, fifth and sixth horizontal stepouts from the discovery, drilled in Section 36-153-90w.

3 **Patriot Exploration Co Inc**. entered into an agreement with Denver independent **Bill Barrett Corp**. covering more than 217,000 gross acres in the central Big Horn Basin. Separately, Patriot also acquired 18,000 adjacent acres from **Anadarko Petroleum Corp.**, Houston. The agreement with Barrett calls for Patriot to own a 25% working interest in all leases and in drilling and development activity. The company has made an initial commitment of $14.5 million to the central Big Horn Basin project. Patriot, which has offices in New York and Houston, said the Big Horn Basin is one of the last remaining Rocky Mountain Laramide basins without production from a basin-centered gas accumulation.

4 **Marathon Oil Co**. has applied for drilling permits for two wildcats on the southwestern flank of the Hanna Basin in southern Wyoming. The central Carbon County ventures are the #11-35 St. Mary's, Section 35-22n-85w, projected to 9,715 ft., and the #11-27 Cedar Ridge, Section 27-22n-85w. That well is planned to 9,808 ft. The locations are two miles southeast and a half-mile south, respectively, of abandoned two-well Cedar Ridge Field.

In an area about four miles to the northeast, independent **Warren Resources Inc.**, New York City, is drilling a 16,100-ft. wildcat at the #2285 NE 13 Ferris-Fee in Section 13-22n-85w. The primary objective is Dakota at 13,900 ft. Additionally, the company has staked the #2284 SE 18 Federal in Section 18-22n-84w, also projected to 16,100 ft.

5 **Wolverine Gas & Oil Co**. ignited the Hingeline play with its 2004 discovery of Covenant Field near Sigurd in south-central Utah.

Now, Wolverine is drilling the #10-1 Wolverine-Federal-Glenwood in Section 10-24s-2w, Sevier County, a proposed 12,550-ft test to the Jurassic Twin Creek approximately six miles southwest of Covenant Field, reported IHS Energy. The company has two additional locations staked: the 14,200-ft. #15-1 Wolverine Federal Denmark Wash, in Section 15-21s-2w, Sevier County, and the #24-1 Wolverine Federal Arapien Valley, in Section 24-20s-1e, Sanpete County. The company has drilled the #16-1 Wolverine-State-Twist Canyon in Section 16-21s-1e, Sevier County, to a depth of 9,951 ft., and the #21-1 Wolverine-Federal-Twist Canyon, in Section 17-21s-1e, to a measured depth of 11,670 ft. No details have been released.

Dallas-based **Petro-Hunt LLC** recently staked a 16,700-foot wildcat in Section 35-16s-2e, western Sanpete County, in its Wales Exploratory Unit. The #35A-3-1 Vonda H Christensen Family is in an undrilled township approximately 50 miles north-northeast of Covenant Field.

In separate activity, **Delta Petroleum Corp.**, Denver, is also making plans to drill its #1 Joseph prospect in Section 24-25s-4w, approximately 19 miles southwest of Covenant Field. Projected total depth is 7,930 ft.

6 Northeastern Utah's Wasatch, Mesaverde and Lower Cretaceous gas plays continue to be extremely busy. Companies **Rosewood Resources**, **Dominion Exploration & Production Inc.**, **McElvain Oil & Gas Properties Inc**. and **Enduring Resources LLC** have a project in the Atchees Wash region in Uintah County. The area is in townships 11s-22e, 11s-23e, 11s-24e, 12s-23e and 12s-24e and encompasses some 80,000 acres. The companies could drill up to 423 gas wells in the area, at the rate of 15 to 40 per year during the next 10 to 20 years. The Vernal office of the BLM has issued the Final Environmental Impact Statement for the drilling program that has been planned by the companies, members of the Resource Development Group.

Also in Uintah County, **Elk Resources Inc.**, Denver, plans two deep tests to Mancos. The #5-32 Aurora-Federal will drill to 15,600 ft. in Section 5-7s-20e in the Aurora Deep Federal Exploratory Unit. According to IHS Energy, Elk's other wildcat is 5 miles southeast of the first test. This well, the #26-33 Aurora-Federal, is in Section 26-7s-20e.

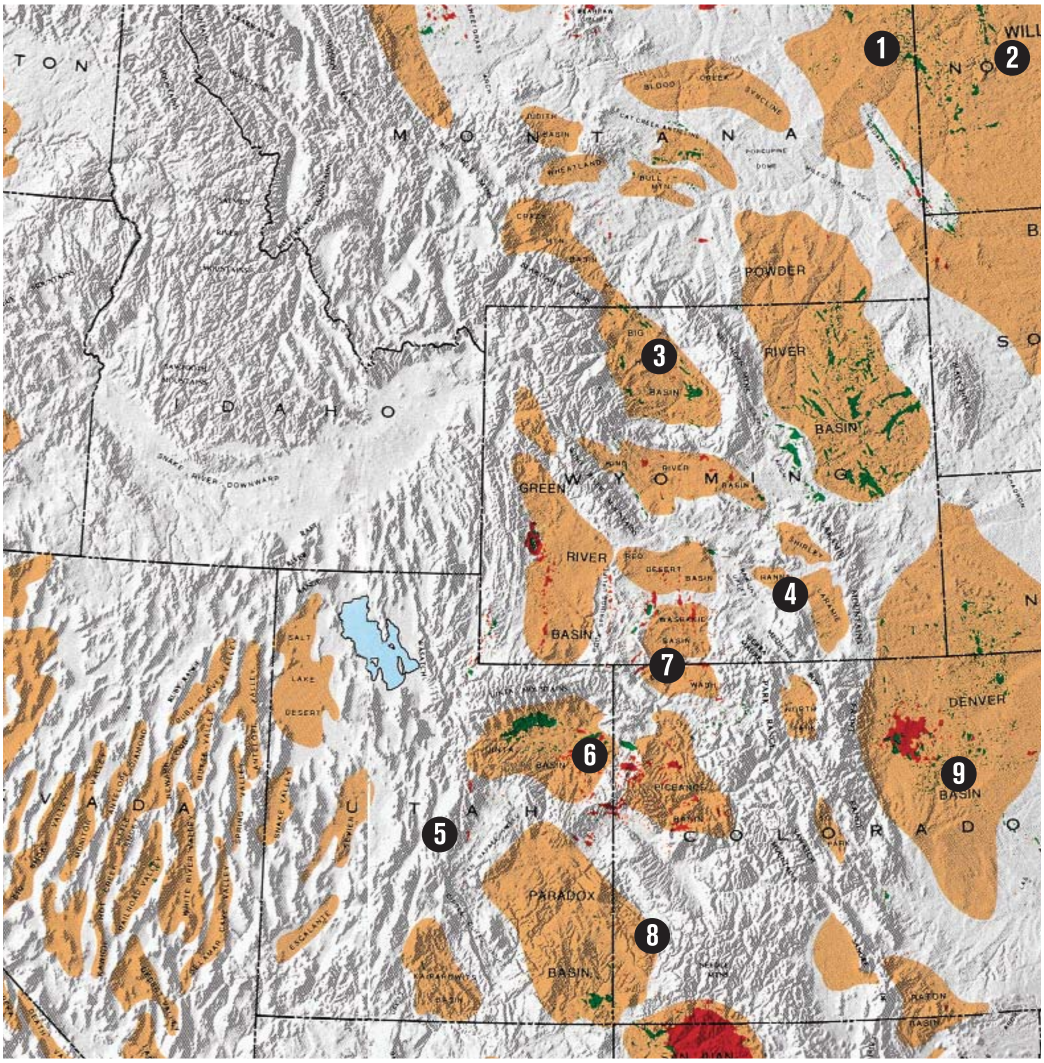
7 In the Vermillion Basin, which straddles the Wyoming-Colorado border, Denver-based **Kodiak Oil & Gas Corp.** plans two wildcats. The company is targeting the Baxter Shale and the Frontier and Dakota sands. The #4-36 North Trail-State is in Section 36-14n-100w, Sweetwater County, Wyo., and is scheduled to 14,625 ft. Next in line is the company's #1-8 Chicken Ranch Unit in Section 8 of the same township, proposed to 14,800 ft. Separately, **Questar** will also drill a Sweetwater County wildcat. The #3 Alkali Gulch Unit, Section 3-12n-100w, is projected to 14,488 ft. in the Jurassic Morrison.

8 The Paradox Basin of southeastern Utah and southwestern Colorado is attracting more explorers. **Peacock Exploration LLC**, San Antonio, Texas, staked the #6-4-47-19 Bedrock Unit in Section 4-47n-19w in Montrose County, Colo. The site for the 15,500-ft. wildcat is 24 miles northwest of Naturita. Objectives include Pennsylvanian, Mississippian and McCracken zones. Nearest production is 16 miles to the southwest in Pennsylvanian and Mississippian strata in San Juan County, Utah.

