



2017 JAN 20 PM 2:59

January 18, 2017

New Mexico Oil Conservation Division Director's Office
Attn: David Catanach,
Division Director 1220 South St. Francis Drive
Santa Fe, New Mexico 87505

RE: Meter Proving Frequency Variance Request. Variance to the ACT meter proving requirement in paragraph (12) of subsection C of 19.15.18.15 NMAC - Quarterly Proving of Automatic Custody Transfer Equipment (ACT).

Dear Director Catanach,

WPX Energy Production, LLC (WPX) is requesting a variance to the ACT meter proving requirement in paragraph (12) of subsection C of 19.15.18.15 New Mexico Administrative Code from a monthly ACT meter proving frequency to quarterly ACT meter proving. This would be an exception to the meter proving that states that all measuring and recording devices be checked for accuracy once each month. WPX has obtained C-106 Form approvals from the NMOCD Aztec Office to install LACT/ACT systems which utilize a very accurate Coriolis measurement technology for crude oil measurement. WPX has provided the attached monthly proving reports that show that the installed Coriolis meters continue to perform extremely well and have provided very stable meter proving factors. WPX has attached copies of the proving reports that provide documented meter test results that documents the meter stability and supports our request to move from monthly to quarterly ACT meter proving. The Coriolis meters will continue to be proved and tested per current and future Bureau of Land Management (BLM) rules and within the American Petroleum Institute's standards and guidelines. The provers will be NIST traceable and water drawn on an annual basis.

The leases served by the LACT/ACT units are a mixture of Federal, Indian and fee leases, and WPX will prove quarterly and will continue to provide a meter proving schedule to the NMOCD representatives which will allow the NMOCD to witness any or all of the meter provings. If you have any questions in regards to this request or need additional information, please do not hesitate to contact me at (505) 333-1812.

Sincerely yours,

A handwritten signature in black ink, appearing to read "Randy VanDenBerg".

Randy VanDenBerg
District Superintendent
WPX Energy Production, LLC

Cc: Charlie Perrin, District Supervisor (NMOCD District 3 - Aztec)
Brandon Powell, Inspection and Enforcement Supervisor (NMOCD District 3 - Aztec)

McMillan, Michael, EMNRD

From: Felix, Andrea <Andrea.Felix@wpxenergy.com>
Sent: Friday, May 5, 2017 12:28 PM
To: McMillan, Michael, EMNRD
Cc: Riley, Heather; VanDenBerg, Randy; Jordan, Robert; Shepard, Cyd; Jaramillo, Marie; Casey Haga; Granillo, Lacey; Atencio, Manuel
Subject: RE: [EXTERNAL] RE: Quarterly Proving Request
Attachments: 20170504065100638.pdf

Good afternoon Mike,

Please see attached proving data for the below listed wells. As we discussed all the wells within this quarterly proving request are Basin Mancos or equivalent wells.

Thank you,

Andrea Felix, RWA
Regulatory Support Team Lead
San Juan Basin
Office: 505-333-1849
Cell: 505-386-8205
WPXENERGY.

From: McMillan, Michael, EMNRD [mailto:Michael.McMillan@state.nm.us]
Sent: Tuesday, May 02, 2017 4:17 PM
To: Felix, Andrea <Andrea.Felix@wpxenergy.com>
Subject: RE: [EXTERNAL] RE: Quarterly Proving Request

Andrea:

Send the proving data for NW Lybrook Unit #133H, NW Lybrook Unit #131H, NW Lybrook Unit #143H, Chaco 2307-17H#163H, Chaco 2308-24H#153H, Chaco 2308-24H#151H, Chaco 2308-24H#147H, Mc 2 Com #283H, Chaco 2308-04P #150H,

From: Felix, Andrea [mailto:Andrea.Felix@wpxenergy.com]
Sent: Tuesday, May 2, 2017 11:13 AM
To: McMillan, Michael, EMNRD <Michael.McMillan@state.nm.us>
Cc: Riley, Heather <Heather.Riley@wpxenergy.com>; VanDenBerg, Randy <RandyN.VanDenBerg@wpxenergy.com>; Jordan, Robert <Robert.Jordan@wpxenergy.com>; Shepard, Cyd <Cyd.Shepard@wpxenergy.com>; Jaramillo, Marie <Marie.Jaramillo@wpxenergy.com>; Casey Haga <caseyhaga@eis-llc.com>; Granillo, Lacey <Lacey.Granillo@wpxenergy.com>; Atencio, Manuel <Manuel.Atencio1@wpxenergy.com>
Subject: RE: [EXTERNAL] RE: Quarterly Proving Request

Good morning Mike,



Jude Dysart
VP – Engineering & Technical Services
O: (918) 289-2145
M: (405) 834-9402
jude.dysart@whiptailmidstream.com

15 West 6th Street | Suite 2901
Tulsa | Oklahoma | 74119
918.289.2949
www.whiptailmidstream.com

March 2, 2017

Andrea Felix, RWA
Regulatory Specialist Staff
WPX Energy
721 S Main Avenue
Aztec, NM 87410

RE: **NMOCD Meter Proving Frequency Variance Request**

Mrs. Felix:

Whiptail Midstream, LLC, on behalf of itself and its affiliates (collectively, "Whiptail") has no objection to WPX Energy, LLC (collectively, "WPX") pursuing the proposed NMOCD Meter Proving Frequency Variance Request.

Whiptail believes this variance to proving frequency will have minimal, if any, impact to realized measurement accuracy in the field. Approval of this variance will also decrease the operational efforts associated with maintaining measurement devices, and will allow our personnel to focus more on the safe and efficient operations of our measurement facilities and pipeline systems.

If WPX, or the NMOCD, should have any questions concerning this variance request, Whiptail is available to discuss at your convenience. As a new entrant into New Mexico, Whiptail is excited about the opportunity to work and grow alongside our partners and neighbors in the community.

Sincerely,

Jude Dysart
VP – Engineering and Technical Services

McMillan, Michael, EMNRD

From: Felix, Andrea <Andrea.Felix@wpxenergy.com>
Sent: Thursday, April 20, 2017 8:18 AM
To: McMillan, Michael, EMNRD
Cc: Riley, Heather; VanDenBerg, Randy; Jordan, Robert; Shepard, Cyd; Jaramillo, Marie; Casey Haga; Granillo, Lacey; Atencio, Manuel
Subject: RE: [EXTERNAL] RE: Quarterly Proving Request
Attachments: WPX LACTmeasurementfacilitiesSanJuan.xlsx

Good morning Mike,

Please see attached the updated spreadsheet, thank you for catching the blank line for the NE Chaco Com #187H it now reads Chaco Unit NE HZ (OIL).

The truck and pipeline LACTS have the potential to servicing different pools, so therefore we have left the pool column blank for that reason.

Thank you,

Andrea Felix, RWA
Regulatory Specialist Staff
San Juan Basin
Office: 505-333-1849
Cell: 505-386-8205
WPXENERGY.

From: McMillan, Michael, EMNRD [mailto:Michael.McMillan@state.nm.us]
Sent: Wednesday, April 19, 2017 4:24 PM
To: Felix, Andrea <Andrea.Felix@wpxenergy.com>
Subject: RE: [EXTERNAL] RE: Quarterly Proving Request

Andrea:
Why are the pools for Truck and Pipeline LACTS (ones at bottom) and NE Chaco Com. #187H Transfer LACT blank? Are they servicing many different pools and leases, so the exact pool could not be determined?
Thanks
Mike

From: Felix, Andrea [mailto:Andrea.Felix@wpxenergy.com]
Sent: Wednesday, April 19, 2017 3:52 PM
To: McMillan, Michael, EMNRD <Michael.McMillan@state.nm.us>
Cc: Riley, Heather <Heather.Riley@wpxenergy.com>; VanDenBerg, Randy <RandyN.VanDenBerg@wpxenergy.com>; Jordan, Robert <Robert.Jordan@wpxenergy.com>; Shepard, Cyd <Cyd.Shepard@wpxenergy.com>; Jaramillo, Marie <Marie.Jaramillo@wpxenergy.com>; Casey Haga <caseyhaga@eis-llc.com>; Granillo, Lacey

McMillan, Michael, EMNRD

From: McMillan, Michael, EMNRD
Sent: Friday, February 17, 2017 11:28 AM
To: Jones, William V, EMNRD
Cc: Brooks, David K, EMNRD
Subject: RE: WPX metering frequency exception

Also I am unclear of notice

From: McMillan, Michael, EMNRD
Sent: Friday, February 17, 2017 11:27 AM
To: Jones, William V, EMNRD <WilliamV.Jones@state.nm.us>
Cc: Brooks, David K, EMNRD <DavidK.Brooks@state.nm.us>
Subject: WPX metering frequency exception

Will and David:

I looked at NMAC 19.15.18 15.Paragraph12-14 (legally wrong description), but it appears that WPX can apply administratively for an exception, which allows the Director to set the set the frequency determination. All they would have to do is provide a graph (which is a literal interpretation, but based on the data presented not needed). I believe OCD should agree in this case to make WPX follow the either BLM or API standards, whichever is more stringent (Most likely irrelevant since BLM follows API standards)

I will put the application bank on Will's chair.

Mike

MICHAEL A. MCMILLAN

Engineering Bureau, Oil Conservation Division
1220 south St. Francis Dr., Santa Fe NM 87505
O: 505.476.3448
Michael.McMillan@state.nm.us

Customer: WPX -
 Operator:
 Location: 166 - Lact
 Federal ID: SEC.15M T23N R7W

15-23N 7W
 NE 1/4 Sec 30-39-31 202

Meter Data 67432068 WPX 166H Factor Tracked Composite MF(CMF) Temp Compensated No NKF 10000.0000 N/bbl Manufacturer Micro Motion Size 2.00 in Serial No. 14494842 Model No.	Product Data Name Crude Batch No. Obs. Gravity 43.6 °API Obs. Temp 87.0 °F Obs. Press 0.0 psi API Table Table A - Crude Oil (2004) Base Density 41.2 °API HYC Y	Proving Data <table style="width:100%;"> <tr> <th></th> <th style="text-align: center;">Previous</th> <th style="text-align: center;">Current</th> </tr> <tr> <td>Task ID</td> <td>1474589103</td> <td>1476169000</td> </tr> <tr> <td>Date</td> <td>09/22/2016</td> <td>10/10/2016</td> </tr> <tr> <td>Time</td> <td>12:05</td> <td>18:56</td> </tr> <tr> <td>Product</td> <td>Crude</td> <td>Crude</td> </tr> <tr> <td>Flowrate</td> <td>35 bbl/hr</td> <td>35 bbl/hr</td> </tr> <tr> <td>Totalizer</td> <td></td> <td></td> </tr> <tr> <td>Throughput</td> <td></td> <td></td> </tr> <tr> <td>Base Density</td> <td>41.8°API</td> <td>41.2 °API</td> </tr> <tr> <td>Avg Prvr Temp</td> <td>117.9</td> <td>109.8</td> </tr> <tr> <td>Avg Prvr Press</td> <td>38.0</td> <td>38.0</td> </tr> <tr> <td>Repeatability</td> <td>0.021 %</td> <td>0.042 %</td> </tr> <tr> <td>CMF</td> <td>0.9994</td> <td>0.9990</td> </tr> <tr> <td>CMF Variance</td> <td>-0.0001</td> <td>-0.0004</td> </tr> </table>		Previous	Current	Task ID	1474589103	1476169000	Date	09/22/2016	10/10/2016	Time	12:05	18:56	Product	Crude	Crude	Flowrate	35 bbl/hr	35 bbl/hr	Totalizer			Throughput			Base Density	41.8°API	41.2 °API	Avg Prvr Temp	117.9	109.8	Avg Prvr Press	38.0	38.0	Repeatability	0.021 %	0.042 %	CMF	0.9994	0.9990	CMF Variance	-0.0001	-0.0004
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Prover Data BPV 1.18820 bbl I.D. 7.981 in W.T. 0.322 in Manufacturer DOMINION Type Displacement-Sphere Serial No. 23MM Elasticity 3.0E7 1/psi Pipe Gc 1.86E-5 1°F Certified	Tolerances Tolerance Type: Repeatability Maximum Deviation: 0.050 % Enabled? Y Passed? Y Min # of Runs: 5 Criteria: 5 out of 5 consecutive runs Avg X Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Prev X Factor Count Sought: 1 Prev X Factor Count Used: 0 Cut Off History? N Cutoff Date: Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Proving Mode: Volumetric Density Mode: Manual Calc. Method: Avg. Meter Factor Proving Method: Manual Passes Per Run 1	Liquid Properties at Metering Conditions for CMF Normal Op. Pressure 38.0 psig Eq. Vapor Pressure 0.0 psig CPL 1.0003																																										

Run	TEMPERATURE		PRESSURE		PULSES	Run Accepted ?	IMF	Flowrate
	Tp	Tm	Pp	Pm	N			bbl/hr
1	105.2	105.2	38.0	42.0	11910.000	1 Yes	0.99850	35.000
2	108.6	108.6	38.0	42.0	11911.000	2 Yes	0.99847	35.000
3	110.8	110.8	38.0	42.0	11907.000	3 Yes	0.99884	35.000
4	112.1	112.1	38.0	42.0	11908.000	4 Yes	0.99879	35.000
5	112.5	112.5	38.0	42.0	11907.000	5 Yes	0.99889	35.000
Average	109.8	109.8	38.0	42.0	11908.6000		0.99870	35.000

(1) GSVp: BPV * [CTSp * CPSp * CTLp * CPLp = CCFp]

BPV	CTSp	CPSp	CTLp	CPLp	CCFp	GSVp
1.18820	1.00093	1.00003	0.97446	1.00025	0.97564	1.15926

(2) ISVm: [N(avg) ÷ NKF = IVm] * [CTLm * CPLm = CCFm]

N(avg)	NKF	IVm	CTLm	CPLm	CCFm	ISVm
11908.6000	10000.0000	1.19086	0.97446	1.00028	0.97473	1.16077

(3) Proving Factors:

>>>> (1) GSVp ÷ ISVm = 0.9987 MF
 (2) MF * CPL = 0.9990 CMF
 (3) 1 ÷ MF = 1.0013 MA
 (4) NKF ÷ MF = 10013 KF
 (5) KF ÷ CPL = 10010 CKF

Repeatability: 0.042 %
 Uncertainty: 0.022 %

Trans. Serial No.	
Flow Calib Factor	
Density Calib Factor	
Frequency Set Point	
Flowrate Set Point	
Zero Verified	Zeroed
As Found	As Left

Technician:

Witness:

PROVEIT

Customer: WPX -
 Operator:
 Location: 166 - Lact
 Federal ID: SEC.15M T23N R7W

AB CHA
 15-23N7W

Meter Data 67432068 WPX 166H Factor Tracked Composite MF(CMF) Temp Compensated No NKF 10000.0000 N/bbl Manufacturer Micro Motion Size 2.00 in Serial No. 14494842 Model No.	Product Data Name Crude Batch No. Obs. Gravity 43.9 °API Obs. Temp 81.1 °F Obs. Press 0.0 psi API Table Table A - Crude Oil (2004) Base Density 42.0 °API HYC Y	Proving Data <table style="width:100%;"> <tr> <th style="text-align: left;"><u>Previous</u></th> <th style="text-align: left;"><u>Current</u></th> </tr> <tr> <td>Task ID 1469137685</td> <td>1472092668</td> </tr> <tr> <td>Date 07/21/2016</td> <td>08/24/2016</td> </tr> <tr> <td>Time 9:46</td> <td>14:37</td> </tr> <tr> <td>Product Crude</td> <td>Crude</td> </tr> <tr> <td>Flowrate 35 bbl/hr</td> <td>25 bbl/hr</td> </tr> <tr> <td>Totalizer</td> <td></td> </tr> <tr> <td>Throughput</td> <td></td> </tr> <tr> <td>Base Density 40.7 °API</td> <td>42.0 °API</td> </tr> <tr> <td>Avg Prvr Temp 80.5</td> <td>80.2</td> </tr> <tr> <td>Avg Prvr Press 36.0</td> <td>39.0</td> </tr> <tr> <td>Repeatability 0.014 %</td> <td>0.050 %</td> </tr> <tr> <td>CMF 1.0008</td> <td>1.0012</td> </tr> <tr> <td>CMF Variance -0.0004</td> <td>0.0004</td> </tr> </table>	<u>Previous</u>	<u>Current</u>	Task ID 1469137685	1472092668	Date 07/21/2016	08/24/2016	Time 9:46	14:37	Product Crude	Crude	Flowrate 35 bbl/hr	25 bbl/hr	Totalizer		Throughput		Base Density 40.7 °API	42.0 °API	Avg Prvr Temp 80.5	80.2	Avg Prvr Press 36.0	39.0	Repeatability 0.014 %	0.050 %	CMF 1.0008	1.0012	CMF Variance -0.0004	0.0004
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Run	TEMPERATURE		PRESSURE		PULSES	Run Accepted ?		IMF	Flowrate bbl/hr
	Tp	Tm	Pp	Pm	N				
1	83.2	83.2	39.0	41.0	11878.741	1	Yes	1.00072	25.012
2	80.4	80.4	39.0	41.0	11872.150	2	Yes	1.00122	24.996
3	79.7	79.7	39.0	41.0	11876.841	3	Yes	1.00081	25.017
4	79.1	79.1	39.0	41.0	11876.231	4	Yes	1.00085	25.034
5	78.5	78.5	39.0	41.0	11871.848	5	Yes	1.00121	25.041
Average	80.2	80.2	39.0	41.0	11875.1622			1.00096	25.020

(1) GSVp: $BPV * [CTSp * CPSp * CTLp * CPLp = CCFp]$

BPV	CTSp	CPSp	CTLp	CPLp	CCFp	GSVp
1.18820	1.00038	1.00003	0.98959	1.00023	0.99022	1.17658

(2) ISVm: $[N(avg) \div NKF = IVm] * [CTLm * CPLm = CCFm]$

N(avg)	NKF	IVm	CTLm	CPLm	CCFm	ISVm
11875.1622	10000.0000	1.18752	0.98959	1.00025	0.98984	1.17545

(3) Proving Factors:

>>>> (1) GSVp ÷ ISVm = 1.0010 MF
 (2) MF * CPL = 1.0012 CMF
 (3) 1 ÷ MF = 0.9990 MA
 (4) NKF ÷ MF = 9990.0 KF
 (5) KF ÷ CPL = 9988.0 CKF

Repeatability: 0.050 %
 Uncertainty: 0.027 %

Trans. Serial No. Flow Calib Factor Density Calib Factor Frequency Set Point Flowrate Set Point Zero Verified As Found	Zeroed As Left
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Technician: 

PROVE

Witness:

Customer: WPX -
 Operator:
 Location: 166 - Lact
 Federal ID: SEC.15M T23N R7W

NECHACO
 15-232-76

Meter Data 67432068 WPX 166H Factor Tracked Composite MF(CMF) Temp Compensated No NKF 10000.0000 N/bbl Manufacturer Micro Motion Size 2.00 in Serial No. 14494842 Model No.	Product Data Name Crude Batch No. Obs. Gravity 46.3 °API Obs. Temp 110.4 °F Obs. Press 0.0 psi API Table Table A - Crude Oil (2004) Base Density 41.8 °API HYC Y	Proving Data <table style="width:100%;"> <tr> <th style="text-align: left;"><u>Previous</u></th> <th style="text-align: left;"><u>Current</u></th> </tr> <tr> <td>Task ID 1472093974</td> <td>1474586840</td> </tr> <tr> <td>Date 08/24/2016</td> <td>09/22/2016</td> </tr> <tr> <td>Time 14:59</td> <td>11:27</td> </tr> <tr> <td>Product Crude</td> <td>Crude</td> </tr> <tr> <td>Flowrate 35 bbl/hr</td> <td>25 bbl/hr</td> </tr> <tr> <td>Totalizer</td> <td></td> </tr> <tr> <td>Throughput</td> <td></td> </tr> <tr> <td>Base Density 42.0°API</td> <td>41.8 °API</td> </tr> <tr> <td>Avg Pvr Temp 76.6</td> <td>116.0</td> </tr> <tr> <td>Avg Pvr Press 37.0</td> <td>40.0</td> </tr> <tr> <td>Repeatability 0.016 %</td> <td>0.046 %</td> </tr> <tr> <td>CMF 1.0013</td> <td>0.9995</td> </tr> <tr> <td>CMF Variance 0.0001</td> <td>-0.0018</td> </tr> </table>	<u>Previous</u>	<u>Current</u>	Task ID 1472093974	1474586840	Date 08/24/2016	09/22/2016	Time 14:59	11:27	Product Crude	Crude	Flowrate 35 bbl/hr	25 bbl/hr	Totalizer		Throughput		Base Density 42.0°API	41.8 °API	Avg Pvr Temp 76.6	116.0	Avg Pvr Press 37.0	40.0	Repeatability 0.016 %	0.046 %	CMF 1.0013	0.9995	CMF Variance 0.0001	-0.0018
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Run	TEMPERATURE		PRESSURE		PULSES	Run Accepted ?		IMF	Flowrate
	Tp	Tm	Pp	Pm	N				bbVhr
1	114.2	114.2	40.0	41.0	11904.436	1	Yes	0.99914	25.003
2	115.9	115.9	40.0	41.0	11901.652	2	Yes	0.99940	24.955
3	116.4	116.4	40.0	41.0	11907.429	3	Yes	0.99894	24.941
4	116.6	116.6	40.0	41.0	11904.730	4	Yes	0.99916	24.885
5	116.8	116.8	40.0	41.0	11904.693	5	Yes	0.99917	24.868
Average	116.0	116.0	40.0	41.0	11904.5880			0.99916	24.930

(1) GSVp: BPV * [CTSp * CPSP * CTLp * CPLp = CCFp]

BPV	CTSp	CPSP	CTLp	CPLp	CCFp	GSVp
1.18820	1.00104	1.00003	0.97105	1.00027	0.97235	1.15535

(2) ISVm: [N(avg) ÷ NKF = IVm] * [CTLm * CPLm = CCFm]

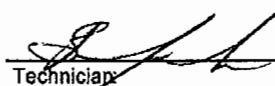
N(avg)	NKF	IVm	CTLm	CPLm	CCFm	ISVm
11904.5880	10000.0000	1.19046	0.97105	1.00028	0.97132	1.15632

(3) Proving Factors:

>>>> (1) GSVp ÷ ISVm = 0.9992 MF
 (2) MF * CPL = 0.9995 CMF
 (3) 1 ÷ MF = 1.0008 MA
 (4) NKF ÷ MF = 10008 KF
 (5) KF ÷ CPL = 10005 CKF

Repeatability: 0.046 %
 Uncertainty: 0.025 %

Trans. Serial No.	
Flow Calib Factor	
Density Calib Factor	
Frequency Set Point	
Flowrate Set Point	
Zero Verified	Zeroed
As Found	As Left

Technician: 

Witness:

PROVEIT

13-232
30-03-142
no change 21-5N

Run	TEMPERATURE		PRESSURE		PULSES N	Run Accepted ?		IMF	Flowrate bb/hr
	Tp	Tm	Pp	Pm					
1	88.5	88.5	42.0	46.0	11850.000	1	Yes	1.00324	12.000
2	89.6	89.6	42.0	46.0	11853.000	2	Yes	1.00301	12.000
3	90.4	90.4	42.0	46.0	11850.000	3	Yes	1.00327	12.000
4	90.6	90.6	42.0	46.0	11849.000	4	Yes	1.00335	12.000
5	91.2	91.2	42.0	46.0	11848.000	5	Yes	1.00345	12.000
Average	90.1	90.1	42.0	46.0	11850.0000			1.00326	12.000

<i>BPV</i>	<i>CTSp</i>	<i>CPSp</i>	<i>CTLp</i>	<i>CPLp</i>	<i>CCFp</i>	<i>GSVp</i>
1.18820	1.00056	1.00003	0.98453	1.00026	0.98537	1.17082

<i>N</i> (avg)	<i>NKF</i>	<i>IVm</i>	<i>CTLm</i>	<i>CPLm</i>	<i>CCFm</i>	<i>ISVm</i>
11850.0000	10000.0000	1.18500	0.98453	1.00029	0.98482	1.16701

>>>>	(1)	GSVP ÷ ISVm =	1.0033
	(2)	MF * CPL =	1.0035
	(3)	1 ÷ MF =	0.9967
	(4)	NKF ÷ MF =	9967.1
	(5)	KF ÷ CPL =	9965.1

MF	Trans. Serial No.	
CMF	Flow Calib Factor	
MA	Density Calib Factor	
KF	Frequency Set Point	
CKF	Flowrate Set Point	
	Zero Verified	Zeroed
	As Found	As Left

Repeatability: 0.044 %
Uncertainty: 0.023 %

Witness:

Customer: WPX -
Operator:
Location:
Federal ID:

13-23n-7w

Meter Data 67418475 WPX 175H Factor Tracked Composite MF(CMF) Temp Compensated No NKF 10000.0000 N/bbl Manufacturer Micro Motion Size 1.00 in Serial No. Model No.	Product Data Name Crude Batch No. Obs. Gravity 43.7 °API Obs. Temp 77.7 °F Obs. Press 0.0 psi API Table Table A - Crude Oil (2004) Base Density 42.1 °API HYC Y	Proving Data <u>Previous</u> <u>Current</u> Task ID 1468963534 1472250823 Date 07/19/2016 08/26/2016 Time 9:25 10:33 Product Crude Crude Flowrate 8 bbl/hr 8 bbl/hr Totalizer Throughput Base Density 41.7°API 42.1 °API Avg Prvr Temp 89.2 82.6 Avg Prvr Press 118.0 54.0 Repeatability 0.016 % 0.025 % CMF 0.9753 1.0070 CMF Variance -0.0206 0.0317
Prover Data BPV 1.18820 bbl I.D. 7.981 in W.T. 0.322 in Manufacturer DOMINION Type Displacement-Sphere Serial No. 23MM Elasticity 3.0E7 1/psi Pipe Gc 1.86E-5 1°F Certified	Tolerances Tolerance Type: Repeatability Maximum Deviation: 0.050 % Enabled? Y Passed? Y Min # of Runs: 5 Criteria: 5 out of 5 consecutive runs Avg X Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Prev X Factor Count Sought: 1 Prev X Factor Count Used: 0 Cut Off History? N Cutoff Date: Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Proving Mode: Volumetric Density Mode: Manual Calc. Method: Avg. Meter Factor Proving Method: PIU Passes Per Run 1	Liquid Properties at Metering Conditions for CMF Normal Op. Pressure 53.0 psig Eq. Vapor Pressure psig CPL 1.0003

Run	TEMPERATURE		PRESSURE		PULSES	Run Accepted ?		IMF	Flowrate
	Tp	Tm	Pp	Pm	N				bb/hr
1	82.1	82.1	54.0	54.0	11808.694	1	Yes	1.00665	8.184
2	82.0	82.0	54.0	54.0	11806.520	2	Yes	1.00684	8.398
3	82.6	82.6	54.0	54.0	11809.458	3	Yes	1.00659	8.388
4	83.0	83.0	54.0	54.0	11808.477	4	Yes	1.00669	8.319
5	83.2	83.2	54.0	54.0	11808.291	5	Yes	1.00671	8.427
Average	82.6	82.6	54.0	54.0	11808.2880			1.00670	8.343

(1) GSVp: $BPV * [CTSp * CPSp * CTLp * CPLp = CCFp]$

BPV	CTSp	CPSp	CTLp	CPLp	CCFp	GSVp
1.18820	1.00042	1.00004	0.98833	1.00033	0.98911	1.17526

(2) ISVm: $[N(avg) \div NKF = IVm] * [CTLm * CPLm = CCFm]$

N(avg)	NKF	IVm	CTLm	CPLm	CCFm	ISVm
11808.2880	10000.0000	1.18083	0.98833	1.00033	0.98866	1.16744

(3) Proving Factors:

>>>> (1) $GSVp \div ISVm = 1.0067$ MF
 (2) $MF * CPL = 1.0070$ CMF
 (3) $1 \div MF = 0.9933$ MA
 (4) $NKF \div MF = 9933.4$ KF
 (5) $KF \div CPL = 9930.4$ CKF

Repeatability: 0.025 %
Uncertainty: 0.013 %

Trans. Serial No. Flow Calib Factor Density Calib Factor Frequency Set Point Flowrate Set Point Zero Verified As Found	Zeroed As Left
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Technician:

Witness:

PROVE

Customer: WPX -

Operator:

Location:

Federal ID:

NEC 4A
13-23272

Meter Data	Product Data	Proving Data
67418475 WPX 175H Factor Tracked Composite MF(CMF) Temp Compensated No NKF 10000.0000 N/bbl Manufacturer Micro Motion Size 1.00 in Serial No. Model No.	Name Crude Batch No. Obs. Gravity 46.5 °API Obs. Temp 100.0 °F Obs. Press 0.0 psi API Table Table A - Crude Oil (2004) Base Density 42.9 °API HYC Y	Previous Current Task ID 1473976911 1473976149 Date 09/15/2016 09/15/2016 Time 9:45 9:49 Product Crude Crude Flowrate 41 bbl/hr 8 bbl/hr Totalizer Throughput Base Density 42.9 °API 42.9 °API Avg Pvr Temp 99.0 95.1 Avg Pvr Press 82.0 53.0 Repeatability 0.034 % 0.041 % CMF 1.0027 1.0051 CMF Variance 0.0000 0.0024
Prover Data BPV 1.18820 bbl I.D. 7.981 in W.T. 0.322 in Manufacturer DOMINION Type Displacement-Sphere Serial No. 23MM Elasticity 3.0E7 1/psi Pipe Gc 1.86E-5 1°F Certified	Tolerances Tolerance Type: Repeatability Maximum Deviation: 0.050 % Enabled? Y Passed? Y Min # of Runs: 5 Criteria: 5 out of 5 consecutive runs Avg X Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Prev X Factor Count Sought: 1 Prev X Factor Count Used: 0 Cut Off History? N Cutoff Date: Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Proving Mode: Volumetric Density Mode: Manual Calc. Method: Avg. Meter Factor Proving Method: Manual Passes Per Run 1	Liquid Properties at Metering Conditions for CMF Normal Op. Pressure 36.0 psig Eq. Vapor Pressure 0.0 psig CPL 1.0002

Run	TEMPERATURE Tp Tm	PRESSURE Pp Pm	PULSES N	Run Accepted ?	IMF	Flowrate bbl/hr
1	94.8 94.8	53.0 55.0	11832.000	1 Yes	1.00490	8.000
2	94.5 94.5	53.0 55.0	11833.000	2 Yes	1.00482	8.000
3	95.1 95.1	53.0 55.0	11830.000	3 Yes	1.00507	8.000
4	95.3 95.3	53.0 55.0	11835.000	4 Yes	1.00466	8.000
5	95.6 95.6	53.0 55.0	11832.000	5 Yes	1.00491	8.000
Average	95.1 95.1	53.0 55.0	11832.4000		1.00487	8.000

(1) GSVp: BPV * [CTSp * CPSp * CTLp * CPLp = CCFp]

BPV	CTSp	CPSp	CTLp	CPLp	CCFp	GSVp
1.18820	1.00065	1.00004	0.98168	1.00034	0.98269	1.16763

(2) ISVm: [N(avg) ÷ NKF = IVm] * [CTLm * CPLm = CCFm]

N(avg)	NKF	IVm	CTLm	CPLm	CCFm	ISVm
11832.4000	10000.0000	1.18324	0.98168	1.00036	0.98203	1.16198

(3) Proving Factors:

>>>> (1) GSVp ÷ ISVm = 1.0049 MF
 (2) MF * CPL = 1.0051 CMF
 (3) 1 ÷ MF = 0.9951 MA
 (4) NKF ÷ MF = 9951.2 KF
 (5) KF ÷ CPL = 9949.2 CKF

Trans. Serial No.	
Flow Calib Factor	
Density Calib Factor	
Frequency Set Point	
Flowrate Set Point	
Zero Verified	Zeroed
As Found	As Left

Repeatability: 0.041 %
 Uncertainty: 0.022 %

Technician:

Witness:

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PROVEit PROVEit 8.7.0.0

09/15/2016 9:51 Page: 1
Revision: 1

Customer: WPX -

Operator:

Location:

Federal ID:

NE Chalco Com

Meter Data	Product Data	Proving Data
67419511 WPX 176H Factor Tracked Composite MF(CMF) Temp Compensated No NKF 10000.0000 N/bbl Manufacturer Micro Motion Size 1.00 in Serial No. 14517624 Model No. CMF100M	Name Crude Batch No. Obs. Gravity 41.6 °API Obs. Temp 99.8 °F Obs. Press 0.0 psi API Table Table A - Crude Oil (2004) Base Density 38.3 °API HYC Y	Previous Current Task ID 1468879834 1471572007 Date 07/18/2016 08/18/2016 Time 10:10 14:00 Product Crude Crude Flowrate 42 bbl/hr 8 bbl/hr Totalizer Throughput Base Density 38.0 °API 38.3 °API Avg Prvr Temp 117.3 104.2 Avg Prvr Press 172.0 95.0 Repeatability 0.006 % 0.037 % CMF 0.9974 0.9997 CMF Variance 0.0018 0.0023
Prover Data BPV 1.18820 bbl I.D. 7.981 in W.T. 0.322 in Manufacturer DOMINION Type Displacement-Sphere Serial No. 23MM Elasticity 3.0E7 1/psi Pipe Gc 1.86E-5 1/F Certified	Tolerances Tolerance Type: Repeatability Maximum Deviation: 0.050 % Enabled? Y Passed? Y Min # of Runs: 5 Criteria: 5 out of 5 consecutive runs Avg X Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Prev X Factor Count Sought: 1 Prev X Factor Count Used: 0 Cut Off History? N Cutoff Date: Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Proving Mode: Volumetric Density Mode: Manual Calc. Method: Avg. Meter Factor Proving Method: Manual Passes Per Run 1	Liquid Properties at Metering Conditions for CMF Normal Op. Pressure 95.0 psig Eq. Vapor Pressure 0.0 psig CPL 1.0006

Run	TEMPERATURE Tp Tm	PRESSURE Pp Pm	PULSES N	Run Accepted ?	IMF	Flowrate bbl/hr
1	102.7 102.7	95.0 95.0	11899.841	1 Yes	0.99937	8.319
2	104.0 104.0	95.0 95.0	11904.003	2 Yes	0.99905	8.316
3	104.5 104.5	95.0 95.0	11904.817	3 Yes	0.99900	8.319
4	104.8 104.8	95.0 95.0	11902.946	4 Yes	0.99915	8.141
5	104.8 104.8	95.0 95.0	11902.914	5 Yes	0.99915	8.243
Average	104.2 104.2	95.0 95.0	11902.9042		0.99914	8.267

