

**SUBMISSION COVER SHEET**

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

Registered Entity Identifier Code (optional): 16-227 (1 of 3)

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): 06/17/16 Filing Description: Listing of Three (3) Petroleum Futures Contracts

**SPECIFY FILING TYPE**

Please note only ONE choice allowed per Submission.

**Organization Rules and Rule Amendments**

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

**Rule Numbers:**

**New Product**

Please note only ONE product per Submission.

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

Official Product Name: See filing.

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

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

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

Rule Numbers:

June 17, 2016

**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 Three (3) Petroleum Futures Contracts. NYMEX Submission No. 16-227 (1 of 3)**

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 three (3) petroleum futures contracts (the “Contracts”) for trading on CME Globex and for submission for clearing via CME ClearPort, effective on Sunday, July 10, 2016 for trade date Monday, July 11, 2016, as set forth below.

The Contract specifications are as follows:

<b>Contract Title</b>	<b>Guernsey Light Sweet Crude Oil Index (Net Energy) Futures</b>	<b>Clearbrook Bakken Sweet Crude Oil Index (Net Energy) Futures</b>	<b>Canadian C5+ Condensate Index (Net Energy) Futures</b>
<b>Rulebook Chapter</b>	1297	1298	1299
<b>Commodity Code</b>	GSW	CSW	CC5
<b>Listing Schedule</b>	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.	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.	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.
<b>Contract Size</b>	1,000 Barrels	1,000 Barrels	1,000 Barrels
<b>Settlement Method</b>	Financial	Financial	Financial
<b>Minimum Price Fluctuation</b>	0.001	0.001	0.001
<b>Value per Tick</b>	\$1.00	\$1.00	\$1.00
<b>First Listed Contract</b>	August 2016	August 2016	August 2016
<b>Block Trade Minimum Threshold</b>	5 contracts	5 contracts	5 contracts

<b>Termination of Trading</b>	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.	Trading shall cease one Canadian business day prior to the Notice of Shipments (NOS) date on the Enbridge Pipeline. The NOS date occurs on or about the 20th calendar day of the month, subject to confirmation by Enbridge Pipeline. The official schedule for the NOS dates will be made publicly available by Enbridge.	Trading shall cease one Canadian business day prior to the Notice of Shipments (NOS) date on the Enbridge Pipeline. The NOS date occurs on or about the 20th calendar day of the month, subject to confirmation by Enbridge Pipeline. The official schedule for the NOS dates will be made publicly available by Enbridge.
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**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. Chicago Time/CT) with a 60-minute break each day beginning at 5:00 p.m. (4:00 p.m. CT)
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Exchange Fees	Member Day	Member	Cross-Division	Non-Member	International Incentive Programs (IIP/IVIP)
CME Globex	\$0.85	\$0.85	\$1.10	\$1.35	\$1.10
EFP		\$0.85		\$1.35	
Block		\$0.85		\$1.35	
EFR/EOO		\$0.85		\$1.35	
Agency Cross		\$2.00		\$2.50	

Processing Fees	Member	Non-Member
Cash Settlement	\$0.50	\$0.50
Other Fees		
Facilitation Fee	\$0.40	
Give-Up Surcharge	\$0.05	
Position Adjustment/Transfer	\$0.10	

The Exchange is also notifying the CFTC that it is self-certifying the insertion of the terms and conditions for the three new futures contracts into the Position Limit, Position Accountability and Reportable Level Table and Header Notes located in the Interpretations and Special Notices Section of Chapter 5 of the NYMEX Rulebook in relation to the listing of the new contracts. These terms and conditions establish the all month/any one month accountability levels, expiration month position limit, reportable level, and aggregation allocation for the new contract. Please see Appendix B, attached under separate cover.

NYMEX is also notifying the CFTC that it is self-certifying block trading on the Contract with a minimum block threshold level of five (5) contracts. These block levels align with the Exchange's other and similar crude oil contracts.