Bill Barrett Corp. also plans several remote Paradox wildcats. In southwestern Dolores County, Colo., the company permitted the #1 Rabbit Creek-Federal in Section 22-42n-16w, more than 7 miles southwest of Cocklebur Draw Field, and the #1 Johnson-Alkali Canyon in Section 13-39n-18w, some 7 miles northeast of the opener for Cahone Field. Both wells, projected to depths of 7,000 ft. and 6,100 ft., respectively, will target Hermosa and Ismay. In northwestern Montezuma County, Colo., the company has staked the #3 Harvey-Brumley Draw, in Section 15-38n-17w. Projected depth is 6,100 ft.

And, **EnCana Oil & Gas (USA) Inc.** has made a wildcat discovery in northeastern San Juan County, Utah. The #36-14-29-24 Middle Mesa-State flowed gas at an initial rate of 2.96 million cu. ft. a day with 20 bbl. of condensate and 2 bbl. of water. It lies about 28 miles southeast of Moab in Section 36-29s-24e. Production is from La Sal shale from 6,107-19 ft. EnCana is based in Calgary.

9 In the Denver-Julesburg Basin, **Edward Mike Davis LLC**, Houston, permitted four wildcats to kick-start the first drilling campaign in Elbert County, Colo., since early 2000. The four wells, in Section 12-6s-60w, will test D and J sands to 6,500 ft. The wells are the #22-12, #32-12, #23-12 and #33-12 Cowell, at sites approximately 8 miles south-southeast of Peoria Field. The company has another four-well campaign planned about 2 miles to the north in Section 36-5s-60w in southeastern Arapahoe County, but it hasn't yet received permits to drill. ■



Four Very Different Rockies E&P Companies

These companies in the Rocky Mountain region illustrate the frenetic activity.

BY GARY CLOUSER, CONTRIBUTING EDITOR

The Rocky Mountain region holds one of the largest undeveloped natural gas resources, as well as additional large oil resources, remaining in the continental U.S. from conventional and non-conventional reservoirs. The current level of drilling and more than $7 billion worth of recent merger and acquisition activity attests to the Rockies growing importance.

Unconventional resources represent the next frontier in exploration and production. The Rockies contain vast reserves of previously known but historically sub-commercial oil and gas. Those resources are now commercially viable because of the combination of improved energy technology and higher commodity prices. Unconventional resources include tight sands, coalbed methane and shale gas deposits. They are characterized by relatively low production rates but productive lives between 20 and 40 years.

Oil and Gas Investor has selected four publicly traded Rockies-based E&P companies to illustrate the frenetic activity and growth in the region: Fidelity Exploration & Production Co. (the E&P subsidiary of MDU Resources Group Inc.), Kodiak Oil & Gas, American Oil & Gas Inc. and Credo Petroleum.

Although each of the companies is based in Denver, their growth strategies and strengths are different. Fidelity is a subsidiary of a huge diversified natural resources company. Kodiak began trading on the American Stock Exchange in June and has high hopes for production from the Vermillion Basin, an area that environmentalists and wilderness advocates have long fought to keep off limits. American has sold its chief producing asset in hopes of monetizing that capital and has learned lessons for projects with greater upside potential. Credo is counting on its patented fluid lift technology to make new plays commercial.

FIDELITY E&P

In more than 75 years, Fidelity Exploration & Production has come a long way from the natural gas production subsidiary that supplied gas to fuel electric power generation for its utility-owned parent to one of the fastest growing oil and gas producers in the Rockies.


Darwin Subart, President, Fidelity Exploration & Production Co.

Fidelity is heavily invested in the Rockies where 77% of its reserves and 74% of its production are located. Its net lease position on December 31, 2005, totaled 780,000 acres and features 416,000 undeveloped net acres and more than 2,000 potential well locations. Natural gas and oil production last year reached 70 billion cubic feet equivalent (Bcfe).

In May, Fidelity acquired 51 Bcfe of proven natural gas and oil reserves in the Big Horn Basin of Wyoming. Of that, 45% is oil, 44% is gas and 11% is natural gas liquids. In addition, more than 75 Bcfe of estimated probable and possible reserves are associated with the properties. The purchase price was about $88.5 million,


Fidelity is the sole producer of coalbed natural gas in the Montana segment of the Powder River Basin and has been busy building the necessary infrastructure to support its active drilling program. (Photo courtesy of Fidelity Exploration and Production Co.)

Fidelity Exploration & Production Co. has more than 600 billion cubic feet equivalent of reserves with the majority in the Rocky Mountain region. Coalbed natural gas production represents about 21% of the company's reserves. (Photo courtesy of Fidelity Exploration and Production Co.)

or $1.74 per thousand cubic feet equivalent (Mcfe) of proven reserves.

Fidelity's revenues and earnings have skyrocketed since 2002. Revenues have increased from $203.6 million in 2002 to $439.4 million last year, while earnings have gone from $53.2 million to $141.6 million during that same period.

The company's long-term goal is annual production growth between 7% and 10%. Fidelity expects to exceed the upper end of that range for this year and drill more than 325 wells by year-end 2006.

With the increased gas pipeline expansions and related infrastructure improvements under way or planned in the Rockies, Darwin Subart, company president, says the price differential, or discount of Rocky Mountain gas relative to the Nymex gas price, should shrink to a more normalized 60 to 80 cents per thousand cubic feet, compared with the discount between $1 and $2 experienced during the past three years.

The foundation of the company's asset legacy is the Baker and Bowdoin fields in Montana, which have been producing since the 1930s but have been given new life through innovative drilling and completion technologies. Daily production has grown in the past 11 years

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from about 13.5 million cubic feet per day to more than 105 million per day, Subart says.

Including those legacy fields, the company has 616 Bcfe of proved gas and oil reserves in the Rocky Mountain and Midcontinent regions and in and around the Gulf of Mexico. Fidelity has increased production and proved reserves by an annual average compound rate of 12% and 10%, respectively, during the past seven years. Seventy-nine percent of the company's reserve base is comprised of gas. The company has been exploring new oil areas in the Bakken play in western North Dakota and a Red River prospect in western South Dakota.

Coalbed-methane gas represents about 21% of the company's Rocky Mountain reserves. Ongoing litigation relating to a portion of an environmental analysis has thus far precluded drilling any new federal wells in Montana. The drilling of state and fee wells has continued while a supplement to the environmental analysis is completed. Fidelity is the only coalbed gas producer in Montana, which has caused environmentalists to target the company.

Fidelity, which is the largest producer of natural gas—conventional and unconventional—in Montana, produces about 30- to 35 million cubic feet of coalbed methane daily. A spokesman says it is anyone's guess how high that production could be, were it not for the ongoing environmentally related delays.

Fidelity operates as the natural gas and oil production subsidiary of MDU Resources Group Inc. (NYSE: MDU), whose utility division includes Montana-Dakota Utilities Co. and the Great Plains Natural Gas Co. The E&P division's earnings for the second quarter of 2006 were a record $31 million, compared with $29.9 million for the same period last year. The earnings increase was the result of average natural gas prices that were 4% higher and average oil prices that were 27% higher than last year, combined with production that increased 6%.

In 1999, a consolidation brought together the non-operated assets of the Fidelity Oil Group and the operated gas production interests of WBI Production (the production wing of MDU-affiliate Williston Basin Interstate Pipeline Co.) into one enterprise called Fidelity Exploration & Production Co. In April 2000, the company acquired the assets of Preston Reynolds & Co. Inc. and its operating arm, Redstone Gas Partners LLC. With this deal came significant coalbed lease positions in the Powder River Basin of Wyoming and Montana. Fidelity moved its headquarters from Bismarck, North Dakota, to Denver in 2000. (MDU Resources' headquarters remain in Bismarck.)

KODIAK OIL & GAS

Kodiak Oil & Gas focuses on exploration projects in the Rocky Mountain region. Its main assets are in the Vermillion Basin of the Greater Green River Basin and Williston Basin in Montana and North Dakota. Formed in 2001, the company began trading in June on the American Stock Exchange under the symbol "KOG." It continues to be traded on the TSX Venture Exchange under the same symbol.

As of December 31, 2005, Kodiak had proved reserves of 6 Bcfe. It had 77,737 net acres of land holdings, and was producing about 225 barrels of oil equivalent per day. In the Greater Green River Basin, it is exploring for unconventional gas through the exploitation of shallow gas formations from sands and coals, over-pressured shales and tight-gas sands. In the Williston Basin, the company is exploring for oil through conventional vertical wells and horizontal drilling technology. Last year's production was 47.9 Mcfe.

Lynn Peterson, company president and chief executive officer, says the company's emphasis on the Rockies "is the right place at the right time with both exploratory plays and resource play potential."

