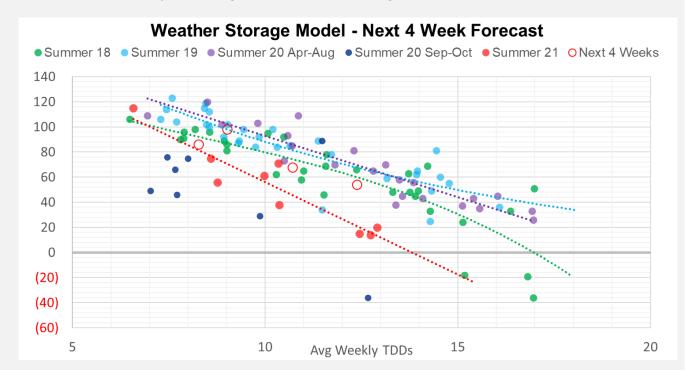
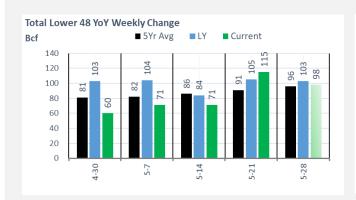


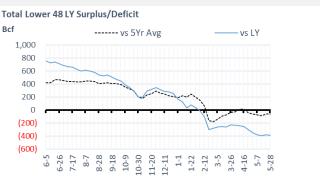
Fundamentals for the week ending May 28: This past week the EIA reported a +115 Bcf storage injection for the week ending May 21st. This past week's injection was well above the market consensus, and even our estimate of +111. This report once again supports loosening conditions. The summer started with daily balances being 6-7 Bcf/d tighter YoY (wx adj). Those dynamics have quickly shifted to this past week's report being only 1.6 Bcf/d tight YoY (Apr to Aug data only).

2020 was an abnormal year, so we compare this report against the 3Yr average (2018-20). This past week's number was only 0.6 Bcf tighter than the 3Yr average.



For the week ending May 28th, our early view is +98 Bcf. The 5Yr average is a +96 Bcf injection. Our projected injection would take the L48 storage level to 2313 Bcf (-386 vs LY, -61 vs. 5Yr).

