SUBMISSION COVER SHEET							
IMPORTANT:	IMPORTANT: Check box if Confidential Treatment is requested						
0	ty Identifier Cod						
Organization: New York Mercantile Exchange, Inc. ("NYMEX")							
Filing as a:	<b>∠DCM</b> [	SEF	<b>DCO</b>	SDR			
	ly ONE choice a						
•	n/dd/yy): <u>08/07/2</u> Trade Month Ave	_	-	Listing of the WTI Houston vs	<u>i.</u>		
W 11 Midiand 1	Tauc Month Ave	rage Trice O	otion Contract				
SPECIFY FILI		arvad nan Cub	mission				
_	y ONE choice all	-	)IIIISSIUII <b>.</b>				
ΓĬ	ules and Rule A	mendments					
Certificat				§ 40.6(a)			
Approval				§ 40.5(a)			
Notificati	ion			§ 40.6(d)			
Advance	Notice of SIDCO I	Rule Change		§ 40.10(a)			
	Emergency Rule Ch	ange		§ 40.10(h)			
Rule Numbers:							
New Product	P	lease note onl	y ONE produc	t per Submission.			
Certificat	tion			§ 40.2(a)			
Certificat	tion Security Future	es		§ 41.23(a)			
Certificat	tion Swap Class			§ 40.2(d)			
Approval	[			§ 40.3(a)			
Approval	Security Futures			§ 41.23(b)			
Novel De	erivative Product N	otification		§ 40.12(a)			
Swap Sul				§ 39.5			
Official Product	Name: See filing.						
<b>Product Terms</b>	and Conditions	(product rela	ted Rules and	Rule Amendments)			
Certificat	tion			§ 40.6(a)			
Certificat	tion Made Availabl	e to Trade Dete	rmination	§ 40.6(a)			
Certificat	tion Security Future	es		§ 41.24(a)			
Delisting	(No Open Interest)	)		§ 40.6(a)			
Approval	[			§ 40.5(a)			
Approval	Made Available to	Trade Determi	nation	§ 40.5(a)			
Approval	Security Futures			§ 41.24(c)			
Approval	Amendments to er	numerated agric	ultural products	§ 40.4(a), § 40.5(a)			
"Non-Ma	nterial Agricultural	Rule Change"		§ 40.4(b)(5)			
Notificati	ion			§ 40.6(d)			
Official Name(s) of Product(s) Affected: Rule Numbers:							



August 7, 2024

## **VIA ELECTRONIC PORTAL**

Mr. Christopher J. Kirkpatrick Office of the Secretariat Commodity Futures Trading Commission Three Lafayette Centre 1155 21st Street, N.W. Washington, D.C. 20581

Re: CFTC Regulation 40.2(a) Certification. Initial Listing of the WTI Houston vs.

WTI Midland Trade Month Average Price Option Contract.

NYMEX Submission No. 24-269

Dear Mr. Kirkpatrick:

New York Mercantile Exchange, Inc. ("NYMEX" or "Exchange") is certifying to the Commodity Futures Trading Commission ("CFTC" or "Commission") the initial listing of the WTI Houston vs. WTI Midland Trade Month Average Price Option contract (the "Contract") for trading on the CME Globex electronic trading platform ("CME Globex") and for submission for clearing via CME ClearPort, effective Sunday, August 25, 2024, for trade date Monday, August 26, 2024 as described in the table below.

Contract Title	WTI Houston vs. WTI Midland Trade Month Average Price Option
Commodity Code	LHN
Rulebook Chapter	807
Underlying Futures	WTI Houston (Argus) vs. WTI Trade Month Futures / HTT
Contract / Commodity	WTT housion (Argus) vs. WTT frade Month Futures / TTT WTI Midland (Argus) vs. WTI Trade Month Futures / WTT
Code	Will Midiatid (Algus) vs. Will Hade Month Futures / Will
Contract Size	1,000 barrels
Price Quotation	US dollars and cents per barrel
Minimum Price	\$0.01
Fluctuation	\$0.01
Value per Tick	\$10.00
Option Exercise Style	Financially settled, European style
Listing Schedule	Monthly contracts listed for the current year and next two calendar years. List new
Listing Schedule	contracts following the termination of trading the December contract.
Initial Listing	October 2024 – December 2026
	Minimum 10 strikes at \$0.05 per barrel increment above and below the at-the-
Strike Price Increments	money strike plus dynamic strikes at \$0.05 per barrel increment for the nearest 12
Strike Price increments	months.
	Dynamic strikes only at \$0.05 per barrel increment for months 13+.
Block Trade Minimum	5
Threshold	5 contracts - subject to a 15-minute reporting window
	Trading terminates on the 25th calendar day of the month prior to the contract
Termination of Trading	month. If the 25th calendar day is not a business day, trading terminates on the
	business day prior to the 25th calendar day.

Trading and Clearing Hours	CME Globex Pre-open: Sunday 4:00 p.m 5:00 p.m. Central Time/CT Tuesday – Thursday 4:45 p.m 5:00 p.m. CT CME Globex: Sunday 5:00 p.m. – Friday 4:00 p.m. CT with a daily maintenance period from 4:00 p.m 5:00 p.m. CT CME ClearPort: Sunday 5:00 p.m Friday 4:00 p.m. CT with no reporting Tuesday - Thursday from 4:00 p.m. – 5:00 p.m. CT
-------------------------------	---

Exhibit A provides NYMEX Chapter 807. Exhibit B provides the Position Limits, Position Accountability and Reportable Level Table. Exhibit C provides the Exchange fees. Exhibit D provides the NYMEX Rule 588.H. ("Globex Non-Reviewable Trading Ranges") table. The Strike Price Listing and Exercise Procedures Table for the Contract is provided in Exhibit E. Exhibit F provides the Cash Market Overview and the Analysis of Deliverable Supply.