"Our growing Williston production is providing Kodiak with meaningful cash flow during an unprecedented high-oil-price environment. With Williston's stability, marked by recent Bakken success, we can focus on our over-pressured Baxter Shale and Dakota and Frontier tests scheduled for the second half of 2006," he says.

Lynn Peterson, President, Kodiak Oil & Gas

"We are participating in the Hiawatha Environmental Impact Statement, which is scheduled for completion in mid-2008, providing a plan of development for over 4,000 wells to best exploit the Baxter Shale potential. Depending upon success, Kodiak's exploration investment in the Vermillion Basin could yield a strong inventory of reinvestment opportunities going forward with over 700 potential locations both within the EIS and contiguous to the EIS lands," says Peterson (See related article on Vermillion Basin.)

Kodiak's capital spending guidance for this year is $30 million, including $10 million for acreage and seismic acquisitions. The company had zero debt and $25 million of working capital on June 30. Its drilling program this year is fully funded as it plans to drill 16 wells gross, or eight net this year.

Peterson and chief operating officer James Catlin are long-time partners. They were co-owners of CP Resources and earlier were together at Deca Energy, giving the company's leadership duo more than 25 years of management in Rockies production.

AMERICAN OIL & GAS INC.

Buoyed by the success and sale of its Big Sky Project in Montana, American Oil & Gas plans to put the capital from that project and lessons learned to work for it in other Rocky Mountain projects where it anticipates an even-greater upside.

American sold its interest in Big Sky in April for $11.5 million. The deal represents a major strategic shift for the company as production from that area accounted for 95% of its first-quarter production, and about 88% of its proved reserves. Last year, American recorded about $4.5 million of revenues from oil and gas production from the Big Sky Project.

"Our Big Sky Project proved to be everything we had hoped for when we positioned into this play in late 2003," says Andrew Calerich, president. "It has provided us meaningful oil and gas production and has greatly assisted us in understanding the tremendous production potential of the Mississippian Bakken formation. This project also demonstrates how the combination of horizontal drilling and modern stimulation methods can greatly enhance production and proved reserves."

The history of the Big Sky Project dates back to the early 1990s when a majority of wells drilled vertically to the Bakken formation resulted in initial production rates of up to 50 barrels of oil per day, and were marginally economic, Calerich says.

"With the advent of horizontal drilling and modern fracture stimulation technologies, many wells that American participated in resulted in production rates in excess of 1,000 barrels of oil equivalent per day," he says. "Despite our success, we believe that the future upside of the Big Sky Project offered to American was limited by the fact that we were at or near peak production from the project with production from new wells offsetting declines from older ones."

By monetizing this asset and capturing multiple years of future cash flow early, the company can redeploy this capital into projects where upside is much greater, he adds. He listed the Goliath Project in the Williston Basin, North Dakota; and the Fetter and Krejci prospects in the Powder River Basin of Wyoming as examples.

American Oil & Gas started operations in January 2003 with the purchase of oil and gas leasehold interest in several properties from Tower Colombia Corp. and North Finn LLC, two private E&P companies. Those companies also provided operational and technical expertise. In April 2005, Tower was merged into American, and North Finn continues to be a strategic partner in many of American's projects.


Andrew Calerich, President, American Oil & Gas Inc.

Austin, Texas-based Brigham Exploration Co. will participate in and operate the initial two-well Krejci program. Any subsequent wells will be operated by American or Brigham depending on the location and will be funded and owned on the basis of Brigham, 50%; American, 45%; and North Finn, 5%.

The company's strategy is to minimize geological risk by focusing on properties with large, known hydrocarbon accumulations that have been overlooked or misevaluated; use industry partners on initial exploration and development drilling; and retain significant interests in core projects and increase participation as concepts are proven.

Patrick O'Brien is the company's CEO. American recently named Joseph Feiten as CFO. He had been the CFO at Tipperary Corp. American is traded on Amex under the symbol, AEZ.

CREDO PETROLEUM

Credo Petroleum Co. is basing its strategy on the success of its patented Calliope Gas Recovery System that lifts fluids from wellbores using pressure differentials, enabling gas previously trapped by fluid build-up in the wellbore to flow to the surface.

James T. Huffman, president, says, "We believe there are many areas in the Rockies that are ripe for (Calliope) application," however there are none in the Rockies currently, although there are applications in Oklahoma, Texas and Louisiana.

"Our objective is to acquire hundreds of drilling locations where Calliope can be applied," Huffman says. "Calliope generally pulls down reservoir pressure far below levels achievable with other fluid lift technologies. In new wells, casing and tubing sizes can be configured to maximize Calliope's potential. This is expected to substantially improve our reserve recoveries and production rates compared to installing Calliope on existing wells."

Calliope brings uneconomic and dead gas wells back to life by removing liquids from the wellbore. Compared with other fluid lift systems, it is unique because it does not rely on bottomhole pressure to lift liquids, it has only one downhole moving part, and it creates simultaneous flow reversal in two wellbore chambers.

Calliope can generally achieve substantially lower flowing bottomhole pressure than conventional gas production. In many gas wells, lower bottomhole pressure translates into recovery of substantial additional gas reserves. Calliope has proven to be effective particularly in wells below 10,000 feet when all other fluid-lift technologies have failed, Huffman says.

"The Calliope segment of our business is currently focusing on two areas: increasing the number of Calliope installations through joint ventures with larger companies that own Calliope candidate wells and expanding our efforts to directly purchase Calliope candidate wells from third parties," Huffman says.

Credo owns working and royalty interests in about 1,400 wells and acts as the operator of about 108 wells.

Credo, for the fourth consecutive year, has been ranked by *Fortune Small Business* magazine as one of America's 100 fastest-growing small companies. Credo, the only oil and gas company that has made that list in each of the past four years, had a three-year annual growth rate of 66% for total return to shareholders, 43% for earnings and 34% for revenues. Credo was founded in 1978 and trades on Nasdaq under the symbol "CRED." ▪

OUT OF THE GATE

Start-up companies headed by management teams with extensive experience in the Rockies provide investors new opportunities.

BY GARY CLOUSER, CONTRIBUTING EDITOR

Former executives of E&P companies with extensive experience in the Rockies and unconventional resources are creating a flurry of private start-up companies.

One start-up, Houston-based Tecton Energy, is headed by the duo that created Shell Technology Ventures. Two more fresh faces, Enduring Resources and Slate River Resources, are headquartered in Denver and headed by former executives of Westport Resources Corp., an independent acquired by Kerr-McGee Corp. in 2004.

Tecton Energy and Slate River each received a $30-million infusion from equity investors. Enduring Resources was initially capitalized with $200 million of equity.

TECTON ENERGY

In 1995, Bill Dirks and John Griffin founded Shell Technology Ventures to commercialize Shell's global technology portfolio with a focus on unconventional resources and enhanced well performance. Dirks, after his stint with Shell, was the president of privately held Samson Canada Ltd. Griffin worked at Superior Oil Co., Amerada Hess and MidCon Corp.

Tecton Energy, founded last June, reunited Dirks and Griffin. The company's mission is to identify, develop and exploit unconventional resources in the Rocky Mountain trough of the U.S. and Canada. Its headquarters are in Houston and its sister company, Tecton Canada, is based in Calgary.

Tecton received its equity funding from Quantum Energy Partners of Houston. In addition to the initial funding, Quantum agreed to work with Tecton to secure debt capital and additional equity as needed. The company wants to take advantage of the tremendous unconventional resource opportunities it believes exist.

"Although our primary business is exploration, we are interested in opportunities to acquire certain producing properties and joint venture with other companies," says Griffin.

Tecton targets opportunities where the combination of its proprietary identification techniques, fracturing expertise, commercialization skills and/or financial leverage provides competitive advantage.

ENDURING RESOURCES

Enduring Resources was founded in September 2004. The company has been growing robustly: its capital program last year was $54 million, and this year's program is projected at $115- to $120 million. The company projects a $150- to $160-million program for 2007.

Barth Whitham, chief executive officer and president of Enduring, previously served as president and chief operating officer of Westport. Whitham, who joined Westport at its inception in 1991, says his new company is "leveraging a business model executed at Westport Resources Corp."

The company's vice president of operations, Frank Hutto, was the former president and founder of H&R Well Services, a major contractor for Rockies operators.

The company's Rockies activities are focused in Utah's Uinta Basin in the Greater Natural Buttes area. As of July 1, its proved reserves in that basin were 51.4 billion cubic feet equivalent (Bcfe) and its daily production was 4.8 million cubic feet of gas equivalent. Enduring also produces gas in South and East Texas, where its proved reserves are 8.9 Bcfe and daily production is 1 million cubic feet.