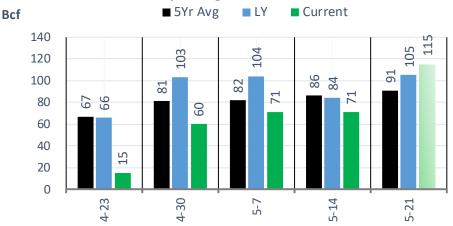




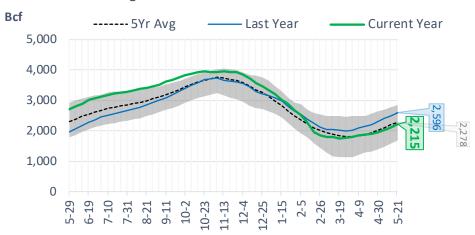


EIA Storage Report

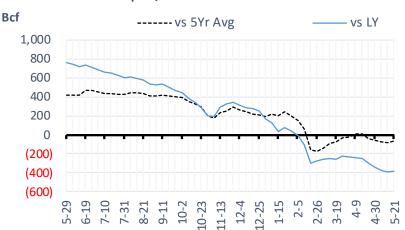
Total Lower 48 YoY Weekly Change



Total Lower 48 Storage Levels



Total Lower 48 LY Surplus/Deficit

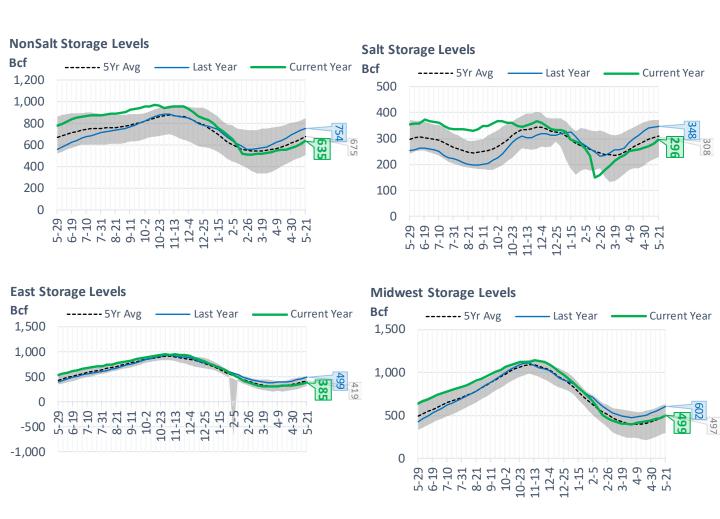


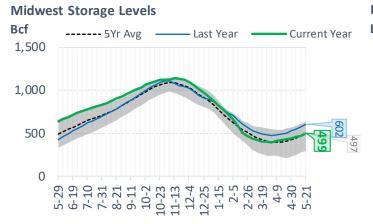


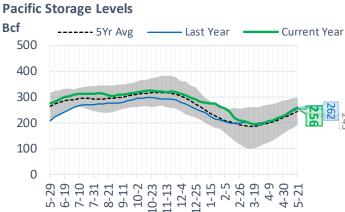
Natural Gas Storage Stats - Last 5 Weeks

	Current	Week - 1	Week - 2	Week - 3	Week - 4	Week - 5
Week Ending	21-May	14-May	7-May	30-Apr	23-Apr	16-Apr
Total Lower 48 Storage Level	2215	2100	2029	1958	1898	1883
Weekly Change	+115	+71	+71	+60	+15	+38
vs LY	-381	-391	-378	-345	-302	-251
vs 5Yr Avg	-63	-87	-72	-61	-40	+12
S. Central Salt Storage Level	296	280	269	264	258	256
Weekly Change	+16	+11	+5	+6	+2	+5
vs LY	-52	-64	-70	-65	-54	-43
vs 5Yr Avg	-12	-24	-28	-25	-20	-12
S. Central NonSalt Storage Level	635	608	588	572	558	554
Weekly Change	+27	+20	+16	+14	+4	+7
vs LY	-119	-126	-128	-119	-103	-84
vs 5Yr Avg	-40	-48	-49	-47	-41	-28
Midwest Storage Level	499	472	458	442	427	421
Weekly Change	+27	+14	+16	+15	+6	+7
vs LY	-103	-101	-93	-85	-77	-71
vs 5Yr Avg	+2	+1	+10	+13	+15	+20
East Storage Level	385	358	347	332	319	325
Weekly Change	+27	+11	+15	+13	-6	+14
vs LY	-114	-109	-101	-89	-85	-75
vs 5Yr Avg	-34	-34	-22	-14	-7	+16
Mountain Storage Level	144	135	131	124	119	118
Weekly Change	+9	+4	+7	+5	+1	0
vs LY	+13	+12	+15	+14	+17	+22
vs 5Yr Avg	+10	+7	+9	+7	+6	+9
Pacific Storage Level	256	247	235	224	217	210
Weekly Change	+9	+12	+11	+7	+7	+5
vs LY	-6	-4	-3	-3	0	+1
vs 5Yr Avg	+11	+11	+8	+5	+7	+7











Implied Daily Storage Activity

Daily Model Error

EIA Reported Daily Storage Activity

Market Report

0.9

2.1

-1.2

	23-Apr	30-Apr	7-May	14-May	21-May	28-May	WoW	vs. 4W
Lower 48 Dry Production	90.9	91.5	91.6	91.7	91.6	92.2	0.6	0.6
Canadian Imports	5.3	4.6	4.6	4.8	4.6	4.5	▼ -0.1	▼-0.2
L48 Power	25.8	26.5	26.5	25.9	26.6	29.8	3.2	3.5
L48 Residential & Commercial	24.0	16.5	13.7	18.0	10.3	9.3	▼ -1.1	▼ -5.4
L48 Industrial	19.8	20.1	20.4	18.6	20.5	20.3	▼ -0.1	0.4
L48 Lease and Plant Fuel	5.0	5.0	5.0	5.0	5.0	5.1	0.0	0.0
L48 Pipeline Distribution	2.5	2.1	2.0	2.2	1.9	2.0	0.1	▼ -0.1
L48 Regional Gas Consumption	77.0	70.2	67.6	69.8	64.3	66.5	2.2	▼-1.5
Net LNG Exports	11.6	11.4	11.3	11.0	10.4	10.5	△ 0.1	▼ -0.5
Total Mexican Exports	6.8	6.7	6.7	6.8	6.8	6.8	0.1	0.1

