SUBMISSION COVER SHEET

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

Registered Entity Identifier Code (optional): 17-266 (6 of 9)

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): 07/21/2017 Filing Description: Initial Listing of Nine (9) Crude Oil 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

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:

Christopher Bowen
Managing Director and Chief Regulatory Counsel
Legal Department

July 21, 2017

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. Notification Regarding the Initial Listing of Nine (9) Crude Oil Option Contracts
NYMEX Submission No. 17-266 (6 of 9)

Dear Mr. Kirkpatrick:

New York Mercantile Exchange, Inc. ("NYMEX" or "Exchange") is notifying the Commodity Futures Trading Commission ("CFTC" or "Commission") that it is self-certifying the initial listing of nine (9) crude oil option contracts (the "Contracts") for trading on the CME Globex electronic platform and for submission for clearing on CME ClearPort, effective on Sunday, August 6, 2017 for trade date Monday, August 7, 2017, as described below.

Contract Title	Commodity Code	Rulebook Chapter	Underlying Futures Contract Title	Underlying Futures Commodity Code
LLS (Argus) vs. WTI Trade Month Average Price Option	E5O	1126	Argus LLS vs. WTI (Argus) Trade Month Futures	E5
WTI Houston (Argus) vs. WTI Trade Month Average Price Option	HTO	1225	WTI Houston (Argus) vs. WTI Trade Month Futures	HTT
WTI Houston (Argus) vs. WTI Calendar Month Average Price Option	HIO	1226	WTI Houston (Argus) vs. WTI Financial Futures	HIL
Mars (Argus) vs. WTI Trade Month Average Price Option	YVO	1227	Mars (Argus) vs. WTI Trade Month Futures	YV
Mars (Argus) vs. WTI Calendar Month Average Price Option	YXO	1228	Mars (Argus) vs. WTI Financial Futures	YX
WTI Midland (Argus) vs. WTI Trade Month Average Price Option	WTO	1229	WTI Midland (Argus) vs. WTI Trade Month Futures	WTT
WTI Midland (Argus) vs. WTI Calendar Month Average Price Option	FFO	1230	WTI Midland (Argus) vs. WTI Financial Futures	FF

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WTS (Argus) vs. WTI Trade Month Average Price Option	FHO	1231	WTS (Argus) vs. WTI Trade Month Futures	FH
WTS (Argus) vs. WTI Calendar Month Average Price Option	WSO	1232	WTS (Argus) vs. WTI Financial Futures	WTA

Settlement Type	Financial
Contract Size	1,000 Barrels
Termination of Trading	**E5O, HTO, YVO, WTO & FHO:** Trading terminates on the 25th calendar day of the month prior to the contract month. If the 25th calendar day is not a business day, trading terminates on the first business day prior to the 25th calendar day. **HIO, YXO, FFO & WSO:** Trading terminates on the last business day of the contract month.
Minimum Price Fluctuation	$0.01 per barrel
Value per Tick	$10
Final Settlement Increment	$0.01 per barrel
Final Settlement Date	Two business days after the last trading day
First Listed Month	**E5O, YVO, FHO, HTO & WTO:** September 2017 **YXO, FFO, HIO & WSO:** August 2017
Listing Schedule	**E5O, YVO, YXO, FFO & FHO:** Monthly contracts listed for the current year and the next **5** calendar years. Monthly contracts for a new calendar year will be added following the termination of trading in the December contract of the current year **HTO & HIO:** Monthly contracts listed for the current year and the next **3** calendar years. Monthly contracts for a new calendar year will be added following the termination of trading in the December contract of the current year. **WTO & WSO:** Monthly contracts listed for **30** consecutive months.
CME Globex Trade Matching Algorithm	F: First In, First Out (FIFO)
Block Trade Minimum Threshold	5 contracts
Strike Price Listing Rule	Dynamic strikes only at $0.01 per barrel strike increment
Strike Increment	$0.01 per barrel
Exercise Type	European-style option

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Exchange Fees

Exchange Fees	Member	Non-Member	International Incentive Programs (IIP/IVIP)
CME Globex	$0.70	$1.45	$0.77
Block	$1.75	$2.50	
EFR/EOO	$1.75	$2.50	

Processing Fees	Member	Non-Member
Cash Settlement	$0.90	$1.15
Other Fees		
Facilitation Fee	$0.60	
Give-Up Surcharge	$0.05	
Position Adjustment/Transfer	$0.10	

Trading and Clearing Hours

CME Globex and CME ClearPort	Sunday - Friday 6:00 p.m. - 5:00 p.m. (5:00 p.m. - 4:00 p.m. Central Time/CT) with a 60-minute break each day beginning at 5:00 p.m. (4:00 p.m. CT)

NYMEX is self-certifying block trading on the Contracts with a minimum block threshold of five (5) contracts. This minimum block threshold level of five (5) contracts is aligned with the Exchange's existing crude grade option contracts.

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 include prohibitions against fraudulent, noncompetitive, unfair and abusive practices. Additionally, trading in these 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 Contracts 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 subject to manipulation because of their structural attributes, active underlying markets and reliance on well administered indexes. Final settlements are based on indices published by Argus Media ("Argus") and sub-licensed to the Exchange.

- **Prevention of Market Disruption:** Trading in the Contracts will be subject to the Rules of NYMEX, which include prohibitions on manipulation, price distortion, and disruption to the cash settlement

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process. As with any new product listed for trading on a CME Group designated contract market, trading activity in the Contracts proposed herein will be subject to 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 the Contracts' specifications, terms, and conditions, as well as daily trading volume, open interest, and price information.

- **Daily Publication of Trading Information**: The Exchange will publish the Contracts' 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 requisite 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, a derivatives clearing organization registered with the CFTC and subject to all CFTC regulations related thereto.

- **Protection of Market Participants**: NYMEX Rulebook Chapters 4 and 5 set forth multiple prohibitions that preclude intermediaries from disadvantaging their customers. These rules apply to trading in all of the Exchange's competitive trading venues.

- **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 Rulebook. 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 products are 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. Chapter 6 allows 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 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 listing the Contracts complies with the Act, including regulations under the Act. There were no substantive opposing views to listing of the Contracts.

The Exchange certifies that this submission has been concurrently posted on the Exchange's website at http://www.cmegroup.com/market-regulation/rule-filings.html.

Should you have any questions concerning the above, please contact the undersigned at (212) 299-2200 or via e-mail at CMEGSubmissionInquiry@cmegroup.com.

Sincerely,

/s/ Christopher Bowen
Managing Director and Chief Regulatory Counsel

Attachments: Appendix A: NYMEX Rulebook Chapters
Appendix B: Position Limit, Position Accountability, and Reportable Level Table in Chapter 5 of the NYMEX Rulebook (attached under separate cover)
Appendix C: NYMEX Rule 588.H. – ("Globex Non-Reviewable Trading Ranges") Table
Appendix D: Cash Market Overview and Analysis of Deliverable Supply

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APPENDIX A

Chapter 1126

LLS (Argus) vs. WTI Trade Month Average Price Option

1126100. SCOPE OF CHAPTER

This chapter is limited in application to put and call options on the LLS (Argus) vs. WTI Trade Month Futures contract. In addition to the rules of this chapter, transactions in options on Argus LLS Trade Month Futures shall be subject to the general rules of the Exchange insofar as applicable.

1126101. OPTION CHARACTERISTICS

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

1126101.A. Trading Schedule

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

1126101.B. Trading Unit

A LLS (Argus) vs. WTI Trade Month Average Price Option is a cash-settled option. On expiration of a call option, the value will be the difference between settlement price of the underlying Argus LLS vs. WTI (Argus) Trade Month Futures and the strike price multiplied by 1,000 barrels, or zero whichever is greater. On expiration of a put option, the difference between settlement price of the underlying Argus LLS vs. WTI (Argus) Trade Month Futures and the strike price multiplied by 1,000 barrels, or zero whichever is greater.

1126101.C. Price Increments

Prices shall be quoted in dollars and cents per barrel. The minimum price fluctuation shall be $0.01 per barrel.

1126101.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.

1126101.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.

1126101.F. Type Option

The option is a European-style option which can be exercised on the expiration day.

1126102. EXERCISE PRICES AND CHARACTERISTICS

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

1126103. DISCLAIMER

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Chapter 1225

WTI Houston (Argus) vs. WTI Trade Month Average Price Option

1225100. SCOPE OF CHAPTER

This chapter is limited in application to put and call options on the WTI Houston (Argus) vs. WTI Trade Month Futures contract. In addition to the rules of this chapter, transactions in options on WTI Houston (Argus) Trade Month Futures shall be subject to the general rules of the Exchange insofar as applicable.

1225101. OPTION CHARACTERISTICS

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

1225101.A. Trading Schedule

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

1225101.B. Trading Unit

A WTI Houston (Argus) vs. WTI Trade Month Average Price Option is a cash-settled option. On expiration of a call option, the value will be the difference between settlement price of the underlying WTI Houston (Argus) vs. WTI Trade Month Futures and the strike price multiplied by 1,000 barrels, or zero whichever is greater. On expiration of a put option, the difference between settlement price of the underlying WTI Houston (Argus) vs. WTI Trade Month Futures and the strike price multiplied by 1,000 barrels, or zero whichever is greater.

1225101.C. Price Increments

Prices shall be quoted in dollars and cents per barrel. The minimum price fluctuation shall be $0.01 per barrel.

1225101.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.

1225101.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.

1225101.F. Type Option

The option is a European-style option which can be exercised on the expiration day.

1225102. EXERCISE PRICES AND CHARACTERISTICS

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

1225103. DISCLAIMER

NEITHER THE NEW YORK MERCANTILE EXCHANGE, INC. NOR ARGUS GUARANTEES THE ACCURACY AND/OR COMPLETENESS OF THE INDEX NOR ANY OF THE DATA INCLUDED THEREIN. NYMEX AND ARGUS MAKE NO WARRANTIES, EXPRESS OR IMPLIED, AS TO THE RESULTS TO BE OBTAINED BY ANY PERSON OR ENTITY FROM USE OF THE INDEX, TRADING BASED ON THE INDEX, OR ANY DATA INCLUDED THEREIN IN CONNECTION WITH THE TRADING OF THE CONTRACTS, OR, FOR ANY OTHER USE. NYMEX AND ARGUS MAKE NO WARRANTIES, EXPRESS OR IMPLIED, AND HEREBY DISCLAIMS ALL WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR USE WITH RESPECT TO THE INDEX OR ANY DATA INCLUDED THEREIN. WITHOUT LIMITING ANY OF THE FOREGOING, IN NO EVENT SHALL NYMEX OR ARGUS HAVE ANY LIABILITY FOR ANY LOST PROFITS OR INDIRECT, PUNITIVE, SPECIAL OR CONSEQUENTIAL DAMAGES (INCLUDING LOST PROFITS), EVEN IF NOTIFIED OF THE POSSIBILITY OF SUCH DAMAGES.

Chapter 1226

WTI Houston (Argus) vs. WTI Calendar Month Average Price Option

1226100. SCOPE of CHAPTER

This chapter is limited in application to put and call options on the WTI Houston (Argus) vs. WTI Financial Futures contract. In addition to the rules of this chapter, transactions in options on WTI Houston (Argus) Financial Futures shall be subject to the general rules of the Exchange insofar as applicable.

