SUBMISSION COVER SHEET

***IMPORTANT*: Check box if Confidential Treatment is requested** ☐

Registered Entity Identifier Code (optional): 24-162 (1 of 2)

Organization: New York Mercantile Exchange, Inc. ("NYMEX")

Filing as a: ☒ **DCM** ☐ **SEF** ☐ **DCO** ☐ **SDR**

Please note - only ONE choice allowed.

Filing Date (mm/dd/yy): 05/28/24 Filing Description: Initial Listing of the Crude Oil Tuesday and Thursday Weekly Option Contracts

SPECIFY FILING TYPE

Please note only ONE choice allowed per Submission.

Organization Rules and Rule Amendments

☐	Certification	§ 40.6(a)
☐	Approval	§ 40.5(a)
☐	Notification	§ 40.6(d)
☐	Advance Notice of SIDCO Rule Change	§ 40.10(a)
☐	SIDCO Emergency Rule Change	§ 40.10(h)

Rule Numbers:

New Product **Please note only ONE product per Submission.**

☒	Certification	§ 40.2(a)
☐	Certification Security Futures	§ 41.23(a)
☐	Certification Swap Class	§ 40.2(d)
☐	Approval	§ 40.3(a)
☐	Approval Security Futures	§ 41.23(b)
☐	Novel Derivative Product Notification	§ 40.12(a)
☐	Swap Submission	§ 39.5

Official Product Name: See filing.

Product Terms and Conditions (product related Rules and Rule Amendments)

☐	Certification	§ 40.6(a)
☐	Certification Made Available to Trade Determination	§ 40.6(a)
☐	Certification Security Futures	§ 41.24(a)
☐	Delisting (No Open Interest)	§ 40.6(a)
☐	Approval	§ 40.5(a)
☐	Approval Made Available to Trade Determination	§ 40.5(a)
☐	Approval Security Futures	§ 41.24(c)
☐	Approval Amendments to enumerated agricultural products	§ 40.4(a), § 40.5(a)
☐	"Non-Material Agricultural Rule Change"	§ 40.4(b)(5)
☐	Notification	§ 40.6(d)

Official Name(s) of Product(s) Affected:

Rule Numbers:

Timothy Elliott
Managing Director and Chief Regulatory Counsel
Legal Department

May 28, 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 Crude Oil Tuesday and Thursday Weekly Option Contracts.
NYMEX Submission No. 24-162 (1 of 2)

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 Crude Oil Tuesday and Thursday Weekly Option contracts (the "Contracts") for trading on the CME Globex electronic platform ("CME Globex") and for submission for clearing via CME ClearPort as noted in the table below, effective Sunday, July 21, 2024 for trade date Monday, July 22, 2024. The Exchange currently lists Crude Oil Weekly Option contracts with Monday, Wednesday, and Friday expiries and is expanding the offering by listing Tuesday and Thursday expiries.

Table 1.

Contract Title	**Crude Oil Tuesday Weekly Option**	**Crude Oil Thursday Weekly Option**
Commodity Code	NL1, NL2, NL3, NL4, NL5	XL1, XL2, XL3, XL4, XL5
Rulebook Chapter	1011	
Underlying Futures Contract / Commodity Code	Light Sweet Crude Oil Futures / CL	
Contract Size	1,000 barrels	
Price Quotation	US dollars and cents per barrel	
Minimum Price Fluctuation	$0.01	
Value per Tick	$10.00	
Option Exercise Style	American - exercises into the underlying futures	
Listing Schedule	Weekly contracts listed for 4 weeks	
Strike Price Increments	Minimum 20 strikes at $0.25 per barrel increment above and below the at-the-money strike then 10 strikes at $0.50 per barrel increment on the nearest 0.50 interval above and below the highest and lowest $0.25 per barrel increment strikes, then 10 strikes at $2.50 per barrel increment on the nearest 2.50 interval above and below the highest and lowest $0.50 per barrel increment strikes plus dynamic strikes at $0.25 per barrel increment.	
Block Trade Minimum Threshold	10 contracts - subject to a 15-minute reporting window	

20 S Wacker Dr Chicago, IL 60606 T 312 466 7478 tim.elliott@cmegroup.com cmegroup.com

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 - Friday 5:00 p.m. CT with a daily maintenance period from 4:00 p.m. - 5:00 p.m. CT **CME ClearPort**: Sunday - Friday 5:00 p.m. - 4:00 p.m. CT with no reporting Tuesday - Thursday from 4:00 p.m. - 5:00 p.m. CT

As a result of listing the Contracts, the Exchange is concurrently certifying amendments to Rule 10111.E. ("Termination of Trading") for the existing Crude Oil Monday, Wednesday, and Friday Weekly Option contracts to specify that if the expiry date for a given week is a holiday, no weekly option will be listed. See NYMEX Submission 24-158 also dated May 28, 2024. This change is also reflected in NYMEX Chapter 1011 as provided in Exhibit A below in blackline format.

The Contracts are referenced contracts that exercise into the core referenced Light Sweet Crude Oil Futures contract (Commodity Code: CL, Rulebook Chapter 200). The Contracts expire prior to the spot month limits taking effect for the corresponding core referenced Light Sweet Crude Oil Futures contract.

