

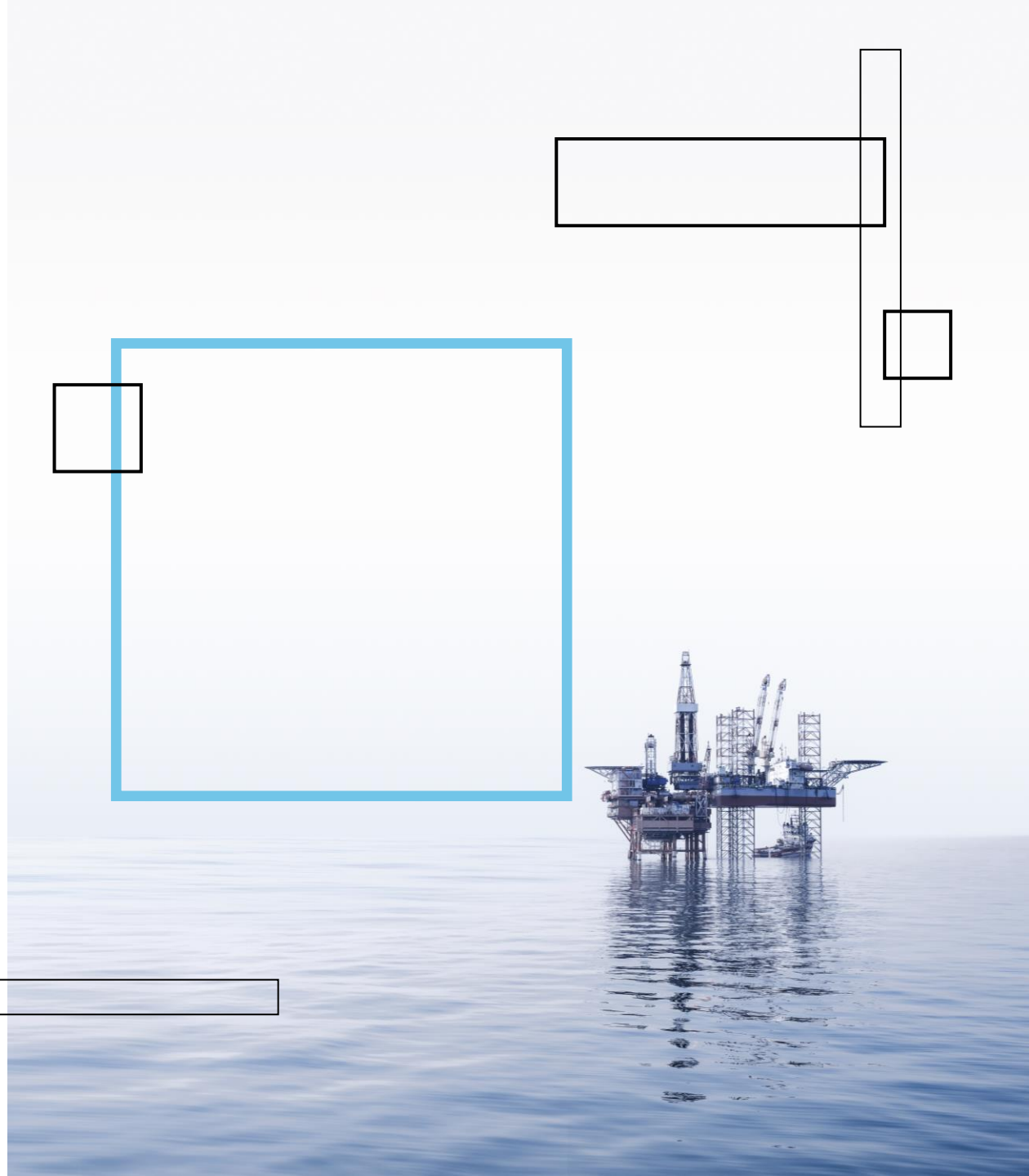


# ICE Midland WTI American Gulf Coast Futures

**Mike Wittner**

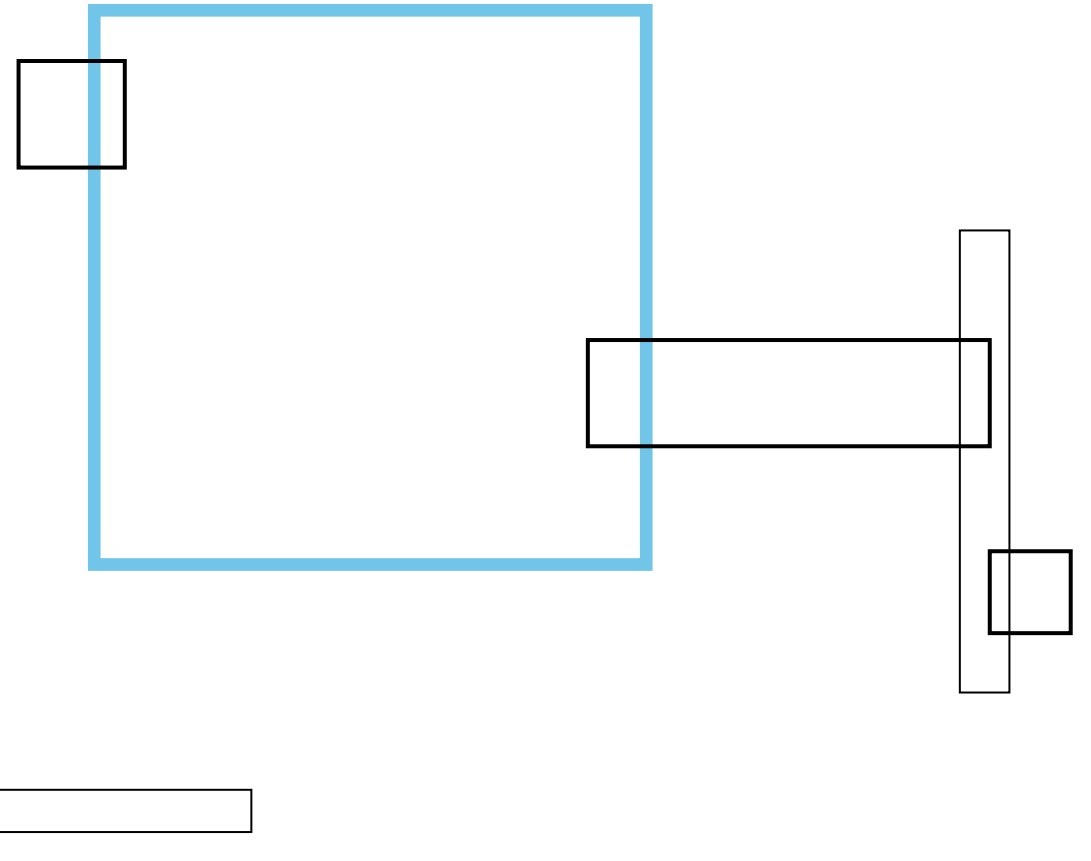
Global Head of Oil Market Research, ICE

April 28, 2022

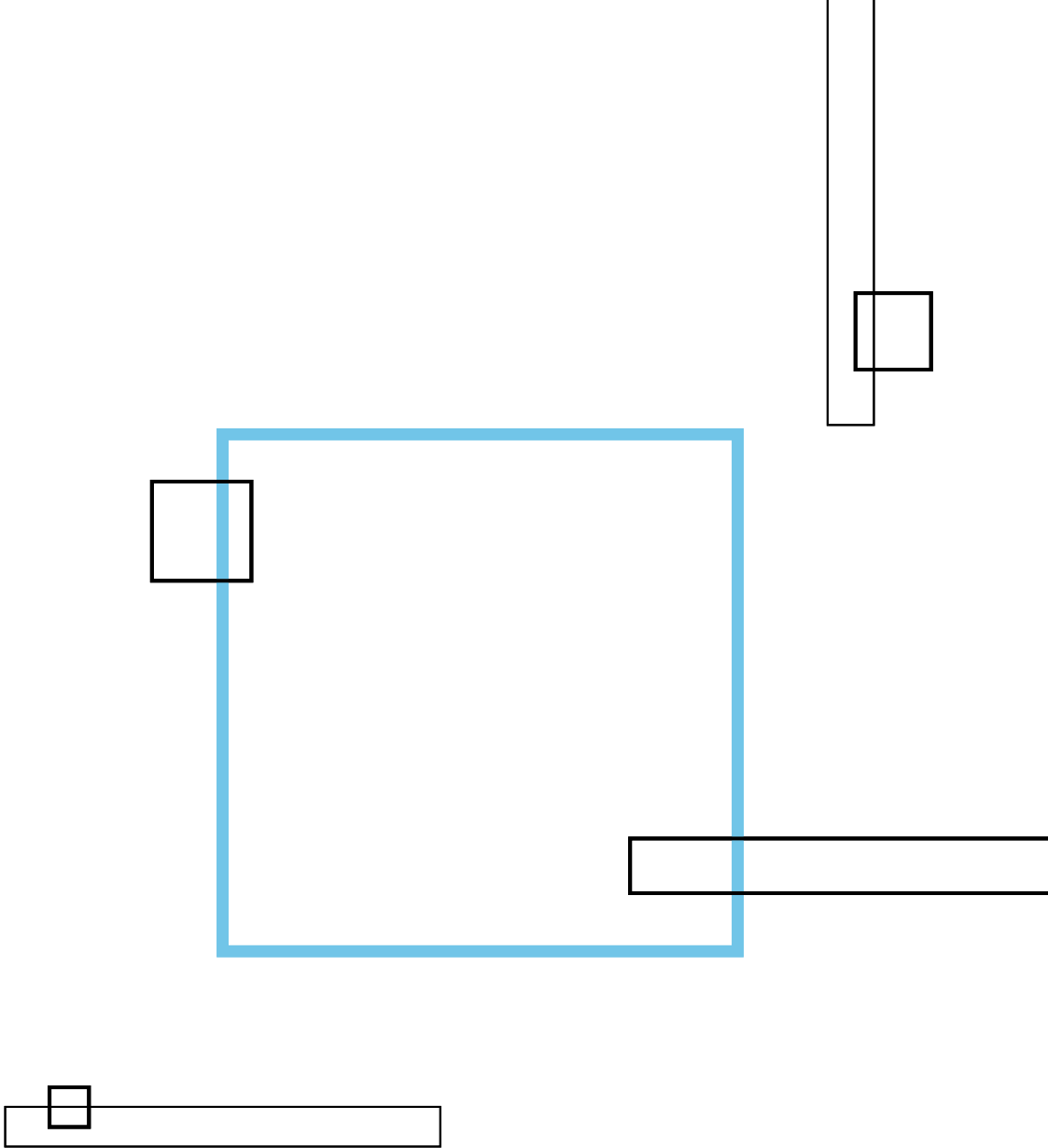


# ICE Midland WTI American Gulf Coast (HOU) Futures

- Why was the USGC contract restructured?