1226101. OPTION CHARACTERISTICS

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

1226101.A. Trading Schedule

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

1226101.B. Trading Unit

A WTI Houston (Argus) vs. WTI Calendar Month Average Price Option is a cash-settled option. On expiration of a call option, the value will be the difference between settlement price of the underlying WTI Houston (Argus) vs. WTI Financial Futures and the strike price multiplied by 1,000 barrels, or zero whichever is greater. On expiration of a put option, the difference between settlement price of the underlying WTI Houston (Argus) vs. WTI Financial Futures and the strike price multiplied by 1,000 barrels, or zero whichever is greater.

1226101.C. Price Increments

Prices shall be quoted in dollars and cents per barrel. The minimum price fluctuation shall be $0.01 per barrel.

1226101.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.

1226101.E. Termination of Trading

Trading shall cease on the last business day of the contract month.

1226101.F. Type Option

The option is a European-style option which can be exercised on the expiration day.

1226102. EXERCISE PRICES AND CHARACTERISTICS

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

1226103. DISCLAIMER

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Chapter 1227

Mars (Argus) vs. WTI Trade Month Average Price Option

1227100. SCOPE of CHAPTER

This chapter is limited in application to put and call options on Mars (Argus) vs. WTI Trade Month Futures contract. In addition to the rules of this chapter, transactions in options on Mars (Argus) Trade Month Futures shall be subject to the general rules of the Exchange insofar as applicable.

1227101. OPTION CHARACTERISTICS

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

1227101.A. Trading Schedule

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

1227101.B. Trading Unit

A Mars (Argus) vs. WTI Trade Month Average Price Option is a cash-settled option. On expiration of a call option, the value will be the difference between settlement price of the underlying Mars (Argus) vs. WTI Trade Month Futures and the strike price multiplied by 1,000 barrels, or zero whichever is greater. On expiration of a put option, the difference between settlement price of the underlying Mars (Argus) vs. WTI Trade Month Futures and the strike price multiplied by 1,000 barrels, or zero whichever is greater.

1227101.C. Price Increments

Prices shall be quoted in dollars and cents per barrel. The minimum price fluctuation shall be $0.01 per barrel.

1227101.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.

1227101.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.

1227101.F. Type Option

The option is a European-style option which can be exercised on the expiration day.

1227102. EXERCISE PRICES AND CHARACTERISTICS

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

1227103. DISCLAIMER

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Chapter 1228

Mars (Argus) vs. WTI Calendar Month Average Price Option

1228100. SCOPE of CHAPTER

This chapter is limited in application to put and call options on Mars (Argus) vs. WTI Financial Futures contract. In addition to the rules of this chapter, transactions in options on Mars (Argus) Financial Futures shall be subject to the general rules of the Exchange insofar as applicable.

1228101. OPTION CHARACTERISTICS

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

1228101.A. Trading Schedule

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

1228101.B. Trading Unit

A Mars (Argus) vs. WTI Calendar Month Average Price Option is a cash-settled option. On expiration of a call option, the value will be the difference between settlement price of the underlying Mars (Argus) vs. WTI Financial Futures and the strike price multiplied by 1,000 barrels, or zero whichever is greater. On expiration of a put option, the difference between settlement price of the underlying Mars (Argus) vs. WTI Financial Futures and the strike price multiplied by 1,000 barrels, or zero whichever is greater.

1228101.C. Price Increments

Prices shall be quoted in dollars and cents per barrel. The minimum price fluctuation shall be $0.01 per barrel.

1228101.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.

1228101.E. Termination of Trading

Trading shall cease on the last business day of the contract month.

1228101.F. Type Option

The option is a European-style option which can be exercised on the expiration day.

1228102. EXERCISE PRICES AND CHARACTERISTICS

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

1228103. DISCLAIMER

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Chapter 1229

WTI Midland (Argus) vs. WTI Trade Month Average Price Option

1229100. SCOPE of CHAPTER

This chapter is limited in application to put and call options on WTI Midland (Argus) vs. WTI Trade Month Futures contract. In addition to the rules of this chapter, transactions in options on WTI Midland (Argus) Trade Month Futures shall be subject to the general rules of the Exchange insofar as applicable.

1229101. OPTION CHARACTERISTICS

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

1229101.A. Trading Schedule

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

1229101.B. Trading Unit

A WTI Midland (Argus) vs. WTI Trade Month Average Price Option is a cash-settled option. On expiration of a call option, the value will be the difference between settlement price of the underlying WTI Midland (Argus) vs. WTI Trade Month Futures and the strike price multiplied by 1,000 barrels, or zero whichever is greater. On expiration of a put option, the difference between settlement price of the underlying WTI Midland (Argus) vs. WTI Trade Month Futures and the strike price multiplied by 1,000 barrels, or zero whichever is greater.

1229101.C. Price Increments

Prices shall be quoted in dollars and cents per barrel. The minimum price fluctuation shall be $0.01 per barrel.

1229101.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.

1229101.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.

1229101.F. Type Option

The option is a European-style option which can be exercised on the expiration day.

1229102. EXERCISE PRICES AND CHARACTERISTICS

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

1229103. DISCLAIMER

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Chapter 1230

WTI Midland (Argus) vs. WTI Calendar Month Average Price Option

1230100. SCOPE OF CHAPTER

This chapter is limited in application to put and call options on WTI Midland (Argus) vs. WTI Financial Futures contract. In addition to the rules of this chapter, transactions in options on WTI Midland (Argus) Financial Futures shall be subject to the general rules of the Exchange insofar as applicable.

1230101. OPTION CHARACTERISTICS

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

1230101.A. Trading Schedule

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

1230101.B. Trading Unit

A WTI Midland (Argus) vs. WTI Calendar Month Average Price Option is a cash-settled option. On expiration of a call option, the value will be the difference between settlement price of the underlying WTI Midland (Argus) vs. WTI Financial Futures and the strike price multiplied by 1,000 barrels, or zero whichever is greater. On expiration of a put option, the difference between settlement price of the underlying WTI Midland (Argus) vs. WTI Financial Futures and the strike price multiplied by 1,000 barrels, or zero whichever is greater.

1230101.C. Price Increments

Prices shall be quoted in dollars and cents per barrel. The minimum price fluctuation shall be $0.01 per barrel.

1230101.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.

1230101.E. Termination of Trading

Trading shall cease on the last business day of the contract month.

1230101.F. Type Option

The option is a European-style option which can be exercised on the expiration day.

1230102. EXERCISE PRICES AND CHARACTERISTICS

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

1230103. DISCLAIMER

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Chapter 1231

WTS (Argus) vs. WTI Trade Month Average Price Option

1231100. SCOPE OF CHAPTER

This chapter is limited in application to put and call options on WTS (Argus) vs. WTI Trade Month Futures contract. In addition to the rules of this chapter, transactions in options on WTS (Argus) Trade Month Futures shall be subject to the general rules of the Exchange insofar as applicable.

1231101. OPTION CHARACTERISTICS

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

1231101.A. Trading Schedule

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

1231101.B. Trading Unit

A WTS (Argus) vs. WTI Trade Month Average Price Option is a cash-settled option. On expiration of a call option, the value will be the difference between settlement price of the underlying WTS (Argus) vs. WTI Trade Month Futures and the strike price multiplied by 1,000 barrels, or zero whichever is greater. On expiration of a put option, the difference between settlement price of the underlying WTS (Argus) vs. WTI Trade Month Futures and the strike price multiplied by 1,000 barrels, or zero whichever is greater.

1231101.C. Price Increments

Prices shall be quoted in dollars and cents per barrel. The minimum price fluctuation shall be $0.01 per barrel.

1231101.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.

1231101.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.

1231101.F. Type Option

The option is a European-style option which can be exercised on the expiration day.

1231102. EXERCISE PRICES AND CHARACTERISTICS

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

1231103. DISCLAIMER

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Chapter 1232

WTS (Argus) vs. WTI Calendar Month Average Price Option

1232100. SCOPE OF CHAPTER

This chapter is limited in application to put and call options on WTS (Argus) vs. WTI Financial Futures contract. In addition to the rules of this chapter, transactions in options on WTS (Argus) Financial Futures shall be subject to the general rules of the Exchange insofar as applicable.

1232101. OPTION CHARACTERISTICS

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

1232101.A. Trading Schedule

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

1232101.B. Trading Unit

A WTS (Argus) vs. WTI Calendar Month Average Price Option is a cash-settled option. On expiration of a call option, the value will be the difference between settlement price of the underlying WTS (Argus) vs. WTI Financial Futures and the strike price multiplied by 1,000 barrels, or zero whichever is greater. On expiration of a put option, the difference between settlement price of the underlying WTS (Argus) vs. WTI Financial Futures and the strike price multiplied by 1,000 barrels, or zero whichever is greater.

1232101.C. Price Increments

Prices shall be quoted in dollars and cents per barrel. The minimum price fluctuation shall be $0.01 per barrel.

1232101.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.

1232101.E. Termination of Trading

Trading shall cease on the last business day of the contract month.

1232101.F. Type Option

The option is a European-style option which can be exercised on the expiration day.

1232102. EXERCISE PRICES AND CHARACTERISTICS

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

1232103. DISCLAIMER

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APPENDIX B

Position Limit, Position Accountability, and Reportable Level Table in Chapter 5 of the NYMEX Rulebook

(Attached under separate cover)

APPENDIX C

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

(Additions are underscored)

Instrument	Bid/Ask Reasonability	Non-Reviewable Range (NRR)
LLS (Argus) vs. WTI Trade Month Average Price Option	The greater of the delta times the underlying futures' non-reviewable range or 20% of the fair value premium up to the underlying futures' non-reviewable range with a minimum reasonability of $0.50	The greater of delta times the underlying futures non-reviewable range or20% of premium up to 1/4 of the underlying futures' non-reviewable range with a minimum of 1 tick
WTI Houston (Argus) vs. WTI Trade Month Average Price Option	The greater of the delta times the underlying futures' non-reviewable range or 20% of the fair value premium up to the underlying futures' non-reviewable range with a minimum reasonability of $0.50	The greater of delta times the underlying futures non-reviewable range or20% of premium up to 1/4 of the underlying futures' non-reviewable range with a minimum of 1 tick
WTI Houston (Argus) vs. WTI Calendar Month Average Price Option	The greater of the delta times the underlying futures' non-reviewable range or 20% of the fair value premium up to the underlying futures' non-reviewable range with a minimum reasonability of $0.50	The greater of delta times the underlying futures non-reviewable range or20% of premium up to 1/4 of the underlying futures' non-reviewable range with a minimum of 1 tick
Mars (Argus) vs. WTI Trade Month Average Price Option	The greater of the delta times the underlying futures' non-reviewable range or 20% of the fair value premium up to the underlying futures' non-reviewable range with a minimum reasonability of $0.50	The greater of delta times the underlying futures non-reviewable range or20% of premium up to 1/4 of the underlying futures' non-reviewable range with a minimum of 1 tick
Mars (Argus) vs. WTI Calendar Month Average Price Option	The greater of the delta times the underlying futures' non-reviewable range or 20% of the fair value premium up to the underlying futures' non-reviewable range with a minimum reasonability of $0.50	The greater of delta times the underlying futures non-reviewable range or20% of premium up to 1/4 of the underlying futures' non-reviewable range with a minimum of 1 tick
WTI Midland (Argus) vs. WTI Trade Month Average Price Option	The greater of the delta times the underlying futures' non-reviewable range or 20% of the fair value premium up to the underlying futures' non-reviewable range with a minimum reasonability of $0.50	The greater of delta times the underlying futures non-reviewable range or20% of premium up to 1/4 of the underlying futures' non-reviewable range with a minimum of 1 tick
WTI Midland (Argus) vs. WTI Calendar Month Average Price Option	The greater of the delta times the underlying futures' non-reviewable range or 20% of the fair value premium up to the underlying futures' non-reviewable range with a minimum reasonability of $0.50	The greater of delta times the underlying futures non-reviewable range or20% of premium up to 1/4 of the underlying futures' non-reviewable range with a minimum of 1 tick
WTS (Argus) vs. WTI Trade Month Average Price Option	The greater of the delta times the underlying futures' non-reviewable range or 20% of the fair value premium up to the underlying futures' non-reviewable range with a minimum reasonability of $0.50	The greater of delta times the underlying futures non-reviewable range or20% of premium up to 1/4 of the underlying futures' non-reviewable range with a minimum of 1 tick

