

# News Release

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FOR IMMEDIATE RELEASE

Friday, April 8, 2016

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## TENTH DISTRICT ENERGY ACTIVITY DECLINED AGAIN, MORE JOB CUTS PLANNED *Federal Reserve Bank of Kansas City Releases 1<sup>st</sup> Quarter Energy Survey*

KANSAS CITY, Mo. –The Federal Reserve Bank of Kansas City released the 1<sup>st</sup> quarter Energy Survey today. According to Chad Wilkerson, vice president, economist, and Oklahoma City Branch executive at the Federal Reserve Bank of Kansas City, the survey revealed another significant drop in Tenth District energy firm activity.

“The average oil price firms say they need to be profitable in active fields dropped to \$51 per barrel in this survey from \$60 last fall, but firms on average do not expect that price to be reached until well into 2017,” said Wilkerson. “As a result, many expect large job cuts in 2016.”

The Kansas City Fed's quarterly Tenth District Energy Survey provides information on current and expected activity among energy firms in the Tenth District. The survey monitors oil and gas-related firms located and/or headquartered in the Tenth District, with results based on total firm activity. Survey results reveal changes in several indicators of energy activity, including drilling, capital spending, and employment. Firms also indicate projections for oil and gas prices. All results are diffusion indexes – the percentage of firms indicating increases minus the percentage of firms indicating decreases. A summary of the 1<sup>st</sup> quarter survey is attached. Results from past surveys and release dates for future surveys can be found at <https://www.kansascityfed.org/research/indicatorsdata/energy>.

The Federal Reserve Bank of Kansas City serves the Tenth Federal Reserve District, encompassing the western third of Missouri; all of Kansas, Colorado, Nebraska, Oklahoma and Wyoming; and the northern half of New Mexico. As part of the nation's central bank, the Bank participates in setting national monetary policy, supervising and regulating numerous commercial banks and bank holding companies, and providing financial services to depository institutions. More information is available online at [www.kansascityfed.org](http://www.kansascityfed.org).

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# Tenth District Energy Survey

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## Tenth District Energy Activity Declined Further in the First Quarter

*First quarter energy survey results revealed another significant drop in District energy firm activity. The future activity outlook remained pessimistic, but slightly less so than last quarter. Firms on average projected WTI prices to be \$45 per barrel by year-end 2016 and \$56 by year-end 2017. On average firms reported needing \$51 per barrel to be profitable in the areas in which they were active. Firms on average expected their employment to be 22 percent lower in 2016 than in 2015.*

### Summary of Quarterly Indicators

District energy activity dropped again in the first quarter of 2016, as reported by firms contacted between March 14 and 31 (Table 1). The drilling and business activity index dropped from -53 to -67 (Chart 1), meaning even more firms than last quarter saw decreases in activity. However, the total revenues index inched higher to -62. All three employment-related indexes (number of employees; employee hours; and wages and benefits) decreased modestly and remained negative. Access to credit deteriorated further.

Year-over-year activity remained very negative. The drilling and business activity index edged higher but was still at -79 and revenues and profits were also slightly less negative. In contrast, the employment-related indexes became even more negative. The capital expenditures index moved lower to -69 but access to credit inched higher.

Expectations were somewhat less negative in the first quarter. The future drilling and business activity expectations index increased from -39 to -28, and the future revenues index rose from -53 to -15. The employment index moved higher to -36. However, expectations for future employee hours and wages and benefits continued to fall. The future capital spending index edged up to -46 and access to credit was expected to remain tight.

Oil and gas price expectations for the coming months increased back into positive territory. The expected oil prices index jumped from -8 to 38, indicating that firms expected prices to improve somewhat in the coming months. The expected natural gas and NGL price indexes both increased significantly as well.

### Summary of Special Questions

Firms were asked what oil and natural gas prices were needed for drilling to be profitable in the areas in which they were currently active. The average oil price needed was \$51 per barrel, with a range of \$40 to \$70 (Chart 2). This is down from \$60 last fall and \$62 last spring, as several firms reported that activity now focuses on just the most productive areas, and efficiency gains continue. The average natural gas price needed for profitability was \$3.29 per million BTU.