- USGC crude fundamentals
- Features of the ICE Midland WTI American Gulf Coast (HOU) crude oil futures contract
- Went live for trading on January 24, 2022



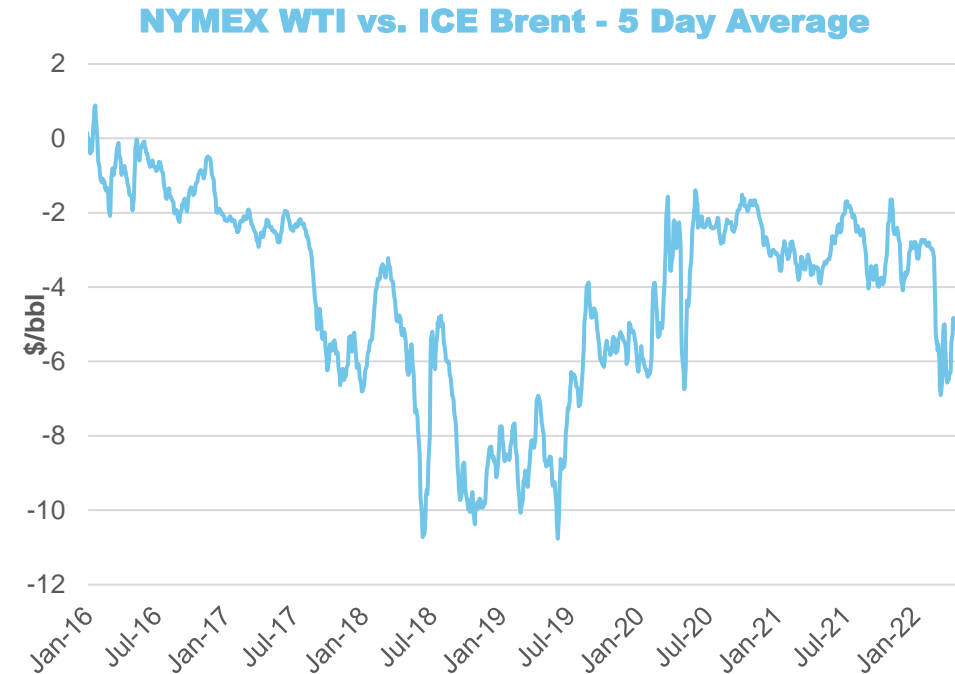
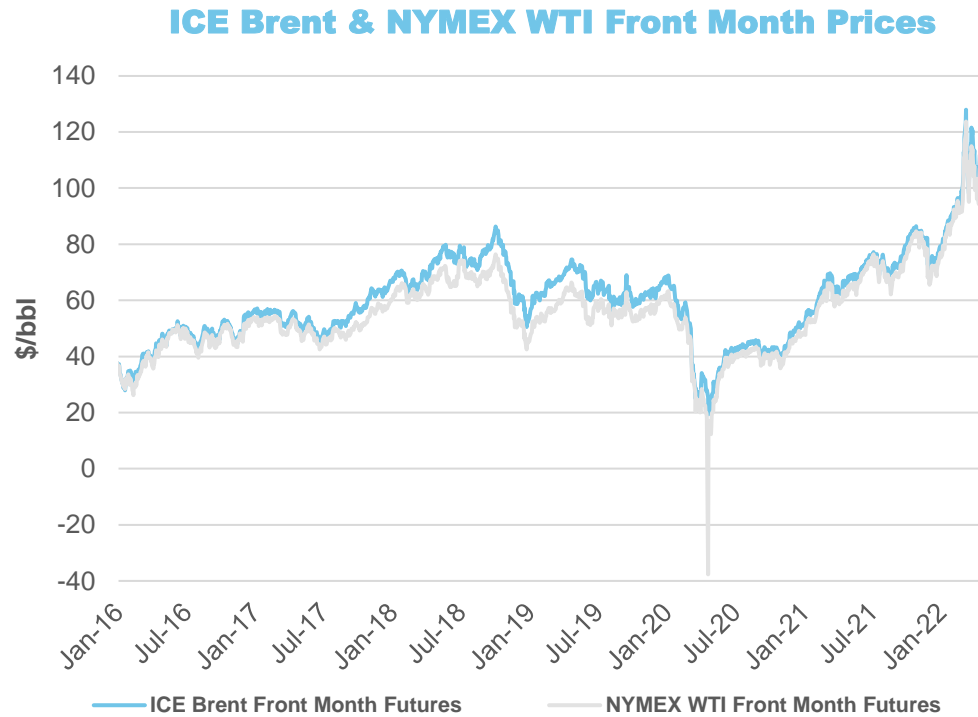
# Why was the USGC contract restructured?