WTS (Argus) vs. WTI Calendar Month Average Price Option	The greater of the delta times the underlying futures' non-reviewable range or 20% of the fair value premium up to the underlying futures' non-reviewable range with a minimum reasonability of $0.50	The greater of delta times the underlying futures non-reviewable range or20% of premium up to 1/4 of the underlying futures' non-reviewable range with a minimum of 1 tick

APPENDIX D

Cash Market Overview and Analysis of Deliverable Supply

The New York Mercantile Exchange, Inc. ("NYMEX" or "Exchange") is self-certifying the listing of nine financially-settled crude oil grade average price option contracts based on Argus assessments:

Contract TItle	Clearing Code	Rulebook Chapter	Venue
LLS (Argus) vs. WTI Trade Month Average Price Option	E5O	1126	CME Globex, CME ClearPort
WTI Houston (Argus) vs. WTI Trade Month Average Price Option	HTO	1225	CME Globex, CME ClearPort
WTI Houston (Argus) vs. WTI Calendar Month Average Price Option	HIO	1226	CME Globex, CME ClearPort
Mars (Argus) vs. WTI Trade Month Average Price Option	YVO	1227	CME Globex, CME ClearPort
Mars (Argus) vs. WTI Calendar Month Average Price Option	YXO	1228	CME Globex, CME ClearPort
WTI Midland (Argus) vs. WTI Trade Month Average Price Option	WTO	1229	CME Globex, CME ClearPort
WTI Midland (Argus) vs. WTI Calendar Month Average Price Option	FFO	1230	CME Globex, CME ClearPort
WTS (Argus) vs. WTI Trade Month Average Price Option	FHO	1231	CME Globex, CME ClearPort
WTS (Argus) vs. WTI Calendar Month Average Price Option	WSO	1232	CME Globex, CME ClearPort

Exchange staff conducted a review of the underlying cash markets and deliverable supply of Light Louisiana Sweet (LLS), West Texas Intermediate (WTI) Houston, WTI Midland, West Texas Sour (WTS), Mars and WTI Cushing. In estimating deliverable supply for the Contracts and relying on Commission long-standing precedent, the key component of estimated deliverable supply is the portion of typical production and supply stocks that could reasonably be considered to be reliably available for delivery. Most recently, the Commission stated in its final position limit rulemaking that:

> [the term "deliverable supply" generally 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.[1]

The Exchange determined to base its analysis of deliverable supply primarily on production data for LLS, WTI Houston, WTI Midland, WTS, and Mars. For the WTI

[1] Position Limits for Futures and Swaps, Unofficial Notice of Final Rulemaking, p. 28 (publication in Federal Register forthcoming).

Cushing market, a combination of industry-based estimates of physical flow of deliverable oil to the delivery area and Cushing crude oil stocks were used.

Data Sources

For production and inventory levels, NYMEX used information collected by the U.S. Department of Energy ("DOE") Energy Information Administration ("EIA"), which is a definitive source for this information. Other information is, in part, available from other sources as well, particularly at the state level from either energy or tax revenue authorities. The industry sources that the Exchange has consulted with for business intelligence are well-established and reputable market participants that the Exchange has had a longstanding relationship with.

Light Louisiana Sweet (LLS)

Cash Market Overview

LLS Production

US oil production has grown rapidly in recent years. Recent growth has consisted primarily of lighter, sweet crude from tight resource formations. Additional production of light oil over the past several years has, for the most part, been absorbed by reducing oil imports of similar grades.

Crude oil is categorized by reference to its density/API gravity and sulfur content. The quality of crude oil and other feedstock dictates the level of processing and conversion necessary to achieve what a refiner sees as an optimal mix of products. Light sweet crude is more expensive than heavier, sourer crude because it requires less processing and produces a slate of products with a greater percentage of value-added products, such as gasoline, diesel, and aviation fuel. Louisiana Light Sweet (LLS) oil has a 38 API and 0.40% sulfur[2] and is considered a light sweet crude oil. LLS is a blended grade of domestic crude oil streams from the Gulf Coast (Texas and Louisiana) region.

Light sweet crude oil production from Permian and Eagle Ford regions in Texas accounts for a significant portion of the LLS-quality crude that is blended and traded in St James, LA. Light sweet crude produced in the Eagle Ford and Permian regions in Texas are frequently shipped via pipeline and barge to the hub in St. James, and blended into the LLS stream. There is direct pipeline connectivity from Houston to St. James via the Shell Zydeco Pipeline (also called the Ho-Ho Pipeline) with capacity of 375,000 barrels per day. In addition, light sweet crude oil is delivered by barge from Houston and Corpus Christi, TX ports to the terminals in St. James for blending into the LLS stream.

[2] http://www.caplinepipeline.com/Reports1.aspx

In calculating the production levels of LLS, the Exchange focused on the EIA production data for the Eagle Ford and Permian regions, as well as Louisiana State[3]. The Exchange also relied on the crude oil quality data most recently published by the EIA in a May 2015 report titled "U.S. Crude Oil Production to 2025: Update Projection of Crude Types[4]. In this report, Permian region production (Southwest) has LLS-quality ("API 35-40 sweet") production accounting for 21%, 20%, 21%, 19% and 18% between reported years of 2011 and 2015. Further, Eagle Ford region (Gulf Coast) production has LLS-quality production accounting for 21%, 24%, 16%, 15% and 15% in the same reported period. On average, approximately 20% of crude oil produced in the Permian region is LLS-quality ("API 35-40 sweet"), and approximately 18% of crude produced in the Eagle Ford region is LLS-quality ("API 35-40 sweet"). Therefore, based on the three-year average from 2014 to 2016, the LLS-quality crude oil ("API 35-40 Sweet") production from the Permian region was 368,000 barrels per day, and LLS-type crude supplied from the Eagle Ford region averaged 257,000 barrels per day.

Meanwhile, the Exchange also included a portion of the Louisiana crude production in the deliverable supply estimate for LLS. According to the EIA, Louisiana crude oil production averaged 172,000 barrels per day for the three-year period of 2014 through 2016. However, the EIA data does not provide a breakdown of production by crude type. Based on input from industry experts, the share of Louisiana oil production that is composed of LLS-type crude oil is approximately 50% to 60% of total production. To be conservative, the Exchange will apply a haircut of 50% to the total Louisiana crude oil production to account for the share of LLS-quality crude oil. Consequently, the deliverable supply estimate of LLS-type crude oil from Louisiana is approximately 86,000 barrels per day for the three-year period of 2014 through 2016.

As illustrated in Table 1 below, the three-year average from 2014 to 2016 for LLS-quality crude oil ("API 35-40 Sweet") production in the Gulf Coast region is 711,000 barrels per day, which consists of 86,000 barrels per day produced in Louisiana State, 368,000 barrels per day supplied from the Permian region, and 257,000 barrels per day supplied from the Eagle Ford region.

Table 1: Gulf Coast Crude Oil Production of LLS-type Crude Oil (in barrels per day)[5]

Month	Louisiana State	Permian	Eagle Ford
Jan-2014	184,000	1,478,864	1,250,367
Feb-2014	187,000	1,512,206	1,292,793
Mar-2014	193,000	1,542,854	1,314,626
Apr-2014	189,000	1,567,661	1,384,248
May-2014	192,000	1,583,325	1,391,140
Jun-2014	192,000	1,588,808	1,461,141
Jul-2014	187,000	1,634,008	1,493,885
Aug-2014	189,000	1,671,751	1,511,318
Sep-2014	189,000	1,659,965	1,515,223

[3] https://www.eia.gov/petroleum/drilling/#tabs-summary-2

[4] http://www.eia.gov/analysis/petroleum/crudetypes/ Data from Figure 4 and 5 of the underlying excel data file from EIA's report titled "U.S. Crude Oil Production to 2025: Updated Projection of Crude Types" dated May 28, 2015.

[5] https://www.eia.gov/dnav/pet/pet_crd_crpdn_adc_mbblpd_m.htm

Oct-2014	188,000	1,734,748	1,554,980
Nov-2014	184,000	1,787,963	1,579,171
Dec-2014	187,000	1,797,251	1,666,013
Jan-2015	184,000	1,691,702	1,659,548
Feb-2015	183,000	1,805,706	1,692,745
Mar-2015	177,000	1,882,231	1,701,168
Apr-2015	175,000	1,904,945	1,652,099
May-2015	175,000	1,899,561	1,619,234
Jun-2015	171,000	1,889,399	1,573,018
Jul-2015	168,000	1,865,071	1,576,182
Aug-2015	168,000	1,904,688	1,520,880
Sep-2015	170,000	1,927,741	1,504,656
Oct-2015	168,000	1,918,398	1,502,170
Nov-2015	166,000	1,953,859	1,470,713
Dec-2015	162,000	1,841,802	1,475,166
Jan-2016	156,000	1,923,647	1,435,044
Feb-2016	163,000	1,963,416	1,395,968
Mar-2016	164,000	1,978,122	1,347,639
Apr-2016	164,000	1,986,086	1,306,183
May-2016	161,000	1,985,695	1,255,281
Jun-2016	156,000	1,994,227	1,223,157
Jul-2016	152,000	2,032,322	1,204,464
Aug-2016	151,000	2,054,138	1,179,619
Sep-2016	155,000	2,041,419	1,181,538
Oct-2016	152,000	2,082,936	1,176,887
Nov-2016	146,000	2,104,584	1,173,785
Dec-2016	144,000	2,110,722	1,176,125
Average	172,000	1,841,717	1,428,283
LLS Crude Estimate	86,000	368,343	257,091

LLS Trade

The Light Louisiana Sweet (“LLS”) crude oil market is traded at the hub in St. James, Louisiana, which consists of storage facilities and major pipelines for distribution of crude oil from the Gulf of Mexico to refineries in Louisiana and in the Midcontinent. The Capline pipeline system is a strategic high-volume transportation resource that links Gulf of Mexico and foreign crude supplies to key refineries throughout the Midcontinent area of the United States. It carries 1.1 million barrels of crude oil per day from St. James to Patoka, Illinois. There is active trading in forward cash deals on the Capline.