"Coming from the wealth of experience our team had in the Rockies, it was a natural fit for us to have the Rockies as one of the focus areas for Enduring," says Whitham.

Westport also attracted some talented people and created alliances with firms and individuals that continue to deliver opportunities.

"Enduring was born out of those relationships, and we are building our company by continuing to exploit selective project areas we worked successfully at Westport," he says.

Last September, Enduring Resources and The Houston Exploration Co. entered into a joint venture for production in the Uinta Basin. Each company contributed 40,000 acres to earn a 50-50 working interest in the contiguous 80,000 acres. That arrangement allowed each company to maximize potential while minimizing risk and accelerating its drilling program.

Quantum Mechanics

Another long-time Denver oilman with ties to Westport Resources, Don Wolf, continues to mak his mark in the region. Wolf, the former chairman of Westport, heads the recently created billion-dollar fund, Quantum Resources LP. Quantum provides capital for start-up companies to make strategic acquisitions in mature long-lived fields. The fund assists companies that have a longer time frame than those that typically receive funding from venture-capital companies.

Although Quantum Energy Partners and Aspect Energy LLC, the latter also headed by Wolf, are the general partners of Quantum Resources, Wolf says Quantum Resources is a separate company from those of its general partners.

Aspect is a Denver-based E&P and investment company whose current strategy is to grow organically through drilling and involvement in several resource plays. Quantum Energy Partners was an investor in Aspect, which was created in 1993.

The Westport connection remains staunch in the Rockies. Kerr-McGee's activity in the region intensified with its acquisition of Westport in 2004. Now, Kerr-McGee is being acquired by Anadarko Petroleum, which sought a stronger play in the Western U.S. Industry observers are expecting former Kerr-McGee officials who headed operations in the Rockies will be at the center for the next round of start-up companies. ■

SLATE RIVER

Slate River, formed last February, secured its initial private equity funding from Lime Rock Partners. The start-up is headed by chief executive officer Carter Mathies, who is also an alumnus of Westport, where he headed the team responsible for the operation and exploitation of Natural Buttes Field in Uintah County, Utah.

That's exactly where Slate River has staked its claim. The company's primary prospect is a 24,000-acre position about 10 miles southwest of Natural Buttes. Mustang Fuel Corp. of Oklahoma City is Slate River's 50-50 partner in the project.

The partners are extending the productive trend of Natural Buttes by exploiting the Wasatch/Mesaverde interval at depths between 6,600 and 8,000 feet. As of September, they had drilled 20 wells and constructed a gathering system and compressor station. An eight-mile gathering line to connect the production to Canyon Gas Resources is pending. Canyon Gas will transport, process and deliver the gas to Northwest Pipeline.

Slate River and Mustang are also acquiring an extensive 3-D seismic survey to confirm and pinpoint a previously identified deeper structural play in the Dakota and Wingate sequence, at likely well depths of 13,500 feet. Additionally, the partners continue to acquire acreage in the project area.

In August last year, Slate River acquired the Lime Rock-funded portfolio company, Crescendo Energy. Its assets were in Grand County, Utah, and Mesa County, Colorado. Included in the acquisition were 40 producing wells in San Arroyo Field in Utah and five producing wells, a small gathering system and a gas-treatment plant just northwest of Grand Junction, Colorado.

The plant treats "off spec" gas that contains high concentrations of nitrogen and carbon dioxide. Slate River processes third-party gas as well as its own equity gas at the Badger Wash plant.

From the perspective of a veteran Rockies producer, Mathies offers several observations. Producers are still able to secure quality services and supplies—provided project planning is done properly and timing expectations are realistic.

"Rockies potential remains truly outstanding, but opportunities must be carefully evaluated as cycle times are considerably longer than in past years," Mathies says.

It is a challenging environment for small companies to execute work efficiently and on schedule.

"Availability of rigs and services was the early challenge; now, that's been followed by the impact of pricing power throughout the service sector," he says.

Permitting delays, combined with environmental opposition, have proven frustrating and expensive. The Rockies are a great place to work, but because of the predominance of federally owned lands, investment horizons and asset realizations continue to be longer than in other areas of the country.

Commodity prices have been favorable to those Slate River originally forecasted, although the higher prices have been offset by higher costs and widening Rockies basis differentials.

"We anxiously await completion of new pipeline projects like Kinder Morgan's Rockies Express that will provide incremental takeaway capacity for developing Rockies supplies," he says.

Still, Mathies says, he is "amazed" at the amount of capital flowing into the domestic industry. ■

Slate River Resources' project area at Willow Creek and Uinta Mountains in Uintah County, Utah. (Photo courtesy of Slate River Resources)

Vermillion Basin Presents Opportunity and Obstacles

The gas-rich Vermillion Basin epitomizes the clash between the oil and gas industry and environmentalists, and wilderness advocates.

BY GARY CLOUSER, CONTRIBUTING EDITOR

The industry views the Vermillion Basin as an untapped frontier with large, but still unrealized, potential for natural gas production. Environmentalists, however, seek to prevent drilling here, particularly in the southern undeveloped region in Moffat County, Colorado, claiming it should be preserved as a wilderness area. The industry, noting the encouraging results from test drilling in the basin's northern area—northern Moffat County and southern Sweetwater County, Wyoming—is eager to further explore the entire basin.

What is the estimated size of the prize? Fred Julander, an independent Denver-based producer, says in truth, "nobody knows." A number that is bandied around is about 4 trillion cubic feet equivalent, but not enough data is available for any reasonably firm number.

He expects that eventually the Vermillion Basin will be a significant commercial gas play.

"It is an excellent frontier play with deep shale covering a large area," he says.

However, he also expects there will be numerous restrictions on how it can be developed, particularly in the southern region.

Julander notes that Marathon Oil Co. was a pioneer in efforts to explore in the southern part of the basin, but its developments were long ago thwarted by ongoing disputes over the area's potential as a wilderness area.

Marathon spokesman Paul Weeditz says the company has sold its interests in the basin. Samson, a Tulsa-based E&P company, bought some of those leases, but the private company declined to provide information concerning its strategies in the basin.

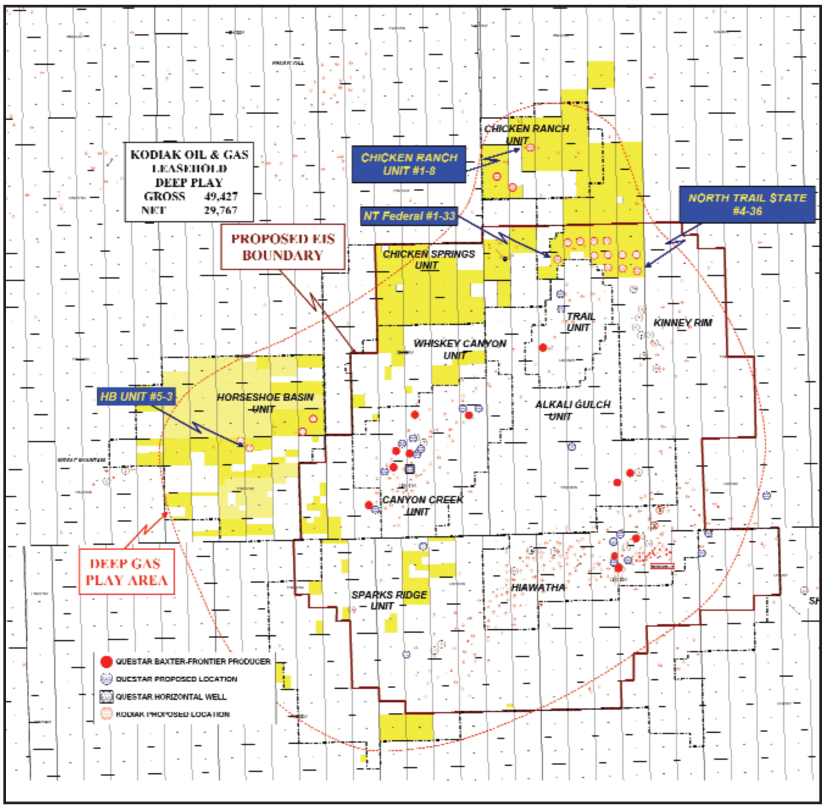
Questar Exploration & Production Co. of Salt Lake City has a dominant position in the central portion of the basin and Kodiak Oil and Gas Co. is the major leaseholder in the basin's northwest region.

"Our confidence in this play is growing and that's reflected in our updated estimates of probable and possible reserves, which now include 341 billion cubic feet equivalent (Bcfe) of probable and 836 Bcfe of possible reserves for the Baxter/Frontier/Dakota play," Keith Rattie, chairman and chief executive officer of Questar, told analysts during a July conference call. "The Vermillion probable reserves estimate is based on 210 locations on 80-acre spacing above the lowest gas accumulation defined by drilling to date, mostly covering the Canyon Creek and Trail structures."

