

Jul 19, 2019

Gas Comparables Weekly 07/19/19

Stratas Advisors

	Weekly Data				Weekly Changes		
	Report Week	Prior Week, Unrevised	Yr Ago Week	5 Year Average this Week	Δ W-o-W	Δ Y-o-Y	Δ W-o-5YA
	7/12/2019	7/5/2019	7/12/2018	2013-2017			
Working Natural Gas Inventory Levels (Billion cubic feet)							
US	2,533	2,471	2,249	2,678	62	284	-145
US Consensus Forecast	2,540	nm	nm	nm	nm	nm	nm
East	561	544	503	584	17	58	-23
Midwest	627	597	498	634	30	129	-7
Mountain	147	140	144	169	7	3	-22
Pacific	268	263	259	293	5	9	-25
South Central	929	927	839	998	2	90	-69
Weekly Working Natural Gas Inventory Changes (Billion cubic feet)							
US	62	81	47	64	-19	15	-2
US Consensus Forecast	69	nm	nm	nm	nm	nm	nm
Bullish Injection Surprise: US Reported-US Consensus	-7	nm	nm	nm	nm	nm	nm
East	17	18	26	24	-1	-9	-7
Midwest	30	29	24	25	1	6	5
Mountain	7	6	1	3	1	6	4
Pacific	5	8	0	3	-3	5	2
South Central	2	20	-4	9	-18	6	-7
Year to Date Cumulative Working Natural Gas Inventory Changes (Billion cubic feet)							
US	-490	-552	-1,047	-600	62	557	109
East	-157	-174	-228	-182	17	71	25
Midwest	-220	-250	-415	-254	30	195	33
Mountain	-31	-38	-62	-16	7	30	-16
Pacific	5	0	-14	-13	5	19	17
South Central	-87	-89	-327	-136	2	240	49
Baker Hughes US Active Rotary Rig Counts							
	Week Ended	Prior Week	Year Ago Week	5YA Week			
	7/19/2019	7/12/2019	7/19/2018	2013-2017	Δ W-o-W	Δ Y-o-Y	Δ W-o-5YA
Oil	779	784	858	836	-5	-79	-57
Gas	174	172	187	199	2	-13	-25
Total	954	958	1,046	1,036	-4	-92	-82
Mexico Exports							
US to Mexico Total, MMcf/d	5325	5425	4829	4312	-100	496	1,013
California to Mexico, MMcf/d	406	478	368	400	-72	38	5
Southwest to Mexico, MMcf/d	362	380	420	410	-18	-58	-49
Gulf to Mexico, MMcf/d	4558	4567	4042	3502	-9	516	1,056
Canada Exports and Imports							
Total Imports, MMcf/d	7378	7857	8321	8101	-479	-943	-723
Total Exports, MMcf/d	1656	1886	2291	1086	-230	-635	570
Net Imports, MMcf/d	5722	5970	6030	7014	-249	-308	-1,293
Weekly Waterborne LPG Exports							
(Data reported on Monday for prior week ended Thursday)	7/12/2019	7/5/2019	7/12/2018	2015-2017			
	Report Wk	Prior Wk	Year Ago	3YA Week	Δ W-o-W	Δ W-o-Y	Δ W-o-3YA
US Total, Mmbbl/d	1492	1208	1205	1097	284	287	395
PADD 3, Mmbbl/d	1388	1047	1087	965	340	301	423
Philadelphia (PADD 1), Mmbbl/d	104	92	47	61	12	58	43
Seattle, (PADD 5) Mmbbl/d	0	68	72	70	-68	-72	-70
Closing Spot Prices							
	7/19/2019	7/12/2019	7/19/2018	2013-2017			
	Today	Report Wk	Year Ago	5YA	Δ T-o-W	Δ T-o-Y	Δ T-o-5YA
Natural Gas, Henry Hub, \$/MMBtu	2.38	2.54	2.77	3.09	-0.16	-0.39	-0.71
WTI, \$/bbl	55.63	60.21	70.46	62.98	-4.58	-14.83	-7.35
BDT, \$/bbl	62.62	67.24	72.71	65.81	-4.62	-10.09	-3.19
Gas - Oil, WTI, \$/BOE	-41.64	-45.27	-54.17	-44.79	3.64	12.54	3.15
Gas - Oil, BDT, \$/BOE	-48.63	-52.30	-56.42	-47.63	3.68	7.80	-1.00
Gas / Oil (WTI) Ratio, BOE/BOE	25.2%	24.8%	23.1%	28.9%	0.00	2.0%	-3.7%
Gas / Oil (BDT) Ratio, BOE/BOE	22.3%	22.2%	22.4%	27.6%	0.1%	-0.1%	-5.3%
Average Weekly Spot Prices							
	Today	Report Wk	Year Ago	5YA	Δ T-o-W	Δ T-o-Y	Δ T-o-5YA
Natural Gas, Henry Hub, \$/MMBtu	2.42	2.47	2.75	2.73	-0.05	-0.32	-0.31
WTI, \$/bbl	56.98	59.27	68.96	54.44	-2.28	-11.98	2.54
BDT, \$/bbl	63.65	65.71	71.98	58.32	-2.06	-8.33	5.33
Gas - Oil, WTI, \$/BOE	-42.73	-44.74	-52.82	-38.37	2.01	10.09	-4.36
Gas - Oil, BDT, \$/BOE	-49.40	-51.19	-55.83	-42.25	1.79	6.43	-7.15
Gas / Oil (WTI) Ratio, BOE/BOE	25.0%	24.5%	23.4%	29.5%	0.5%	1.6%	-4.5%
Gas / Oil (BDT) Ratio, BOE/BOE	22.4%	22.1%	22.4%	27.6%	0.3%	0.0%	-5.2%