The typical transaction size in the LLS market is 30,000 barrels, with hundreds of separate transactions occurring daily. The volume of spot transactions is more than half of all cash transactions, and the balance of trades are longer-term contracts. The bid/ask spreads are typically in increments of 10 cents per barrel, which reflects robust liquidity in the LLS crude oil OTC market, and diverse market participation

LLS Price Index

Argus Media is the Price Reporting Agency for the LLS spot market. The Argus index for LLS is based on a volume-weighted average (VWA) of deals done across the trading day. Argus validates physical transactions throughout the trading day. Argus asks for details of counterparties from contacts in order to confirm deals and to avoid double-counting in volume-weighted averages. Argus is completely transparent, publishing the price and volume of every deal that is used in the final index price. Argus crude prices for the Americas are published in the Argus Americas Crude report. Argus publishes the low and the high of deals done throughout the entire trading day. In order to qualify to set the low or high of the day, deals must meet the minimum volumes as specified in methodology. Argus editors and managers are readily available to discuss their methodology, which can be publicly accessed at:
http://www.argusmedia.com/Petroleum/Crude/~/media/Files/PDFs/Meth/argus_americas_crude.ashx

Analysis of Deliverable Supply

In its estimate of deliverable supply, the Exchange used production data for LLS. Accordingly, the three-year average for LLS-quality crude oil production in the US is 711,000 barrels per day, which is equivalent to approximately 21.3 million barrels per month, or 21,300 contract equivalents (contract size: 1,000 barrels). The spot month position limit of 3,000 contracts for the LLS leg of the options is set at approximately 14.1% of the monthly deliverable supply.

WTS and WTI Midland
Cash Market Overview

There is an active physical crude oil trading center based in Midland, Texas, which is a major hub for storage and pipelines with direct connectivity to the Cushing and the U.S. Gulf Coast markets. There is active trading in light sweet WTI and West Texas Sour (WTS) type crude oil at Midland. Further, there are substantial pipeline flows of WTI and WTS type crude oil from Midland, Texas to Cushing, Oklahoma. Two major pipelines carry crude oil from Midland to Cushing: the Basin Pipeline, and the Centurion Pipeline. In addition, the Magellan pipeline was completed in early 2014 that connects Midland directly to the Gulf Coast market in Houston.
The Argus methodology for the assessment of the WTI Midland and WTS crude oil indices is the volume weighted-average price of transactions done during the entire trading day and is available at the following link:
http://d1bs3qurwcoybx.cloudfront.net/~/media/Files/PDFs/Meth/argus_americas_crude.pdf.
According to Argus, the WTS is a light sour crude oil stream with average API gravity of 38 degrees and sulfur of 0.50% by weight. WTS is a blended crude oil stream that is produced in the Permian Basin area in the vicinity of Midland, Texas. The WTS crude oil

cash market is moderately active, with diverse market participation from 15 to 20 commercial companies.
Further, in recent years, there has been a sharp increase in production of light sweet WTI type crude oil in the Permian Basin of West Texas in the region of Midland, Texas. The WTI cash market at Midland is robust, and market participation is diverse, with 30 to 40 participants in the marketplace.

WTS and WTI Midland Production

In its analysis of deliverable supply for WTS and WTI at Midland, the Exchange has focused on crude oil production in West Texas. The Texas Railroad Commission (TRC) provides detailed data on crude oil production in West Texas. However, the TRC does not provide a breakdown of the crude oil production by type of crude oil, i.e., for light sweet or sour crude oil. In addition, the EIA provides production data for the State of Texas, and also includes a study with a breakdown of the production by crude type.
According to regional data published by the Texas Railroad Commission, the crude oil production in the Permian Basin of West Texas in the vicinity of Midland, Texas was 45.63 million barrels per month for the period of 2014 through 2016, which is equivalent to nearly 1.52 million barrels per day (see Table 2 below).

Table 2: Texas Railroad Commission Data[6]
Texas Production of Crude Oil in West Texas (by District)
(For Districts 7C, 8, 8A, 9, and 10 located near Midland, Texas)
(Barrels per Month)

Month	7C	8	8A	9	10
Jan-14	6,057,018	20,707,778	8,987,018	1,291,997	2,034,955
Feb-14	5,534,992	19,289,784	8,024,988	1,194,330	1,724,272
Mar-14	6,389,431	21,909,385	8,902,907	1,297,149	2,081,872
Apr-14	6,378,781	21,387,649	8,663,652	1,256,494	2,084,965
May-14	6,592,161	22,505,734	8,924,049	1,366,782	2,112,540
Jun-14	6,478,361	21,974,302	8,589,847	1,345,599	2,073,808
Jul-14	7,061,036	23,350,108	8,869,141	1,353,541	2,146,094
Aug-14	7,545,997	23,804,715	8,924,712	1,349,959	2,130,940
Sep-14	7,351,815	23,190,873	8,621,024	1,313,147	2,096,461
Oct-14	7,920,091	24,797,023	8,800,156	1,351,328	2,134,476
Nov-14	7,888,714	24,792,402	8,870,924	1,275,038	2,014,139
Dec-14	8,037,090	25,835,770	9,204,088	1,302,319	2,044,463
Jan-15	7,766,996	23,826,229	8,819,172	1,276,066	2,001,199
Feb-15	7,104,893	23,610,395	8,257,047	1,138,055	1,782,825

[6] http://webapps.rrc.state.tx.us/PDQ/home.do

Mar-15	8,364,226	26,953,599	9,153,192	1,240,998	2,048,621	
Apr-15	8,294,185	26,132,940	8,699,646	1,177,382	1,812,364	
May-15	8,216,134	27,225,454	8,891,615	1,069,137	1,797,092	
Jun-15	7,863,960	26,554,145	8,590,231	1,042,657	1,747,414	
Jul-15	8,016,686	27,316,081	8,790,610	1,105,475	1,749,251	
Aug-15	8,209,563	28,016,258	8,687,936	1,115,847	1,688,551	
Sep-15	8,133,658	27,409,952	8,490,955	1,057,055	1,590,223	
Oct-15	8,272,696	28,246,530	8,811,352	1,101,817	1,550,932	
Nov-15	7,973,307	28,201,531	8,534,228	1,029,462	1,383,477	
Dec-15	8,009,765	28,121,830	8,500,887	1,018,220	1,364,466	
Jan-16	8,400,496	29,295,931	8,720,485	1,010,152	1,375,301	
Feb-16	7,707,424	27,822,669	8,141,722	951,032	1,264,937	
Mar-16	8,356,022	30,043,002	8,656,509	993,017	1,322,812	
Apr-16	7,956,712	29,288,483	8,244,427	940,569	1,209,152	
May-16	8,178,292	30,702,211	8,324,379	949,248	1,194,453	
Jun-16	7,927,289	29,757,786	8,056,592	891,967	1,166,373	
Jul-16	8,313,817	31,136,282	8,327,726	911,056	1,174,713	
Aug-16	8,221,544	31,489,184	8,295,119	923,010	1,137,453	
Sep-16	7,825,524	30,087,490	7,969,897	877,374	1,085,858	
Oct-16	8,405,684	31,383,993	8,316,817	907,942	1,111,287	
Nov-16	8,307,650	30,109,057	8,015,828	856,225	1,082,670	
Dec-16	8,332,490	30,423,910	8,251,560	869,593	1,099,253	**Average Total**
Average (barrels per month)	**7,705,403**	**26,575,013**	**8,581,401**	**1,115,307**	**1,650,546**	**45,627,670**
Average (barrels per day	**256,847**	**885,834**	**286,047**	**37,177**	**55,018**	**1,520,922**

Further, the EIA provides data on total crude oil production in Texas. In the three-year period between from 2014 to 2016, the average production of crude oil in Texas was approximately 3.3 million barrels per day. According to EIA data, in the period from January 2014 to December 2016, crude oil production has increased in Texas from 2.85 million barrels per day to 3.15 million barrels per day (see Table 3 below).

Table 3: EIA Data[7]
Texas Field Production of Crude Oil (On-Shore)
(Thousands of Barrels per Day)

[7] http://www.eia.gov/dnav/pet/pet_crd_crpdn_adc_mbbl_m.htm

Jan-2014	2,846
Feb-2014	2,910
Mar-2014	2,965
Apr-2014	3,055
May-2014	3,075
Jun-2014	3,151
Jul-2014	3,219
Aug-2014	3,267
Sep-2014	3,271
Oct-2014	3,337
Nov-2014	3,429
Dec-2014	3,532
Jan-2015	3,429
Feb-2015	3,543
Mar-2015	3,599
Apr-2015	3,555
May-2015	3,524
Jun-2015	3,460
Jul-2015	3,452
Aug-2015	3,413
Sep-2015	3,415
Oct-2015	3,404
Nov-2015	3,409
Dec-2015	3,348
Jan-2016	3,361
Feb-2016	3,315
Mar-2016	3,295
Apr-2016	3,245
May-2016	3,193
Jun-2016	3,174
Jul-2016	3,161
Aug-2016	3,170
Sep-2016	3,152
Oct-2016	3,172
Nov-2016	3,171
Dec-2016	3,153
Average	3,283

The Energy Information Administration (EIA) recently conducted an analysis of the breakdown of types crude oil produced in the US (“types” defined by API and sulfur content), by region. In the resulting report, the EIA organized its findings nationally and by region. One of these regions, denoted as “Southwest”, comprises the Permian Basin,

which encompasses the oil-rich area of West Texas. This EIA study is the most recent and authoritative report on WTS and WTI production in West Texas. According to this EIA report[8], approximately 35% of production in the Southwest region, which includes Permian Basin, is WTI-type sweet crude oil with an API gravity between 40 and 45. Further, approximately 20% of crude oil production in the Southwest region is WTS-type sour crude oil.

Analysis of Deliverable Supply

In its estimate of deliverable supply in West Texas, the Exchange utilized the production data from the Texas Railroad Commission, and then applied the EIA breakdown for WTI and WTS type crude oil, based on the EIA study. As discussed above, approximately 35% of oil produced in the Permian basin in Texas is WTI type crude oil. Consequently, we estimate that WTI production in West Texas is approximately 530,000 barrels per day (35% of 1,520,000 barrels per day). This converts into approximately 15.9 million barrels per month, or 15,900 contract equivalents. The proposed spot month position limit for the WTI Midland (Argus) leg of the option for 3,000 contracts is approximately 18.9% of the estimated monthly supply of 15,900 contract equivalents.

As for WTS, approximately 20% of total West Texas crude oil production from the Southwest region, which encompasses the Permian Basin, is WTS-type sour crude oil with an API gravity between 35 and 40.[9] Therefore, the Exchange estimates WTS production to be 304,000 barrels per day (20% of 1,520,000 barrels per day). This is equivalent to 9.1 million barrels per month, or 9,100 futures contract equivalents. The proposed spot month position limit for the WTS (Argus) leg of the option for 1,500 contracts is approximately 16.5% of the estimated monthly supply of 9,100 contract equivalents.