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

Compliance with Rules: Trading in the Contracts will be subject to all NYMEX Rules, including prohibitions against fraudulent, noncompetitive, unfair and abusive practices as outlined in NYMEX Rule Chapter 4, the Exchange's trade practice rules, the majority of which are contained in Chapter 5 and Chapter 8 of the NYMEX Rulebook, and the dispute resolution and arbitration procedures of NYMEX Rule Chapter 6. As with all products listed for trading on one of CME Group's designated contract markets, trading activity in the Contracts will be subject to 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.

Contracts Not Readily Subject to Manipulation: The Contracts are not readily subject to manipulation as a result of the deep liquidity and robustness of the underlying cash and futures market and the settlement index. Pursuant to the Exchange's obligations under this core principle, the final settlement indices are published by Net Energy and sub-licensed to the Exchange.

Prevention of Market Disruption: Trading in the Contracts will be subject to the Rules of the Exchange, which include prohibitions on manipulation, price distortion, and disruption to the cash settlement process. As with any new product listed for trading on a CME Group designated contract market, trading activity in the futures contracts proposed herein will be subject to monitoring and surveillance by CME Group's Market Regulation Department.

Position Limitations or Accountability: The Exchange has a detailed calculation methodology for the position limits in the Contracts.

Availability of General Information: The Exchange will publish on its website information in regard to contract specifications, terms, and conditions, as well as daily trading volume, open interest, and price information for the Contracts.

Daily Publication of Trading Information: The Exchange will publish contract trading volumes, open interest levels, and price information daily on its website and through quote vendors for the Contracts.

Execution of Transactions: The Contracts will be listed for trading on the CME Globex electronic trading platform and New York Trading Floor, and for clearing through the CME ClearPort platform. The CME Globex trading venue provides for competitive and open execution of transactions. CME Globex affords the benefits of reliability and global connectivity. The CME ClearPort platform provides a competitive, open and efficient mechanism for novating transactions that are competitively executed by brokers.

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 Contracts: The Contracts will be cleared by the CME Clearing House, a derivatives clearing organization registered with the Commodity Futures Trading Commission 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 these 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 the listing of the Contract complies with the Act, including regulations under the Act. There were no substantive opposing views to the 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](mailto: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”)  
Appendix D: Cash Market Overview and Analysis of Deliverable Supply

## APPENDIX A

### NYMEX Rulebook

#### Chapter 1297

#### Guernsey Light Sweet Crude Oil Index (Net Energy) Futures

**1297100. SCOPE OF CHAPTER**

The provisions of these rules shall apply to all contracts bought or sold on the Exchange for cash settlement based on the Floating Price. The procedures for trading, clearing and cash settlement of this contract, and any other matters not specifically covered herein shall be governed by the general rules of the Exchange.

**1297101. CONTRACT SPECIFICATIONS**

The Floating Price for each contract month is equal to the Net Energy US Monthly Index (USMI) for Light Sweet Crude Oil at Guernsey, Wyoming during the Index Pricing Period for the contract month. The USMI is based on the volume-weighted average of all light sweet crude oil transactions reported during the entire Index Pricing Period. The Index Pricing Period shall extend from the first business day after the 25th calendar day two months prior to the contract month through 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, the Trade month period shall end on the first business day prior to the 25th calendar day. The Index is expressed as a differential versus the Calendar Month Average (CMA) of the NYMEX Light Sweet Crude Oil futures settlement price.

**1297102. TRADING SPECIFICATIONS**

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

**1297102.A. Trading Schedule**

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

**1297102.B. Trading Unit**

The contract quantity shall be 1,000 U.S. barrels. Each contract shall be valued as the contract quantity (1000) multiplied by the settlement price.

**1297102.C. Price Increments**

Prices shall be quoted in U.S. dollars and cents per barrel. The minimum price fluctuation shall be \$0.001 per barrel. There shall be no maximum price fluctuation.

**1297102.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.

**1297102.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.

**1297103. FINAL SETTLEMENT**

Final settlement under the contract shall be by cash settlement. Final settlement, following termination of trading for a contract month, will be based on the Floating Price. The final settlement price will be the Floating Price calculated for each contract month.

**1297104. DISCLAIMER**

Net Energy licenses the New York Mercantile Exchange, Inc. ("NYMEX") to use various Net Energy price assessments in connection with the trading of the contracts.