# ICE Midland WTI American Gulf Coast (HOU) Futures: Why?

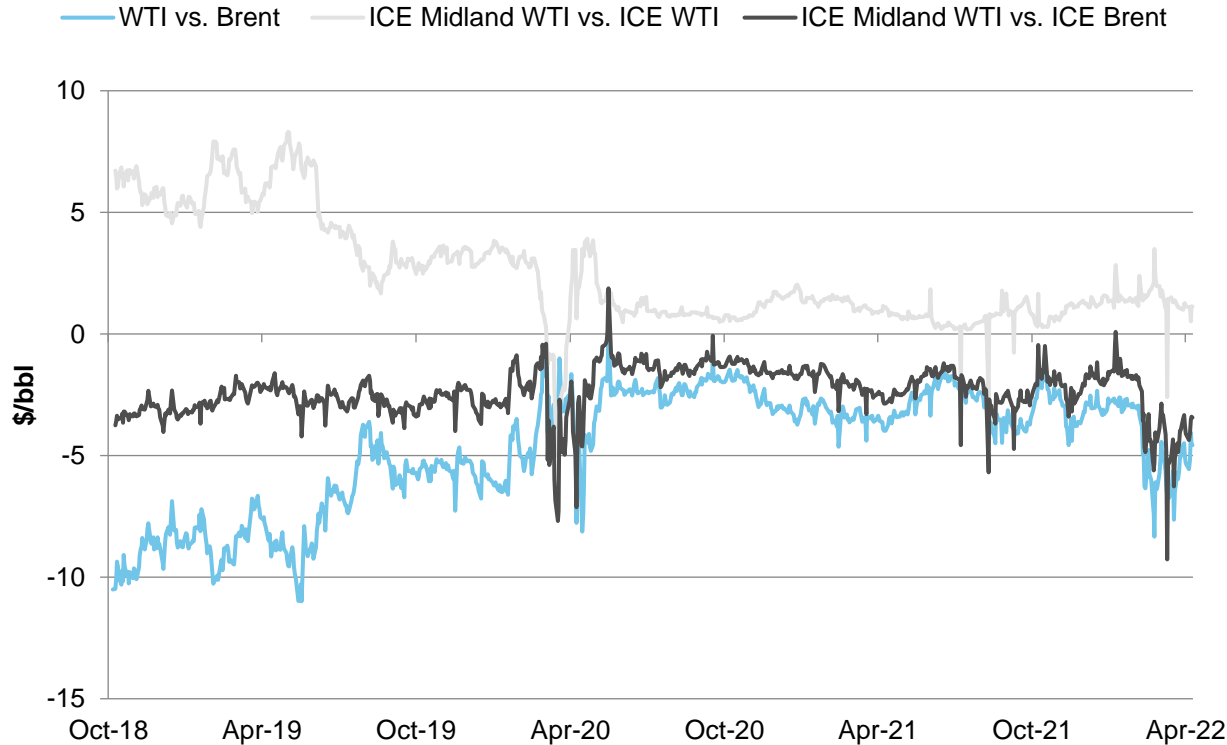
- The market wants and needs a physically deliverable futures contract that is transparent, liquid and truly representative of today's domestic market fundamentals
- To meet the needs for scale and redundancy, Magellan, Enterprise, and ICE agreed to work together to address the need in the market
- By aligning their vast supply capacity, system connectivity, storage capacity and export access, a truly representative domestic price can now be achieved
- With the dramatic shift in US crude fundamentals over the last 10 years, the marginal barrel that sets the domestic price has transitioned to WTI on the US Gulf Coast
- Houston's direct connectivity to more than half of US refining capacity, substantial waterborne exports and domestic outbound pipeline capacity, along with access to approximately 150 million barrels of crude storage capacity, solidify the price of WTI in Houston as the most representative price for US crude oil

# WTI negative pricing in April 2020: A catalyst for change



- April 20, 2020 closing prices: May NYMEX WTI -\$37.63, June ICE Brent \$25.57
- Futures prices have a very real impact on physical crude prices, which are quoted as a differential to NYMEX WTI Cushing

# Key USGC crude price differentials drive exports & hedging



Traders exposed to WTI where it meets the global waterborne market on the USGC. Once WTI hits the water, it prices off Brent or Dubai.

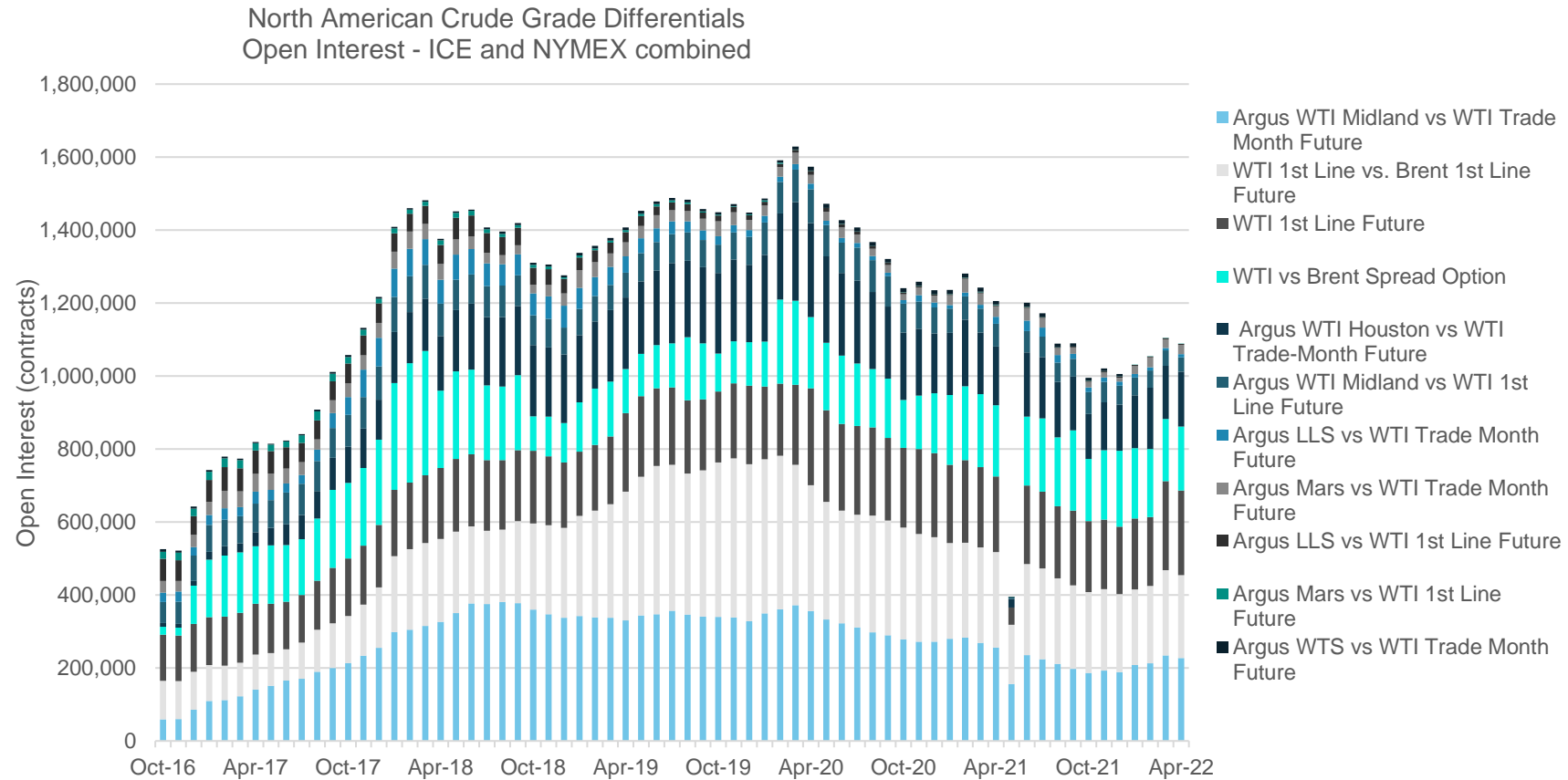
For US crude exports to Europe, the key is WTI priced at Houston vs. Brent, not WTI Cushing. How to hedge/manage this risk?

