



# Longreach Energy Holdings LLC

## FIRM INFORMATION

### Investment Manager

Longreach Alternatives Ltd  
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AFSL 246747

### Sub-Advisor

Longreach Energy Holdings LLC  
Delaware registered #565928

## KEY INVESTMENT PERSONNEL

### Andrew Sinclair

Principal – Commercial Director

### Thomas Wagenhofer

Principal – Technical Director

## 1. Market and Macro Industry Commentary

### General Market Commentary

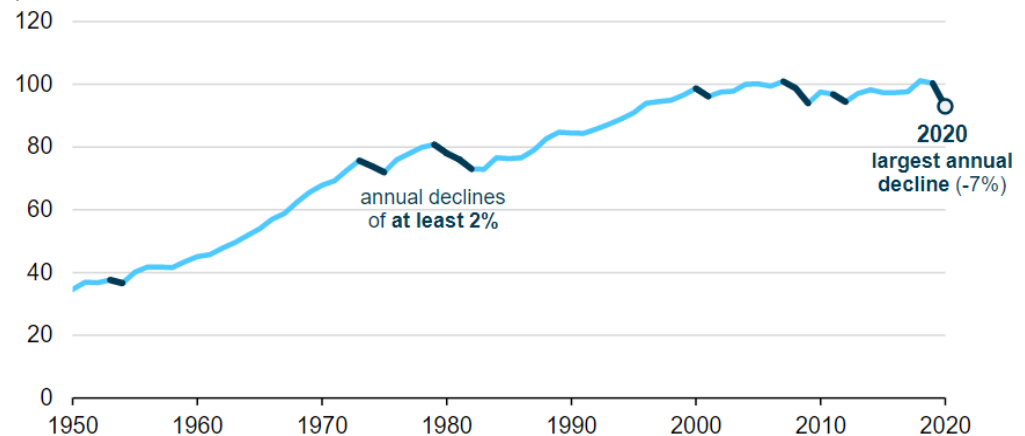
A third wave of Covid induced lockdowns in Europe together with growing Covid cases in India and many parts of South America, particularly Brazil, offset generally positive trends in Covid infections and economic activity elsewhere in the world. The US is now seeing over 4 million people per day receiving vaccines and optimism is increasing despite daily new infection rates remaining above 60 thousand.

The impact of the pandemic on economic activity is highlighted by new data from the EIA showing a 7% fall in total US energy consumption from 2019 to 2020 (Figure 1). This is the largest annual decrease in US energy consumption, in both relative and absolute terms, in the EIA's consumption data series starting in 1949.

Figure 1: US Total Energy Consumption 1950 to 2020 (Source: EIA)

### U.S. total energy consumption (1950–2020)

quadrillion British thermal units



Source: U.S. Energy Information Administration, *Monthly Energy Review*

Before 2020 the largest recorded annual decrease in US energy consumption occurred between 2008 and 2009, when consumption decreased by 5% during the economic recession. Other larger annual decreases occurred during the economic recessions in the early 1980's and in 2001.

## CONTACT US

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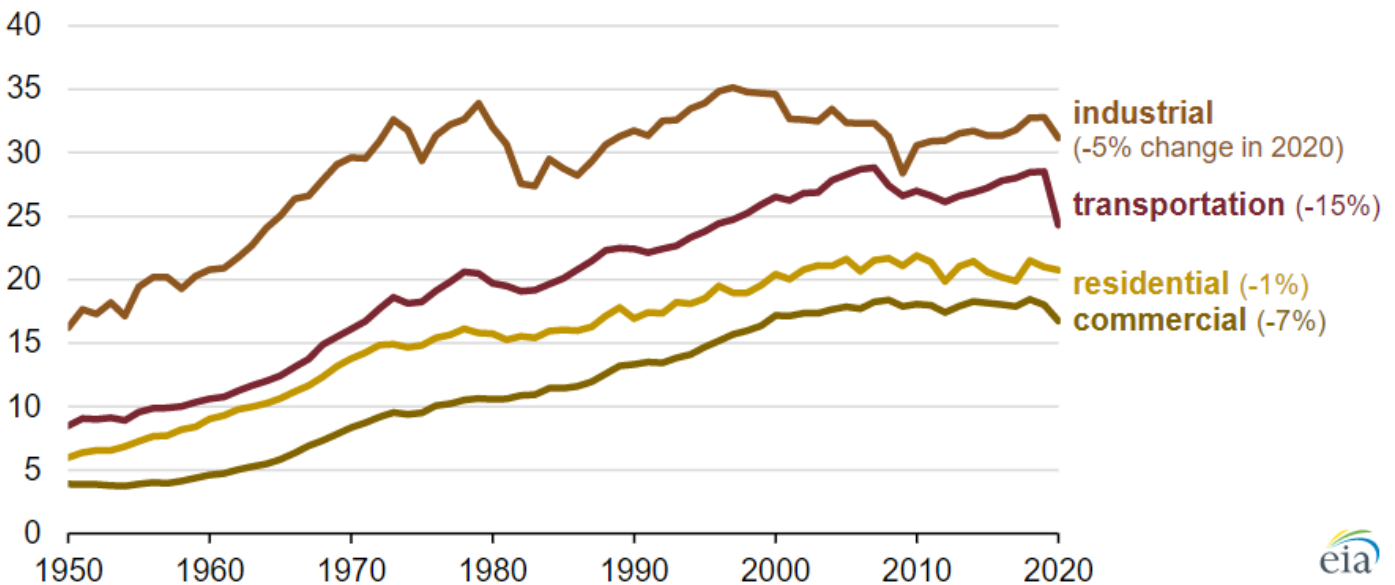
[client.services@longreachalternatives.com](mailto:client.services@longreachalternatives.com)

Sector specific changes are provided in Figure 2. Transportation's fall of 15% represented the biggest decrease because of stay-at-home orders.

Figure 2: US Total Energy Consumption by End Use Sector (Source: EIA)

## U.S. total energy consumption by end-use sector (1950–2020)

quadrillion British thermal units



Source: U.S. Energy Information Administration, *Monthly Energy Review*

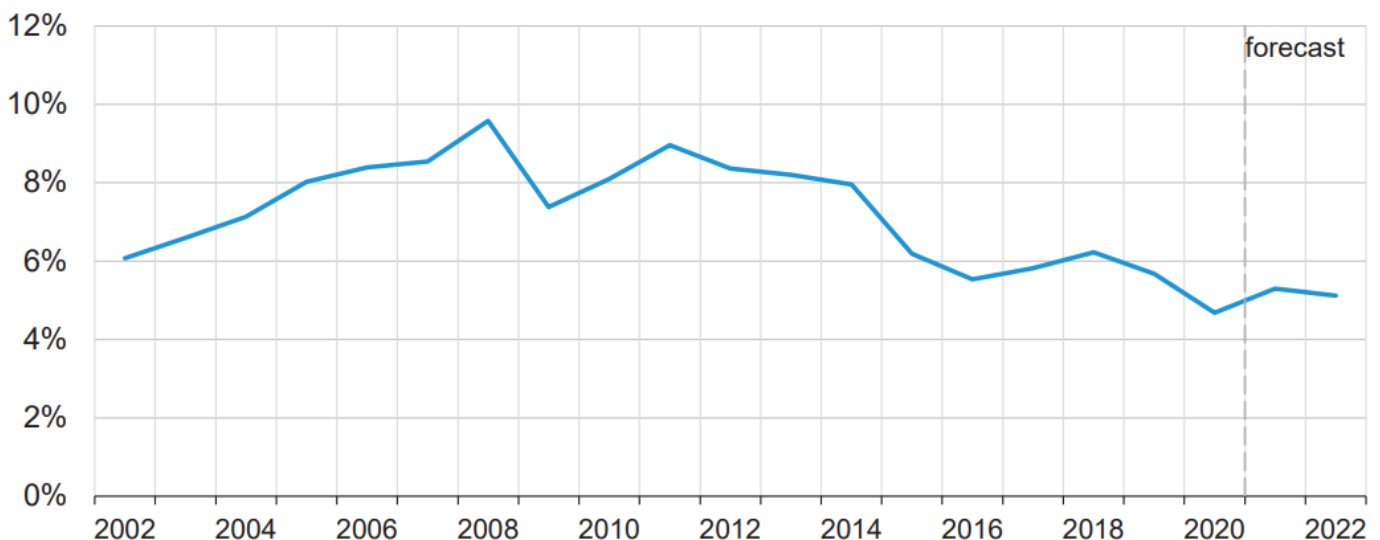
Note: End-use sector consumption includes primary energy consumption plus the electricity retail sales and associated electrical system energy losses from the electric power sector.