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OF THE PRICE ASSESSMENT, TRADING AND/OR CLEARING BASED ON THE PRICE ASSESSMENT, OR ANY DATA INCLUDED THEREIN IN CONNECTION WITH THE TRADING AND/OR CLEARING OF THE CONTRACT, OR, FOR ANY OTHER USE. NYMEX, ITS AFFILIATES AND NET ENERGY MAKE NO WARRANTIES, EXPRESS OR IMPLIED, AND HEREBY DISCLAIM ALL WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR USE WITH RESPECT TO THE PRICE ASSESSMENT OR ANY DATA INCLUDED THEREIN. WITHOUT LIMITING ANY OF THE FOREGOING, IN NO EVENT SHALL NYMEX, ITS AFFILIATES OR NET ENERGY 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 1298

### Clearbrook Bakken Sweet Crude Oil Index (Net Energy) Futures

#### 1298100. SCOPE OF CHAPTER

The provisions of these rules shall apply to all contracts bought or sold on the Exchange for cash settlement based on the Floating Price. The procedures for trading, clearing and cash settlement of this contract, and any other matters not specifically covered herein shall be governed by the general rules of the Exchange.

#### 1298101. CONTRACT SPECIFICATIONS

The Floating Price for each contract month is equal to Net Energy Canadian Monthly Index (NEI) for Bakken Sweet Crude Oil at Clearbrook, Minnesota during the Index Pricing Period for the contract month. The NEI for Bakken Sweet Crude Oil is based on the volume-weighted average of all Bakken Sweet Crude Oil transactions reported during the entire Index Pricing Period. The Index Pricing Period shall extend from the first Canadian business day of the month through the last Canadian business day prior to Notice of Shipments (NOS) date on the Enbridge Pipeline. The Index is expressed as a differential versus the Calendar Month Average (CMA) of the NYMEX Light Sweet Crude Oil futures settlement price.

#### 1298102. TRADING SPECIFICATIONS

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

##### 1298102.A. Trading Schedule

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

##### 1298102.B. Trading Unit

The contract quantity shall be 1,000 U.S. barrels. Each contract shall be valued as the contract quantity (1000) multiplied by the settlement price.

##### 1298102.C. Price Increments

Prices shall be quoted in U.S. dollars and cents per barrel. The minimum price fluctuation shall be \$0.001 per barrel. There shall be no maximum price fluctuation.

##### 1298102.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.

##### 1298102.E. Termination of Trading

Trading shall cease one Canadian business day prior to the Notice of Shipments (NOS) date on the Enbridge Pipeline. The NOS date occurs on or about the 20th calendar day of the month, subject to confirmation by Enbridge Pipeline. The official schedule for the NOS dates will be made publicly available by Enbridge.

#### 1298103. FINAL SETTLEMENT

Final settlement under the contract shall be by cash settlement. Final settlement, following termination of trading for a contract month, will be based on the Floating Price. The final settlement price will be the Floating Price calculated for each contract month.

#### 1298104. DISCLAIMER

Net Energy licenses the New York Mercantile Exchange, Inc. ("NYMEX") to use various Net Energy price assessments in connection with the trading of the contracts.

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SHALL NYMEX, ITS AFFILIATES OR NET ENERGY 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 1299 Canadian C5+ Condensate Index (Net Energy) Futures

### 1299100. SCOPE OF CHAPTER

The provisions of these rules shall apply to all contracts bought or sold on the Exchange for cash settlement based on the Floating Price. The procedures for trading, clearing and cash settlement of this contract, and any other matters not specifically covered herein shall be governed by the general rules of the Exchange.

### 1299101. CONTRACT SPECIFICATIONS

The Floating Price for each contract month is equal to the Net Energy Canadian Monthly Index (NEI) for Edmonton C5+ Condensate during the Index Pricing Period for the contract month. The NEI for Edmonton C5+ Condensate is based on the volume-weighted average of all C5+ Condensate transactions reported during the entire Index Pricing Period. The Index Pricing Period shall extend from the first Canadian business day of the month through the last Canadian business day prior to Notice of Shipments (NOS) date on the Enbridge Pipeline. The Index is expressed as a differential to the Calendar Month Average (CMA) of the NYMEX Light Sweet Crude Oil futures settlement price.