The Exchange reviewed the designated contract market core principles ("Core Principles") as set forth in the Commodity Exchange Act ("CEA" or "Act") and identified that the Contract may have some bearing on the following core principles:

- Compliance with Rules: Trading in the Contract will be subject to Chapter 4 of the Exchange rules
  which includes prohibitions against fraudulent, non-competitive, unfair and abusive practices and
  will be subject to extensive monitoring and surveillance by CME Group's Market Regulation
  Department. The Market Regulation Department may use its investigatory and enforcement power
  where potential rule violations are identified during its regular surveillance reviews.
- Contract Not Readily Subject to Manipulation: The Contract is not readily susceptible to manipulation and are based on the liquidity and robustness of the underlying cash markets.
- Prevention of Market Disruption: Trading in the Contract will be subject to the Rules of NYMEX which include prohibitions on manipulation, price distortion and disruptions of the delivery or cash-settlement process. As with all products listed for trading on one of CME Group's designated contract markets, activity in the new products will be subject to extensive monitoring and surveillance by CME Group's Market Regulation Department.
- **Position Limitations or Accountability**: The speculative position limits for the Contract as demonstrated in this submission are consistent with the Commission's guidance.
- Availability of General Information: The Exchange will publish on its website information regarding contract specifications, terms and conditions, as well as daily trading volume, open interest and price information for the Contract.
- <u>Daily Publication of Trading Information</u>: The Exchange will publish information on contract trading volumes, open interest levels, and price information daily on its website and through quote vendors for the Contract.
- Execution of Transactions: The Contract will be listed for trading on the CME Globex electronic trading and for clearing through CME ClearPort. The CME Globex trading venue provides for competitive and open execution of transactions. CME Globex affords the benefits of reliability and global connectivity.
- <u>Trade Information</u>: All required trade information for the Contract will be included in the audit trail and is sufficient for the Market Regulation Department to monitor for market abuse.

- <u>Financial Integrity of Contract</u>: The Contract will be cleared by the CME Clearing House, which is a registered derivatives clearing organization with the Commission and is subject to all Commission regulations related thereto.
- <u>Protection of Market Participants</u>: NYMEX Rulebook Chapters 4 and 5 contain multiple
  prohibitions precluding intermediaries from disadvantaging their customers. These rules apply to
  trading on all of the Exchange's competitive trading venues and will be applicable to transactions
  in the Contract.
- <u>Disciplinary Procedures</u>: Chapter 4 of the Rulebook contains provisions that allow the Exchange to discipline, suspend or expel members or market participants that violate the rules. Trading in the Contract will be subject to Chapter 4, and the Market Regulation Department has the authority to exercise its enforcement power in the event rule violations in these Contracts is identified.
- <u>Dispute Resolution</u>: Disputes with respect to trading in the Contract will be subject to the arbitration provisions set forth in Chapter 6 of the Rulebook. The rules in Chapter 6 allow all nonmembers to submit a claim for financial losses resulting from transactions on the Exchange to arbitration. A member named as a respondent in a claim submitted by a nonmember is required to participate in the arbitration pursuant to the rules in Chapter 6. Additionally, the Exchange requires that members resolve all disputes concerning transactions on the Exchange via arbitration.

Pursuant to Section 5c(c) of the Act and CFTC Regulation 40.2(a), the Exchange hereby certifies that the Contract complies with the Act, including regulations under the Act. There were no substantive opposing views to the proposal.

The Exchange certifies that this submission has been concurrently posted on the CME Group website at <a href="http://www.cmegroup.com/market-regulation/rule-filings.html">http://www.cmegroup.com/market-regulation/rule-filings.html</a>.

Should you have any questions concerning the above, please contact the undersigned at (312) 466-7478 or via e-mail at CMEGSubmissionInquiry@cmegroup.com.

Sincerely,

/s/ Timothy Elliott
Managing Director and Chief Regulatory Counsel

Attachments: Exhibit A: NYMEX Rulebook Chapter 807

Exhibit B: Position Limits, Position Accountability and Reportable Level Table in Chapter 5 of the NYMEX Rulebook (attached under separate cover)

Exhibit C: Exchange Fees

Exhibit D: NYMEX Rule 588.H. – ("Globex Non-Reviewable Trading Ranges") Table Exhibit E: NYMEX Rule 300.20. – Strike Price Listing and Exercise Procedures Table

Exhibit F: Cash Market Overview and Analysis of Deliverable Supply

## **Exhibit A**

## NYMEX Rulebook Chapter 807

## WTI Houston vs. WTI Midland Trade Month Average Price Option

## 807100. SCOPE OF CHAPTER

This chapter is limited in application to put and call intercommodity spread options on the settlement price of the WTI Houston (Argus) vs. WTI Trade Month Futures (Commodity Code: HTT/Rulebook Chapter 319) less the settlement price of the WTI Midland (Argus) vs. WTI Trade Month Futures (Commodity Code: WTT/Rulebook Chapter 1142) (the "Intercommodity Spread"). In addition to the rules of this chapter, transactions in the WTI Houston vs. WTI Midland Trade Month Average Price Option shall be subject to the general rules of the Exchange insofar as applicable.

#### 807101. OPTION CHARACTERISTICS

The number of contracts open for trading at a given time shall be determined by the Exchange.

#### 807101.A. Trading Schedule

The hours of trading for this contract shall be determined by the Exchange.

### 807101.B. Trading Unit

A Put Option contract will represent the cash difference between the strike price less the final settlement price of the Intercommodity Spread multiplied by 1,000, or zero, whichever is greater. A Call Option represents the cash difference of the final settlement price of the Intercommodity Spread contract less the strike price multiplied by 1,000, or zero, whichever is greater.