Firms were also again asked what they expected the WTI price to be by year-end 2016 and 2017. The average expected year-end 2016 WTI price was \$45, down from a \$50 average last quarter. Firms projected an average price of \$56 by year-end 2017, down from last quarter's \$60 expectation.

Firms were also asked what their average number of employees was in 2015 and what they expected it to be in 2016. Overall, employment was expected to fall by 22 percent this year. The largest decline was expected to come from oilfield services firms with a 28 percent drop. Exploration and production companies projected an 18 percent fall.

Firms were asked how they projected domestic oil production to change in 2016 and why. A slight majority projected a continued modest decline while most other respondents projected an accelerated drop (Chart 3). Many firms mentioned the continued drop in drilling rigs and capital spending as factors. Others pointed to the high decline curves and not enough replacement wells being drilled to make up for lost production.

Firms were asked how their amount of debt had changed over the past year and how it was expected to change in the next year. For the past year, slightly more firms reported a decrease than an increase in debt, and even more firms plan to reduce debt in 2016 (Chart 4).

Finally, firms were asked about how financing has changed in recent months. Several firms reported that banks were requiring higher collateral on existing and new loans. Alternative sources were also scarcer and more expensive.

## **Selected Comments**

“Drilling at current product prices is uneconomic except in the very best locations in the core of a few plays.”

“While wells are still being drilled, only the most promising of prospects are being drilled and at a much slower pace than a year ago. Production from horizontal wells drilled in early 2015 that had such high initial production rates will continue to decline rapidly. The effect of the decline in such wells will be felt more beginning in the second quarter of 2016.”

“Money is scarce. Banks are already saddled with oil and gas companies that are upside down and no more funding will be coming from them. Alternative sources are less scarce, but it is expensive money.”

“Even with the recent round of equity deals, capital markets are very tight. More pain is coming as hedges roll off and cash flows compress.”

“I don’t believe price will support much drilling, but companies need to maintain cash flow to support debt loads and overhead. Therefore we expect a continued decline in production, but a modest decline.”

“Beginning to see spring redeterminations. A lot of hedge fund money looking to buy assets cheap. Most everyone is thinking buy and hold for a higher price. Project financing is way out of favor right now.”

“Most lenders continue to be reluctant to provide financing outside of limited or highly collateralized situations.”

“Completion backlog is likely to be reduced in the short term, so will offset this year’s decline. Accelerated rate of production decline more likely to be felt in 2017 as available completion (frac) backlog shrinks.”

“Rig counts are approaching all-time lows. Even with added rig efficiency, production declines will accelerate. Reductions in capital spending will further impact the fall in production.”

“It will take a couple of years to work through oil inventories even as production falls.”

“No spending, no hiring, no future growth plans or purchasing of equipment no matter how low the price. Just trying to survive for what we hope will be some type of a rebound in pricing.”

“We need increased demand in order to balance energy markets. World economy is anemic with little signs of change.”

“The ability of OPEC to ramp up production in the face of rising oil prices is a concern.”