Exhibit B provides the Position Limits, Position Accountability and Reportable Level Table (under separate cover). Exhibit C provides the Exchange fees. Exhibit D provides the Rule 588.H. ("Globex Non-Reviewable Ranges") Table. Exhibit E provides the Rule 589. – Special Price Fluctuation Limits and Daily Price Limits Table. Exhibit F provides the Strike Price Listing and Exercise Procedures Table. Exhibit G provides the cash market overview and 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 Contracts may have some bearing on the following core principles:

- **Compliance with Rules:** Trading in the Contracts will be subject to the rules in Rulebook Chapter 4 which includes prohibitions against fraudulent, noncompetitive, unfair and abusive practices. Additionally, trading in the Contracts will also be subject to the full panoply of trade practice rules, the majority of which are contained in Chapter 5 and Chapter 8 of the Rulebook. As with all products listed for trading on one of CME Group's designated contract markets, activity in the new product will be subject to extensive monitoring and surveillance by CME Group's Market Regulation Department. The Market Regulation Department has the authority to exercise its investigatory and enforcement power where potential rule violations are identified.

- **Contract Not Readily Subject to Manipulation:** The Contracts are 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 Contracts 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 Contracts 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 Contracts.

- **Daily Publication of Trading Information**: 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 Contracts.

- **Execution of Transactions**: The Contracts 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.

- **Trade Information:** All required trade information for the Contracts will be included in the audit trail and is sufficient for the Market Regulation Department to monitor for market abuse.

- **Financial Integrity of Contract:** The Contracts 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.

- **Protection of Market Participants:** 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 Contracts.

- **Disciplinary Procedures:** 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 Contracts 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.

- **Dispute Resolution:** Disputes with respect to trading in the Contracts 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 Contracts comply 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 http://www.cmegroup.com/market-regulation/rule-filings.html.

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 1011 (blackline format)
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 589. – Special Price Fluctuation Limits and Daily Price Limits Table
Exhibit F: NYMEX Rule 300.20. – Strike Price Listing and Exercise Procedures Table
Exhibit G: Cash Market Overview and Analysis of Deliverable Supply

Exhibit A

NYMEX Rulebook

(additions are **underscored**; deletions ~~struck through~~)

Chapter 1011
Crude Oil Weekly Option

1011100. SCOPE OF CHAPTER

This chapter is limited in application to weekly put and call options on the Light Sweet Crude Oil Futures contract. In addition to the rules of this chapter, transactions in the Crude Oil Monday Weekly Option, **the Crude Oil Tuesday Weekly Option,** the Crude Oil Wednesday Weekly Option, **the Crude Oil Thursday Weekly Option,** and the Crude Oil Friday Weekly Option contracts shall be subject to the general rules of the Exchange insofar as applicable.

1011101. OPTION CHARACTERISTICS

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

1011101.A. Trading Schedule

The hours of trading for these contracts shall be determined by the Exchange.

1011101.B. Trading Unit

A Crude Oil weekly call option traded on the Exchange represents an option to assume a long position in the nearest to expiry Light Sweet Crude Oil Futures contract. If expiration occurs on or after the Light Sweet Crude Oil Monthly option contract and on or before the first nearby Light Sweet Crude Oil Futures expiration, the contract will be exercisable into second closest to expiry Light Sweet Crude Oil Futures contract.

A Crude Oil Weekly put option traded on the Exchange represents an option to assume a short position in the nearest to expiry Light Sweet Crude Oil Futures contract. If expiration occurs on or after the Light Sweet Crude Oil Monthly option contract and on or before the first nearby Light Sweet Crude Oil Futures expiration, the contract will be exercisable into second closest to expiry Light Sweet Crude Oil Futures contract.

1011101.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. A cabinet trade may occur at a price of $0.001 per barrel, or $1.00 per contract.

1011101.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.

1011101.E. Termination of Trading

Crude Oil Monday Weekly Option

Options will expire at the close of trading on a Monday schedule. If such Monday is an Exchange holiday, the weekly option shall ~~terminate on the first Business Day immediately following the Monday~~ **not be listed for trading.**

Crude Oil Tuesday Weekly Option

Options will expire at the close of trading on a Tuesday schedule. If such Tuesday is an Exchange holiday, the weekly option shall not be listed for trading.

Crude Oil Wednesday Weekly Option

Options will expire at the close of trading on a Wednesday schedule. If such Wednesday is an Exchange holiday, the weekly option shall ~~terminate on the first Business Day immediately following the Wednesday.~~ **not be listed for trading.**

Crude Oil Thursday Weekly Option

Options will expire at the close of trading on a Thursday schedule. If such Thursday is an Exchange holiday, the weekly option shall not be listed for trading.

Crude Oil Friday Weekly Option

Options will expire at the close of trading on a Friday schedule. If such Friday is an Exchange holiday, the Crude Oil Weekly Option shall ~~terminate on the first Business Day immediately preceding the Friday~~**. not be listed for trading.**

1011101.F. Type Option

The option is an American-style option which can be exercised on any Business Day prior to and until expiration day.

1011102. EXERCISE PRICES AND CHARACTERISTICS

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

1011103. SPECIAL PRICE FLUCTUATION LIMITS

At the commencement of each trading day, the contract shall be subject to special fluctuation limits as set forth in Rule 589 and in the Special Price Fluctuation Limits and Daily Price Limits Table in the Interpretations & Special Notices Section of Chapter 5.