#### 807101.C. Price Increments

Prices shall be quoted in dollars and cents per barrel and prices shall be in multiples of \$0.01 per barrel. The minimum price increment will be \$0.01.

#### 807101.D. Position Limits, Exemptions, Position Accountability and Reportable Levels

The applicable position limits and/or accountability levels, in addition to the reportable levels, are set forth in the Position Limit, Position Accountability and Reportable Level Table in the Interpretations & Special Notices Section of Chapter 5.

A Person seeking an exemption from position limits for bona fide commercial purposes shall apply to the Market Regulation Department on forms provided by the Exchange, and the Market Regulation Department may grant qualified exemptions in its sole discretion.

Refer to Rule 559 for requirements concerning the aggregation of positions and allowable exemptions from the specified position limits.

## 807102.E. Termination of Trading

Trading shall cease at the close of trading on the last business day that falls on or before the 25th calendar day of the month prior to the contract month. If the 25th calendar day is a weekend or holiday, trading shall cease on the first business day prior to the 25th calendar day.

### 807101.F. Type Option

The option is a financially-settled European-style option contract which cannot be exercised prior to expiration.

#### 807102. EXERCISE PRICES AND CHARACTERISTICS

Transactions shall be conducted for option contracts as set forth in Rule 300.20.

### 807103. DISCLAIMER

See NYMEX/COMEX Chapter iv. ("DISCLAIMERS") incorporated herein by reference.

## Exhibit B

# NYMEX Rulebook Chapter 5 ("Trading Qualifications and Practices") Position Limits, Position Accountability and Reportable Level Table

(attached under separate cover)

## Exhibit C

## **Exchange Fees**

	Member	Non-Member
CME Globex	\$0.70	\$1.50
Block	\$1.85	\$2.65
EFR/EOO	\$1.85	\$2.65

Processing Fees		
	Member	Non-Member
Cash Settlement	\$0.90	\$1.15
Facilitation Fee	\$0.	.60
Give-Up Surcharge	\$0.	.05
Position Adjustment/Position		
Transfer	\$0.	.10

## Exhibit D NYMEX Rulebook Chapter 5

# Chapter 5 ("Trading Qualifications and Practices")

## Rule 588.H. ("Globex Non-Reviewable Trading Ranges") Table

(additions <u>underscored</u>)

			Outrights	
Instrument	Globex Symbol	Globex Non- Reviewable Ranges (NRR)	NRR: Globex Format	NRR:Minimum Ticks
WTI Houston vs. WTI Midland Trade Month Average Price Option	<u>LHN</u>	The greater of the f  •Delta multiplied by reviewable range •20% of premium u non-reviewable ran •5 ticks	y the underlying up to ¼ of the un	

## Exhibit E

## NYMEX Rulebook Chapter 300 ("Options Contracts")

## Rule 300.20. - Strike Price Listing and Exercise Procedure Table

(additions <u>underscored</u>)

Comm- odity Code	CME Globex Code	Product Name	Product Group	Product Sub- group	Ex- change	Rule- book Chapt er	Strike Price Listing Rule	Option Style	Contrary Instructions	Margin Style	Exact At- The- Money Charac- teristics	Under- lying Comm- odity Code	Under-lying Product Name
		WTI Houston vs. WTI Midland					Minimum 10 strikes at \$0.05 per barrel increment above and below the at- the-money strike plus dynamic	CI CI	/ Settled		/ Settled	HTT	WTI Houston (Argus) vs. WTI Trade Month Futures
LHN	<u>LHN</u>	Trade Month Average Price Option	Energy	<u>Crude</u> <u>Oil</u>	NYMEX	807	strikes at \$0.05 per barrel increment for the nearest 12 months. Dynamic strikes only at \$0.05 per barrel increment for months 13+.	European	N/A - Financially Settled	Equit <u>y</u>	N/A - Financially	<u>WTT</u>	WTI Midland (Argus) vs. WTI Trade Month Futures

## Exhibit F Cash Market Overview and Analysis of Deliverable Supply

New York Mercantile Exchange, Inc. ("NYMEX" or "Exchange") is certifying to the Commodity Futures Trading Commission ("CFTC") the initial listing of the WTI Houston vs. WTI Midland Trade Month Average Price Option (the "Contract") for trading on the CME Globex electronic trading platform ("CME Globex") and for submission for clearing via CME ClearPort.

Contract Title	WTI Houston vs. WTI Midland Trade Month Average Price Option
Commodity Code	LHN
Rulebook Chapter	807

## **WTI Houston Cash Market Overview**

There is an active physical crude oil trading center based in Houston, Texas, which is a major hub for oil storage facilities and pipelines with direct connectivity to the Cushing, Midland, and the larger U.S. Gulf Coast markets.

The WTI Houston price, published daily in the Argus Americas Crude report, is for WTI-quality oil traded at the Magellan East Houston ("MEH") terminal. The quality of WTI crude oil at MEH is reported by the operator of the terminal with a range of 41-43.5°API, reported in monthly aggregate. Argus publishes the WTI Midland price assessment as a differential to the WTI Cushing price. The Argus methodology for the assessment of the WTI Houston crude oil price is the volume weighted-average price of transactions done during the entire trading day and is available at the following link: <a href="https://www.argusmedia.com/media/Files/methodology/argus-americas-crude.ashx">https://www.argusmedia.com/media/Files/methodology/argus-americas-crude.ashx</a>

The MEH terminal<sup>2</sup> is directly connected to the Permian Basin via the Longhorn and BridgeTex pipelines, and indirectly via Magellan's Houston distribution system which provides connectivity to other third-party pipelines from the Permian Basin and South Texas to the Houston area. The terminal has 9 million barrels of crude oil storage capacity, and is a key physical trading location for producers, refiners, and other commercial participants. Magellan was acquired by Oneok in 2023.<sup>3</sup>

### Crude Oil production from the Permian and Eagle Ford Basins

The Exchange considered the production of crude oil in the local onshore basins of Permian and Eagle Ford. The U.S, Energy Information Administration ("EIA") reports production by basin in the Drilling Productivity Report ("DPR"). Over the three (3)-year period between May 2021 and April 2024, the DPR reports average regional production of 6,663,615 barrels per day. The volume of crude oil produced in these basins that meet the 41-43.5°API is not reported. Using information from industry sources, the Exchange conservatively estimates that 70% of crude oil produced in these basins, or 4,664,530 is of a quality similar to WTI Midland.