7.9

8.6

-0.7

10.6

10.1

0.4

8.9

10.1

-1.2

14.7

16.4

-1.7

12.9

-1.8

Monthly Balances									
•	2Yr Ago	LY					MTD		
	May-19	May-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	MoM	vs. LY
Lower 48 Dry Production	90.6	87.3	91.6	84.7	91.7	91.7	91.7	0.1	▲ 7.1
Canadian Imports	4.7	3.9	6.3	6.4	4.8	4.7	4.6	▼-0.1	▼-1.8
L48 Power	26.9	26.9	28.2	27.9	25.1	25.1	27.3	2.1	▼-0.6
L48 Residential & Commercial	12.8	12.7	43.9	47.9	28.4	19.7	12.7	▼ -7.0	▼ -35.2
L48 Industrial	23.1	19.7	24.3	21.6	19.7	20.7	19.9	▼-0.7	▼ -1.7
L48 Lease and Plant Fuel	5.0	4.8	5.0	4.7	5.0	5.0	5.0	0.0	0.4
L48 Pipeline Distribution	2.1	2.0	3.2	3.3	2.5	2.2	2.0	▼-0.2	▼ -1.2
L48 Regional Gas Consumption	69.9	66.2	104.7	105.4	80.7	72.7	67.0	▼-5.8	▼-38.4
Net LNG Exports	5.6	6.7	10.5	8.4	11.1	11.5	10.8	▼-0.7	2.4
Total Mexican Exports	5.0	4.8	6.2	5.7	6.5	6.7	6.7	▲ 0.0	1.0
Implied Daily Storage Activity EIA Reported Daily Storage Activity Daily Model Error	14.8	13.6	-23.5	-28.5	-1.9	5.4	11.8		

Source: Bloomberg, analytix.ai

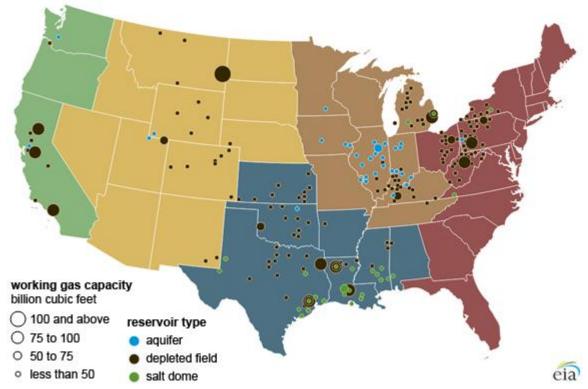
Regional S/D Models Storage Projection

Week Ending 28-May

	Daily Raw Storage	Daily Adjustment Factor	Daily Average Storage Activity (Adjusted) *	Weekly Adjusted Storage Activity
L48	12.6	1.4	14.0	98
East	3.1	0.9	4.0	28
Midwest	4.8	-0.4	4.4	30
Mountain	4.1	-3.1	1.0	7
South Central	-1.0	4.3	3.3	23
Pacific	1.7	-0.3	1.4	10

^{*}Adjustment Factor is calcuated based on historical regional deltas

U.S. underground natural gas storage facilities by type (July 2015)

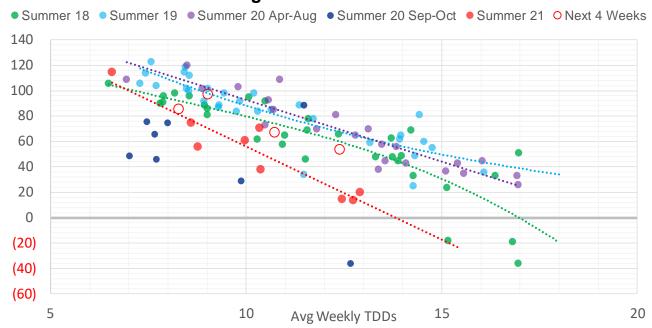




Weather Model Storage Projection

Next report and beyond		
		Week Storage
Week Ending	Temp	Projection
04-Jun	8.3	86
11-Jun	12.4	54
18-Jun	10.7	68