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	Fee
Option Exercise/Assignment Notice	$0.85
Facilitation Fee	$0.60
Give-Up Surcharge	$0.05
Position Adjustment/Position Transfer	$0.10

Exhibit D
NYMEX Rulebook
Chapter 5
("Trading Qualifications and Practices")
Rule 588.H. ("Globex Non-Reviewable Trading Ranges") Table

(additions underscored)

Energy Options	Globex Symbol	Globex Non-Reviewable Ranges (NRR)
Crude Oil Tuesday Weekly Option	NL1-5	The greater of the following: •Delta multiplied by the underlying futures non-reviewable range •20% of premium up to ¼ of the underlying futures non-reviewable range •2 ticks
Crude Oil Thursday Weekly Option	XL1-5	

Exhibit E

NYMEX Rulebook
Chapter 5
("Trading Qualifications and Practices")
Rule 589. Special Price Fluctuation Limits and Daily Price Limits Table

(additions underscored)

Product	Rulebook Chapter	Commodity Code	Primary/Associated	Associated With	Dynamically Calculated Variant	Daily Price Limit
Crude Oil Tuesday Weekly Option	1011	NL1, NL2, NL3, NL4, NL5	Associated	CL		
Crude Oil Thursday Weekly Option	1011	XL1, XL2, XL3, XL4, XL5	Associated	CL		

Exhibit F

NYMEX Rulebook
Chapter 300
("Options Contracts")
Rule 300.20. - Strike Price Listing and Exercise Procedure Table

(additions underscored)

Comm-odity Code	CME Globex Code	Product Name	Product Group	Product Sub-group	Ex-change	Rule-book Chapter	Strike Price Listing Rule	Option Style	Contrary Instruc-tions	Margin Style	Exact At-The-Money Charac-teristics	Underlying Commodity Code	Under-lying Product Name

NL1, NL2, NL3, NL4, NL5	NL1, NL2, NL3, NL4, NL5	Crude Oil Tuesday Weekly Option	Energy	Crude Oil	NYMEX	1011	Minimum 20 strikes at $0.25 per barrel increment above and below the at-the-money strike then 10 strikes at $0.50 per barrel increment on the nearest 0.50 interval above and below the highest and lowest $0.25 per barrel increment strikes, then 10 strikes at $2.50 per barrel increment on the nearest 2.50 interval above and below the highest and lowest $0.50 per barrel increment strikes plus dynamic strikes at $0.25 per barrel increment.	American	No	Equity	Exercise Calls. Abandon Puts.	CL	Light Sweet Crude Oil Futures

XL1, XL2, XL3, XL4, XL5	XL1, XL2, XL3, XL4, XL5	Crude Oil Thursday Weekly Option	Energy	Crude Oil	NYMEX	1011	Minimum 20 strikes at $0.25 per barrel increment above and below the at-the-money strike then 10 strikes at $0.50 per barrel increment on the nearest 0.50 interval above and below the highest and lowest $0.25 per barrel increment strikes, then 10 strikes at $2.50 per barrel increment on the nearest 2.50 interval above and below the highest and lowest $0.50 per barrel increment strikes plus dynamic strikes at $0.25 per barrel increment.	American	No	Equity	Exercise Calls. Abandon Puts.	CL	Light Sweet Crude Oil Futures

Exhibit G

Cash Market Overview and Analysis of Deliverable Supply

Appendix C to part 38 of the Commission's regulations defines deliverable supply as "the quantity of the commodity meeting the contract's delivery specifications that can reasonably be expected to be readily available to short traders and saleable by long traders at its market value in normal cash marketing channels at the derivative contract's delivery points during the specified delivery period, barring abnormal movement in interstate commerce."

The Crude Oil Tuesday Weekly Option and Crude Oil Thursday Weekly Option contracts (the "Contracts") are referenced contracts that exercise into the core referenced Light Sweet Crude Oil Futures contract (Commodity Code: CL, Rulebook Chapter 200). The Contracts expire prior to the spot month limits taking effect for the corresponding core referenced Light Sweet Crude Oil Futures contract.

The Exchange conducted a review of the underlying cash markets and deliverable supply in the WTI Cushing, Oklahoma area.

WTI at Cushing, Oklahoma

In estimating deliverable supply for the underlying Light Sweet Crude Oil Futures, the Exchange relied on long-standing precedent, which provides that the key component in estimating deliverable supply is the portion of typical production and supply stocks that could reasonably be considered to be readily available for delivery. In its guidance on estimating deliverable supply, the Commodity Futures Trading Commission ("CFTC" or "Commission") states:

> In general, the term "deliverable supply" means the quantity of the commodity meeting a derivative contract's delivery specifications that can reasonably be expected to be readily available to short traders and saleable by long traders at its market value in normal cash marketing channels at the derivative contract's delivery points during the specified delivery period, barring abnormal movement in interstate commerce. Typically, deliverable supply reflects the quantity of the commodity that potentially could be made available for sale on a spot basis at current prices at the contract's delivery points. For a non-financial physical-delivery commodity contract, this estimate might represent product which is in storage at the delivery point(s) specified in the futures contract or can be moved economically into or through such points consistent with the delivery procedures set forth in the contract and which is available for sale on a spot basis within the marketing channels that normally are tributary to the delivery point(s).

I. Methodology and Data Sources

The Exchange considered three components in evaluating deliverable supply estimates of the Domestic Light Sweet Common Stream Crude Oil for the Cushing, Oklahoma delivery location of the Light Sweet Crude Oil Futures contract:

(1) Crude Oil Production;

(2) Crude Oil Flows to the delivery area; and

(3) Crude Oil Storage in the delivery area.

While crude oil production information is, in part, available from other sources, particularly at the state level from energy or tax revenue authorities, the Exchange determined to use production information collected by the U.S. Department of Energy ("DOE") Energy Information Administration ("EIA"). Specifically, the Exchange has determined to rely on the EIA production data because it constitutes a single source, employing common standards, across all states. The EIA data are highly regarded but they do not provide sufficient breakdown on the quality characteristics of the oil production to determine the subset of total production that would qualify as Domestic Light Sweet under the terms of the futures contract.