<sup>1</sup> https://www.oneok.com/customers/rpco/crude-oil/crude-oil-quality

<sup>&</sup>lt;sup>2</sup> https://www.oneok.com/customers/rpco/crude-oil/crude-oil

<sup>&</sup>lt;sup>3</sup> https://www.oneok.com/about-us/oneok-magellan-merger

Table 1. Crude Oil Production by Region - EIA Drilling Productivity Report<sup>4</sup> (barrels/day)

	Permian	Eagle Ford	Total
3 Yr. Av	g 5,547,781	1,115,834	6,663,615
Apr-24	6,157,013	1,100,145	7,257,159
Mar-24	6,152,235	1,101,769	7,254,004
Feb-24	6,157,509	1,102,065	7,259,575
Jan-24	5,977,682	1,053,353	7,031,036
Dec-23	6,216,294	1,114,821	7,331,115
Nov-23	6,174,728	1,142,218	7,316,946
Oct-23	6,059,883	1,151,876	7,211,759
Sep-23	5,927,455	1,176,105	7,103,560
Aug-23	5,936,711	1,167,055	7,103,765
Jul-23	5,852,070	1,190,286	7,042,356
Jun-23	5,756,561	1,186,016	6,942,577
May-23	5,841,500	1,184,826	7,026,326
Apr-23	5,871,333	1,157,273	7,028,606
Mar-23	5,875,542	1,178,493	7,054,035
Feb-23	5,719,679	1,131,915	6,851,594
Jan-23	5,796,341	1,113,827	6,910,167
Dec-22	5,691,602	1,084,996	6,776,598
Nov-22	5,709,354	1,107,980	6,817,333
Oct-22	5,676,657	1,134,930	6,811,587
Sep-22	5,631,444	1,131,644	6,763,087
Aug-22	5,483,690	1,112,376	6,596,066
Jul-22	5,380,163	1,104,574	6,484,736
Jun-22	5,276,614	1,120,182	6,396,796
May-22	5,281,546	1,083,313	6,364,858
Apr-22	5,315,849	1,088,097	6,403,946
Mar-22	5,258,301	1,063,222	6,321,523

<sup>4</sup> https://www.eia.gov/petroleum/drilling/xls/dpr-data.xlsx as of 6/14/24

Feb-22	5,045,344	1,057,693	6,103,036
Jan-22	5,034,687	1,066,725	6,101,412
Dec-21	5,108,047	1,086,743	6,194,790
Nov-21	5,136,346	1,088,904	6,225,250
Oct-21	5,075,257	1,082,240	6,157,497
Sep-21	4,996,858	1,120,385	6,117,242
Aug-21	4,925,791	1,108,795	6,034,586
Jul-21	4,796,876	1,102,778	5,899,654
Jun-21	4,724,618	1,083,656	5,808,274
May-21	4,698,533	1,088,752	5,787,285

## **Crude Oil Pipeline Capacity to Houston**

There is significant pipeline capacity delivering crude oil from production and storage hubs to the Houston area. Table 2 below reflects known pipelines capable of delivering WTI-quality crude oil to Houston from the Permian and Eagle Ford basins, with a total capacity of 3.77 million barrels per day.

Table 2. Crude Oil Pipelines to Houston (Barrels/Day)

<u>Pipeline</u>	Capacity	<u>Source</u>	<u>Owner</u>
BridgeTex	400,000	Permian	Magellan
Longhorn	275,000	Permian	Magellan
Midland to Echo 1	620,000	Permian	Enterprise Products LLC
Midland to Echo 2	225,000	Permian	Enterprise Products LLC
Midland to Echo 3	450,000	Permian	Enterprise Products LLC
Wink to Webster	1,000,000	Permian	Exxon, Plains, Marathon, etc
Kinder Morgan Crude & Condensate	350,000	Eagle Ford/Permian	Kinder Morgan
South Texas Crude Oil Pipeline System	450,000	Eagle Ford/Permian	Enterprise
Total	3,770,000		

## **Crude Oil Storage**

There is significant crude oil storage in the Greater Houston area. Table 3 below provides the monthly Padd 3 storage levels for the three-year time period of April 2021 through March 2024. Inventories averaged 241,100 thousand barrels and ranged from 221,259 to 273,171 thousand barrels over that time period. However, the EIA does not provide a breakdown by type of crude oil stored in the Houston area. Consequently, the Exchange will not utilize inventory levels in the deliverable supply estimate. PADD 3 storage levels are provided in Table 3 for informational purposes.