(1) GSVp: $BPV * [CTSp * CPSp * CTLp * CPLp = CCFp]$

BPV	CTSp	CPSp	CTLp	CPLp	CCFp	GSVp
1.18820	1.00082	1.00008	0.97811	1.00058	0.97956	1.16391

(2) ISVm: $[N(avg) + NKF = IVm] * [CTLm * CPLm = CCFm]$

N(avg)	NKF	IVm	CTLm	CPLm	CCFm	ISVm
11902.9042	10000.0000	1.19029	0.97811	1.00058	0.97868	1.16491

(3) Proving Factors:

>>>> (1)	GSVp + ISVm =	0.9991	MF
(2)	MF * CPL =	0.9997	CMF
(3)	1 + MF =	1.0009	MA
(4)	NKF + MF =	10009	KF
(5)	KF + CPL =	10003	CKF

 Repeatability: 0.037 %
 Uncertainty: 0.020 %

Trans. Serial No.	
Flow Calib Factor	
Density Calib Factor	
Frequency Set Point	
Flowrate Set Point	
Zero Verified	Zeroed
As Found	As Left

Technician:

Witness:

PROVE

Federal ID:

att chaco
13-23n-7w

Meter Data		Product Data		Proving Data	
67413121 WPX 173H		Name Crude		<u>Previous</u> <u>Current</u>	
Factor Tracked Composite MF(CMF)		Batch No.		Task ID	1470359981 1473801422
Temp Compensated No		Obs. Gravity 46.6 °API		Date	08/04/2016 09/13/2016
NKF 10000.0000 N/bbl		Obs. Temp 82.0 °F		Time	13:19 9:17
Manufacturer Micro Motion		Obs. Press 0.0 psi		Product	Crude Crude
Size 1.00 in		API Table Table A - Crude Oil (2004)		Flowrate	12 bbl/hr 12 bbl/hr
Serial No.		Base Density 44.6 °API		Totalizer	
Model No.		HYC Y		Throughput	
		Tolerances		Base Density	41.3°API 44.6 °API
		Tolerance Type: Repeatability		Avg Pvr Temp	95.6 78.1
		Maximum Deviation: 0.050 %		Avg Pvr Press	65.0 78.0
		Enabled? Y Passed? Y Min # of Runs: 5		Repeatability	0.040 % 0.031 %
		Criteria: 5 out of 5 consecutive runs		CMF	1.0010 1.0021
		Avg X Prev Meter Factor Deviation:		CMF Variance	0.0080 0.0011
		Enabled? N Passed? Y Prod Dep? N		Liquid Properties at Metering Conditions for CMF	
		Prev X Factor Count Sought: 1		Normal Op. Pressure	69.0 psig
		Prev X Factor Count Used: 0		Eq. Vapor Pressure	0.0 psig
		Cut Off History? N Cutoff Date:		CPL 1.0004	
		Prev Meter Factor Deviation:			
		Enabled? N Passed? Y Prod Dep? N			
		Proving Mode: Volumetric			
		Density Mode: Manual			
		Calc. Method: Avg. Meter Factor			
		Proving Method: Manual			
		Passes Per Run 1			
Prover Data					
BPV 1.18820 bbl					
I.D. 7.981 in					
W.T. 0.322 in					
Manufacturer DOMINION					
Type Displacement-Sphere					
Serial No. 23MM					
Elasticity 3.0E7 1/psi					
Pipe Gc 1.86E-5 1°F					
Certified					

Run	TEMPERATURE		PRESSURE		PULSES	Run Accepted ?	IMF	Flowrate bb/hrs
	Tp	Tm	Pp	Pm	N			
1	77.4	77.4	78.0	80.0	11865.000	1 Yes	1.00179	12.000
2	77.1	77.1	78.0	80.0	11865.000	2 Yes	1.00179	12.000
3	78.5	78.5	78.0	80.0	11869.000	3 Yes	1.00148	12.000
4	79.7	79.7	78.0	80.0	11866.000	4 Yes	1.00177	12.000
5	77.9	77.9	78.0	80.0	11868.000	5 Yes	1.00156	12.000
Average	78.1	78.1	78.0	80.0	11866.8000		1.00168	12.000

(1) GSV_p: BPV * [CTS_p * CPS_p * CTL_p * CPL_p = CCF_p]

<i>BPV</i>	<i>CTSp</i>	<i>CPSp</i>	<i>CTLp</i>	<i>CPLp</i>	<i>CCFp</i>	<i>GSVp</i>
1.18820	1.00034	1.00006	0.99039	1.00049	0.99127	1.17783

(2) ISVm: $[N(\text{avg}) \div NKF = IVm] * [CTLm * CPLm = CCFm]$

<i>N</i> (avg)	<i>NKF</i>	<i>IVm</i>	<i>CTLm</i>	<i>CPLm</i>	<i>CCFm</i>	<i>ISVm</i>
11866.6000	10000.0000	1.18666	0.99039	1.00050	0.99089	1.17585

(3) Proving Factors:

>>>>	(1)	GSVP ÷ ISVM =	1.0017	MF
	(2)	MF * CPL =	1.0021	CMF
	(3)	1 ÷ MF =	0.9983	MA
	(4)	NKF ÷ MF =	9983.0	KF
	(5)	KF ÷ CPL =	9979.0	KCF

Repeatability: 0.031 %
Uncertainty: 0.017 %

Trans. Serial No.	
Flow Calib Factor	
Density Calib Factor	
Frequency Set Point	
Flowrate Set Point	
Zero Verified	Zeroed
As Found	As Left

Technician:

Witness:

PROVE

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09/13/2016 9:19 Page: 1
Revision: 1

Customer: WPX -

Operator:

Location:

Federal ID:

NEC 400# 173 14
30-039-31207
13-23-20-7-20

Meter Data 67413121 WPX 173H Factor Tracked Composite MF(CMF) Temp Compensated No NKF 10000.0000 N/bbl Manufacturer Micro Motion Size 1.00 in Serial No. Model No.	Product Data Name Crude Batch No. Obs. Gravity 41.0 °API Obs. Temp 60.0 °F Obs. Press 0.0 psi API Table Table A - Crude Oil (2004) Base Density 41.0 °API HYC Y	Proving Data Previous Current Task ID 1473801422 1476819712 Date 09/13/2016 10/18/2016 Time 9:17 7:41 Product Crude Crude Flowrate 12 bbl/hr 13 bbl/hr Totalizer Throughput Base Density 44.6°API 41.0 °API Avg Pvr Temp 78.1 81.4 Avg Pvr Press 78.0 74.0 Repeatability 0.031 % 0.047 % CMF 1.0021 1.0011 CMF Variance 0.0011 -0.0010
Prover Data BPV 1.18820 bbl I.D. 7.981 in W.T. 0.322 in Manufacturer DOMINION Type Displacement-Sphere Serial No. 23MM Elasticity 3.0E7 1/psi Pipe Gc 1.86E-5 1/PF Certified	Tolerances Tolerance Type: Repeatability Maximum Deviation: 0.050 % Enabled? Y Passed? Y Min # of Runs: 5 Criteria: 5 out of 5 consecutive runs Avg X Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Prev X Factor Count Sought: 1 Prev X Factor Count Used: 0 Cut Off History? N Cutoff Date: Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Proving Mode: Volumetric Density Mode: Manual Calc. Method: Avg. Meter Factor Proving Method: PIU Passes Per Run 1	Liquid Properties at Metering Conditions for CMF Normal Op. Pressure 70.0 psig Eq. Vapor Pressure 0.0 psig CPL 1.0004

Run	TEMPERATURE		PRESSURE		PULSES	Run Accepted ?		IMF	Flowrate
	Tp	Tm	Pp	Pm	N				bbVhr
1	78.6	78.6	74.0	75.0	11885.722	1	No	1.00008	12.482
2	80.5	80.5	74.0	75.0	11882.431	2	Yes	1.00040	12.499
3	80.7	80.7	74.0	75.0	11880.338	3	Yes	1.00058	12.505
4	80.9	80.9	74.0	75.0	11879.366	4	Yes	1.00065	12.513
5	82.1	82.1	74.0	75.0	11878.244	5	Yes	1.00078	12.495
6	82.8	82.8	74.0	75.0	11877.333	6	Yes	1.00087	12.492
Average	81.4	81.4	74.0	75.0	11879.5424			1.00066	12.601

(1) GSVp: BPV * [CTSp * CPSP * CTLp * CPLp = CCFp]

BPV	CTSp	CPSP	CTLp	CPLp	CCFp	GSVp
1.18820	1.00040	1.00006	0.98909	1.00044	0.98998	1.17629

(2) ISVm: [N(avg) + NKF = IVm] * [CTLm * CPLm = CCFm]

N(avg)	NKF	IVm	CTLm	CPLm	CCFm	ISVm
11879.5424	10000.0000	1.18795	0.98909	1.00045	0.98954	1.17552

(3) Proving Factors:

>>>> (1) GSVp + ISVm = 1.0007 MF
 (2) MF * CPL = 1.0011 CMF
 (3) 1 + MF = 0.9993 MA
 (4) NKF + MF = 9993.0 KF
 (5) KF + CPL = 9989.0 CKF

Repeatability: 0.047 %
 Uncertainty: 0.033 %

Trans. Serial No. Flow Calib Factor Density Calib Factor Frequency Set Point Flowrate Set Point Zero Verified As Found	Zeroed As Left
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Technician:

Witness:

PROVE

Customer: WPX -
Operator:
Location:
Federal ID:

NE CHAU
13-232-72

Meter Data 67413121 WPX 173H Factor Tracked Composite MF(CMF) Temp Compensated No NKF 10000.0000 N/bbl Manufacturer Micro Motion Size 1.00 in Serial No. Model No.	Product Data Name Crude Batch No. Obs. Gravity 44.7 °API Obs. Temp 98.2 °F Obs. Press 0.0 psi API Table Table A - Crude Oil (2004) Base Density 41.3 °API HYC Y	Proving Data <table style="width:100%;"> <tr> <th style="text-align: left;"><u>Previous</u></th> <th style="text-align: left;"><u>Current</u></th> </tr> <tr> <td>Task ID 1469226220</td> <td>1470369981</td> </tr> <tr> <td>Data 07/22/2016</td> <td>08/04/2016</td> </tr> <tr> <td>Time 10:23</td> <td>13:19</td> </tr> <tr> <td>Product Crude</td> <td>Crude</td> </tr> <tr> <td>Flowrate 13 bbl/hr</td> <td>12 bbl/hr</td> </tr> <tr> <td>Totalizer</td> <td></td> </tr> <tr> <td>Throughput</td> <td></td> </tr> <tr> <td>Base Density 41.8°API</td> <td>41.3 °API</td> </tr> <tr> <td>Avg Pvr Temp 81.7</td> <td>95.6</td> </tr> <tr> <td>Avg Pvr Press 65.0</td> <td>65.0</td> </tr> <tr> <td>Repeatability 0.017 %</td> <td>0.040 %</td> </tr> <tr> <td>CMF 0.9930</td> <td>1.0010</td> </tr> <tr> <td>CMF Variance -0.0040</td> <td>0.0080</td> </tr> </table>	<u>Previous</u>	<u>Current</u>	Task ID 1469226220	1470369981	Data 07/22/2016	08/04/2016	Time 10:23	13:19	Product Crude	Crude	Flowrate 13 bbl/hr	12 bbl/hr	Totalizer		Throughput		Base Density 41.8°API	41.3 °API	Avg Pvr Temp 81.7	95.6	Avg Pvr Press 65.0	65.0	Repeatability 0.017 %	0.040 %	CMF 0.9930	1.0010	CMF Variance -0.0040	0.0080
<u>Previous</u>	<u>Current</u>																													
Task ID 1469226220	1470369981																													
Data 07/22/2016	08/04/2016																													
Time 10:23	13:19																													
Product Crude	Crude																													
Flowrate 13 bbl/hr	12 bbl/hr																													
Totalizer																														
Throughput																														
Base Density 41.8°API	41.3 °API																													
Avg Pvr Temp 81.7	95.6																													
Avg Pvr Press 65.0	65.0																													
Repeatability 0.017 %	0.040 %																													
CMF 0.9930	1.0010																													
CMF Variance -0.0040	0.0080																													
Prover Data BPV 1.18820 bbl I.D. 7.981 in W.T. 0.322 in Manufacturer DOMINION Type Displacement-Sphere Serial No. 23MM Elasticity 3.0E7 1/psi Pipe Gc 1.86E-5 1°F Certified	Tolerances Tolerance Type: Repeatability Maximum Deviation: 0.050 % Enabled? Y Passed? Y Min # of Runs: 5 Criteria: 5 out of 5 consecutive runs Avg X Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Prev X Factor Count Sought: 1 Prev X Factor Count Used: 0 Cut Off History? N Cutoff Date: Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Proving Mode: Volumetric Density Mode: Manual Calc. Method: Avg. Meter Factor Proving Method: PIU Passes Per Run 1	Liquid Properties at Metering Conditions for CMF Normal Op. Pressure 62.0 psig Eq. Vapor Pressure 0.0 psig CPL 1.0004																												

Run	TEMPERATURE Tp Tm	PRESSURE Pp Pm	PULSES N	Run Accepted ?	IMF	Flowrate bbl/hr
1	92.6 92.6	65.0 68.0	11888.244	1 No	1.00012	12.483
2	94.8 94.8	65.0 68.0	11884.707	2 Yes	1.00045	12.476
3	95.1 95.1	65.0 68.0	11883.034	3 Yes	1.00060	12.511
4	95.7 95.7	65.0 68.0	11884.365	4 Yes	1.00049	12.508
5	96.0 96.0	65.0 68.0	11880.325	5 Yes	1.00085	12.468
6	96.4 96.4	65.0 68.0	11880.671	6 Yes	1.00082	12.512
Average	95.6 95.6	65.0 68.0	11882.6204		1.00064	12.495

(1) GSVp: BPV * [CTSp * CPSP * CTLp * CPLp = CCFp]

BPV	CTSp	CPSP	CTLp	CPLp	CCFp	GSVp
1.18820	1.00066	1.00005	0.98176	1.00041	0.98286	1.16783

(2) ISVm: [N(avg) ÷ NKF = IVm] * [CTLm * CPLm = CCFm]

N(avg)	NKF	IVm	CTLm	CPLm	CCFm	ISVm
11882.6204	10000.0000	1.18826	0.98176	1.00043	0.98218	1.16709

(3) Proving Factors:

>>>> (1) GSVp ÷ ISVm = 1.0006 MF
 (2) MF * CPL = 1.0010 CMF
 (3) 1 ÷ MF = 0.9994 MA
 (4) NKF ÷ MF = 9994.0 KF
 (5) KF ÷ CPL = 9990.0 CKF

Repeatability: 0.040 %
 Uncertainty: 0.030 %

Trans. Serial No. Flow Calib Factor Density Calib Factor Frequency Set Point Flowrate Set Point Zero Verified As Found	Zeroed As Left
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Technician:

Witness:

PROVE

NE CHACE
- 13-23N-7W

Trans. Serial No.	
Flow Calib Factor	
Density Calib Factor	
Frequency Set Point	
Flowrate Set Point	
Zero Verified	Zeroed
As Found	As Left

Witness:

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Revision: 2

Customer: WPX -

Operator:

Location:

Federal ID:

130-230-70

Meter Data	Product Data	Proving Data																												
67412980 WPX 184H Factor Tracked Composite MF(CMF) Temp Compensated No NKF 10000.0000 N/bbl Manufacturer Micro Motion Size 1.00 in Serial No. 14518624 Model No.	Name Crude Batch No. Obs. Gravity 44.2 °API Obs. Temp 90.0 °F Obs. Press 0.0 psi API Table Table A - Crude Oil (2004) Base Density 41.6 °API HYC Y	<table border="1"> <thead> <tr> <th>Previous</th> <th>Current</th> </tr> </thead> <tbody> <tr> <td>Task ID 1471467575</td> <td>1473976326</td> </tr> <tr> <td>Date 08/17/2016</td> <td>09/15/2016</td> </tr> <tr> <td>Time 8:59</td> <td>9:52</td> </tr> <tr> <td>Product Crude</td> <td>Crude</td> </tr> <tr> <td>Flowrate 19 bbl/hr</td> <td>18 bbl/hr</td> </tr> <tr> <td>Totalizer</td> <td></td> </tr> <tr> <td>Throughput</td> <td></td> </tr> <tr> <td>Base Density 39.6°API</td> <td>41.6 °API</td> </tr> <tr> <td>Avg Prvr Temp 98.1</td> <td>101.9</td> </tr> <tr> <td>Avg Prvr Press 182.0</td> <td>196.0</td> </tr> <tr> <td>Repeatability 0.029 %</td> <td>0.030 %</td> </tr> <tr> <td>CMF 1.0010</td> <td>1.0007</td> </tr> <tr> <td>CMF Variance 0.0004</td> <td>-0.0003</td> </tr> </tbody> </table>	Previous	Current	Task ID 1471467575	1473976326	Date 08/17/2016	09/15/2016	Time 8:59	9:52	Product Crude	Crude	Flowrate 19 bbl/hr	18 bbl/hr	Totalizer		Throughput		Base Density 39.6°API	41.6 °API	Avg Prvr Temp 98.1	101.9	Avg Prvr Press 182.0	196.0	Repeatability 0.029 %	0.030 %	CMF 1.0010	1.0007	CMF Variance 0.0004	-0.0003
Previous	Current																													
Task ID 1471467575	1473976326																													
Date 08/17/2016	09/15/2016																													
Time 8:59	9:52																													
Product Crude	Crude																													
Flowrate 19 bbl/hr	18 bbl/hr																													
Totalizer																														
Throughput																														
Base Density 39.6°API	41.6 °API																													
Avg Prvr Temp 98.1	101.9																													
Avg Prvr Press 182.0	196.0																													
Repeatability 0.029 %	0.030 %																													
CMF 1.0010	1.0007																													
CMF Variance 0.0004	-0.0003																													
Prover Data BPV 1.18820 bbl I.D. 7.981 in W.T. 0.322 in Manufacturer DOMINION Type Displacement-Sphere Serial No. 23MM Elasticity 3.0E7 1/psi Pipe Gc 1.86E-5 1°F Certified	Tolerances Tolerance Type: Repeatability Maximum Deviation: 0.050 % Enabled? Y Passed? Y Min # of Runs: 5 Criteria: 5 out of 5 consecutive runs Avg X Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Prev X Factor Count Sought: 1 Prev X Factor Count Used: 0 Cut Off History? N Cutoff Date: Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Proving Mode: Volumetric Density Mode: Manual Calc. Method: Avg. Meter Factor Proving Method: Manual Passes Per Run 1	Liquid Properties at Metering Conditions for CMF Normal Op. Pressure 153.0 psig Eq. Vapor Pressure 0.0 psig CPL 1.0010																												

Run	TEMPERATURE Tp Tm	PRESSURE Pp Pm	PULSES N	Run Accepted ?	IMF	Flowrate bbl/hr
1	100.3 100.3	196.0 197.0	11896.000	1 Yes	0.99973	18.000
2	99.5 99.5	196.0 197.0	11897.000	2 Yes	0.99962	18.000
3	102.2 102.2	196.0 197.0	11894.000	3 Yes	0.99992	18.000
4	103.4 103.4	196.0 197.0	11898.000	4 Yes	0.99962	18.000
5	103.9 103.9	196.0 197.0	11898.000	5 Yes	0.99962	18.000
Average	101.9 101.9	196.0 197.0	11896.6000		0.99970	18.000

(1) GSVp: $BPV * [CTSp * CPSp * CTLp * CPLp = CCFp]$

BPV	CTSp	CPSp	CTLp	CPLp	CCFp	GSVp
1.18820	1.00078	1.00016	0.97843	1.00127	0.98059	1.16514

(2) ISVm: $[N(avg) \div NKF = IVm] * [CTLm * CPLm = CCFm]$

N(avg)	NKF	IVm	CTLm	CPLm	CCFm	ISVm
11896.6000	10000.0000	1.18966	0.97843	1.00128	0.97968	1.16549

(3) Proving Factors:

>>>> (1) GSVp ÷ ISVm = 0.9997 MF

(2) MF * CPL = 1.0007 CMF

(3) 1 ÷ MF = 1.0003 MA

(4) NKF ÷ MF = 10003 KF

(5) KF ÷ CPL = 9993.0 CKF

Trans. Serial No.	
Flow Calib Factor	
Density Calib Factor	
Frequency Set Point	
Flowrate Set Point	
Zero Verified	Zeroed
As Found	As Left

Repeatability: 0.030 %

Uncertainty: 0.016 %

Technician:

Witness:

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Revision: 1

NECHAL
13-23A-7W 30-039.31229

Customer: WPX -

Operator:

Location:

Federal ID:

ABC 11210
1223076

Meter Data		Product Data		Proving Data	
67413247 WPX 171H		Name Crude		<u>Previous</u> <u>Current</u>	
Factor Tracked Composite MF(CMF)		Batch No.		Task ID	1468963993 1472241166
Temp Compensated No		Obs. Gravity 43.1 °API		Date	07/19/2016 08/26/2016
NKF 10000.0000 N/bbl		Obs. Temp 85.0 °F		Time	9:33 7:52
Manufacturer Micro Motion		Obs. Press 0.0 psi		Product	Crude Crude
Size 1.00 In		API Table Table A - Crude Oil (2004)		Flowrate	42 bbl/hr 8 bbl/hr
Serial No.		Base Density 40.9 °API HYC Y		Totalizer	
Model No. CMF100M				Throughput	
Prover Data		Tolerances		Base Density 40.7°API 40.9 °API	
BPV 1.18820 bbl		Tolerance Type: Repeatability		Avg Prvr Temp	97.5 80.9
I.D. 7.981 in		Maximum Deviation: 0.050 %		Avg Prvr Press	97.0 74.0
W.T. 0.322 in		Enabled? Y Passed? Y Min # of Runs: 5		Repeatability	0.010 % 0.043 %
Manufacturer DOMINION		Criteria: 5 out of 5 consecutive runs		CMF	0.9971 1.0008
Type Displacement-Sphere		Avg X Prev Meter Factor Deviation:		CMF Variance	0.0066 0.0037
Serial No. 23MM		Enabled? N Passed? Y Prod Dep? N		Liquid Properties at Metering	
Elasticity 3.0E7 1/psi		Prev X Factor Count Sought: 1		Conditions for CMF	
Pipe Gc 1.86E-5 1/°F		Prev X Factor Count Used: 0		Normal Op. Pressure 70.0 psig	
Certified		Cut Off History? N Cutoff Date:		Eq. Vapor Pressure 0.0 psig	
		Prev Meter Factor Deviation:		CPL 1.0004	
		Enabled? N Passed? Y Prod Dep? N			
		Proving Mode: Volumetric			
		Density Mode: Manual			
		Calc. Method: Avg. Meter Factor			
		Proving Method: Manual			
		Passes Per Run 1			

Run	TEMPERATURE		PRESSURE		PULSES	Run Accepted ?		IMF	Flowrate
	Tp	Tm	Pp	Pm	N				bbl/hr
1	79.0	79.0	74.0	74.0	11879.233	1	Yes	1.00064	8.335
2	81.2	81.2	74.0	74.0	11884.012	2	Yes	1.00027	8.316
3	81.4	81.4	74.0	74.0	11881.345	3	Yes	1.00052	8.317
4	81.4	81.4	74.0	74.0	11884.935	4	Yes	1.00021	8.294
5	81.7	81.7	74.0	74.0	11883.564	5	Yes	1.00032	8.156
Average	80.9	80.9	74.0	74.0	11882.6178			1.00039	8.284

(1) GSVp: $BPV * [CTSp * CPSp * CTLp * CPLp = CCFp]$

BPV	CTSp	CPSp	CTLp	CPLp	CCFp	GSVp
1.18820	1.00039	1.00006	0.98936	1.00044	0.99024	1.17660

(2) ISVm: $[N(avg) \div NKF = IVm] * [CTLm * CPLm = CCFm]$

N(avg)	NKF	IVm	CTLm	CPLm	CCFm	ISVm
11882.6178	10000.0000	1.18826	0.98936	1.00044	0.98980	1.17614

(3) Proving Factors:

Trans. Serial No.	MF	1.0004	MF
Flow Calib Factor	CMF	1.0008	CMF
Density Calib Factor	MA	0.9996	MA
Frequency Set Point	KF	9996.0	KF
Flowrate Set Point	CKF	9992.0	CKF
Zero Verified			Zeroed
As Found			As Left

Repeatability: 0.043 %
Uncertainty: 0.023 %

Technician:

Witness:

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Revision: 2

Customer: WPX -

Operator:

Location:

Federal ID:

12256
305039-151217
25646

Meter Data	Product Data	Proving Data
67413247 WPX 171H	Name Crude	<u>Previous</u> <u>Current</u>
Factor Tracked Composite MF(CMF)	Batch No.	Task ID 1473983269 1476519361
Temp Compensated No	Obs. Gravity 42.6 °API	Date 09/15/2016 10/14/2016
NKF 10000.0000 N/bbl	Obs. Temp 84.0 °F	Time 11:47 20:16
Manufacturer Micro Motion	Obs. Press 0.0 psi	Product Crude Crude
Size 1.00 in	API Table Table A - Crude Oil (2004)	Flowrate 12 bbl/hr 41 bbl/hr
Serial No.	Base Density 40.5 °API HYC Y	Totalizer
Model No. CMF100M		Throughput
	Tolerances	Base Density 40.6 °API 40.5 °API
	Tolerance Type: Repeatability	
	Maximum Deviation: 0.050 %	Avg Prvr Temp 89.6 83.6
	Enabled? Y Passed? Y Min # of Runs: 5	Avg Prvr Press 68.0 52.0
	Criteria: 5 out of 5 consecutive runs	Repeatability 0.025 % 0.042 %
	Avg X Prev Meter Factor Deviation:	CMF 1.0016 1.0003
	Enabled? N Passed? Y Prod Dep? N	CMF Variance -0.0001 -0.0013
	Prev X Factor Count Sought: 1	
	Prev X Factor Count Used: 0	
	Cut Off History? N Cutoff Date:	
	Prev Meter Factor Deviation:	
	Enabled? N Passed? Y Prod Dep? N	
	Proving Mode: Volumetric	
	Density Mode: Manual	
	Calc. Method: Avg. Meter Factor	
	Proving Method: Manual	
	Passes Per Run 1	
		Liquid Properties at Metering Conditions for CMF
		Normal Op. Pressure 39.0 psig
		Eq. Vapor Pressure 0.0 psig
		CPL 1.0002

Run	TEMPERATURE		PRESSURE		PULSES	Run Accepted ?		IMF	Flowrate
	Tp	Tm	Pp	Pm	N				bbl/hr
1	82.5	82.5	52.0	56.0	11883.000	1	Yes	1.00035	41.000
2	82.6	82.6	52.0	56.0	11888.000	2	Yes	0.99993	41.000
3	83.9	83.9	52.0	56.0	11885.000	3	Yes	1.00020	41.000
4	84.3	84.3	52.0	56.0	11887.000	4	Yes	1.00004	41.000
5	84.5	84.5	52.0	56.0	11886.000	5	Yes	1.00014	41.000
Average	83.6	83.6	52.0	56.0	11885.8000			1.00013	41.000

(1) GSVp: BPV * [CTSp * CPSp * CTLp * CPLp = CCFp]

BPV	CTSp	CPSp	CTLp	CPLp	CCFp	GSVp
1.18820	1.00044	1.00004	0.98804	1.00031	0.98882	1.17492

(2) ISVm: [N(avg) ÷ NKF = IVm] * [CTLm * CPLm = CCFm]

N(avg)	NKF	IVm	CTLm	CPLm	CCFm	ISVm
11885.8000	10000.0000	1.18858	0.98804	1.00033	0.98837	1.17476

(3) Proving Factors:

>>>> (1) GSVp ÷ ISVm = 1.0001 MF
 (2) MF * CPL = 1.0003 CMF
 (3) 1 ÷ MF = 0.9999 MA
 (4) NKF ÷ MF = 9999.0 KF
 (5) KF ÷ CPL = 9997.0 CKF

Repeatability: 0.042 %
 Uncertainty: 0.022 %

Trans. Serial No.	
Flow Calib Factor	
Density Calib Factor	
Frequency Set Point	
Flowrate Set Point	
Zero Verified	Zeroed
As Found	As Left

Technician:

Witness:

PROVE

Customer: WPX -

Operator:

Location:

Federal ID:

12234-76

Meter Data	Product Data	Proving Data
67413247 WPX 171H Factor Tracked Composite MF(CMF) Temp Compensated No NKF 10000.0000 N/bbl Manufacturer Micro Motion Size 1.00 in Serial No. Model No. CMF100M	Name Crude Batch No. Obs. Gravity 43.4 °API Obs. Temp 92.0 °F Obs. Press 0.0 psi API Table Table A - Crude Oil (2004) Base Density 40.6 °API HYC Y	Previous Current Task ID 1473983123 1473983269 Date 09/16/2016 09/16/2016 Time 11:45 11:47 Product Crude Crude Flowrate 41 bbl/hr 12 bbl/hr Totalizer Throughput Base Density 40.6 °API 40.6 °API Avg Pvr Temp 89.8 89.6 Avg Pvr Press 102.0 68.0 Repeatability 0.033 % 0.025 % CMF 1.0017 1.0016 CMF Variance 0.0007 -0.0001
Prover Data BPV 1.18820 bbl I.D. 7.981 in W.T. 0.322 in Manufacturer DOMINION Type Displacement-Sphere Serial No. 23MM Elasticity 3.0E7 1/psi Pipe Gc 1.86E-5 1°F Certified	Tolerances Tolerance Type: Repeatability Maximum Deviation: 0.050 % Enabled? Y Passed? Y Min # of Runs: 5 Criteria: 5 out of 5 consecutive runs Avg X Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Prev X Factor Count Sought: 1 Prev X Factor Count Used: 0 Cut Off History? N Cutoff Date: Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Proving Mode: Volumetric Density Mode: Manual Calc. Method: Avg. Meter Factor Proving Method: Manual Passes Per Run 1	Liquid Properties at Metering Conditions for CMF Normal Op. Pressure 60.0 psig Eq. Vapor Pressure 0.0 psig CPL 1.0004

Run	TEMPERATURE		PRESSURE		PULSES	Run Accepted ?		IMF	Flowrate
	Tp	Tm	Pp	Pm	N				bb/hr
1	91.0	91.0	68.0	74.0	11874.000	1	Yes	1.00128	12.000
2	91.1	91.1	68.0	74.0	11877.000	2	Yes	1.00103	12.000
3	87.0	87.0	68.0	74.0	11874.000	3	Yes	1.00120	12.000
4	89.0	89.0	68.0	74.0	11874.000	4	Yes	1.00125	12.000
5	90.1	90.1	68.0	74.0	11874.000	5	Yes	1.00125	12.000
Average	89.6	89.6	68.0	74.0	11874.6000			1.00120	12.000

(1) GSVp: BPV * [CTSp * CPSP * CTLp * CPLp = CCFp]

BPV	CTSp	CPSP	CTLp	CPLp	CCFp	GSVp
1.18820	1.00055	1.00006	0.98497	1.00041	0.98597	1.17153

(2) ISVm: [N(avg) ÷ NKF = IVm] * [CTLm * CPLm = CCFm]

N(avg)	NKF	IVm	CTLm	CPLm	CCFm	ISVm
11874.6000	10000.0000	1.18746	0.98497	1.00045	0.98541	1.17013

(3) Proving Factors:

>>>> (1) GSVp ÷ ISVm = 1.0012 MF
 (2) MF * CPL = 1.0016 CMF
 (3) 1 ÷ MF = 0.9988 MA
 (4) NKF ÷ MF = 9988.0 KF
 (5) KF ÷ CPL = 9984.0 CKF

Repeatability: 0.025 %
 Uncertainty: 0.013 %

Trans. Serial No.	
Flow Calib Factor	
Density Calib Factor	
Frequency Set Point	
Flowrate Set Point	
Zero Verified	Zeroed
As Found	As Left

Technician:

Witness:

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 Revision: 1

Customer: WPX -

Operator:

Location:

Federal ID: SHL SEC.35 T24N R7W NMPM

30-035 31312
MC-6 com #160H; 35 --- 42 R7W

Meter Data		Product Data		Proving Data	
67440546 WPX 160H		Name Crude		<u>Previous</u> <u>Current</u>	
Factor Tracked Composite MF(CMF)		Batch No.		Task ID	1469067215 1472166026
Temp Compensated No		Obs. Gravity 41.3 °API		Date	07/20/2016 08/25/2016
NKF 10000.0000 N/bbl		Obs. Temp 76.7 °F		Time	14:13 11:00
Manufacturer Micro Motion		Obs. Press 0.0 psi		Product	Crude Crude
Size 2.00 in		API Table Table A - Crude Oil (2004)		Flowrate	41 bbl/hr 13 bbl/hr
Serial No. 14504524		Base Density 39.9 °API HYC Y		Totalizer	
Model No.				Throughput	
Prover Data		Tolerances		Base Density 39.7°API 39.9 °API	
BPV 1.18820 bbl		Tolerance Type: Repeatability		Avg Pvr Temp	91.0 77.8
I.D. 7.981 in		Maximum Deviation: 0.050 %		Avg Pvr Press	33.0 44.0
W.T. 0.322 in		Enabled? Y Passed? Y Min # of Runs: 5		Repeatability	0.017 % 0.008 %
Manufacturer DOMINION		Criteria: 5 out of 5 consecutive runs		CMF	1.0012 1.0022
Type Displacement-Sphere		Avg X Prev Meter Factor Deviation:		CMF Variance	-0.0003 0.0010
Serial No. 23MM		Enabled? N Passed? Y Prod Dep? N			
Elasticity 3.0E7 1/psi		Prev X Factor Count Sought: 1			
Pipe Gc 1.86E-5 1/°F		Prev X Factor Count Used: 0			
Certified		Cut Off History? N Cutoff Date:			
		Prev Meter Factor Deviation:			
		Enabled? N Passed? Y Prod Dep? N			
		Proving Mode: Volumetric			
		Density Mode: Manual			
		Calc. Method: Avg. Meter Factor			
		Proving Method: PIU			
		Passes Per Run 1			
				Liquid Properties at Metering Conditions for CMF	
				Normal Op. Pressure 44.0 psig	
				Eq. Vapor Pressure 0.0 psig	
				CPL 1.0003	