WTI Houston
Cash Market Overview

There is an active physical crude oil trading center based in Houston, Texas, which is a major hub for storage and pipelines with direct connectivity to the Cushing, Midland, and the U.S. Gulf Coast markets. There is active trading in light sweet WTI type crude oil (also referred to as domestic sweet). The WTI crude oil stream in Houston is a fungible blend of domestic light sweet streams with quality parameters of 44 degrees API gravity maximum and 0.45% sulfur maximum, which are slightly lighter than the WTI specifications in Cushing. The Houston physical delivery mechanism is comprised of a network of nearly a dozen pipelines and 10 storage terminals. There are substantial pipeline inflows of WTI type crude oil to Houston from three major hubs: 1) from Cushing via the Seaway and the Transcanada MarketLink Pipelines; 2) from Midland, Texas via the BridgeTex Pipeline and the Longhorn Pipeline; and 3) from the Eagle Ford production area in South Texas via the Enterprise Pipeline and the Kinder Morgan Pipeline.

The Argus assessment for WTI Houston crude oil is based on delivery at the Magellan terminal in East Houston, which is a key hub for delivery of WTI type crude oil. The cash

[8] http://www.eia.gov/analysis/petroleum/crudetypes/pdf/crudetypes.pdf on page 10 of the report.

[9] http://www.eia.gov/analysis/petroleum/crudetypes/ Data from Figure 4 and 5 of the underlying excel data file from EIA's report titled "U.S. Crude Oil Production to 2025: Updated Projection of Crude Types" dated May 28, 2015.

market liquidity is vibrant, and the market participation is deep, with 20 to 30 market participants. The Argus methodology for the assessment of the WTI Houston crude oil index is the volume weighted-average price of transactions done during the entire trading day and is available at the following link:

http://argusmedia.com/~/media/A6D53631E1274D2CBC5CFC09AD5A55C0.ashx

WTI Houston Production

For production data, NYMEX used information collected by the U.S. Department of Energy ("DOE") Energy Information Administration ("EIA"), which is a definitive source for this information. In the three-year period between from 2014 to 2016, the average production of crude oil in Texas was approximately 3.3 million barrels per day (see Table 3 above).

Further, as discussed previously, the EIA conducted an analysis of the breakdown of types crude oil produced in the US ("types" defined by API and sulfur content) by region. One of these regions, denoted as "Southwest", comprises the oil-rich area of the Permian Basin in West Texas. This EIA study is the most recent and authoritative report on WTI production in West Texas. According to this EIA report[10], approximately 35% of oil produced in West Texas is WTI type crude oil with an API gravity between 40 and 45. In its estimate of deliverable supply, the Exchange utilized this 35% share for WTI type crude oil, and applied it to the three-year average of crude oil production in Texas, which was 3.3 million barrels per day from Table 3. Therefore, the Exchange estimates WTI production in Texas to be 1.1 million barrels per day (35% of 3.3 million barrels per day). This is equivalent to 33 million barrels per month, or 33,000 futures contract equivalents.

Crude Oil Pipeline Flows to Houston

The Houston physical delivery mechanism is comprised of a network of nearly a dozen pipelines and 10 storage terminals. There are substantial pipeline inflows of WTI type crude oil to Houston from three major hubs: 1) from Cushing via the Seaway and the Transcanada MarketLink Pipelines; 2) from Midland, Texas via the BridgeTex Pipeline and the Longhorn Pipeline; and 3) from the Eagle Ford production area in South Texas via the Enterprise Pipeline and the Kinder Morgan Pipeline. Based on feedback from industry sources, the recent pipeline flows of WTI type crude oil inbound to Houston is in the range of 1.0 to 1.5 million barrels per day. The capacity of each pipeline is presented in Table 4 below.

[10] http://www.eia.gov/analysis/petroleum/crudetypes/pdf/crudetypes.pdf on page 10 of the report.

Table 4
Crude Oil Pipelines to Houston
(Barrels/Day)

Incoming Pipelines	Capacity	Owner
Seaway Pipeline (from Cushing)	850,000	Enterprise/Enbridge
MarketLink Pipeline (from Cushing)	700,000	TransCanada
BridgeTex Pipeline (from Midland, TX)	350,000	Magellan
Longhorn Pipeline (from Midland, TX)	250,000	Magellan
Enterprise Eagle Ford Pipeline	350,000	Enterprise
Kinder Morgan Pipeline (from Eagle Ford)	250,000	Kinder Morgan

TOTAL In-Bound Pipeline Capacity: 2.75 Million Barrels/Day

Crude Oil Storage in Padd 3

Table 5 below provides the monthly Padd 3 storage levels starting with January 2014 and continuing through December 2016. During that time period, inventories averaged over 200 million barrels and ranged from about 154 to 259 million barrels. However, the EIA does not provide specific detail on crude oil stocks in the Houston area, and consequently, the Exchange will not utilize inventory levels in the deliverable supply estimate.

Table 5: PADD 3 Crude Oil Storage[11]

Month	Monthly Average Stocks (in Thousand Barrels)
Jan-2014	153,704
Feb-2014	168,230
Mar-2014	178,218
Apr-2014	191,114
May-2014	189,948
Jun-2014	183,871
Jul-2014	176,651
Aug-2014	172,211
Sep-2014	165,932
Oct-2014	175,803
Nov-2014	177,051
Dec-2014	176,053
Jan-2015	189,494
Feb-2015	202,284
Mar-2015	211,680

[11] http://www.eia.gov/dnav/pet/pet_stoc_wstk_dcu_r30_m.htm

Apr-2015	221,298
May-2015	220,424
Jun-2015	215,747
Jul-2015	206,302
Aug-2015	208,330
Sep-2015	218,861
Oct-2015	232,686
Nov-2015	222,792
Dec-2015	214,675
Jan-2016	230,345
Feb-2016	244,753
Mar-2016	258,373
Apr-2016	258,732
May-2016	259,341
Jun-2016	257,047
Jul-2016	249,801
Aug-2016	246,474
Sep-2016	239,207
Oct-2016	254,452
Nov-2016	249,016
Dec-2016	245,783
Three-Year Average	212,963

Analysis of Deliverable Supply

In its analysis of deliverable supply, the Exchange focused on the EIA production data as the most reliable and accurate source for the deliverable supply estimates for WTI deliverable at the Houston hub. Based on the EIA data, the share of Texas crude oil production that is WTI type crude oil is approximately 35% of the total production in Texas, as discussed above. Therefore, the Exchange estimates WTI production in Texas to be 1.1 million barrels per day (35% of 3.3 million barrels per day). This is equivalent to 33 million barrels per month, or 33,000 futures contract equivalents. Further, there is adequate pipeline capacity to transport the crude oil from West Texas to the hub in Houston. At this time, the Exchange is not including stocks data in its analysis of deliverable supply. Stocks data tend to vary, and we would rather not condition recommended position limits based on stock data.

The proposed spot month position limit for the WTI Houston (Argus) leg of the option for 3,000 contracts is approximately 9% of the estimated monthly supply of 33,000 contract equivalents.

Mars
Cash Market Overview

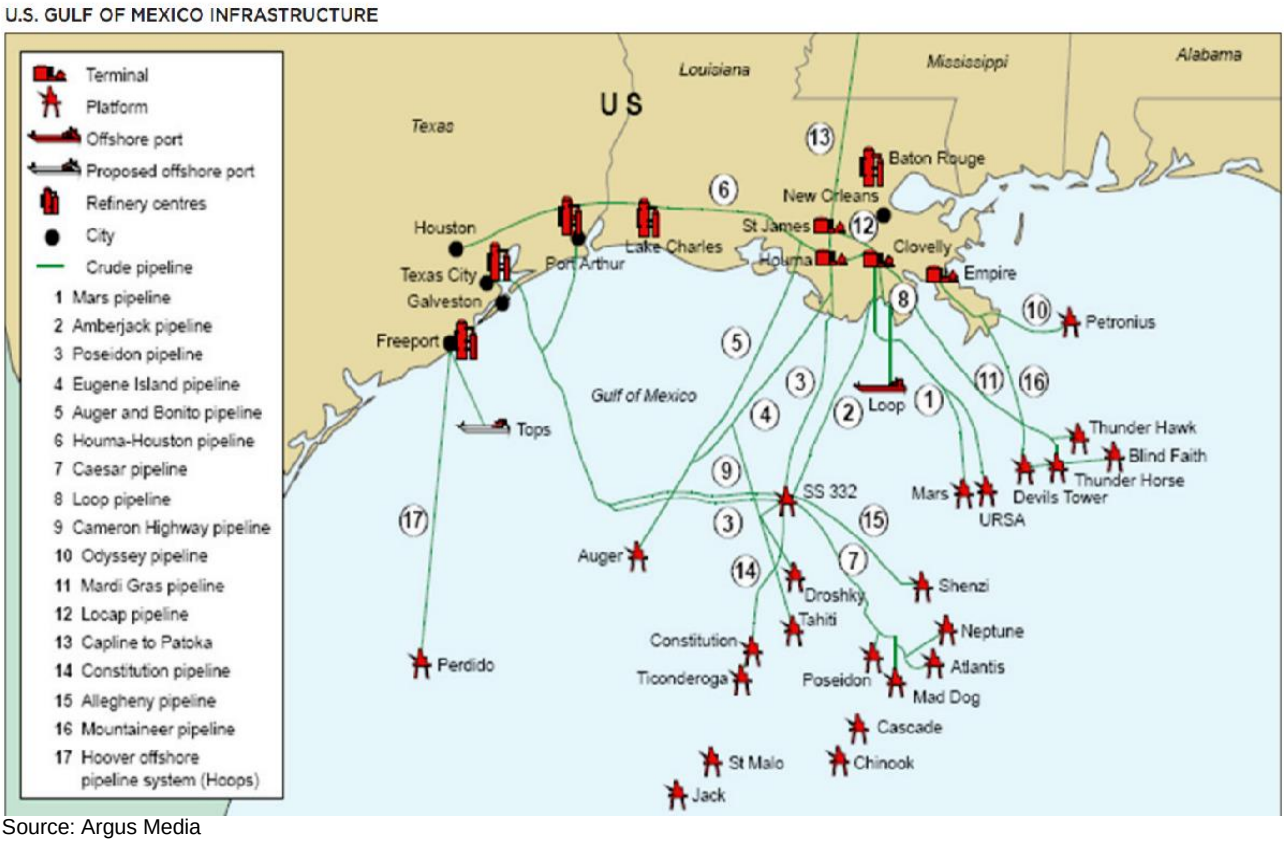
Mars is the most actively traded sour crude oil grade in the U.S. Gulf Coast market. This market represents spot trade of Mars blend crude oil which is deliverable at the Louisiana Offshore Oil Port (LOOP) LLC facilities at Clovelly, Louisiana. According to Argus, the Mars oil stream has quality parameters of 28 degrees API gravity maximum and 1.93% sulfur maximum. Market participants in the U.S. Gulf Coast sour crude oil cash market include 40 to 50 companies.

The Argus methodology for the assessment of the Mars crude oil index is the volume weighted-average price of transactions done during the entire trading day and is available at the following link: http://d1bs3qurwcoybx.cloudfront.net/~/media/Files/PDFs/Meth/argus_americas_crude.pdf.

Mars Production

The Mars blend crude oil accounts for production of about 475,000 barrels per day, according to industry sources as well as data from the Bureau of Safety and Environmental Enforcement (BSEE). Figure 1 below lays out the relevant crude oil fields and various infrastructure components on the U.S. Gulf Coast.