US economic competitiveness continues to be aided by falling energy expenditures as a share of gross domestic product (Figure 3).

Figure 3: US Annual Energy Expenditures (Source: EIA)

## U.S. annual energy expenditures

share of gross domestic product



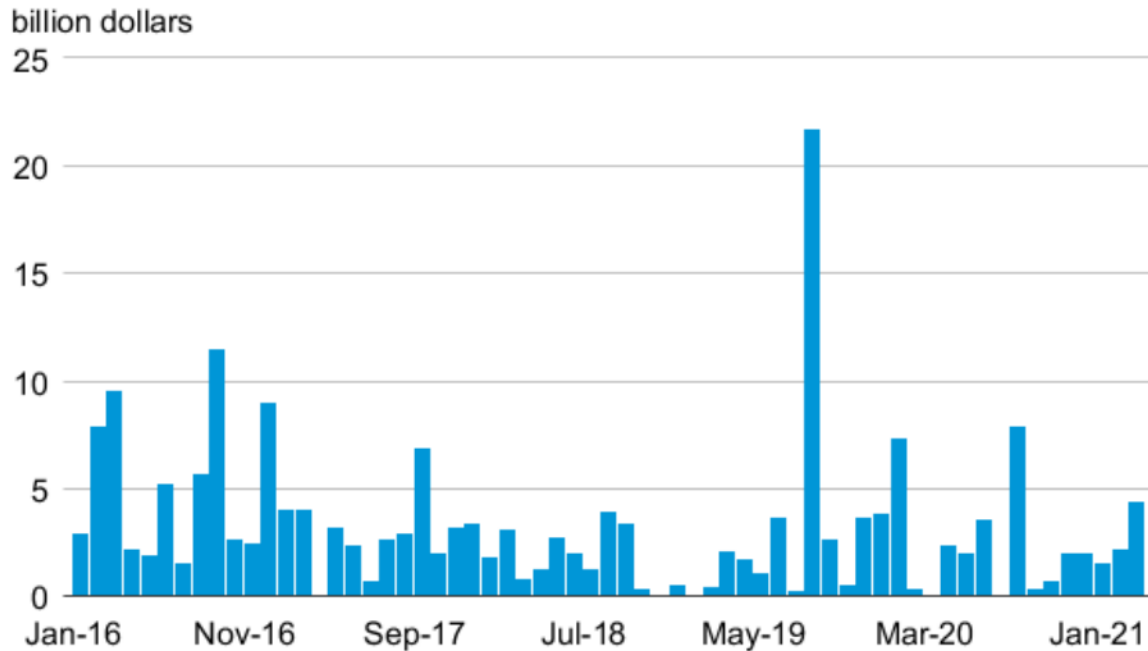
Source: U.S. Energy Information Administration, Short-Term Energy Outlook, April 2021





While still well below prior year peaks, debt and equity issuance by US oil and gas producers is ticking higher (Figure 4). Energy sector corporate bond yields for companies with a rating below investment grade are at multi-year lows and this is expected to support the raising of more debt to finance capital development in the sector.

Figure 4: US Oil Company Equity and Debt Issuance (Source: Evaluate Energy via EIA)



eia Source: Evaluate Energy

The latest Baker Hughes rig count data follows. In the last month US total rigs have increased from 403 to 432 and land rigs increased from 389 to 421. The gains have come primarily from oil rigs, increasing from 310 to 337. There was one new gas rig, up to 93. The US oil directed rig count has now increased by 260 from the low of 172 for the week ended 14 August 2020.

**Baker Hughes rig count**



Rotary Rig Count						
4/9/21						
Location	Week	+/-	Week Ago	+/-	Year Ago	
Land	421	5	416	-163	584	
Offshore	11	-3	14	-7	18	
<b>United States Total</b>	<b>432</b>	<b>2</b>	<b>430</b>	<b>-170</b>	<b>602</b>	
Gulf Of Mexico	11	-3	14	-7	18	
Canada	58	-11	69	23	35	
<b>North America</b>	<b>490</b>	<b>-9</b>	<b>499</b>	<b>-147</b>	<b>637</b>	
U.S. Breakout Information	This Week	+/-	Last Week	+/-	Year Ago	
Oil	337	0	337	-167	504	
Gas	93	2	91	-3	96	
Miscellaneous	2	0	2	0	2	
Directional	18	-1	19	-17	35	
Horizontal	394	3	391	-151	545	
Vertical	20	0	20	-2	22	

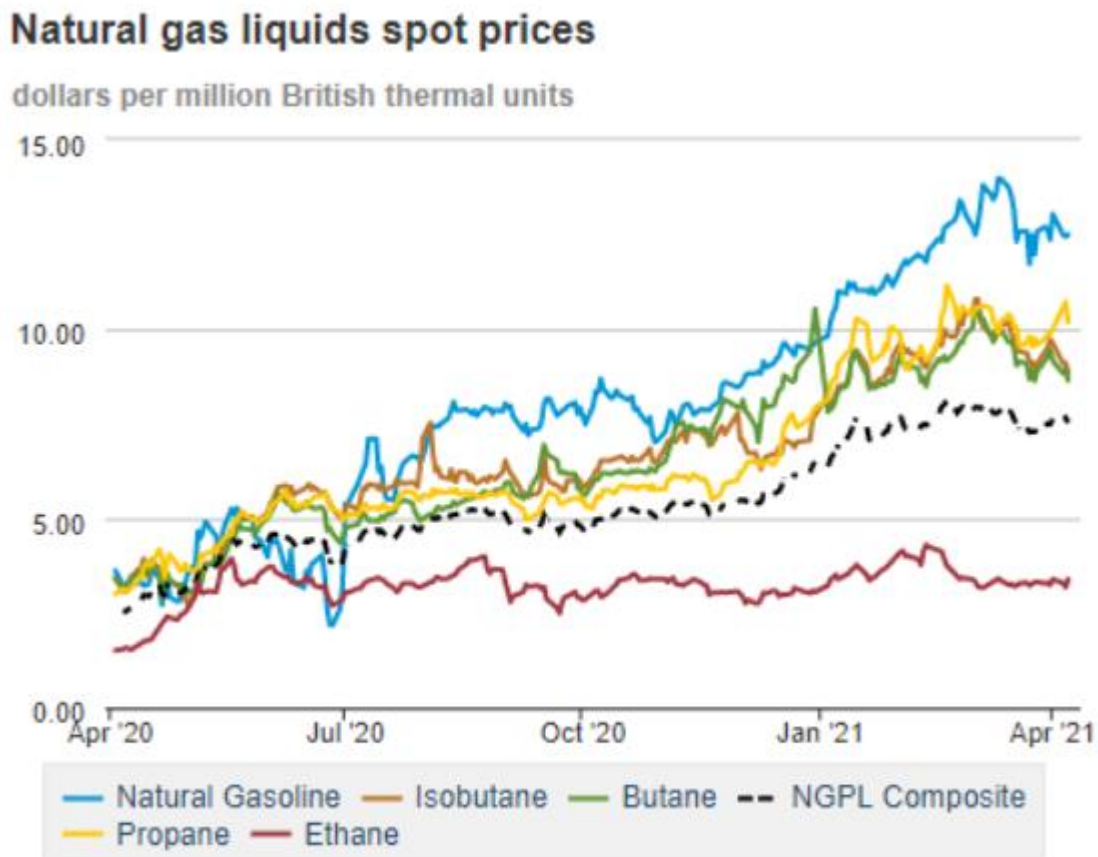
## Gas Market

Gas prices weakened during March due to strong domestic production and moderate demand, owing to relatively warm temperatures driving a fall in the prompt contract from \$2.771/mmbtu on 1 March to \$2.583/mmbtu on 1 April. Spring is customarily a period of weaker prices with reduced heating demand and little need for cooling.