Run	TEMPERATURE Tp Tm	PRESSURE Pp Pm	PULSES N	Run Accepted ?	IMF	Flowrate bbl/hr
1	79.5 79.5	44.0 44.0	11863.977	1 Yes	1.00191	12.490
2	77.8 77.8	44.0 44.0	11864.207	2 Yes	1.00186	12.523
3	77.2 77.2	44.0 44.0	11864.411	3 Yes	1.00184	12.498
4	77.1 77.1	44.0 44.0	11864.513	4 Yes	1.00183	12.546
5	77.2 77.2	44.0 44.0	11864.313	5 Yes	1.00184	12.582
Average	77.8 77.8	44.0 44.0	11864.2842		1.00186	12.528

(1) GSVp: BPV * [CTSp * CPSp * CTLp * CPLp = CCFp]

BPV	CTSp	CPSp	CTLp	CPLp	CCFp	GSVp
1.18820	1.00033	1.00004	0.99105	1.00025	0.99166	1.17829

(2) ISVm: [N(avg) ÷ NKF = IVm] * [CTLm * CPLm = CCFm]

N(avg)	NKF	IVm	CTLm	CPLm	CCFm	ISVm
11864.2842	10000.0000	1.18643	0.99105	1.00025	0.99130	1.17611

(3) Proving Factors:

>>>> (1) GSVp ÷ ISVm = 1.0019 MF
 (2) MF * CPL = 1.0022 CMF
 (3) 1 ÷ MF = 0.9981 MA
 (4) NKF ÷ MF = 9981.0 KF
 (5) KF ÷ CPL = 9978.0 CKF

Repeatability: 0.008 %
 Uncertainty: 0.004 %

Trans. Serial No.	
Flow Calib Factor	
Density Calib Factor	
Frequency Set Point	
Flowrate Set Point	
Zero Verified	Zeroed
As Found	As Left

Technician:

Witness:

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 Revision: 2

Federal ID:

NECHA CO

12-23N-7W

Meter Data	Product Data	Proving Data	
67413185 WPX 168H	Name Crude	<u>Previous</u>	<u>Current</u>
Factor Tracked Composite MF(CMF)	Batch No.	Task ID 1468962940	1472173337
Temp Compensated No	Obs. Gravity 38.5 °API	Date 07/19/2016	08/26/2016
NKF 10000.0000 N/bbl	Obs. Temp 78.1 °F	Time 9:15	13:02
Manufacturer Micro Motion	Obs. Press 0.0 psi	Product Crude	Crude
Size 1.00 In	API Table Table A - Crude Oil (2004)	Flowrate 42 bbl/hr	8 bbl/hr
Serial No.	Base Density 37.0 °API HYC Y	Totalizer	
Model No.		Throughput	
	Tolerances	Base Density 39.1°API	37.0 °API
	Tolerance Type: Repeatability	Avg Prvr Temp 97.8	82.9
	Maximum Deviation: 0.050 %	Avg Prvr Press 89.0	61.0
	Enabled? Y Passed? Y Min # of Runs: 5	Repeatability 0.005 %	0.039 %
	Criteria: 5 out of 5 consecutive runs	CMF 0.9961	1.0019
	Avg X Prev Meter Factor Deviation:	CMF Variance 0.0045	0.0058
	Enabled? N Passed? Y Prod Dep? N		
	Prev X Factor Count Sought: 1		
	Prev X Factor Count Used: 0		
	Cut Off History? N Cutoff Date:		
	Prev Meter Factor Deviation:		
	Enabled? N Passed? Y Prod Dep? N		
	Proving Mode: Volumetric		
	Density Mode: Manual		
	Calc. Method: Avg. Meter Factor		
	Proving Method: Manual		
	Passes Per Run 1		
		Liquid Properties at Metering Conditions for CMF	
		Normal Op. Pressure 44.0 psig	
		Eq. Vapor Pressure psig	
		CPL 1.0002	
Prover Data			
BPV 1.18820 bbl			
I.D. 7.981 in			
W.T. 0.322 in			
Manufacturer DOMINION			
Type Displacement-Sphere			
Serial No. 23MM			
Elasticity 3.0E7 1/psi			
Pipe Gc 1.86E-6 1°F			
Certified			

Run	TEMPERATURE		PRESSURE		PULSES	Run Accepted ?	IMF	Flowrate bb/Vhr
	Tp	Tm	Pp	Pm	N			
1	82.6	82.6	61.0	52.0	11867.163	1 Yes	1.00176	8.352
2	83.0	83.0	61.0	52.0	11865.560	2 Yes	1.00191	8.324
3	83.0	83.0	61.0	52.0	11870.202	3 Yes	1.00152	8.336
4	82.9	82.9	61.0	52.0	11868.550	4 Yes	1.00166	8.390
5	82.9	82.9	61.0	52.0	11867.822	5 Yes	1.00173	8.350
Average	82.9	82.9	61.0	52.0	11867.8594		1.00172	8.350

(1) GSV_p: BPV * [CTS_p * CPS_p * CTL_p * CPL_p = CCF_p]

<i>BPV</i>	<i>CTSp</i>	<i>CPSp</i>	<i>CTLp</i>	<i>CPLp</i>	<i>CCFp</i>	<i>GSVp</i>
1.18820	1.00043	1.00005	0.98886	1.00034	0.98967	1.17593

(2) ISVm: $[N(\text{avg}) \div \text{NKF} = \text{IVm}] * [\text{CTLm} * \text{CPLm} = \text{CCFm}]$

<i>N</i> (avg)	<i>NKF</i>	<i>IVm</i>	<i>CTLm</i>	<i>CPLm</i>	<i>CCFm</i>	<i>ISVm</i>
11867.8594	10000.0000	1.18679	0.98886	1.00029	0.98915	1.17391

(3) Proving Factors:

>>>>	(1)	GSVp ÷ ISVm =	1.0017	MF
	(2)	MF * CPL =	1.0019	CMF
	(3)	1 ÷ MF =	0.9983	MA
	(4)	NKF ÷ MF =	9983.0	KF
	(5)	KF ÷ CPL =	9981.0	CKF

Repeatability: 0.039 %
Uncertainty: 0.021 %

Trans. Serial No.	
Flow Calib Factor	
Density Calib Factor	
Frequency Set Point	
Flowrate Set Point	
Zero Verified	Zeroed
As Found	As Left

Technician:

Witness:

PROVE

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PROVEit PROVEit 8.7.0.0

08/26/2016 7:48 Page: 1
Revision: 1

Customer: WPX -
Operator:
Location:
Federal ID:

NECHAL
1223276

Meter Data 67413185 WPX 168H Factor Tracked Composite MF(CMF) Temp Compensated No NKF 10000.0000 N/bbl Manufacturer Micro Motion Size 1.00 in Serial No. Model No.	Product Data Name Crude Batch No. Obs. Gravity 41.2 °API Obs. Temp 76.5 °F Obs. Press 0.0 psi API Table Table A - Crude Oil (2004) Base Density 39.8 °API HYC Y	Proving Data <table style="width:100%;"> <tr> <th style="text-align: left;"><u>Previous</u></th> <th style="text-align: left;"><u>Current</u></th> </tr> <tr> <td>Task ID 1474575079</td> <td>1474576370</td> </tr> <tr> <td>Date 09/22/2016</td> <td>09/22/2016</td> </tr> <tr> <td>Time 8:11</td> <td>8:32</td> </tr> <tr> <td>Product Crude</td> <td>Crude</td> </tr> <tr> <td>Flowrate 42 bbl/hr</td> <td>13 bbl/hr</td> </tr> <tr> <td>Totalizer</td> <td></td> </tr> <tr> <td>Throughput</td> <td></td> </tr> <tr> <td>Base Density 39.8°API</td> <td>39.8 °API</td> </tr> <tr> <td>Avg Prvr Temp 75.2</td> <td>76.8</td> </tr> <tr> <td>Avg Prvr Press 92.0</td> <td>63.0</td> </tr> <tr> <td>Repeatability 0.025 %</td> <td>0.036 %</td> </tr> <tr> <td>CMF 1.0015</td> <td>1.0016</td> </tr> <tr> <td>CMF Variance 0.0000</td> <td>0.0001</td> </tr> </table>	<u>Previous</u>	<u>Current</u>	Task ID 1474575079	1474576370	Date 09/22/2016	09/22/2016	Time 8:11	8:32	Product Crude	Crude	Flowrate 42 bbl/hr	13 bbl/hr	Totalizer		Throughput		Base Density 39.8°API	39.8 °API	Avg Prvr Temp 75.2	76.8	Avg Prvr Press 92.0	63.0	Repeatability 0.025 %	0.036 %	CMF 1.0015	1.0016	CMF Variance 0.0000	0.0001
<u>Previous</u>	<u>Current</u>																													
Task ID 1474575079	1474576370																													
Date 09/22/2016	09/22/2016																													
Time 8:11	8:32																													
Product Crude	Crude																													
Flowrate 42 bbl/hr	13 bbl/hr																													
Totalizer																														
Throughput																														
Base Density 39.8°API	39.8 °API																													
Avg Prvr Temp 75.2	76.8																													
Avg Prvr Press 92.0	63.0																													
Repeatability 0.025 %	0.036 %																													
CMF 1.0015	1.0016																													
CMF Variance 0.0000	0.0001																													
Prover Data BPV 1.18820 bbl I.D. 7.981 in W.T. 0.322 in Manufacturer DOMINION Type Displacement-Sphere Serial No. 23MM Elasticity 3.0E7 1/psi Pipe Gc 1.86E-5 1/PF Certified	Tolerances Tolerance Type: Repeatability Maximum Deviation: 0.050 % Enabled? Y Passed? Y Min # of Runs: 5 Criteria: 5 out of 5 consecutive runs Avg X Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Prev X Factor Count Sought: 1 Prev X Factor Count Used: 0 Cut Off History? N Cutoff Date: Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Proving Mode: Volumetric Density Mode: Manual Calc. Method: Avg. Meter Factor Proving Method: PIU Passes Per Run 1	Liquid Properties at Metering Conditions for CMF Normal Op. Pressure 57.0 psig Eq. Vapor Pressure 0.0 psig CPL 1.0003																												

Run	TEMPERATURE		PRESSURE		PULSES	Run Accepted ?		IMF	Flowrate
	Tp	Tm	Pp	Pm	N				bbl/hr
1	75.7	75.7	63.0	63.0	11873.209	1	Yes	1.00108	12.523
2	76.3	76.3	63.0	63.0	11869.010	2	Yes	1.00144	12.525
3	77.1	77.1	63.0	63.0	11872.614	3	Yes	1.00115	12.518
4	77.2	77.2	63.0	63.0	11869.669	4	Yes	1.00140	12.501
5	77.5	77.5	63.0	63.0	11869.915	5	Yes	1.00139	12.503
Average	76.8	76.8	63.0	63.0	11870.8834			1.00129	12.514

(1) GSVp: BPV * [CTSp * CPSP * CTLp * CPLp = CCFp]

BPV	CTSp	CPSP	CTLp	CPLp	CCFp	GSVp
1.18820	1.00031	1.00005	0.99156	1.00036	0.99227	1.17902

(2) ISVm: [N(avg) ÷ NKF = IVm] * [CTLm * CPLm = CCFm]

N(avg)	NKF	IVm	CTLm	CPLm	CCFm	ISVm
11870.8834	10000.0000	1.18709	0.99156	1.00036	0.99192	1.17750

(3) Proving Factors:

>>>> (1) GSVp ÷ ISVm = 1.0013 MF
 (2) MF * CPL = 1.0016 CMF
 (3) 1 ÷ MF = 0.9987 MA
 (4) NKF ÷ MF = 9987.0 KF
 (5) KF ÷ CPL = 9984.0 CKF

Repeatability: 0.036 %
 Uncertainty: 0.019 %

Trans. Serial No.	
Flow Calib Factor	
Density Calib Factor	
Frequency Set Point	
Flowrate Set Point	
Zero Verified	Zeroed
As Found	As Left

Technician:

Witness:

PROVE

Customer: WPX -
Operator:
Location:
Federal ID:

12-232-7W

Meter Data 67413185 WPX 168H Factor Tracked Composite MF(CMF) Temp Compensated No NKF 10000.0000 N/bbl Manufacturer Micro Motion Size 1.00 in Serial No. Model No.	Product Data Name Crude Batch No. Obs. Gravity 40.8 °API Obs. Temp 72.0 °F Obs. Press 0.0 psi API Table Table A - Crude Oil (2004) Base Density 39.8 °API HYC Y	Proving Data <u>Previous</u> <u>Current</u> Task ID 1476930131 1476930277 Date 10/19/2016 10/19/2016 Time 14:22 14:24 Product Crude Crude Flowrate 41 bbl/hr 12 bbl/hr Totalizer Throughput Base Density 39.8 °API 39.8 °API Avg Prvr Temp 71.5 71.7 Avg Prvr Press 60.0 54.0 Repeatability 0.045 % 0.042 % CMF 1.0013 1.0023 CMF Variance -0.0003 0.0010
Prover Data BPV 1.18820 bbl I.D. 7.981 in W.T. 0.322 in Manufacturer DOMINION Type Displacement-Sphere Serial No. 23MM Elasticity 3.0E7 1/psi Pipe Gc 1.86E-5 1°F Certified	Tolerances Tolerance Type: Repeatability Maximum Deviation: 0.050 % Enabled? Y Passed? Y Min # of Runs: 5 Criteria: 5 out of 5 consecutive runs Avg X Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Prev X Factor Count Sought: 1 Prev X Factor Count Used: 0 Cut Off History? N Cutoff Date: Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Proving Mode: Volumetric Density Mode: Manual Calc. Method: Avg. Meter Factor Proving Method: Manual Passes Per Run 1	Liquid Properties at Metering Conditions for CMF Normal Op. Pressure 49.0 psig Eq. Vapor Pressure 0.0 psig CPL 1.0003

Run	TEMPERATURE		PRESSURE		PULSES	Run Accepted ?		IMF	Flowrate
	Tp	Tm	Pp	Pm	N				bbl/hr
1	70.9	70.9	54.0	56.0	11859.000	1	Yes	1.00217	12.000
2	69.8	69.8	54.0	56.0	11859.000	2	Yes	1.00215	12.000
3	70.7	70.7	54.0	56.0	11864.000	3	Yes	1.00175	12.000
4	72.4	72.4	54.0	56.0	11863.000	4	Yes	1.00186	12.000
5	74.8	74.8	54.0	56.0	11864.000	5	Yes	1.00183	12.000
Average	71.7	71.7	54.0	56.0	11861.8000			1.00195	12.000

(1) GSVp: $BPV * [CTSp * CPSp * CTLp * CPLp = CCFp]$

BPV	CTSp	CPSp	CTLp	CPLp	CCFp	GSVp
1.18820	1.00022	1.00004	0.99413	1.00030	0.99469	1.18189

(2) ISVm: $[N(avg) \div NKF = IVm] * [CTLm * CPLm = CCFm]$

N(avg)	NKF	IVm	CTLm	CPLm	CCFm	ISVm
11861.8000	10000.0000	1.18618	0.99413	1.00032	0.99445	1.17960

(3) Proving Factors:

>>>> (1) GSVp ÷ ISVm = 1.0020 MF
 (2) MF * CPL = 1.0023 CMF
 (3) 1 ÷ MF = 0.9980 MA
 (4) NKF ÷ MF = 9980.0 KF
 (5) KF ÷ CPL = 9977.0 CKF

Repeatability: 0.042 %
 Uncertainty: 0.022 %

Trans. Serial No.	
Flow Calib Factor	
Density Calib Factor	
Frequency Set Point	
Flowrate Set Point	
Zero Verified	Zeroed
As Found	As Left

Technician:

Witness:

PROVE

Customer: WPX -

Operator:

Location:

Federal ID:

MECH 400
30-34-31251

Meter Data	Product Data	Proving Data
67419511 WPX 176H	Name Crude	<u>Previous</u> <u>Current</u>
Factor Tracked Composite MF(CMF)	Batch No.	Task ID 1476519852 1476519985
Temp Compensated No	Obs. Gravity 40.8 °API	Date 10/14/2016 10/14/2016
NKF 10000.0000 N/bbl	Obs. Temp 60.0 °F	Time 20:24 20:26
Manufacturer Micro Motion	Obs. Press 0.0 psi	Product Crude Crude
Size 1.00 in	API Table Table A - Crude Oil (2004)	Flowrate 41 bbl/hr 12 bbl/hr
Serial No. 14517624	Base Density 40.8 °API HYC Y	Totalizer
Model No. CMF100M		Throughput
	Tolerances	Base Density 40.8 °API 40.8 °API
	Tolerance Type: Repeatability	
	Maximum Deviation: 0.050 %	
	Enabled? Y Passed? Y Min # of Runs: 5	
	Criteria: 5 out of 5 consecutive runs	
	Avg X Prev Meter Factor Deviation:	Avg Prvr Temp 96.4 95.2
	Enabled? N Passed? Y Prod Dep? N	Avg Prvr Press 132.0 88.0
	Prev X Factor Count Sought: 1	Repeatability 0.048 % 0.021 %
	Prev X Factor Count Used: 0	CMF 1.0010 1.0001
	Cut Off History? N Cutoff Date:	CMF Variance 0.0011 -0.0009
	Prev Meter Factor Deviation:	
	Enabled? N Passed? Y Prod Dep? N	
	Proving Mode: Volumetric	
	Density Mode: Manual	
	Calc. Method: Avg. Meter Factor	
	Proving Method: Manual	
	Passes Per Run 1	
		Liquid Properties at Metering Conditions for CMF
		Normal Op. Pressure 82.0 psig
		Eq. Vapor Pressure 0.0 psig
		CPL 1.0005

Run	TEMPERATURE		PRESSURE		PULSES	Run Accepted ?		IMF	Flowrate
	Tp	Tm	Pp	Pm	N				bb/hr
1	97.6	97.6	88.0	90.0	11897.000	1	Yes	0.99949	12.000
2	95.6	95.6	88.0	90.0	11895.000	2	Yes	0.99962	12.000
3	94.8	94.8	88.0	90.0	11894.000	3	Yes	0.99970	12.000
4	94.1	94.1	88.0	90.0	11894.000	4	Yes	0.99968	12.000
5	93.7	93.7	88.0	90.0	11894.000	5	Yes	0.99968	12.000
Average	95.2	95.2	88.0	90.0	11894.8000			0.99963	12.000

(1) GSVp: BPV * [CTSp * CPSp * CTLp * CPLp = CCFp]

BPV	CTSp	CPSp	CTLp	CPLp	CCFp	GSVp
1.18820	1.00065	1.00007	0.98207	1.00055	0.98332	1.16838

(2) ISVm: [N(avg) ÷ NKF = IVm] * [CTLm * CPLm = CCFm]

N(avg)	NKF	IVm	CTLm	CPLm	CCFm	ISVm
11894.8000	10000.0000	1.18948	0.98207	1.00056	0.98262	1.16881

(3) Proving Factors:

>>>> (1) GSVp ÷ ISVm = 0.9996 MF
 (2) MF * CPL = 1.0001 CMF
 (3) 1 ÷ MF = 1.0004 MA
 (4) NKF ÷ MF = 10004 KF
 (5) KF ÷ CPL = 9999.0 CKF

Repeatability: 0.021 %
 Uncertainty: 0.011 %

Trans. Serial No.	
Flow Calib Factor	
Density Calib Factor	
Frequency Set Point	
Flowrate Set Point	
Zero Verified	Zeroed
As Found	As Left

Technician:

Witness:

PROVE

Customer: WPX -
Operator:
Location:
Federal ID:

Meter Data 67419511 WPX 176H Factor Tracked Composite MF(CMF) Temp Compensated No NKF 10000.0000 N/bbl Manufacturer Micro Motion Size 1.00 in Serial No. 14517624 Model No. CMF100M	Product Data Name Crude Batch No. Obs. Gravity 42.0 °API Obs. Temp 108.0 °F Obs. Press 0.0 psi API Table Table A - Crude Oil (2004) Base Density 38.0 °API HYC Y	Proving Data Previous Current Task ID 1473982722 1473982851 Date 09/15/2016 09/16/2016 Time 11:38 11:40 Product Crude Crude Flowrate 41 bbl/hr 12 bbl/hr Totalizer Throughput Base Density 38.0°API 38.0 °API Avg Pvr Temp 106.0 107.8 Avg Pvr Press 118.0 72.0 Repeatability 0.047 % 0.026 % CMF 1.0007 0.9999 CMF Variance -0.0001 -0.0008
Prover Data BPV 1.18820 bbl I.D. 7.981 in W.T. 0.322 in Manufacturer DOMINION Type Displacement-Sphere Serial No. 23MM Elasticity 3.0E7 1/psi Pipe Gc 1.86E-5 1/°F Certified	Tolerances Tolerance Type: Repeatability Maximum Deviation: 0.050 % Enabled? Y Passed? Y Min # of Runs: 5 Criteria: 5 out of 5 consecutive runs Avg X Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Prev X Factor Count Sought: 1 Prev X Factor Count Used: 0 Cut Off History? N Cutoff Date: Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Proving Mode: Volumetric Density Mode: Manual Calc. Method: Avg. Meter Factor Proving Method: Manual Passes Per Run 1	Liquid Properties at Metering Conditions for CMF Normal Op. Pressure 68.0 psig Eq. Vapor Pressure 0.0 psig CPL 1.0004

Run	TEMPERATURE		PRESSURE		PULSES	Run Accepted ?	IMF	Flowrate bbl/hr
	Tp	Tm	Pp	Pm	N			
1	108.1	108.1	72.0	81.0	11898.000	1 Yes	0.99955	12.000
2	107.6	107.6	72.0	81.0	11900.000	2 Yes	0.99938	12.000
3	107.5	107.5	72.0	81.0	11899.000	3 Yes	0.99946	12.000
4	107.9	107.9	72.0	81.0	11898.000	4 Yes	0.99956	12.000
5	107.7	107.7	72.0	81.0	11897.000	5 Yes	0.99964	12.000
Average	107.8	107.8	72.0	81.0	11898.4000		0.99952	12.000

(1) GSVp: BPV * [CTSp * CPSp * CTLp * CPLp = CCFp]

BPV	CTSp	CPSp	CTLp	CPLp	CCFp	GSVp
1.18820	1.00089	1.00006	0.97640	1.00045	0.97777	1.16179

(2) ISVm: [N(avg) ÷ NKF ÷ IVm] * [CTLm * CPLm = CCFm]

N(avg)	NKF	IVm	CTLm	CPLm	CCFm	ISVm
11898.4000	10000.0000	1.18984	0.97640	1.00050	0.97689	1.16234

(3) Proving Factors:

>>>> (1) GSVp ÷ ISVm = 0.9995 MF
(2) MF * CPL = 0.9999 CMF
(3) 1 ÷ MF = 1.0005 MA
(4) NKF ÷ MF = 10005 KF
(5) KF + CPL = 10001 CKF

Trans. Serial No.	
Flow Calib Factor	
Density Calib Factor	
Frequency Set Point	
Flowrate Set Point	
Zero Verified	Zeroed
As Found	As Left

Repeatability: 0.026 %
Uncertainty: 0.014 %

Technician

Witness:

PROVE

Customer: WPX -
 Operator:
 Location:
 Federal ID: SEC.6 T23N R6W NMPM

NECHACO

Meter Data 67421942 WPX 179H Factor Tracked Composite MF(CMF) Temp Compensated No NKF 10000.0000 N/bbl Manufacturer Micro Motion Size 1.00 in Serial No. 14517208 Model No.	Product Data Name Crude Batch No. Obs. Gravity 43.8 °API Obs. Temp 93.0 °F Obs. Press 0.0 psi API Table Table A - Crude Oil (2004) Base Density 40.9 °API HYC Y	Proving Data <table style="width:100%;"> <tr> <th style="text-align: left;"><u>Previous</u></th> <th style="text-align: left;"><u>Current</u></th> </tr> <tr> <td>Task ID 1473982469</td> <td>1473982697</td> </tr> <tr> <td>Date 09/15/2016</td> <td>09/15/2016</td> </tr> <tr> <td>Time 11:34</td> <td>11:36</td> </tr> <tr> <td>Product Crude</td> <td>Crude</td> </tr> <tr> <td>Flowrate 41 bbl/hr</td> <td>12 bbl/hr</td> </tr> <tr> <td>Totalizer</td> <td></td> </tr> <tr> <td>Throughput</td> <td></td> </tr> <tr> <td>Base Density 40.9°API</td> <td>40.9 °API</td> </tr> <tr> <td>Avg Prvr Temp 92.9</td> <td>94.6</td> </tr> <tr> <td>Avg Prvr Press 132.0</td> <td>100.0</td> </tr> <tr> <td>Repeatability 0.012 %</td> <td>0.009 %</td> </tr> <tr> <td>CMF 1.0016</td> <td>1.0019</td> </tr> <tr> <td>CMF Variance 0.0001</td> <td>0.0003</td> </tr> </table>	<u>Previous</u>	<u>Current</u>	Task ID 1473982469	1473982697	Date 09/15/2016	09/15/2016	Time 11:34	11:36	Product Crude	Crude	Flowrate 41 bbl/hr	12 bbl/hr	Totalizer		Throughput		Base Density 40.9°API	40.9 °API	Avg Prvr Temp 92.9	94.6	Avg Prvr Press 132.0	100.0	Repeatability 0.012 %	0.009 %	CMF 1.0016	1.0019	CMF Variance 0.0001	0.0003
<u>Previous</u>	<u>Current</u>																													
Task ID 1473982469	1473982697																													
Date 09/15/2016	09/15/2016																													
Time 11:34	11:36																													
Product Crude	Crude																													
Flowrate 41 bbl/hr	12 bbl/hr																													
Totalizer																														
Throughput																														
Base Density 40.9°API	40.9 °API																													
Avg Prvr Temp 92.9	94.6																													
Avg Prvr Press 132.0	100.0																													
Repeatability 0.012 %	0.009 %																													
CMF 1.0016	1.0019																													
CMF Variance 0.0001	0.0003																													
Prover Data BPV 1.18820 bbl I.D. 7.981 in W.T. 0.322 in Manufacturer DOMINION Type Displacement-Sphere Serial No. 23MM Elasticity 3.0E7 1/psi Pipe Gc 1.86E-5 1/F Certified	Tolerances Tolerance Type: Repeatability Maximum Deviation: 0.050 % Enabled? Y Passed? Y Min # of Runs: 5 Criteria: 5 out of 5 consecutive runs Avg X Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Prev X Factor Count Sought: 1 Prev X Factor Count Used: 0 Cut Off History? N Cutoff Date: Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Proving Mode: Volumetric Density Mode: Manual Calc. Method: Avg. Meter Factor Proving Method: Manual Passes Per Run 1	Liquid Properties at Metering Conditions for CMF Normal Op. Pressure 88.0 psig Eq. Vapor Pressure 0.0 psig CPL 1.0005																												

Run	TEMPERATURE		PRESSURE		PULSES	Run Accepted ?	IMF	Flowrate bbl/hr
	Tp	Tm	Pp	Pm	N			
1	94.3	94.3	100.0	101.0	11873.000	1 Yes	1.00147	12.000
2	94.3	94.3	100.0	101.0	11873.000	2 Yes	1.00147	12.000
3	94.5	94.5	100.0	101.0	11874.000	3 Yes	1.00139	12.000
4	95.0	95.0	100.0	101.0	11873.000	4 Yes	1.00148	12.000
5	94.9	94.9	100.0	101.0	11874.000	5 Yes	1.00140	12.000
Average	94.6	94.6	100.0	101.0	11873.4000		1.00144	12.000

(1) GSVp: $BPV * [CTSp * CPSp * CTLp * CPLp = CCFp]$

BPV	CTSp	CPSp	CTLp	CPLp	CCFp	GSVp
1.18820	1.00064	1.00008	0.98235	1.00062	0.98367	1.16880

(2) ISVm: $[N(avg) \div NKF = IVm] * [CTLm * CPLm = CCFm]$

N(avg)	NKF	IVm	CTLm	CPLm	CCFm	ISVm
11873.4000	10000.0000	1.18734	0.98235	1.00063	0.98297	1.16712

(3) Proving Factors:

>>>> (1) GSVp ÷ ISVm = 1.0014 MF
 (2) MF * CPL = 1.0019 CMF
 (3) 1 ÷ MF = 0.9986 MA
 (4) NKF ÷ MF = 9986.0 KF
 (5) KF ÷ CPL = 9981.0 CKF

Repeatability: 0.009 %
 Uncertainty: 0.005 %

Trans. Serial No. Flow Calib Factor Density Calib Factor Frequency Set Point Flowrate Set Point Zero Verified As Found	Zeroed As Left
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Technician:

Witness:

PROVE

Customer: WPX -
 Operator:
 Location:
 Federal ID: SEC.6 T23N R6W NMPM

30-039-31190

Meter Data	Product Data	Proving Data
67421942 WPX 179H Factor Tracked Composite MF(CMF) Temp Compensated No NKF 10000.0000 N/bbl Manufacturer Micro Motion Size 1.00 in Serial No. 14517208 Model No.	Name Crude Batch No. Obs. Gravity 41.0 °API Obs. Temp 60.0 °F Obs. Press 0.0 psi API Table Table A - Crude Oil (2004) Base Density 41.0 °API HYC Y	Previous Current Task ID 1473982597 1476520196 Date 09/15/2016 10/14/2016 Time 11:36 20:29 Product Crude Crude Flowrate 12 bbl/hr 12 bbl/hr Totalizer Throughput Base Density 40.9 °API 41.0 °API Avg Prvr Temp 94.6 96.0 Avg Prvr Press 100.0 122.0 Repeatability 0.009 % 0.045 % CMF 1.0019 1.0017 CMF Variance 0.0003 -0.0002
Prover Data BPV 1.18820 bbl I.D. 7.981 in W.T. 0.322 in Manufacturer DOMINION Type Displacement-Sphere Serial No. 23MM Elasticity 3.0E7 1/psi Pipe Gc 1.86E-5 1°F Certified	Tolerances Tolerance Type: Repeatability Maximum Deviation: 0.050 % Enabled? Y Passed? Y Min # of Runs: 5 Criteria: 5 out of 5 consecutive runs Avg X Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Prev X Factor Count Sought: 1 Prev X Factor Count Used: 0 Cut Off History? N Cutoff Date: Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Proving Mode: Volumetric Density Mode: Manual Calc. Method: Avg. Meter Factor Proving Method: Manual Passes Per Run 1	Liquid Properties at Metering Conditions for CMF Normal Op. Pressure 114.0 psig Eq. Vapor Pressure 0.0 psig CPL 1.0007

Run	TEMPERATURE		PRESSURE		PULSES	Run Accepted ?		IMF	Flowrate
	Tp	Tm	Pp	Pm	N				bb/hr
1	91.5	91.5	122.0	127.0	11881.000	1	Yes	1.00074	12.000
2	96.2	96.2	122.0	127.0	11877.000	2	Yes	1.00115	12.000
3	96.9	96.9	122.0	127.0	11879.000	3	Yes	1.00102	12.000
4	97.5	97.5	122.0	127.0	11877.000	4	Yes	1.00119	12.000
5	97.9	97.9	122.0	127.0	11879.000	5	Yes	1.00103	12.000
Average	96.0	96.0	122.0	127.0	11878.6000			1.00103	12.000

(1) GSVp: BPV * [CTSp * CPSp * CTLp * CPLp = CCFp]

BPV	CTSp	CPSp	CTLp	CPLp	CCFp	GSVp
1.18820	1.00067	1.00010	0.98161	1.00077	0.98312	1.16814

(2) ISVm: [N(avg) ÷ NKF = IVm] * [CTLm * CPLm = CCFm]

N(avg)	NKF	IVm	CTLm	CPLm	CCFm	ISVm
11878.6000	10000.0000	1.18786	0.98161	1.00080	0.98240	1.16695

(3) Proving Factors:

>>>> (1) GSVp ÷ ISVm = 1.0010 MF
 (2) MF * CPL = 1.0017 CMF
 (3) 1 ÷ MF = 0.9990 MA
 (4) NKF ÷ MF = 9990.0 KF
 (5) KF ÷ CPL = 9983.0 CKF

Repeatability: 0.045 %
 Uncertainty: 0.024 %

Trans. Serial No. Flow Calib Factor Density Calib Factor Frequency Set Point Flowrate Set Point Zero Verified As Found	Zeroed As Left
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Technician:

Witness:

PROVE

Customer: WPX -
 Operator:
 Location:
 Federal ID: SEC.6 T23N R6W NMPM

1NF Coda-CO

Meter Data 67421942 WPX 179H Factor Tracked Composite MF(CMF) Temp Compensated No NKF 10000.0000 N/bbl Manufacturer Micro Motion Size 1.00 in Serial No. 14517208 Model No.	Product Data Name Crude Batch No. Obs. Gravity 44.0 °API Obs. Temp 102.5 °F Obs. Press 0.0 psi API Table Table A - Crude Oil (2004) Base Density 40.3 °API HYC Y	Proving Data <u>Previous</u> <u>Current</u> Task ID 1468879486 1471565892 Date 07/18/2016 08/18/2016 Time 10:04 12:18 Product Crude Crude Flowrate 42 bbl/hr 8 bbl/hr Totalizer Throughput Base Density 39.6°API 40.3 °API Avg Pvr Temp 122.3 103.2 Avg Pvr Press 190.0 110.0 Repeatability 0.034 % 0.015 % CMF 0.9988 1.0021 CMF Variance -0.0028 0.0033
Prover Data BPV 1.18820 bbl I.D. 7.981 in W.T. 0.322 in Manufacturer DOMINION Type Displacement-Sphere Serial No. 23MM Elasticity 3.0E7 1/psi Pipe Gc 1.86E-5 1°F Certified	Tolerances Tolerance Type: Repeatability Maximum Deviation: 0.050 % Enabled? Y Passed? Y Min # of Runs: 5 Criteria: 5 out of 5 consecutive runs Avg X Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Prev X Factor Count Sought: 1 Prev X Factor Count Used: 0 Cut Off History? N Cutoff Date: Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Proving Mode: Volumetric Density Mode: Manual Calc. Method: Avg. Meter Factor Proving Method: Manual Passes Per Run 1	Liquid Properties at Metering Conditions for CMF Normal Op. Pressure 105.0 psig Eq. Vapor Pressure 0.0 psig CPL 1.0007