Salt Lake City-based Questar is evaluating the potential of its 146,000 net acres in the Vermillion Basin at targeted depths of 10,000 to 15,000 feet.

"The possible estimate for Vermillion adds the 40-acre infill locations next to the probable locations, plus the acreage within the greater structural limits of the play defined by regional 3-D seismic," Rattie said.

The probable and possible estimates assume an average estimated ultimate recovery of 2.5 Bcfe per well, he said.



Map of Vermillion Basin play. (Map courtesy of Kodial Oil & Gas)

Distant view of Canyon Creek gas plant in the Vermillion Basin. (Photo courtesy of Questar E&P)

"Those (test) wells are draining a lot less than 40 acres, and if you look at the resource in the rock, I think you could see the potential for an increased well density down the road as well," he said.

Questar is planning another Rockies hub in the Vermillion Basin.

"We intend once more to piggyback on Questar E&P's investment in the area," Rattie said without elaborating on plans or a timetable.

Chuck Stanley, president and CEO of Questar Market Resources, which includes Questar E&P, told investors it would be early 2007, at the earliest, before the company would have enough meaningful data to update its estimates.

"The Vermillion is on the cusp and, as we gather more data, our confidence goes up and our ability and comfort with committing to large-scale development in the form of long-term rig contracts, but we're still talking about having to sign significant term contracts to have new-built rigs available for this project. It (confidence) grows with every well we drill and with more of a spatial sampling," Stanley said. "We're drilling these wells not necessarily in the order that you would—you as an investor or we as management—would like to drill them, but we've been driven in part by when the permits are popping out of the BLM [U.S. Bureau of Land Management]."

Questar also is forming federal units and drilling these wells strategically to preserve as much leasehold as possible by unitizing.

"To a certain extent, leasehold and expiring leases are driving our strategy of which wells we drill first, and it's not necessarily the ones that you're the most interested in, and that I'm the most interested in, that

The Hiawatha Compressor in the Vermillion Basin. (Photo courtesy of Questar E&P)

are getting drilled first," Stanley explained.

The company wants to know what it has and have a good handle on its ultimate value before it considers taking on a partner.

"I'm not going to foreclose the possibility of taking on a partner, but frankly the limitation right now is not capital," Stanley said. "It's the natural caution and a sort of progression that you go through as you pilot, validate and start a commercial development project. Even if we had a partner, our conversion rate from probable/possible to proved and from proved to production wouldn't be materially different."

KODIAK ENTERS PLAY

In March, Kodiak acquired 10,629 gross (9,566 net) acres in Sweetwater County. That acreage is adjacent and contiguous to Kodiak lands in the Pacific Rim project area and is part of the Vermillion Basin deep-gas play in the Baxter Shale and Frontier and Dakota sandstones. Most of the company's Vermillion Basin acreage position is on federal lands.

The $6.9-million acquisition was from a private party, Chicken Creek LLC, and includes the undeveloped acreage as well as working interests ranging from 33% to 90% in four wells that have been drilled during the past two years to evaluate the natural gas potential of the Almond and Ericson formations.

On September 5, Lynn Peterson, company president and CEO, provided an update on Kodiak's Vermillion Basin drilling program. It has recently entered into a drilling contract with True Drilling, a private Wyoming-based contractor, to drill two test wells to evaluate the gas potential of the Baxter Shale and Frontier and Dakota sands to a proposed depth of 14,800 feet.

The True rig and its crew have been drilling Baxter Shale wells for the past 16 months and are experienced with the formations.

The first well, the North Trail-State No. 4-36, will be drilled to a depth of 14,625 feet to test the Baxter Shale and Frontier and Dakota sands. Kodiak has a 90% working interest in the well and will be the operator. Drilling and completion costs for the well are estimated at $5 million. The nearest third-party production from the targeted formations, producing from the Trail 31 in which Kodiak has no interest, is about three miles southwest, and in June it had an initial flow rate of 3.8 million cubic feet per day.

About six miles northwest of North Trail 4-36, Kodiak has permitted the No. 1-8 CR Unit. It has about a 60%

working interest and will operate that well, which is in its Chicken Ranch Unit. The proposed depth will be 14,800 feet.

Kodiak is participating in the Hiawatha Environmental Impact Study (EIS), which includes plans by industry for the drilling of more than 4,000 wells during the next 30 years. About 30% of Kodiak's acreage in the Vermillion Basin has been included in the EIS; the balance of its land has been excluded so drilling operations can continue while the EIS is being completed.

The Hiawatha energy development proposal includes exploratory and development wells in southern Sweetwater County and in northern Moffat County, Colorado. The project area is 157,335 acres, according to the BLM, which estimates about 66% of the drilling will be in Wyoming and the remainder in Colorado.

Kodiak controls 49,427 gross acres (29,767 net), giving it the potential for nearly 750 locations based upon a 40-acre spacing pattern.

"Given our extensive geological work and confidence in the Baxter Shale play, the company elected to operate its first well in the play while maintaining a high working interest," Peterson says.

"We believe that maintaining control and operatorship over as much of our leasehold as possible will give us the best opportunity to grow the company's reserves and production. We currently operate 80% of our lands here and will use operatorship to optimize the pace of development in the Vermillion. If the initial two Baxter Shale wells are successful, they will provide additional cash flow. More importantly, we believe these wells may confirm our geological model as we look to best develop what we believe could be a large Rockies resource play," he says.

Petrie Parkman & Co. analyst Larry Busnardo in Denver says Kodiak's acreage could hold 500 Bcfe of net, risked reserve potential, assuming 40-acre spacing and assuming that only 25% of the acreage is prospective—and assuming that each well can recover 3 Bcfe.

Moffat County officials have long favored development of the oil and gas resources within the county—in fact, the county has its own natural resources department. Director Jeff Comstock is convinced there can be a balance between environmental concerns and oil and gas development, although he says the environmental groups don't want a balance—they want to prohibit any drilling in portions of this basin. The county has opposed efforts to have the area designated as a wilderness area, which would prevent drilling.

Comstock says the natural resources department is crucial because Moffat County is 65% owned or managed by state and federal governments, whose regulations have drastic impacts on multiple-use issues for that acreage. ■

Planning Tougher Emissions Rules

Colorado plans tougher emissions standards for the energy industry as state drilling intensifies.

BY GARY CLOUSER, CONTRIBUTING EDITOR

Given the record pace of oil and gas drilling in Colorado, emissions resulting from drilling and production activities are far exceeding what state regulators had projected. This has prompted the Colorado Air Quality Control Commission to propose tougher statewide regulations on the industry.

"The rapid growth in condensate tank emissions is forcing a plan update," says Ken Silverstein, deputy director of the state air quality agency.

Currently, condensate tanks that emit about 25 tons per year or more of volatile organic compounds in northeastern Colorado are required to have pollution control devices.

Under the proposed new rules, beginning May 1, 2007, condensate tanks in this region emitting 11 tons per year would be required to install pollution-controlling devices. The state projects this would result in about 1,100 more tanks being fitted with the equipment, estimated to cost about $10,600 apiece—an additional capital expense of about $11.6 million for the Colorado operators.

In addition, by May 1, 2012, tanks emitting 6 tons per year in northeastern Colorado would be required to control emissions. Condensate tanks serving wells newly drilled, re-completed or stimulated after April 30, 2007, would have to be controlled to 95% during the first 90 days of production.

"This is a very low cost and reasonable control program," Silverstein says.

Before the current wave of increased activity by the oil and gas industry, the state had projected total condensate emissions would be 146 tons per day by next year. However, that figure has been far exceeded since 2004. Uncontrolled flash emissions were 176 tons per day in 2004 and 195 tons per day last year.

By next year, the state agency projects that without the tougher rules, emissions from the oil and gas industry would exceed 235 tons per day. The state's goal is to reduce flash emissions from the industry to 91 tons per day.

Colorado officials fear the rising levels will jeopardize efforts to get ozone within federal limits in a nine-county area along the Front Range near Denver.

The U.S. Environmental Protection Agency's Early Action Compact (EAC) allows a region to submit an enforceable State Implementation Plan outlining steps the region will take to maintain compliance with the ozone standard.

"If we don't bring 2007 condensate tank emissions to 91 tons per day, the EAC will likely be terminated and the area designated as non-attainment," Silverstein warns.

That designation would result in far tougher restrictions and much more aggressive federal oversight. Although Colorado isn't under federal pressure to regulate ozone in other parts of the state, air-pollution staffers recommended being proactive because of the huge number of gas wells planned to be drilled in the next few years.

Colorado Emissions Rules Proposed

NINE FRONT RANGE COUNTIES

Current rule:
Condensate tanks emitting 25 tons per year or more of volatile organic compounds are required to have control devices.