Table 3. PADD 3 Non-SPR Crude Oil Stocks<sup>5</sup> (Thousand Barrels)

Mar-24       245,076         Feb-24       246,764         Jan-24       240,166         Dec-23       227,521         Nov-23       247,738         Oct-23       243,921         Sep-23       237,501         Aug-23       231,729         Jul-23       244,262         Jun-23       246,332         May-23       249,779         Apr-23       252,815         Mar-23       261,788         Feb-23       263,127         Jan-23       256,014         Dec-22       243,061         Nov-22       228,828         Oct-22       244,466         Sep-22       240,386         Aug-22       235,004         Jul-22       233,867         Jun-22       234,954         May-22       232,290         Apr-22       232,659         Mar-22       227,737         Feb-22       224,585         Jan-22       221,259         Dec-21       225,194         Nov-21       238,016         Oct-21       247,876         Sep-21       228,340         Aug-21       226,373 </th <th>3 Yr Avg</th> <th>241,100</th>	3 Yr Avg	241,100
Jan-24 240,166 Dec-23 227,521 Nov-23 247,738 Oct-23 243,921 Sep-23 237,501 Aug-23 244,262 Jun-23 246,332 May-23 249,779 Apr-23 252,815 Mar-23 261,788 Feb-23 263,127 Jan-23 256,014 Dec-22 243,061 Nov-22 228,828 Oct-22 244,466 Sep-22 240,386 Aug-22 235,004 Jul-22 233,867 Jun-22 234,954 May-22 232,290 Apr-22 232,659 Mar-22 227,737 Feb-22 224,585 Jan-22 227,737 Feb-22 224,585 Jan-22 221,259 Dec-21 225,194 Nov-21 238,016 Oct-21 247,876 Sep-21 228,340 Aug-21 226,373 Jul-21 242,322 Jun-21 243,762	Mar-24	245,076
Dec-23 227,521 Nov-23 247,738 Oct-23 243,921 Sep-23 237,501 Aug-23 231,729 Jul-23 244,262 Jun-23 246,332 May-23 249,779 Apr-23 252,815 Mar-23 261,788 Feb-23 263,127 Jan-23 256,014 Dec-22 243,061 Nov-22 228,828 Oct-22 244,466 Sep-22 240,386 Aug-22 235,004 Jul-22 233,867 Jun-22 234,954 May-22 232,290 Apr-22 232,659 Mar-22 227,737 Feb-22 224,585 Jan-22 227,737 Feb-22 224,585 Jan-22 221,259 Dec-21 225,194 Nov-21 238,016 Oct-21 247,876 Sep-21 228,340 Aug-21 226,373 Jul-21 242,322 Jun-21 243,762	Feb-24	246,764
Nov-23       247,738         Oct-23       243,921         Sep-23       237,501         Aug-23       231,729         Jul-23       244,262         Jun-23       246,332         May-23       249,779         Apr-23       252,815         Mar-23       261,788         Feb-23       263,127         Jan-23       256,014         Dec-22       243,061         Nov-22       228,828         Oct-22       244,466         Sep-22       240,386         Aug-22       235,004         Jul-22       233,867         Jun-22       234,954         May-22       232,290         Apr-22       232,659         Mar-22       227,737         Feb-22       224,585         Jan-22       221,259         Dec-21       225,194         Nov-21       238,016         Oct-21       247,876         Sep-21       228,340         Aug-21       226,373         Jul-21       242,322         Jun-21       243,762	Jan-24	240,166
Oct-23 243,921 Sep-23 237,501 Aug-23 231,729 Jul-23 244,262 Jun-23 246,332 May-23 249,779 Apr-23 252,815 Mar-23 261,788 Feb-23 263,127 Jan-23 256,014 Dec-22 243,061 Nov-22 228,828 Oct-22 244,466 Sep-22 240,386 Aug-22 235,004 Jul-22 233,867 Jun-22 234,954 May-22 232,290 Apr-22 232,659 Mar-22 221,259 Dec-21 225,194 Nov-21 238,016 Oct-21 247,876 Sep-21 228,340 Aug-21 226,373 Jul-21 242,322 Jun-21 243,762	Dec-23	227,521
Sep-23       237,501         Aug-23       231,729         Jul-23       244,262         Jun-23       246,332         May-23       249,779         Apr-23       252,815         Mar-23       261,788         Feb-23       263,127         Jan-23       256,014         Dec-22       243,061         Nov-22       228,828         Oct-22       244,466         Sep-22       240,386         Aug-22       235,004         Jul-22       233,867         Jun-22       234,954         May-22       232,290         Apr-22       232,659         Mar-22       227,737         Feb-22       224,585         Jan-22       221,259         Dec-21       225,194         Nov-21       238,016         Oct-21       247,876         Sep-21       228,340         Aug-21       226,373         Jul-21       242,322         Jun-21       243,762	Nov-23	247,738
Aug-23 231,729 Jul-23 244,262 Jun-23 246,332 May-23 249,779 Apr-23 252,815 Mar-23 261,788 Feb-23 263,127 Jan-23 256,014 Dec-22 243,061 Nov-22 228,828 Oct-22 244,466 Sep-22 240,386 Aug-22 235,004 Jul-22 233,867 Jun-22 234,954 May-22 232,290 Apr-22 232,659 Mar-22 227,737 Feb-22 224,585 Jan-22 221,259 Dec-21 225,194 Nov-21 238,016 Oct-21 247,876 Sep-21 228,340 Aug-21 226,373 Jul-21 242,322 Jun-21 243,762	Oct-23	243,921
Jul-23 244,262 Jun-23 246,332 May-23 249,779 Apr-23 252,815 Mar-23 261,788 Feb-23 263,127 Jan-23 256,014 Dec-22 243,061 Nov-22 228,828 Oct-22 244,466 Sep-22 240,386 Aug-22 235,004 Jul-22 233,867 Jun-22 234,954 May-22 232,290 Apr-22 232,659 Mar-22 227,737 Feb-22 224,585 Jan-22 221,259 Dec-21 225,194 Nov-21 238,016 Oct-21 247,876 Sep-21 228,340 Aug-21 226,373 Jul-21 242,322 Jun-21 243,762	Sep-23	237,501