### 1299102. TRADING SPECIFICATIONS

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

#### 1299102.A. Trading Schedule

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

#### 1299102.B. Trading Unit

The contract quantity shall be 1,000 U.S. barrels. Each contract shall be valued as the contract quantity (1000) multiplied by the settlement price.

#### 1299102.C. Price Increments

Prices shall be quoted in U.S. dollars and cents per barrel. The minimum price fluctuation shall be \$0.001 per barrel. There shall be no maximum price fluctuation.

#### 1299102.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.

#### 1299102.E. Termination of Trading

Trading shall cease one Canadian business day prior to the Notice of Shipments (NOS) date on the Enbridge Pipeline. The NOS date occurs on or about the 20th calendar day of the month, subject to confirmation by Enbridge Pipeline. The official schedule for the NOS dates will be made publicly available by Enbridge.

### 1299103. FINAL SETTLEMENT

Final settlement under the contract shall be by cash settlement. Final settlement, following termination of trading for a contract month, will be based on the Floating Price. The final settlement price will be the Floating Price calculated for each contract month.

### 1299104. DISCLAIMER

Net Energy licenses the New York Mercantile Exchange, Inc. ("NYMEX") to use various Net Energy price assessments in connection with the trading of the contracts.

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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

### Amendments to NYMEX Rule 588.H. – (“Globex Non-Reviewable Trading Ranges”)

(additions are underscored)

Instrument Name	Globex Symbol	Globex Non-Reviewable Ranges (NRR)	NRR: Globex Format	NRR: Ticks
<u>Guernsey Light Sweet Crude Oil Index (Net Energy) Futures</u>	<u>GSW</u>	<u>\$1.00 per barrel</u>	<u>1000</u>	<u>1000</u>
<u>Clearbrook Bakken Sweet Crude Oil Index (Net Energy) Futures</u>	<u>CSW</u>	<u>\$1.00 per barrel</u>	<u>1000</u>	<u>1000</u>
<u>Canadian C5+ Condensate Index (Net Energy) Futures</u>	<u>CC5</u>	<u>\$1.00 per barrel</u>	<u>1000</u>	<u>1000</u>

## APPENDIX D

### **Cash Market Overview and Analysis of Deliverable Supply**

New York Mercantile Exchange, Inc. (“NYMEX” or “Exchange”) is self-certifying the listing of three financially-settled crude oil contracts. Exchange staff conducted a review of the underlying cash market and deliverable supply of Canadian condensate and Bakken crude oil. The contract details are as follows:

<b><u>Contract</u></b>	<b><u>Code</u></b>	<b><u>Rule Chapter</u></b>	<b><u>Proposed Spot Limit</u></b>
Guernsey Light Sweet Crude Oil Index (Net Energy) Futures	GSW	1297	1,000 contracts
Clearbrook Bakken Sweet Crude Oil Index (Net Energy) Futures	CSW	1298	1,000 contracts
Canadian C5+ Condensate Index (Net Energy) Futures	CC5	1299	1,000 contracts

For the Canadian C5+ Condensate Index (Net Energy) Futures Contract, the Exchange has determined to base its analysis of the deliverable supply on production and imports of condensate in the Alberta province. For the Guernsey Light Sweet Crude Oil Index (Net Energy) Futures and the Clearbrook Bakken Sweet Crude Oil Index (Net Energy) Futures Contracts, the Exchange has determined to base its deliverable supply estimate on inbound pipeline capacity for the two hubs in Clearbrook, Minnesota and Guernsey, Wyoming. In its analysis of deliverable supply, the Exchange did not include stocks data as the data tends to fluctuate. Additionally, the Exchange determined not to adjust the deliverable supply estimates based on the spot availability because spot market liquidity is not restrictive and tends to vary depending on the market fundamentals of supply and demand. The typical term agreement in the cash market allows flexibility for re-trading of the contracted quantity in the spot market, so the term agreements do not restrict the supply readily available for delivery.