Proposed:
Condensate tanks emitting 11 tons per year or more would be required to have controls, effective May 2007. All new and re-completed wells would need the controls for 90 days, effective May 2007.

Condensate tanks emitting 6 tons per year or more would be required to have controls, effective May 2012.

STATEWIDE

Current rule:
No regulations outside nine-county area in northeastern Colorado, known as Early Action Compact area.

Proposed:
Condensate tanks emitting 20 tons per year or more would be required to have controls, effective May 2008.

New or relocated engines would be required to meet New Source Pollution Standards effective July 2007, that would allow the U.S. Environmental Protection Agency to establish emissions standards for source categories.

Dehydrators emitting 15 tons per year or more would be required to have controls, effective May 2008. ▪

The EPA had given the nine Front Range counties until the end of next year to meet ozone standards, but recently proposed a two-year extension.

Industry is concerned that the state's focus on oil and gas emissions is "misplaced," given that the relative contribution of these emissions to ozone formation is very small, says Ken Wonstolen, general counsel for the Colorado Oil and Gas Association in Denver.

COGA has commissioned air quality modeling to test the effects of increased emissions resulting from more drilling activity. It is not clear from where increased ozone levels come, so COGA wants to see evidence that ozone transport from the Western Slope is driving up ozone levels in the Denver region. There are many unknowns about ozone. Ozone could as easily be linked to heavy population and industry in Las Vegas, Las Angeles and Phoenix, or to massive coal-fired power plants in the Four Corners region of New Mexico, Wonstolen says.

Although the tonnage of volatile organic compounds can be measured, quantifying and sourcing the ozone-forming chemical reactions is much less certain as there are numerous variables. The oil and gas industry estimates its activities contribute to 1.5% of the ozone. The air quality agency says although that number is uncertain, it suspects it is a much higher percentage.

Colorado regulators say ongoing efforts in other states, Wyoming for example, to ramp up emissions controls on oil and gas operations could help reduce ozone levels in Colorado.

"We have airflow from different regions at different times. Predominate airflow is from the southwest or south, but we get northerly winds, too. Emission reduction throughout Colorado and other areas could help us in the Denver area," Silverstein says.

Wonstolen says COGA does not view the issue as environmental concerns versus the industry. Its members want to be good environmental stewards. COGA wants to be a constructive partner in these deliberations, and its members have already spent about $10 million in capital costs to install flash emissions controls, he says.

Regulators acknowledge that not all, or even most, of the blighted air is likely linked to oil and gas development, but that certainly the industry is a significant source of ozone-forming pollutants that are increasing as drillers flock to the region. They note that pollution monitors in rural regions of the West, with little industry other than drilling, are showing upward trends. Other than the oil and gas industry, other source categories are in line with projections and most are well controlled, Silverstein says. ■

ROCKY MOUNTAIN HEAT

M&A activity continues to accelerate, making the Rockies one of the most competitive regions in the U.S. for oil and gas assets.

BY TARYN MAXWELL, EDITOR, *A&D WATCH*

Though the temperatures across the Rocky Mountains continue to cool down, when it comes to M&A activity, the region couldn't be hotter.

"The Rockies is one of the hottest areas because it is viewed as a resource play," says Mark Carmain of investment-banking firm Petrie Parkman & Co. "There are a lot of plays there that are viewed as repeatable.

"Once you've figured out how to extract the hydrocarbons economically, you have a large number of follow-up drilling opportunities.

"In many areas of the Gulf Coast, the opportunities are large, but just because you have success in one well, doesn't mean you'll have success in the next, even if it looked identical on the seismic. In many areas of the Rockies, you drill a well, you move out a spacing unit from that, and you're likely to achieve a similar result."

The combination of high gas prices, constantly improving technology and low-risk, repeatable opportunities places the Rockies right up there with the Barnett Shale in the popularity contest of North America's resource plays. E&P companies are paying high-dollar to get into the Rockies, and while other plays have been the industry's darlings one moment, only to turn around the next to find themselves has-beens, the majority of the major players in the Rockies have been there a while, and they aren't going anywhere.

"THESE RESOURCE PLAYS ARE VERY LARGE AND OUR MARKETING SITUATION AND PIPELINES ARE GETTING BETTER BY THE DAY. AS THE PIPELINE CAPACITY INCREASES, THERE WILL BE MORE DRILLING. THERE ARE MORE RIGS IN THE AREA EVERY DAY."

Matt Meagher,
President, Meagher Oil & Gas Properties Inc.

"We've got so much natural gas in this part of the country that has yet to be tapped," says Matt Meagher, president of Denver-based oil and gas asset divestment firm Meagher Oil & Gas Properties Inc. "These resource plays are very large and our marketing situation and pipelines are getting better by the day. As the pipeline capacity increases, there will be more drilling. There are more rigs in the area every day."

The amount of M&A activity in the region reflects its popularity with oil and gas companies, making divestment firms such as Meagher's busier than ever.

"Activity is on track with 2005, mainly due to larger mergers of public companies," he says. "Our activity level is higher than it was last year. We're involved with more deals. Commodity prices are fueling an opportunity for a lot of independents to rationalize assets and take some money off the table. It's an opportunity for the smaller independent to cash in and take away a lot of the risk. It's a profit-taking scenario."

Two of the largest deals to hit the M&A scene this year were Houston-based Anadarko Petroleum Corp.'s acquisition of Denver-based Western Gas Resources Inc. for $4.8 billion and Anadarko's purchase of Oklahoma City-based Kerr McGee Corp. for $16.4 billion. Through the Western Gas transaction, Anadarko added some 153 million barrels of oil equivalent of proved reserves in two natural gas resource plays in Wyoming: coalbed methane in the Powder River Basin and tight gas in the Pinedale Field.

"The Western Gas transaction enhances our ability to deliver stronger and more predictable results by bolstering our portfolio of low-risk, long-lived tight-gas and coalbed-methane resource plays in the Rockies," said Anadarko chairman, president and chief executive Jim Hackett at the time of the transaction.

The Kerr-McGee acquisition added 451,000 net acres in the Wattenberg natural gas play in Colorado and 237,000 net acres in the Uinta Basin's Greater Natural Buttes gas play in Utah.

Another notable Rockies transaction in the Rockies was MDU Resources Group Inc. Denver-based subsidiary Fidelity Exploration & Production Co.'s purchase from a private company of 51 billion cubic feet equivalent of proved gas reserves in Wyoming for $88.5 million.

"We believe there is a great deal of long-term potential in the Rockies, and the longer life properties fit our strategy, which is to focus on having assets that provide long-term shareholder value and growth," says Darwin Subart, president of Fidelity Exploration & Production Co.

He says the popularity of the Rockies has increased competition for assets in the past year.

"The prices being paid for perceived long-lived assets have risen significantly in the last few years," Subart says. "I think you're also seeing companies that were predominantly Gulf Coast-focused now acquiring a presence in the Rockies because of their desire to add long-lived assets to their portfolio. Everyone is looking at how to manage

their reserve life. With the fast production offshore, you have to continually re-invest cash to grow your company, thus, we feel you need to find a balance of assets with some having longer lives to manage your reserve life, and the Rockies is a good place to do that."

Even with the increased competition for assets in the Rockies, the average price for proved reserves in the region is a mere $1.39 per thousand cubic feet equivalent, one of the lowest prices in North America, according to Scotia Waterous. This is partly caused by the long reserve life and the fact that few public transactions have taken place in the Rockies this year, so the data is the average of a few deals.

"Although not at the same clip as other onshore basins, Rockies valuations have been rising over the past 18 months," says Shane Sealy of Scotia Waterous. "The average reserves-to-production ratios for Rockies transactions can vary widely quarter to quarter, which can affect average metrics. Also, in recent quarters there has been limited transaction activity with press-released data. Therefore, the average could be based on only three to four deals."

Acreage is not only scarce in the mountains of Colorado anymore, says Todd McMahon, chief executive of Denver-based Petro Prospects Marketing. The mountains of Wyoming and Utah have experienced a rise in popularity and a subsequent shortage of acreage as well.

"All the basins in Wyoming, along with the Piceance, Uinta and D-J basins, continue to attract a lot of attention and thus activity," he says. "The Uinta and the Piceance basins may be the tightest as far as available acreage. I also believe the Utah Overthrust will continue to mushroom into one of the great onshore discoveries in the U.S."

All of the continued interest and activity in the Rockies is staggering considering the regulatory hurdles operators are forced to jump just to set up shop in the region.