A. Crude Oil Flows to the Cushing Delivery Area

To determine the flows of Domestic Light Sweet crude oil into the delivery area, NYMEX consulted with industry executives and professionals from pipeline and storage terminal operators in Cushing as well as other major industry participants. It is noteworthy that the estimates provided here are materially less than the production that can readily access the delivery mechanism and which *could* be delivered due to the fact that the sources we used were specifically knowledgeable about *actual* Cushing deliveries. Thus, the information provided is not what *could be* delivered — the standard which is in accordance with Commission's policy and precedent — but what actually *is* delivered. The Exchange believes that the Cushing delivery mechanism for light sweet crude oil and corresponding commercial secondary market constitutes such a sophisticated and highly-developed commercial market mechanism that, at any time, the actual flows to and stocks in the delivery area represent precisely the deliverable supply sufficient to support the mechanism. In other words, even though at any time there is additional production that *could* be delivered to the delivery mechanism, we are only including what *actually* flows in our estimate of deliverable supply.

B. Crude Oil Storage in the Cushing Delivery Area

Storage data are provided on a weekly basis by EIA. Details are provided for the U.S. Petroleum Administration for Defense Districts ("PADDs") and Cushing. There are five PADDs and, in some cases, they correspond to broad regions. PADD 2 broadly includes the Midwest; PADD 3 broadly includes U.S. Gulf Coast states and New Mexico; PADD 4 contains the Rocky Mountain States excluding New Mexico. Cushing is the only single location where crude oil official inventory numbers are collected and publicly disseminated on a regular basis anywhere in the world. The actual geographic market that is consistently most applicable to the NYMEX Crude Oil Futures contract would, therefore, include much of PADD 2, not just Cushing.

Nonetheless, NYMEX includes only inventories reported at Cushing, so these underestimate relevant storage. As with production, EIA does not provide details on the quality characteristics of stored crude oil, but the industry experts with whom NYMEX consulted consistently estimated that 60% to 70% of the crude oil stored at Cushing qualified as Domestic Light Sweet Common Stream (to be conservative, the Exchange will discount 40% of inventory in its calculation of deliverable supply estimates).

II. The Cushing Physical Delivery Mechanism: Scope of Deliverable Crude Oil

The Cushing physical delivery mechanism is comprised of a network of nearly two dozen pipelines and 12 storage terminals, with extensive inter-connectivity. Three of the storage facilities — Enterprise, Enbridge, and Plains — and their pipeline manifolds are the core of the Cushing physical delivery mechanism.[1] Physical volumes delivered against the Light Sweet Crude Oil Futures contract within the Enterprise, Enbridge, and Plains systems are at par value. Any deliveries made on futures contracts elsewhere in Cushing require the seller to

[1] Three of the major sources for the cash-market information provided herein are Plains All America, Enterprise and Enbridge. Enterprise oversees the vast majority of deliveries in the Cushing Delivery Market and, as indicated, Enterprise and Enbridge are the core delivery mechanism operators, with Plains added as a delivery option in February 2022. Plains and Enbridge account for about 60% of the storage available at Cushing.

compensate the buyer for the lower of the transportation netbacks from these facilities to where the delivery occurs. Detailed information about the inflowing and outflowing pipelines is contained below in Table 2.

Terminating obligations in the Light Sweet Crude Oil Futures contract are fulfilled by delivering WTI type light sweet crude oil designated as "Domestic Common Stream" by Enterprise Products LLC. Market participants commonly refer to the light sweet deliverable streams as "WTI." In addition, the Domestic Common Stream includes a fungible blend of light sweet streams produced in the U.S. shale oil areas, including the Bakken, Niobrara, and Permian producing areas. Furthermore, each of these light sweet crude oil streams are fungibly blended and included as part of the "Domestic Common Stream" within the complex that comprises the Cushing delivery mechanism, as well as in the WTI physical market which calls for delivery in the Cushing delivery mechanism.

III. Physical Market Trading Structure and Term Contracts

A. Physical Market Trading Structure

Typically, there is a chronology of sales and purchases of crude oil in the onshore U.S. market that starts with a sale from producer and finishes with a purchase by an end-user to consume the crude oil. First-sales are from producers to aggregators or other middleman-type firms with delivery at the property where it is produced. The first-sale buyer transports oil downstream from the point of sale. Usually the first-sale buyer resells the oil to someone other than the end-user but sometimes sells directly to the end-user.

Final sales are sales to end-users who, when they consume the oil, remove it from the supply chain. End-users, however, also resell oil. Such end-user re-sales sometimes occur during the same commercial cycle in which they purchased it; other times, they occur during a later commercial cycle after the oil has been stored for a period of time. Like end-users, other buyers of oil also can either resell it immediately or store it first for some period of time and then resell it later. Thus, it is a common commercial practice that the first-sale and multiple subsequent re-sales occur in the same delivery cycle.