Weather Storage Model - Next 4 Week Forecast

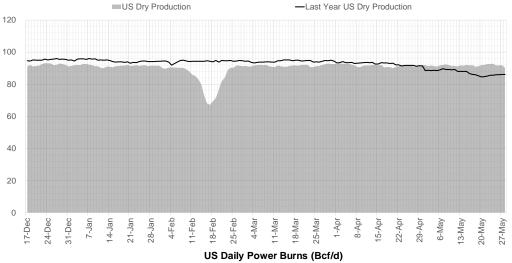


Note: this is not our official end of season forecast. This chart signifies where storage levels end with 10-year normal weather and current market tightness relative to last year



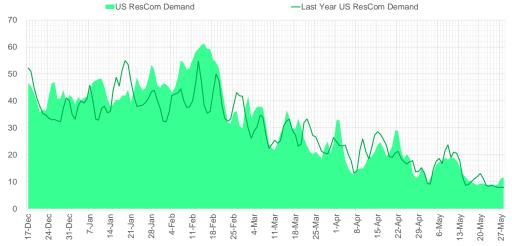
Supply - Demand Trends





28-Jan 11-Per 25-Mar 13-Mar 13

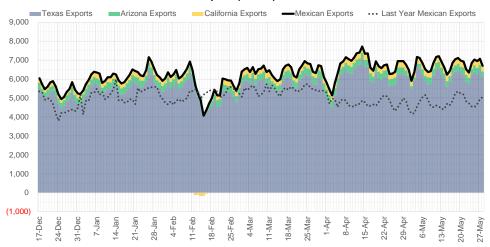
US Daily ResCom Consumption(Bcf/d)

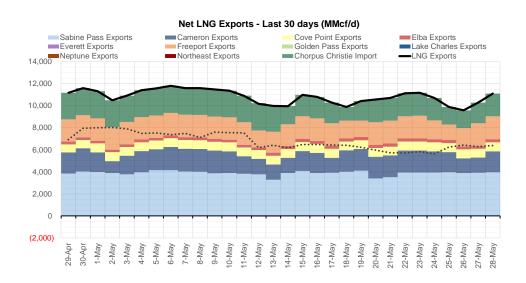


Source: Bloomberg



Mexican Exports (MMcf/d)