"Difficulties of doing business in the Rockies include the occasional regulatory challenge along with environmental litigation," Subart says. "It's just a fact of the business. Any development you do in the Rockies, you've got to be prepared for additional costs and additional time to bring new production and new development online. If you look at all the federal land out there and all the analysis and various public impact statements that are being done, inevitably, whatever decision is made could ultimately be challenged. The end result is that the higher cost of doing business will be passed along to the consumer sooner or later.

"They will pursue any and all avenues, including multiple legal strategies, to delay development. In their public face, they say they just want responsible development, but I'm of the viewpoint that some of the movements out there are strictly to prevent development."

Meagher counts regulation as one of the reasons coalbed methane has begun to fall out of favor in the region.

"Many of these coalbed-methane plays have EIS [environmental impact studies] requirements attached to them now," he says. "It's slowing the drilling down because of water discharge issues, water re-injection issues and large federal units, which require EIS. Many of the coalbed-methane leases have stipulations on them dealing with wildlife. Regulations affect all activity in the Rockies, but most particularly coalbed methane. EIS studies are very common, but they take a long time."

If regulation hasn't slowed down M&A activity in the Rockies, the only thing that really can is gas prices. As a primarily unconventional gas play, most agree producers need $6 gas to make operating in the region economical. If prices fall much below that, producers will have no choice but to bail out of the region, or defer drilling plans, no matter how large an untapped resource it possesses.

"I see folks taking a second look at the economics in the short-term, but gas prices appear to continue to hold higher—above $6 per million Btu—for the long-term," says McMahon. "In my opinion, the lower prices may affect some near-term capital investments, but for the most part, Rockies projects are long-term and investment will continue at the current pace."

Meagher agrees that despite a short-term dip in gas prices, activity in the Rockies has remained constant.

"I haven't noticed any change in interest in the Rockies since gas prices started to fall," he says. "I think the long-term view is still the same—that gas prices are going to remain relatively high, above $6, and with those kind of numbers, these plays in the Rockies can work. But there is no doubt about it; $6 is a must-have number for the economics to work in many of these plays."

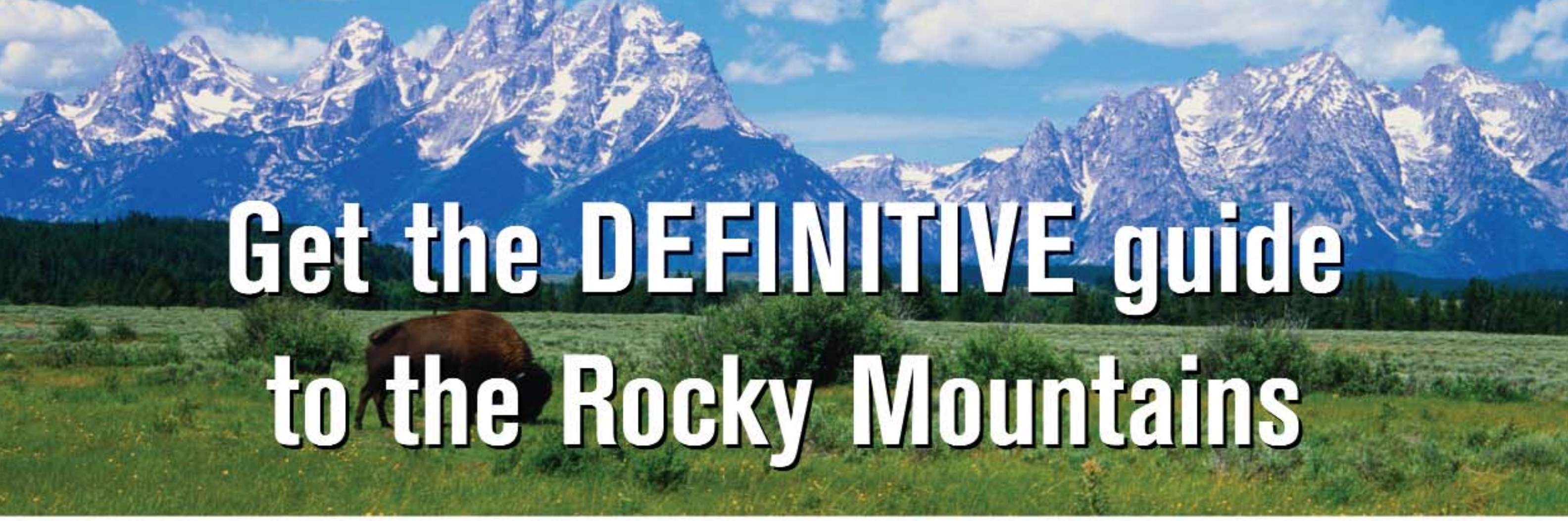
M&A activity for the balance of this year is expected to remain constant in the Rockies, though no one predicts companies exiting the Rockies completely in the short-term.

"I'm not seeing any substantial firms packing up and getting out of the Rockies," Meagher says. "I think it's quite the opposite. The firms that are left here I expect will be around for quite a while. I expect continued growth and more drilling. We've got so much land to drill and technology has improved so much that many of these tight-gas plays are now extremely economic. I see the Rockies as being a big growth area.

"I don't know how many more large mergers are going to take place in Denver; we're running out of public companies. What we see are large acreage blocks where companies have come in and proved up a concept and are now selling that concept with the acreage. We're also seeing a lot of drill-to-earn projects, which is a little different. Those involve assets that are stranded by companies and are being monetized by large farm-outs."

Subart says Fidelity is always looking to make favorable acquisitions in the Rockies.

"We are always looking for opportunities to enhance our portfolio and to find projects that provide value," he says. ▪



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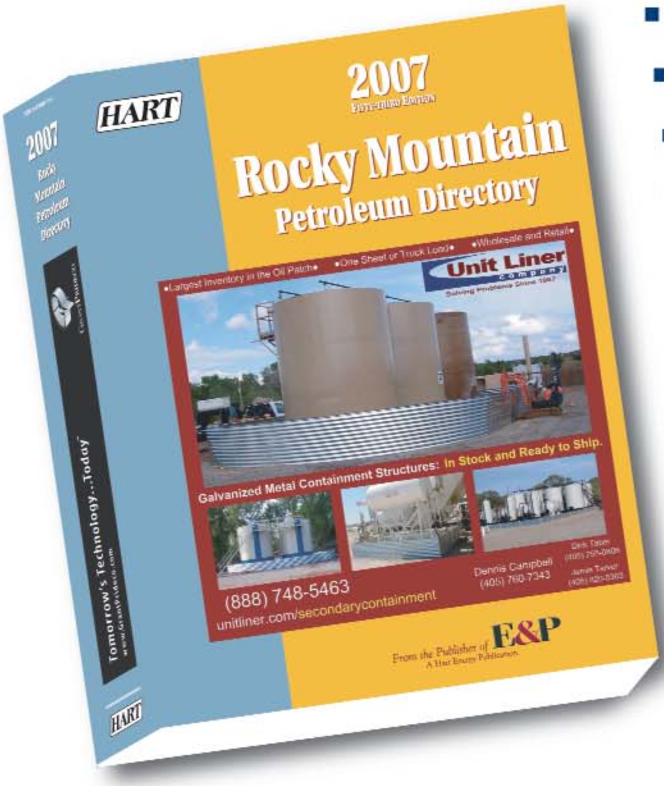