#### **Data Sources**

The Exchange based its analysis of deliverable supply of Canadian Condensate on data provided by the Canadian Association of Petroleum Producers (CAPP) which is a trade association whose member companies produce more than 90% of Canada’s natural gas and crude oil. CAPP maintains a variety of publications and statistics on the oil and natural gas industry thanks to its expansive list of membership. CAPP represents 130 upstream oil and gas companies.

The Statistical Handbook for Canada’s Upstream Petroleum Industry, April 2016<sup>1</sup> constitutes the main source of data the Exchange utilized for its deliverable supply analysis on Canadian Condensate.

The Exchange based its analysis of deliverable supply of Bakken crude oil on data provided by the North Dakota Pipeline Authority. The North Dakota Pipeline Authority collects, analyzes, and disseminates

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<sup>1</sup> CAPP, Statistical Handbook for Canada’s Upstream Petroleum Industry, April 2016

independent and impartial energy information to promote sound policymaking, efficient markets, and public understanding of energy and its interaction with the economy and the environment.

The final settlement price for the Canadian C5+ Condensate Index (Net Energy) Futures, Clearbrook Bakken Sweet Crude Oil Index (Net Energy) Futures, and Guernsey Light Sweet Crude Oil Index (Net Energy) Futures contracts are based on the assessment of the underlying Canadian Condensate and U.S. Bakken physical markets as assessed and published by Net Energy, which is one of the price reporting agencies that are used in the over-the-counter market for pricing contracts. In April of 2016, Net Energy was granted approval from the Alberta Securities Commission for recognition as an Exchange.

Canadian crude oil is priced in US Dollars and cents per barrel, and typically traded at a differential to the Calendar Month Average (CMA) of the NYMEX Light Sweet Crude Oil Futures (CL) contract. Prices are primarily dependent on the US Midwest market, adjusted for quality and transportation costs from the Edmonton hub in Alberta.

The Net Energy price assessment for Bakken crude oil at Clearbrook, Minnesota is quoted in U.S. dollars and cents per barrel. The index is assessed based on the Enbridge Pipeline's U.S. High Sweet crude oil stream (code UHC) which is delivered on the Enbridge Mainline North Dakota Pipeline. According to the Enbridge Pipeline specifications<sup>2</sup>, the UHC stream has a density standard of 811.4 kg/m<sup>3</sup>, (which converts to API Gravity of 42.8) and 0.15% sulfur content.

The Net Energy price assessment for Bakken crude oil at Guernsey, Wyoming is quoted in U.S. dollars and cents per barrel. The index is assessed based on the Light Sweet Guernsey stream. The light sweet specifications<sup>3</sup> at the Guernsey hub conform to the standards that are specified by the Pony Express Pipeline, which is owned by Tall Grass Energy LP, and is the main outbound pipeline from Guernsey to Cushing. The Pony Express Pipeline's Light sweet stream has gravity specification of 40-46 API gravity and sulfur of 0.20%

The Net Energy price assessment for Canadian Condensate is quoted in U.S. dollars and cents per barrel. The index is assessed based on the following five condensate streams which are part of the Enbridge pipeline specifications<sup>4</sup>, which are delivered into Edmonton:

CFT: Fort Saskatchewan Condensate is 674.3 kg/m<sup>3</sup> and 0.04% Sulphur

CPM: Pembina Condensate is 764.8 kg/m<sup>3</sup> and 0.10% Sulphur

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<sup>2</sup> Enbridge Pipeline Specifications Clearbrook,

[http://www.enbridge.com/~media/Rebrand/Documents/Shippers/Crude\\_Characteristics\\_Booklet\\_2015.pdf?la=en](http://www.enbridge.com/~media/Rebrand/Documents/Shippers/Crude_Characteristics_Booklet_2015.pdf?la=en)

<sup>3</sup> Light Sweet Specifications Guernsey,

<http://pipeline.tallgrassenergylp.com/Pages/Content.aspx?pipeline=402&type=STRM>

<sup>4</sup> Enbridge Condensate Specifications,

[http://www.enbridge.com/~media/Rebrand/Documents/Shippers/Crude\\_Characteristics\\_Booklet\\_2015.pdf?la=en](http://www.enbridge.com/~media/Rebrand/Documents/Shippers/Crude_Characteristics_Booklet_2015.pdf?la=en)