- A) WTI Cushing vs. ICE Midland WTI AGC (HOU)\*
- B) WTI Cushing vs. Brent
- C) ICE Midland WTI AGC (HOU) vs. Brent

Trader does A and B. The WTI Cushing legs cancel, and trader is left with C.

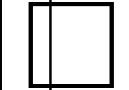
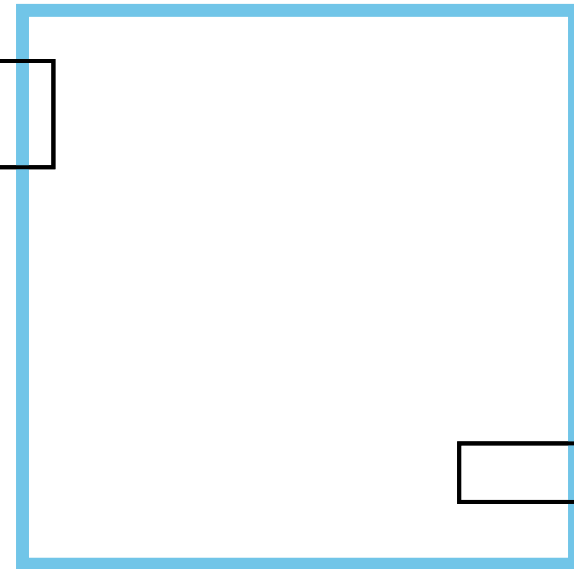
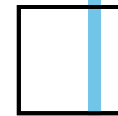
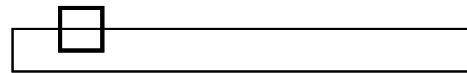
\* Note: this is the contract that was restructured; it was formerly named ICE Permian WTI (HOU)

# North American Crude Grade Differentials



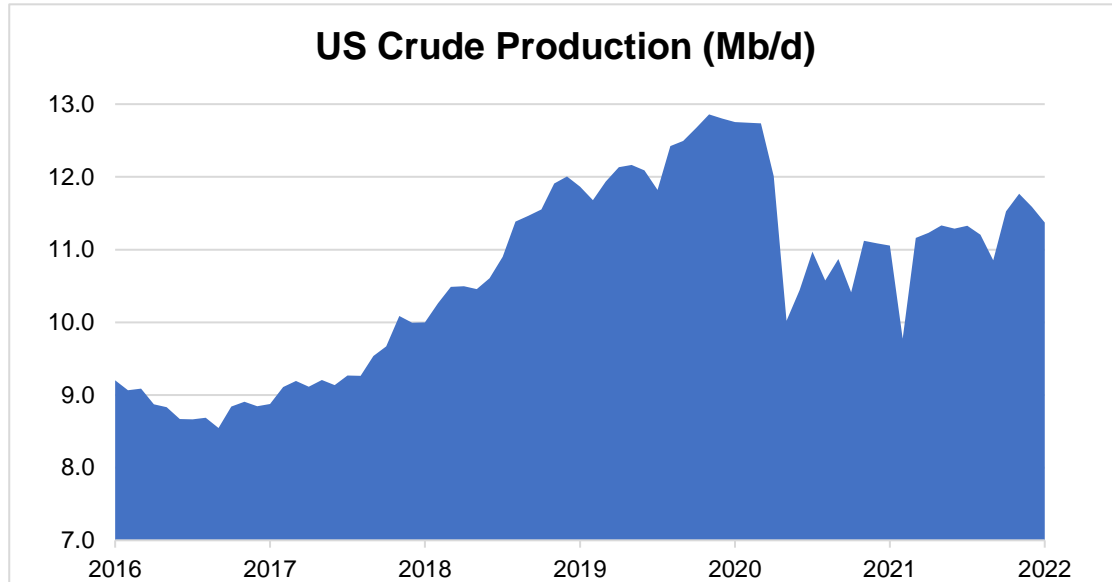
- A very significant market in terms of overall size
- There is room to make the market for grade differentials simpler and more efficient

