

August 26, 2013

Natural Gas Trends

Highlights

When the well runs dry, is fracking to blame? (Part I)

When the tiny town of Barnhart, Texas went dry – its only water well depleted amid a historic drought – it became a focal point in the emerging debate over whether hydraulic fracturing and other drilling operations place too great a burden on local communities. Barnhart sits amidst the growing oil and gas development taking place in the Permian Basin, where fracking a single well can use between 1 million and 5 million gallons of water. Last week, when the town’s main water well dried up, some residents pointed to the presence of nearby drilling operations as the main cause.

According to Texas Railroad Commission data, 492 oil and gas wells have been completed in Irion County, where Barnhart is located, since January 1, 2011. This week, Irion County Judge Tom Aiken said oil and gas drilling was only one of many factors that led to Barnhart temporarily running out of water. He said the town is undergoing a “population explosion” in which many newcomers live in recreational vehicles hooked up by hose to one of the town’s 40 water meters. But he agreed that oil and gas operations likely exacerbated the existing water supply woes in the town of 160 people. “There’s hydro-fracking all over the area,” Aiken said. “When you hydro-frack a well, you use a minimum of about a million gallons of water. A million gallons of water is probably the weekly average for the city of Barnhart, maybe even more.”

In Barnhart, as in many parts of Texas, withdrawals of groundwater are administered by a local conservation district. But under state law, those districts cannot restrict volumes of groundwater withdrawn for oil and gas operations – something that frustrates many local officials and environmentalists who want to see it changed. In parts of Texas where producers rely on surface water sources such as lakes and reservoirs, they are subject to the same water-use restrictions as everyone else. To date, however, such restrictions have not had a discernible impact on gas production, according to state and industry officials. Aiken said local officials have been able to provide Barnhart with water, at least for the time being. “We were able to tap into another well, run pipe up to the system, got the water quality up to the approved state standards and were able to start filling the well back up,” he said. “They’re back to normal now, if you can call it normal.”

David Blackmon, an analyst with FTI consulting, said it is unfair to blame the oil and gas industry for water supply problems in Barnhart and similar communities. “Barnhart is in a desert, where water has always been a precious resource and where it’s not uncommon at all for the shallow underground water reservoirs to go dry. This is a fact of life in that part of West Texas,” said Blackmon, speaking on behalf of gas industry advocacy group Energy in Depth. He said that as the “last user in,” the exploration-and production industry tends to get a lot of attention for its consumption of water for drilling and fracking. “The reality is the industry’s water usage is a fraction of that of other water users,” he said.

Source: Platts Gas Daily

Data

- September 2013 Natural Gas Futures Contract (as of August 23), NYMEX at Henry Hub closed at \$3.485 per million British thermal units (MMBtu)
- October 2013 Light, Sweet Crude Oil Futures Contract WTI (as of August 23), closed at \$106.42 per U.S. oil barrel (Bbl.) or approximately \$18.35 per MMBtu

Last week: Texas and U.S. warmer than normal

For the week beginning 8/18/13 and ending 8/24/13, cooling degree days (CDD) were higher than normal (warmer) for the week as well as higher than normal year to date for both Texas and for the US. www.cpc.ncep.noaa.gov

COOLING DEGREE DAYS (CDD)				
City or Region	Total CDD for week ending 8/24/13	*Week CDD + / - from normal	Year-to-date total CDD	* YTD % +/- from normal
Amarillo	98	24	1383	28%
Austin	129	-9	2207	3%
DFW	142	10	2065	7%
El Paso	128	23	2199	24%
Houston	134	8	2261	9%
SAT	152	19	2437	12%
Texas**	123	1	2046	5%
U.S.**	67	4	988	6%

-999 = Normal Less Than 100 or Ratio Incalculable

Last week: U.S. natural gas storage at 3,063 Bcf

For the week ending 8/16/2013 working gas in storage increased from 3,006 Bcf to 3,063 Bcf. This represents an increase of 57 Bcf from the previous week. Stocks were 238 Bcf lower than last year at this time and 44 Bcf above the 5 year average of 2,963 Bcf.