Source: Stratas Advisors North American Natural Gas Service analysis of data by EIA, Bloomberg and Baker Hughes.

Key Call: EIA reported a weekly injection of 62 Bcf bringing working stocks up to 2,533 Bcf. Dry gas production fell marginally by 1 Bcf/d over the report week, possibly due to shut ins caused by tropical storm Barry. LNG loadings and offshore production, which were temporarily stopped because of Barry's landfall on Saturday, have restarted since Monday of the current week. Henry Hub prices traded in the first hour of Monday morning at \$2.53/MMBtu, which was the first time prices rose above \$2.50 mark in over four weeks. Prices today are in the \$2.30/MMBtu range that is consistent with pre-Barry prices.

Weekly Working Natural Gas Storage: The EIA reported estimated U.S. working natural gas storage for the week ended 7/12/2019 at 2,533 bcf which compares to a consensus estimate of 2,540 bcf, and which marks a 62 bcf injection from last week's level. Stocks this week were 284 bcf higher than last year's level of 2,249 bcf, were underperforming the five year average (by 145 bcf) and were within the five year min/max range for this reported week.

This week's 62 bcf change in working gas storage levels represents an injection that is more bullish than the consensus estimate of a 69 bcf injection and compares to last week's 81 bcf injection, the 47 bcf injection last year and the long run five year average 64 bcf injection for the same week.

Weekly Rig Counts: The Baker Hughes active US rotary rig count this week decreased by 4 over the week to 954 rigs, with oil rigs gone south by 5 to 779 and gas rigs ascended by 2 to 174. Compared to last year, this week's US active rig count decreased by 92 from last year's level of 1046.

Commitment of Traders: The CFTC's 7/19/2019 commitment of traders report for NYMEX natural gas futures and options showed that reportable financial positions (Managed Money and Other) on 7/16/2019 were 160,153 net short while reportable commercial operator positions came in with a 131,521 net long position. Total open interest was reported for this week at 1,333,832 and was up 19,697 lots from last week's reported 1,314,135 level. Sequentially, commercial operators this reporting week were cutting longs by 5,728 while cutting shorts by 7,237. Financial speculators cut shorts and cut longs for the week (-3,346 vs -4,621, respectively). The net long gain this week which follows a net long decline last week shows operators clearly seem to be more optimistic this week, while financial speculators appear to be less bullish given a net long decline this week after a net long gain last week.