# USGC Crude Fundamentals



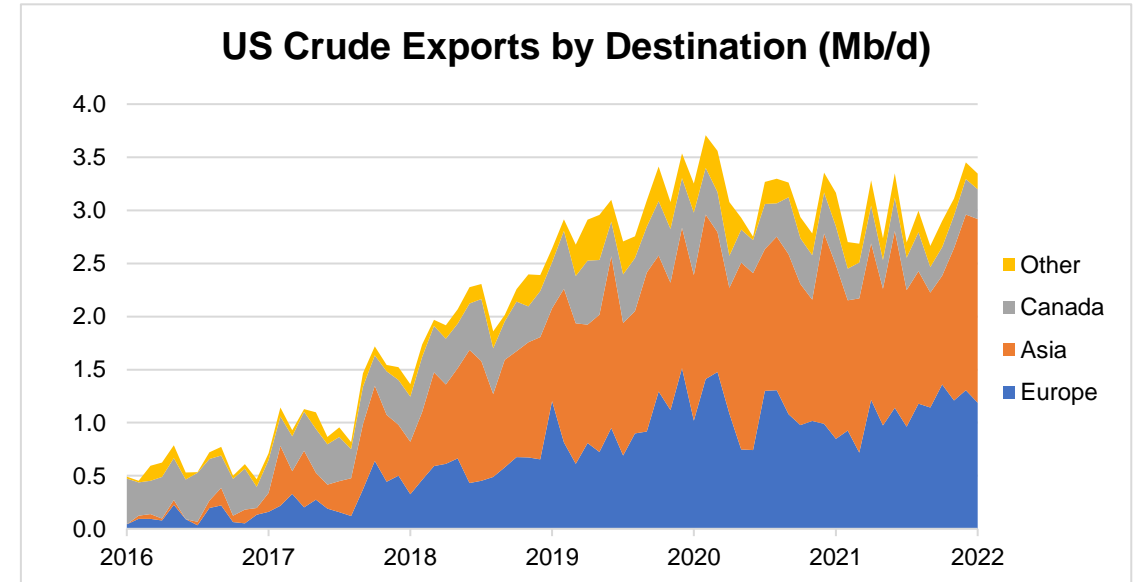
# Key USGC fundamentals

## US crude output & exports by destination



### US crude production

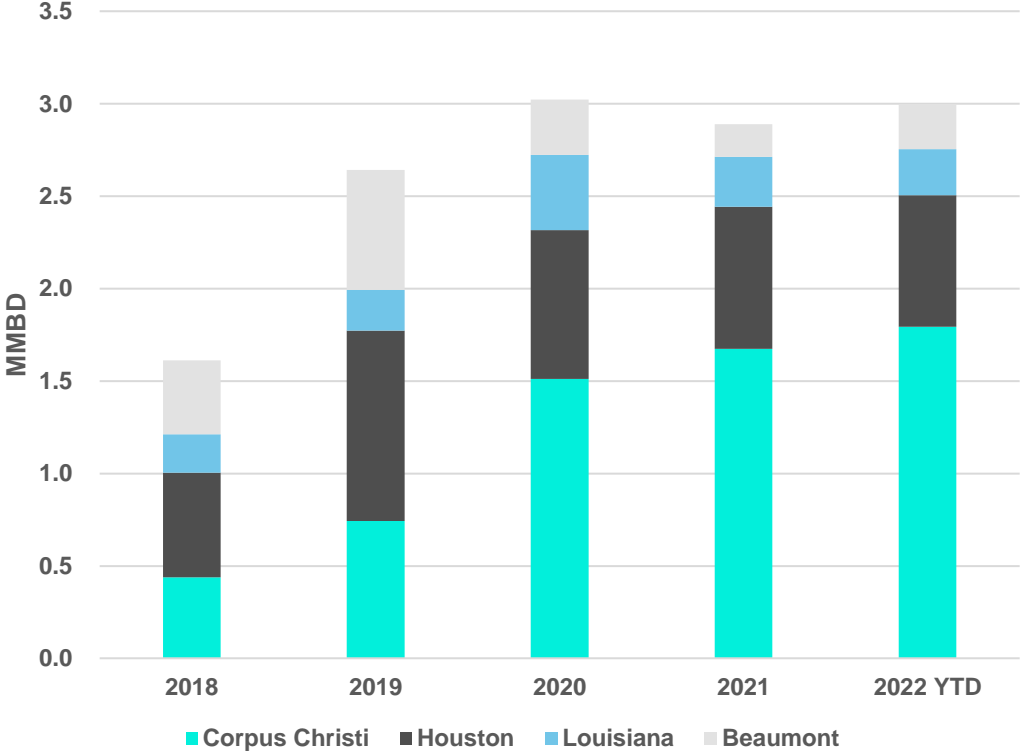
- Recently around 11.8 Mb/d (prelim)
- US EIA growth forecast: 0.8 Mb/d in 2022, 1.0 Mb/d in 2023
- Growth expected to be driven by Permian



### US crude exports

- 2021: 3.0 Mb/d (Asia: 1.4 Mb/d. Europe: 1.1 Mb/d)
- In 2022: exports should increase broadly in line with output. US refinery crude runs should increase in 2022, but this should be mainly met by higher imports of sour crude. Under normal circumstances, US refiners are maxed out in processing domestic light sweet grades.

# Key USGC fundamentals: US crude exports by loading port



US crude exports – 2022 YTD: 3.0 Mb/d

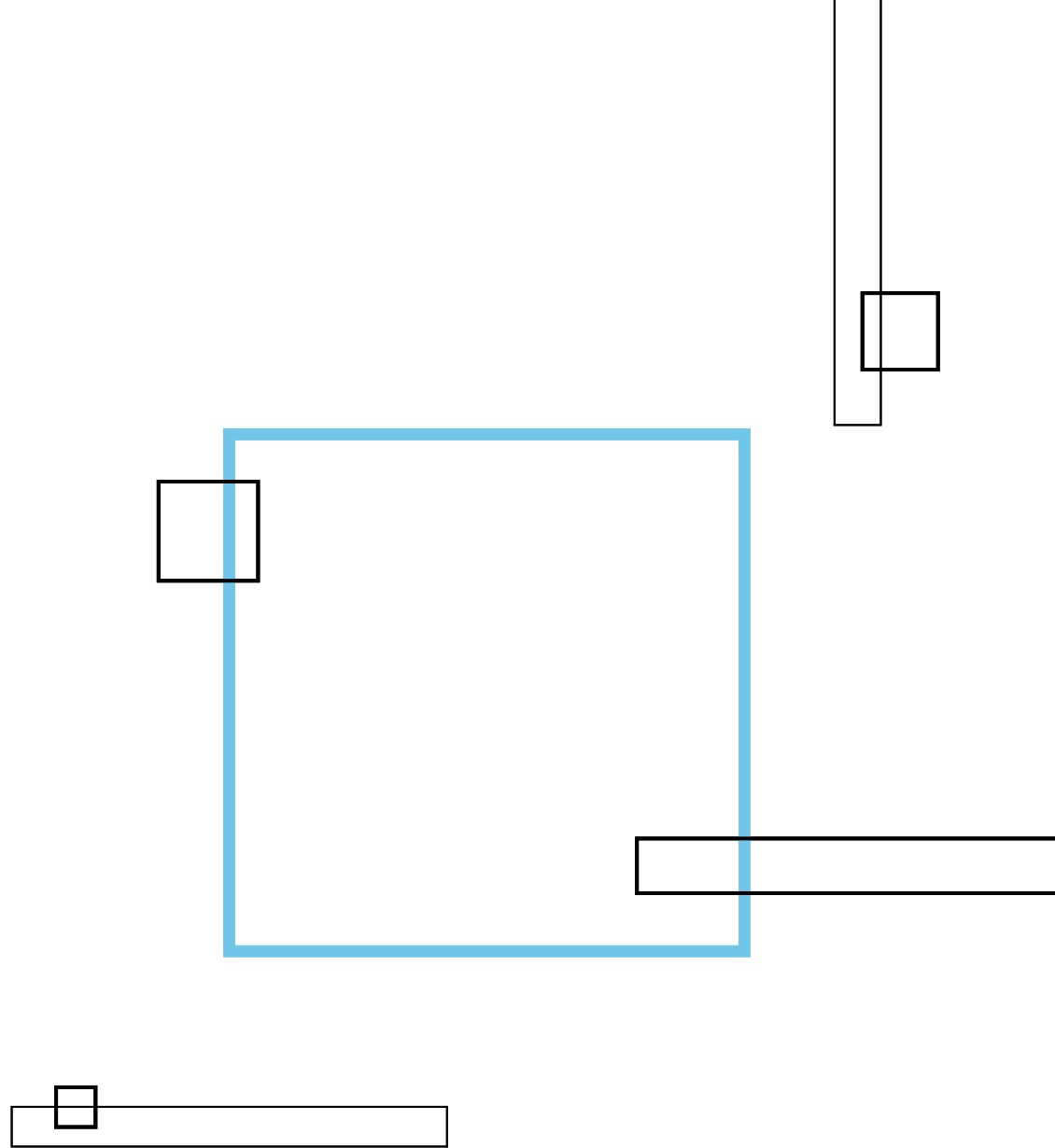
Houston: 0.7 Mb/d 2022 YTD (flat vs. 2021)

Corpus Christi: 1.8 Mb/d 2022 YTD (+0.1 Mb/d vs. 2021)



# ICE Midland WTI American Gulf Coast Futures (HOU):

# Features of the Contract



# Integrated ICE Midland WTI AGC Futures Contract (HOU)

## Futures Contract Overview

Futures contract for physical delivery at MEH and ECHO, establishing consistent quality and price transparency in the Houston market

Sellers have the option to deliver to either the MEH or ECHO terminal

Buyers have the ability to indicate their terminal of preference in which to take delivery

- In order to further facilitate trading between the terminals and to create one large liquidity pool, during the first year, Magellan and Enterprise have agreed to transfer Midland WTI barrels between MEH and ECHO for no charge, if the barrels are not delivered to the buyer's preferred terminal.
- A fee of 10 cents/bbl will be charged for Midland WTI transfers made outside of the contract.

Quality specifications are the best representation of Midland-quality WTI to date, developed through consultation with Permian producers, Gulf Coast refiners, and the international market

## Why Houston?

Backed by the most extensive crude oil infrastructure in the country, the Houston market provides optionality and redundancy of supply, storage, and take-away capacity, driving confidence for buyers and sellers

4+ MMBPD of direct inbound Midland quality WTI connectivity between MEH and ECHO with access to all inbound Permian to Houston supply.