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ROCKY MOUNTAIN M&A DEALS FROM THE FIRST HALF OF 2006					
Deal No.	**Est. Value ($Million)**	**Buyer/Surviving Entity**	**Seller/Acquired or Merged Entity**	**Month Deal Closed**	**Comments**
1	$35,600	ConocoPhillips	Burlington Resources	April	Bought company, gaining assets in U.S., Canada, Algeria, China, Latin America, East Irish Sea & North Sea with proved reserves of 2 billion barrels of oil equivalent.
2	$835	TCW	CDX LLC	March	Bought company, gaining assets in several major coalbed-methane plays in U.S. and Canada.
3	$500	Tom L. Ward	Riata Energy Inc.	June	Bought majority stake in company, which has assets in Texas and Colorado, gaining proved reserves of 309 billion cubic feet equivalent.
4	$411	Noble Energy Inc.	United States Exploration Inc.	April	Bought company, gaining assets in Colorado with proved reserves of 248 billion cubic feet equivalent.
5	$159	Berry Petroleum Co.	Undisclosed	March	Acquired a 50% WI in Colorado assets, gaining proved reserves of 26 billion cubic feet.
6	$150	Evercore Capital Partners LP, Red Mountain Capital Partners, Sankaty Advisor	Davis Petroleum Corp.	April	Bought all equity in company, gaining assets in South Texas, South Louisiana and the Rockies.
7	$137	Western Gas Resources Inc.	Undisclosed	March	Bought coalbed-methane assets in Powder River Basin, Wyoming, gaining probable and possible reserves of 109 billion cubic feet.
8	$88.5	MDU Resources Group Inc.	Undisclosed	May	Purchased assets in Wyoming, gaining proved reserves of 51 billion cubic feet equivalent.
9	$82	Bill Barrett Corp. Group Inc.	CH4 Corp.	May	Purchased company, gaining assets in Wyoming with proved reserves of 116 billion cubic feet.
10	$40	Delta Petroleum Corp.	Armstrong Resources LLC	February	Bought 65% interest in Utah assets, gaining 88,000 acres.
11	$11.5	Undisclosed	American Oil & Gas Inc.	April	Bought assets in Montana, gaining 1,660 net undeveloped acres.
12	$6.9	Kodiak Oil & Gas Corp.	Chicken Creek LLC	March	Bought leasehold in Wyoming, gaining 10,629 gross acres.
13	$6.16	Teton Energy Corp.	American Oil & Gas Inc.	May	Bought 25% WI in 58,000 acres in North Dakota.
14	$5	North Central Energy Co.	Westmoreland Coal Co.	March	Purchased mineral interests in two coalbed-methane leases in Colorado.
15		Black Hills Corp.	Koch Exploration Co. LLC	March	Bought assets in Piceance Basin, Colorado, gaining proved reserves of 40 billion cubic feet.
16		Digital Ecosystems Corp.	GSL Energy Corp.	May	Purchased 87% of company, which has assets in Colorado and Australia, gaining total probable reserves of 30.3 trillion cubic feet.
17		Marathon Oil Corp.	Undisclosed	May	Purchased assets in North Dakota and Montana, gaining 200,000 leasehold acres & 300 drill sites.
18		Resolute Holdings LLC; Navajo Nation Oil and Gas Co.	ExxonMobil	May	Bought assets in Utah, gaining production of 4,690 barrels of oil per day.
19	$22.5	Worldbid Corp.	Royalite Petroleum Corp.	Pending	Plans to purchase co., gaining assets in UT with 10,127 acres.
20		PRB Gas Transportation Inc.	Undisclosed	Pending	Plans to purchase assets in the Powder River Basin, Wyoming, gaining production of 3 million cubic feet per day.

Roan Plateau Opened to Drilling

This gas-rich area is promising, but the industry says conditions are too restrictive.

BY GARY CLOUSER, CONTRIBUTING EDITOR

After years of study and debate, federal officials have agreed to open for drilling about half of the Roan Plateau in northwest Colorado, despite protests from environmentalists and wildlife activists. The conditions are so restrictive that the industry says they make the area financially unattractive for drilling. The U.S. Bureau of Land Management called its plan "an innovative approach."

The Roan Plateau consists of 115 square miles of federal land between the small towns of Rifle and Parachute, just north of Interstate 70. The plateau is in the gas-rich Uinta-Piceance basins and is estimated to contain about half of the total gas reserves in those basins.

Estimates of reserves in the Roan Plateau vary from 9 trillion cubic feet (Tcf) to more than 15 Tcf.

Only small pockets of land, some 350 acres, atop the plateau could be disturbed at any one time, and wells will have to be clustered together on drill pads that will have to be at least one-half mile apart. Development will be limited to the higher ridges away from ecologically sensitive canyons and streams.

To allow the government to monitor and control disturbances, only one company will be allowed to conduct all the work on behalf of the leaseholders, according to the BLM. Leases will be available to any interested company, but leaseholders will have to agree on electing a single E&P firm to do the drilling and establish the first well.

Industry officials support the on-the-ground environmental protections but are concerned the plan would drag out the drilling process and reduce competitive interest in acquiring leases to drill. They also opposed having just one company do all the drilling and said that would reduce competitive interest in bidding for leases.

Ken Wonstolen, general counsel for the Colorado Oil and Gas Association, calls the plan "virtually unprecedented" and he could cite only one other example, Otero Mesa in New Mexico, where the BLM confines drilling to small blocks.

"It would make sense to shorten the time frame for drilling, not drag it out," says COGA executive vice president Greg Schnacke. The drilling restrictions would reduce "the return on investment in lease bonuses, due to the time value of money," he adds.

Although conceding the proposal was not perfect, Russell George, executive director of the Colorado Department of Natural Resources, says officials believe that, even with the restrictions, industry can recover about 90% of the gas under the plateau.

"The Roan Plateau contains some of Colorado's and the nation's richest mineral resources. This mineral wealth is why the area was originally set aside as the Naval Oil Shale Reserve. The legislation transferring these lands specifically instructs the BLM to open the area to petroleum leasing as soon as practicable and to manage the area under its multiple-use mandate," according to a prepared BLM statement. Congress transferred the Naval Oil Shale Reserve on the Roan Plateau to the BLM in 1997.

Fred Julander, a Denver-based independent producer, thinks that even though the industry believes the conditions are far too restrictive, there will be commercial development from the area.

"It will not be optimized, and it will be slow," Julander admits. The two most disappointing aspects are the time parameters and rule for just one operator, he says.

Producers Face Heavy Regulation to Gain Large Gas Reserves

Oil and gas production in the Rockies is expected to increase in the next five years, though regulation on public lands in the region will challenge both new and experienced producers.

BY STEPHEN PAYNE, CONTRIBUTING EDITOR

"We're going to drill about 25,000 wells in the next five years just in the predominant basins," said Quantum Resources president and chief operating officer Logan Magruder, speaking on behalf of the Independent Petroleum Association of Mountain States (IPAMS), which, along with Fulbright & Jaworski LLP, sponsored the "Oil and Gas Development in the Rockies: The Risks and Rewards" presentation recently held in Houston.

IPAMS is a respected grass-roots industry group based in Denver that represents more than 400 member companies involved in developing the "Intermountain West" region of the U.S.

"Independent oil and gas producers in the Rockies will play a vital role in helping meet the nation's energy needs as long as the U.S. uses natural gas," Magruder said.

The Rocky Mountains contain about 33% of all the gas reserves in the Lower 48, with 200 trillion cubic feet of recoverable reserves on public lands. This presents big opportunities for producers as well as legal obstacles that can hold up production.

The Uinta and Piceance basins in Utah and Colorado represent the largest portion of drilling targets in the region, with 39.1% of total capital spending in this area. The Greater Green River Basin in Wyoming will also drive Rockies growth, representing 25.1% of capex. The resources in both regions are mainly unconventional gas such as coalbed methane and tight gas. Reserves for the three basins are about 181.4 trillion cubic feet of gas.

Rig availability is currently not a problem in the region; however, government regulation can have an adverse effect on speedy development. Protests raised by government agencies or activist organizations are particularly vocal in this region, because of the historical and natural legacy of the Rockies.

"About 65% of (applications for drilling permits) in the Rockies take more than 90 days to process, as opposed to West Texas, which is about a week," said IPAMS executive director Marc Smith.

The National Environmental Protection Act is the main governing law used to evaluate lease applications, with various agencies having their own standards that must be met before allowing drilling or production to begin.

Fulbright & Jaworski partner Poe Leggette said government delay is the "silent killer" of oil and gas development.

Issues such as overworked career staffs, poor legal advice and political appointees who are busy managing internal political problems (not oil and gas issues) contribute to slower approval times. Officially, the approval period is supposed to last about 30 days in the region; however, the actual time frame for permit approval from the U.S. Bureau of Land Management is now averaging 150 days. This figure is down from 2004, when it took more than 250 days.

- Rockies contain 33% of all Lower 48 gas reserves.
- Federal lands make up 50% of the region with oil and gas development on less than 1% of federally managed lands.
- Public lands contain 200 trillion cubic feet of recoverable gas.
- Production is on par with the Gulf of Mexico with 10% annual growth.
- EIA estimates Rockies production will double over the next two decades.

Source: Independent Petroleum Association of Mountain States

Key information on the Rockies.

Key concerns that hold up approval are air quality, and effects on wildlife and the land itself. Producers have to show that their E&P operations will not have adverse effects on the environment or severely limit the usage of the land by others.

Last year, E&P firms applied for more than 2,300 leases, and about 1,250 of those were protested. This is, however, a decrease from 2004, where a similar number of leases were applied for and more than 1,500 were protested.

Despite the emotional connection to the land and fears of negative effects on wildlife from E&P activity, Leggette said nature is fine with dealing with man's usage of the land.

An irony Leggette pointed out: one of the groups concerned that noise pollution from the drilling and pumping units would scare away deer is a hunting organization whose members wish to shoot them.

He warned that air quality was going to be to Rockies producers today what the spotted owl was to the lumber industry in the 1980s, namely the sacred cow that activists would use to block or delay E&P activity.

Timing limitations also pose a concern for producers. The winter months are when big game is most active while spring is a nesting period for various birds, and spring through fall is an active time to avoid prairie dogs.

"The game is how many wells you can fit in, given these restrictions on drilling," Smith said.