Jun-23 246,332 May-23 249,779 Apr-23 252,815 Mar-23 261,788 Feb-23 263,127 Jan-23 256,014 Dec-22 243,061 Nov-22 228,828 Oct-22 244,466 Sep-22 240,386 Aug-22 235,004 Jul-22 233,867 Jun-22 234,954 May-22 232,290 Apr-22 232,659 Mar-22 227,737 Feb-22 224,585 Jan-22 221,259 Dec-21 225,194 Nov-21 238,016 Oct-21 247,876 Sep-21 228,340 Aug-21 226,373 Jul-21 242,322 Jun-21 243,762	Aug-23	231,729
May-23 249,779 Apr-23 252,815 Mar-23 261,788 Feb-23 263,127 Jan-23 256,014 Dec-22 243,061 Nov-22 228,828 Oct-22 244,466 Sep-22 240,386 Aug-22 235,004 Jul-22 233,867 Jun-22 234,954 May-22 232,659 Mar-22 227,737 Feb-22 224,585 Jan-22 221,259 Dec-21 225,194 Nov-21 238,016 Oct-21 247,876 Sep-21 228,340 Aug-21 226,373 Jul-21 242,322 Jun-21 243,762	Jul-23	244,262
Apr-23 252,815  Mar-23 261,788  Feb-23 263,127  Jan-23 256,014  Dec-22 243,061  Nov-22 228,828  Oct-22 244,466  Sep-22 240,386  Aug-22 235,004  Jul-22 233,867  Jun-22 234,954  May-22 232,290  Apr-22 232,659  Mar-22 227,737  Feb-22 224,585  Jan-22 221,259  Dec-21 225,194  Nov-21 238,016  Oct-21 247,876  Sep-21 228,340  Aug-21 226,373  Jul-21 242,322  Jun-21 243,762	Jun-23	246,332
Mar-23 261,788 Feb-23 263,127 Jan-23 256,014 Dec-22 243,061 Nov-22 228,828 Oct-22 244,466 Sep-22 240,386 Aug-22 235,004 Jul-22 233,867 Jun-22 234,954 May-22 232,290 Apr-22 232,659 Mar-22 227,737 Feb-22 224,585 Jan-22 221,259 Dec-21 225,194 Nov-21 238,016 Oct-21 247,876 Sep-21 228,340 Aug-21 226,373 Jul-21 242,322 Jun-21 243,762	May-23	249,779
Feb-23 263,127 Jan-23 256,014 Dec-22 243,061 Nov-22 228,828 Oct-22 244,466 Sep-22 240,386 Aug-22 235,004 Jul-22 233,867 Jun-22 232,290 Apr-22 232,659 Mar-22 227,737 Feb-22 224,585 Jan-22 221,259 Dec-21 225,194 Nov-21 238,016 Oct-21 247,876 Sep-21 228,340 Aug-21 226,373 Jul-21 242,322 Jun-21 243,762	Apr-23	252,815
Jan-23 256,014 Dec-22 243,061 Nov-22 228,828 Oct-22 244,466 Sep-22 240,386 Aug-22 235,004 Jul-22 233,867 Jun-22 234,954 May-22 232,659 Mar-22 227,737 Feb-22 224,585 Jan-22 221,259 Dec-21 225,194 Nov-21 238,016 Oct-21 247,876 Sep-21 228,340 Aug-21 226,373 Jul-21 242,322 Jun-21 243,762	Mar-23	261,788
Dec-22 243,061 Nov-22 228,828 Oct-22 244,466 Sep-22 240,386 Aug-22 235,004 Jul-22 233,867 Jun-22 234,954 May-22 232,290 Apr-22 232,659 Mar-22 227,737 Feb-22 224,585 Jan-22 221,259 Dec-21 225,194 Nov-21 238,016 Oct-21 247,876 Sep-21 228,340 Aug-21 226,373 Jul-21 242,322 Jun-21 243,762	Feb-23	
Nov-22 228,828 Oct-22 244,466 Sep-22 240,386 Aug-22 235,004 Jul-22 233,867 Jun-22 234,954 May-22 232,290 Apr-22 232,659 Mar-22 227,737 Feb-22 224,585 Jan-22 221,259 Dec-21 225,194 Nov-21 238,016 Oct-21 247,876 Sep-21 228,340 Aug-21 226,373 Jul-21 242,322 Jun-21 243,762	Jan-23	
Oct-22 244,466 Sep-22 240,386 Aug-22 235,004 Jul-22 233,867 Jun-22 234,954 May-22 232,290 Apr-22 232,659 Mar-22 227,737 Feb-22 224,585 Jan-22 221,259 Dec-21 225,194 Nov-21 238,016 Oct-21 247,876 Sep-21 228,340 Aug-21 226,373 Jul-21 242,322 Jun-21 243,762	Dec-22	
Sep-22 240,386 Aug-22 235,004 Jul-22 233,867 Jun-22 234,954 May-22 232,290 Apr-22 232,659 Mar-22 227,737 Feb-22 224,585 Jan-22 221,259 Dec-21 225,194 Nov-21 238,016 Oct-21 247,876 Sep-21 228,340 Aug-21 226,373 Jul-21 242,322 Jun-21 243,762	Nov-22	228,828
Aug-22 235,004 Jul-22 234,954 May-22 232,290 Apr-22 232,659 Mar-22 227,737 Feb-22 224,585 Jan-22 221,259 Dec-21 225,194 Nov-21 238,016 Oct-21 247,876 Sep-21 228,340 Aug-21 226,373 Jul-21 242,322 Jun-21 243,762	Oct-22	
Jul-22 233,867 Jun-22 234,954 May-22 232,290 Apr-22 232,659 Mar-22 227,737 Feb-22 224,585 Jan-22 221,259 Dec-21 225,194 Nov-21 238,016 Oct-21 247,876 Sep-21 228,340 Aug-21 226,373 Jul-21 242,322 Jun-21 243,762	-	
Jun-22 234,954 May-22 232,290 Apr-22 232,659 Mar-22 227,737 Feb-22 224,585 Jan-22 221,259 Dec-21 225,194 Nov-21 238,016 Oct-21 247,876 Sep-21 228,340 Aug-21 226,373 Jul-21 242,322 Jun-21 243,762		
May-22 232,290 Apr-22 232,659 Mar-22 227,737 Feb-22 224,585 Jan-22 221,259 Dec-21 225,194 Nov-21 238,016 Oct-21 247,876 Sep-21 228,340 Aug-21 226,373 Jul-21 242,322 Jun-21 243,762		
Apr-22 232,659 Mar-22 227,737 Feb-22 224,585 Jan-22 221,259 Dec-21 225,194 Nov-21 238,016 Oct-21 247,876 Sep-21 228,340 Aug-21 226,373 Jul-21 242,322 Jun-21 243,762	Jun-22	
Mar-22 227,737 Feb-22 224,585 Jan-22 221,259 Dec-21 225,194 Nov-21 238,016 Oct-21 247,876 Sep-21 228,340 Aug-21 226,373 Jul-21 242,322 Jun-21 243,762	-	
Feb-22 224,585  Jan-22 221,259  Dec-21 225,194  Nov-21 238,016  Oct-21 247,876  Sep-21 228,340  Aug-21 226,373  Jul-21 242,322  Jun-21 243,762	Apr-22	
Jan-22 221,259 Dec-21 225,194 Nov-21 238,016 Oct-21 247,876 Sep-21 228,340 Aug-21 226,373 Jul-21 242,322 Jun-21 243,762		
Dec-21 225,194  Nov-21 238,016  Oct-21 247,876  Sep-21 228,340  Aug-21 226,373  Jul-21 242,322  Jun-21 243,762		
Nov-21 238,016 Oct-21 247,876 Sep-21 228,340 Aug-21 226,373 Jul-21 242,322 Jun-21 243,762	Jan-22	
Oct-21 247,876 Sep-21 228,340 Aug-21 226,373 Jul-21 242,322 Jun-21 243,762	Dec-21	
Sep-21 228,340 Aug-21 226,373 Jul-21 242,322 Jun-21 243,762	Nov-21	
Aug-21 226,373 Jul-21 242,322 Jun-21 243,762	Oct-21	
Jul-21 242,322 Jun-21 243,762		
Jun-21 243,762		
14 24 260 000		
	May-21	260,902
Apr-21 273,171	Apr-21	273,171