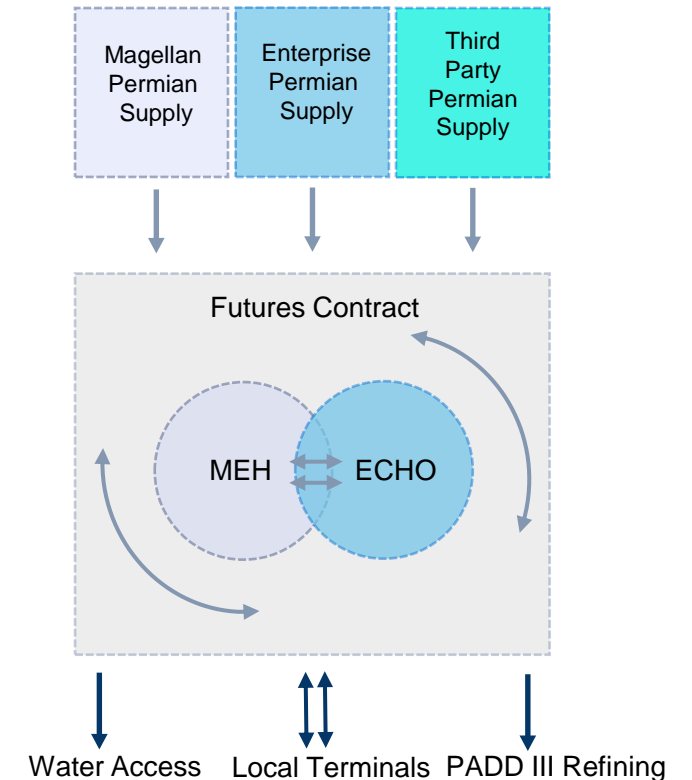
6+ MMBPD of direct outbound connectivity to demand centers between MEH and ECHO facilities

9+ MMBPD of outbound capacity

5+ MMBPD of Texas Gulf Coast refining capacity

490+ MMBbls of USGC (PADD 3) crude storage capacity (refineries, tank farms, terminals)

- 60+ Mb of Magellan/Enterprise crude storage capacity in Houston, out of a total 150 Mb



## ICE Midland WTI AGC (HOU) crude quality specs

PARAMETER	UNITS	MIN	MAX	REQUIRED TEST METHOD
API Gravity	°API, 60°F	40.0	44.0	ASTM D1298 or D5002
Sulfur Content	% (m/m)		0.20	ASTM D4294
Mercaptan Sulfur	Ppm Wt		75	UOP 163
RVP	PSI		9.0	ASTM D6377
BS&W	% (v/v)		1.0	ASTM D4007 per API MPMS 10.4
Nickel & Vanadium (Combined)	mg/kg		3.0	ASTM D8252 or D5708, Procedure B

- A tight and robust spec, ICE contract rules and oversight, and Magellan and Enterprise's strict/proven quality programs should protect and give confidence to buyers and sellers regarding Midland-origin
- It would be difficult to blend and not exceed one of the specs. Tight specs should address the “dumbbell crude” issue.
- Quality data will continue to be published by Magellan and Enterprise

# Comparing Contract/Location Fundamentals

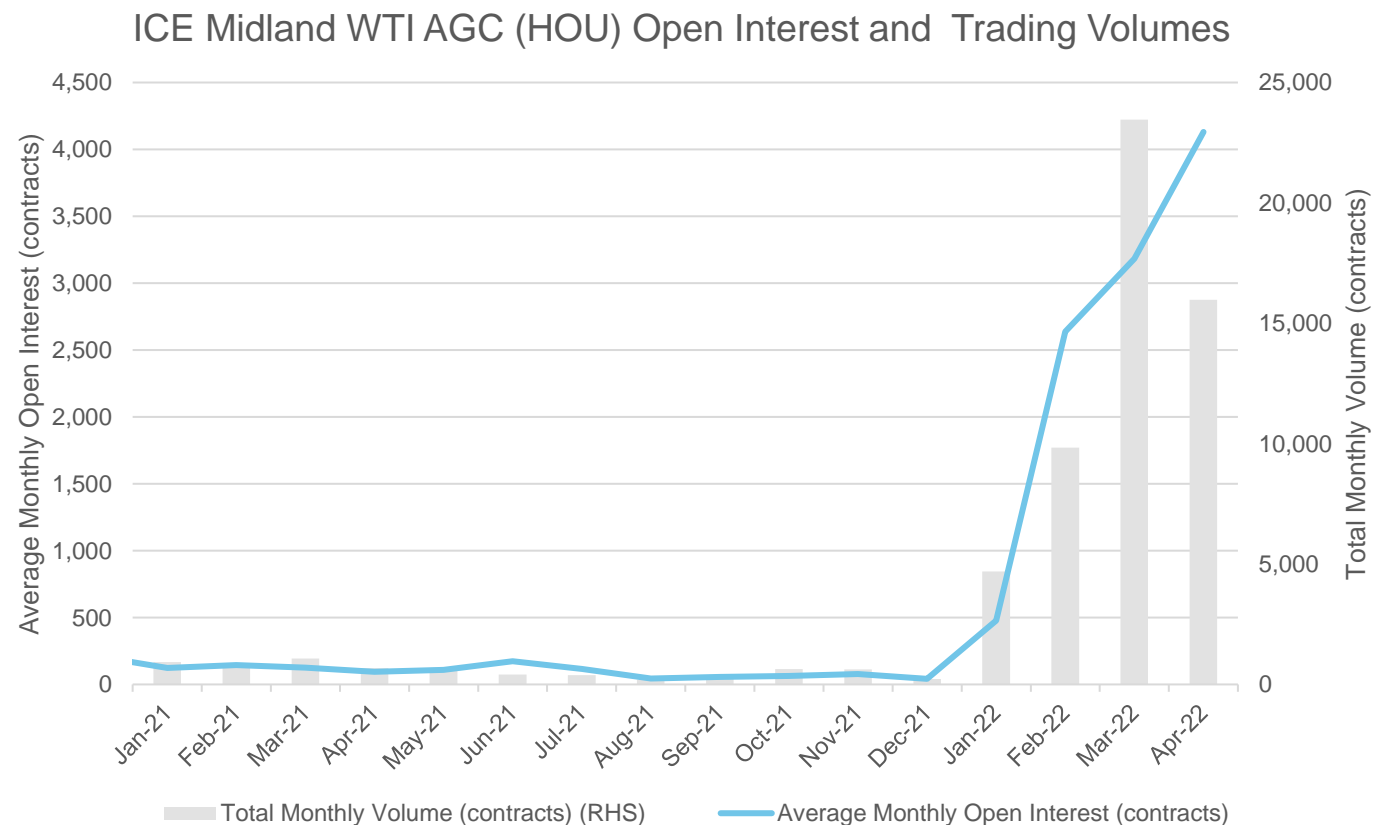
## Houston's Infrastructure Advantage

MIDLAND WTI AMERICAN GULF COAST "HOU"		NYMEX WTI CUSHING "CL"		CORPUS MARKET	
<b>Destinations:</b>		<b>Destinations:</b>		<b>Destinations:</b>	
<i>Enterprise / Magellan</i>		<i>Enterprise / Enbridge</i>		<i>N / A</i>	
<b>Capacity</b>		<b>Capacity</b>		<b>Capacity</b>	
<b>Storage:</b>	<u>63 MMBbbls</u>	<b>Storage:</b>	<u>37 MMBbbls</u>	<b>Storage:</b>	<u>N/A</u>
<i>TOTAL Houston</i>	<i>150 MMBbbls</i>	<i>TOTAL Cushing</i>	<i>94 MMBbbls</i>	<i>TOTAL Corpus</i>	<i>40 MMBbbls</i>
<b>Inbound:</b> <i>(Direct Permian Supply)</i>	~4.0 MMBPD	<b>Inbound:</b>	<1 MMBbbls	<b>Inbound:</b>	~2.5 MMBPD
<b>Outbound:</b>	~9.0 MMBPD	<b>Outbound:</b>	~3.2 MMBbbls	<b>Outbound:</b>	~6.4 MMBPD