Run	TEMPERATURE		PRESSURE		PULSES	Run Accepted ?		IMF	Flowrate
	Tp	Tm	Pp	Pm	N				bbl/hr
1	103.4	103.4	110.0	112.0	11875.725	1	Yes	1.00143	8.339
2	102.7	102.7	110.0	112.0	11874.443	2	Yes	1.00152	8.337
3	103.3	103.3	110.0	112.0	11876.100	3	Yes	1.00139	8.338
4	103.3	103.4	110.0	112.0	11876.956	4	Yes	1.00137	8.337
5	103.3	103.4	110.0	112.0	11875.850	5	Yes	1.00146	8.298
Average	103.2	103.2	110.0	112.0	11875.8148			1.00143	8.330

(1) GSVp: $BPV * [CTSp * CPSp * CTLp * CPLp = CCFp]$

BPV	CTSp	CPSp	CTLp	CPLp	CCFp	GSVp
1.18820	1.00080	1.00009	0.97809	1.00070	0.97965	1.16402

(2) ISVm: $[N(avg) \div NKF = [Vm] * [CTLm * CPLm = CCFm]$

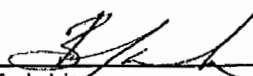
N(avg)	NKF	IVm	CTLm	CPLm	CCFm	ISVm
11875.8148	10000.0000	1.18758	0.97809	1.00071	0.97878	1.16238

(3) Proving Factors:

>>>> (1) GSVp + ISVm = 1.0014 MF
 (2) MF * CPL = 1.0021 CMF
 (3) 1 + MF = 0.9986 MA
 (4) NKF + MF = 9986.0 KF
 (5) KF + CPL = 9979.0 CKF

Repeatability: 0.015 %
 Uncertainty: 0.008 %

Trans. Serial No.	
Flow Calib Factor	
Density Calib Factor	
Frequency Set Point	
Flowrate Set Point	
Zero Verified	Zeroed
As Found	As Left

Technician: 

Witness:

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 Revision: 1

Federal ID: SEC.5 T23N R6W NMPM

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Meter Data		Product Data		Proving Data	
67424230 WPX 254H		Name Crude		<u>Previous</u> <u>Current</u>	
Factor Tracked Composite MF(CMF)		Batch No.		Task ID	1468879035 1471560970
Temp Compensated No		Obs. Gravity 44.9 °API		Date	07/18/2016 08/18/2016
NKF 10000.0000 N/bbl		Obs. Temp 103.5 °F		Time	9:57 10:56
Manufacturer Micro Motion		Obs. Press 0.0 psi		Product	Crude Crude
Size 1.00 in		API Table Table A - Crude Oil (2004)		Flowrate	41 bbl/hr 19 bbl/hr
Serial No. 14518580		Base Density 41.1 °API HYC Y		Totalizer	
Model No.				Throughput	
		Tolerances		Base Density	42.0°API 41.1 °API
		Tolerance Type: Repeatability		Avg Prvr Temp	109.2 103.5
		Maximum Deviation: 0.050 %		Avg Prvr Press	208.0 147.0
		Enabled? Y Passed? Y Min # of Runs: 5		Repeatability	0.031 % 0.020 %
		Criteria: 5 out of 5 consecutive runs		CMF	0.9993 1.0001
		Avg X Prev Meter Factor Deviation:		CMF Variance	-0.0027 0.0008
		Enabled? N Passed? Y Prod Dep? N		Liquid Properties at Metering Conditions for CMF	
		Prev X Factor Count Sought: 1			
		Prev X Factor Count Used: 0			
		Cut Off History? N Cutoff Date:			
		Prev Meter Factor Deviation:			
		Enabled? N Passed? Y Prod Dep? N			
Prover Data		Proving Mode: Volumetric		Normal Op. Pressure 142.0 psig	
BPV 1.18820 bbl		Density Mode: Manual		Eq. Vapor Pressure 0.0 psig	
I.D. 7.981 in		Calc. Method: Avg. Meter Factor		CPL 1.0009	
W.T. 0.322 in		Proving Method: PIU			
Manufacturer DOMINION		Passes Per Run 1			
Type Displacement-Sphere					
Serial No. 23MM					
Elasticity 3.0E7 1/psi					
Pipe Gc 1.86E-5 1°F					
Certified					

Run	TEMPERATURE		PRESSURE		PULSES	Run Accepted ?	IMF	Flowrate bb/hr
	Tp	Tm	Pp	Pm	N			
1	101.3	101.3	147.0	157.0	11900.902	1 Yes	0.99923	18.711
2	103.0	103.0	147.0	157.0	11901.105	2 Yes	0.99925	18.733
3	103.9	103.9	147.0	157.0	11901.432	3 Yes	0.99924	18.697
4	104.6	104.6	147.0	157.0	11901.256	4 Yes	0.99925	18.724
5	104.8	104.8	147.0	157.0	11903.812	5 Yes	0.99905	18.729
Average	103.5	103.5	147.0	157.0	11901.7014		0.99920	18.719

(1) GSV_p: BPV * [CTS_p * CPS_p * CTL_p * CPL_p = CCF_p]

<i>BPV</i>	<i>CTSp</i>	<i>CPSp</i>	<i>CTLp</i>	<i>CPLp</i>	<i>CCFp</i>	<i>GSVp</i>
1.18820	1.00081	1.00012	0.97773	1.00095	0.97957	1.16393

(2) ISVm: $[N(\text{avg}) \div NKF = IVm] * [CTLm * CPLm = CCFm]$

<i>N</i> (avg)	<i>NKF</i>	<i>IVm</i>	<i>CTLm</i>	<i>CPLm</i>	<i>CCFm</i>	<i>ISVm</i>
11901.7014	10000.0000	1.19017	0.97773	1.00101	0.97872	1.16484

(3) Proving Factors:

```

>>>> (1)   GSVp + ISVm = 0.9992 MF
      (2)   MF * CPL = 1.0001 CMF
      (3)   1 ÷ MF = 1.0008 MA
      (4)   NKF ÷ MF = 10008 KF
      (5)   KF ÷ CPL = 9999.0 KCF

```

Repeatability: 0.020 %
Uncertainty: 0.011 %

Trans. Serial No.	
Flow Calib Factor	
Density Calib Factor	
Frequency Set Point	
Flowrate Set Point	
Zero Verified	Zeroed
As Found	As Left

Technician:

Witness:

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Revision: 2

NO CHAUCON
30-034-31289

Meter Data		Product Data		Proving Data	
67424230 WPX 264H		Name Crude		<u>Previous</u> <u>Current</u>	
Factor Tracked Composite MF(CMF)		Batch No.		Task ID	1476834812 1476835883
Temp Compensated No		Obs. Gravity 45.5 °API		Date	10/18/2016 10/18/2016
NKF 10000.0000 N/bbl		Obs. Temp 94.8 °F		Time	11:53 12:11
Manufacturer Micro Motion		Obs. Press 0.0 psi		Product	Crude Crude
Size 1.00 in		API Table Table A - Crude Oil (2004)		Flowrate	42 bbl/hr 19 bbl/hr
Serial No. 14518580		Base Density 42.4 °API		Totalizer	
Model No.		HYC Y		Throughput	
		Tolerances		Base Density	42.4 °API 42.4 °API
		Tolerance Type: Repeatability			
		Maximum Deviation: 0.051 %		Avg Prvr Temp	91.9 91.2
		Enabled? Y Passed? Y Min # of Runs: 5		Avg Prvr Press	180.0 148.0
		Criteria: 5 out of 5 consecutive runs		Repeatability	0.042 % 0.050 %
		Avg X Prev Meter Factor Deviation:		CMF	1.0002 0.9999
		Enabled? N Passed? Y Prod Dep? N		CMF Variance	-0.0002 -0.0003
		Prev X Factor Count Sought: 1			
		Prev X Factor Count Used: 0			
		Cut Off History? N Cutoff Date:			
		Prev Meter Factor Deviation:			
		Enabled? N Passed? Y Prod Dep? N			
		Proving Mode: Volumetric		Liquid Properties at Metering	
		Density Mode: Manual		Conditions for CMF	
		Calc. Method: Avg. Meter Factor		Normal Op. Pressure	140.0 psig
		Proving Method: PIU		Eq. Vapor Pressure	0.0 psig
		Passes Per Run 1			CPL 1.0009
Prover Data					
BPV 1.18820 bbl					
I.D. 7.981 in					
W.T. 0.322 in					
Manufacturer DOMINION					
Type Displacement-Sphere					
Serial No. 23MM					
Elasticity 3.0E7 1/psi					
Pipe Gc 1.86E-5 1/°F					
Certified					

Run	TEMPERATURE		PRESSURE		PULSES	Run Accepted ?	IMF	Flowrate bb/hr
	Tp	Tm	Pp	Pm	N			
1	91.9	91.9	148.0	152.0	11903.105	1 Yes	0.99892	18.651
2	91.5	91.5	148.0	152.0	11900.021	2 Yes	0.99918	18.646
3	91.2	91.2	148.0	152.0	11899.627	3 Yes	0.99920	18.698
4	90.9	90.9	148.0	152.0	11901.499	4 Yes	0.99902	18.701
5	90.6	90.6	148.0	152.0	11905.192	5 Yes	0.99870	18.612
Average	91.2	91.2	148.0	152.0	11901.8888		0.99900	18.662

(1) GSVp: $BPV * [CTSp * CPSp * CTLp * CPLp = CCFp]$

<i>BPV</i>	<i>CTSp</i>	<i>CPSp</i>	<i>CTLp</i>	<i>CPLp</i>	<i>CCFp</i>	<i>GSVp</i>
1.18820	1.00058	1.00012	0.98382	1.00094	0.98543	1.17089

(2) ISVm: $[N(\text{avg}) \div NKF = IVm] * [CTLm * CPLm = CCFm]$

<i>N</i> (avg)	<i>NKF</i>	<i>IVm</i>	<i>CTLm</i>	<i>CPLm</i>	<i>CCFm</i>	<i>ISVm</i>
11901.8888	10000.0000	1.19019	0.98382	1.00096	0.98476	1.17205

(3) Proving Factors:

>>>>	(1)	GSVP ÷ ISVM =	0.9990	MF
	(2)	MF * CPL =	0.9999	CMF
	(3)	1 ÷ MF =	1.0010	MA
	(4)	NKF ÷ MF =	10010	KF
	(5)	KF ÷ CPL =	10001	CKF

Trans. Serial No.	
Flow Calib Factor	
Density Calib Factor	
Frequency Set Point	
Flowrate Set Point	
Zero Verified	Zeroed
As Found	As Left

Repeatability: 0.050 %
Uncertainty: 0.027 %

Technician:

Witness:

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10/18/2016 20:42 Page: 1
Revision: 1

Federal ID: SEC.8 T23N R6W NMPM

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Meter Data		Product Data		Proving Data	
76417923 WPX 197H		Name Crude		<u>Previous</u> <u>Current</u>	
Factor Tracked Composite MF(CMF)		Batch No.		Task ID	1468878172 1471555112
Temp Compensated No		Obs. Gravity 42.8 °API		Date	07/18/2016 08/18/2016
NKF 10000.0000 N/bbl		Obs. Temp 88.6 °F		Time	9:42 9:18
Manufacturer Micro Motion		Obs. Press 0.0 psi		Product	Crude Crude
Size 1.00 in		API Table Table A - Crude Oil (2004)		Flowrate	42 bbl/hr 10 bbl/hr
Serial No. 14518623		Base Density 40.3 °API HYC Y		Totalizer	
Model No.				Throughput	
Prover Data		Tolerances		Base Density	40.8°API 40.3 °API
BPV 1.18820 bbl		Tolerance Type: Repeatability		Avg Prvr Temp	99.7 91.9
I.D. 7.981 in		Maximum Deviation: 0.050 %		Avg Prvr Press	189.0 139.8
W.T. 0.322 in		Enabled? Y Passed? Y Min # of Runs: 5		Repeatability	0.004 % 0.009 %
Manufacturer DOMINION		Criteria: 5 out of 5 consecutive runs		CMF	0.9961 1.0011
Type Displacement-Sphere		Avg X Prev Meter Factor Deviation:		CMF Variance	0.0009 0.0050
Serial No. 23MM		Enabled? N Passed? Y Prod Dep? N		Liquid Properties at Metering Conditions for CMF	
Elasticity 3.0E7 1/psi		Prev X Factor Count Sought: 1		Normal Op. Pressure	138.0 psig
Pipe Gc 1.86E-5 1°F		Prev X Factor Count Used: 0		Eq. Vapor Pressure	0.0 psig
Certified		Cut Off History? N Cutoff Date:		CPL 1.0008	
		Prev Meter Factor Deviation:			
		Enabled? N Passed? Y Prod Dep? N			
		Proving Mode: Volumetric			
		Density Mode: Manual			
		Calc. Method: Avg. Meter Factor			
		Proving Method: Manual			
		Passes Per Run 1			

Run	TEMPERATURE		PRESSURE		PULSES	Run Accepted ?		IMF	Flowrate bb/hr
	Tp	Tm	Pp	Pm	N				
1	90.9	90.9	142.0	143.0	11886.949	1	Yes	1.00026	10.416
2	91.3	91.3	143.0	138.0	11887.111	2	Yes	1.00030	10.414
3	92.4	92.4	138.0	143.0	11887.030	3	Yes	1.00026	10.477
4	92.4	92.4	138.0	143.0	11887.635	4	Yes	1.00021	10.463
5	92.7	92.7	138.0	143.0	11886.947	5	Yes	1.00026	10.526
Average	91.9	91.9	139.8	142.0	11887.1344			1.00026	10.459

(1) GSV_p: BPV * [CTS_p * CPS_p * CTL_p * CPL_p = CCF_p]

<i>BPV</i>	<i>CTS_p</i>	<i>CPS_p</i>	<i>CTL_p</i>	<i>CPL_p</i>	<i>CCF_p</i>	<i>GSV_p</i>
1.18820	1.00059	1.00012	0.98385	1.00085	0.98539	1.17084

(2) ISVm: $[N(\text{avg}) \div NKF = |Vm|] * [CTLm * CPLm = CCFm]$

<i>N</i> (avg)	<i>NKF</i>	<i>IVm</i>	<i>CTLm</i>	<i>CPLm</i>	<i>CCFm</i>	<i>ISVm</i>
11887.1344	10000.0000	1.18871	0.98385	1.00087	0.98471	1.17053

(3) Proving Factors:

```

>>>> (1)   GSVp ÷ ISVm =      1.0003   MF
        (2)   MF * CPL =      1.0011   CMF
        (3)   1 ÷ MF =      0.9997   MA
        (4)   NKF ÷ MF =      9997.0   KF
        (5)   KF ÷ CPL =     9989.0   CKF

```

Repeatability: 0.009 %
Uncertainty: 0.005 %

Trans. Serial No.	
Flow Calib Factor	
Density Calib Factor	
Frequency Set Point	
Flowrate Set Point	
Zero Verified	Zeroed
As Found	As Left

Technician:

Witness:

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Revision: 2

Customer: WPX -
 Operator:
 Location:
 Federal ID: SEC.8 T23N R6W NMPM

NECHACO
 30-039-31278

Meter Data 67417923 WPX 197H Factor Tracked Composite MF(CMF) Temp Compensated No NKF 10000.0000 N/bbl Manufacturer Micro Motion Size 1.00 in Serial No. 14518623 Model No.	Product Data Name Crude Batch No. Obs. Gravity 41.7 °API Obs. Temp 77.5 °F Obs. Press 0.0 psi API Table Table A - Crude Oil (2004) Base Density 40.2 °API HYC Y	Proving Data <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th style="text-align: left;"><u>Previous</u></th> <th style="text-align: left;"><u>Current</u></th> </tr> <tr> <td>Task ID 1473981955</td> <td>1476830974</td> </tr> <tr> <td>Date 09/15/2016</td> <td>10/18/2016</td> </tr> <tr> <td>Time 11:25</td> <td>10:49</td> </tr> <tr> <td>Product Crude</td> <td>Crude</td> </tr> <tr> <td>Flowrate 10 bbl/hr</td> <td>13 bbl/hr</td> </tr> <tr> <td>Totalizer</td> <td></td> </tr> <tr> <td>Throughput</td> <td></td> </tr> <tr> <td>Base Density 40.9 °API</td> <td>40.2 °API</td> </tr> <tr> <td>Avg Pvr Temp 77.0</td> <td>76.9</td> </tr> <tr> <td>Avg Pvr Press 113.0</td> <td>162.0</td> </tr> <tr> <td>Repeatability 0.028 %</td> <td>0.015 %</td> </tr> <tr> <td>CMF 0.9999</td> <td>1.0015</td> </tr> <tr> <td>CMF Variance -0.0006</td> <td>0.0007</td> </tr> </table>	<u>Previous</u>	<u>Current</u>	Task ID 1473981955	1476830974	Date 09/15/2016	10/18/2016	Time 11:25	10:49	Product Crude	Crude	Flowrate 10 bbl/hr	13 bbl/hr	Totalizer		Throughput		Base Density 40.9 °API	40.2 °API	Avg Pvr Temp 77.0	76.9	Avg Pvr Press 113.0	162.0	Repeatability 0.028 %	0.015 %	CMF 0.9999	1.0015	CMF Variance -0.0006	0.0007
<u>Previous</u>	<u>Current</u>																													
Task ID 1473981955	1476830974																													
Date 09/15/2016	10/18/2016																													
Time 11:25	10:49																													
Product Crude	Crude																													
Flowrate 10 bbl/hr	13 bbl/hr																													
Totalizer																														
Throughput																														
Base Density 40.9 °API	40.2 °API																													
Avg Pvr Temp 77.0	76.9																													
Avg Pvr Press 113.0	162.0																													
Repeatability 0.028 %	0.015 %																													
CMF 0.9999	1.0015																													
CMF Variance -0.0006	0.0007																													
Prover Data BPV 1.18820 bbl I.D. 7.981 in W.T. 0.322 in Manufacturer DOMINION Type Displacement-Sphere Serial No. 23MM Elasticity 3.0E7 1/psi Pipe Gc 1.86E-5 1°F Certified	Tolerances Tolerance Type: Repeatability Maximum Deviation: 0.050 % Enabled? Y Passed? Y Min # of Runs: 5 Criteria: 5 out of 5 consecutive runs Avg X Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Prev X Factor Count Sought: 1 Prev X Factor Count Used: 0 Cut Off History? N Cutoff Date: Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Proving Mode: Volumetric Density Mode: Manual Calc. Method: Avg. Meter Factor Proving Method: PIU Passes Per Run 1	Liquid Properties at Metering Conditions for CMF Normal Op. Pressure 155.0 psig Eq. Vapor Pressure 0.0 psig CPL 1.0009																												

Run	TEMPERATURE		PRESSURE		PULSES N	Run Accepted ?	IMF	Flowrate bbl/hr
	Tp	Tm	Pp	Pm				
1	76.7	76.7	162.0	162.0	11878.456	1 Yes	1.00074	12.482
2	76.8	76.8	162.0	162.0	11879.727	2 Yes	1.00064	12.503
3	76.9	76.9	162.0	162.0	11880.044	3 Yes	1.00061	12.508
4	77.0	77.0	162.0	162.0	11879.609	4 Yes	1.00065	12.513
5	77.1	77.1	162.0	162.0	11880.463	5 Yes	1.00059	12.496
Average	76.9	76.9	162.0	162.0	11879.6598		1.00065	12.501

(1) GSVp: BPV * [CTSp * CPSP * CTLp * CPLp = CCFp]

BPV	CTSp	CPSP	CTLp	CPLp	CCFp	GSVp
1.18820	1.00031	1.00013	0.99147	1.00094	0.99284	1.17969

(2) ISVm: [N(avg) ÷ NKF = IVm] * [CTLm * CPLm = CCFm]

N(avg)	NKF	IVm	CTLm	CPLm	CCFm	ISVm
11879.6598	10000.0000	1.18797	0.99147	1.00094	0.99240	1.17894

(3) Proving Factors:

>>>> (1) GSVp ÷ ISVm = 1.0006 MF
 (2) MF * CPL = 1.0015 CMF
 (3) 1 ÷ MF = 0.9994 MA
 (4) NKF ÷ MF = 9994.0 KF
 (5) KF ÷ CPL = 9985.0 CKF

Repeatability: 0.015 %
 Uncertainty: 0.008 %

Trans. Serial No. Flow Calib Factor Density Calib Factor Frequency Set Point Flowrate Set Point Zero Verified As Found	Zeroed As Left
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Technician

Witness:

PROVE

Customer: WPX -
 Operator:
 Location:
 Federal ID: SEC.8 T23N R6W NMPM

Handwritten: NCCAW

Meter Data	Product Data	Proving Data																												
67417923 WPX 197H Factor Tracked Composite MF(CMF) Temp Compensated No NKF 10000.0000 N/bbl Manufacturer Micro Motion Size 1.00 in Serial No. 14518623 Model No.	Name Crude Batch No. Obs. Gravity 42.5 °API Obs. Temp 78.0 °F Obs. Press 0.0 psi API Table Table A - Crude Oil (2004) Base Density 40.9 °API HYC Y	<table style="width:100%;"> <tr> <th style="text-align:left;"><u>Previous</u></th> <th style="text-align:left;"><u>Current</u></th> </tr> <tr> <td>Task ID 1473981776</td> <td>1473981955</td> </tr> <tr> <td>Date 09/15/2016</td> <td>09/15/2016</td> </tr> <tr> <td>Time 11:22</td> <td>11:25</td> </tr> <tr> <td>Product Crude</td> <td>Crude</td> </tr> <tr> <td>Flowrate 41 bbl/hr</td> <td>10 bbl/hr</td> </tr> <tr> <td>Totalizer</td> <td></td> </tr> <tr> <td>Throughput</td> <td></td> </tr> <tr> <td>Base Density 40.9 °API</td> <td>40.9 °API</td> </tr> <tr> <td>Avg Pvr Temp 76.3</td> <td>77.0</td> </tr> <tr> <td>Avg Pvr Press 168.0</td> <td>113.0</td> </tr> <tr> <td>Repeatability 0.042 %</td> <td>0.028 %</td> </tr> <tr> <td>CMF 1.0005</td> <td>0.9999</td> </tr> <tr> <td>CMF Variance 0.0001</td> <td>-0.0006</td> </tr> </table>	<u>Previous</u>	<u>Current</u>	Task ID 1473981776	1473981955	Date 09/15/2016	09/15/2016	Time 11:22	11:25	Product Crude	Crude	Flowrate 41 bbl/hr	10 bbl/hr	Totalizer		Throughput		Base Density 40.9 °API	40.9 °API	Avg Pvr Temp 76.3	77.0	Avg Pvr Press 168.0	113.0	Repeatability 0.042 %	0.028 %	CMF 1.0005	0.9999	CMF Variance 0.0001	-0.0006
<u>Previous</u>	<u>Current</u>																													
Task ID 1473981776	1473981955																													
Date 09/15/2016	09/15/2016																													
Time 11:22	11:25																													
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Totalizer																														
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Avg Pvr Press 168.0	113.0																													
Repeatability 0.042 %	0.028 %																													
CMF 1.0005	0.9999																													
CMF Variance 0.0001	-0.0006																													
Prover Data BPV 1.18820 bbl I.D. 7.981 in W.T. 0.322 in Manufacturer DOMINION Type Displacement-Sphere Serial No. 23MM Elasticity 3.0E7 1/psi Pipe Gc 1.86E-5 1°F Certified	Tolerances Tolerance Type: Repeatability Maximum Deviation: 0.050 % Enabled? Y Passed? Y Min # of Runs: 5 Criteria: 5 out of 5 consecutive runs Avg X Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Prev X Factor Count Sought: 1 Prev X Factor Count Used: 0 Cut Off History? N Cutoff Date: Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Proving Mode: Volumetric Density Mode: Manual Calc. Method: Avg. Meter Factor Proving Method: Manual Passes Per Run 1	Liquid Properties at Metering Conditions for CMF Normal Op. Pressure 101.0 psig Eq. Vapor Pressure 0.0 psig CPL 1.0006																												

Run	TEMPERATURE		PRESSURE		PULSES	Run Accepted ?	IMF	Flowrate bbl/hr
	Tp	Tm	Pp	Pm	N			
1	76.2	76.2	113.0	126.0	11894.000	1 Yes	0.99931	10.000
2	76.3	76.3	113.0	126.0	11892.000	2 Yes	0.99947	10.000
3	76.5	76.5	113.0	126.0	11895.000	3 Yes	0.99923	10.000
4	77.4	77.4	113.0	126.0	11893.000	4 Yes	0.99941	10.000
5	78.6	78.6	113.0	126.0	11896.000	5 Yes	0.99919	10.000
Average	77.0	77.0	113.0	126.0	11894.0000		0.99932	10.000

(1) GSVp: BPV * [CTSp * CPSP * CTLp * CPLp = CCFp]

BPV	CTSp	CPSP	CTLp	CPLp	CCFp	GSVp
1.18820	1.00032	1.00009	0.99135	1.00066	0.99241	1.17918

(2) ISVm: [N(avg) + NKF = IVm] * [CTLm * CPLm = CCFm]

N(avg)	NKF	IVm	CTLm	CPLm	CCFm	ISVm
11894.0000	10000.0000	1.18940	0.99135	1.00074	0.99208	1.17998

(3) Proving Factors:

>>>> (1) GSVp ÷ ISVm = 0.9993 MF
 (2) MF * CPL = 0.9999 CMF
 (3) 1 ÷ MF = 1.0007 MA
 (4) NKF ÷ MF = 10007 KF
 (5) KF ÷ CPL = 10001 CKF

Repeatability: 0.028 %
 Uncertainty: 0.015 %

Trans. Serial No. Flow Calib Factor Density Calib Factor	
Frequency Set Point Flowrate Set Point Zero Verified As Found	Zeroed As Left

Technician:

Witness:

PROVE

Customer: WPX -

Operator:

Location:

Federal ID: SEC.7 T23N R6W NMPM

NEC4 Acc. Co.
30-029-8312-0
7-23A-BL

Meter Data	Product Data	Proving Data
67412825 WPX 181H	Name Crude	<u>Previous</u> <u>Current</u>
Factor Tracked Composite MF(CMF)	Batch No.	Task ID 1476839654 1476840658
Temp Compensated No	Obs. Gravity 48.6 °API	Date 10/18/2016 10/18/2016
NKF 10000.0000 N/bbl	Obs. Temp 105.2 °F	Time 13:14 13:30
Manufacturer Micro Motion	Obs. Press 0.0 psi	Product Crude Crude
Size in	API Table Table A - Crude Oil (2004)	Flowrate 42 bbl/hr 21 bbl/hr
Serial No. 14518598	Base Density 44.4 °API HYC Y	Totalizer
Model No.		Throughput
		Base Density 44.4 °API 44.4 °API
Prover Data	Tolerances	
BPV 1.18820 bbl	Tolerance Type: Repeatability	Avg Pvr Temp 100.4 101.8
I.D. 7.981 in	Maximum Deviation: 0.050 %	Avg Pvr Press 125.0 138.0
W.T. 0.322 in	Enabled? Y Passed? Y Min # of Runs: 5	Repeatability 0.032 % 0.039 %
Manufacturer DOMINION	Criteria: 5 out of 5 consecutive runs	CMF 1.0017 1.0022
Type Displacement-Sphere	Avg X Prev Meter Factor Deviation:	CMF Variance -0.0001 0.0005
Serial No. 23MM	Enabled? N Passed? Y Prod Dep? N	
Elasticity 3.0E7 1/psi	Prev X Factor Count Sought: 1	
Pipe Gc 1.86E-5 1/°F	Prev X Factor Count Used: 0	
	Cut Off History? N Cutoff Date:	
	Prev Meter Factor Deviation:	
Certified	Enabled? N Passed? Y Prod Dep? N	
	Proving Mode: Volumetric	
	Density Mode: Manual	
	Calc. Method: Avg. Meter Factor	
	Proving Method: PIU	
	Passes Per Run 1	
		Liquid Properties at Metering
		Conditions for CMF
		Normal Op. Pressure 131.0 psig
		Eq. Vapor Pressure 0.0 psig
		CPL 1.0009

Run	TEMPERATURE	PRESSURE	PULSES	Run Accepted ?	IMF	Flowrate
	Tp Tm	Pp Pm	N			bb/hr
1	101.9 101.9	138.0 141.0	11877.717	1 Yes	1.00123	20.769
2	102.1 102.1	138.0 141.0	11878.201	2 Yes	1.00119	20.816
3	101.6 101.6	138.0 141.0	11873.377	3 Yes	1.00158	20.868
4	101.5 101.5	138.0 141.0	11876.206	4 Yes	1.00134	20.838
5	101.8 101.8	138.0 141.0	11877.445	5 Yes	1.00126	20.853
Average	101.8 101.8	138.0 141.0	11876.5892		1.00132	20.829

(1) GSVp: BPV * [CTSp * CPSP * CTLp * CPLp = CCFp]

BPV	CTSp	CPSP	CTLp	CPLp	CCFp	GSVp
1.18820	1.00078	1.00011	0.97778	1.00094	0.97957	1.16393

(2) ISVm: [N(avg) ÷ NKF = IVm] * [CTLm * CPLm = CCFm]

N(avg)	NKF	IVm	CTLm	CPLm	CCFm	ISVm
11876.5892	10000.0000	1.18766	0.97778	1.00096	0.97872	1.16239

(3) Proving Factors:

>>>> (1) GSVp ÷ ISVm = 1.0013 MF
(2) MF * CPL = 1.0022 CMF
(3) 1 ÷ MF = 0.9987 MA
(4) NKF ÷ MF = 9987.0 KF
(5) KF ÷ CPL = 9978.0 CKF

Repeatability: 0.039 %
Uncertainty: 0.021 %

Trans. Serial No.
Flow Calib Factor
Density Calib Factor
Frequency Set Point
Flowrate Set Point
Zero Verified
As Found
Zeroed
As Left

Technician:

Witness:

PROVEIT

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PROVEIT PROVEIT 8.7.0.0

10/18/2016 20:38 Page: 1
Revision: 1

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Run	TEMPERATURE		PRESSURE		PULSES	Run Accepted ?		IMF	Flowrate
	Tp	Tm	Pp	Pm	N				bb/hr
1	100.3	100.3	92.0	92.0	11873.334	1	Yes	1.00156	20.766
2	102.1	102.1	92.0	92.0	11874.581	2	Yes	1.00148	20.832
3	103.3	103.3	92.0	92.0	11875.934	3	Yes	1.00140	20.845
4	104.1	104.1	92.0	92.0	11875.742	4	Yes	1.00142	20.842
5	104.8	104.8	92.0	92.0	11874.521	5	Yes	1.00153	20.866
Average	102.9	102.9	92.0	92.0	11874.8224			1.00148	20.830

<i>BPV</i>	<i>CTSp</i>	<i>CPSp</i>	<i>CTLp</i>	<i>CPLp</i>	<i>CCFp</i>	<i>GSVp</i>
1.18820	1.00080	1.00008	0.97729	1.00062	0.97876	1.16296

<i>N</i> (avg)	<i>NKF</i>	<i>IVm</i>	<i>CTLm</i>	<i>CPLm</i>	<i>CCFm</i>	<i>ISVm</i>
11874.8224	10000.0000	1.18748	0.97729	1.00062	0.97790	1.16124

>>>>	(1)	GSVp ÷ ISVm =	1.0015	MF
	(2)	MF * CPL =	1.0021	CMF
	(3)	1 ÷ MF =	0.9985	MA
	(4)	NKF ÷ MF =	9985.0	KF
	(5)	KF ÷ CPL =	9979.0	KCF

Repeatability: 0.016 %
Uncertainty: 0.009 %

Trans. Serial No.	
Flow Calib Factor	
Density Calib Factor	
Frequency Set Point	
Flowrate Set Point	
Zero Verified	Zeroed
As Found	As Left

Witness:

Customer: WPX -
 Operator:
 Location:
 Federal ID: SEC.7 T23N R6W NMPM

NE CNA co

Meter Data 67412825 WPX 181H Factor Tracked Composite MF(CMF) Temp Compensated No NKF 10000.0000 N/bbl Manufacturer Micro Motion Size in Serial No. 14518598 Model No.	Product Data Name Crude Batch No. Obs. Gravity 48.8 °API Obs. Temp 114.0 °F Obs. Press 0.0 psi API Table Table A - Crude Oil (2004) Base Density 43.8 °API HYC Y	Proving Data <table style="width:100%;"> <tr> <th></th> <th style="text-align: center;"><u>Previous</u></th> <th style="text-align: center;"><u>Current</u></th> </tr> <tr> <td>Task ID</td> <td>1473981479</td> <td>1473981642</td> </tr> <tr> <td>Date</td> <td>09/16/2016</td> <td>09/16/2016</td> </tr> <tr> <td>Time</td> <td>11:17</td> <td>11:20</td> </tr> <tr> <td>Product</td> <td>Crude</td> <td>Crude</td> </tr> <tr> <td>Flowrate</td> <td>41 bbl/hr</td> <td>20 bbl/hr</td> </tr> <tr> <td>Totalizer</td> <td></td> <td></td> </tr> <tr> <td>Throughput</td> <td></td> <td></td> </tr> <tr> <td>Base Density</td> <td>43.8 °API</td> <td>43.8 °API</td> </tr> <tr> <td>Avg Pvr Temp</td> <td>111.3</td> <td>113.4</td> </tr> <tr> <td>Avg Pvr Press</td> <td>127.0</td> <td>100.0</td> </tr> <tr> <td>Repeatability</td> <td>0.032 %</td> <td>0.041 %</td> </tr> <tr> <td>CMF</td> <td>1.0017</td> <td>1.0018</td> </tr> <tr> <td>CMF Variance</td> <td>0.0000</td> <td>0.0001</td> </tr> </table>		<u>Previous</u>	<u>Current</u>	Task ID	1473981479	1473981642	Date	09/16/2016	09/16/2016	Time	11:17	11:20	Product	Crude	Crude	Flowrate	41 bbl/hr	20 bbl/hr	Totalizer			Throughput			Base Density	43.8 °API	43.8 °API	Avg Pvr Temp	111.3	113.4	Avg Pvr Press	127.0	100.0	Repeatability	0.032 %	0.041 %	CMF	1.0017	1.0018	CMF Variance	0.0000	0.0001
	<u>Previous</u>	<u>Current</u>																																										
Task ID	1473981479	1473981642																																										
Date	09/16/2016	09/16/2016																																										
Time	11:17	11:20																																										
Product	Crude	Crude																																										
Flowrate	41 bbl/hr	20 bbl/hr																																										
Totalizer																																												
Throughput																																												
Base Density	43.8 °API	43.8 °API																																										
Avg Pvr Temp	111.3	113.4																																										
Avg Pvr Press	127.0	100.0																																										
Repeatability	0.032 %	0.041 %																																										
CMF	1.0017	1.0018																																										
CMF Variance	0.0000	0.0001																																										
Prover Data BPV 1.18820 bbl I.D. 7.981 in W.T. 0.322 in Manufacturer DOMINION Type Displacement-Sphere Serial No. 23MM Elasticity 3.0E7 1/psi Pipe Gc 1.86E-5 1°F Certified	Tolerances Tolerance Type: Repeatability Maximum Deviation: 0.050 % Enabled? Y Passed? Y Min # of Runs: 5 Criteria: 5 out of 5 consecutive runs Avg X Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Prev X Factor Count Sought: 1 Prev X Factor Count Used: 0 Cut Off History? N Cutoff Date: Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Proving Mode: Volumetric Density Mode: Manual Calc. Method: Avg. Meter Factor Proving Method: Manual Passes Per Run 1	Liquid Properties at Metering Conditions for CMF Normal Op. Pressure 97.0 psig Eq. Vapor Pressure 0.0 psig CPL 1.0007																																										