CPR: Peace Condensate is 740.9 kg/m<sup>3</sup> and 0.12% Sulphur

SLD: Southern Lights is 674.3 kg/m<sup>3</sup> and 0.04% Sulphur

CRW: Enbridge Condensate is 664.3 kg/m<sup>3</sup> and 0.02% Sulphur

The financially-settled Canadian C5+ Condensate Index (Net Energy) Futures, Clearbrook Bakken Sweet Crude Oil Index (Net Energy) Futures, and Guernsey Light Sweet Crude Oil Index (Net Energy) Futures contracts are expressed as a differential to the Calendar Month Average (CMA) of the NYMEX Light Sweet Crude Oil futures settlement price.

CME Group (parent company of New York Mercantile Exchange, Inc.) is a party to license agreements with Net Energy to utilize their pricing data.



## Canadian Condensate

Condensate is a mixture composed mainly of pentanes and heavier hydrocarbons recovered as a liquid from field separators, scrubbers or other gathering facilities before the gas is processed in a plant<sup>5</sup>. It is primarily utilized as a diluent to blend into heavy crude oil, known as bitumen, to ensure transport flow through pipelines. Condensate also feeds many industries as refinery and petrochemical feedstocks, blending component in gasoline or crude, crude equivalent, and boiler fuel.

There is an active trading center based in the Alberta province of Canada, which is a major hub for storage and pipelines with direct connectivity to the Canadian markets. According to CAPP, total condensate production in Alberta averaged 20,253 barrels per day, or 7.4 million barrels per annum, for the 3-year period from January 2013 to December 2015. Production data for condensate in the Alberta province are illustrated in Table 1 below. Annual data has been converted from cubic meters to barrels using a conversion factor of 6.2898 barrels per cubic meter.

Regarding imports into the Alberta market, CAPP currently does not provide data on condensate imports. According to an analyst at CAPP, it was explained that during the time period from January 2013 to December 2015, condensate imports ranged from 220,000 barrels per day to 350,000 barrels per day, with a midpoint average of 285,000 barrels per day. This is equivalent to 104 million barrels per year. Export levels from the Alberta province were negligible. Consequently, the total condensate production and imports is approximately 305,000 barrels per day, which is equivalent to 111.5 million barrels per year. We also checked this data with Energy Information Administration (EIA) export data and found that while they do not break out condensate, specifically, they do report the export category of “pentanes plus” which is also referred to as C5+, and is a type of condensate derived from natural gas that is used as a diluent in Canada. The EIA data shows that pentanes plus exports from the U.S. to Canada have averaged approximately 160,000 barrels per day for the past three years.<sup>6</sup> Therefore, we think the CAPP analyst estimate of 220,000 to 350,000 barrels per day of condensate imports is a reasonable estimate.

**Table 1 –Alberta Condensate Production**

(barrels per day)

	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>Average</b>
Production	16,353	23,848	20,559	20,253
Imports	285,000	285,000	285,000	285,000
<b>Total</b>	<b>301,353</b>	<b>308,848</b>	<b>305,559</b>	<b>305,253</b>

<sup>5</sup> Condensate, CAPP, Crude Oil Forecast, Markets & Transportation, June 2015

<sup>6</sup> EIA Export data for Pentanes Plus: [http://www.eia.gov/dnav/pet/pet\\_move\\_expc\\_a\\_EPLP\\_EEX\\_mbbldpd\\_a.htm](http://www.eia.gov/dnav/pet/pet_move_expc_a_EPLP_EEX_mbbldpd_a.htm)

## **Bakken Crude Oil**

The production of crude oil in North Dakota consists of Bakken type crude oil, which is a light sweet stream with an API gravity between 40° and 43° and a sulfur content <0.2 wt.%.<sup>7</sup> As such, it is similar in quality to the fungible domestic sweet crude oil, also referred to as WTI. In recent years, North Dakota has seen an unprecedented increase in oil production as a result of the expansion of oil development mainly due to shale formations. The Bakken formation is one of the largest deposits of oil and natural gas located in the United States coming in second behind Texas. Bakken crude oil moves to various locations via pipeline, rail, and truck, and is consumed in the Midwest region, as well as in the Gulf Coast and East Coast markets.