### Ingredients for successful contracts include:

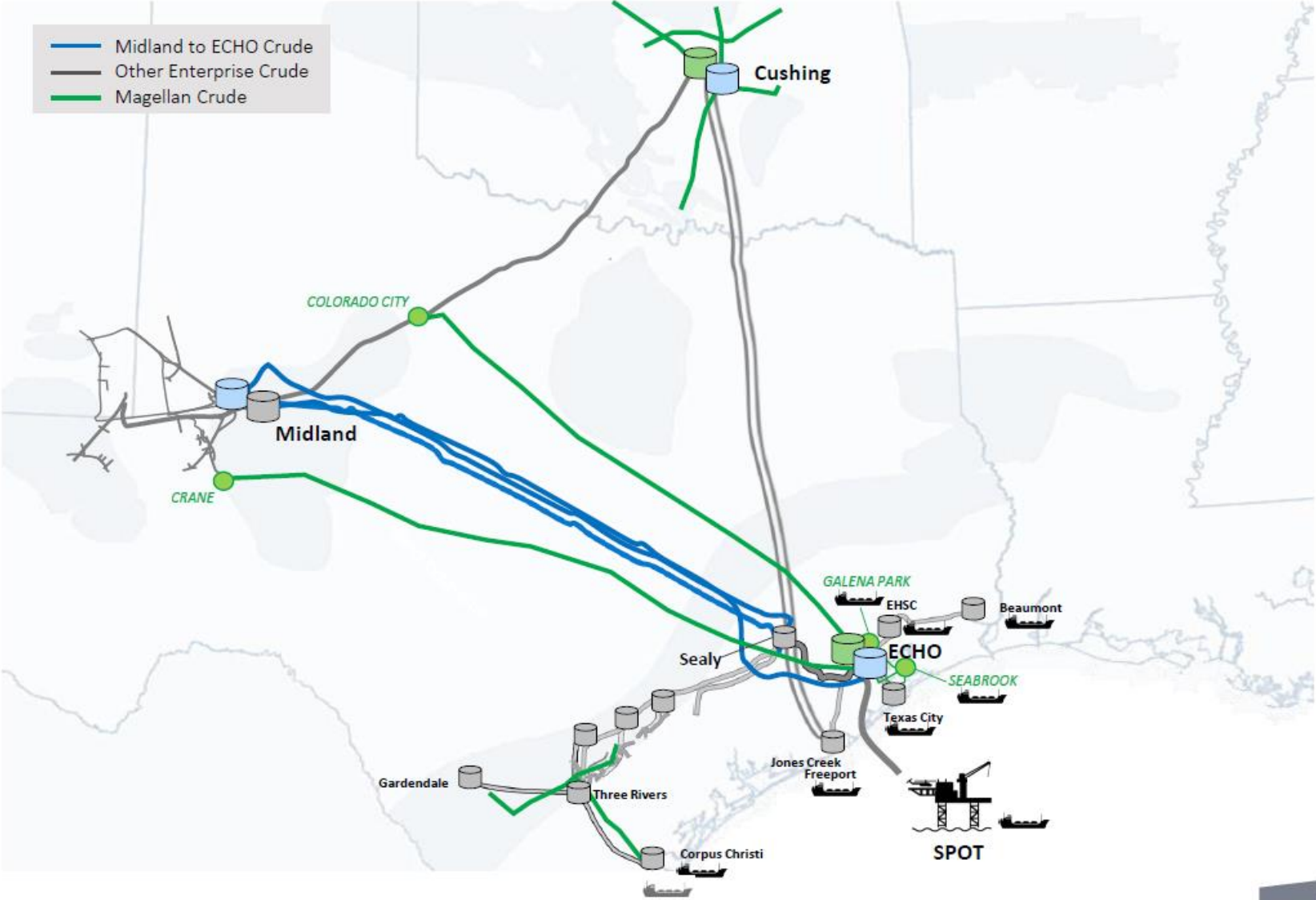
- Expansive storage
- Access to supply
- Connectivity to demand centers
- A diverse group of buyers and sellers
- Liquidity

# A successful restructuring for ICE Midland WTI AGC (HOU)



- Since Jan. 24, 2022, solid growth in trading volumes and open interest. Open interest extends out to January 2023.
- Contracts going to physical delivery also increasing
  - March contract (Feb. 22 expiry): 1,400 contracts to delivery (1.4 million bbls)
  - April contract (Mar. 22 expiry): 2,588 contracts to delivery (2.6 million bbls)
  - May contract (Apr. 20 expiry) 3,320 contracts to delivery (3.3 million bbls)

# Magellan & Enterprise Crude Systems





# Magellan / Enterprise Crude Storage Supporting Midland WTI AGC (HOU)

TERMINAL	CAPACITY
MEH	9 MMBbbls
ECHO	9 MMBbbls
SEALY	4 MMBbbls
TEXAS CITY	4 MMBbbls
FREEMPORT	3 MMBbbls
GALENA PARK	3 MMBbbls
SEABROOK	4 MMBbbls
EHSC	27 MMBbbls
<b>Total Capacity</b>	<b>63 MMBbbls</b>



# Midland WTI AGC (HOU) Supply

## The Houston Hub

Inbound Supply by Pipeline <i>Estimated</i>	
M2E1	620 MBPD
M2E2	225 MBPD
M2E3	450 MBPD
Wink to Webster	1,100 MBPD
Eagle Ford	400 MBPD
Ted Collins	250 MBPD
KMCC	350 MBPD
Longhorn	275 MBPD
Bridgetex	440 MBPD
<b>TOTAL</b>	<b>4,110 MBPD</b>