As discussed above, the Cushing delivery market is essentially a major reseller market where buyers either: resell the oil to someone else; store the oil and resell it later; store the oil and then consume it later; or transport it to consume it. The Cushing market is essentially downstream of first-sales. Most of the sales in the Cushing market are for resale and not for either storage or final-sale; in fact, the physical market in "WTI," in which the standard form of delivery is within the pipeline system at Cushing, is estimated to be 10-20 times the multiple of "WTI" oil that flows to Cushing. As such, it is clear that most sales are for resale because they constitute the selling, over-and-over (thus, *re*-selling), of the base physical oil that flows to Cushing. *Argus Media* documents about 5-8 times the flow in "WTI" sales but does not capture all of the sales.[2]

B. Term Contracts

The Exchange has spoken with and interviewed a number of market participants regarding common commercial practices with respect to the use of term contracts in the U.S. onshore crude oil market.[3] The responses we received were consistent and they can be summarized as follows:

- Almost all first-sales of production are sold term; as discussed in the previous section, typically for delivery on the property where it is produced (or nearest gathering pipeline or holding tank), and typically to middleman-firms or aggregators. These middleman-firms typically resell the crude oil to other middleman-firms (or participants performing that function) or to end-users. Typically, the first-sales

[2] The commercial market for physical delivery of light sweet crude oil in Cushing is a *secondary* (or *spot*) market mechanism. The number of physical deliveries in this market each month is 240 million barrels or higher (240,000 futures contracts equivalent or higher).

[3] These include: Plains All America, a major Midcontinent aggregator and marketer and operator of pipeline and storage terminals including in Cushing; and an Energy Market Participant Group of several dozen market participants organized through Hunton & Williams LLP to discuss and comment on Regulatory issues.

contracts are “evergreen” contracts that can be discontinued by either party with notice. NYMEX is including evergreen contracts in the “term contracts” category.

- There are no restrictions applied to the resale of crude oil bought first-sale on a term basis from producers. In fact, that would clearly not be applicable because sales are typically to aggregators or others acting in a middleman-firm role with the expressed responsibility of reselling the oil.
- The Cushing market is downstream of first-sales; in other words, Cushing is downstream of any term sales from producers. Thus, even if barrels were sold term by the producer, in the Cushing market those barrels are re-sold and re-delivered by either the purchaser from the producer or a subsequent purchaser from that original purchaser. The Cushing market mechanism, which consists of trading and physical delivery of light sweet crude oil, is a commercial secondary (or *spot*) market which is extremely liquid, comprised of broad participation and results in a substantial quantity of physical delivery of crude oil.
- Some end-user refiners in the Cushing market purchase specific light sweet crude oil streams, such as Bakken or Niobrara Light Sweet crude oil, on a term basis, and these refiners tend to segregate a portion of the specific light sweet crude streams for processing at their refineries. Based on conversations with refiners in the Cushing market, the Exchange estimates that approximately 10% of the deliverable supply for Cushing is segregated and designated for use by end-user refiners, and therefore is not available for re-sale in the Cushing market. Consequently, the Exchange will reduce its estimate of deliverable supply in Cushing by 10% to account for the specific light sweet streams that are designated for processing and segregated by the end-user refiners.
- Our sources expressly advised us that any production sold long-term was available for potential re-sale, such as during periods of refinery maintenance, and this is especially the case in the Cushing market.

C. Crude Oil Production

The production area that supplies crude oil to Cushing via pipeline and rail is comprised of the following eight (8) states: North Dakota, Montana, Wyoming, Colorado, New Mexico, Onshore Texas, Oklahoma, and Kansas.

In the three-year period of January 2021 through December 2023, the average production of crude oil available in the eight states was approximately 9.0 million barrels per day. Based on discussions with industry participants, our estimate of the portion of that average production which would qualify as Domestic Light Sweet Common Stream is 50% or higher— i.e., approximately 4.5 million barrels per day. The 4.5 million barrels per day of crude oil production is equivalent to approximately 135 million barrels per month, or 135,000 futures contracts equivalents (contract size: 1,000 barrels).

Table 1 below provides annual production data available for production in the eight states that supply the Cushing crude oil market for the period referenced above. The data show that production has been rising. As indicated above, the Exchange has determined to not utilize production data in its deliverable supply estimate, but the data demonstrates that production levels are more than sufficient to support the actual flows of deliverable product to the delivery location.

D. Crude Oil Flows to the Cushing Delivery Area

As of March 2024, there is approximately 4.1 million b/d of inflow pipeline capacity to Cushing and 3.4 million barrels per day of outflow capacity.

The Exchange collects inbound Cushing crude oil flows periodically but not on an on-going or scheduled basis as such information is proprietary and non-public. Based on information provided by industry sources in Table 2 below, as of December 2023, actual flows of crude oil to Cushing have ranged from 2.2 to 2.8 million barrels per day, with 1.3 to 1.8 million barrels per day that can be Domestic Light Sweet Common Stream Crude Oil.

On a 30-day monthly basis actual flows of Domestic Light Sweet Common Stream ranged from 40.2 to 53.7 million barrels per month, or 40,200 to 53,700 Light Sweet Crude Oil Futures contract equivalents.

As of December 2020, actual flows of crude oil to Cushing have ranged from 2.3 million to 2.6 million barrels per day, with Domestic Light Sweet Common Stream Crude Oil averaging between 1.3 to 1.5 million barrels per day, as shown in Table 3 below.[4] On a 30-day monthly basis, actual flows of Domestic Light Sweet Common Stream Crude Oil ranged from 39 to 46.5 million barrels per month, or 39,000 to 46,500 Light Sweet Crude Oil Futures contract equivalents.

As of July 2018, actual flows of crude oil in-bound to Cushing have ranged from 2.2 million to 2.5 million barrels per day as shown in Table 4 below, with Domestic Light Sweet Common Stream Crude Oil averaging between 1.270 to 1.450 million barrels per day.[5] On a 30-day monthly basis, actual flows of Domestic Light Sweet Common Stream Crude Oil ranged from 38.0 to 43.5 million barrels per month, or 38,000 to 43,500 Light Sweet Crude Oil Futures contract equivalents.