**Table 1**  
**Summary of Tenth District Energy Conditions, Quarter 1, 2016**

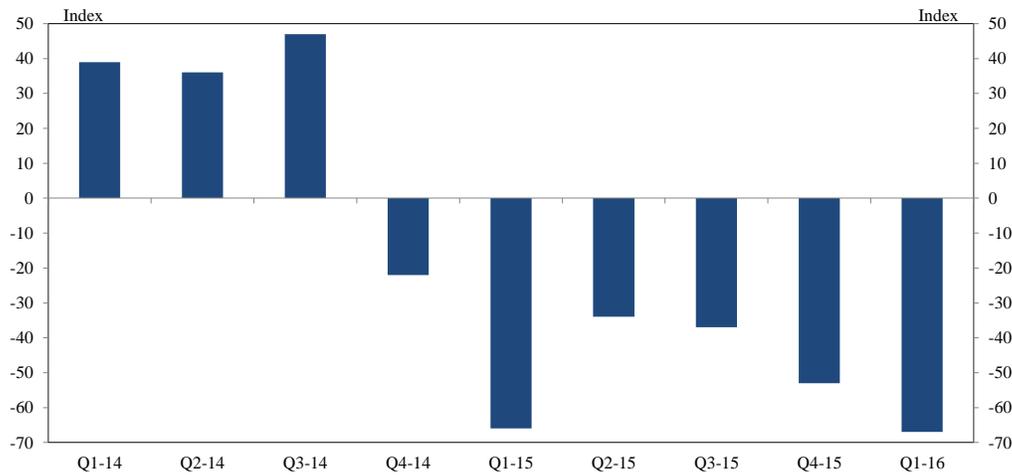
	Quarter 1 vs. Quarter 4 (percent)*				Quarter 1 vs. Year Ago (percent)*				Expected in Six Months (percent)*			
	No		Diff		No		Diff		No		Diff	
Energy Company Indicators	Increase	Change	Decrease	Index^	Increase	Change	Decrease	Index^	Increase	Change	Decrease	Index^
Drilling/Business Activity	3	21	69	-67	0	15	79	-79	13	38	41	-28
Total Revenues	5	21	67	-62	8	3	82	-74	28	21	44	-15
Capital Expenditures					10	5	79	-69	10	26	56	-46
Supplier Delivery Time	8	62	15	-8	13	56	18	-5	13	56	15	-3
Total Profits	5	10	77	-72	8	3	85	-77	21	31	41	-21
Number of Employees	0	28	62	-62	3	15	77	-74	5	46	41	-36
Employee Hours	0	44	51	-51	0	33	64	-64	5	49	44	-38
Wages and Benefits	3	41	49	-46	8	36	54	-46	3	54	38	-36
Access to Credit	0	56	36	-36	0	44	49	-49	3	56	36	-33
Expected Oil Prices									51	31	13	38
Expected Natural Gas Prices									28	59	10	18
Expected Natural Gas Liquids Prices									31	54	5	26

\*Percentage may not add to 100 due to rounding

^Diffusion Index. The diffusion index is calculated as the percentage of total respondents reporting increases minus the percentage reporting declines.

Note: The first quarter survey ran from March 14-31, 2016 and included 39 responses from firms in Colorado, Kansas, Nebraska, Oklahoma, Wyoming, northern New Mexico, and western Missouri.

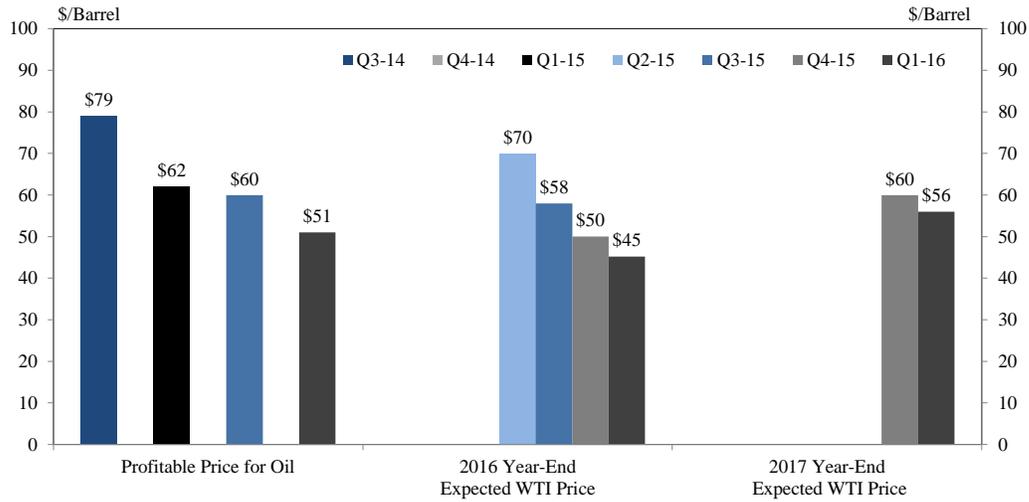
**Chart 1. Drilling/Business Activity Index vs. a Quarter Ago**