Source: <http://ir.eia.gov/ngs/ngs.html>

U.S. WORKING GAS IN STORAGE				
Region	Week ending 8/16/13	Prior week	One-week change	Current Δ from 5-YR Average (%)
East	1,506	1,459	47	-6.4%
West	500	494	6	13.4%
Producing	1,057	1,053	4	9.1%
Lower 48 Total	3,063	3,006	57	1.5%

Lower 48 states, underground storage, units in billion cubic feet (Bcf)

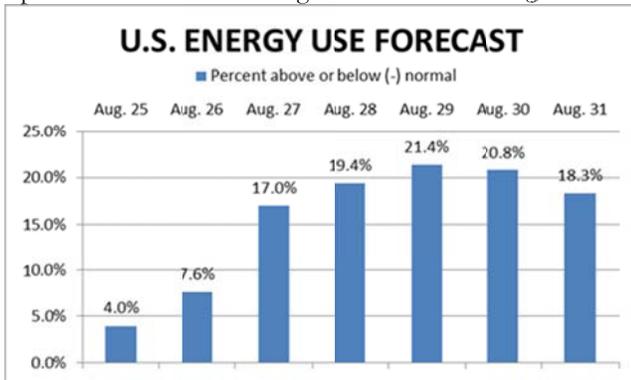
Last week: U.S. gas rig count decreasing

The gas rig count for the U.S. was down one when compared to the prior week and down 99 when compared to twelve months ago. The total rig count for the U.S. was down 15 for the week and down 122 when compared to twelve months ago. The total rig count includes both oil and natural gas rotary rigs. Source: Baker Hughes

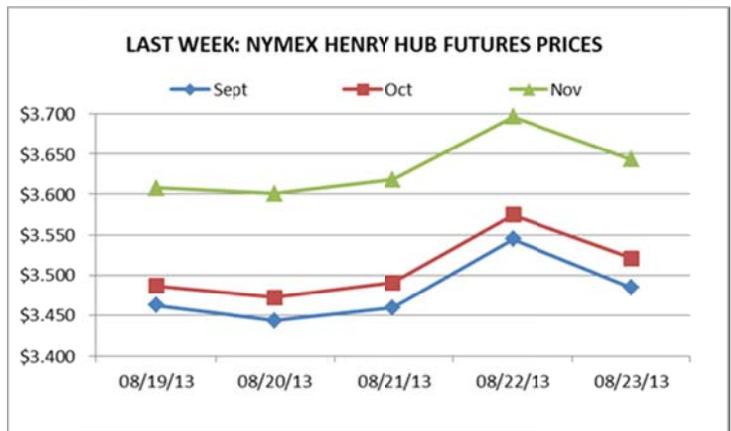
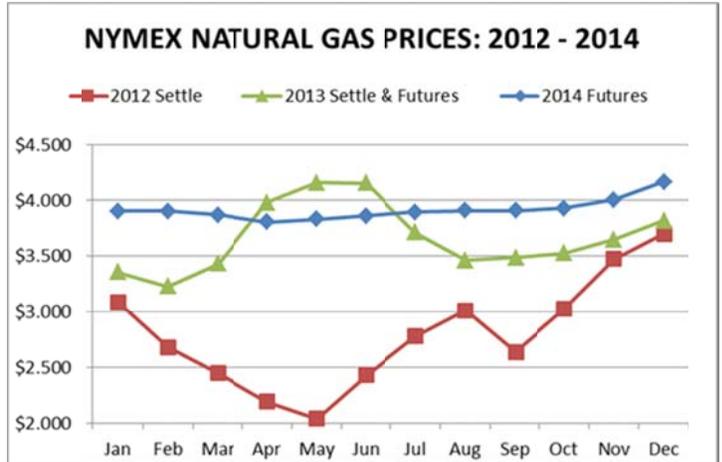
BAKER HUGHES ROTARY RIG COUNT				
	As of 8/23/2013	+/- prior week	Year ago	+/- year ago
Texas	848	2	895	-47
U.S. gas	387	-1	486	-99
U.S. oil	1382	-15	1408	-26
U.S. total	1776	-15	1898	-122
Canada	383	25	334	49

This week: U.S. energy use above normal

U.S. energy use is predicted to be above normal this week, according to the Dominion Energy Index, as shown below. Dominion forecasts total U.S. residential energy usage, a component of which is natural gas. Source: Dominion Energy Index



2013 prices. Natural gas prices for 2013, shown below in green, are the NYMEX settlement prices for January-August and the futures prices for the remaining months of 2013.



NATURAL GAS PRICE SUMMARY AS OF 8/23/2013

	This Week	+/- Last Week	+/- Last Year	12-Month Strip Avg.
US September futures				
NYMEX	\$3.485	\$0.117	\$0.851	\$3.784