While gas prices have fallen from their highs in mid-February, these levels are still approximately 60% higher than those of this time last year.

Natural gas liquids prices have also held their recent gains (Figure 5), most of LEI's gas production has substantial liquids component.

Figure 5: Natural Gas Liquids Spot Prices (Source: EIA)

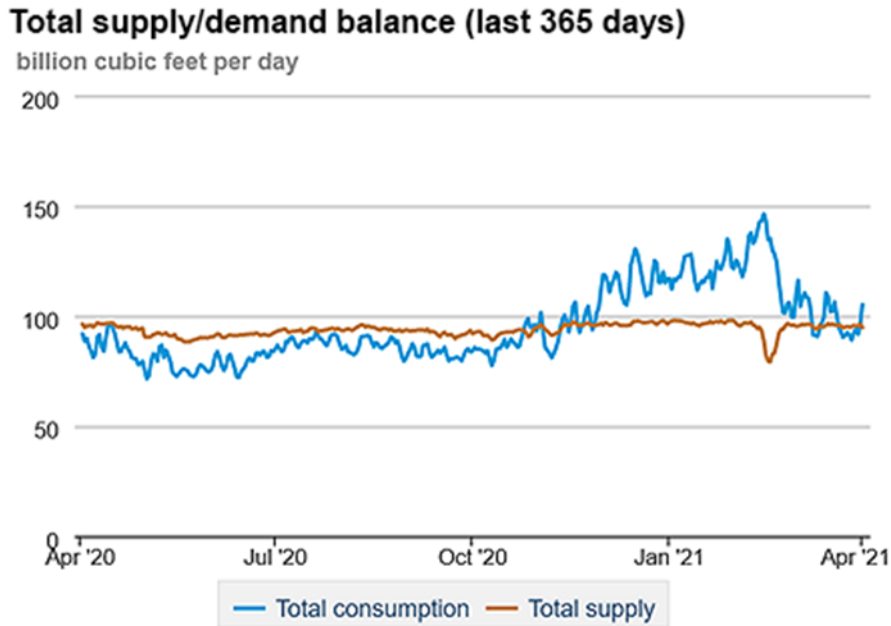


 Sources: NGL spot prices from Bloomberg, L.P., and weights for NGPL composite price from EIA-816, Monthly Natural Gas Liquids Report.

After falling to as low as 1bcf/d during the week of the Arctic storm in mid-February, LNG export volumes are again breaking records. On 19 March just shy of 12bcf was loaded for export. In the last 12 months we have seen LNG export volumes increase from an average of 8bcf/d during March 2020 to over 11.5bcf/d in March this year. JKM, the Asian LNG price benchmark, is trading at \$6.50/mmbtu and therefore providing healthy margins for US LNG exporters.

US gas supply and demand balance (Figure 6) shows the impact of the February winter storm on both demand (blue line peak) and supply (brown line). Production has now been fully restored, reaching 92.3bcf/d on 19 March.

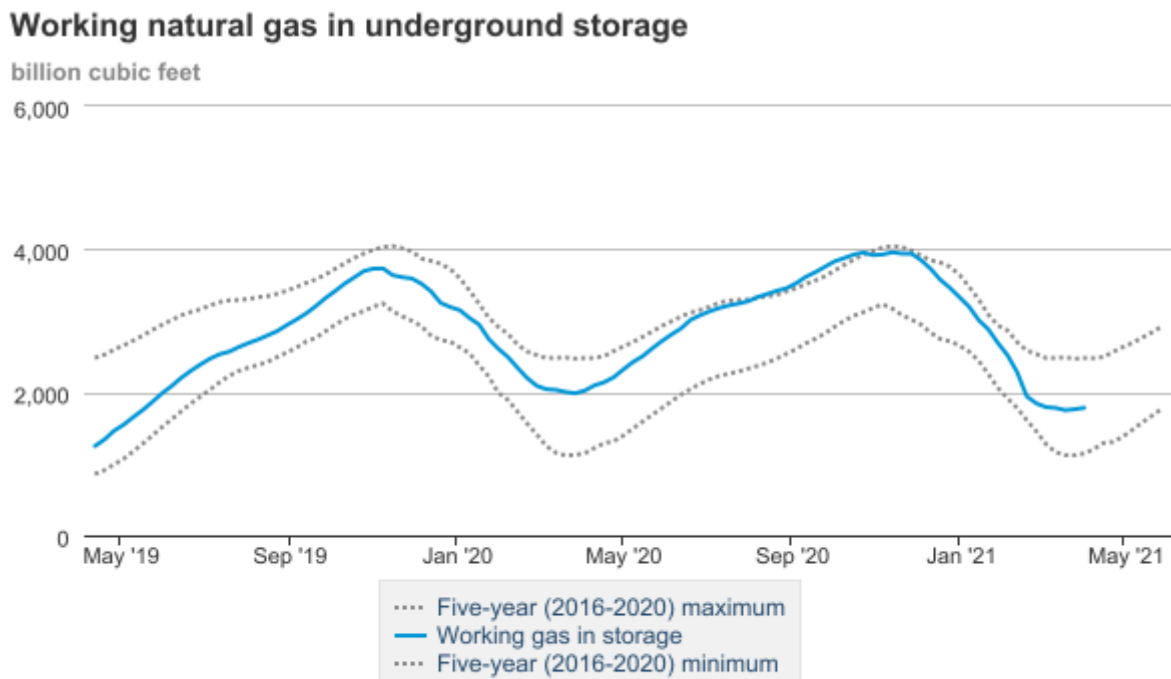
Figure 6: US Gas Supply / Demand Balance (Source: EIA)



 Source: IHS Markit

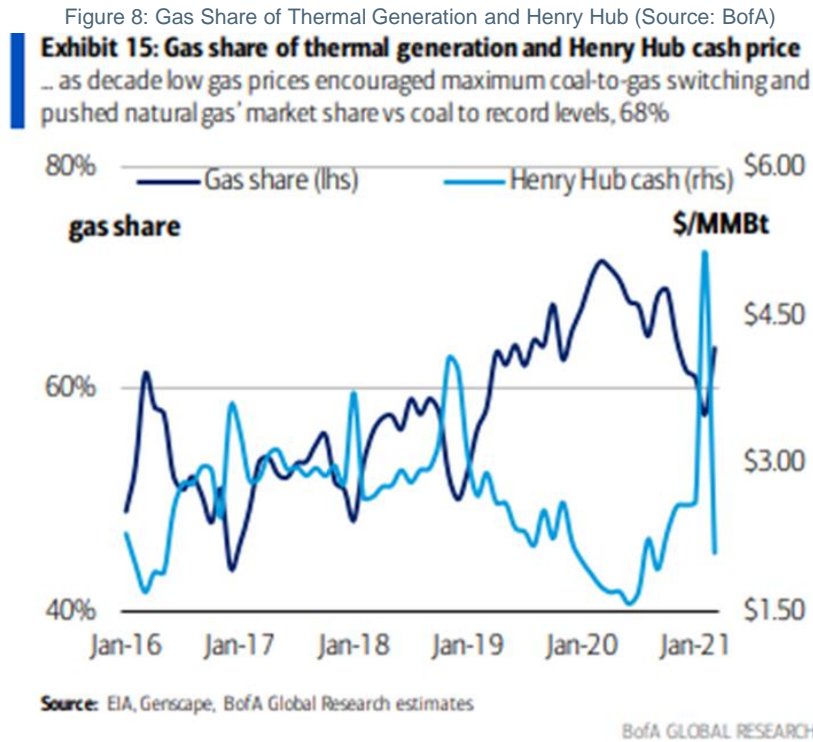
Working gas in storage will close the winter withdrawal season towards the bottom of five-year range (Figure 7).