Given that the Exchange only collects pipeline flow data on a periodic basis, the Exchange is unable to provide a three-year average of Domestic Light Sweet Common Stream Crude Oil flows into Cushing. As such, the Exchange determined to average the 2018, 2020, and 2023 estimated flows data collected. The average of the ranges for Domestic Light Sweet Common Stream Crude Oil flows into Cushing are 39,000 to 47,900 contract equivalents. The midpoint of the average of the ranges is approximately 43,500 contract equivalents.

E. Crude Oil Storage in the Cushing Delivery Area

As of March 2023, EIA reported that shell storage capacity at Cushing was 98.695 million barrels and working storage capacity was 77.99 million barrels.[6] Finally, it should be noted that, at least on a temporary basis, storage can exceed working capacity and it is common for an individual tank to reach 85-90% of shell capacity (which exceeds the 84.9% average underlying the EIA estimates).

Table 5 below provides monthly averages of weekly Cushing stocks for the inventory period beginning April 2, 2021 through March 22, 2024 (the "Inventory Period") as published by the EIA. For the three-year average over the inventory period, stocks averaged 31.28 million barrels and on a weekly basis ranged from about 21 million to 46 million barrels. NYMEX asked operators of storage in Cushing if they would share specific data on quantities of Domestic Light Sweet Common Stream Crude Oil stored at their facilities and they responded that such data were confidential. As discussed above, the Exchange estimated that approximately 60% of the total oil stored at Cushing qualified as Domestic Light Sweet Common Stream Crude Oil. Based on the foregoing, for the Inventory Period, the monthly average Domestic Light Sweet Common Stream Crude Oil stored at Cushing was approximately 18.77 million barrels or 18,770 futures contract equivalents.

The Exchange has further evaluated both operational practices at storage facilities as well as commercial practices by customers of storage facilities to determine if some components of inventoried product could rightfully be considered *not* to be readily deliverable.

With respect to operational practices, based on discussions with some industry experts, the Exchange conservatively estimates that 6.75% of stored product, on average, is required for operational minimums.[7] This converts into discounting an estimated 1.267 million barrels of Domestic Light Sweet crude oil based on the three-year average storage level (or 1,267 contract equivalents). In applying a discount of 6.75% to account for

[4] The sources were various pipeline operators and other industry sources.
[5] The sources were: Plains All America, an aggregator and marketer of crude oil production and pipeline and storage terminal operator at Cushing; and other industry sources.
[6] https://www.eia.gov/petroleum/storagecapacity/storagecapacity.xlsx - Table 2. Shell capacity is defined by EIA as the design capacity of a petroleum storage tank which is always greater than or equal to working storage capacity.
[7] We have been advised that, for older tanks, the operational minimum is 9% and, for newer tanks, it is 4.5%. Our assessment is that the majority of tanks at Cushing would qualify as newer. Nonetheless, to be conservative, we have applied the mid-point percentage—6.75%-- for all of Cushing.

operational minimums, average monthly Domestic Light Sweet Common Stream Crude Oil for the Inventory Period is further reduced to approximately 17,503 contract equivalents.

With respect to commercial practices, the Exchange specifically sought whether storage customers were expressly allotting any stored barrels at Cushing for refining that were, therefore, unavailable for secondary market delivery. The Exchange consistently heard from market participants that this was not the case; that barrels stored at Cushing are not specifically targeted for scheduled refining. Rather, refiners typically store barrels targeted for scheduled refining in tanks on the premises at their respective refineries or at other storage facilities. However, NYMEX was advised by one refiner that they keep barrels stored at Cushing for the contingency that there could be some unexpected interruption in their refinery supply; and, rather than refine the barrels stored at Cushing, they use them to trade for other barrels they would refine. Thus, the Exchange determined to further reduce the average monthly Domestic Light Sweet Common Stream crude oil stored at Cushing to account for this *contingency storage* in our estimate of deliverable supply. The Exchange estimates this quantity to be 2 million barrels (or 2,000 contract equivalents) of Domestic Light Sweet crude oil. Therefore, for the Inventory Period, the Exchange estimates stored product at Cushing (adjusted for quality specifications, operational minimums and contingency storage) and which is readily available for delivery against the Light Sweet Crude Oil Futures contract to be approximately 15,503 contract equivalents.

Analysis of WTI Cushing Deliverable Supply

Based on the above analysis, the Exchange determined at this time to base its estimates of deliverable supply on the sum of:

- Storage: 15,503 contract equivalents (which represents the average monthly inventory for the April 2, 2021 – March 22, 2024 period adjusted to account for quality specifications, operational minimums and contingency storage); and
- Inflow: 43,500 contract equivalents (which represents the midpoint of the average of the ranges of the 2018, 2020, and 2023 Domestic Light Sweet Common Stream Crude Oil flows into Cushing).

The total estimated deliverable supply, consisting of storage and pipeline inflows, 59,003 contract equivalents. Additionally, and as noted in the above analysis, the Exchange shall apply a 10% reduction to the sum of inventory storage and inflows into Cushing in order to discount segregated barrels that may be designated for processing by end-user refiners and typically not available for re-sale in the Cushing market. Therefore, after applying the 10% reduction, the Exchange has determined the estimated deliverable supply available for delivery against the Light Sweet Crude Oil Futures contract at approximately 53,103 futures contract equivalents per month.

Analysis of Spot-Month Position Limits

For the purposes of calculating compliance with position limits, the new contracts aggregate into the Light Sweet Crude Oil Futures contract (Commodity Code: CL). Because the Contracts expire into the Light Sweet Crude Oil Futures contract prior to the spot-month period, spot-month limits are not applicable to the Contracts. Based on the prior analysis for deliverable supply for WTI Cushing, the current spot month position limit for Light Sweet Crude Oil Futures of 6,000 contracts represents 11.3% of the total estimated monthly deliverable supply.