Run	TEMPERATURE		PRESSURE		PULSES	Run Accepted ?		IMF	Flowrate
	Tp	Tm	Pp	Pm	N				bbl/hr
1	114.5	114.5	100.0	106.0	11884.000	1	Yes	1.00087	20.000
2	112.5	112.5	100.0	106.0	11879.000	2	Yes	1.00127	20.000
3	112.5	112.5	100.0	106.0	11881.000	3	Yes	1.00111	20.000
4	113.6	113.6	100.0	106.0	11879.000	4	Yes	1.00128	20.000
5	113.9	113.9	100.0	106.0	11882.000	5	Yes	1.00103	20.000
Average	113.4	113.4	100.0	106.0	11881.0000			1.00111	20.000

(1) GSVp: $BPV * [CTSp * CPSP * CTLp * CPLp = CCFp]$

BPV	CTSp	CPSP	CTLp	CPLp	CCFp	GSVp
1.18820	1.00099	1.00008	0.97176	1.00070	0.97348	1.15669

(2) ISVm: $[N(avg) \div NKF = IVm] * [CTLm * CPLm = CCFm]$

N(avg)	NKF	IVm	CTLm	CPLm	CCFm	ISVm
11881.0000	10000.0000	1.18810	0.97176	1.00075	0.97249	1.15542

(3) Proving Factors:

>>>> (1) $GSVp \div ISVm = 1.0011$ MF
 (2) $MF * CPL = 1.0018$ CMF
 (3) $1 \div MF = 0.9989$ MA
 (4) $NKF \div MF = 9989.0$ KF
 (5) $KF \div CPL = 9982.0$ CKF

Repeatability: 0.041 %
 Uncertainty: 0.022 %

Trans. Serial No. Flow Calib Factor Density Calib Factor Frequency Set Point Flowrate Set Point Zero Verified As Found	Zeroed As Left
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Technician:

Witness:

PROVE

Customer: WPX -
 Operator:
 Location:
 Federal ID: SEC.8 T23N R6W NMPM

NE Chad Com

Meter Data 67413117 WPX 199H Factor Tracked Composite MF(CMF) Temp Compensated No NKF 10000.0000 N/bbl Manufacturer Micro Motion Size 1.00 in Serial No. 14518632 Model No.	Product Data Name Crude Batch No. Obs. Gravity 46.5 °API Obs. Temp 110.0 °F Obs. Press 0.0 psi API Table Table A - Crude Oil (2004) Base Density 42.0 °API HYC Y	Proving Data <u>Previous</u> <u>Current</u> Task ID 1468368066 1471550513 Date 07/12/2016 08/18/2016 Time 12:01 8:01 Product Crude Crude Flowrate 42 bbl/hr 15 bbl/hr Totalizer Throughput Base Density 41.8°API 42.0 °API Avg Prvr Temp 96.0 107.4 Avg Prvr Press 220.0 134.0 Repeatability 0.004 % 0.010 % CMF 0.9993 0.9993 CMF Variance -0.0040 0.0000
Prover Data BPV 1.18820 bbl I.D. 7.981 in W.T. 0.322 in Manufacturer DOMINION Type Displacement-Sphere Serial No. 23MM Elasticity 3.0E7 1/psi Pipe Gc 1.86E-5 1°F Certified	Tolerances Tolerance Type: Repeatability Maximum Deviation: 0.050 % Enabled? Y Passed? Y Min # of Runs: 5 Criteria: 5 out of 5 consecutive runs Avg X Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Prev X Factor Count Sought: 1 Prev X Factor Count Used: 0 Cut Off History? N Cutoff Date: Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Proving Mode: Volumetric Density Mode: Manual Calc. Method: Avg. Meter Factor Proving Method: Manual Passes Per Run 1	Liquid Properties at Metering Conditions for CMF Normal Op. Pressure 130.0 psig Eq. Vapor Pressure 0.0 psig CPL 1.0009

Run	TEMPERATURE		PRESSURE		PULSES	Run Accepted ?		IMF	Flowrate
	Tp	Tm	Pp	Pm	N				bb/hr
1	105.9	105.9	134.0	135.0	11912.274	1	Yes	0.99842	14.551
2	107.1	107.1	134.0	135.0	11912.761	2	Yes	0.99839	14.549
3	107.5	107.5	134.0	135.0	11913.525	3	Yes	0.99832	14.545
4	108.0	108.0	134.0	135.0	11912.745	4	Yes	0.99840	14.643
5	108.4	108.4	134.0	135.0	11912.793	5	Yes	0.99842	14.632
Average	107.4	107.4	134.0	135.0	11912.8196			0.99839	14.584

(1) GSVp: BPV * [CTSp * CPSP * CTLp * CPLp = CCFp]

BPV	CTSp	CPSP	CTLp	CPLp	CCFp	GSVp
1.18820	1.00088	1.00011	0.97547	1.00089	0.97730	1.16123

(2) ISVm: [N(avg) + NKF = IVm] * [CTLm * CPLm = CCFm]

N(avg)	NKF	IVm	CTLm	CPLm	CCFm	ISVm
11912.8196	10000.0000	1.19128	0.97547	1.00090	0.97635	1.16311

(3) Proving Factors:

>>>> (1)	GSVp ÷ ISVm =	0.9984	MF	Trans. Serial No. Flow Calib Factor Density Calib Factor Frequency Set Point Flowrate Set Point Zero Verified As Found
(2)	MF * CPL =	0.9993	CMF	
(3)	1 ÷ MF =	1.0016	MA	
(4)	NKF + MF =	10016	KF	
(5)	KF ÷ CPL =	10007	CKF	

Repeatability: 0.010 %
 Uncertainty: 0.005 %

Technician

Witness:

PROVE

NECHACUM con
3003431247

Uncertainty: 0.0007 %

Technician: 

Witness:

PROVE

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10/18/2016 20:39 Page: 1
Revision:

Customer: WPX -
 Operator:
 Location:
 Federal ID: SEC.8 T23N R6W NMPM

RECHACO

Meter Data 67413117 WPX 199H Factor Tracked Composite MF(CMF) Temp Compensated No NKF 10000.0000 N/bbl Manufacturer Micro Motion Size 1.00 in Serial No. 14518632 Model No.	Product Data Name Crude Batch No. Obs. Gravity 46.6 °API Obs. Temp 117.0 °F Obs. Press 0.0 psi API Table Table A - Crude Oil (2004) Base Density 41.5 °API HYC Y	Proving Data <table style="width:100%;"> <tr> <th style="text-align: left;"><u>Previous</u></th> <th style="text-align: left;"><u>Current</u></th> </tr> <tr> <td>Task ID 1473976776</td> <td>1473981311</td> </tr> <tr> <td>Date 09/15/2016</td> <td>09/15/2016</td> </tr> <tr> <td>Time 9:59</td> <td>11:15</td> </tr> <tr> <td>Product Crude</td> <td>Crude</td> </tr> <tr> <td>Flowrate 41 bbl/hr</td> <td>14 bbl/hr</td> </tr> <tr> <td>Totalizer</td> <td></td> </tr> <tr> <td>Throughput</td> <td></td> </tr> <tr> <td>Base Density 41.5 °API</td> <td>41.5 °API</td> </tr> <tr> <td>Avg Prvr Temp 114.0</td> <td>112.8</td> </tr> <tr> <td>Avg Prvr Press 167.0</td> <td>108.0</td> </tr> <tr> <td>Repeatability 0.049 %</td> <td>0.035 %</td> </tr> <tr> <td>CMF 1.0002</td> <td>0.9988</td> </tr> <tr> <td>CMF Variance -0.0001</td> <td>-0.0014</td> </tr> </table>	<u>Previous</u>	<u>Current</u>	Task ID 1473976776	1473981311	Date 09/15/2016	09/15/2016	Time 9:59	11:15	Product Crude	Crude	Flowrate 41 bbl/hr	14 bbl/hr	Totalizer		Throughput		Base Density 41.5 °API	41.5 °API	Avg Prvr Temp 114.0	112.8	Avg Prvr Press 167.0	108.0	Repeatability 0.049 %	0.035 %	CMF 1.0002	0.9988	CMF Variance -0.0001	-0.0014
<u>Previous</u>	<u>Current</u>																													
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CMF Variance -0.0001	-0.0014																													
Prover Data BPV 1.18820 bbl I.D. 7.981 in W.T. 0.322 in Manufacturer DOMINION Type Displacement-Sphere Serial No. 23MM Elasticity 3.0E7 1/psi Pipe Gc 1.86E-5 1/°F Certified	Tolerances Tolerance Type: Repeatability Maximum Deviation: 0.050 % Enabled? Y Passed? Y Min # of Runs: 5 Criteria: 5 out of 5 consecutive runs Avg X Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Prev X Factor Count Sought: 1 Prev X Factor Count Used: 0 Cut Off History? N Cutoff Date: Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Proving Mode: Volumetric Density Mode: Manual Calc. Method: Avg. Meter Factor Proving Method: Manual Passes Per Run 1	Liquid Properties at Metering Conditions for CMF Normal Op. Pressure 98.0 psig Eq. Vapor Pressure 0.0 psig CPL 1.0007																												

Run	TEMPERATURE		PRESSURE		PULSES	Run Accepted ?		IMF	Flowrate
	Tp	Tm	Pp	Pm	N				bbl/hr
1	113.7	113.7	108.0	112.0	11915.000	1	Yes	0.99828	14.000
2	112.7	112.7	108.0	112.0	11917.000	2	Yes	0.99810	14.000
3	112.5	112.5	108.0	112.0	11918.000	3	Yes	0.99802	14.000
4	112.5	112.5	108.0	112.0	11919.000	4	Yes	0.99794	14.000
5	112.4	112.4	108.0	112.0	11919.000	5	Yes	0.99793	14.000
Average	112.8	112.8	108.0	112.0	11917.6000			0.99805	14.000

(1) GSVp: BPV * [CTSp * CPSp * CTLp * CPLp = CCFp]

BPV	CTSp	CPSp	CTLp	CPLp	CCFp	GSVp
1.18820	1.00098	1.00009	0.97281	1.00073	0.97456	1.15797

(2) ISVm: [N(avg) ÷ NKF = IVm] * [CTLm * CPLm = CCFm]

N(avg)	NKF	IVm	CTLm	CPLm	CCFm	ISVm
11917.6000	10000.0000	1.19176	0.97281	1.00075	0.97354	1.16023

(3) Proving Factors:

>>>> (1) GSVp ÷ ISVm = 0.9981 MF
 (2) MF * CPL = 0.9988 CMF
 (3) 1 ÷ MF = 1.0019 MA
 (4) NKF ÷ MF = 10019 KF
 (5) KF ÷ CPL = 10012 CKF

Repeatability: 0.035 %
 Uncertainty: 0.019 %

Trans. Serial No. Flow Calib Factor Density Calib Factor Frequency Set Point Flowrate Set Point Zero Verified As Found	Zeroed As Left
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Technician:

Witness:

PROVE

Customer: WPX -
 Operator:
 Location:
 Federal ID: SEC.17 T23N R6W NMPM

15 CAA CO

17-23N-6W

Meter Data	Product Data	Proving Data
67412945 WPX 201H Factor Tracked Composite MF(CMF) Temp Compensated No NKF 10000.0000 N/bbl Manufacturer Micro Motion Size 1.00 in Serial No. 14518601 Model No.	Name Crude Batch No. Obs. Gravity 43.0 °API Obs. Temp 95.0 °F Obs. Press 0.0 psi API Table Table A - Crude Oil (2004) Base Density 40.0 °API HYC Y	Previous Current Task ID 1468364008 1471470714 Date 07/12/2016 08/17/2016 Time 10:53 9:51 Product Crude Crude Flowrate 42 bbl/hr 13 bbl/hr Totalizer Throughput Base Density 43.1°API 40.0 °API Avg Prvr Temp 77.5 91.3 Avg Prvr Press 175.0 100.0 Repeatability 0.026 % 0.027 % CMF 1.0009 1.0022 CMF Variance -0.0041 0.0013
Prover Data BPV 1.18820 bbl I.D. 7.981 in W.T. 0.322 in Manufacturer DOMINION Type Displacement-Sphere Serial No. 23MM Elasticity 3.0E7 1/psi Pipe Gc 1.86E-5 1°F Certified	Tolerances Tolerance Type: Repeatability Maximum Deviation: 0.050 % Enabled? Y Passed? Y Min # of Runs: 5 Criteria: 5 out of 5 consecutive runs Avg X Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Prev X Factor Count Sought: 1 Prev X Factor Count Used: 0 Cut Off History? N Cutoff Date: Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Proving Mode: Volumetric Density Mode: Manual Calc. Method: Avg. Meter Factor Proving Method: PIU Passes Per Run 1	Liquid Properties at Metering Conditions for CMF Normal Op. Pressure 100.0 psig Eq. Vapor Pressure psig CPL 1.0006

Run	TEMPERATURE		PRESSURE		PULSES	Run Accepted ?		IMF	Flowrate
	Tp	Tm	Pp	Pm	N				bb/hrs
1	90.7	90.7	100.0	110.0	11871.255	1	Yes	1.00149	12.513
2	90.7	90.7	100.0	110.0	11870.913	2	Yes	1.00151	12.514
3	91.0	91.0	100.0	110.0	11868.209	3	Yes	1.00176	12.515
4	92.0	92.0	100.0	110.0	11871.274	4	Yes	1.00152	12.513
5	92.1	92.1	100.0	110.0	11870.454	5	Yes	1.00159	12.530
Average	91.3	91.3	100.0	110.0	11870.4210			1.00167	12.517

(1) GSVp: BPV * [CTSp * CPSp * CTLp * CPLp = CCFp]

BPV	CTSp	CPSp	CTLp	CPLp	CCFp	GSVp
1.18820	1.00058	1.00008	0.98421	1.00061	0.98546	1.17092

(2) ISVm: [N(avg) ÷ NKF = IVm] * [CTLm * CPLm = CCFm]

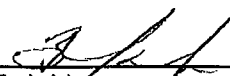
N(avg)	NKF	IVm	CTLm	CPLm	CCFm	ISVm
11870.4210	10000.0000	1.18704	0.98421	1.00067	0.98487	1.16908

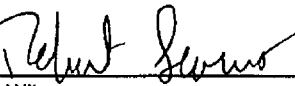
(3) Proving Factors:

>>>> (1) GSVp ÷ ISVm = 1.0016 MF
 (2) MF * CPL = 1.0022 CMF
 (3) 1 ÷ MF = 0.9984 MA
 (4) NKF ÷ MF = 9984.0 KF
 (5) KF ÷ CPL = 9978.0 CKF

Repeatability: 0.027 %
 Uncertainty: 0.014 %

Trans. Serial No.	
Flow Calib Factor	
Density Calib Factor	
Frequency Set Point	
Flowrate Set Point	
Zero Verified	Zeroed
As Found	As Left


 Technician:


 Witness:

PROVE

Customer: WPX -
 Operator:
 Location:
 Federal ID: SEC.17 T23N R6W NMPM

NE CHACO
 17-23N-6W

Meter Data 67412945 WPX 201H Factor Tracked Composite MF(CMF) Temp Compensated No NKF 10000.0000 N/bbl Manufacturer Micro Motion Size 1.00 in Serial No. 14518601 Model No.	Product Data Name Crude Batch No. Obs. Gravity 46.3 °API Obs. Temp 83.0 °F Obs. Press 0.0 psi API Table Table A - Crude Oil (2004) Base Density 44.2 °API HYC Y	Proving Data <table style="width:100%;"> <tr> <th></th> <th style="text-align: center;">Previous</th> <th style="text-align: center;">Current</th> </tr> <tr> <td>Task ID</td> <td style="text-align: center;">1473802697</td> <td style="text-align: center;">1473802869</td> </tr> <tr> <td>Date</td> <td style="text-align: center;">09/13/2016</td> <td style="text-align: center;">09/13/2016</td> </tr> <tr> <td>Time</td> <td style="text-align: center;">9:38</td> <td style="text-align: center;">9:41</td> </tr> <tr> <td>Product</td> <td style="text-align: center;">Crude</td> <td style="text-align: center;">Crude</td> </tr> <tr> <td>Flowrate</td> <td style="text-align: center;">41 bbl/hr</td> <td style="text-align: center;">12 bbl/hr</td> </tr> <tr> <td>Totalizer</td> <td></td> <td></td> </tr> <tr> <td>Throughput</td> <td></td> <td></td> </tr> <tr> <td>Base Density</td> <td style="text-align: center;">44.2 °API</td> <td style="text-align: center;">44.2 °API</td> </tr> <tr> <td>Avg Pvr Temp</td> <td style="text-align: center;">83.8</td> <td style="text-align: center;">81.9</td> </tr> <tr> <td>Avg Pvr Press</td> <td style="text-align: center;">138.0</td> <td style="text-align: center;">103.0</td> </tr> <tr> <td>Repeatability</td> <td style="text-align: center;">0.043 %</td> <td style="text-align: center;">0.042 %</td> </tr> <tr> <td>CMF</td> <td style="text-align: center;">1.0012</td> <td style="text-align: center;">1.0026</td> </tr> <tr> <td>CMF Variance</td> <td style="text-align: center;">0.0002</td> <td style="text-align: center;">0.0014</td> </tr> </table>		Previous	Current	Task ID	1473802697	1473802869	Date	09/13/2016	09/13/2016	Time	9:38	9:41	Product	Crude	Crude	Flowrate	41 bbl/hr	12 bbl/hr	Totalizer			Throughput			Base Density	44.2 °API	44.2 °API	Avg Pvr Temp	83.8	81.9	Avg Pvr Press	138.0	103.0	Repeatability	0.043 %	0.042 %	CMF	1.0012	1.0026	CMF Variance	0.0002	0.0014
	Previous	Current																																										
Task ID	1473802697	1473802869																																										
Date	09/13/2016	09/13/2016																																										
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Prover Data BPV 1.18820 bbl I.D. 7.981 in W.T. 0.322 in Manufacturer DOMINION Type Displacement-Sphere Serial No. 23MM Elasticity 3.0E7 1/psi Pipe Gc 1.86E-5 1/F Certified	Tolerances Tolerance Type: Repeatability Maximum Deviation: 0.050 % Enabled? Y Passed? Y Min # of Runs: 5 Criteria: 5 out of 5 consecutive runs Avg X Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Prev X Factor Count Sought: 1 Prev X Factor Count Used: 0 Cut Off History? N Cutoff Date: Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Proving Mode: Volumetric Density Mode: Manual Calc. Method: Avg. Meter Factor Proving Method: Manual Passes Per Run 1	Liquid Properties at Metering Conditions for CMF Normal Op. Pressure 98.0 psig Eq. Vapor Pressure 0.0 psig CPL 1.0006																																										

Run	TEMPERATURE		PRESSURE		PULSES	Run Accepted ?		IMF	Flowrate
	Tp	Tm	Pp	Pm	N				bbl/hr
1	82.1	82.1	103.0	108.0	11867.000	1	Yes	1.00174	12.000
2	82.5	82.5	103.0	108.0	11864.000	2	Yes	1.00200	12.000
3	81.3	81.3	103.0	108.0	11862.000	3	Yes	1.00215	12.000
4	82.0	82.0	103.0	108.0	11865.000	4	Yes	1.00191	12.000
5	81.8	81.8	103.0	108.0	11862.000	5	Yes	1.00216	12.000
Average	81.9	81.9	103.0	108.0	11864.0000			1.00199	12.000

(1) GSVp: $BPV * [CTSp * CPSp * CTLp * CPLp = CCFp]$

BPV	CTSp	CPSp	CTLp	CPLp	CCFp	GSVp
1.18820	1.00041	1.00009	0.98842	1.00065	0.98956	1.17580

(2) ISVm: $[N(avg) \div NKF = IVm] * [CTLm * CPLm = CCFm]$

N(avg)	NKF	IVm	CTLm	CPLm	CCFm	ISVm
11864.0000	10000.0000	1.18640	0.98842	1.00068	0.98909	1.17346

(3) Proving Factors:

>>>> (1) $GSVp \div ISVm = 1.0020$ MF
 (2) $MF * CPL = 1.0026$ CMF
 (3) $1 \div MF = 0.9980$ MA
 (4) $NKF \div MF = 9980.0$ KF
 (5) $KF \div CPL = 9974.0$ CKF

Repeatability: 0.042 %
 Uncertainty: 0.022 %

Trans. Serial No. Flow Calib Factor Density Calib Factor Frequency Set Point Flowrate Set Point Zero Verified As Found	Zeroed As Left
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Technician:

Witness:

PROVE

Customer: WPX -

Operator:

Location:

Federal ID: *NE CHACO*

Meter Data	Product Data	Proving Data
67411556 WPX 206H Factor Tracked Composite MF(CMF) Temp Compensated No NKF 10000.0000 N/bbl Manufacturer Micro Motion Size 1.00 in Serial No. 14518573 Model No.	Name Crude Batch No. Obs. Gravity 47.4 °API Obs. Temp 106.8 °F Obs. Press 0.0 psi API Table Table A - Crude Oil (2004) Base Density 43.1 °API HYC Y	Previous Current Task ID 1476926317 1476927350 Date 10/19/2016 10/19/2016 Time 13:18 13:35 Product Crude Crude Flowrate 42 bbl/hr 13 bbl/hr Totalizer Throughput Base Density 43.1 °API 43.1 °API
Prover Data BPV 1.18820 bbl I.D. 7.981 in W.T. 0.322 in Manufacturer DOMINION Type Displacement-Sphere Serial No. 23MM Elasticity 3.0E7 1/psi Pipe Gc 1.86E-5 1/°F Certified	Tolerances Tolerance Type: Repeatability Maximum Deviation: 0.050 % Enabled? Y Passed? Y Min # of Runs: 5 Criteria: 5 out of 5 consecutive runs Avg X Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Prev X Factor Count Sought: 1 Prev X Factor Count Used: 0 Cut Off History? N Cutoff Date: Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Proving Mode: Volumetric Density Mode: Manual Calc. Method: Avg. Meter Factor Proving Method: PIU Passes Per Run 1	Avg Prvr Temp 101.6 100.9 Avg Prvr Press 89.0 55.0 Repeatability 0.043 % 0.037 % CMF 1.0022 1.0021 CMF Variance 0.0003 -0.0001
		Liquid Properties at Metering Conditions for CMF Normal Op. Pressure 53.0 psig Eq. Vapor Pressure 0.0 psig CPL 1.0004

Run	TEMPERATURE Tp Tm	PRESSURE Pp Pm	PULSES N	Run Accepted ?	IMF	Flowrate bbl/hr
1	102.6 102.6	55.0 58.0	11868.885	1 Yes	1.00192	12.470
2	100.1 100.1	55.0 58.0	11870.612	2 Yes	1.00175	12.501
3	100.7 100.7	55.0 58.0	11872.689	3 Yes	1.00158	12.514
4	100.7 100.7	55.0 58.0	11873.104	4 Yes	1.00155	12.538
5	100.5 100.5	55.0 58.0	11870.537	5 Yes	1.00176	12.530
Average	100.9 100.9	55.0 58.0	11871.1654		1.00171	12.511

(1) GSVp: $BPV * [CTSp * CPSp * CTLp * CPLp = CCFp]$

BPV	CTSp	CPSp	CTLp	CPLp	CCFp	GSVp
1.18820	1.00076	1.00005	0.97858	1.00036	0.97973	1.16412

(2) ISVm: $[N(avg) \div NKF = IVm] * [CTLm * CPLm = CCFm]$

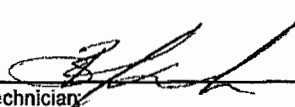
N(avg)	NKF	IVm	CTLm	CPLm	CCFm	ISVm
11871.1654	10000.0000	1.18712	0.97858	1.00038	0.97895	1.16213

(3) Proving Factors:

>>>> (1) GSVp + ISVm = 1.0017 MF
 (2) MF * CPL = 1.0021 CMF
 (3) 1 + MF = 0.9983 MA
 (4) NKF + MF = 9983.0 KF
 (5) KF + CPL = 9979.0 CKF

Trans. Serial No.	
Flow Calib Factor	
Density Calib Factor	
Frequency Set Point	
Flowrate Set Point	
Zero Verified	Zeroed
As Found	As Left

Repeatability: 0.037 %
 Uncertainty: 0.020 %

Technician: 

Witness:

PROVE

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 PROVEit PROVEit 8.7.0.0

10/19/2016 14:21 Page: 1
 Revision: 1

Customer: WPX -
Operator:
Location:
Federal ID: SEC.16 T23N R6W NMPM

NE CHACO
16-23N-6W

Meter Data 67422755 WPX 209H Factor Tracked Composite MF(CMF) Temp Compensated No NKF 10000.0000 N/bbl Manufacturer Micro Motion Size 1.00 in Serial No. 14517620 Model No.	Product Data Name Crude Batch No. Obs. Gravity 44.3 °API Obs. Temp 90.0 °F Obs. Press 0.0 psi API Table Table A - Crude Oil (2004) Base Density 41.7 °API HYC Y	Proving Data <table style="width:100%;"> <tr> <th style="text-align: left;"><u>Previous</u></th> <th style="text-align: left;"><u>Current</u></th> </tr> <tr> <td>Task ID 1468360182</td> <td>1470354213</td> </tr> <tr> <td>Date 07/12/2016</td> <td>08/04/2016</td> </tr> <tr> <td>Time 9:49</td> <td>11:43</td> </tr> <tr> <td>Product Crude</td> <td>Crude</td> </tr> <tr> <td>Flowrate 42 bbl/hr</td> <td>23 bbl/hr</td> </tr> <tr> <td>Totalizer</td> <td></td> </tr> <tr> <td>Throughput</td> <td></td> </tr> <tr> <td>Base Density 41.8°API</td> <td>41.7 °API</td> </tr> <tr> <td>Avg Pvr Temp 88.5</td> <td>89.2</td> </tr> <tr> <td>Avg Pvr Press 215.0</td> <td>136.0</td> </tr> <tr> <td>Repeatability 0.029 %</td> <td>0.049 %</td> </tr> <tr> <td>CMF 0.9992</td> <td>1.0003</td> </tr> <tr> <td>CMF Variance -0.0001</td> <td>0.0011</td> </tr> </table>	<u>Previous</u>	<u>Current</u>	Task ID 1468360182	1470354213	Date 07/12/2016	08/04/2016	Time 9:49	11:43	Product Crude	Crude	Flowrate 42 bbl/hr	23 bbl/hr	Totalizer		Throughput		Base Density 41.8°API	41.7 °API	Avg Pvr Temp 88.5	89.2	Avg Pvr Press 215.0	136.0	Repeatability 0.029 %	0.049 %	CMF 0.9992	1.0003	CMF Variance -0.0001	0.0011
<u>Previous</u>	<u>Current</u>																													
Task ID 1468360182	1470354213																													
Date 07/12/2016	08/04/2016																													
Time 9:49	11:43																													
Product Crude	Crude																													
Flowrate 42 bbl/hr	23 bbl/hr																													
Totalizer																														
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Repeatability 0.029 %	0.049 %																													
CMF 0.9992	1.0003																													
CMF Variance -0.0001	0.0011																													
Prover Data BPV 1.18820 bbl I.D. 7.981 in W.T. 0.322 in Manufacturer DOMINION Type Displacement-Sphere Serial No. 23MM Elasticity 3.0E7 1/psi Pipe Gc 1.86E-5 1°F Certified	Tolerances Tolerance Type: Repeatability Maximum Deviation: 0.050 % Enabled? Y Passed? Y Min # of Runs: 5 Criteria: 5 out of 5 consecutive runs Avg X Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Prev X Factor Count Sought: 1 Prev X Factor Count Used: 0 Cut Off History? N Cutoff Date: Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Proving Mode: Volumetric Density Mode: Manual Calc. Method: Avg. Meter Factor Proving Method: PIU Passes Per Run 1	Liquid Properties at Metering Conditions for CMF Normal Op. Pressure 130.0 psig Eq. Vapor Pressure psig CPL 1.0008																												

Run	TEMPERATURE		PRESSURE		PULSES	Run Accepted ?	IMF	Flowrate bbl/hr
	Tp	Tm	Pp	Pm	N			
1	91.4	91.4	136.0	140.0	11893.686	1 Yes	0.99968	22.899
2	89.5	89.5	136.0	140.0	11897.138	2 Yes	0.99936	22.886
3	87.3	87.3	136.0	140.0	11894.065	3 Yes	0.99958	22.892
4	88.2	88.2	136.0	140.0	11892.492	4 Yes	0.99972	22.901
5	89.8	89.8	136.0	140.0	11898.648	5 Yes	0.99923	22.889
Average	89.2	89.2	136.0	140.0	11895.2058		0.99951	22.893

(1) GSVp: BPV * [CTSp * CPSP * CTLp * CPLp = CCFp]

BPV	CTSp	CPSP	CTLp	CPLp	CCFp	GSVp
1.18820	1.00054	1.00011	0.98498	1.00084	0.98645	1.17210

(2) ISVm: [N(avg) + NKF = IVm] * [CTLm * CPLm = CCFm]

N(avg)	NKF	IVm	CTLm	CPLm	CCFm	ISVm
11895.2058	10000.0000	1.18952	0.98498	1.00087	0.98584	1.17268

(3) Proving Factors:

>>>> (1) GSVp ÷ ISVm = 0.9995 MF
 (2) MF * CPL = 1.0003 CMF
 (3) 1 + MF = 1.0005 MA
 (4) NKF ÷ MF = 10005 KF
 (5) KF ÷ CPL = 9997.0 CKF

Repeatability: 0.049 %
 Uncertainty: 0.026 %

Trans. Serial No.	
Flow Calib Factor	
Density Calib Factor	
Frequency Set Point	
Flowrate Set Point	
Zero Verified	Zeroed
As Found	As Left

Technician:

PROVE

Witness:

Customer: WPX -
 Operator:
 Location:
 Federal ID: SEC.16 T23N R6W NMPM

Notched
16-23-6W

Meter Data 67422755 WPX 209H Factor Tracked Composite MF(CMF) Temp Compensated No NKF 10000.0000 N/bbl Manufacturer Micro Motion Size 1.00 in Serial No. 14517620 Model No.	Product Data Name Crude Batch No. Obs. Gravity 43.5 °API Obs. Temp 83.0 °F Obs. Press 0.0 psi API Table Table A - Crude Oil (2004) Base Density 41.5 °API HYC Y	Proving Data <table style="width:100%;"> <tr> <th style="text-align: left;"><u>Previous</u></th> <th style="text-align: left;"><u>Current</u></th> </tr> <tr> <td>Task ID 1470355923</td> <td>1473802365</td> </tr> <tr> <td>Date 08/04/2016</td> <td>09/13/2016</td> </tr> <tr> <td>Time 12:12</td> <td>9:32</td> </tr> <tr> <td>Product Crude</td> <td>Crude</td> </tr> <tr> <td>Flowrate 42 bbl/hr</td> <td>22 bbl/hr</td> </tr> <tr> <td>Totalizer</td> <td></td> </tr> <tr> <td>Throughput</td> <td></td> </tr> <tr> <td>Base Density 41.7°API</td> <td>41.5 °API</td> </tr> <tr> <td>Avg Prvr Temp 87.7</td> <td>83.8</td> </tr> <tr> <td>Avg Prvr Press 184.0</td> <td>139.0</td> </tr> <tr> <td>Repeatability 0.044 %</td> <td>0.037 %</td> </tr> <tr> <td>CMF 1.0006</td> <td><u>1.0004</u></td> </tr> <tr> <td>CMF Variance 0.0003</td> <td>-0.0002</td> </tr> </table>	<u>Previous</u>	<u>Current</u>	Task ID 1470355923	1473802365	Date 08/04/2016	09/13/2016	Time 12:12	9:32	Product Crude	Crude	Flowrate 42 bbl/hr	22 bbl/hr	Totalizer		Throughput		Base Density 41.7°API	41.5 °API	Avg Prvr Temp 87.7	83.8	Avg Prvr Press 184.0	139.0	Repeatability 0.044 %	0.037 %	CMF 1.0006	<u>1.0004</u>	CMF Variance 0.0003	-0.0002
<u>Previous</u>	<u>Current</u>																													
Task ID 1470355923	1473802365																													
Date 08/04/2016	09/13/2016																													
Time 12:12	9:32																													
Product Crude	Crude																													
Flowrate 42 bbl/hr	22 bbl/hr																													
Totalizer																														
Throughput																														
Base Density 41.7°API	41.5 °API																													
Avg Prvr Temp 87.7	83.8																													
Avg Prvr Press 184.0	139.0																													
Repeatability 0.044 %	0.037 %																													
CMF 1.0006	<u>1.0004</u>																													
CMF Variance 0.0003	-0.0002																													
Prover Data BPV 1.18820 bbl I.D. 7.981 in W.T. 0.322 in Manufacturer DOMINION Type Displacement-Sphere Serial No. 23MM Elasticity 3.0E7 1/psi Pipe Gc 1.86E-5 1°F Certified	Tolerances Tolerance Type: Repeatability Maximum Deviation: 0.050 % Enabled? Y Passed? Y Min # of Runs: 5 Criteria: 5 out of 5 consecutive runs Avg X Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Prev X Factor Count Sought: 1 Prev X Factor Count Used: 0 Cut Off History? N Cutoff Date: Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Proving Mode: Volumetric Density Mode: Manual Calc. Method: Avg. Meter Factor Proving Method: Manual Passes Per Run 1	Liquid Properties at Metering Conditions for CMF Normal Op. Pressure 126.0 psig Eq. Vapor Pressure 0.0 psig CPL 1.0008																												