Figure 7: Working Gas in Underground Storage (Source: EIA)



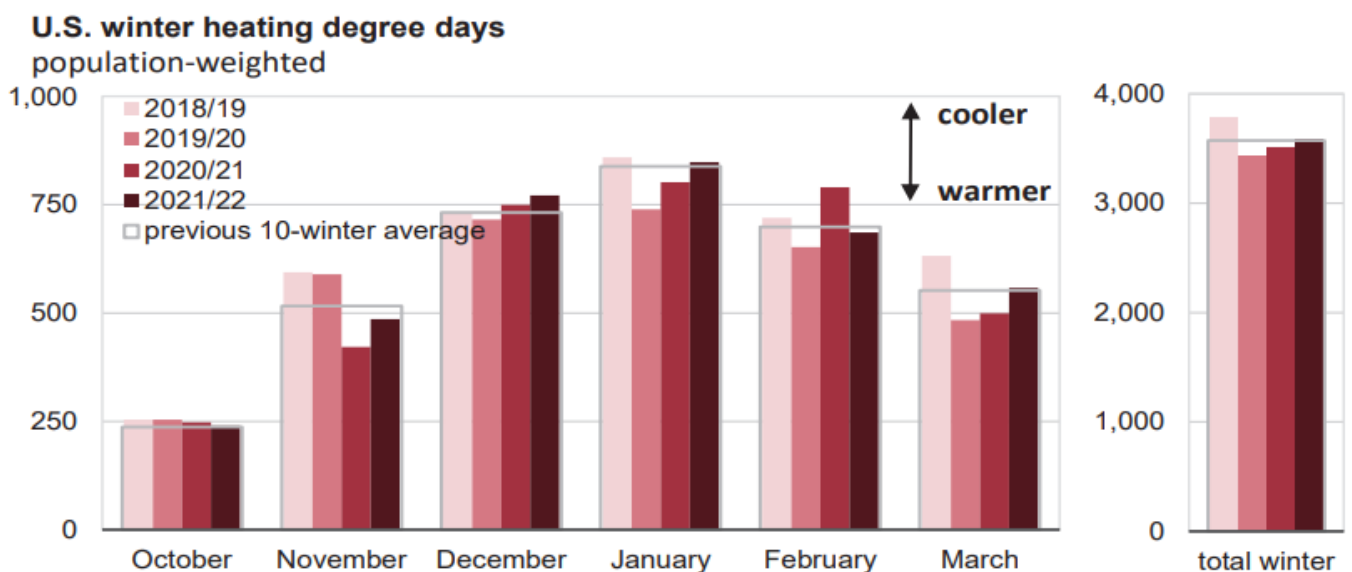
 Source: Form EIA-912, *Weekly Underground Natural Gas Storage Report*

The EIA projects that US natural gas demand will decline from an average 83.25bcf/d in 2020 to 82.5bcf/d in 2021 and then to 81.6bcf/d in 2022. The driver of this reduction is forecast higher prices (\$2.03/mmbtu in 2020; rising to \$3.14/mmbtu in 2021 and \$3.16/mmbtu in 2022), which will encourage some thermal generation to switch back from gas to coal. The direct relationship between gas share of thermal generation and gas prices is shown in Figure 8.



US winter heating degree days data (Figure 9) show the impact of the severe February storm on heating demand. Overall, the 2020/2021 winter heating demand came in a little under the 10-year average with relatively mild months of November, January and March outweighing the colder than average October, December and February.

Figure 9: US Winter Heating Degree Days (Source: EIA)



Note: EIA calculations based on National Oceanic and Atmospheric Administration (NOAA) data. Projections reflect NOAA's 14-16 month outlook.

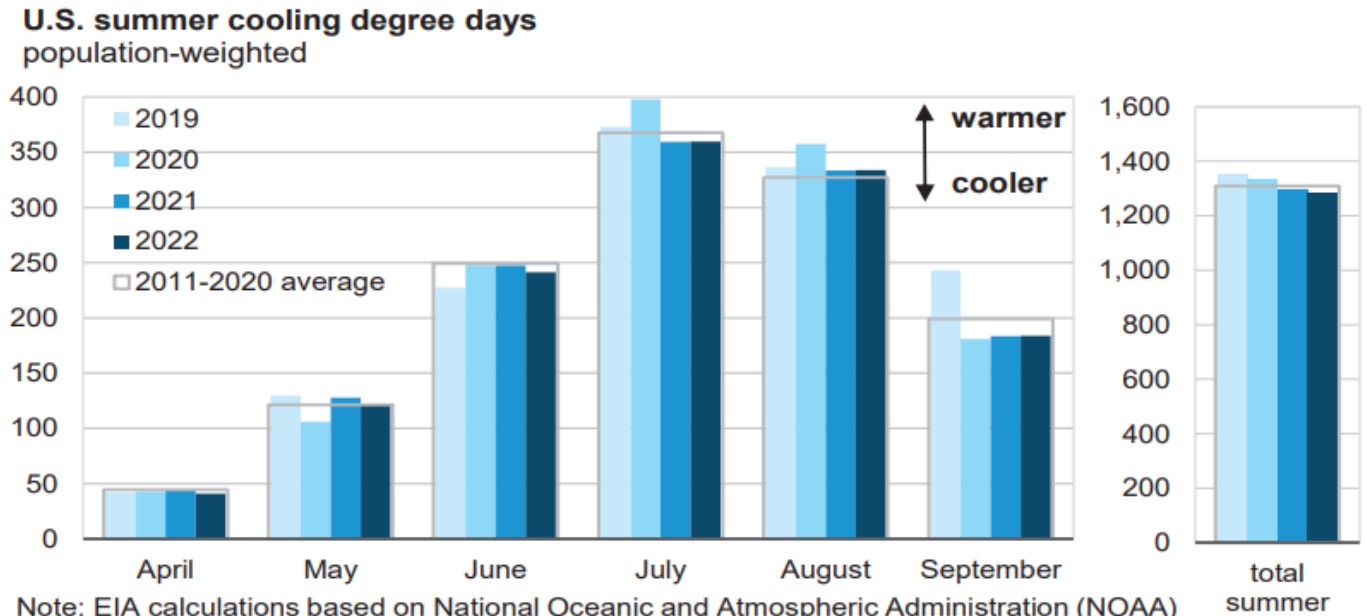
Source: U.S. Energy Information Administration, Short-Term Energy Outlook, April 2021





US summer cooling degree days are displayed in Figure 10. Note the change in scale with total summer annual averaging approximately 1,300 cooling degree days vs winter approximately 3,500 heating degree days.

Figure 10: US Summer Cooling Degree Days (Source: EIA)



Note: EIA calculations based on National Oceanic and Atmospheric Administration (NOAA) data. Projections reflect NOAA's 14-16 month outlook.

Source: U.S. Energy Information Administration, Short-Term Energy Outlook, April 2021



## Oil Market

WTI opened the month at \$61.94/bbl and traded as high as \$65.20/bbl after OPEC announced continued production restraint. For the rest of the month enduring Covid induced demand concerns led prices lower to an open on 1 April of \$59.69/bbl. Note this price is still \$2.32/bbl above early February prices.