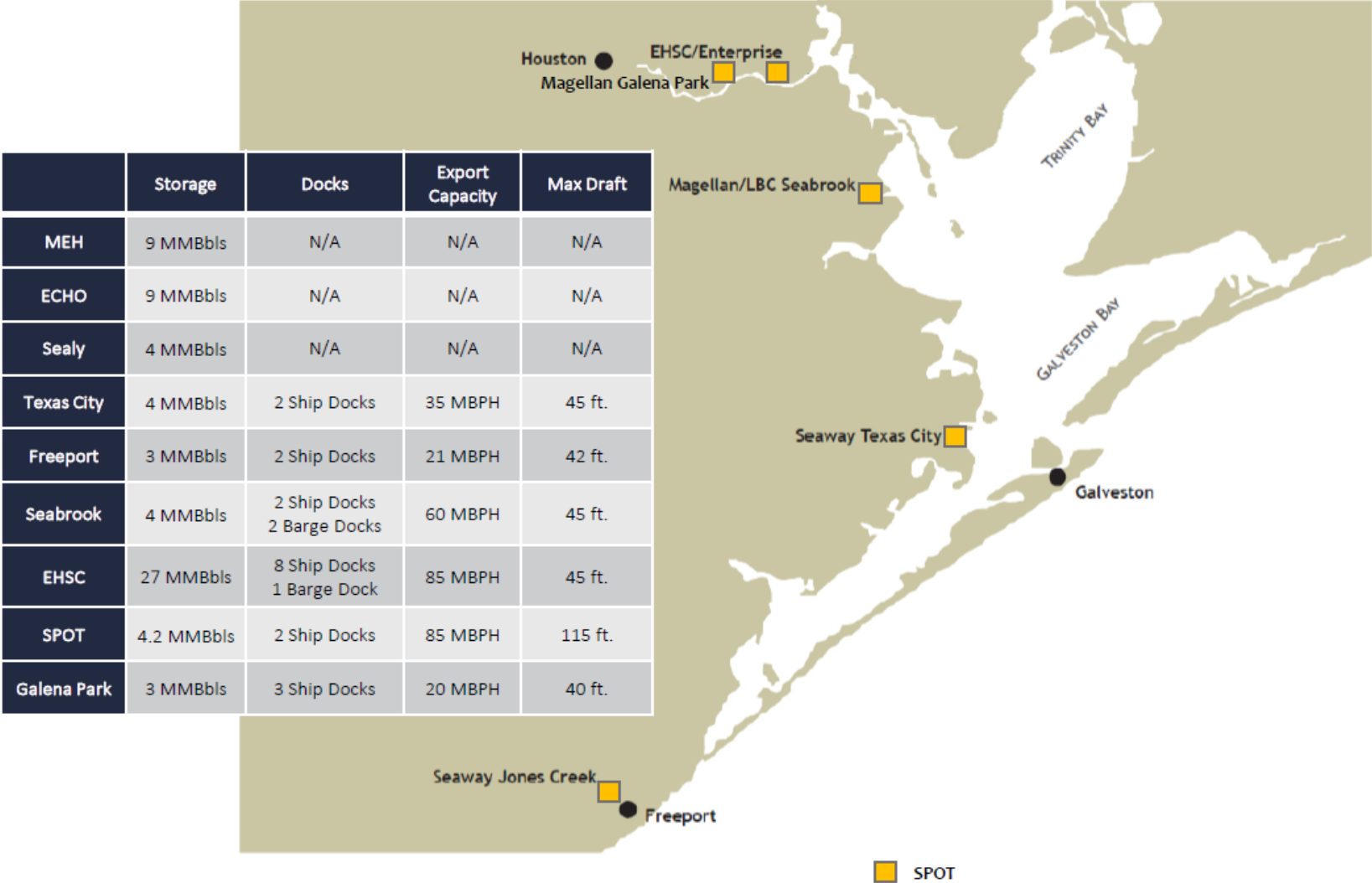


# Midland WTI AGC (HOU) Connectivity & Demand Centers

	DELIVERY POINT	CAPACITY	MAGELLAN	ENTERPRISE
Refineries	Exxon Baytown	560 MBPD	✓	✓
	Shell Deer Park	286 MBPD	✓	✓
	Houston Refining	264 MBPD	✓	✓
	Pasadena Refining	112 MBPD	✓	✓
	Valero Houston	191 MBPD	✓	✓
	Galveston Bay Refining/MPC Texas City	585 MBPD	✓	✓
	Valero Texas City	225 MBPD	✓	✓
Outbound Pipelines	Port Arthur Lateral	744 MBPD		✓
	Shell Zydeco	375 MBPD	✓	✓
Docks	EHSC	900 MBPD	✓	✓
	Seaway Texas City	840 MBPD		✓
	Seaway Freeport	504 MBPD		✓
	Seabrook	700 MBPD	✓	✓
	Galena Park	100 MBPD	✓	
TOTAL		6.4 MMBPD		



# Combined Houston-Area Exports





# **Summary & conclusions**

# Summary and conclusions

- The pairing of the Magellan and Enterprise systems provides the needed redundancy in asset ownership, extensive connectivity and capability, and industry expertise that will provide the market with the utmost confidence in a successful contract.
- Today, oil producers, refiners, exporters and traders use a combination of two or three basis trades to attempt to hedge their U.S. Gulf Coast exposure, which introduces unnecessary risk to crude prices and logistics from Cushing, Oklahoma.
- The ICE Midland WTI AGC (HOU) futures contract enables participants to directly price and hedge the marginal domestic barrel (Midland WTI quality crude) in the most efficient and cost-effective manner. Producers can hedge output, refiners and exporters can hedge supply and traders can easily manage positions.
- Very strong infrastructure: supply of Midland-origin WTI crude, system connectivity to domestic refining demand and export access, crude storage capacity
- One large liquidity pool of HOU quality crude, with no fees for transfers between MEH and ECHO for deliveries against the HOU contract.

# Contacts and resources

For more information on ICE Midland WTI American Gulf Coast Futures (HOU)

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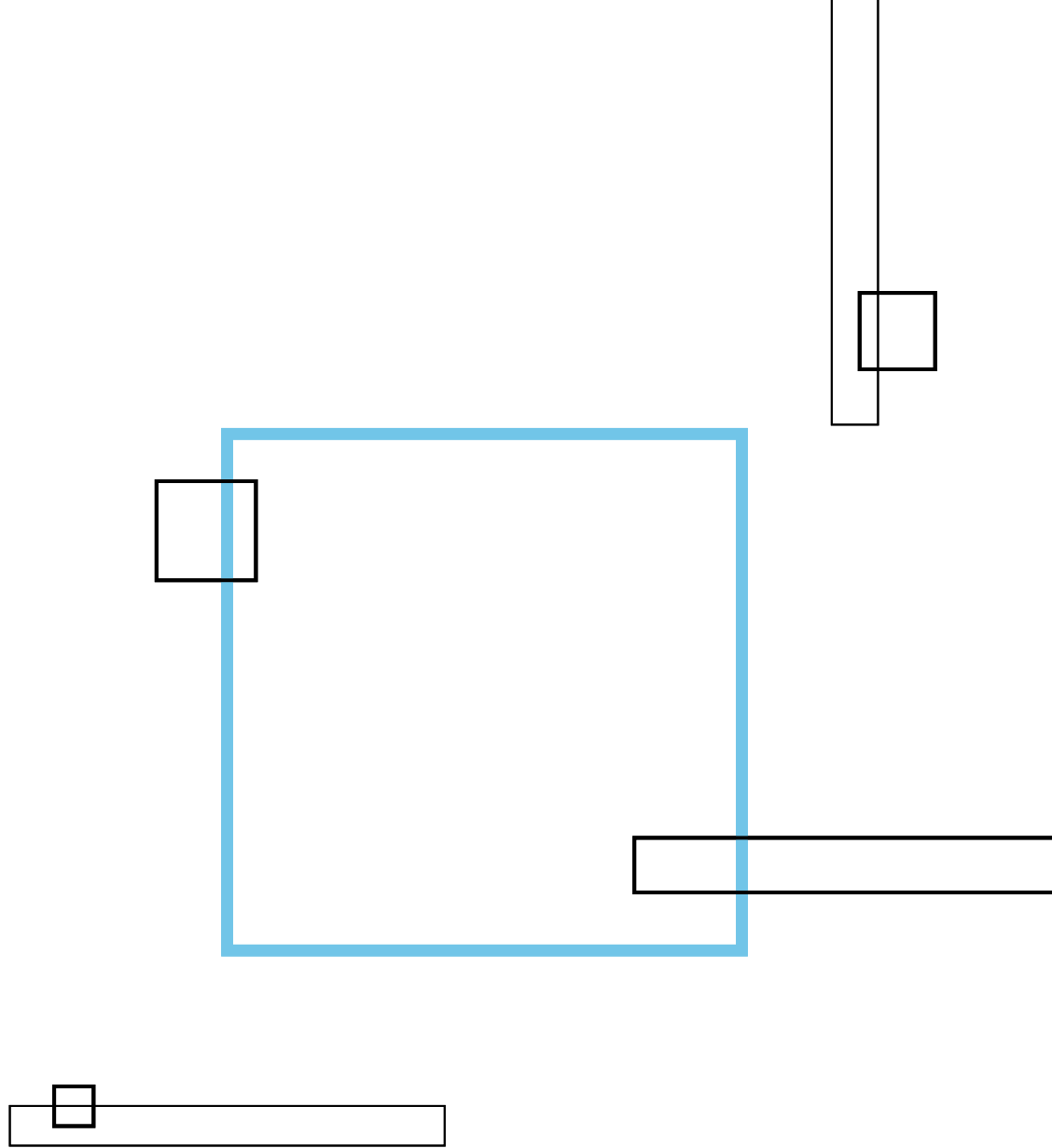
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# Thank You



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