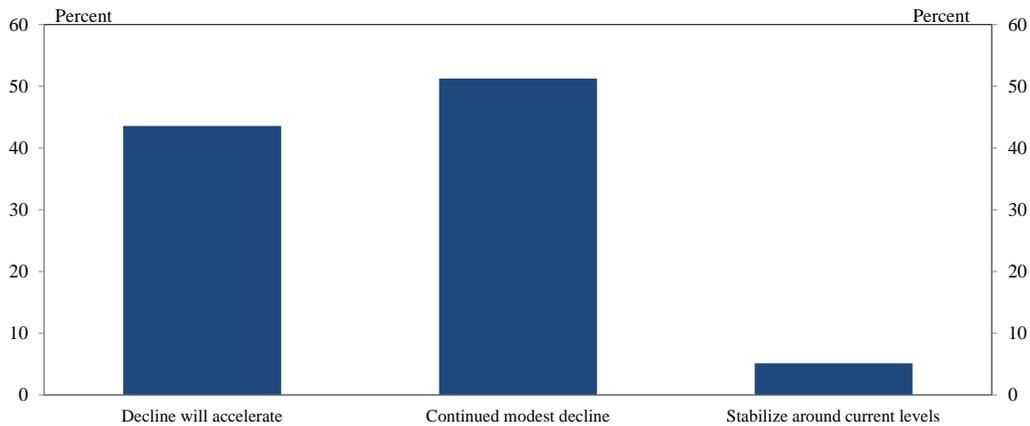
**Table 2**  
**Historical Energy Survey Indexes**

	Q1'14	Q2'14	Q3'14	Q4'14	Q1'15	Q2'15	Q3'15	Q4'15	Q1'16
<i>Versus a Quarter Ago</i>									
(not seasonally adjusted)									
Drilling/Business Activity	39	36	47	-22	-66	-34	-37	-53	-67
Total Revenues	33	57	70	-41	-81	-44	-55	-79	-62
Supplier Delivery Time	-3	10	-13	4	-3	9	5	-5	-8
Total Profits	30	33	46	-40	-78	-53	-58	-74	-72
Number of Employees	42	27	40	0	-25	-37	-39	-47	-62
Employee Hours	18	13	33	-18	-41	-19	-37	-37	-51
Wages and Benefits	45	33	44	11	0	-16	-29	-32	-46
Access to Credit	6	13	14	-11	-16	-9	-39	-47	-36
 <i>Versus a Year Ago</i>									
Drilling/Business Activity	24	17	47	-19	-59	-66	-84	-82	-79
Total Revenues	48	57	57	-4	-66	-62	-79	-87	-74
Capital Expenditures	18	26	46	-11	-62	-56	-82	-66	-69
Supplier Delivery Time	-3	10	-13	8	9	-3	-16	-3	-5
Total Profits	36	44	53	-15	-72	-84	-82	-87	-77
Number of Employees	33	27	60	34	-12	-28	-45	-53	-74
Employee Hours	18	10	30	4	-37	-34	-50	-37	-64
Wages and Benefits	51	37	60	37	3	-25	-24	-24	-46
Access to Credit	3	10	23	-22	-37	-28	-37	-53	-49
 <i>Expected in Six Months</i>									
(not seasonally adjusted)									
Drilling/Business Activity	33	50	40	-70	-50	16	-24	-39	-28
Total Revenues	51	67	60	-56	-41	16	-32	-53	-15
Capital Expenditures	18	26	40	-59	-62	-3	-37	-58	-46
Supplier Delivery Time	-3	4	-10	15	9	-9	-3	-8	-3
Total Profits	45	53	57	-70	-50	-3	-34	-58	-21
Number of Employees	39	47	56	-23	-28	-6	-32	-47	-36
Employee Hours	27	23	37	-44	-22	0	-21	-37	-38
Wages and Benefits	30	30	66	-8	-25	6	-13	-24	-36
Access to Credit	12	23	23	-37	-19	0	-29	-37	-33
Expected Oil Prices	3	23	-23	-48	3	31	18	-8	38
Expected Natural Gas Prices	21	30	36	-26	-19	16	11	-13	18
Expected Natural Gas Liquids Prices	24	24	-3	-37	-12	9	5	-13	26

**Chart 2. Special Question - On average across the fields in which you are active, what price is currently needed for drilling to be profitable for oil, and what do you expect the WTI price to be at the end of 2016 and 2017?**



**Chart 3. Special Question - What is your view on the U.S. oil production outlook for 2016?**



**Chart 4. Special Question - What has been the change in your firm's amount of debt over the past year, and how much do you expect it to change over the next year?**