LPG Export Analysis: For the report week, the total US waterborne LPG exports were 1492 Mbb/d, out of which the PADD 3 region accounted for 93.0%. U.S. total exports grew by 284 Mbb/d versus last week, as PADD 3 increased by 340 Mbb/d, Philadelphia rose by 12 Mbb/d, and Seattle fell by 68 Mbb/d. Compared to year ago and normal ranges, this week's reported data surged by 287 Mbb/d versus last year, and grew by 395 Mbb/d versus 3 years ago.

Mexico Export Analysis: Estimated dry gas exports from US to Mexico on 7/19/2019 is at 5,325 MMcf/d, out of which US Gulf region provided 85.6%. U.S. total exports sank by 100 MMcf/d versus last week, as

California dropped by 72 MMcf/d, Southwest shrank by 18 MMcf/d, and Gulf reduced by 9 MMcf/d. Compared to year ago and normal ranges, this week's reported data surged by 496 MMcf/d versus last year, and grew by 1013 MMcf/d versus 3 years ago.

Canada Export & Import Analysis: On 7/19/2019, estimated dry gas imports from Canada were 7,378 MMcf/d while exports to Canada were 1,656 MMcf/d, yielding net imports to the U.S. of 5,722 MMcf/d. Net imports receded by 249 MMcf/d versus last week, decreased by 308 MMcf/d versus last year and cut by 1293 MMcf/d versus three years ago.

Weekly Benchmark Prices, Differentials & Margins: Although down from the 5 year average of \$3.09/MMBtu this time of the year, the intraday spot market price for natural gas at Henry Hub reduced to \$2.38/MMBtu on 7/19/2019, down 6% or \$0.16/MMBtu versus the \$2.54 /MMBtu close of last Friday while below the year ago closing value of \$2.77 /MMBtu. The weekly average gas price this week reduced by \$0.05/MMBtu to \$2.42/MMBtu versus the year ago and long term weekly average values of \$2.75 and \$2.73/MMBtu, respectively.