Clearbrook, Minnesota and Guernsey, Wyoming are the two major hubs for storage and trading of Bakken crude oil, with extensive pipeline connectivity to the U.S. markets. At the Clearbrook hub, there are currently three pipelines with inbound capacity: 1) the Enbridge Mainline North Dakota Pipeline; 2) the Enbridge Bakken Expansion program, which increased the capacity in their Line 65 Pipeline, which runs from Cromer, Manitoba to Clearbrook; and 3) the Plains Bakken North Pipeline. The combined inbound pipeline capacity into Clearbrook is approximately 395,000 barrels per day. In addition, the Enbridge Sandpiper pipeline, which is currently under regulatory review, is estimated to come online in 2019 with additional capacity of 225,000 barrels per day.

There are currently two pipelines with inbound capacity to the Guernsey, Wyoming hub. The Butte Pipeline (including the recent Butte Pipeline expansion) and Kinder Morgan Double H Pipeline have a combined inbound capacity of 368,000 barrels per day. For a complete list of pipelines in North Dakota's Williston Basin area, please consult Appendix B.

Production of Bakken crude oil has risen steadily over the past five years. The EIA currently provides production data at the state level only from January 2015 to present. Prior to 2015, production data at the state level was not available. According to the EIA, total production<sup>8</sup> in North Dakota averaged 1.2 million barrels per day, or 36 million barrels per month, for the period from January 2015 through March 2016 (see Appendix A below). The state of North Dakota provides monthly data for 2014. According to the North Dakota State Government, production<sup>9</sup> averaged 1.0 million barrels per day, or 30 million barrels per month in 2014.

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<sup>7</sup> Bakken Crude Oil, <https://www.ndoil.org/resources/bkn/>

<sup>8</sup> Production Data, <http://www.eia.gov/petroleum/production/>

<sup>9</sup> North Dakota Production, <https://www.dmr.nd.gov/oilgas/stats/historicalbakkenoilstats.pdf>

**Table 2 – North Dakota Crude Oil Production**

(thousand of barrels per day)

<b>Production</b>	<b>2015</b>	<b>2016</b>
Jan	1,167	1,110
Feb	1,169	1,116
Mar	1,189	1,109
Apr	1,164	
May	1,194	
Jun	1,201	
Jul	1,198	
Aug	1,179	
Sep	1,154	
Oct	1,163	
Nov	1,171	
Dec	1,140	
<b>AVERAGE</b>	<b>1,174</b>	<b>1,112</b>

Commission guidance provides that deliverable supply is “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.”<sup>10</sup>

For Canadian condensate, the Exchange based its estimate of deliverable supply on the sum of condensate production in Alberta, plus condensate imports into Alberta. As explained above, the sum of condensate production and imports is approximately 305,000 barrels per day, which is equivalent to 111.5 million barrels per year.

For the Guernsey Light Sweet Crude Oil Index (Net Energy) Futures and the Clearbrook Bakken Sweet Crude Oil Index (Net Energy) Futures Contracts, the Exchange has determined to base its deliverable supply estimate on inbound pipeline capacity for the two hubs in Clearbrook, Minnesota and Guernsey, Wyoming, given that North Dakota crude oil production is greater than the inbound capacity for the two hubs. To be conservative, the Exchange focused on pipeline capacity in its deliverable supply estimate, because it provides a more accurate estimate of the total supply that can flow to the two hubs. The main source of data for the cash market analysis is the North Dakota Pipeline Authority, which provides detailed data on pipeline capacity in the Williston Basin.

The Exchange is not including stocks data in its analysis of deliverable supply. Stocks data tend to vary and, at least upon launch of products, we do not recommend position limits based on stock data.

Further, the Exchange has determined not to adjust the deliverable supply estimate based on spot availability because spot market liquidity is not restrictive and tends to vary depending on the market fundamentals of demand and supply. The typical term agreement in the cash market allows flexibility for re-trading of the contracted quantity in the spot market, so the term agreements do not restrict the potential deliverable supply. Also, the spot trading is not restricted, in that it could increase if the market demand increases. Therefore, we believe that it is not necessary to adjust the deliverable supply estimate on the basis of spot trading activity as it does not restrict the deliverable supply, and spot trading volume can expand to allow for more supply to flow if needed in the spot market.