<sup>5</sup> As of 6/14/24: https://www.eia.gov/dnav/pet/pet\_stoc\_typ\_c\_r30\_EPC0\_mbbl\_m.htm

## Analysis of Deliverable Supply of WTI Houston

In its estimate of deliverable supply for the WTI Houston cash market, the Exchange has determined to focus on the pipeline capacity from the Permian Basin and Eagle Ford production areas in West and South Texas to Houston. The pipeline capacity from the Permian Basin and Eagle Ford production areas to Houston (as outlined in Table 2) is 3.77 million b/d, which is less than the total production in the Permian Basin and Eagle Ford regions and less than the portion of the production estimated to be of 41-43.5 API.

The total pipeline capacity from the Permian Basin and Eagle Ford production areas to Houston (as outlined in Table 2) is 3.77 million b/d. The Exchange determined to reduce this level for its estimation of deliverable supply to conservatively account for the pipeline utilization rates. To be conservative, the Exchange assumed that the total pipeline capacity is not fully utilized, and consequently, the Exchange applied a reduction of 20% to total in-bound pipeline capacity in its calculations. This utilization rate is conservative relative to those of industry experts who see the increased production filling pipelines closer to 90%. Therefore, the Exchange has determined the deliverable supply for WTI-type crude oil to Houston to be 2.375 million b/d (calculated as 3.77 million b/d for pipeline capacity \* 70% WTI-quality \* 90% utilization). This is equivalent to 71.3 million barrels per month, which is equivalent to 71,300 contracts per month.

For WTI Houston, the typical term agreement in the cash market allows flexibility for re-trading of the contracted quantity in the spot market, so the term agreements do not restrict the potential deliverable supply. Therefore, the Exchange does not believe that it is necessary to adjust the deliverable supply estimate for spot trading activity as it does not restrict the deliverable supply, and spot trading volume can expand to allow for more supply to flow if needed in the spot market.

## WTI Midland Cash Market Overview

There is an active physical crude oil trading center based in Midland, Texas, which is the chief gathering hub for Permian Basin crude oil, for storage and/or pipeline distribution with direct connectivity to the Cushing and the U.S. Gulf Coast markets. Major crude oil pipelines originating in the Permian Basin have approximately 7.78 million barrels per day of takeaway capacity, as shown in Table 1. There is active trading in WTI type crude oil at Midland.