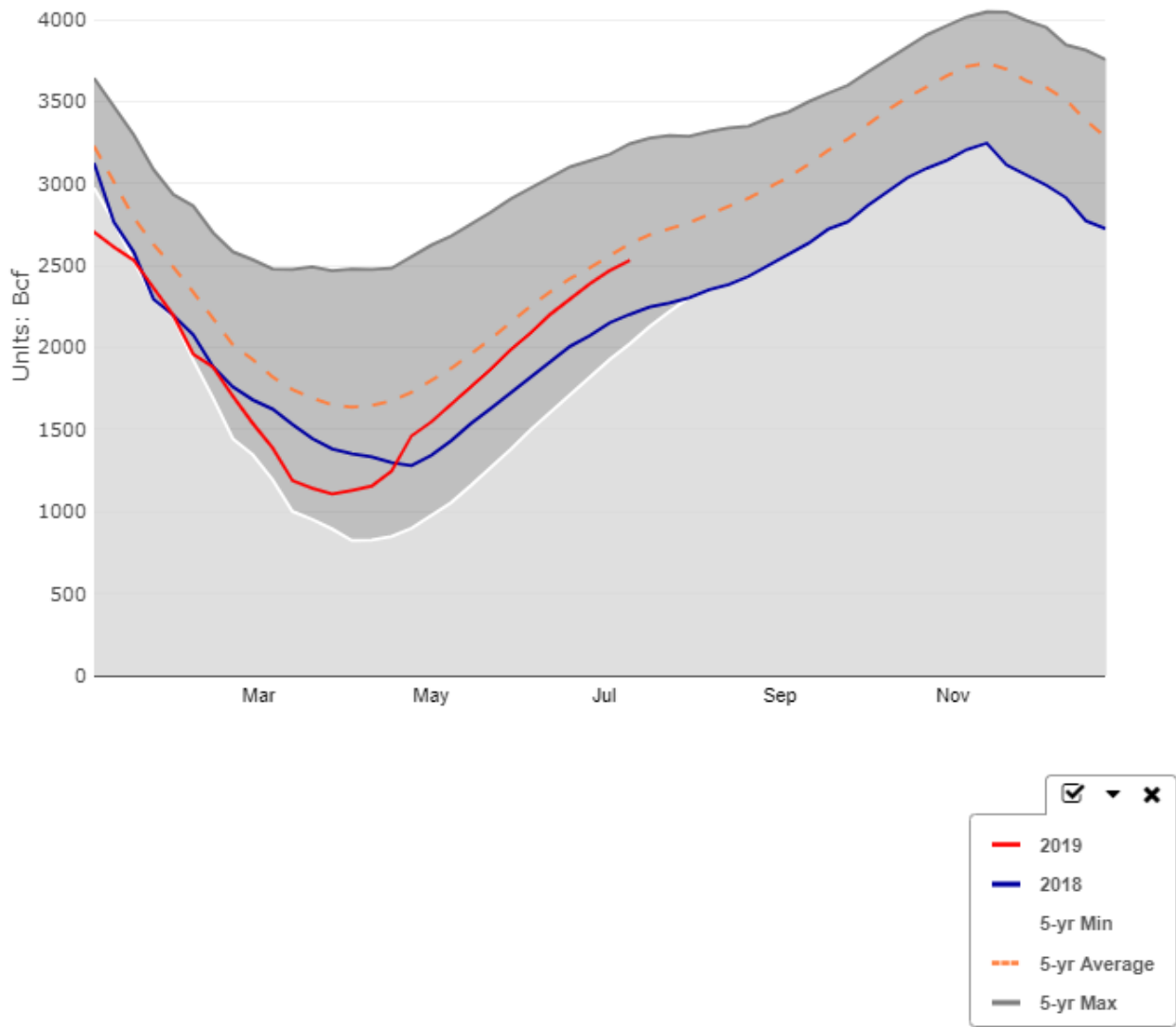
Intraday on 7/19/2019, WTI crude prices traded at \$55.63/bbl, which represents a \$4.58/bbl or 8% decline from the close of the EIA report week seven days ago and compares to \$70.46/bbl a year ago. The Brent Dated spot price closed at \$62.62/bbl, lower by \$4.62/bbl or 7% from the end of the EIA report week seven days ago. A year earlier, the Brent dated spot price stood at \$67.24/bbl. The differentials between closing Brent and WTI spots grew this week by \$0.04/bbl to \$6.99/bbl which compares to \$2.25/bbl a year ago.

Weekly Gas-to-Oil (GOR) Ratio: The weekly average Gas-to-Oil (GOR) ratio based on WTI thereby increased to 25.0%, which is stronger than the prior week's 24.5% and compares to the year ago and 5 year average ratios of 23.4% and 29.5%, respectively.

Short Term Outlook Tracking: According to our 2Q19 STO, the pipeline export forecast is 7.45 Bcf/d for June and 7.47 Bcf/d for the current quarter. Bloomberg scrapes show pipeline exports tracking at 7.36 Bcf/d (72 % to Mexico) for the last four weeks and 7.48 Bcf/d for the quarter to date. Similarly, our 2Q19 STO LNG net flows forecast is 3.63 Bcf/d for June and 3.62 Bcf/d for the current quarter, while our Bloomberg scrapes show 5.95 Bcf/d for the last four weeks and 5.77 Bcf/d for the quarter to date.

Our 2Q19 STO industrial and electric power gas consumption forecasts are, respectively, 21.79 Bcf/d and 27.08 Bcf/d for June and 22.09 Bcf/d and 28.04 Bcf/d for the current quarter. Bloomberg scrapes show industrial consumption tracking at 20.60 Bcf/d for the last four weeks and 20.63 Bcf/d for the quarter to date. Bloomberg scrapes show electric power consumption running 39.05 Bcf/d for the last four weeks and 36.82 Bcf/d for the quarter to date.

EIA Estimated Working Gas Storage Level



Source: EIA, Stratas Advisors

News and Views

LNG Terminals News: Firstly, Kinder Morgan's 1.0 Bcf/d Gulf LNG project in Pascagoula, Mississippi has [obtained](#) FERC approval for converting the facility from import to export terminal. Secondly, Freeport LNG's 0.6 Bcf/d Train 1 is said to be ramping up to full use in September. Lastly, storm Barry affected loadings at several liquefaction facilities along the Gulf Coast, particularly Cheniere's Sabine Pass terminal.