Table 1

U.S. Crude Oil Production[8]

For Eight States that Supply Cushing, Oklahoma

(in Thousands of Barrels per Day)

Annual Averages based on Monthly EIA Data		Crude Oil Production
From	*To*	*Thousand Barrels/Day*
Jan-21	Dec-21	8303
Jan-22	Dec-22	8940
Jan-23	Dec-23	9816
	Three-Year Average	9019

Table 2

Crude Oil Flows to Cushing (as of December 2023)

(Barrels/Day)[9]

Incoming Pipelines	Capacity	Owner	Estimated Flows (in Barrels/Day)
Flanagan South (Canada/Bakken)	720,000	Enbridge	550,000 – 600,000 (10% WTI, 90% Heavy Sour)
Keystone (from Steele City, NE)	590,000	Transcanada	130,000 – 240,000 BD (100% Heavy Sour)
Basin Pipeline (Permian)	550,000	Plains All American	180,000 – 400,000 (90% WTI, 10% Sour)
Pony Express/Seahorse (Niobrara)	400,000	Tallgrass	350,000 – 375,000 (100% WTI)
Saddlehorn/GrandMesa	440,000	Magellan/Plains	310,000 – 430,000 (100% WTI)
Stack Pipeline (Cashion)	250,000	Plains All American	120,000 – 130,000 (100% WTI)
Glass Mountain	210,000	Navigator	45,000 – 55,000 (100% WTI)
Spearhead Pipeline (Canada)	193,000	Enbridge	175,000 – 204,000 (100% Heavy Sour)
Mississippian Lime Pipeline	175,000	Plains All American	65,000 – 70,000 (100% WTI)
Centurion North Pipeline (Permian)	170,000	Energy Transfer	120,000 – 145,000 (100% WTI)
White Cliffs Pipeline (DJ Basin)	100,000	ETP, Plains	25,000 – 45,000 (100% WTI)
Hawthorn (Stroud to Cushing/STC)	90,000	US Development	20,000 – 30,000 (100% WTI)
SCOOP Pipeline	70,000	Oneok	40,000 – 45,000 (100% WTI)
Great Salt Plains	53,000	GSPM	20,000 – 30,000 (100% WTI)

[8] As of 3/15/2024: The production listed here includes North Dakota, Montana, Wyoming, Colorado, New Mexico, Onshore Texas, Oklahoma, and Kansas. The web link is: https://www.eia.gov/dnav/pet/pet_crd_crpdn_adc_mbblpd_m.htm

[9] Sources: Genscape, East Daley Analytics, pipeline operators, industry sources.

Maysville/Springer to Cushing	25,000	CVR	3,000 – 6,000 (100% WTI)
Enable to Cushing (Red River)	41,000	CVR	1,000 – 5,000 (100% WTI)
TOTAL In-Bound Capacity	**4.1 Million Capacity**		**WTI Flow: 1,341,000 – 1,791,000 B/D**

Outgoing Pipelines	**Capacity (B/D)**	**Owner**
Seaway Pipeline	950,000	Enterprise/Enbridge
Keystone MarketLink	750,000	TC Energy
Ozark (to Wood River, IL)	360,000	MPLX
Plains Red River (to Longview)	235,000	Plains All American
Diamond Pipeline (to Memphis)	200,000	Plains All American
BP#1 (to Chicago)	180,000	BP
Osage (to Eldorado, KS)	175,000	Holly Energy Partners
Cushing Connect	160,000	Holly, Plains
CRCT Pipeline (Ellis/Broome)	110,000	CVR Energy
CushPo (to Ponca City, OK)	130,000	Phillips66
Borger Express	90,000	Navigator
Sunoco (twin lines to Tulsa)	70,000	Energy Transfer
Line 0 (to Borger, TX)	38,000	Phillips66
TOTAL Out-bound Capacity	**3.4 Million B/D**	

Table 3

Crude Oil Flows to Cushing (as of December 2020)

(Barrels/Day)[10]

Incoming Pipelines	**Capacity**	**Owner**	**Estimated Flows (in Barrels/Day)**
Keystone XL (from Steele City, NE)	760,000	Transcanada	400,000 – 450,000 BD (100% Heavy Sour)
Basin Pipeline (Permian)	550,000	Plains All American	250,000 – 325,000 (90% WTI, 10% Sour)
Centurion North Pipeline (Permian)	170,000	Occidental	40,000 – 50,000 (100% WTI)
Spearhead Pipeline (Canada)	195,000	Enbridge	180,000 – 195,000 (100% Heavy Sour)
Flanagan South (Canada/Bakken)	600,000	Enbridge	450,000 – 500,000 (10% WTI, 90% Heavy Sour)
White Cliffs Pipeline (Niobrara)	90,000	Rose Rock	85,000 – 90,000 (100% WTI)
Cashion, OK Pipeline	250,000	Plains All American	120,000 – 130,000 (100% WTI)
Mississippian Lime Pipeline	150,000	Plains All American	70,000 – 80,000 (100% WTI)

[10] Sources: pipeline operators and other industry sources.