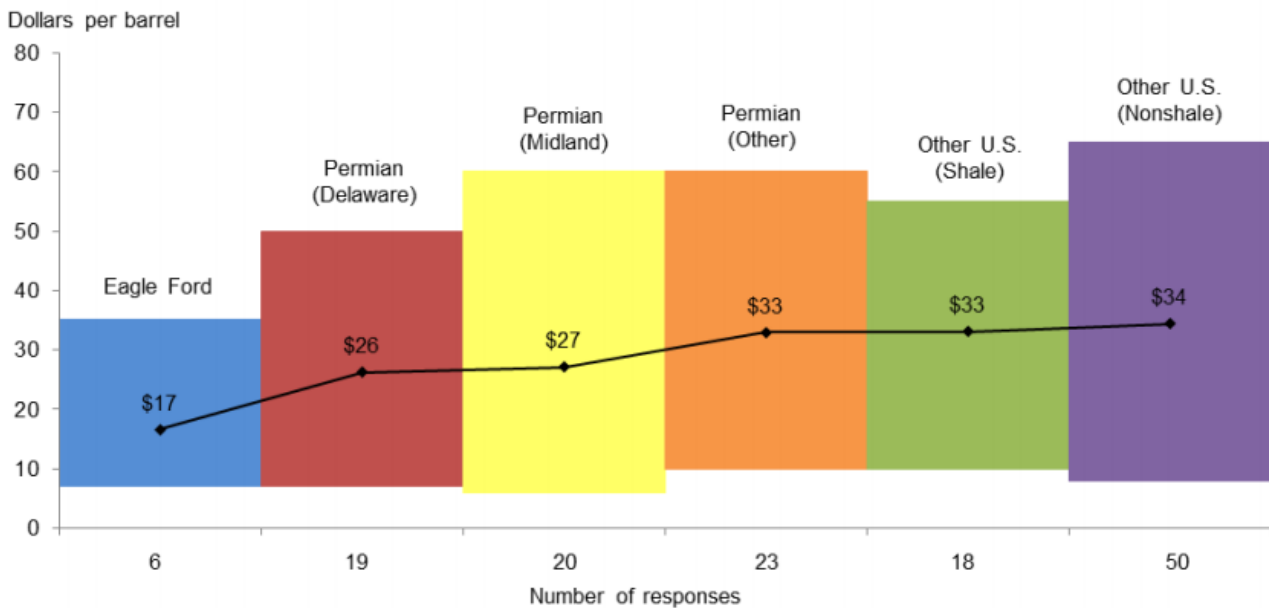
As evidenced by increasing rig counts, oil production across all major US oil basins is very profitable at \$59/bbl. The Dallas Federal Reserve has just released results of its latest energy industry survey. Breakeven operating costs across primary basins range from \$17/bbl up to \$34/bbl (Figure 11), while the price needed to justify new drilling ranges from \$46/bbl to \$58/bbl (Figure 12).

Figure 11: Breakeven WTI (Source: Federal Reserve Bank of Dallas)

## Exploration and Production (E&P) Firms

### In the top two areas in which your firm is active: What West Texas Intermediate (WTI) oil price does your firm need to cover operating expenses for existing wells?

Across regions, the average price necessary to cover operating expenses ranges from \$17 to \$34 per barrel. Almost all respondents can cover operating expenses for existing wells at current prices. The average across the entire sample is approximately \$31 per barrel, up slightly from \$30 last year.



NOTES: Lines show the mean, and bars show the range of responses. Executives from 94 exploration and production firms answered this question during the survey collection period, March 10-18, 2021.

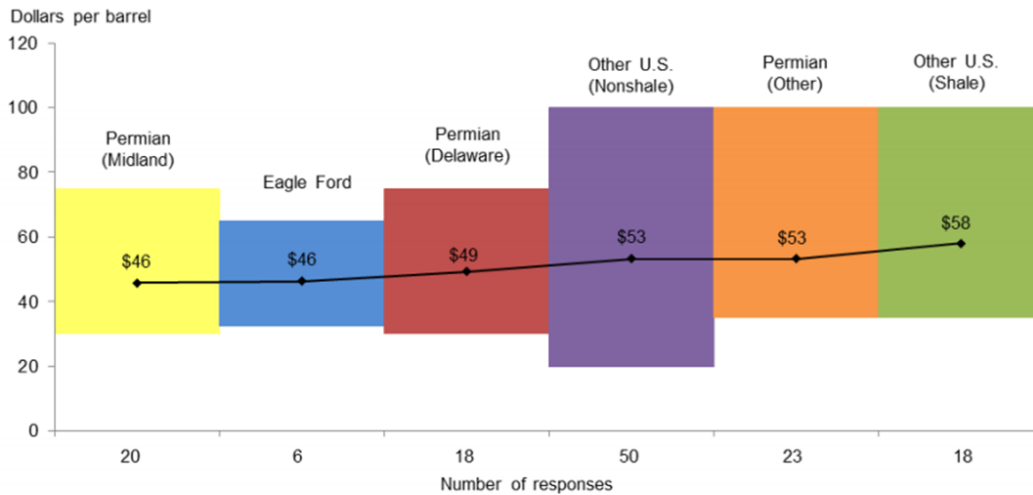
SOURCE: Federal Reserve Bank of Dallas.



Figure 12: WTI to Profitably Drill New Well (Source: Federal Reserve Bank of Dallas)

### In the top two areas in which your firm is active: What WTI oil price does your firm need to profitably drill a new well?

For the entire sample, firms need \$52 per barrel on average to profitably drill—higher than the \$49-per-barrel price when this question was asked last year. Across regions, average breakeven prices to profitably drill a new well range from \$46 to \$58 per barrel. Breakeven prices in the Permian Basin average \$50 per barrel—\$1 higher than last year. For the past five years, Permian (Midland) has been the lowest-cost region. With the recent recovery in oil prices, the majority of firms in the survey can profitably drill a new well at current prices; 80 percent of responses were at or below the March 19 WTI spot price (\$61 per barrel).



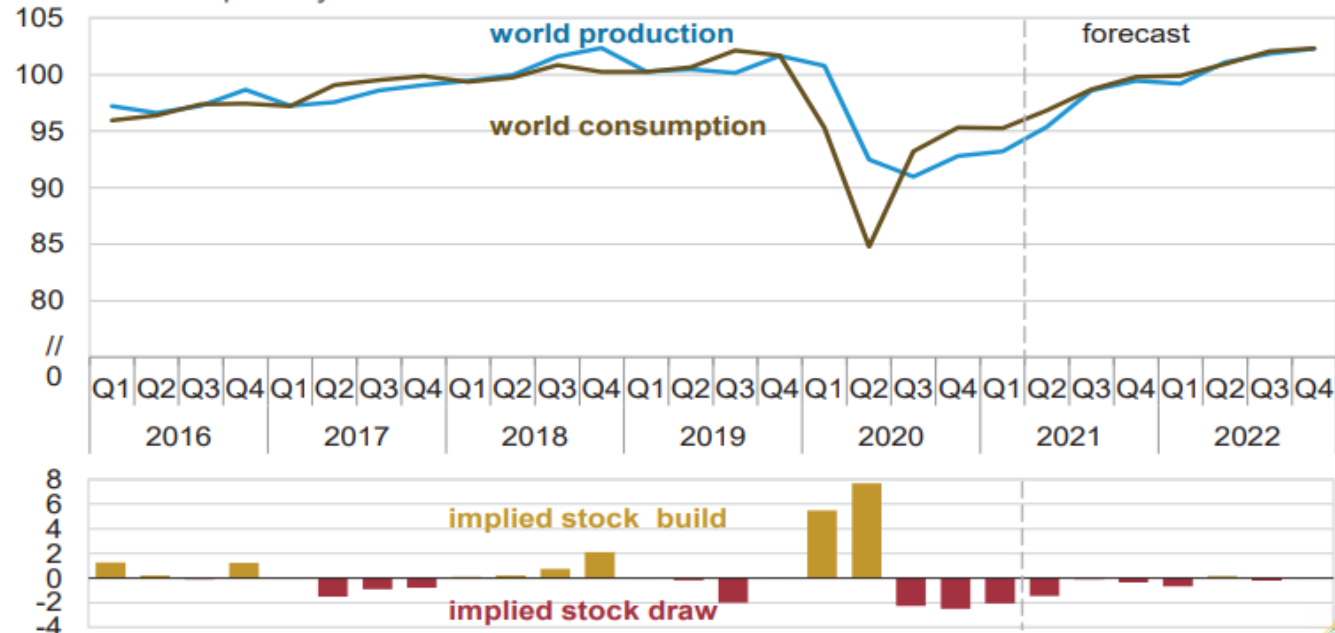
NOTES: Lines show the mean, and bars show the range of responses. Executives from 92 exploration and production firms answered this question during the survey collection period, March 10–18, 2021.  
SOURCE: Federal Reserve Bank of Dallas.