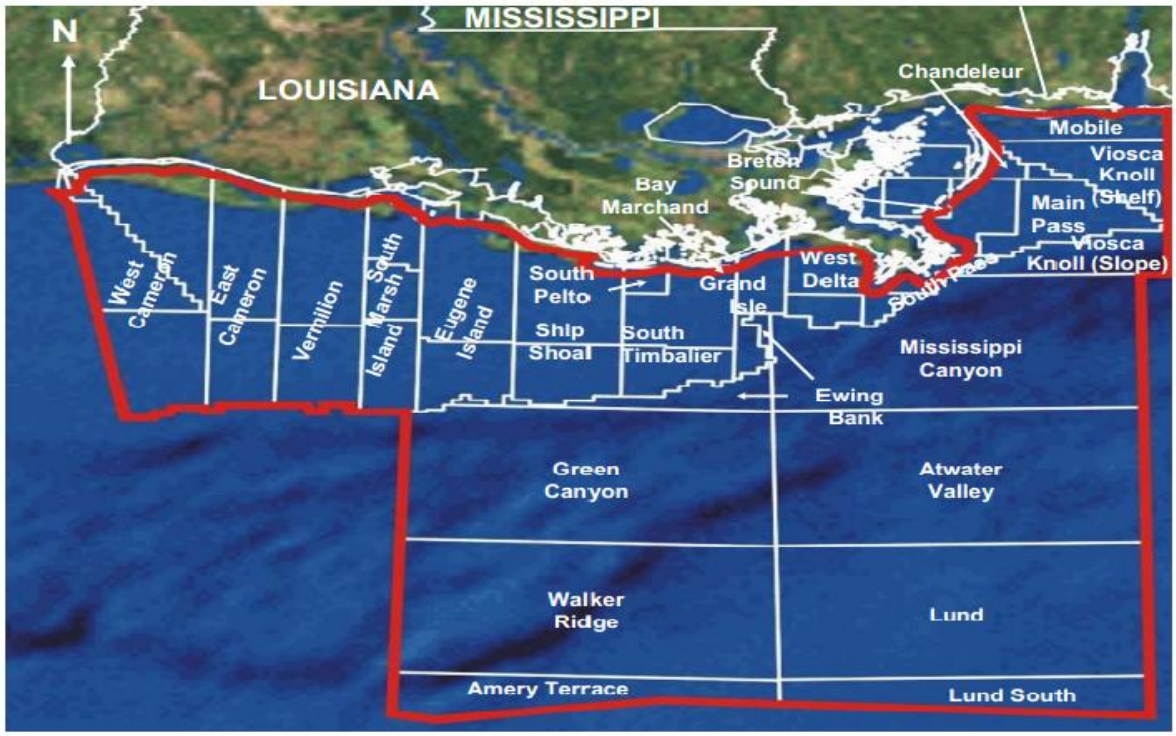
Figure 1: U.S. Gulf of Mexico Oil Fields



Source: Argus Media

The Mars oil platform is situated in the Mars field of the Mississippi Canyon area of the U.S. Gulf Coast, and is one of the many oil producing fields in the region. The platform is a joint venture between Shell Oil Company and BP, with Shell owning the majority share (71.5%) and operating the facility. The Mars field was discovered in 1989 and began production in 1996. In February-2014, Shell began production from the Mars B expansion through the Olympus field – the company's seventh, and largest, floating deep-water platform in the Gulf of Mexico. It is the first deepwater project in the Gulf to expand an existing oil and gas field with significant new infrastructure, which should extend the life of the greater Mars basin to 2050 or beyond. Figure 2 below illustrates the division of oil-producing regions within the Central Gulf Coast area.

Figure 2: Central Gulf Coast Oil-Producing Regions



In estimating the production of Mars blend crude oil, the Exchange relied on the Bureau of Safety and Environmental Enforcement[12] (BSEE) for production data for Mars in the Mississippi Canyon area. BSEE publishes monthly production data[13] per oil field for the U.S. Gulf Coast region. Accordingly, as Table 6 illustrates, the Mississippi Canyon region produced an average of 475,061 b/d of oil in the 2014-2016 period.

[12] https://www.data.bsee.gov/Main/Default.aspx
[13] https://www.data.bsee.gov/Production/ProductionData/Default.aspx

Table 6.
BSEE Monthly Product Data

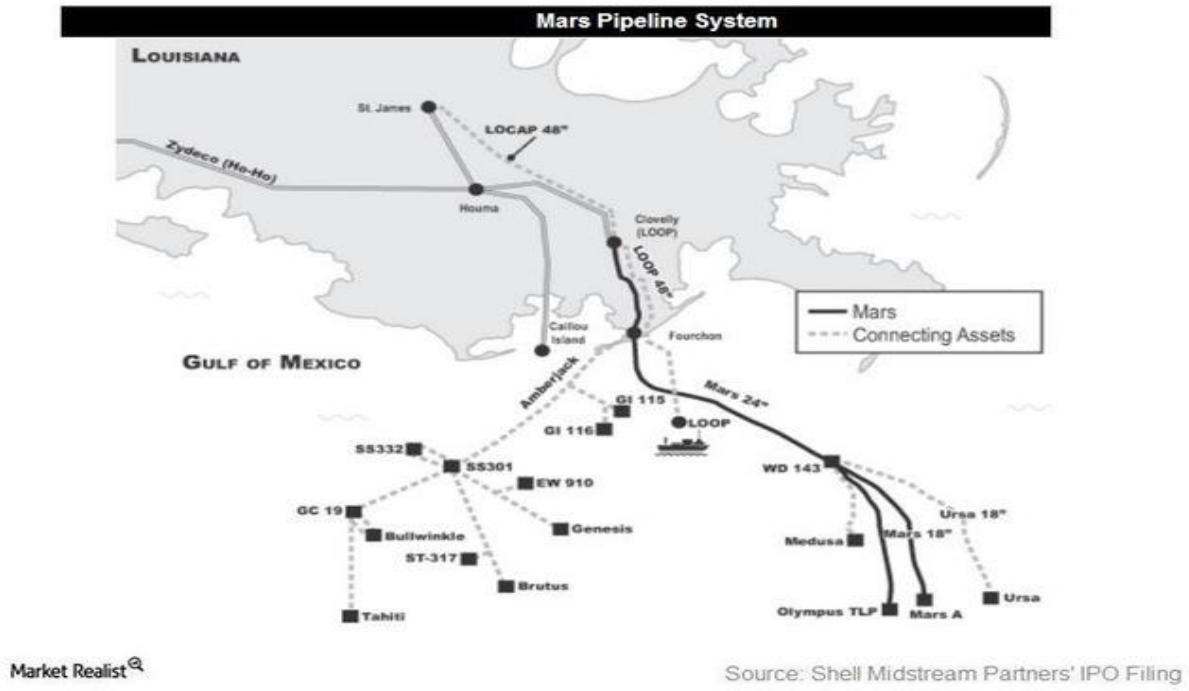
Month	Lease Oil Production (BBL)	Lease Oil Production (BBL/Day)
Jan-2014	10,832,759	361,092
Feb-2014	10,267,693	342,256
Mar-2014	11,557,213	385,240
Apr-2014	12,792,445	426,415
May-2014	13,216,555	440,552
Jun-2014	13,084,335	436,145
Jul-2014	12,902,083	430,069
Aug-2014	12,979,852	432,662
Sep-2014	13,052,925	435,098
Oct-2014	13,440,116	448,004
Nov-2014	12,409,561	413,652
Dec-2014	13,648,030	454,934
Jan-2015	14,050,344	468,345
Feb-2015	12,535,051	417,835
Mar-2015	13,263,219	442,107
Apr-2015	13,604,455	453,482
May-2015	9,523,549	317,452
Jun-2015	8,969,690	298,990
Jul-2015	15,544,345	518,145
Aug-2015	16,624,584	554,153
Sep-2015	15,987,448	532,915
Oct-2015	16,103,097	536,770
Nov-2015	15,807,207	526,907
Dec-2015	17,503,786	583,460
Jan-2016	17,052,005	568,400
Feb-2016	14,915,892	497,196
Mar-2016	17,402,168	580,072
Apr-2016	16,779,406	559,314
May-2016	16,275,830	542,528
Jun-2016	14,292,028	476,401
Jul-2016	13,959,378	465,313
Aug-2016	16,198,768	539,959
Sep-2016	15,775,072	525,836
Oct-2016	17,477,715	582,591
Nov-2016	15,787,539	526,251
Dec-2016	17,401,592	580,053

Logistics: Pipelines and Storage

The U.S. Gulf Coast crude oil market consists of offshore platforms on oil fields, deepwater and land pipelines for gathering and distribution, and storage facilities. Together, they interconnect crude oil users (refineries) in the Gulf Coast and the Midwest with production. The Mars and Endymion pipeline systems, and connected offshore pipeline systems (which include Amberjack, Ursa, and Medusa pipeline systems) gather production from many fields throughout the central Gulf of Mexico for inclusion in the Mars stream, , and deliver to the LOOP facility.

The Mars Pipeline System[14, 15] originates approximately 130 miles offshore in the deepwater Mississippi Canyon and terminates in salt dome caverns in Clovelly, Louisiana. The System transports offshore crude oil from the Mississippi Canyon area, including the Olympus platform and the Medusa and Ursa pipelines, and from the Green Canyon and Walker Ridge areas via the Amberjack pipeline connection[16]. It has a capacity of up to 600,000 b/d.

Figure 3: Mars Pipeline System



The Mars Pipeline System:

Gathers from producers in: Mississippi Canyon
Gathers from pipelines: Ursa, Medusa, and Amberjack
Delivers to terminals: Chevron's Fourchon Terminal and LOOP Clovelly Terminal

[14] http://www.shellmidstreampartners.com/fsMars.cfm
[15] http://marketrealist.com/2014/06/must-know-the-assets-of-the-shell-midstream-partners/
[16] http://marketrealist.com/2014/07/overview-an-introduction-to-mars-pipelines-expansion-program/

Delivers to pipelines: Clovelly to Houma, Clovelly to Norco, LOCAP, and Chevron's Fourchon to Empire pipeline

In conjunction with the Mars Pipeline System, the Mars infrastructure network consists of an 8-million-barrel dedicated storage cavern constructed at the LOOP Clovelly Terminal. This cavern and its interconnection to other LOOP facilities provide the most flexible market link in the overall Gulf network. Virtually any significant Louisiana or Midwest crude market can be accessed from the Clovelly Hub. LOOP Clovelly Terminal started receiving oil from the Mars production system in 1996 and has stored and delivered over 1.2 billion barrels of Mars crude oil since inception. LOOP LLC[17] operates a total of eight underground caverns and an above-ground tank farm consisting of fifteen 600,000 barrel tanks with a total holding with capacity of 70 million barrels of crude oil. The LOOP facility is also the largest import facility in the country. Figure 4 below illustrates the Clovelly Terminal and its surroundings.