Run	TEMPERATURE		PRESSURE		PULSES	Run Accepted ?		IMF	Flowrate
	Tp	Tm	Pp	Pm	N				bbVhr
1	85.0	85.0	139.0	140.0	11896.000	1	Yes	0.99940	22.000
2	84.4	84.4	139.0	140.0	11895.000	2	Yes	0.99946	22.000
3	83.2	83.2	139.0	140.0	11891.000	3	Yes	0.99977	22.000
4	83.2	83.2	139.0	140.0	11891.000	4	Yes	0.99977	22.000
5	83.2	83.2	139.0	140.0	11892.000	5	Yes	0.99969	22.000
Average	83.8	83.8	139.0	140.0	11893.0000			0.99962	22.000

(1) GSVp: BPV * [CTSp * CPSP * CTLp * CPLp = CCFp]

BPV	CTSp	CPSP	CTLp	CPLp	CCFp	GSVp
1.18820	1.00044	1.00011	0.98779	1.00084	0.98916	1.17532

(2) ISVm: [N(avg) ÷ NKF = IVm] * [CTLm * CPLm = CCFm]

N(avg)	NKF	IVm	CTLm	CPLm	CCFm	ISVm
11893.0000	10000.0000	1.18930	0.98779	1.00085	0.98863	1.17578

(3) Proving Factors:

>>>> (1) GSVp ÷ ISVm = 0.9996 MF
 (2) MF * CPL = 1.0004 CMF
 (3) 1 ÷ MF = 1.0004 MA
 (4) NKF ÷ MF = 10004 KF
 (5) KF ÷ CPL = 9996.0 CKF

Repeatability: 0.037 %
 Uncertainty: 0.020 %

Trans. Serial No.	
Flow Calib Factor	
Density Calib Factor	
Frequency Set Point	
Flowrate Set Point	
Zero Verified	Zeroed
As Found	As Left

Technician:

Witness:

PROVEIT

NE CHA Co. Cont'd 294
300431294

Normal Op. Pressure 82.0 psig
Eq. Vapor Pressure 0.0 psig
CPL 1.0005

10/13/2016 20:07 Page: 1
Revision: 1

Customer: WPX -

Operator:

Location:

Federal ID:

NECH
13-232-7w

Meter Data	Product Data	Proving Data
67412826 WPX 187H Factor Tracked Composite MF(CMF) Temp Compensated No NKF 10000.0000 N/bbl Manufacturer Micro Motion Size 1.00 in Serial No. 14518605 Model No.	Name Crude Batch No. Obs. Gravity 42.0 °API Obs. Temp 60.0 °F Obs. Press 0.0 psi API Table Table A - Crude Oil (2004) Base Density 42.0 °API HYC Y	Previous Current Task ID 1468356073 1470347823 Date 07/12/2016 08/04/2016 Time 8:41 9:57 Product Crude Crude Flowrate 42 bbl/hr 8 bbl/hr Totalizer Throughput Base Density 42.0 °API 42.0 °API Avg Pvr Temp 122.0 101.9 Avg Pvr Press 144.0 78.0 Repeatability 0.044 % 0.041 % CMF 0.9987 1.0014 CMF Variance -0.0034 0.0027
Prover Data BPV 1.18820 bbl I.D. 7.981 in W.T. 0.322 in Manufacturer DOMINION Type Displacement-Sphere Serial No. 23MM Elasticity 3.0E7 1/psi Pipe Gc 1.86E-5 1°F Certified	Tolerances Tolerance Type: Repeatability Maximum Deviation: 0.050 % Enabled? Y Passed? Y Min # of Runs: 5 Criteria: 5 out of 5 consecutive runs Avg X Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Prev X Factor Count Sought: 1 Prev X Factor Count Used: 0 Cut Off History? N Cutoff Date: Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Proving Mode: Volumetric Density Mode: Manual Calc. Method: Avg. Meter Factor Proving Method: Manual Passes Per Run 1	
		Liquid Properties at Metering Conditions for CMF Normal Op. Pressure 78.0 psig Eq. Vapor Pressure 0.0 psig CPL 1.0005

Run	TEMPERATURE Tp Tm	PRESSURE Pp Pm	PULSES N	Run Accepted ?	IMF	Flowrate bbVhr
1	100.1 100.1	78.0 80.0	11880.128	1 Yes	1.00095	8.198
2	102.1 102.1	78.0 80.0	11881.745	2 Yes	1.00085	8.308
3	102.3 102.3	78.0 80.0	11880.457	3 Yes	1.00096	8.234
4	102.3 102.3	78.0 80.0	11881.174	4 Yes	1.00090	8.234
5	102.7 102.7	78.0 80.0	11880.682	5 Yes	1.00095	8.145
Average	101.9 101.9	78.0 80.0	11880.8372		1.00092	8.224

(1) GSVp: BPV * [CTSp * CPSp * CTLp * CPLp = CCFp]

BPV	CTSp	CPSp	CTLp	CPLp	CCFp	GSVp
1.18820	1.00078	1.00006	0.97833	1.00051	0.97965	1.16402

(2) ISVm: [N(avg) + NKF = IVm] * [CTLm * CPLm = CCFm]

N(avg)	NKF	IVm	CTLm	CPLm	CCFm	ISVm
11880.8372	10000.0000	1.18808	0.97833	1.00052	0.97884	1.16294

(3) Proving Factors:

>>>> (1)	GSVp + ISVm =	1.0009	MF
(2)	MF * CPL =	1.0014	CMF
(3)	1 + MF =	0.9991	MA
(4)	NKF ÷ MF =	9991.0	KF
(5)	KF ÷ CPL =	9986.0	CKF

 Repeatability: 0.011 %
 Uncertainty: 0.006 %

Trans. Serial No.	
Flow Calib Factor	
Density Calib Factor	
Frequency Set Point	
Flowrate Set Point	
Zero Verified	Zeroed
As Found	As Left

Technician:

Witness:

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 08/04/2016 10:29 Page: 1
 Revision: 1

Customer: WPX -

Operator:

Location:

Federal ID:

nt C4A co

13-234-74

Meter Data	Product Data	Proving Data
67412826 WPX 187H Factor Tracked Composite MF(CMF) Temp Compensated No NKF 10000.0000 N/bbl Manufacturer Micro Motion Size 1.00 in Serial No. 14518605 Model No.	Name Crude Batch No. Obs. Gravity 43.5 °API Obs. Temp 98.0 °F Obs. Press 0.0 psi API Table Table A - Crude Oil (2004) Base Density 40.2 °API HYC Y	Previous Current Task ID 1473802004 1473802177 Date 09/13/2016 09/13/2016 Time 9:26 9:29 Product Crude Crude Flowrate 31 bbl/hr 10 bbl/hr Totalizer Throughput Base Density 40.2 °API 40.2 °API Avg Pvr Temp 104.3 104.1 Avg Pvr Press 116.0 98.0 Repeatability 0.017 % 0.043 % CMF 1.0006 1.0010 CMF Variance -0.0007 0.0004
Prover Data BPV 1.18820 bbl I.D. 7.981 in W.T. 0.322 in Manufacturer DOMINION Type Displacement-Sphere Serial No. 23MM Elasticity 3.0E7 1/psi Pipe Gc 1.86E-5 1/PF Certified	Tolerances Tolerance Type: Repeatability Maximum Deviation: 0.050 % Enabled? Y Passed? Y Min # of Runs: 5 Criteria: 5 out of 5 consecutive runs Avg X Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Prev X Factor Count Sought: 1 Prev X Factor Count Used: 0 Cut Off History? N Cutoff Date: Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Proving Mode: Volumetric Density Mode: Manual Calc. Method: Avg. Meter Factor Proving Method: Manual Passes Per Run 1	Liquid Properties at Metering Conditions for CMF Normal Op. Pressure 87.0 psig Eq. Vapor Pressure 0.0 psig CPL 1.0006

Run	TEMPERATURE		PRESSURE		PULSES	Run Accepted ?		IMF	Flowrate
	Tp	Tm	Pp	Pm	N				bb/hr
1	104.3	104.3	98.0	98.0	11885.000	1	Yes	1.00065	10.000
2	104.4	104.4	98.0	98.0	11890.000	2	Yes	1.00024	10.000
3	104.3	104.3	98.0	98.0	11888.000	3	Yes	1.00040	10.000
4	103.8	103.8	98.0	98.0	11888.000	4	Yes	1.00038	10.000
5	103.9	103.9	98.0	98.0	11890.000	5	Yes	1.00022	10.000
Average	104.1	104.1	98.0	98.0	11888.2000			1.00038	10.000

(1) GSVp: BPV * [CTSp * CPSp * CTLp * CPLp = CCFp]

BPV	CTSp	CPSp	CTLp	CPLp	CCFp	GSVp
1.18820	1.00082	1.00008	0.97766	1.00062	0.97915	1.16343

(2) ISVm: [N(avg) ÷ NKF = IVm] * [CTLm * CPLm = CCFm]

N(avg)	NKF	IVm	CTLm	CPLm	CCFm	ISVm
11888.2000	10000.0000	1.18882	0.97766	1.00062	0.97827	1.16299

(3) Proving Factors:

>>>>	(1)	GSVp ÷ ISVm =	1.0004	MF	Trans. Serial No.
	(2)	MF * CPL =	1.0010	CMF	Flow Calib Factor
	(3)	1 ÷ MF =	0.9996	MA	Density Calib Factor
	(4)	NKF ÷ MF =	9996.0	KF	Frequency Set Point
	(5)	KF ÷ CPL =	9990.0	CKF	Flowrate Set Point
Repeatability:		0.043 %			Zero Verified
Uncertainty:		0.023 %			As Found
					Zeroed
					As Left

Technician:

Witness:

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PROVEIT PROVEIT 8.7.0.009/13/2016 9:31 Page: 1
Revision: 1

NECLAWCWA
13-2327W
30-034-3120X

Run	TEMPERATURE		PRESSURE		PULSES	Run Accepted ?		IMF	Flowrate bb/hrs
	Tp	Tm	Pp	Pm	N				
1	98.3	98.3	110.0	112.0	11889.173	1	No	1.00018	12.472
2	98.4	98.4	110.0	112.0	11879.872	2	Yes	1.00096	12.531
3	96.0	96.0	110.0	112.0	11877.269	3	Yes	1.00114	12.545
4	94.5	94.5	110.0	112.0	11879.125	4	Yes	1.00096	12.485
5	93.8	93.8	110.0	112.0	11878.225	5	Yes	1.00102	12.512
6	93.0	93.0	110.0	112.0	11879.638	6	Yes	1.00088	12.535
Average	95.1	95.1	110.0	112.0	11878.8258			1.00099	12.522

<i>BPV</i>	<i>CTSp</i>	<i>CPSp</i>	<i>CTLp</i>	<i>CPLp</i>	<i>CCFp</i>	<i>GSVp</i>
1.18820	1.00065	1.00009	0.98155	1.00072	0.98298	1.16798

<i>N</i> (avg)	<i>NKF</i>	<i>IVm</i>	<i>CTLm</i>	<i>GPLm</i>	<i>CCFm</i>	<i>ISVm</i>
11878.8258	10000.0000	1.18788	0.98155	1.00073	0.98227	1.16682

```

>>>> (1)   GSVp ÷ ISVm =      1.0010   MF
        (2)   MF * CPL =      1.0017   CMF
        (3)   1 ÷ MF =      0.9990   MA
        (4)   NKF ÷ MF =      9990.0   KF
        (5)   KF ÷ CPL =     9983.0   CKE

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Trans. Serial No.	
Flow Calib Factor	
Density Calib Factor	
Frequency Set Point	
Flowrate Set Point	
Zero Verified	Zeroed
As Found	As Left

Witness:

Customer: WPX -
Operator:
Location:
Federal ID:

NE CLAU
1823-66

Meter Data 67412397 WPX 240H Factor Tracked Composite MF(CMF) Temp Compensated No NKF 10000.0000 N/bbl Manufacturer Micro Motion Size 1.00 In Serial No. 14516547 Model No.	Product Data Name Crude Batch No. Obs. Gravity 45.2 °API Obs. Temp 101.4 °F Obs. Press 0.0 psi API Table Table A - Crude Oil (2004) Base Density 41.5 °API HYC Y	Proving Data <table style="width:100%;"> <tr> <th style="text-align: left;"><u>Previous</u></th> <th style="text-align: left;"><u>Current</u></th> </tr> <tr> <td>Task ID 1468289618</td> <td>1470341061</td> </tr> <tr> <td>Date 07/11/2016</td> <td>08/04/2016</td> </tr> <tr> <td>Time 14:13</td> <td>8:04</td> </tr> <tr> <td>Product Crude</td> <td>Crude</td> </tr> <tr> <td>Flowrate 42 bbl/hr</td> <td>8 bbl/hr</td> </tr> <tr> <td>Totalizer</td> <td></td> </tr> <tr> <td>Throughput</td> <td></td> </tr> <tr> <td>Base Density 42.4 °API</td> <td>41.5 °API</td> </tr> <tr> <td>Avg Prvr Temp 113.3</td> <td>98.3</td> </tr> <tr> <td>Avg Prvr Press 148.0</td> <td>78.0</td> </tr> <tr> <td>Repeatability 0.003 %</td> <td>0.007 %</td> </tr> <tr> <td>CMF 0.9989</td> <td>0.9997</td> </tr> <tr> <td>CMF Variance -0.0017</td> <td>0.0008</td> </tr> </table>	<u>Previous</u>	<u>Current</u>	Task ID 1468289618	1470341061	Date 07/11/2016	08/04/2016	Time 14:13	8:04	Product Crude	Crude	Flowrate 42 bbl/hr	8 bbl/hr	Totalizer		Throughput		Base Density 42.4 °API	41.5 °API	Avg Prvr Temp 113.3	98.3	Avg Prvr Press 148.0	78.0	Repeatability 0.003 %	0.007 %	CMF 0.9989	0.9997	CMF Variance -0.0017	0.0008
<u>Previous</u>	<u>Current</u>																													
Task ID 1468289618	1470341061																													
Date 07/11/2016	08/04/2016																													
Time 14:13	8:04																													
Product Crude	Crude																													
Flowrate 42 bbl/hr	8 bbl/hr																													
Totalizer																														
Throughput																														
Base Density 42.4 °API	41.5 °API																													
Avg Prvr Temp 113.3	98.3																													
Avg Prvr Press 148.0	78.0																													
Repeatability 0.003 %	0.007 %																													
CMF 0.9989	0.9997																													
CMF Variance -0.0017	0.0008																													
Prover Data BPV 1.18820 bbl I.D. 7.981 In W.T. 0.322 In Manufacturer DOMINION Type Displacement-Sphere Serial No. 23MM Elasticity 3.0E7 1/psi Pipe Gc 1.86E-5 1/F Certified	Tolerances Tolerance Type: Repeatability Maximum Deviation: 0.050 % Enabled? Y Passed? Y Min # of Runs: 5 Criteria: 5 out of 5 consecutive runs Avg X Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Prev X Factor Count Sought: 1 Prev X Factor Count Used: 0 Cut Off History? N Cutoff Date: Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Proving Mode: Volumetric Density Mode: Manual Calc. Method: Avg. Meter Factor Proving Method: Manual Passes Per Run 1	Liquid Properties at Metering Conditions for CMF Normal Op. Pressure 75.0 psig Eq. Vapor Pressure 0.0 psig CPL 1.0005																												

Run	TEMPERATURE		PRESSURE		PULSES	Run Accepted ?		IMF	Flowrate
	Tp	Tm	Pp	Pm	N				bb/hr
1	97.3	97.3	78.0	80.0	11899.777	1	Yes	0.99925	8.298
2	99.6	99.6	78.0	80.0	11900.908	2	Yes	0.99919	8.308
3	100.1	100.1	78.0	89.0	11899.451	3	Yes	0.99926	8.343
4	97.3	97.3	78.0	80.0	11899.984	4	Yes	0.99923	8.311
5	97.3	97.3	78.0	80.0	11900.454	5	Yes	0.99919	8.298
Average	98.3	98.3	78.0	81.8	11900.1148			0.99922	8.312

(1) GSVp: $BPV * [CTSp * CPSp * CTLp * CPLp = CCFp]$

BPV	CTSp	CPSp	CTLp	CPLp	CCFp	GSVp
1.18820	1.00071	1.00006	0.98032	1.00050	0.98157	1.16630

(2) ISVm: $[N(avg) \div NKF = IVm] * [CTLm * CPLm = CCFm]$

N(avg)	NKF	IVm	CTLm	CPLm	CCFm	ISVm
11900.1148	10000.0000	1.19001	0.98032	1.00052	0.98083	1.16720

(3) Proving Factors:

>>>> (1) GSVp ÷ ISVm = 0.9992 MF
 (2) MF * CPL = 0.9997 CMF
 (3) 1 ÷ MF = 1.0008 MA
 (4) NKF ÷ MF = 10008 KF
 (5) KF ÷ CPL = 10003 CKF

Repeatability: 0.007 %
 Uncertainty: 0.004 %

Trans. Serial No. Flow Calib Factor Density Calib Factor	
Frequency Set Point Flowrate Set Point Zero Verified As Found	Zeroed As Left

Technician

Witness:

PROVE

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 PROVEIT PROVEIT 8.7.0.0

08/04/2016 9:54 Page: 1
 Revision: 3

18-23-24

Run	TEMPERATURE		PRESSURE		PULSES N	Run Accepted ?		IMF	Flowrate bbl/hr
	Tp	Tm	Pp	Pm					
1	94.7	94.7	97.0	98.0	11893.177	1	Yes	0.99979	12.493
2	92.8	92.8	97.0	98.0	11886.955	2	Yes	1.00026	12.514
3	92.5	92.5	97.0	98.0	11891.267	3	Yes	0.99990	12.481
4	91.0	91.0	97.0	98.0	11888.357	4	Yes	1.00011	12.508
5	91.8	91.8	97.0	98.0	11890.931	5	Yes	0.99992	12.501
Average	92.6	92.6	97.0	98.0	11890.1374			1.00000	12.499

MF	Trans. Serial No.	
CMF	Flow Calib Factor	
MA	Density Calib Factor	
KF	Frequency Set Point	
CKF	Flowrate Set Point	
	Zero Verified	Zeroed
	As Found	As Left

10/19/2016 8:58 Page: 1
Revision: 1

Customer: WPX -

Operator:

Location:

Federal ID:

15-CHAO
18-23K-6W

Meter Data	Product Data	Proving Data
67412397 WPX 240H Factor Tracked Composite MF(CMF) Temp Compensated No NKF 10000.0000 N/bbl Manufacturer Micro Motion Size 1.00 in Serial No. 14516547 Model No.	Name Crude Batch No. Obs. Gravity 45.2 °API Obs. Temp 85.0 °F Obs. Press 0.0 psi API Table Table A - Crude Oil (2004) Base Density 43.0 °API HYC Y	Previous Current Task ID 1473801700 1473801853 Date 09/13/2016 09/13/2016 Time 9:21 9:24 Product Crude Crude Flowrate 41 bbl/hr 8 bbl/hr Totalizer Throughput Base Density 43.0 °API 43.0 °API Avg Pvr Temp 100.8 98.3 Avg Pvr Press 128.0 86.0 Repeatability 0.030 % 0.043 % CMF 1.0012 1.0010 CMF Variance 0.0005 -0.0002
Prover Data BPV 1.18820 bbl I.D. 7.981 in W.T. 0.322 in Manufacturer DOMINION Type Displacement-Sphere Serial No. 23MM Elasticity 3.0E7 1/psi Pipe Gc 1.86E-5 1°F Certified	Tolerances Tolerance Type: Repeatability Maximum Deviation: 0.050 % Enabled? Y Passed? Y Min # of Runs: 5 Criteria: 5 out of 5 consecutive runs Avg X Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Prev X Factor Count Sought: 1 Prev X Factor Count Used: 0 Cut Off History? N Cutoff Date: Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Proving Mode: Volumetric Density Mode: Manual Calc. Method: Avg. Meter Factor Proving Method: Manual Passes Per Run 1	Liquid Properties at Metering Conditions for CMF Normal Op. Pressure 78.0 psig Eq. Vapor Pressure 0.0 psig CPL 1.0005

Run	TEMPERATURE		PRESSURE		PULSES	Run Accepted ?		IMF	Flowrate
	Tp	Tm	Pp	Pm	N				bbl/hr
1	98.8	98.8	86.0	87.0	11882.000	1	Yes	1.00077	8.000
2	98.3	98.3	86.0	87.0	11883.000	2	Yes	1.00089	8.000
3	97.9	97.9	86.0	87.0	11886.000	3	Yes	1.00041	8.000
4	98.3	98.3	86.0	87.0	11887.000	4	Yes	1.00034	8.000
5	98.2	98.2	86.0	87.0	11885.000	5	Yes	1.00051	8.000
Average	98.3	98.3	86.0	87.0	11884.6000			1.00054	8.000

(1) GSVp: BPV * [CTSp * CPSp * CTLp * CPLp = CCFp]

BPV	CTSp	CPSp	CTLp	CPLp	CCFp	GSVp
1.18820	1.00071	1.00007	0.97997	1.00056	0.98128	1.16596

(2) ISVm: [N(avg) ÷ NKF = IVm] * [CTLm * CPLm = CCFm]

N(avg)	NKF	IVm	CTLm	CPLm	CCFm	ISVm
11884.6000	10000.0000	1.18846	0.97997	1.00057	0.98053	1.16532

(3) Proving Factors:

GSVp ÷ ISVm =	1.0005	MF	Trans. Serial No.
MF * CPL =	1.0010	CMF	Flow Calib Factor
1 ÷ MF =	0.9995	MA	Density Calib Factor
NKF ÷ MF =	9995.0	KF	Frequency Set Point
KF ÷ CPL =	9990.0	CKF	Flowrate Set Point
			Zero Verified
			As Found
			Zeroed
			As Left

Repeatability: 0.043 %
Uncertainty: 0.023 %

Technician:

Witness:

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PROVEit PROVEit 8.7.0.0

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Revision: 1

Customer: WPX -
Operator:
Location:
Federal ID:

20-232-6W

Meter Data 67411556 WPX 206H Factor Tracked Composite MF(CMF) Temp Compensated No NKF 10000.0000 N/bbl Manufacturer Micro Motion Size 1.00 in Serial No. 14518573 Model No.	Product Data Name Crude Batch No. Obs. Gravity 44.5 °API Obs. Temp 80.0 °F Obs. Press 0.0 psi API Table Table A - Crude Oil (2004) Base Density 42.7 °API HYC Y	Proving Data <u>Previous</u> <u>Current</u> Task ID 1470263102 1470264234 Date 08/03/2016 08/03/2016 Time 10:25 10:43 Product Crude Crude Flowrate 42 bbl/hr 7 bbl/hr Totalizer Throughput Base Density 42.7 °API 42.7 °API Avg Prvr Temp 79.6 79.6 Avg Prvr Press 85.0 42.0 Repeatability 0.008 % 0.018 % CMF 1.0020 1.0009 CMF Variance 0.0027 -0.0011
Prover Data BPV 1.18820 bbl I.D. 7.981 in W.T. 0.322 in Manufacturer DOMINION Type Displacement-Sphere Serial No. 23MM Elasticity 3.0E7 1/psi Pipe Gc 1.86E-5 1/PF Certified	Tolerances Tolerance Type: Repeatability Maximum Deviation: 0.050 % Enabled? Y Passed? Y Min # of Runs: 5 Criteria: 5 out of 5 consecutive runs Avg X Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Prev X Factor Count Sought: 1 Prev X Factor Count Used: 0 Cut Off History? N Cutoff Date: Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Proving Mode: Volumetric Density Mode: Manual Calc. Method: Avg. Meter Factor Proving Method: Manual Passes Per Run 1	Liquid Properties at Metering Conditions for CMF Normal Op. Pressure 42.0 psig Eq. Vapor Pressure 0.0 psig CPL 1.0003

Run	TEMPERATURE		PRESSURE		PULSES	Run Accepted ?		IMF	Flowrate
	Tp	Tm	Pp	Pm	N				bbl/hr
1	79.6	79.6	42.0	42.0	11878.655	1	Yes	1.00066	6.500
2	79.6	79.6	42.0	42.0	11879.356	2	Yes	1.00060	6.500
3	79.6	79.6	42.0	42.0	11880.923	3	Yes	1.00048	6.500
4	79.6	79.6	42.0	42.0	11878.956	4	Yes	1.00064	6.500
5	79.6	79.6	42.0	42.0	11879.473	5	Yes	1.00060	6.500
Average	79.6	79.6	42.0	42.0	11879.4726			1.00060	6.500

(1) GSVp: BPV * [CTSp * CPSp * CTLp * CPLp = CCFp]

BPV	CTSp	CPSp	CTLp	CPLp	CCFp	GSVp
1.18820	1.00036	1.00003	0.98981	1.00026	0.99045	1.17685

(2) ISVm: [N(avg) ÷ NKF = IVm] * [CTLm * CPLm = CCFm]

N(avg)	NKF	IVm	CTLm	CPLm	CCFm	ISVm
11879.4726	10000.0000	1.18795	0.98981	1.00026	0.99007	1.17615

(3) Proving Factors:

>>>> (1) GSVp + ISVm = 1.0006 MF
(2) MF * CPL = 1.0009 CMF
(3) 1 ÷ MF = 0.9994 MA
(4) NKF ÷ MF = 9994.0 KF
(5) KF + CPL = 9991.0 CKF

Repeatability: 0.018 %
Uncertainty: 0.010 %

Trans. Serial No. Flow Calib Factor Density Calib Factor Frequency Set Point Flowrate Set Point Zero Verified As Found	Zeroed As Left
--	-------------------

Technician:

Witness:

PROVE

MECH 420
20-234-64

Meter Data	Product Data	Proving Data
67411556 WPX 206H	Name Crude	<u>Previous</u> <u>Current</u>
Factor Tracked Composite MF(CMF)	Batch No.	Task ID 1473713688 1473713832
Temp Compensated No	Obs. Gravity 47.0 °API	Date 09/12/2016 09/12/2016
NKF 10000.0000 N/bbl	Obs. Temp 110.0 °F	Time 8:54 8:57
Manufacturer Micro Motion	Obs. Press 0.0 psi	Product Crude Crude
Size 1.00 in	API Table Table A - Crude Oil (2004)	Flowrate 41 bbl/hr 8 bbl/hr
Serial No. 14518573	Base Density 42.5 °API HYC Y	Totalizer
Model No.	Tolerances	Throughput
	Tolerance Type: Repeatability	Base Density 42.5°API 42.5 °API
	Maximum Deviation: 0.050 %	Avg Prvr Temp 110.9 105.7
	Enabled? Y Passed? Y Min # of Runs: 5	Avg Prvr Press 99.0 66.0
	Criteria: 5 out of 5 consecutive runs	Repeatability 0.033 % 0.033 %
	Avg X Prev Meter Factor Deviation:	CMF 1.0012 1.0019
	Enabled? N Passed? Y Prod Dep? N	CMF Variance 0.0003 0.0007
	Prev X Factor Count Sought: 1	
	Prev X Factor Count Used: 0	Liquid Properties at Metering Conditions for CMF
	Cut Off History? N Cutoff Date:	Normal Op. Pressure 61.0 psig
	Prev Meter Factor Deviation:	Eq. Vapor Pressure 0.0 psig
	Enabled? N Passed? Y Prod Dep? N	CPL 1.0004
	Proving Mode: Volumetric	
	Density Mode: Manual	
	Calc. Method: Avg. Meter Factor	
	Proving Method: Manual	
	Passes Per Run 1	
Prover Data		
BPV 1.18820 bbl		
I.D. 7.981 in		
W.T. 0.322 in		
Manufacturer DOMINION		
Type Displacement-Sphere		
Serial No. 23MM		
Elasticity 3.0E7 1/psi		
Pipe Gc 1.86E-5 1°F		
Certified		

Run	TEMPERATURE		PRESSURE		PULSES	Run Accepted ?		IMF	Flowrate bbl/hr
	Tp	Tm	Pp	Pm	N				
1	108.2	108.2	66.0	68.0	11873.000	1	Yes	1.00169	8.000
2	105.4	105.4	66.0	68.0	11876.000	2	Yes	1.00139	8.000
3	104.2	104.2	66.0	68.0	11876.000	3	Yes	1.00136	8.000
4	105.3	105.3	66.0	68.0	11874.000	4	Yes	1.00155	8.000
5	105.2	105.2	66.0	68.0	11874.000	5	Yes	1.00156	8.000
Average	105.7	105.7	66.0	68.0	11874.6000			1.00151	8.000

(1) GSVp: $BPV * [CTSp * CPSp * CTLp * CPLp = CCFp]$

<i>BPV</i>	<i>CTSp</i>	<i>CPSp</i>	<i>CTLp</i>	<i>CPLp</i>	<i>CCFp</i>	<i>GSVp</i>
1.18820	1.00085	1.00005	0.97622	1.00944	0.97753	1.16150

(2) ISVm: $[N(\text{avg}) \div NKF = IVm] * [CTLm * CPLm = CCFm]$

<i>N</i> (avg)	<i>NKF</i>	<i>IVm</i>	<i>CTLm</i>	<i>GPLm</i>	<i>CCFm</i>	<i>ISVm</i>
11874.6000	10000.0000	1.18746	0.97622	1.00045	0.97666	1.15974

(3) Proving Factors:

```

>>>> (1) GSVp ÷ ISVm = 1.0015 MF
      (2) MF * CPL = 1.0019 CMF
      (3) 1 ÷ MF = 0.9985 MA
      (4) NKF ÷ MF = 9985.0 KF
      (5) KF ÷ CPL = 9981.0 KCF

```

Repeatability: 0.033 %
Uncertainty: 0.018 %

Trans. Serial No.	
Flow Calib Factor	
Density Calib Factor	
Frequency Set Point	
Flowrate Set Point	
Zero Verified	Zeroed
As Found	As Left

Technician:

Witness:

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Revision: 1

Customer: WPX -

Operator:

Location:

Federal ID:

NB 4400

20-23 ~ 6W

Meter Data	Product Data	Proving Data
67411113 WPX 208H	Name Crude	<u>Previous</u> <u>Current</u>
Factor Tracked Composite MF(CMF)	Batch No.	Task ID 1476921955 1476922867
Temp Compensated No	Obs. Gravity 44.9 °API	Date 10/19/2016 10/19/2016
NKF 10000.0000 N/bbl	Obs. Temp 103.0 °F	Time 12:05 12:21
Manufacturer Micro Motion	Obs. Press 0.0 psi	Product Crude Crude
Size 2.00 in	API Table Table A - Crude Oil (2004)	Flowrate 42 bbl/hr 12 bbl/hr
Serial No. 14518575	Base Density 41.1 °API HYC Y	Totalizer
Model No.		Throughput
	Tolerances	Base Density 41.1 °API 41.1 °API
	Tolerance Type: Repeatability	
	Maximum Deviation: 0.050 %	
	Enabled? Y Passed? Y Min # of Runs: 5	
	Criteria: 5 out of 5 consecutive runs	
	Avg X Prev Meter Factor Deviation:	Avg Prvr Temp 90.5 88.2
	Enabled? N Passed? Y Prod Dep? N	Avg Prvr Press 93.0 60.0
	Prev X Factor Count Sought: 1	Repeatability 0.033 % 0.048 %
	Prev X Factor Count Used: 0	CMF 1.0009 1.0008
	Cut Off History? N Cutoff Date:	CMF Variance 0.0008 -0.0001
	Prev Meter Factor Deviation: 0.25	
	Enabled? Y Passed? Y Prod Dep? N	
	Proving Mode: Volumetric	
	Density Mode: Manual	
	Calc. Method: Avg. Meter Factor	
	Proving Method: PIU	
	Passes Per Run 1	
		Liquid Properties at Metering Conditions for CMF
		Normal Op. Pressure 55.0 psig
		Eq. Vapor Pressure 0.0 psig
		CPL 1.0003

Run	TEMPERATURE		PRESSURE		PULSES	Run Accepted ?		IMF	Flowrate
	Tp	Tm	Pp	Pm	N				bbl/hr
1	89.4	89.4	60.0	60.0	11884.519	1	Yes	1.00039	12.488
2	88.5	88.5	60.0	60.0	11886.062	2	Yes	1.00025	12.503
3	87.7	87.7	60.0	60.0	11881.615	3	Yes	1.00061	12.496
4	87.7	87.7	60.0	60.0	11880.080	4	Yes	1.00073	12.492
5	87.9	87.9	60.0	60.0	11881.664	5	Yes	1.00060	12.503
Average	88.2	88.2	60.0	60.0	11882.7880			1.00052	12.496

(1) GSVp: BPV * [CTSp * CPSp * CTLp * CPLp = CCFp]

BPV	CTSp	CPSp	CTLp	CPLp	CCFp	GSVp
1.18820	1.00052	1.00005	0.98560	1.00037	0.98653	1.17219

(2) ISVm: [N(avg) ÷ NKF = IVm] * [CTLm * CPLm = CCFm]

N(avg)	NKF	IVm	CTLm	CPLm	CCFm	ISVm
11882.7880	10000.0000	1.18828	0.98560	1.00037	0.98596	1.17160

(3) Proving Factors:

>>>>	(1)	GSVp ÷ ISVm =	1.0005	MF
	(2)	MF * CPL =	1.0008	CMF
	(3)	1 ÷ MF =	0.9995	MA
	(4)	NKF + MF =	9995.0	KF
	(5)	KF ÷ CPL =	9992.0	CKF

Repeatability: 0.048 %
 Uncertainty: 0.026 %

Trans. Serial No.	
Flow Calib Factor	
Density Calib Factor	
Frequency Set Point	
Flowrate Set Point	
Zero Verified	Zeroed
As Found	As Left

Technician:

Witness:

PROVE

ral ID: NCH 42
20-232-6W

Meter Data		Product Data		Proving Data	
67411113 WPX 208H		Name Crude		<u>Previous</u> <u>Current</u>	
Factor Tracked Composite MF(CMF)		Batch No.		Task ID 1473713338 1473713509	
Temp Compensated No		Obs. Gravity 45.0 °API		Date 09/12/2016 09/12/2016	
NKF 10000.0000 N/bbl		Obs. Temp 97.0 °F		Time 8:48 8:51	
Manufacturer Micro Motion		Obs. Press 0.0 psi		Product Crude Crude	
Size 2.00 in		API Table Table A - Crude Oil (2004)		Flowrate 41 bbl/hr 10 bbl/hr	
Serial No. 14518575		Base Density 41.7 °API HYC Y		Totalizer	
Model No.				Throughput	
		Tolerances		Base Density 41.7°API 41.7 °API	
		Tolerance Type: Repeatability		Avg Prvr Temp 97.1 93.6	
		Maximum Deviation: 0.050 %		Avg Prvr Press 96.0 66.0	
		Enabled? Y Passed? Y Min # of Runs: 5		Repeatability 0.024 % 0.029 %	
		Criteria: 5 out of 5 consecutive runs		CMF 1.0001 1.0001	
		Avg X Prev Meter Factor Deviation:		CMF Variance -0.0007 0.0000	
		Enabled? N Passed? Y Prod Dep? N			
		Prev X Factor Count Sought: 1			
		Prev X Factor Count Used: 0			
		Cut Off History? N Cutoff Date:			
		Prev Meter Factor Deviation: 0.25			
		Enabled? Y Passed? Y Prod Dep? N			
		Proving Mode: Volumetric			
		Density Mode: Manual			
		Calc. Method: Avg. Meter Factor			
		Proving Method: Manual			
		Passes Per Run 1			
				Liquid Properties at Metering Conditions for CMF	
				Normal Op. Pressure 58.0 psig	
				Eq. Vapor Pressure 0.0 psig	
				CPL 1.0004	
Prover Data					
BPV 1.18820 bbl					
I.D. 7.981 in					
W.T. 0.322 in					
Manufacturer DOMINION					
Type Displacement-Sphere					
Serial No. 23MM					
Elasticity 3.0E7 1/psi					
Pipe Gc 1.86E-5 1/°F					
Certified					

Run	TEMPERATURE		PRESSURE		PULSES	Run Accepted ?	IMF	Flowrate bb/hr
	Tp	Tm	Pp	Pm	N			
1	92.5	92.5	66.0	67.0	11892.000	1 Yes	0.99980	10.000
2	94.4	94.4	66.0	67.0	11896.000	2 Yes	0.99951	10.000
3	94.2	94.2	66.0	67.0	11894.000	3 Yes	0.99968	10.000
4	93.7	93.7	66.0	67.0	11894.000	4 Yes	0.99968	10.000
5	93.4	93.4	66.0	67.0	11893.000	5 Yes	0.99975	10.000
Average	93.6	93.6	66.0	67.0	11893.8000		0.99968	10.000

(1) GSVp: $BPV * [CTSp * CPSp * CTLp * CPLp = CCFp]$

<i>BPV</i>	<i>CTSp</i>	<i>CPSp</i>	<i>CTLp</i>	<i>GPLp</i>	<i>CCFp</i>	<i>GSVp</i>
1.18820	1.00062	1.00005	0.98270	1.00042	0.98377	1.16892

(2) ISVm: $[N(\text{avg}) \div NKF = IVm] * [CTLm * CPLm = CCFm]$

<i>N</i> (avg)	<i>NKF</i>	<i>IVm</i>	<i>CTLm</i>	<i>CPLm</i>	<i>CCFm</i>	<i>ISVm</i>
11893.8000	10000.0000	1.18938	0.98270	1.00042	0.98311	1.16929

(3) Proving Factors:

```

>>>> (1)   GSVp ÷ ISVm =      0.9997   MF
      (2)   MF * CPL =      1.0001   CMF
      (3)   1 ÷ MF =      1.0003   MA
      (4)   NKF ÷ MF =      10003   KF
      (5)   KF ÷ CPL =     9999.0   CKF

```

Repeatability: 0.029 %
Uncertainty: 0.015 %

Trans. Serial No.	
Flow Calib Factor	
Density Calib Factor	
Frequency Set Point	
Flowrate Set Point	
Zero Verified	Zeroed
As Found	As Left

Technician:

Witness:

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Revision: 1

Customer: WPX -

Operator:

Location:

Federal ID:

NECHAC
20-23N-6W

Meter Data 67411113 WPX 208H Factor Tracked Composite MF(CMF) Temp Compensated No NKF 10000.0000 N/bbl Manufacturer Micro Motion Size 2.00 in Serial No. 14518575 Model No.	Product Data Name Crude Batch No. Obs. Gravity 43.6 °API Obs. Temp 82.4 °F Obs. Press 0.0 psi API Table Table A - Crude Oil (2004) Base Density 41.6 °API HYC Y	Proving Data <table style="width:100%;"> <tr> <th style="text-align: left;">Previous</th> <th style="text-align: left;">Current</th> </tr> <tr> <td>Task ID 1468269358</td> <td>1470253995</td> </tr> <tr> <td>Date 07/11/2016</td> <td>08/03/2016</td> </tr> <tr> <td>Time 8:35</td> <td>7:53</td> </tr> <tr> <td>Product Crude</td> <td>Crude</td> </tr> <tr> <td>Flowrate 42 bbl/hr</td> <td>10 bbl/hr</td> </tr> <tr> <td>Totalizer</td> <td></td> </tr> <tr> <td>Throughput</td> <td></td> </tr> <tr> <td>Base Density 41.4°API</td> <td>41.6 °API</td> </tr> <tr> <td>Avg Prvr Temp 107.0</td> <td>79.4</td> </tr> <tr> <td>Avg Prvr Press 105.0</td> <td>42.0</td> </tr> <tr> <td>Repeatability 0.002 %</td> <td>0.034 %</td> </tr> <tr> <td>CMF 0.9957</td> <td>1.0005</td> </tr> <tr> <td>CMF Variance 0.0046</td> <td>0.0048</td> </tr> </table>	Previous	Current	Task ID 1468269358	1470253995	Date 07/11/2016	08/03/2016	Time 8:35	7:53	Product Crude	Crude	Flowrate 42 bbl/hr	10 bbl/hr	Totalizer		Throughput		Base Density 41.4°API	41.6 °API	Avg Prvr Temp 107.0	79.4	Avg Prvr Press 105.0	42.0	Repeatability 0.002 %	0.034 %	CMF 0.9957	1.0005	CMF Variance 0.0046	0.0048
Previous	Current																													
Task ID 1468269358	1470253995																													
Date 07/11/2016	08/03/2016																													
Time 8:35	7:53																													
Product Crude	Crude																													
Flowrate 42 bbl/hr	10 bbl/hr																													
Totalizer																														
Throughput																														
Base Density 41.4°API	41.6 °API																													
Avg Prvr Temp 107.0	79.4																													
Avg Prvr Press 105.0	42.0																													
Repeatability 0.002 %	0.034 %																													
CMF 0.9957	1.0005																													
CMF Variance 0.0046	0.0048																													
Prover Data BPV 1.18820 bbl I.D. 7.981 in W.T. 0.322 in Manufacturer DOMINION Type Displacement-Sphere Serial No. 23MM Elasticity 3.0E7 1/psi Pipe Gc 1.86E-5 1/F Certified	Tolerances Tolerance Type: Repeatability Maximum Deviation: 0.050 % Enabled? Y Passed? Y Min # of Runs: 5 Criteria: 5 out of 5 consecutive runs Avg X Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Prev X Factor Count Sought: 1 Prev X Factor Count Used: 0 Cut Off History? N Cutoff Date: Prev Meter Factor Deviation: 0.25 Enabled? Y Passed? N Prod Dep? N Proving Mode: Volumetric Density Mode: Manual Calc. Method: Avg. Meter Factor Proving Method: PIU Passes Per Run 1	Liquid Properties at Metering Conditions for CMF Normal Op. Pressure 40.0 psig Eq. Vapor Pressure 0.0 psig CPL 1.0002																												

Run	TEMPERATURE		PRESSURE		PULSES	Run Accepted ?		IMF	Flowrate
	Tp	Tm	Pp	Pm	N				bb/hr
1	78.9	78.9	42.0	42.0	11884.677	1	Yes	1.00014	10.392
2	79.5	79.5	42.0	42.0	11881.448	2	Yes	1.00043	10.411
3	79.1	79.1	42.0	42.0	11880.908	3	Yes	1.00048	10.412
4	79.8	79.8	42.0	42.0	11882.891	4	Yes	1.00032	10.406
5	79.4	79.4	42.0	42.0	11882.481	5	Yes	1.00035	10.405
Average	79.4	79.4	42.0	42.0	11882.4810			1.00034	10.405

(1) GSVp: BPV * [CTSp * CPSP * CTLp * CPLp = CCFp]

BPV	CTSp	CPSP	CTLp	CPLp	CCFp	GSVp
1.18820	1.00036	1.00003	0.99005	1.00025	0.99068	1.17713

Status

Failed - Prior deviation outside defined max.

(2) ISVm: [N(avg) ÷ NKF = IVm] * [CTLm * CPLm = CCFm]

N(avg)	NKF	IVm	CTLm	CPLm	CCFm	ISVm
11882.4810	10000.0000	1.18825	0.99005	1.00025	0.99030	1.17672

(3) Proving Factors:

>>>> (1)	GSVp ÷ ISVm =	1.0003	MF
(2)	MF * CPL =	1.0005	CMF
(3)	1 ÷ MF =	0.9997	MA
(4)	NKF ÷ MF =	9997.0	KF
(5)	KF ÷ CPL =	9995.0	CKF

 Repeatability: 0.034 %
 Uncertainty: 0.018 %

Trans. Serial No.	Zeroed
Flow Calib Factor	As Left
Density Calib Factor	
Frequency Set Point	
Flowrate Set Point	
Zero Verified	
As Found	

Technician:

Witness:

PROVE

Customer: WPX -
Operator:
Location:
Federal ID:

Meter Data 67411557 WPX 191H Factor Tracked Composite MF(CMF) Temp Compensated No NKF 10000.0000 N/bbl Manufacturer Micro Motion Size 1.00 in Serial No. 14518579 Model No.	Product Data Name Crude Batch No. Obs. Gravity 44.7 °API Obs. Temp 104.2 °F Obs. Press 0.0 psi API Table Table A - Crude Oil (2004) Base Density 40.8 °API HYC Y	Proving Data <u>Previous</u> <u>Current</u> Task ID 1468280020 1470270582 Date 07/11/2016 08/03/2016 Time 11:33 12:29 Product Crude Crude Flowrate 42 bbl/hr 6 bbl/hr Totalizer Throughput Base Density 40.3°API 40.8 °API Avg Pvr Temp 110.0 98.8 Avg Pvr Press 120.0 55.0 Repeatability 0.008 % 0.043 % CMF 0.9975 0.9998 CMF Variance 0.0043 0.0023
Prover Data BPV 1.18820 bbl I.D. 7.981 in W.T. 0.322 in Manufacturer DOMINION Type Displacement-Sphere Serial No. 23MM Elasticity 3.0E7 1/psi Pipe Gc 1.86E-5 1/PF Certified	Tolerances Tolerance Type: Repeatability Maximum Deviation: 0.050 % Enabled? Y Passed? Y Min # of Runs: 5 Criteria: 5 out of 5 consecutive runs Avg X Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Prev X Factor Count Sought: 1 Prev X Factor Count Used: 0 Cut Off History? N Cutoff Date: Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Proving Mode: Volumetric Density Mode: Manual Calc. Method: Avg. Meter Factor Proving Method: Manual Passes Per Run 1	Liquid Properties at Metering Conditions for CMF Normal Op. Pressure 46.0 psig Eq. Vapor Pressure 0.0 psig CPL 1.0003

Run	TEMPERATURE		PRESSURE		PULSES	Run Accepted ?		IMF	Flowrate bbl/hr
	Tp	Tm	Pp	Pm	N				
1	98.6	98.6	55.0	55.0	11900.292	1	No	0.99924	6.219
2	99.1	99.1	55.0	55.0	11893.398	2	Yes	0.99983	6.252
3	98.7	98.7	55.0	55.0	11897.567	3	Yes	0.99946	6.200
4	98.7	98.7	55.0	55.0	11898.264	4	Yes	0.99940	6.200
5	98.7	98.7	55.0	55.0	11897.934	5	Yes	0.99943	6.200
6	98.7	98.7	55.0	55.0	11897.265	6	Yes	0.99949	6.200
Average	98.8	98.8	55.0	55.0	11896.8856			0.99952	6.210

(1) GSVp: $BPV * [CTSp * CPSp * CTLp * CPLp = CCFp]$

BPV	CTSp	CPSp	CTLp	CPLp	CCFp	GSVp
1.18820	1.00072	1.00005	0.98022	1.00035	0.98132	1.16600

(2) ISVm: $[N(avg) \div NKF = IVm] * [CTLm * CPLm = CCFm]$

N(avg)	NKF	IVm	CTLm	CPLm	CCFm	ISVm
11896.8856	10000.0000	1.18969	0.98022	1.00035	0.98056	1.16656

(3) Proving Factors:

>>>>	(1)	GSVp ÷ ISVm =	0.9995	MF	Trans. Serial No. Flow Calib Factor Density Calib Factor Frequency Set Point Flowrate Set Point Zero Verified As Found
	(2)	MF * CPL =	0.9998	CMF	
	(3)	1 ÷ MF =	1.0005	MA	
	(4)	NKF ÷ MF =	10005	KF	
	(5)	KF ÷ CPL =	10002	CKF	
Repeatability:		0.043 %			Zeroed
Uncertainty:		0.024 %			As Left

Technician

Witness:

PROVE

Customer: WPX -

Operator:

Location:

Federal ID:

19-202-6W

Meter Data	Product Data	Proving Data
67411557 WPX 191H Factor Tracked Composite MF(CMF) Temp Compensated No NKF 10000.0000 N/bbl Manufacturer Micro Motion Size 1.00 in Serial No. 14518579 Model No.	Name Crude Batch No. Obs. Gravity 38.9 °API Obs. Temp 76.5 °F Obs. Press 0.0 psi API Table Table A - Crude Oil (2004) Base Density 37.6 °API HYC Y	Previous Current Task ID 1476917027 1476917949 Date 10/19/2016 10/19/2016 Time 10:43 10:59 Product Crude Crude Flowrate 42 bbl/hr 13 bbl/hr Totalizer Throughput Base Density 37.6 °API 37.6 °API
Prover Data BPV 1.18820 bbl I.D. 7.981 in W.T. 0.322 in Manufacturer DOMINION Type Displacement-Sphere Serial No. 23MM Elasticity 3.0E7 1/psi Pipe Gc 1.86E-5 1/°F Certified	Tolerances Tolerance Type: Repeatability Maximum Deviation: 0.050 % Enabled? Y Passed? Y Min # of Runs: 5 Criteria: 5 out of 5 consecutive runs Avg X Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Prev X Factor Count Sought: 1 Prev X Factor Count Used: 0 Cut Off History? N Cutoff Date: Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Proving Mode: Volumetric Density Mode: Manual Calc. Method: Avg. Meter Factor Proving Method: PIU Passes Per Run 1	Avg Pvr Temp 75.9 73.7 Avg Pvr Press 107.0 76.0 Repeatability 0.042 % 0.014 % CMF 1.0012 1.0011 CMF Variance -0.0005 -0.0001
		Liquid Properties at Metering Conditions for CMF Normal Op. Pressure 70.0 psig Eq. Vapor Pressure 0.0 psig CPL 1.0004

Run	TEMPERATURE	PRESSURE	PULSES	Run Accepted ?	IMF	Flowrate
	Tp Tm	Pp Pm	N			bbl/hr
1	74.6 74.6	76.0 76.0	11877.871	1 Yes	1.00067	12.486
2	73.8 73.8	76.0 76.0	11876.298	2 Yes	1.00081	12.549
3	73.5 73.5	76.0 76.0	11877.336	3 Yes	1.00071	12.512
4	73.4 73.4	76.0 76.0	11876.950	4 Yes	1.00073	12.504
5	73.2 73.2	76.0 76.0	11876.658	5 Yes	1.00075	12.484
Average	73.7 73.7	76.0 76.0	11877.0226		1.00073	12.507

(1) GSVp: $BPV * [CTSp * CPSp * CTLp * CPLp = CCFp]$

BPV	CTSp	CPSp	CTLp	CPLp	CCFp	GSVp
1.18820	1.00025	1.00006	0.99330	1.00042	0.99403	1.18111

(2) ISVm: $[N(avg) \div NKF = IVm] * [CTLm * CPLm = CCFm]$

N(avg)	NKF	IVm	CTLm	CPLm	CCFm	ISVm
11877.0226	10000.0000	1.18770	0.99330	1.00042	0.99372	1.18024

(3) Proving Factors:

>>>> (1) $GSVp \div ISVm = 1.0007$ MF
 (2) $MF * CPL = 1.0011$ CMF
 (3) $1 + MF = 0.9993$ MA
 (4) $NKF \div MF = 9993.0$ KF
 (5) $KF \div CPL = 9989.0$ CKF

Repeatability: 0.014 %
 Uncertainty: 0.007 %

Trans. Serial No.	
Flow Calib Factor	
Density Calib Factor	
Frequency Set Point	
Flowrate Set Point	
Zero Verified	Zeroed
As Found	As Left

Technician:

Witness:

PROVEit

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 PROVEit PROVEit 8.7.0.0

 10/19/2016 11:40 Page: 1
 Revision: 1

Customer: WPX -

Operator:

Location:

Federal ID:

25 Chs
1923260

Meter Data	Product Data	Proving Data
67411557 WPX 191H Factor Tracked Composite MF(CMF) Temp Compensated No NKF 10000.0000 N/bbl Manufacturer Micro Motion Size 1.00 in Serial No. 14518579 Model No.	Name Crude Batch No. Obs. Gravity 42.8 °API Obs. Temp 82.0 °F Obs. Press 0.0 psi API Table Table A - Crude Oil (2004) Base Density 40.9 °API HYC Y	Previous Current Task ID 1473714085 1473714207 Date 09/12/2016 09/12/2016 Time 9:01 9:03 Product Crude Crude Flowrate 41 bbl/hr 8 bbl/hr Totalizer Throughput Base Density 40.9 °API 40.9 °API Avg Pvr Temp 83.0 84.0 Avg Pvr Press 109.0 77.0 Repeatability 0.010 % 0.034 % CMF 1.0009 1.0017 CMF Variance 0.0003 0.0008
Prover Data BPV 1.18820 bbl I.D. 7.981 in W.T. 0.322 in Manufacturer DOMINION Type Displacement-Sphere Serial No. 23MM Elasticity 3.0E7 1/psi Pipe Gc 1.86E-5 1/F Certified	Tolerances Tolerance Type: Repeatability Maximum Deviation: 0.050 % Enabled? Y Passed? Y Min # of Runs: 5 Criteria: 5 out of 5 consecutive runs Avg X Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Prev X Factor Count Sought: 1 Prev X Factor Count Used: 0 Cut Off History? N Cutoff Date: Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Proving Mode: Volumetric Density Mode: Manual Calc. Method: Avg. Meter Factor Proving Method: Manual Passes Per Run 1	Liquid Properties at Metering Conditions for CMF Normal Op. Pressure 70.0 psig Eq. Vapor Pressure 0.0 psig CPL 1.0004

Run	TEMPERATURE		PRESSURE		PULSES	Run Accepted ?		IMF	Flowrate
	Tp	Tm	Pp	Pm	N				bbl/hr
1	83.9	83.9	77.0	78.0	11873.000	1	Yes	1.00125	8.000
2	84.0	84.0	77.0	78.0	11871.000	2	Yes	1.00143	8.000
3	84.0	84.0	77.0	78.0	11874.000	3	Yes	1.00118	8.000
4	84.0	84.0	77.0	78.0	11870.000	4	Yes	1.00152	8.000
5	84.0	84.0	77.0	78.0	11873.000	5	Yes	1.00126	8.000
Average	84.0	84.0	77.0	78.0	11872.2000			1.00133	8.000

(1) GSVp: $BPV * [CTSp * CPSp * CTLp * CPLp = CCFp]$

BPV	CTSp	CPSp	CTLp	CPLp	CCFp	GSVp
1.18820	1.00045	1.00006	0.98778	1.00046	0.98874	1.17482

(2) ISVm: $[N(avg) \div NKF \div IVm] * [CTLm * CPLm = CCFm]$

N(avg)	NKF	IVm	CTLm	CPLm	CCFm	ISVm
11872.2000	10000.0000	1.18722	0.98778	1.00047	0.98824	1.17326

(3) Proving Factors:

>>>> (1)	GSVp ÷ ISVm =	1.0013	MF
(2)	MF * CPL =	1.0017	CMF
(3)	1 ÷ MF =	0.9987	MA
(4)	NKF ÷ MF =	9987.0	KF
(5)	KF ÷ CPL =	9983.0	CKF

 Repeatability: 0.034 %
 Uncertainty: 0.018 %

Trans. Serial No.	
Flow Calib Factor	
Density Calib Factor	
Frequency Set Point	
Flowrate Set Point	
Zero Verified	Zeroed
As Found	As Left

Technician:

Witness:

PROVE

Customer: WPX -
Operator:
Location:
Federal ID:

Meter Data 67411711 WPX 188H Factor Tracked Composite MF(CMF) Temp Compensated No NKF 10000.0000 N/bbl Manufacturer Micro Motion Size 1.00 in Serial No. 14517638 Model No.	Product Data Name Crude Batch No. Obs. Gravity 43.0 °API Obs. Temp 89.7 °F Obs. Press 0.0 psi API Table Table A - Crude Oil (2004) Base Density 40.4 °API HYC Y	Proving Data Previous Current Task ID 1468284286 1470275727 Date 07/11/2016 08/03/2016 Time 12:44 13:55 Product Crude Crude Flowrate 42 bbl/hr 8 bbl/hr Totalizer Throughput Base Density 38.6°API 40.4 °API Avg Prvr Temp 109.4 91.3 Avg Prvr Press 144.0 80.0 Repeatability 0.006 % 0.020 % CMF 0.9984 1.0019 CMF Variance -0.0025 0.0035
Prover Data BPV 1.18820 bbl I.D. 7.981 in W.T. 0.322 in Manufacturer DOMINION Type Displacement-Sphere Serial No. 23MM Elasticity 3.0E7 1/psi Pipe Gc 1.86E-5 1/°F Certified	Tolerances Tolerance Type: Repeatability Maximum Deviation: 0.050 % Enabled? Y Passed? Y Min # of Runs: 5 Criteria: 5 out of 5 consecutive runs Avg X Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Prev X Factor Count Sought: 1 Prev X Factor Count Used: 0 Cut Off History? N Cutoff Date: Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Proving Mode: Volumetric Density Mode: Manual Calc. Method: Avg. Meter Factor Proving Method: Manual Passes Per Run 1	Liquid Properties at Metering Conditions for CMF Normal Op. Pressure 74.0 psig Eq. Vapor Pressure 0.0 psig CPL 1.0005

Run	TEMPERATURE		PRESSURE		PULSES	Run Accepted ?	IMF	Flowrate bbl/hr
	Tp	Tm	Pp	Pm	N			
1	93.6	93.6	80.0	83.0	11871.963	1 Yes	1.00152	8.341
2	91.1	91.1	80.0	83.0	11873.780	2 Yes	1.00132	8.339
3	89.2	89.2	80.0	83.0	11872.195	3 Yes	1.00142	8.339
4	91.3	91.3	80.0	83.0	11872.455	4 Yes	1.00144	8.452
5	91.3	91.3	80.0	83.0	11872.598	5 Yes	1.00143	8.368
Average	91.3	91.3	80.0	83.0	11872.5982		1.00143	8.368

(1) GSVp: BPV * [CTSp * CPSp * CTLp * CPLp = CCFp]

BPV	CTSp	CPSp	CTLp	CPLp	CCFp	GSVp
1.18820	1.00058	1.00007	0.98414	1.00049	0.98526	1.17069

(2) ISVm: [N(avg) ÷ NKF = IVm] * [CTLm * CPLm = CCFm]

N(avg)	NKF	IVm	CTLm	CPLm	CCFm	ISVm
11872.5982	10000.0000	1.18726	0.98414	1.00051	0.98464	1.16902

(3) Proving Factors:

>>>> (1) GSVp ÷ ISVm = 1.0014 MF
(2) MF * CPL = 1.0019 CMF
(3) 1 ÷ MF = 0.9986 MA
(4) NKF ÷ MF = 9986.0 KF
(5) KF ÷ CPL = 9981.0 CKF

Repeatability: 0.020 %
Uncertainty: 0.011 %

Trans. Serial No.	
Flow Calib Factor	
Density Calib Factor	
Frequency Set Point	
Flowrate Set Point	
Zero Verified	Zeroed
As Found	As Left

Technician

Witness:

PROVE

Customer: WPX -
Operator:
Location:
Federal ID:

W6 CHAC
19 232-62

Meter Data 67411711 WPX 188H Factor Tracked Composite MF(CMF) Temp Compensated No NKF 10000.0000 N/bbl Manufacturer Micro Motion Size 1.00 in Serial No. 14517638 Model No.	Product Data Name Crude Batch No. Obs. Gravity 43.5 °API Obs. Temp 91.0 °F Obs. Press 0.0 psi API Table Table A - Crude Oil (2004) Base Density 40.8 °API HYC Y	Proving Data Previous Current Task ID 1476912298 1476913699 Date 10/19/2016 10/19/2016 Time 9:24 9:48 Product Crude Crude Flowrate 42 bbl/hr 13 bbl/hr Totalizer Throughput Base Density 40.8 °API 40.8 °API Avg Prvr Temp 89.1 88.1 Avg Prvr Press 124.0 99.0 Repeatability 0.032 % 0.034 % CMF 1.0022 1.0019 CMF Variance 0.0000 -0.0003
Prover Data BPV 1.18820 bbl I.D. 7.981 in W.T. 0.322 in Manufacturer DOMINION Type Displacement-Sphere Serial No. 23MM Elasticity 3.0E7 1/psi Pipe Gc 1.86E-5 1/°F Certified	Tolerances Tolerance Type: Repeatability Maximum Deviation: 0.050 % Enabled? Y Passed? Y Min # of Runs: 5 Criteria: 5 out of 5 consecutive runs Avg X Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Prev X Factor Count Sought: 1 Prev X Factor Count Used: 0 Cut Off History? N Cutoff Date: Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Proving Mode: Volumetric Density Mode: Manual Calc. Method: Avg. Meter Factor Proving Method: PIU Passes Per Run 1	Liquid Properties at Metering Conditions for CMF Normal Op. Pressure 82.0 psig Eq. Vapor Pressure psig CPL 1.0005

Run	TEMPERATURE		PRESSURE		PULSES	Run Accepted ?		IMF	Flowrate
	Tp	Tm	Pp	Pm	N				bbl/hr
1	86.2	86.2	99.0	112.0	11868.874	1	Yes	1.00160	12.497
2	88.4	88.4	99.0	112.0	11873.253	2	Yes	1.00126	12.513
3	88.9	88.9	99.0	112.0	11871.083	3	Yes	1.00146	12.524
4	88.9	88.9	99.0	112.0	11872.495	4	Yes	1.00134	12.499
5	88.3	88.3	99.0	112.0	11869.895	5	Yes	1.00155	12.522
Average	88.1	88.1	99.0	112.0	11871.1200			1.00144	12.511

(1) GSVp: $BPV * [CTSp * CPSP * CTLp * CPLp = CCFp]$

BPV	CTSp	CPSP	CTLp	CPLp	CCFp	GSVp
1.18820	1.00052	1.00008	0.98570	1.00060	0.98688	1.17261

(2) ISVm: $[N(avg) \div NKF = IVm] * [CTLm * CPLm = CCFm]$

N(avg)	NKF	IVm	CTLm	CPLm	CCFm	ISVm
11871.1200	10000.0000	1.18711	0.98570	1.00068	0.98637	1.17093

(3) Proving Factors:

>>>> (1) GSVp + ISVm = 1.0014 MF
 (2) MF * CPL = 1.0019 CMF
 (3) 1 + MF = 0.9986 MA
 (4) NKF + MF = 9986.0 KF
 (5) KF + CPL = 9981.0 CKF

Repeatability: 0.034 %
 Uncertainty: 0.018 %

Trans. Serial No. Flow Calib Factor Density Calib Factor Frequency Set Point Flowrate Set Point Zero Verified As Found	Zeroed As Left
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Technician:

Witness:

PROVEIT

Customer: WPX -
 Operator:
 Location: 342 - Lact
 Federal ID:

Meter Data WPX342 WPX South Chaco 342 Sales Factor Tracked Composite MF(CMF) Temp Compensated No NKF 10000.0000 N/bbl Manufacturer Micro Motion Size 2.00 In Serial No. 14490120 Model No.	Product Data Name Crude Batch No. Obs. Gravity 41.6 °API Obs. Temp 45.0 °F Obs. Press 0.0 psi API Table Table A - Crude Oil (2004) Base Density 42.9 °API HYC Y	Proving Data <table style="width:100%;"> <tr> <th style="text-align: left;">Previous</th> <th style="text-align: left;">Current</th> </tr> <tr> <td>Task ID 1478116943</td> <td>1478821131</td> </tr> <tr> <td>Date 11/02/2016</td> <td>11/10/2016</td> </tr> <tr> <td>Time 8:02</td> <td>10:38</td> </tr> <tr> <td>Product Crude</td> <td>Crude</td> </tr> <tr> <td>Flowrate 115 bbl/hr</td> <td>115 bbl/hr</td> </tr> <tr> <td>Totalizer 138513</td> <td>145662</td> </tr> <tr> <td>Throughput 8009</td> <td>7149</td> </tr> <tr> <td>Base Density 40.8 °API</td> <td>42.9 °API</td> </tr> <tr> <td>Avg Pvr Temp 84.9</td> <td>64.7</td> </tr> <tr> <td>Avg Pvr Press 22.0</td> <td>10.0</td> </tr> <tr> <td>Repeatability 0.022 %</td> <td>0.036 %</td> </tr> <tr> <td>CMF 1.0012</td> <td>1.0022</td> </tr> <tr> <td>CMF Variance -0.0004</td> <td>0.0010</td> </tr> </table>	Previous	Current	Task ID 1478116943	1478821131	Date 11/02/2016	11/10/2016	Time 8:02	10:38	Product Crude	Crude	Flowrate 115 bbl/hr	115 bbl/hr	Totalizer 138513	145662	Throughput 8009	7149	Base Density 40.8 °API	42.9 °API	Avg Pvr Temp 84.9	64.7	Avg Pvr Press 22.0	10.0	Repeatability 0.022 %	0.036 %	CMF 1.0012	1.0022	CMF Variance -0.0004	0.0010
Previous	Current																													
Task ID 1478116943	1478821131																													
Date 11/02/2016	11/10/2016																													
Time 8:02	10:38																													
Product Crude	Crude																													
Flowrate 115 bbl/hr	115 bbl/hr																													
Totalizer 138513	145662																													
Throughput 8009	7149																													
Base Density 40.8 °API	42.9 °API																													
Avg Pvr Temp 84.9	64.7																													
Avg Pvr Press 22.0	10.0																													
Repeatability 0.022 %	0.036 %																													
CMF 1.0012	1.0022																													
CMF Variance -0.0004	0.0010																													
Prover Data BPV 1.18820 bbl I.D. 7.981 In W.T. 0.322 In Manufacturer DOMINION Type Displacement-Sphere Serial No. 23MM Elasticity 3.0E7 1/psi Pipe Gc 1.86E-5 1/°F Certified	Tolerances Tolerance Type: Repeatability Maximum Deviation: 0.050 % Enabled? Y Passed? Y Min # of Runs: 5 Criteria: 5 out of 5 consecutive runs Avg X Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Prev X Factor Count Sought: 1 Prev X Factor Count Used: 0 Cut Off History? N Cutoff Date: Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Proving Mode: Volumetric Density Mode: Manual Calc. Method: Avg. Meter Factor Proving Method: PIU Passes Per Run 1	Liquid Properties at Metering Conditions for CMF Normal Op. Pressure 24.0 psig Eq. Vapor Pressure 0.0 psig CPL 1.0001																												

Run	TEMPERATURE		PRESSURE		PULSES	Run Accepted ?		IMF	Flowrate
	Tp	Tm	Pp	Pm	N				bbl/hr
1	63.8	63.8	10.0	24.0	11856.804	1	Yes	1.00213	114.857
2	65.4	65.4	10.0	24.0	11857.315	2	Yes	1.00211	114.809
3	64.8	64.8	10.0	24.0	11860.121	3	Yes	1.00187	114.773
4	65.1	65.1	10.0	24.0	11855.776	4	Yes	1.00223	114.798
5	64.5	64.5	10.0	24.0	11857.548	5	Yes	1.00208	114.818
Average	64.7	64.7	10.0	24.0	11857.5128			1.00208	114.811

(1) GSVp: $BPV * [CTSp * CPSP * CTLp * CPLp = CCFp]$

BPV	CTSp	CPSP	CTLp	CPLp	CCFp	GSVp
1.18820	1.00009	1.00001	0.99756	1.00006	0.99772	1.18549

(2) ISVm: $[N(avg) + NKF = IVm] * [CTLm * CPLm = CCFm]$

N(avg)	NKF	IVm	CTLm	CPLm	CCFm	ISVm
11857.5128	10000.0000	1.18575	0.99756	1.00014	0.99770	1.18302

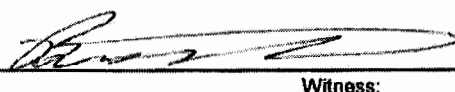
(3) Proving Factors:

>>>> (1) GSVp + ISVm = 1.0021 MF
 (2) MF * CPL = 1.0022 CMF
 (3) 1 + MF = 0.9979 MA
 (4) NKF + MF = 9979.0 KF
 (5) KF + CPL = 9978.0 CKF

Repeatability: 0.036 %
 Uncertainty: 0.019 %

Trans. Serial No.	
Flow Calib Factor	
Density Calib Factor	
Frequency Set Point	
Flowrate Set Point	
Zero Verified	Zeroed
As Found	As Left


 Technician


 Witness:



Customer: WPX -
Operator:
Location: 342 - Lact
Federal ID:

Meter Data WPX342 WPX South Chaco 342 Sales Factor Tracked Composite MF(CMF) Temp Compensated No NKF 10000.0000 N/bbl Manufacturer Micro Motion Size 2.00 In Serial No. 14490120 Model No.	Product Data Name Crude Batch No. Obs. Gravity 42.3 °API Obs. Temp 56.0 °F Obs. Press 0.0 psi API Table Table A - Crude Oil (2004) Base Density 42.7 °API HYC Y	Proving Data Previous Current Task ID 1483663668 1486068532 Date 01/04/2017 02/02/2017 Time 8:01 7:48 Product Crude Crude Flowrate 115 bbl/hr 115 bbl/hr Totalizer 153067 160525 Throughput 7405 7458 Base Density 42.3°API 42.7 °API Avg Prvr Temp 72.3 74.7 Avg Prvr Press 15.0 19.0 Repeatability 0.033 % 0.040 % CMF 1.0010 1.0014 CMF Variance -0.0012 0.0004
Prover Data BPV 1.18820 bbl I.D. 7.981 in W.T. 0.322 in Manufacturer DOMINION Type Displacement-Sphere Serial No. 23MM Elasticity 3.0E7 1/psi Pipe Gc 1.86E-5 1/F Certified	Tolerances Tolerance Type: Repeatability Maximum Deviation: 0.060 % Enabled? Y Passed? Y Min # of Runs: 5 Criteria: 5 out of 5 consecutive runs Avg X Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Prev X Factor Count Sought: 1 Prev X Factor Count Used: 0 Cut Off History? N Cutoff Date: Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Proving Mode: Volumetric Density Mode: Manual Calc. Method: Avg. Meter Factor Proving Method: PIU Passes Per Run 1	Liquid Properties at Metering Conditions for CMF Normal Op. Pressure 20.0 psig Eq. Vapor Pressure 0.0 psig CPL 1.0001