The EIA expects that WTI prices will remain above \$55/bbl through to the end of 2022. This drives EIA's forecasts that US crude production will average 10.9mmbbl/d in 2Q21, increasing to almost 11.4mmbbl/d in 4Q21 and then 11.9mmbbl/d for all of 2022.

Latest world demand and supply forecasts are shown in Figures 13 and 14.

Figure 13: World Liquids Fuels Supply and Demand Balance (Source: EIA)

### World liquid fuels production and consumption balance

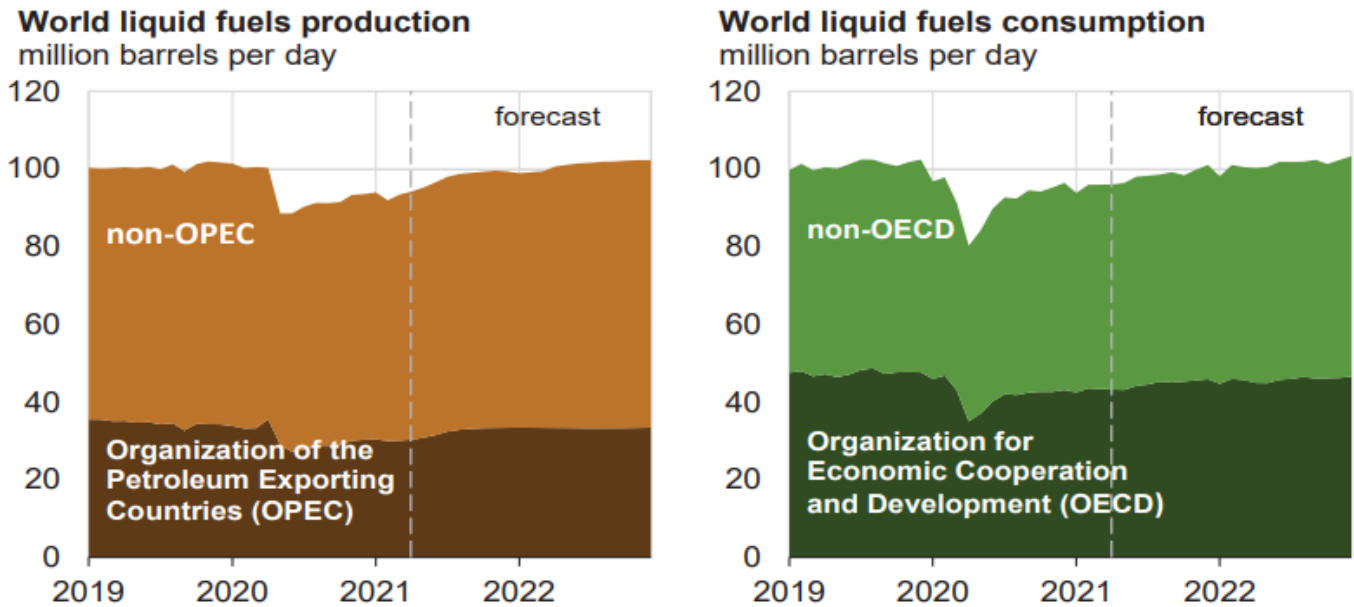


Source: U.S. Energy Information Administration, Short-Term Energy Outlook, April 2021





Figure 14: World Liquids Fuels Supply and Demand (Source: EIA)

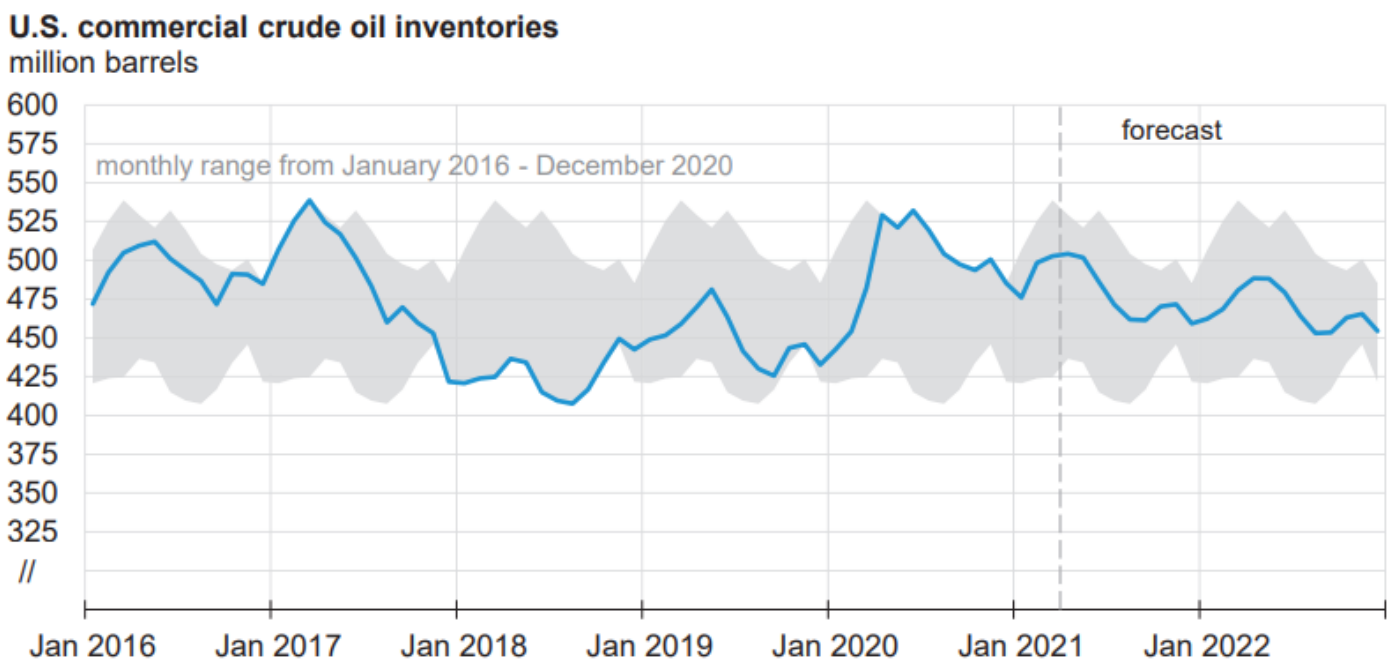


Source: U.S. Energy Information Administration, Short-Term Energy Outlook, April 2021



US commercial crude inventories are forecast to continue the recent decline trend through the end of 2022 (Figure 15). This should support the relative strength in WTI.

Figure 15: US Commercial Crude Oil Inventories (Source: EIA)



Source: U.S. Energy Information Administration, Short-Term Energy Outlook, April 2021



Three charts from the FT (Figures 16, 17 and 18) highlight the recovery in the US oil business since the lows of mid-2020.