Figure 4: LOOP Facilities on the Gulf Coast

[17] http://www.loopllc.com/About-Loop/Story.aspx

The LOOP facility at Clovelly receives crude oil supplies from two sources: supertankers carrying foreign crude oil and domestic crude oil produced in the deepwater Gulf of Mexico. Crude oil that is shipped to Clovelly is stored in salt caverns or tanks pending delivery to third party pipelines originating at the LOOP storage, which can feed into the interconnecting pipelines serving the national refining market[18].

The Clovelly hub distributes crude oil to connected refineries through the CAM pipeline, Clovelly to Norco pipeline, and the LOCAP pipeline. The LOCAP pipeline transports crude oil from the Clovelly Hub to St. James, LA, supplying several Louisiana refineries and making a connection to Capline for distribution to refineries in the Midwest.

The Clovelly hub has direct access to the following refineries in Southeast Louisiana, which represent a refining capacity of over 1.1 million barrels per day: Chalmette Refining, Motiva Norco, Phillips 66 Alliance. From the Clovelly Hub, crude oil can also be transported to the LOCAP terminal in St. James, LA. The LOCAP pipeline and terminal are operated by LOOP. Crude oil arriving at the LOCAP terminal can access over 1.3 million barrels per day of additional refining capacity, including the following large, complex refineries: ExxonMobil Baton Rouge, Marathon Garyville and Motiva Convent. Crude oil arriving at the LOCAP terminal also has access to neighboring terminals and connecting carrier pipelines located in St. James, LA. These connections provide further market access for LOOP customers.

Analysis of Deliverable Supply

In its analysis of deliverable supply, the Exchange focused primarily on sour crude oil production data in the Mississippi Canyon of the U.S. Gulf of Mexico. The Exchange estimates the Mars blend production to be 475,000 b/d based on a three-year average. On a monthly basis, the total deliverable supply amounts to approximately 14 million barrels, or 14,000 contracts. The proposed spot month position limit for the Mars (Argus) leg of the option for 3,000 contracts is approximately 21.4% of the estimated monthly supply of 14,000 contract equivalents.

[18] https://www.loopllc.com/About/History

WTI
Cash Market Overview

Overview

The NYMEX Crude Oil Last Day Financial Futures Contract (code 26) and the Argus WTI Trade Month Futures Contract (code V7) are cash-settled look-alike contracts of the NYMEX Light Sweet Crude Oil Futures Contract. Consequently, the spot month position limits for these financially-settled contracts are identical to the position limits for the NYMEX Light Sweet Crude Oil Futures Contract. These financial look-alike contracts are used in the aggregation of position limits for the WTI Cushing leg of the average price option contracts.

In estimating deliverable supply for the Light Sweet Crude Oil Futures, the New York Mercantile Exchange, Inc. ("NYMEX" or "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).[19]

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.

[19] http://www.ecfr.gov/cgi-bin/text-idx?SID=74959c3dbae469e2efe0a42b45b8dfae&mc=true&node=ap17.1.38_11201.c&rgn=div9

A. Crude Oil Production

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 chosen 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.

B. 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.

C. 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 10 storage terminals, several with major pipeline manifolds. Two of the storage facilities — Enterprise and Enbridge — and their pipeline manifolds are the core of the Cushing physical delivery mechanism.[20] Physical volumes delivered against the Light Sweet Crude Oil Futures contract within the Enterprise and Enbridge systems are at par value. Any deliveries made on futures contracts elsewhere in Cushing require the seller to 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 9.

Terminating obligations in the Light Sweet Crude Oil Futures contract are fulfilled by delivering any of six "Domestic Production Streams" of crude oil: (i) West Texas Intermediate ("WTI"); (ii) Low Sweet Mix ("Scurry Snyder"); (iii) New Mexican Sweet; (iv) North Texas Sweet; (v) Oklahoma Sweet; or (vi) South Texas Sweet. Additionally, a seventh stream, defined as "The Domestic Common Stream" transported by Enterprise Products (formerly Teppco Pipeline), is also deliverable. Market participants commonly refer to the combination of all of the deliverable streams, including the Domestic Common Stream, 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 is 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

[20] 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. Plains and Enbridge account for about 60% of the storage available at Cushing.

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.[21]

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.[22] 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 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

[21] 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).

[22] These include: Plains All America, a major Midcontinent aggregator and marketer and operator of pipeline and storage terminals including in Cushing; JSK Consulting, the principal of which is a seasoned Midcontinent oil market participant and professional with 40 years of experience in trading, operating transportation and storage in Cushing, and refining; and an Energy Market Participant Group of several dozen market participants organized through Hunton & Williams LLP to discuss and comment on Regulatory issues.

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 2013 through 2015, the average production of crude oil available in the eight states was approximately 5.5 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., 2.7 million barrels per day. The 2.7 million barrels per day of crude oil production is equivalent to approximately 80 million barrels per month, or 80,000 futures contracts equivalents (contract size: 1,000 barrels).

Table 8 below provides annual production data available for production in the eight states that supply the Cushing crude oil market for the period of 2013 through 2015. The data show that production has been steadily growing in recent years and this trend is expected to continue. As indicated above, the production data are provided not as direct inputs to deliverable supply, but to demonstrate that production levels are more than sufficient to support the actual flows of deliverable product to the delivery location.

Table 8.
U.S. Crude Oil Production[23]
For Eight States that Supply Cushing, Oklahoma
(Thousand Barrels per Day)

Year	Crude Oil Production (Thousand Barrels per Day)
2013	4,542
2014	5,627
2015	6,241
Average	**5,470**

D. Crude Oil Flows to the Cushing Delivery Area

Over the last three years, pipeline capacity for delivering crude oil to Cushing increased by about 815,000 b/d according to the EIA[24]. The key development was the construction of the 590,000 b/d TransCanada Keystone pipeline that originates in Hardisty, Alberta, Canada. Until mid-2012, there was only one pipeline that could deliver crude oil from the Midwest to the Gulf Coast. The 96,000-b/d ExxonMobil Pegasus pipeline between Patoka, Illinois and Nederland, Texas originally shipped crude oil northward. The pipeline was reversed in 2006 in order to ship Canadian heavy oil to the Gulf Coast.

Currently, there is approximately 3.0 million b/d of inflow pipeline capacity to Cushing and 2.7 million barrels per day of outflow capacity. In addition, 87.7 million barrels of storage capacity exists in the Cushing area which continues to grow steadily.

The Exchange collects inbound and outbound 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 pipeline and storage terminal operators in Table 9 below, as of March 2015, actual flows of crude oil to Cushing have ranged from 1.6 million to 1.8 million barrels per day, with Domestic Light Sweet Common Stream Crude Oil averaging between 920,000 and 1,000,000 barrels per day.[25] On a 30-day monthly basis, actual flows of Domestic Light Sweet Common Stream Crude Oil compute into 27.6 million to 30.0 million barrels per month or 27,600 to 30,000 Light Sweet Crude Oil futures contract equivalents.

As of February 2013, the previous time the Exchange collected such information, Domestic Light Sweet Common Stream Crude Oil flows into Cushing averaged between 665,000 and 750,000 barrels per day as illustrated in Table 10 below. On a 30-day monthly basis, actual flows of Domestic Light Sweet Common Stream Crude Oil ranged from 19.95 million to 22.5 million barrels per month or 19,950 to 22,500 futures contract

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[23] The production listed here includes North Dakota, Montana, Wyoming, Colorado, New Mexico, Onshore Texas, Oklahoma, and Kansas. The web link is: http://www.eia.gov/dnav/pet/pet_crd_crpdn_adc_mbblpd_a.htm

[24] http://www.eia.gov/forecasts/steo/special/pdf/2013_sp_02.pdf

[25] The sources were: Plains All America, an aggregator and marketer of crude oil production and pipeline and storage terminal operator at Cushing; Enbridge, a pipeline and storage terminal operator at Cushing; and JSK Consulting, the principal of which is a seasoned Midcontinent oil market participant and professional with 40 years of experience in trading, operating transportation and storage in Cushing, and refining.

equivalents. Given that the Exchange only collects such information 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 2013 and 2015 estimated flows data collected. The average of the ranges for the 2013 and 2015 Domestic Light Sweet Common Stream Crude Oil flows data into Cushing are 23,775 to 26,250 contract equivalents. The midpoint of the average of the ranges is approximately 25,000 contract equivalents.

Table 9
Crude Oil Flows to Cushing (as of March 2015)
(Barrels/Day)[26]

Incoming Pipelines	Capacity	Owner	Estimated Flows (in Barrels/Day)
Keystone XL (from Steele City, NE)	575,000	Transcanada	200,000 - 250,000 BD (Heavy sour)
Basin Pipeline (Permian)	450,000	Plains	250,000 (80% WTI)
Centurion North Pipeline (Permian)	120,000	Occidental	95,000 - 100,000 (100% WTI)
Spearhead Pipeline (Canada)	210,000	Enbridge	150,000 - 175,000 (Canadian sour)
Flanagan South (Canada/Bakken)	585,000	Enbridge	400,000 - 450,000 (10% WTI, 90% Sour)
White Cliffs Pipeline (Niobrara)	150,000	Rose Rock	100,000 - 120,000 (100% WTI)
Plains Cashion, OK Pipeline	100,000	Plains	80,000 (100% WTI)
Mississippi Lime Pipeline	175,000	Plains	110,000 (100% WTI)
Pony Express Pipeline (Niobrara)	320,000	Tallgrass	180,000 – 200,000 (100% WTI)
Hawthorn (Stroud to Cushing)	90,000	Hawthorn	20,000 – 25,000 (100% WTI)
Great Salt Plains	30,000	JP Energy	15,000 – 20,000 (100% WTI)
Northern Cimarron	30,000	Rose Rock	15,000 – 20,000 (100% WTI)
Midcontinent Pipeline	30,000	Sunoco Logistics	25,000 – 30,000 (100% WTI)
Glass Mountain Pipeline	140,000	Rose Rock	40,000 – 50,000 (100% WTI)
TOTAL In-Bound Capacity	**3.0 Million B/D Capacity**		**WTI Flow: 920,000 – 1,000,000 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
Occidental Centurion South	60,000	Occidental
Ozark (to Wood River, IL)	235,000	Enbridge
Osage (to Eldorado, KS)	150,000	Magellan/NCRA
Coffeyville CVR pipeline	110,000	CVR Energy
Phillips (to Ponca City, OK)	122,000	ConocoPhillips
Phillips (to Borger, TX)	59,000	NuStar
PAA Red River Pipeline	30,000	Plains All America
Sun (twin lines to Tulsa)	70,000	Sunoco
PAA Cherokee	50,000	Plains
West Tulsa (to Tulsa)	50,000	Enbridge
Eagle (to Ardmore)	20,000	Blue Knight
Magellan Tulsa	30,000	Magellan
Diamond Pipeline (to Memphis)	200,000	Plains (in 2016)

TOTAL Out-bound Capacity 2.7 Million B/D

[26] Sources: Plains All American Pipeline Company, JSK Consulting, and other industry sources.