The proposed spot month position limit of Canadian C5+ Condensate Index (Net Energy) Futures is 1,000 contracts. In the most recent three-year period, the Alberta province deliverable supply equates to 305,000 barrels per day, or 9.1 million barrels per month, which is equivalent to 9,100 contracts. Therefore, the spot month limit of 1,000 contracts represents 11.0% of the monthly deliverable supply.

The proposed spot month position limit for the Clearbrook Sweet Bakken Crude Oil Index (Net Energy) Futures is 1,000 contracts. The Exchange’s deliverable supply estimate, which is based on inbound pipeline capacity into the Clearbrook hub, is 395,000 barrels per day, or 11.8 million barrels per month, which is equivalent to 11,800 contracts. Consequently, the spot month limit of 1,000 contracts represents 8.5% of the monthly deliverable supply.

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<sup>10</sup> 17 CFR 38 (Appendix C)

The proposed spot month position limit of the Guernsey Light Sweet Crude Oil Index (Net Energy) Futures is 1,000 contracts. The deliverable supply estimate is based on the inbound pipeline capacity into the hub at Guernsey, Wyoming, which is approximately 368,000 barrels per day, or 11.0 million barrels per month, or 11,000 contract equivalents. Therefore, the spot month limit of 1,000 contracts represents 9.1% of the monthly deliverable supply.

## Appendix A

### North Dakota Production

(thousand barrels per day)

U.S. Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2010	5,391	5,545	5,504	5,383	5,388	5,379	5,294	5,438	5,607	5,618	5,563	5,597
2011	5,488	5,390	5,602	5,547	5,605	5,569	5,417	5,634	5,562	5,855	5,971	5,991
2012	6,140	6,240	6,222	6,244	6,302	6,261	6,419	6,286	6,557	6,931	7,016	7,081
2013	7,079	7,096	7,159	7,377	7,301	7,268	7,455	7,506	7,726	7,702	7,900	7,874
2014	7,997	8,091	8,244	8,570	8,579	8,680	8,755	8,835	8,958	9,130	9,201	9,429

## Appendix B

### US Williston Basin Crude Oil Pipelines

#### Year End System Capacity

(barrels per day)

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Butte Pipeline	92,000	104,000	118,000	118,000	145,000	160,000	160,000	160,000	160,000	160,000
Butte Expansion (Q3 2014)	-	-	-	-	-	-	-	100,000	100,000	100,000
Tesoro Mandan Refinery	58,000	58,000	58,000	58,000	58,000	68,000	68,000	68,000	68,000	68,000
Enbridge Mainline North Dakota	80,000	110,000	110,000	161,500	185,000	210,000	210,000	210,000	210,000	210,000
Enbridge Bakken Expansion Program	-	-	-	-	25,000	25,000	145,000	145,000	145,000	145,000
Plains Bakken North (Up to 70,000 BOPD)	-	-	-	-	-	-	-	40,000	40,000	40,000
Enbridge Sandpiper* (Q1 2019)	-	-	-	-	-	-	-	-	-	-
TransCanada Keystone XL* (100,000 BOPD, Permit Denied)	-	-	-	-	-	-	-	-	-	-
Dakota Prairie Refinery (Q2 2015)	-	-	-	-	-	-	-	-	20,000	20,000
Thunder Butte Refinery (2018, Timeline Uncertain)*	-	-	-	-	-	-	-	-	-	-
Energy Transfer Partners Bakken Pipeline* (Late 2016)	-	-	-	-	-	-	-	-	-	-
TransCanada Upland Pipeline* (2020)	-	-	-	-	-	-	-	-	-	-
Kinder Morgan Double H Pipeline (Q1 2015)	-	-	-	-	-	-	-	-	84,000	108,000
<b>Pipeline/Refining Total</b>	<b>230,000</b>	<b>272,000</b>	<b>286,000</b>	<b>337,500</b>	<b>413,000</b>	<b>463,000</b>	<b>583,000</b>	<b>723,000</b>	<b>827,000</b>	<b>851,000</b>