Source: Bloomberg



Nat Gas Options Volume and Open Interest CME, ICE and Nasdaq Combined

CONTRACT MONTH	CONTRACT YEAR	PUT/CALL	STRIKE	CUMULATIVE VOL	CONTRACT MONTH	CONTRACT YEAR	PUT/CALL	STRIKE	CUMULATIVE OI
8	2021	С	3.50	8437	10	2021	С	4.00	40561
7	2021	P	2.70	7515	8	2021	С	3.50	35068
7	2021	C	3.25	6637	9	2021	С	4.00	33043
7	2021	Ċ	3.50	6179	7	2021	С	3.50	33025
8	2021	P	2.50	5642	8	2021	С	3.25	32934
12	2021	P	2.50	4450	10	2021	С	3.25	30371
8	2021	C	3.25	4260	10	2021	Р	2.50	29377
11	2021	P	2.50	3980	10	2021	С	5.00	27284
7	2021	C	3.30	3933	7	2021	С	4.00	26676
7	2021	P	2.60	3510	7	2021	Р	2.50	26223
8	2021	C	3.30	3311	7	2021	С	3.25	26081
7	2021	P	2.75	2720	10	2021	С	3.50	25561
7	2021	Р	2.80	2470	7	2021	Р	2.80	25380
7	2021	C	3.00	2388	8	2021	С	4.00	24427
9	2021	P	2.50	2352	7	2021	Р	2.75	23815
7	2021	Р	2.95	2307	8	2021	Р	2.50	21689
1	2022	' P	2.50	2000	9	2021	С	3.50	21414
8	2022	C	4.00	2000	12	2021	С	4.00	20853
8	2022	Č	6.00	2000	8	2021	Р	2.00	20589
9	2022	C	4.00	1950	9	2021	Р	2.00	20412
9	2021	Č	3.30	1719	7	2021	С	3.00	20186
10	2021	C	3.50	1676	9	2021	Р	2.50	20155
9	2021	C	3.25	1473	9	2021	С	3.25	20034
7	2021	C	3.25	1473	4	2022	С	3.00	19685
9	2021	P	2.75	1370	8	2021	Р	2.25	19386
9 11	2021	P	3.00	1240	10	2021	С	3.00	19240
7	2021	C	3.20	1073	11	2021	С	4.00	18162
7	2021	C	3.20	1008	10	2021	Р	2.00	18063
7	2021	C	2.90	1006	10	2021	Р	2.25	17652
10	2021	C	4.00	1000	8	2021	С	3.75	16871
4	2021	P	2.25	1000	7	2021	Р	2.70	16797
7	2022	C	3.10	964	3	2022	С	4.00	16695
7	2021	P	2.65	964 960	8	2021	Р	2.75	16382
, 11		P P		960 960	8	2021	С	3.00	16308
	2021		2.70		7	2021	Р	2.00	16035
7 9	2021 2021	C C	3.05	956 950	10	2021	Р	2.75	15248
		P	3.50		3	2022	С	3.00	14519
11	2021		2.75	950	10	2021	С	4.50	14354
7	2021	C P	2.95	926	3	2022	С	5.00	14200
8	2021		2.65	915	7	2021	Р	3.00	14183
3	2022	P	2.25	800	10	2021	С	6.00	13996
7	2021	P	2.90	754	12	2021	Р	2.00	13884
10	2021	P	2.50	718	9	2021	Р	1.90	13733
12	2021	P	3.00	700	7	2021	Р	2.25	13539
7	2021	P	2.50	683	7	2021	С	3.75	13515
8	2021	P	2.80	605	7	2021	Р	2.65	13485
7	2021	P	2.85	594	5	2022	С	3.00	13355
11	2021	C	3.25	574	1	2022	С	4.00	13216
10	2021	С	4.50	560	6	2022	С	3.00	13068
9	2021	Р	2.25	510	10	2022	С	3	12856

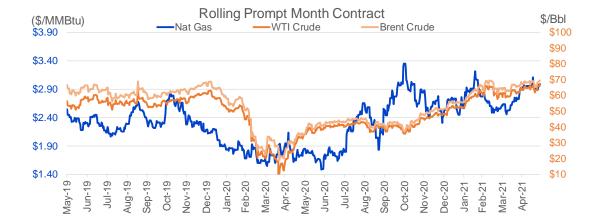
Source: CME, Nasdaq, ICE



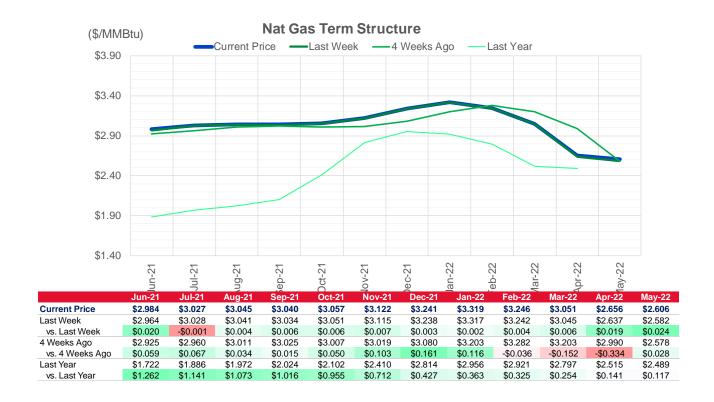
Nat Gas Futures Open Interest CME, ICE and Nasdaq Combined