Our Take: We expect LNG exports to continue to ramp toward higher levels in the second half of 2019 as new plants ramp up after going online (Cameron Train 1 and Freeport Train 1) and as storm impacts dissipate. Natural gas loadings dropped by 20% because of storm Barry's landfall last Saturday. Since Monday, it became clear that permanent disruption was minimal and operations normalized this week.

Kinder Morgan Latest Pipeline to Run from West to East Texas: In their latest investor call, Kinder Morgan has [said](#) that their Permian Pass natural gas pipeline project seeks to move up to 2 Bcf/d of natural gas from Permian Basin to LNG terminals along Gulf Coast.

Our Take: This is the third natural gas pipeline project for Kinder Morgan that aims to send Permian gas to markets on or off the US Gulf Coast. Scheduled to start in 3Q19 and 3Q20, the Gulf Coast Express and Permian Highway pipelines, respectively, would add 4 Bcf/d of combined takeaway capacity. The start of these projects should rapidly narrow the price differentials between Waha and Henry Hub. That should also reduce flaring levels in Permian, which have reached close to 650 MMcf/d in 2019.

Georgia Regulators Approve New Renewables, Coal Retirements: After 6 months of proceedings, Georgia's Public Service Commission [approved](#) the next-three-year Integrated Resource Plan (IRP) by Georgia Power, the state's largest electric power utility. The approval included the retirement of 982 MW of decades-old coal fired plants (already in service for an average 53 years) and mandated the inclusion of 2260 MW of solar/wind/biomass generation, up from the company's initially proposed 1000 MW. The approved plan also now includes 80 MW of battery storage. American Electric Power also this week [announced](#) plans to retire the 1300 MW Rockport plant in Indiana by 2028.

Our Take: These plans at two leading US utilities represent the latest in a trend away from aging baseline coal power plants toward greater capacity or purchases of renewable generation. The plans mirror others for renewables that often include some battery backup (e.g. - North Carolina, Florida, etc.). In print, the capacity changes do not appear to affect gas markets. But we think that replacement of baseline coal plants with intermittent renewables, even if at greater capacity and backed up a few percent by relatively limited battery storage, will require new gas consumption at existing gas generation equipment to provide daily and seasonal backup power when intermittent renewable and battery output is low. We estimate that in off hours, the gas backup for the retired coal plants noted above could be as much as 365 MMcf/d.

Summit Midstream Starts DJ Basin Processing Plant: Summit Midstream [announced](#) the start of the 60 MMcf/d Hereford natural gas processing plant in DJ Basin.

Our Take: Summit completed and started up this plant one quarter late. The firm also proposed to add one more 60 MMcf/d capacity unit at Hereford. We believe production growth is sufficient to justify the processing plant growth in the Rockies. With little new industrial expansion in the area, we expect the residue gas to travel either to the Eastern and Midwestern gas markets or to the West Coast gas consuming markets. Presuming sufficient new takeaway capacity on available pipelines, the Opal discount to Henry Hub should not worsen because of increasing Rocky region gas production and processing.

PetroLogistics II Planning New PDH Plant: PetroLogistics II announced [plans](#) to build a 500 Mtonne/year propane dehydrogenation (PDH) plant on the US Gulf Coast.

Our Take: Since the shale revolution began, US industry has added just two PDH plants on US soil (Dow Chemical and Enterprise Products Partners) despite the growing availability of propane feedstock. Additional proposed projects have been cancelled or delayed by low propylene margins. If completed, we estimate this PDH plant would use 20 MMcf/d natural gas for fuel and about 25 Mbbl/d of propane for feedstock. We will watch upcoming quarterly calls by Enterprise Products, Dow, Lyondell and others as to what they say about new projects or rebooting their previously-announced but cancelled PDH expansion projects. Flint Hills may also have some intent to expand their existing PDH operation, but this private company is very tight-lipped and rarely discloses capacity expansion plans.

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