Figure 16: Oil Focused Horizontal Rigs (Source: Enverus via FT)



Figure 17: Active Frac Crews (Source: Enverus via FT)

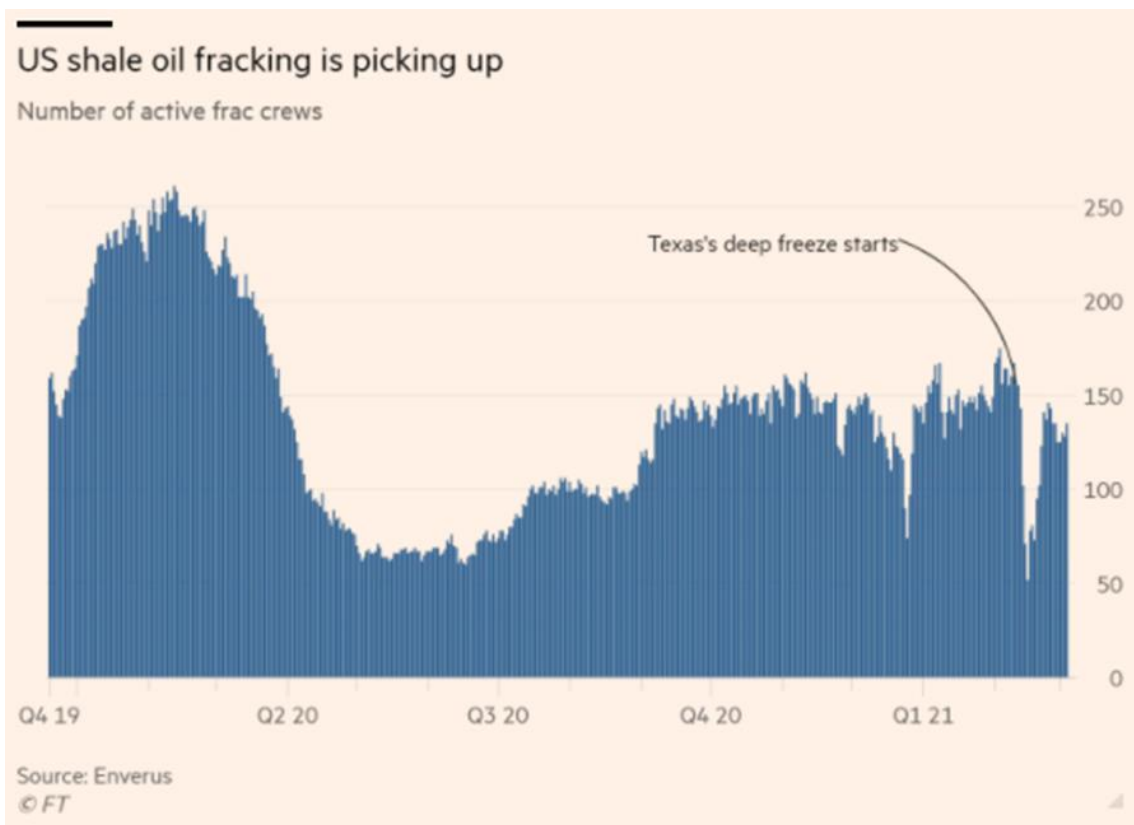


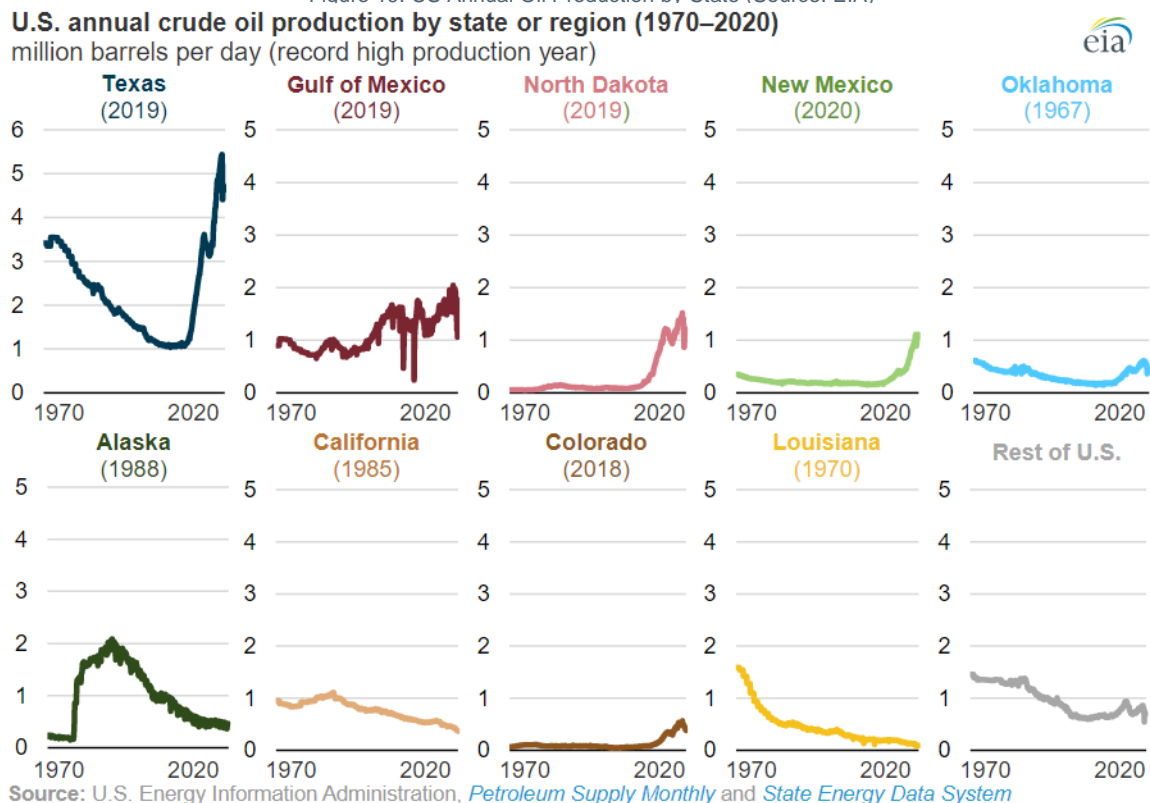


Figure 18: US Oil Production (Source: Rystad Energy via FT)



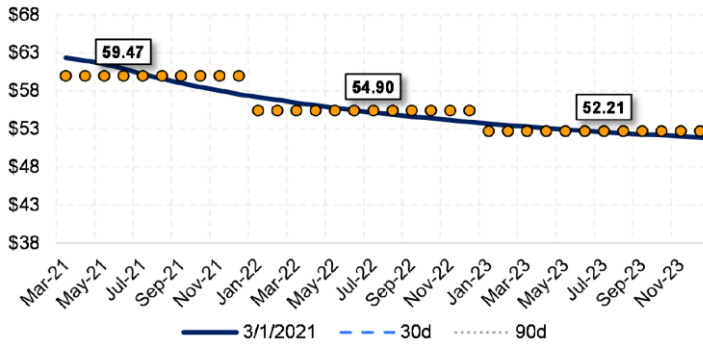
A final chart from the EIA (Figure 19) shows annual crude oil production by state or region from 1970 to 2020. The incredible growth in Texas production contrasts, in materiality if not trend, with all other US regions.

Figure 19: US Annual Oil Production by State (Source: EIA)