Pony Express Pipeline (Niobrara)	400,000	Tallgrass	350,000 – 375,000 (100% WTI)
Saddlehorn/Grand Mesa	450,000	Magellan/Plains	225,000 – 300,000 (100% WTI)
Glass Mountain	210,000	Navigator	50,000 – 60,000 (100% WTI)
Hawthorn (Stroud to Cushing)	90,000	Hawthorn	25,000 – 30,000 (100% WTI)
SCOOP Pipeline	70,000	Magellan	45,000 – 50,000 (100% WTI)
Great Salt Plains	35,000	Parnon	25,000 – 30,000 (100% WTI)
Eagle North	25,000	Blueknight	4,000 – 7,000 (100% WTI)
Red River	35,000	Plains All American	1,000 – 5,000 (100% WTI)
TOTAL In-Bound Capacity	**4.1 Million Capacity**		**WTI Flow: 1,310,000 – 1,550,000 B/D**

Outgoing Pipelines	**Capacity (B/D)**	**Owner**
Seaway Pipeline	950,000	Enterprise
Keystone MarketLink	750,000	Transcanada
BP#1 (to Chicago)	180,000	BP
Ozark (to Wood River, IL)	360,000	Enbridge
Osage (to Eldorado, KS)	165,000	Magellan/NCRA
Coffeyville CVR pipeline	110,000	CVR Energy
Phillips (to Ponca City, OK)	122,000	ConocoPhillips
Phillips (to Borger, TX)	59,000	NuStar
Plains Red River (to Longview)	235,000	Plains All American
Diamond Pipeline (to Memphis)	200,000	Plains All American
Sunoco (twin lines to Tulsa)	70,000	Sunoco
Magellan Tulsa	30,000	Magellan
TOTAL Out-bound Capacity	**3.2 Million B/D**	

Table 4

Crude Oil Flows to Cushing (as of July 2018)

(Barrels/Day)[11]

Incoming Pipelines	**Capacity**	**Owner**	**Estimated Flows (in Barrels/Day)**
Keystone XL (from Steele City, NE)	590,000	Transcanada	350,000 - 400,000 BD (100% Heavy Sour)
Basin Pipeline (Permian)	450,000	Plains	350,000 - 400,000 (80% WTI, 20% Sour)
Centurion North Pipeline (Permian)	170,000	Occidental	120,000 - 140,000 (100% WTI)
Spearhead Pipeline (Canada)	195,000	Enbridge	150,000 - 175,000 (100% Heavy Sour)
Flanagan South (Canada/Bakken)	600,000	Enbridge	400,000 - 450,000 (10% WTI, 90% Heavy Sour)

[11] Sources: Plains All American Pipeline Company, and other industry sources.

White Cliffs Pipeline (Niobrara)	215,000	Rose Rock	100,000 - 120,000 (100% WTI)
Plains Cashion, OK Pipeline	250,000	Plains	120,000 -145,000 (100% WTI)
Mississippian Lime Pipeline	150,000	Plains	95,000 - 100,000 (100% WTI)
Pony Express Pipeline (Niobrara)	325,000	Tallgrass	300,000 – 325,000 (100% WTI)
Saddlehorn-Grand Mesa	340,000	Magellan/Plains	140,000 – 150,000 (100% WTI)
Glass Mountain	210,000	Sem Group	30,000 – 40,000 (100% WTI)
Hawthorn (Stroud to Cushing)	90,000	Hawthorn	10,000 – 20,000 (100% WTI)
Great Salt Plains	35,000	Parnon	30,000 – 35,000 (100% WTI)
Eagle North	20,000	Blueknight	5,000 – 10,000 (100% WTI)
TOTAL In-Bound Capacity	**3.6 Million Capacity**		**WTI Flow: 1,270,000 – 1,450,000 B/D**

Outgoing Pipelines	**Capacity (B/D)**	**Owner**
Seaway Pipeline	850,000	Enterprise
Keystone MarketLink	700,000	Transcanada
BP#1 (to Chicago)	180,000	BP
Ozark (to Wood River, IL)	345,000	Enbridge
Osage (to Eldorado, KS)	165,000	Magellan/NCRA
Coffeyville CVR pipeline	110,000	CVR Energy
Phillips (to Ponca City, OK)	122,000	ConocoPhillips
Phillips (to Borger, TX)	59,000	NuStar
Plains Red River Pipeline (to Longview)	125,000	Plains All American
Plains Red River Pipeline	25,000	Plains All American
Sunoco (twin lines to Tulsa)	70,000	Sunoco
Plains Cherokee	20,000	Plains All American
Magellan Tulsa	30,000	Magellan
Diamond Pipeline (to Memphis)	200,000	Plains
TOTAL Out-bound Capacity	**3.0 Million B/D**	

Table 5

Cushing Storage[12]

Monthly Average of Weekly EIA Stocks Data

(in Thousand Barrels)

Month	Stock
Mar-24	32,024
Feb-24	29,329
Jan-24	31,102
Dec-23	32,289
Nov-23	25,421
Oct-23	21,377
Sep-23	23,866
Aug-23	32,069
Jul-23	37,452
Jun-23	42,167
May-23	36,391
Apr-23	33,317
Mar-23	36,811
Feb-23	39,973
Jan-23	33,228
Dec-22	24,765
Nov-22	25,476
Oct-22	26,735
Sep-22	25,212
Aug-22	25,415
Jul-22	22,754
Jun-22	22,340
May-22	25,973
Apr-22	26,931
Mar-22	23,926
Feb-22	25,035
Jan-22	32,648
Dec-21	33,767
Nov-21	27,227
Oct-21	30,810
Sep-21	34,887
Aug-21	34,084
Jul-21	36,952
Jun-21	42,810
May-21	45,491
Apr-21	46,148
3-yr Average	**31,283**

[12] https://www.eia.gov/dnav/pet/pet_stoc_wstk_dcu_YCUOK_w.htm as of 3/28/2024