CME Henry H	Hub Futures (1	0,000 MMBt	٦)	ICE Henry	Hub Futures Con	tract Equiva	alent (10,000 MM
	Current	Prior	Daily Change		Current	Prior	Daily Change
JUL 21	310762	525	310237	JUL 21	101251	86478	14773
AUG 21	90049	308153	-218104	AUG 21	81166	101052	-19886
SEP 21	145090	84652	60438	SEP 21	76833	79521	-2688
OCT 21	133706	140604	-6898	OCT 21	92660	76752	15909
NOV 21	76228	133400	-57172	NOV 21	70262	93223	-22961
DEC 21	52620	75275	-22655	DEC 21	65112	69404	-4292
JAN 22	82259	52281	29978	JAN 22	71948	64939	7009
FEB 22	30537	81787	-51250	FEB 22	57441	71838	-14398
MAR 22	55524	30109	25415	MAR 22	60104	56886	3219
APR 22	56627	56109	518	APR 22	52821	60340	-7519
MAY 22	37542	56993	-19451	MAY 22	47206	52639	-5433
JUN 22	21214	37209	-15995	JUN 22	43613	47469	-3857
JUL 22	11647	20505	-8858	JUL 22	44361	43495	866
AUG 22	10320	11463	-1143	AUG 22	42338	44337	-1999
SEP 22	11155	10356	799	SEP 22	42787	42314	473
OCT 22	28286	11107	17179	OCT 22	47188	42688	4500
NOV 22	11717	28282	-16565	NOV 22	37945	47035	-9090
DEC 22	11349	11577	-228	DEC 22	42278	37885	4394
JAN 23	6020	11331	-5311	JAN 23	24740	42224	-17484
FEB 23	2816	5920	-3104	FEB 23	22547	24677	-2130
MAR 23	5708	2766	2942	MAR 23	24371	22471	1900
APR 23	5940	5504	436	APR 23	20257	24343	-4085
MAY 23	4499	5740	-1241	MAY 23	19996	20098	-102
JUN 23	965	4500	-3535	JUN 23	18531	19848	-1317
JUL 23	1098	964	134	JUL 23	18489	18373	116
AUG 23	847	1088	-241	AUG 23	18587	18396	192
SEP 23	777	847	-70	SEP 23	17998	18494	-497
OCT 23	1721	777	944	OCT 23	18813	17901	913
NOV 23	684	1721	-1037	NOV 23	18284	18653	-369
DEC 23	1040	684	356	DEC 23	18689	18167	522

Source: CME, ICE







					VS	. 4 Weeks		
	Units	Current Price	vs.	Last Week		Ago	vs	. Last Year
NatGas Jul21/Oct21	\$/MMBtu	0.030		0.007		0.022		0.029
NatGas Oct21/Nov21	\$/MMBtu	0.065		0.001		0.004		0.017
NatGas Oct21/Jan22	\$/MMBtu	0.262		-0.004	•	-0.001	•	-0.022
NatGas Apr22/Oct22	\$/MMBtu	0.033		0.006		0.011	•	-0.022
WTI Crude	\$/Bbl	66.21		2.850		2.350		33.400
Brent Crude	\$/Bbl	68.87		2.210		1.600		34.130
Fuel Oil, NY Harbour 1%	\$/Bbl	97.18		0.000		0.000		0.000
Heating Oil	cents/Gallon	204.52		3.810		10.660		107.310
Propane, Mt. Bel	cents/Gallon	0.82		0.007		0.007		0.413
Ethane, Mt. Bel	cents/Gallon	0.26		-0.001		0.024		0.038
Coal, PRB	\$/MTon	12.30		0.000		0.000		0.000
Coal, PRB	\$/MMBtu	0.70						

Source: CME, Bloomberg



Baker Hughes Rig Counts

	Baker	Hughes 🤰			
U.S. Breakout Information	This Week	+/-	Last Week	+/-	Year Ago
Oil	359	3	356	137	222
Gas	98	-1	99	21	77
Miscellaneous	0	0	0	-2	2
Directional	27	-1	28	4	23
Horizontal	415	3	412	144	271
Vertical	15	0	15	8	7
		,		•	
Canada Breakout	This Week	+/-	Last Week	+/-	Year Ago
Oil	28	•	25	21	7
Gas	34	3 1	33	21	7 13
		+/-			
Major Basin Variances	This Week	+/-	Last Week	+/-	Year Ago
Ardmore Woodford	1	0	1	-1	2
Arkoma Woodford	1	0	1	0	1
Barnett	1	0	1	-1	2
Cana Woodford	15	0	15	11	4
DJ-Niobrara	6	-1	7	1	5
Eagle Ford	33	1	32	11	22
Granite Wash	3	0	3	1	2
Haynesville	47	0	47	15	32
Marcellus	28	-2	30	0	28
Permian	233	2	231	85	148
Utica	10	0	10	1	9