The WTI Midland price, published daily in the Argus Americas Crude report, is for WTI-quality Permian Basin crude oil traded at terminals in Midland, Texas. The gravity of WTI Midland is typically in the range of 40 to 44°API. Argus publishes the WTI Midland price assessment as a differential to the WTI Cushing price. The Argus methodology for the assessment of the WTI Midland crude oil index is the volume weighted-average price of transactions done during the entire trading day and is available at the following link:

https://www.argusmedia.com/-/media/Files/methodology/argus-americas-crude.ashx

12

<sup>&</sup>lt;sup>6</sup> https://aegis-hedging.com/insights/permian-to-gulf-coast-crude-pipelines-nearing-capacity-will-bottlenecks-spur-takeaway-capacity-expansion

Table 1
Crude Oil Pipelines Originating in the Permian Basin
(Barrels/Day)

	Capacity		
<u>Pipeline</u>	<u>(mb/d)</u>	<u>Destination</u>	<u>Owner</u>
BridgeTex	400,000	Houston	Magellan
Longhorn	275,000	Houston	Magellan
Midland to Echo 1	620,000	Houston	Enterprise Products LLC
Midland to Echo 2	225,000	Houston	Enterprise Products LLC
Midland to Echo 3	450,000	Houston	Enterprise Products LLC
Wink to Webster	1,000,000	Houston	Exxon, Plains, Marathon, etc
Permian Express 1-4	690,000	Port Arthur Area	Energy Transfer
West Texas Gulf	340,000	Port Arthur Area	Energy Transfer
Gray Oak	900,000	Corpus Christi	Phillips66, Enbridge, Marathon, etc
EPIC Pipeline	600,000	Corpus Christi	EPIC
Cactus I	390,000	Corpus Christi	Plains
Cactus II	670,000	Corpus Christi	Plains
Centurion	170,000	Cushing	Energy Transfer
Basin	550,000	Cushing	Plains
Sunrise	500,000	Wichita Falls	Plains
Outbound Total	7,780,000		

## WTI Midland: Key Component of Deliverable Supply

In its analysis of deliverable supply for WTI at Midland, the Exchange has focused on crude oil production in the Permian Basin, for which Midland is the key gathering hub. The EIA reports production by basin in the Drilling Productivity Report ("DPR"). However, the EIA does not provide a breakdown of the crude oil production by type of crude oil, i.e., for light sweet or sour crude oil. The Exchange previously used data from the Texas Railroad Commission ("TRRC") in calculating deliverable supply. However, a significant and growing portion of Permian Basin production comes from New Mexico that is not included in TRRC data.

Table 2 below provides EIA's Permian Basin production data for the three-year period of May 2021 through April 2024 for crude oil produced in the Permian Basin region. For this three-year period, Permian Basin crude oil production averaged 5,548 thousand barrels per day, or 166 million barrels per month.

## **Analysis of WTI Midland Deliverable Supply**

In its estimate of deliverable supply for the WTI Midland cash market, the Exchange has determined to focus on production data for crude oil in the Permian, based on data in Table 2 below, and within the 40 to 44 API gravity range.

Given that the EIA does not provide a specific breakdown for West Texas crude oil produced in the range of 40 to 44 degrees API gravity, the Exchange applied a reduction of 30% to the production data. Based on conversations with market analysts and data quoted by Drillinginfo, it was estimated that approximately 70 to 75% of production in the Permian Basin is WTI Midland type crude oil in the range of 40 to 44 API gravity. Therefore, the Exchange determined the deliverable supply for WTI type crude oil in Midland to be approximately 3,884 thousand b/d (70% of 5,548 thousand b/d). This is equivalent to 116.5 million barrels per month, which is equivalent to 116,500 contracts per month.

For WTI Midland, the typical term agreement in the cash market allows flexibility for re-trading of the contracted quantity in the spot market, so the term agreements do not restrict the potential deliverable supply. Therefore, the Exchange does not believe that it is necessary to adjust the deliverable supply estimate of spot trading activity as it does not restrict the deliverable supply, and spot trading volume can expand to allow for more supply to flow if needed in the spot market.

Table 2: Crude Oil Production by Region - EIA Drilling Productivity Report<sup>7</sup> (barrels/day)

Permian

	1 Cilillati		
3 Yr Avg 5,547,781			
Apr-24	6,157,013		
Mar-24	6,152,235		
Feb-24	6,157,509		
Jan-24	5,977,682		
Dec-23	6,216,294		
Nov-23	6,174,728		
Oct-23	6,059,883		
Sep-23	5,927,455		
Aug-23	5,936,711		
Jul-23	5,852,070		
Jun-23	5,756,561		
May-23	5,841,500		
Apr-23	5,871,333		
Mar-23	5,875,542		
Feb-23	5,719,679		
Jan-23	5,796,341		
Dec-22	5,691,602		
Nov-22	5,709,354		
Oct-22	5,676,657		
Sep-22	5,631,444		
Aug-22	5,483,690		
Jul-22	5,380,163		
Jun-22	5,276,614		
May-22	5,281,546		

<sup>&</sup>lt;sup>7</sup> https://www.eia.gov/petroleum/drilling/xls/dpr-data.xlsx as of 6/14/24

14

Apr-22 5,315,849
Mar-22 5,258,301
Feb-22 5,045,344
Jan-22 5,034,687
Dec-21 5,108,047
Nov-21 5,136,346
Oct-21 5,075,257
Sep-21 4,996,858
Aug-21 4,925,791
Jul-21 4,796,876
Jun-21 4,724,618
May-21 4,698,533

## **Analysis of Spot-Month Position Limits**

For the purposes of calculating compliance with position limits, the WTI Houston vs. WTI Midland Trade Month Average Price Option contract aggregates into the WTI Houston (Argus) Trade Month Futures contract (Commodity Code: HTA) and the WTI Midland (Argus) Trade Month Futures contract (Commodity Code: WTI). The spot month position limit for both the underlying cash-settled futures contracts is 3,000 contracts for the final three days of trading for the expiring contract month.

- Based on the above analysis for deliverable supply for WTI Houston, the current spot month position limit of 3,000 contracts represents 4.2% of the 71,300 contracts per month equivalent of deliverable supply.
- Based on the above analysis for deliverable supply for WTI Midland, the current spot month position limit of 3,000 contracts represents 2.6% of the 116,500 contracts per month equivalent of deliverable supply.