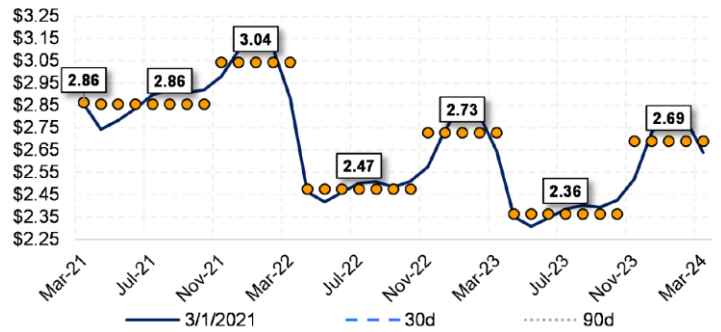


Gas and Oil Prices 1 March 2021

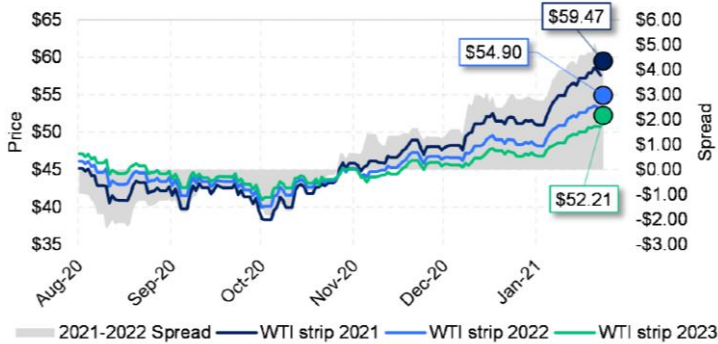
**WTI Calendar Strips**



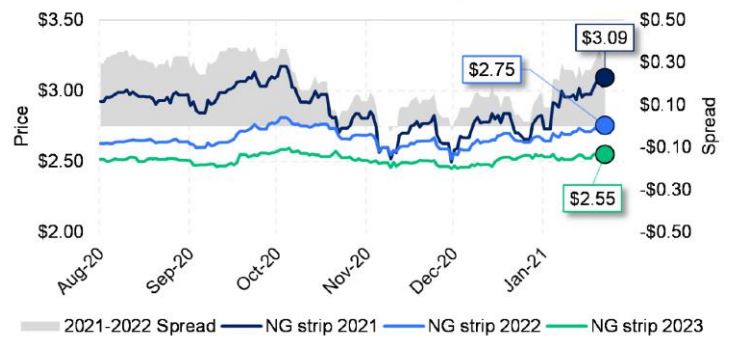
**NG Seasonal Strips**



**WTI Calendar Strips**



**NG Calendar Strips**



**Swap Pricing**

	Bal 21	Cal 22	Cal 23	Cal 24
NYMEX WTI Crude	\$ 59.47	\$ 54.90	\$ 52.21	\$ 50.84
ICE Brent Crude	\$ 62.32	\$ 58.47	\$ 56.34	\$ 55.17
Light Louisiana Sweet	\$ 61.47	\$ 56.69	\$ 54.00	\$ 52.59
TM Midland Differential	\$ 0.92	\$ 0.90	\$ 0.85	
NYMEX Natural Gas	\$ 2.90	\$ 2.65	\$ 2.51	\$ 2.51

Source: Bloomberg LP  
Indicative only

**Natural Gas Basis**

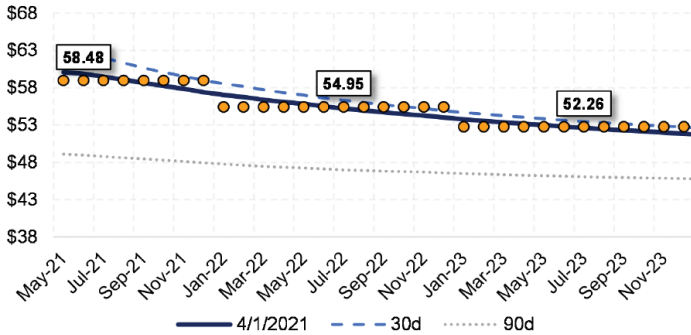
Location	Spot	Winter '20/21	Summer '21	Winter '21/22	Summer '22
Henry Hub Fixed	2.63	2.86	2.88	3.06	2.47
Chicago CG	\$ (0.02)	\$ (0.11)	\$ (0.24)	\$ (0.17)	\$ (0.20)
Opal	\$ (0.04)	\$ 0.21	\$ (0.17)	\$ 0.42	\$ (0.20)
PEPL	\$ (0.15)	\$ 0.00	\$ (0.35)	\$ (0.10)	\$ (0.26)
Waha	\$ (0.20)	\$ 0.03	\$ (0.18)	\$ (0.01)	\$ (0.24)
TETCO M3	\$ (0.25)	\$ (0.34)	\$ (0.62)	\$ 0.81	\$ (0.54)
Dominion S	\$ (0.57)	\$ (0.58)	\$ (0.77)	\$ (0.66)	\$ (0.72)

All prices as previous trading day close  
Source: Bloomberg

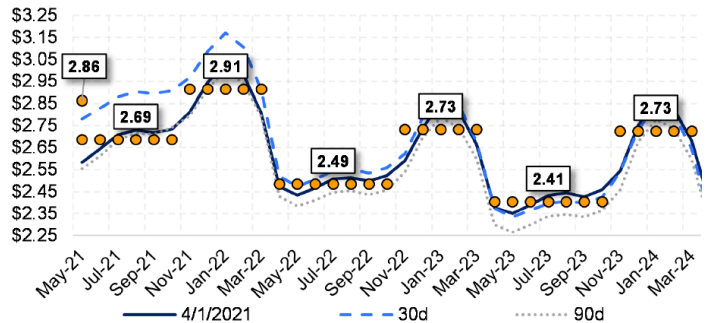


Gas and Oil Prices 1 April 2021

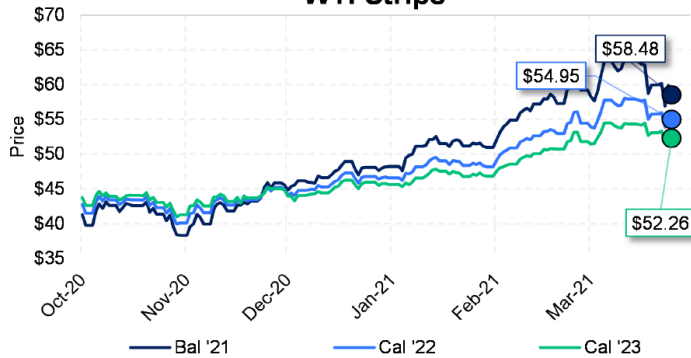
**WTI Calendar Strips**



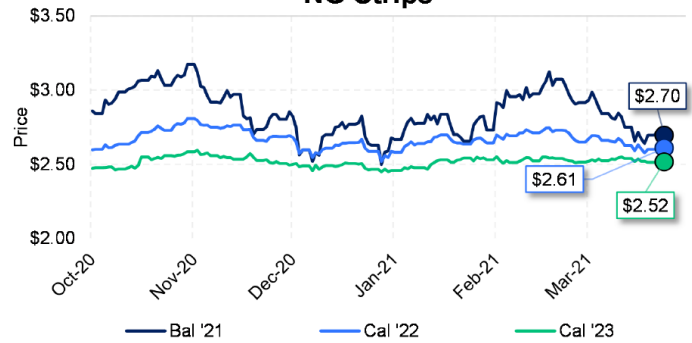
**NG Seasonal Strips**



**WTI Strips**



**NG Strips**



**Swap Pricing**

	Bal 21	Cal 22	Cal 23	Cal 24	Cal 25
NYMEX WTI Crude	\$ 58.48	\$ 54.95	\$ 52.26	\$ 50.52	\$ 49.48
ICE Brent Crude	\$ 61.61	\$ 58.60	\$ 56.60	\$ 55.23	\$ 54.33
Light Louisiana Sweet	\$ 60.68	\$ 57.15	\$ 54.49	\$ 52.90	\$ 51.89
TM Midland Differential	\$ 0.73	\$ 0.84	\$ 0.85		
NYMEX Natural Gas	\$ 2.74	\$ 2.63	\$ 2.54	\$ 2.56	\$ 2.58

Source: Bloomberg LP

Indicative only

**Natural Gas Basis**

Location	Spot	Winter '20/'21	Summer '21	Winter '21/'22	Summer '22
Henry Hub Fixed	2.49	2.86	2.71	2.93	2.49
Chicago CG	\$ 0.03	\$ (0.11)	\$ (0.24)	\$ (0.20)	\$ (0.18)
PEPL	\$ (0.09)	\$ 0.00	\$ (0.26)	\$ (0.10)	\$ (0.28)
Opal	\$ (0.09)	\$ 0.21	\$ (0.06)	\$ 0.41	\$ (0.16)
TETCO M3	\$ (0.10)	\$ (0.34)	\$ (0.65)	\$ 0.82	\$ (0.60)
Waha	\$ (0.22)	\$ 0.03	\$ (0.13)	\$ (0.03)	\$ (0.32)
Dominion S	\$ (0.40)	\$ (0.58)	\$ (0.81)	\$ (0.66)	\$ (0.75)

All prices as previous trading day close

Source: Bloomberg