Table 10.
Crude Oil Flows to Cushing (as of February 2013)
(Barrels/Day)[27]

Incoming Pipelines	Capacity	Owner	Estimated Flows (in Barrels/Day)
Keystone XL Pipeline	590,000	Transcanada	200,000 to 225,000 BD (Heavy sour)
Basin Pipeline	450,000	Plains	400,000 to 440,000 (75% WTI)
Occidental Pipeline	120,000	Occidental	100,000 to 120,000 (100% WTI)
Spearhead Pipeline	240,000	Enbridge	120,000 to 140,000 (Canadian sour)
White Cliffs Pipeline	70,000	SemGroup	65,000 to 70,000 (100% WTI)
Plains Oklahoma Pipeline	100,000	Plains	90,000 to 100,000 (100% WTI)
Cherokee Pipeline	50,000	Plains	40,000 to 50,000 (100% Sour)
Ark City Pipeline	30,000	SemGroup	25,000 to 30,000 (100% WTI)
MV Magellan Pipeline	30,000	SemGroup	25,000 to 30,000 (100% WTI)
Midcontinent Pipeline	50,000	Sunoco	45,000 to 50,000 (100% WTI)
Bakken Crude via Rail	90,000	Various	15,000 to 20,000 (100% WTI)
TOTAL ESTIMATE	**1.820 Million B/D**		**WTI Flow: 665,000 – 750,000 B/D**

E. Crude Oil Storage in the Cushing Delivery Area

As of September 30, 2015, EIA reported that shell storage capacity at Cushing was 87.7 million barrels and working capacity was 73.0 million barrels.[28] Currently, there is substantial excess working capacity at Cushing (nearly 10 million barrels). 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 83% average underlying the EIA estimates).

Table 11 below provides monthly averages of weekly Cushing stocks for the period beginning January 2013 through December 2015 as published by the EIA. During that time period, inventories averaged over 41 million barrels and ranged from about 19 million to 61 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 2013 – 2015 period, the monthly average Domestic Light Sweet Common Stream Crude Oil stored at Cushing was approximately 24.9 million barrels or 24,900 futures contract equivalents.

[27] Sources: Plains All American Pipeline Company, JSK Consulting, and other industry sources.

[28] http://www.eia.gov/petroleum/storagecapacity/table2.pdf 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.

Table 11
Cushing Stocks[29]
Average of Weekly Stocks
(in Thousand Barrels)

Year	Month	Stock
2013	Jan	51,253
	Feb	50,711
	Mar	49,567
	Apr	50,551
	May	49,916
	Jun	49,193
	Jul	44,798
	Aug	37,432
	Sep	33,254
	Oct	33,618
	Nov	39,174
	Dec	40,412
2014	Jan	41,058
	Feb	35,099
	Mar	29,081
	Apr	26,474
	May	22,750
	Jun	21,226
	Jul	19,480
	Aug	19,496
	Sep	20,263
	Oct	20,274
	Nov	23,559
	Dec	28,080
2015	Jan	36,601
	Feb	46,689
	Mar	55,300
	Apr	61,381
	May	60,368
	Jun	57,183
	Jul	57,312
	Aug	57,389
	Sep	54,483
	Oct	53,569
	Nov	57,549
	Dec	61,150
Three-Year Average		**41,547**

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

[29] http://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=PET&s=W_EPC0_SAX_YCUOK_MBBL&f=W

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.[30] This converts into discounting an estimated 1.7 million barrels of Domestic Light Sweet crude oil based on the three-year average storage level (or 1,700 contract equivalents). In applying a discount of 6.75% to account for operational minimums, average monthly Domestic Light Sweet Common Stream Crude Oil for the 2013 – 2015 period is further reduced to approximately 23,200 contract equivalents.

With respect to commercial practices, the Exchange specifically sought whether storage customers were expressly allotting any stored barrels at Cushing for refining and was, therefore, unavailable for secondary market delivery. We consistently heard from market participants that 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, we did hear from 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. We estimate this quantity to be 2 million barrels (or 2,000 contract equivalents) of Domestic Light Sweet crude oil. Therefore, for the 2013 – 2015 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 21,200 contract equivalents.

Analysis of Deliverable Supply

The NYMEX Crude Oil Last Day Financial Futures Contract (code 26) and the Argus WTI Trade Month Futures Contract (code V7) are cash-settled look-alike contracts of the NYMEX Light Sweet Crude Oil Futures Contract. Consequently, the spot month position limits for these financially-settled contracts are identical to the position limits for the NYMEX Light Sweet Crude Oil Futures Contract.

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

- Storage: 21,200 contract equivalents (which represents the average monthly inventory for the 2013 – 2015 period adjusted to account for quality specifications, operational minimums and contingency storage); and

[30] 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.

- Inflow: 25,000 contract equivalents (which represents the midpoint of the average of the ranges of the 2013 and 2015 Domestic Light Sweet Common Stream Crude Oil flows into Cushing).

Additionally, and as noted in the above analysis, the Exchange shall apply a 10% haircut to the sum of inventory and flows 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, the current spot month position limit for the financial Cushing WTI Crude Oil Futures contracts and corresponding WTI financial leg of the average price option contracts of 3,000 lots is equivalent to 7.2% of the total monthly deliverable supply.

Analysis of Spot Month Position Limits

Based on the analysis of deliverable supply for each crude grade market, the Exchange has maintained the current position limits for WTI and related crude grade markets.

For purposes of calculating compliance with position limits, the LLS (Argus) vs. WTI Trade Month Average Price Option Contract aggregates into the two underlying legs: Argus LLS Trade Month Futures (A4) and Argus WTI Trade Month Futures (V7). The existing spot month position limit for the Argus LLS Trade Month Futures (A4) Contract is 3,000 contracts, which is approximately 14.1% of the estimated monthly supply of 21.3 million barrels (equivalent to 21,300 contracts). The existing spot month position limit for the Argus WTI Trade Month Futures (V7) Contract is 3,000 contracts, which is approximately 7.2% of the estimated monthly supply of WTI in Cushing of 41.6 million barrels (equivalent to 41,600 contracts).

For purposes of calculating compliance with position limits, the WTI Houston (Argus) vs. WTI Trade Month Average Price Option Contract aggregates into the two underlying legs: WTI Houston (Argus) Trade Month Futures (HTA) and Argus WTI Trade Month Futures (V7). The existing spot month position limit for the WTI Houston (Argus) Trade Month Futures (HTA) Contract is 3,000 contracts, which is approximately 9% of the estimated monthly supply of 33 million barrels (equivalent to 33,000 contracts). The existing spot month position limit for the Argus WTI Trade Month Futures (V7) Contract is 3,000 contracts, which is approximately 7.2% of the estimated monthly supply of WTI in Cushing of 41.6 million barrels (equivalent to 41,600 contracts).

For purposes of calculating compliance with position limits, the WTI Houston (Argus) vs. WTI Calendar Month Average Price Option Contract aggregates into the two underlying legs: WTI Houston (Argus) Financial Futures (HIA) and Crude Oil Last Day Financial Futures (26). The existing spot month position limit for the WTI Houston (Argus) Financial Futures (HIA) Contract is 3,000 contracts, which is approximately 9% of the estimated monthly supply of 33 million barrels (equivalent to 33,000 contracts). The existing spot month position limit for the Crude Oil Last Day Financial Futures (26) Contract is 3,000 contracts, which is approximately 7.2% of the estimated monthly supply of WTI in Cushing of 41.6 million barrels (equivalent to 41,600 contracts).

For purposes of calculating compliance with position limits, the Mars (Argus) vs. WTI Trade Month Average Price Option Contract aggregates into the two underlying legs: Mars (Argus) Trade Month Futures (MO) and Argus WTI Trade Month Futures (V7). The existing spot month position limit for the Mars (Argus) Trade Month Futures (MO) Contract is 3,000 contracts, which is approximately 21.4% of the estimated monthly supply of 14 million barrels (equivalent to 14,000 contracts). The existing spot month position limit for the Argus WTI Trade Month Futures (V7) Contract is 3,000 contracts, which is approximately 7.2% of the estimated monthly supply of WTI in Cushing of 41.6 million barrels (equivalent to 41,600 contracts).

For purposes of calculating compliance with position limits, the Mars (Argus) vs. WTI Calendar Month Average Price Option Contract aggregates into the two underlying legs: Mars (Argus) Financial Futures (MX) and Crude Oil Last Day Financial Futures (26). The existing spot month position limit for the Mars (Argus) Financial Futures (MX) Contract is 3,000 contracts, which is approximately 21.4% of the estimated monthly supply of 14 million barrels (equivalent to 14,000 contracts). The existing spot month position limit for the Crude Oil Last Day Financial Futures (26) Contract is 3,000 contracts, which is approximately 7.2% of the estimated monthly supply of WTI in Cushing of 41.6 million barrels (equivalent to 41,600 contracts).

For purposes of calculating compliance with position limits, the WTI Midland (Argus) vs. WTI Trade Month Average Price Option Contract aggregates into the two underlying legs: WTI Midland (Argus) Trade Month Futures (WTI) and Argus WTI Trade Month Futures (V7). The existing spot month position limit for the WTI Midland (Argus) Trade Month Futures (WTI) Contract is 3,000 contracts, which is approximately 18.9% of the estimated monthly supply of 15.9 million barrels (equivalent to 15,900 contracts). The existing spot month position limit for the Argus WTI Trade Month Futures (V7) Contract is 3,000 contracts, which is approximately 7.2% of the estimated monthly supply of WTI in Cushing of 41.6 million barrels (equivalent to 41,600 contracts).

For purposes of calculating compliance with position limits, the WTI Midland (Argus) vs. WTI Calendar Month Average Price Option Contract aggregates into the two underlying legs: WTI Midland (Argus) Financial Futures (XB) and Crude Oil Last Day Financial Futures (26). The existing spot month position limit for the WTI Midland (Argus) Financial Futures (XB) Contract is 3,000 contracts, which is approximately 18.9% of the estimated monthly supply of 15.9 million barrels (equivalent to 15,900 contracts). The existing spot month position limit for the Crude Oil Last Day Financial Futures (26) Contract is 3,000 contracts, which is approximately 7.2% of the estimated monthly supply of WTI in Cushing of 41.6 million barrels (equivalent to 41,600 contracts).

For purposes of calculating compliance with position limits, the WTS (Argus) vs. WTI Trade Month Average Price Option Contract aggregates into the two underlying legs: WTS (Argus) Trade Month Futures (AY) and Argus WTI Trade Month Futures (V7). The existing spot month position limit for the WTS (Argus) Trade Month Futures (AY) Contract is 1,500 contracts, which is approximately 16.5% of the estimated monthly supply of 9.1 million barrels (equivalent to 9,100 contracts). The existing spot month position limit for

the Argus WTI Trade Month Futures (V7) Contract is 3,000 contracts, which is approximately 7.2% of the estimated monthly supply of WTI in Cushing of 41.6 million barrels (equivalent to 41,600 contracts).

For purposes of calculating compliance with position limits, the WTS (Argus) vs. WTI Calendar Month Average Price Option Contract aggregates into the two underlying legs: WTS (Argus) Financial Futures (WTS) and Crude Oil Last Day Financial Futures (26). The existing spot month position limit for the WTS (Argus) Financial Futures (WTS) Contract is 1,500 contracts, which is approximately 16.5% of the estimated monthly supply of 9.1 million barrels (equivalent to 9,100 contracts). The existing spot month position limit for the Crude Oil Last Day Financial Futures (26) Contract is 3,000 contracts, which is approximately 7.2% of the estimated monthly supply of WTI in Cushing of 41.6 million barrels (equivalent to 41,600 contracts).