Run	TEMPERATURE		PRESSURE		PULSES	Run Accepted ?		IMF	Flowrate
	Tp	Tm	Pp	Pm	N				bbl/hr
1	73.8	73.8	19.0	20.0	11867.076	1	Yes	1.00153	114.683
2	74.4	74.4	19.0	20.0	11871.198	2	Yes	1.00120	114.691
3	74.6	74.6	19.0	20.0	11869.096	3	Yes	1.00137	114.695
4	75.1	75.1	19.0	20.0	11871.074	4	Yes	1.00121	114.716
5	75.4	75.4	19.0	20.0	11872.161	5	Yes	1.00113	114.675
6	74.8	74.8	19.0	20.0	11871.756	6	No	1.00115	114.703
Average	74.7	74.7	19.0	20.0	11870.1210			1.00129	114.692

(1) GSVp: $BPV * [CTSp * CPSP * CTLp * CPLp = CCFp]$

BPV	CTSp	CPSP	CTLp	CPLp	CCFp	GSVp
1.18820	1.00027	1.00002	0.99237	1.00011	0.99277	1.17961

(2) ISVm: $[N(avg) + NKF = IVm] * [CTLm * CPLm = CCFm]$

N(avg)	NKF	IVm	CTLm	CPLm	CCFm	ISVm
11870.1210	10000.0000	1.18701	0.99237	1.00012	0.99249	1.17810

(3) Proving Factors:

>>>> (1) GSVp + ISVm = 1.0013 MF
(2) MF * CPL = 1.0014 CMF
(3) 1 + MF = 0.9987 MA
(4) NKF + MF = 9987.0 KF
(5) KF + CPL = 9986.0 CKF

Repeatability: 0.040 %
Uncertainty: 0.017 %

Trans. Serial No.	
Flow Calib Factor	
Density Calib Factor	
Frequency Set Point	
Flowrate Set Point	
Zero Verified	Zeroed
As Found	As Left

Technician

PROVEIT

Witness:

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02/02/2017 8:56 Page: 1
Revision: 3

Customer: WPX -
 Operator:
 Location: 342 - Lact
 Federal ID:

Meter Data	Product Data	Proving Data
WPX342 WPX South Chaco 342 Sales Factor Tracked Composite MF(CMF) Temp Compensated No NKF 10000.0000 N/bbl Manufacturer Micro Motion Size 2.00 In Serial No. 14490120 Model No. CMF 300M	Name Crude Batch No. Obs. Gravity 41.7 °API Obs. Temp 63.0 °F Obs. Press 0.0 psi API Table Table A - Crude Oil (2004) Base Density 41.4 °API HYC Y	<u>Previous</u> <u>Current</u> Task ID 1486088532 1488576613 Date 02/02/2017 03/03/2017 Time 7:48 8:28 Product Crude Crude Flowrate 115 bbl/hr 104 bbl/hr Totalizer 160525 166592 Throughput 7458 6067 Base Density 42.7°API 41.4 °API Avg Pvr Temp 74.7 61.6 Avg Pvr Press 19.0 22.0 Repeatability 0.040 % 0.041 % CMF 1.0014 1.0019 CMF Variance 0.0004 0.0005
Prover Data BPV 1.18820 bbl I.D. 7.981 In W.T. 0.322 in Manufacturer Type Displacement-Sphere Serial No. 23MM Elasticity 3.0E7 1/psi Pipe Gc 1.86E-6 1/°F Certified	Tolerances Tolerance Type: Repeatability Maximum Deviation: 0.050 % Enabled? Y Passed? Y Min # of Runs: 5 Criteria: 5 out of 5 consecutive runs Avg X Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Prev X Factor Count Sought: 1 Prev X Factor Count Used: 0 Cut Off History? N Cutoff Date: Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Proving Mode: Volumetric Density Mode: Manual Calc. Method: Avg. Meter Factor Proving Method: PIU Passes Per Run 1	Liquid Properties at Metering Conditions for CMF Normal Op. Pressure 21.0 psig Eq. Vapor Pressure 0.0 psig CPL 1.0001

Run	TEMPERATURE		PRESSURE		PULSES	Run Accepted ?		IMF	Flowrate
	Tp	Tm	Pp	Pm	N				bbl/hr
1	61.6	61.6	22.0	23.0	11858.804	1	Yes	1.00200	103.738
2	61.7	61.7	22.0	23.0	11860.745	2	Yes	1.00184	103.766
3	61.7	61.7	22.0	23.0	11863.093	3	Yes	1.00164	103.705
4	61.5	61.5	22.0	23.0	11863.557	4	Yes	1.00159	103.592
5	61.4	61.4	22.0	23.0	11860.689	5	Yes	1.00184	103.455
6	61.5	61.5	22.0	23.0	11865.577	6	No	1.00143	103.344
Average	61.6	61.6	22.0	23.0	11861.3776			1.00178	103.651

(1) GSVp: BPV * [CTSp * CPSp * CTLp * CPLp = CCFp]

BPV	CTSp	CPSp	CTLp	CPLp	CCFp	GSVp
1.18820	1.00003	1.00002	0.99918	1.00012	0.99935	1.18743

(2) ISVm: [N(avg) + NKF = IVm] * [CTLm * CPLm = CCFm]

N(avg)	NKF	IVm	CTLm	CPLm	CCFm	ISVm
11861.3776	10000.0000	1.18614	0.99918	1.00013	0.99931	1.18532

(3) Proving Factors:

>>>> (1) GSVp + ISVm = 1.0018 MF
 (2) MF * CPL = 1.0019 CMF
 (3) 1 ÷ MF = 0.9982 MA
 (4) NKF + MF = 9982.0 KF
 (5) KF ÷ CPL = 9981.0 CKF

Repeatability: 0.041 %
 Uncertainty: 0.024 %

Trans. Serial No. Flow Calib Factor Density Calib Factor Frequency Set Point Flowrate Set Point Zero Verified As Found	Zeroed As Left
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Technician:

PROVE

Witness:

Customer: WPX -

Operator:

Location:

Federal ID: SHL SEC.35 T24N R7W NMPM

M C G Ccm #1602
30-4039-31312

Meter Data		Product Data		Proving Data	
67440546 WPX 160H		Name Crude		<u>Previous</u> <u>Current</u>	
Factor Tracked Composite MF(CMF)		Batch No.		Task ID 1474581638 1474582706	
Temp Compensated No		Obs. Gravity 41.5 °API		Date 09/22/2016 09/22/2016	
NKF 10000.0000 N/bbl		Obs. Temp 88.5 °F		Time 10:00 10:18	
Manufacturer Micro Motion		Obs. Press 0.0 psi		Product Crude Crude	
Size 2.00 in		API Table Table A - Crude Oil (2004)		Flowrate 42 bbl/hr 12 bbl/hr	
Serial No. 14504524		Base Density 39.1 °API HYC Y		Totalizer	
Model No.				Throughput	
				Base Density 39.1 °API 39.1 °API	
				Avg Pvr Temp 87.7 87.4	
				Avg Pvr Press 37.0 43.0	
				Repeatability 0.030 % 0.034 %	
				CMF 1.0009 1.0012	
				CMF Variance -0.0008 0.0003	
				Liquid Properties at Metering	
				Conditions for CMF	
				Normal Op. Pressure 44.0 psig	
				Eq. Vapor Pressure 0.0 psig	
				CPL 1.0003	

Run	TEMPERATURE		PRESSURE		PULSES	Run Accepted ?		IMF	Flowrate
	Tp	Tm	Pp	Pm	N				bb/hr
1	87.2	87.2	43.0	44.0	11876.638	1	Yes	1.00099	12.491
2	86.4	86.4	43.0	44.0	11880.462	2	Yes	1.00065	12.466
3	87.1	87.1	43.0	44.0	11877.414	3	Yes	1.00091	12.461
4	87.1	87.1	43.0	44.0	11877.623	4	Yes	1.00090	12.451
5	89.2	89.2	43.0	44.0	11877.542	5	Yes	1.00095	12.480
Average	87.4	87.4	43.0	44.0	11877.9358			1.00088	12.470

(1) GSVp: BPV * [CTSp * CPSp * CTLp * CPLp = CCFp]

BPV	CTSp	CPSp	CTLp	CPLp	CCFp	GSVp
1.18820	1.00051	1.00004	0.98633	1.00025	0.98712	1.17290

(2) ISVm: [N(avg) ÷ NKF = IVm] * [CTLm * CPLm = CCFm]

N(avg)	NKF	IVm	CTLm	CPLm	CCFm	ISVm
11877.9358	10000.0000	1.18779	0.98633	1.00026	0.98659	1.17186

(3) Proving Factors:

>>>>	(1)	GSVp ÷ ISVm =	1.0009	MF
	(2)	MF * CPL =	1.0012	CMF
	(3)	1 ÷ MF =	0.9991	MA
	(4)	NKF ÷ MF =	9991.0	KF
	(5)	KF ÷ CPL =	9988.0	CKF

Repeatability: 0.034 %
Uncertainty: 0.018 %

Trans. Serial No.	
Flow Calib Factor	
Density Calib Factor	
Frequency Set Point	
Flowrate Set Point	
Zero Verified	Zeroed
As Found	As Left

Technician: 

Witness:

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Revision: 1

Customer: WPX -

Operator:

Location:

Federal ID: SHL SEC.35 T24N R7W NMPM

my 6-6000 #1601
30-037-2.3.2
RD 5 24A? W

Meter Data	Product Data	Proving Data
67440546 WPX 160H Factor Tracked Composite MF(CMF) Temp Compensated No NKF 10000.0000 N/bbl Manufacturer Micro Motion Size 2.00 in Serial No. 14504524 Model No.	Name Crude Batch No. Obs. Gravity 41.0 °API Obs. Temp 60.0 °F Obs. Press 0.0 psi API Table Table A - Crude Oil (2004) Base Density 41.0 °API HYC Y	<u>Previous</u> <u>Current</u> Task ID 1476169158 1476169317 Date 10/10/2016 10/10/2016 Time 18:59 19:01 Product Crude Crude Flowrate 41 bbl/hr 12 bbl/hr Totalizer Throughput Base Density 41.0 °API 41.0 °API
Prover Data BPV 1.18820 bbl I.D. 7.981 in W.T. 0.322 in Manufacturer DOMINION Type Displacement-Sphere Serial No. 23MM Elasticity 3.0E7 1/psi Pipe Gc 1.86E-5 1/F Certified	Tolerances Tolerance Type: Repeatability Maximum Deviation: 0.050 % Enabled? Y Passed? Y Min # of Runs: 5 Criteria: 5 out of 5 consecutive runs Avg X Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Prev X Factor Count Sought: 1 Prev X Factor Count Used: 0 Cut Off History? N Cutoff Date: Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Proving Mode: Volumetric Density Mode: Manual Calc. Method: Avg. Meter Factor Proving Method: Manual Passes Per Run 1	Avg Pvr Temp 78.0 73.6 Avg Pvr Press 47.0 47.0 Repeatability 0.032 % 0.016 % CMF 1.0021 1.0032 CMF Variance 0.0009 0.0011
		Liquid Properties at Metering Conditions for CMF Normal Op. Pressure 46.0 psig Eq. Vapor Pressure 0.0 psig CPL 1.0003

Run	TEMPERATURE Tp Tm	PRESSURE Pp Pm	PULSES N	Run Accepted ?	IMF	Flowrate bbl/hr
1	73.9 73.9	47.0 49.0	11851.000	1 Yes	1.00291	12.000
2	73.5 73.5	47.0 49.0	11851.000	2 Yes	1.00290	12.000
3	72.9 72.9	47.0 49.0	11851.000	3 Yes	1.00289	12.000
4	73.0 73.0	47.0 49.0	11852.000	4 Yes	1.00280	12.000
5	74.9 74.9	47.0 49.0	11853.000	5 Yes	1.00275	12.000
Average	73.6 73.6	47.0 49.0	11851.6000		1.00285	12.000

(1) GSVp: BPV * [CTSp * CPSp * CTLp * CPLp = CCFp]

BPV	CTSp	CPSp	CTLp	CPLp	CCFp	GSVp
1.18820	1.00025	1.00004	0.99308	1.00027	0.99364	1.18064

(2) ISVm: [N(avg) ÷ NKF = IVm] * [CTLm * CPLm = CCFm]

N(avg)	NKF	IVm	CTLm	CPLm	CCFm	ISVm
11851.6000	10000.0000	1.18516	0.99308	1.00028	0.99336	1.17729

(3) Proving Factors:

>>>> (1) GSVp ÷ ISVm = 1.0029 MF
 (2) MF * CPL = 1.0032 CMF
 (3) 1 ÷ MF = 0.9971 MA
 (4) NKF ÷ MF = 9971.1 KF
 (5) KF ÷ CPL = 9968.1 CKF

 Repeatability: 0.016 %
 Uncertainty: 0.009 %

Trans. Serial No.	
Flow Calib Factor	
Density Calib Factor	
Frequency Set Point	
Flowrate Set Point	
Zero Verified	Zeroed
As Found	As Left

Technician:

Witness:

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10/10/2016 19:03 Page: 1

Revision: 1

Customer: WPX -
Operator:
Location:
Federal ID:

Meter Data 67443821 WPX 409H Factor Tracked Composite MF(CMF) Temp Compensated No NKF 10000.0000 N/bbl Manufacturer Micro Motion Size 2.00 In Serial No. Model No.	Product Data Name Crude Batch No. Obs. Gravity 43.2 °API Obs. Temp 77.0 °F Obs. Press 0.0 psi API Table Table A - Crude Oil (2004) Base Density 41.7 °API HYC Y	Proving Data <u>Previous</u> <u>Current</u> Task ID 1481155934 1487870910 Date 12/07/2016 02/24/2017 Time 11:12 8:15 Product Crude Crude Flowrate 42 bbl/hr 42 bbl/hr Totalizer Throughput Base Density 40.4 °API 41.7 °API Avg Pvr Temp 76.7 71.0 Avg Pvr Press 10.0 36.0 Repeatability 0.023 % 0.045 % CMF 1.0033 1.0020 CMF Variance 0.0005 -0.0013
Prover Data BPV 1.18820 bbl I.D. 7.981 In W.T. 0.322 In Manufacturer Type Displacement-Sphere Serial No. 23MM Elasticity 3.0E7 1/psi Pipe Gc 1.86E-5 1/°F Certified	Tolerances Tolerance Type: Repeatability Maximum Deviation: 0.050 % Enabled? Y Passed? Y Min # of Runs: 5 Criteria: 5 out of 5 consecutive runs Avg X Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Prev X Factor Count Sought: 1 Prev X Factor Count Used: 0 Cut Off History? N Cutoff Date: Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Proving Mode: Volumetric Density Mode: Manual Calc. Method: Avg. Meter Factor Proving Method: PIU Passes Per Run 1	
Liquid Properties at Metering Conditions for CMF Normal Op. Pressure 38.0 psig Eq. Vapor Pressure 0.0 psig CPL 1.0002		

Run	TEMPERATURE		PRESSURE		PULSES	Run Accepted ?	IMF	Flowrate bbl/hr
	Tp	Tm	Pp	Pm	N			
1	68.1	68.1	36.0	41.0	11864.480	1 Yes	1.00162	41.785
2	69.9	69.9	36.0	41.0	11862.864	2 Yes	1.00179	41.760
3	72.3	72.3	36.0	41.0	11862.707	3 Yes	1.00186	41.834
4	72.8	72.8	36.0	41.0	11860.315	4 Yes	1.00207	41.780
5	72.1	72.1	36.0	41.0	11864.654	5 Yes	1.00169	41.774
Average	71.0	71.0	36.0	41.0	11863.0040		1.00181	41.787

(1) GSVp: BPV * [CTSp * CPSp * CTLp * CPLp = CCFp]

BPV	CTSp	CPSp	CTLp	CPLp	CCFp	GSVp
1.18820	1.00020	1.00003	0.99436	1.00021	0.99480	1.18202

(2) ISVm: [N(avg) ÷ NKF = IVm] * [CTLm * CPLm = CCFm]

N(avg)	NKF	IVm	CTLm	CPLm	CCFm	ISVm
11863.0040	10000.0000	1.18630	0.99436	1.00024	0.99460	1.17989

(3) Proving Factors:

>>>> (1) GSVp ÷ ISVm = 1.0018 MF
(2) MF * CPL = 1.0020 CMF
(3) 1 ÷ MF = 0.9982 MA
(4) NKF ÷ MF = 9982.0 KF
(5) KF ÷ CPL = 9980.0 CKF

Repeatability: 0.045 %
Uncertainty: 0.024 %

Trans. Serial No. Flow Calib Factor Density Calib Factor Frequency Set Point Flowrate Set Point Zero Verified As Found	Zeroed As Left
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Technician:

Witness:

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Revision: 1

Customer: WPX -

Operator:

Location:

Federal ID:

Meter Data	Product Data	Proving Data
67443821 WPX 409H Factor Tracked Composite MF(CMF) Temp Compensated No NKF 10000.0000 N/bbl Manufacturer Micro Motion Size 2.00 in Serial No. Model No.	Name Crude Batch No. Obs. Gravity 42.1 °API Obs. Temp 80.5 °F Obs. Press 0.0 psi API Table Table A - Crude Oil (2004) Base Density 40.3 °API HYC Y	Previous Current Task ID 1487970910 1489106739 Date 02/24/2017 03/09/2017 Time 8:15 11:45 Product Crude Crude Flowrate 42 bbl/hr 42 bbl/hr Totalizer Throughput Base Density 41.7°API 40.3 °API Avg Prvr Temp 71.0 80.5 Avg Prvr Press 36.0 16.0 Repeatability 0.045 % 0.043 % CMF 1.0020 1.0021 CMF Variance -0.0013 0.0001
Prover Data BPV 1.18820 bbl I.D. 7.981 in W.T. 0.322 in Manufacturer Type Displacement-Sphere Serial No. 23MM Elasticity 3.0E7 1/psi Pipe Gc 1.86E-5 1/°F Certified	Tolerances Tolerance Type: Repeatability Maximum Deviation: 0.050 % Enabled? Y Passed? Y Min # of Runs: 5 Criteria: 5 out of 5 consecutive runs Avg X Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Prev X Factor Count Sought: 1 Prev X Factor Count Used: 0 Cut Off History? N Cutoff Date: Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Proving Mode: Volumetric Density Mode: Manual Calc. Method: Avg. Meter Factor Proving Method: PIU Passes Per Run 1	Liquid Properties at Metering Conditions for CMF Normal Op. Pressure 35.0 psig Eq. Vapor Pressure 0.0 psig CPL 1.0002

Run	TEMPERATURE		PRESSURE		PULSES	Run Accepted ?		IMF	Flowrate
	Tp	Tm	Pp	Pm	N				bbl/hr
1	79.7	79.7	16.0	35.0	11864.953	1	Yes	1.00170	41.713
2	81.0	81.0	16.0	35.0	11863.850	2	Yes	1.00180	41.760
3	81.2	81.2	16.0	35.0	11861.226	3	Yes	1.00203	41.767
4	81.5	81.5	16.0	35.0	11865.703	4	Yes	1.00166	41.691
5	79.0	79.0	16.0	35.0	11860.318	5	Yes	1.00209	41.720
Average	80.5	80.5	16.0	35.0	11863.2100			1.00186	41.730

(1) GSVp: $BPV * [CTSp * CPSp * CTLp * CPLp = CCFp]$

BPV	CTSp	CPSp	CTLp	CPLp	CCFp	GSVp
1.18820	1.00038	1.00001	0.98964	1.00009	0.99012	1.17646

(2) ISVm: $[N(avg) + NKF = IVm] * [CTLm * CPLm = CCFm]$

N(avg)	NKF	IVm	CTLm	CPLm	CCFm	ISVm
11863.2100	10000.0000	1.18632	0.98964	1.00021	0.98985	1.17428

(3) Proving Factors:

>>>>	(1)	GSVp + ISVm =	1.0019	MF
	(2)	MF * CPL =	1.0021	CMF
	(3)	1 + MF =	0.9981	MA
	(4)	NKF + MF =	9981.0	KF
	(5)	KF + CPL =	9979.0	CKF

 Repeatability: **0.043 %**
 Uncertainty: **0.023 %**

Trans. Serial No.	
Flow Calib Factor	
Density Calib Factor	
Frequency Set Point	
Flowrate Set Point	
Zero Verified	Zeroed
As Found	As Left

Technician

Witness:

PROVE

Customer: WPX -
 Operator:
 Location:
 Federal ID: Sec.2P T22N R6W

Meter Data WPX228H WPX 228H Factor Tracked Composite MF(CMF) Temp Compensated No NKF 10000.0000 N/bbl Manufacturer Micro Motion Size In Serial No. 14324674 Model No. CMF 300M	Product Data Name Crude Batch No. Obs. Gravity 43.7 °API Obs. Temp 102.0 °F Obs. Press 0.0 psi API Table Table A - Crude Oil (2004) Base Density 40.1 °API HYC Y	Proving Data <table style="width:100%;"> <tr> <th style="text-align: left;"><u>Previous</u></th> <th style="text-align: left;"><u>Current</u></th> </tr> <tr> <td>Task ID 1486075740</td> <td>1488583277</td> </tr> <tr> <td>Date 02/02/2017</td> <td>03/03/2017</td> </tr> <tr> <td>Time 9:49</td> <td>10:21</td> </tr> <tr> <td>Product Crude</td> <td>Crude</td> </tr> <tr> <td>Flowrate 390 bbl/hr</td> <td>369 bbl/hr</td> </tr> <tr> <td>Totalizer 139379</td> <td></td> </tr> <tr> <td>Throughput 996</td> <td></td> </tr> <tr> <td>Base Density 41.2 °API</td> <td>40.1 °API</td> </tr> <tr> <td>Avg Prvr Temp 59.5</td> <td>66.7</td> </tr> <tr> <td>Avg Prvr Press 19.0</td> <td>17.0</td> </tr> <tr> <td>Repeatability 0.019 %</td> <td>0.036 %</td> </tr> <tr> <td>CMF 1.0021</td> <td>1.0020</td> </tr> <tr> <td>CMF Variance -0.0013</td> <td>-0.0001</td> </tr> </table>	<u>Previous</u>	<u>Current</u>	Task ID 1486075740	1488583277	Date 02/02/2017	03/03/2017	Time 9:49	10:21	Product Crude	Crude	Flowrate 390 bbl/hr	369 bbl/hr	Totalizer 139379		Throughput 996		Base Density 41.2 °API	40.1 °API	Avg Prvr Temp 59.5	66.7	Avg Prvr Press 19.0	17.0	Repeatability 0.019 %	0.036 %	CMF 1.0021	1.0020	CMF Variance -0.0013	-0.0001
<u>Previous</u>	<u>Current</u>																													
Task ID 1486075740	1488583277																													
Date 02/02/2017	03/03/2017																													
Time 9:49	10:21																													
Product Crude	Crude																													
Flowrate 390 bbl/hr	369 bbl/hr																													
Totalizer 139379																														
Throughput 996																														
Base Density 41.2 °API	40.1 °API																													
Avg Prvr Temp 59.5	66.7																													
Avg Prvr Press 19.0	17.0																													
Repeatability 0.019 %	0.036 %																													
CMF 1.0021	1.0020																													
CMF Variance -0.0013	-0.0001																													
Prover Data BPV 1.18820 bbl I.D. 7.981 in W.T. 0.322 in Manufacturer Type Displacement-Sphere Serial No. 23MM Elasticity 3.0E7 1/psi Pipe Gc 1.86E-5 1/°F Certified	Tolerances Tolerance Type: Repeatability Maximum Deviation: 0.050 % Enabled? Y Passed? Y Min # of Runs: 5 Criteria: 5 out of 5 consecutive runs Avg X Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Prev X Factor Count Sought: 1 Prev X Factor Count Used: 0 Cut Off History? N Cutoff Date: Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Proving Mode: Volumetric Density Mode: Manual Calc. Method: Avg. Meter Factor Proving Method: PIU Passes Per Run 1	Liquid Properties at Metering Conditions for CMF Normal Op. Pressure 45.0 psig Eq. Vapor Pressure 0.0 psig CPL 1.0003																												

Run	TEMPERATURE		PRESSURE		PULSES	Run Accepted ?		IMF	Flowrate bbl/hr
	Tp	Tm	Pp	Pm	N				
1	66.5	66.5	17.0	46.0	11864.080	1	No	1.00147	370.299
2	67.0	67.0	17.0	46.0	11862.339	2	Yes	1.00163	369.796
3	66.9	66.9	17.0	46.0	11858.249	3	Yes	1.00198	369.369
4	66.8	66.8	17.0	46.0	11861.886	4	Yes	1.00168	368.976
5	66.6	66.6	17.0	46.0	11862.296	5	Yes	1.00162	368.863
6	66.4	66.4	17.0	46.0	11861.537	6	Yes	1.00169	368.905
Average	66.7	66.7	17.0	46.0	11861.2214			1.00172	369.182

(1) GSVp: $BPV * [CTSp * CPSp * CTLp * CPLp = CCFp]$

BPV	CTSp	CPSp	CTLp	CPLp	CCFp	GSVp
1.18820	1.00012	1.00001	0.99663	1.00009	0.99685	1.18446

(2) ISVm: $[N(avg) \div NKF = IVm] * [CTLm * CPLm = CCFm]$

N(avg)	NKF	IVm	CTLm	CPLm	CCFm	ISVm
11861.2214	10000.0000	1.18612	0.99663	1.00026	0.99689	1.18243

(3) Proving Factors:

>>>> (1) GSVp ÷ ISVm = 1.0017 MF
 (2) MF * CPL = 1.0020 CMF
 (3) 1 ÷ MF = 0.9983 MA
 (4) NKF ÷ MF = 9983.0 KF
 (5) KF ÷ CPL = 9980.0 CKF

Repeatability: 0.036 %
 Uncertainty: 0.021 %

Trans. Serial No. Flow Calib Factor Density Calib Factor Frequency Set Point Flowrate Set Point Zero Verified As Found	Zeroed As Left
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Technician:

PROVE

Witness:

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 PROVEit PROVEit 8.7.0.0

03/03/2017 10:28 Page: 1
 Revision: 1

Customer: WPX -
 Operator:
 Location:
 Federal ID: Sec.2P T22N R6W

Meter Data	Product Data	Proving Data
WPX228H WPX 228H Factor Tracked Composite MF(CMF) Temp Compensated No NKF 10000.0000 N/bbl Manufacturer Micro Motion Size in Serial No. 14324674 Model No. CMF 300M	Name Crude Batch No. Obs. Gravity 43.2 °API Obs. Temp 41.0 °F Obs. Press 0.0 psi API Table Table A - Crude Oil (2004) Base Density 44.9 °API HYC Y	<u>Previous</u> <u>Current</u> Task ID 1485467095 Date 01/26/2017 Time 8:44 Product Crude Flowrate 366 bbl/hr Totalizer 138383 Throughput Base Density 44.9 °API Avg Pvr Temp 40.2 Avg Pvr Press 49.0 Repeatability 0.029 % CMF 1.0034 CMF Variance
Prover Data BPV 1.18820 bbl I.D. 7.981 in W.T. 0.322 in Manufacturer DOMINION Type Displacement-Sphere Serial No. 23MM Elasticity 3.0E7 1/psi Pipe Gc 1.86E-5 1/F Certified	Tolerances Tolerance Type: Repeatability Maximum Deviation: 0.050 % Enabled? Y Passed? Y Min # of Runs: 5 Criteria: 5 out of 5 consecutive runs Avg X Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Prev X Factor Count Sought: 1 Prev X Factor Count Used: 0 Cut Off History? N Cutoff Date: Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Proving Mode: Volumetric Density Mode: Manual Calc. Method: Avg. Meter Factor Proving Method: PIU Passes Per Run 1	Liquid Properties at Metering Conditions for CMF Normal Op. Pressure 49.0 psig Eq. Vapor Pressure 0.0 psig CPL 1.0003

Run	TEMPERATURE		PRESSURE		PULSES	Run Accepted ?		IMF	Flowrate
	TP	Tm	Pp	Pm	N				bbl/hr
1	40.4	40.4	49.0	49.0	11841.477	1	Yes	1.00310	365.978
2	40.6	40.6	49.0	49.0	11842.230	2	Yes	1.00304	365.345
3	39.7	39.7	49.0	49.0	11838.624	3	Yes	1.00333	365.732
4	39.9	39.9	49.0	49.0	11841.378	4	Yes	1.00310	365.909
5	40.3	40.3	49.0	49.0	11842.072	5	Yes	1.00304	365.897
Average	40.2	40.2	49.0	49.0	11841.1562			1.00312	365.772

(1) GSVp: BPV * [CTSp * CPSP * CTLp * CPLp = CCFp]

BPV	CTSp	CPSP	CTLp	CPLp	CCFp	GSVp
1.18820	0.99963	1.00004	1.01049	1.00027	1.01043	1.20059

(2) ISVm: [N(avg) ÷ NKF = IVm] * [CTLm * CPLm = CCFm]

N(avg)	NKF	IVm	CTLm	CPLm	CCFm	ISVm
11841.1562	10000.0000	1.18412	1.01049	1.00027	1.01076	1.19686

(3) Proving Factors:

>>>> (1) GSVp + ISVm = 1.0031 MF
 (2) MF * CPL = 1.0034 CMF
 (3) 1 + MF = 0.9969 MA
 (4) NKF + MF = 9969.1 KF
 (5) KF + CPL = 9966.1 CKF

Repeatability: 0.029 %
 Uncertainty: 0.015 %

Trans. Serial No. Flow Calib Factor Density Calib Factor	
Frequency Set Point Flowrate Set Point Zero Verified As Found	Zeroed As Left

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 Revision: 1

Customer: WPX -
 Operator:
 Location:
 Federal ID: Sec.2P T22N R6W

Meter Data WPX228H WPX 228H Factor Tracked Composite MF(CMF) Temp Compensated No NKF 10000.0000 N/bbl Manufacturer Micro Motion Size in Serial No. 14324674 Model No. CMF 300M	Product Data Name Crude Batch No. Obs. Gravity 42.4 °API Obs. Temp 74.0 °F Obs. Press 0.0 psi API Table Table A - Crude Oil (2004) Base Density 41.2 °API HYC Y	Proving Data <table style="width:100%;"> <tr> <th style="text-align: left;"><u>Previous</u></th> <th style="text-align: left;"><u>Current</u></th> </tr> <tr> <td>Task ID 1485467095</td> <td>1486076740</td> </tr> <tr> <td>Date 01/26/2017</td> <td>02/02/2017</td> </tr> <tr> <td>Time 8:44</td> <td>9:49</td> </tr> <tr> <td>Product Crude</td> <td>Crude</td> </tr> <tr> <td>Flowrate 366 bbl/hr</td> <td>390 bbl/hr</td> </tr> <tr> <td>Totalizer 138383</td> <td>139379</td> </tr> <tr> <td>Throughput</td> <td>996</td> </tr> <tr> <td>Base Density 44.9°API</td> <td>41.2 °API</td> </tr> </table>	<u>Previous</u>	<u>Current</u>	Task ID 1485467095	1486076740	Date 01/26/2017	02/02/2017	Time 8:44	9:49	Product Crude	Crude	Flowrate 366 bbl/hr	390 bbl/hr	Totalizer 138383	139379	Throughput	996	Base Density 44.9°API	41.2 °API
<u>Previous</u>	<u>Current</u>																			
Task ID 1485467095	1486076740																			
Date 01/26/2017	02/02/2017																			
Time 8:44	9:49																			
Product Crude	Crude																			
Flowrate 366 bbl/hr	390 bbl/hr																			
Totalizer 138383	139379																			
Throughput	996																			
Base Density 44.9°API	41.2 °API																			
Prover Data BPV 1.18820 bbl I.D. 7.981 in W.T. 0.322 in Manufacturer DOMINION Type Displacement-Sphere Serial No. 23MM Elasticity 3.0E7 1/psi Pipe Gc 1.86E-5 1/F Certified	Tolerances Tolerance Type: Repeatability Maximum Deviation: 0.050 % Enabled? Y Passed? Y Min # of Runs: 5 Criteria: 5 out of 5 consecutive runs Avg X Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Prev X Factor Count Sought: 1 Prev X Factor Count Used: 0 Cut Off History? N Cutoff Date: Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Proving Mode: Volumetric Density Mode: Manual Calc. Method: Avg. Meter Factor Proving Method: PIU Passes Per Run 1	Avg Prvr Temp 40.2 59.5 Avg Prvr Press 49.0 19.0 Repeatability 0.029 % 0.019 % CMF 1.0034 1.0021 CMF Variance -0.0013																		
Liquid Properties at Metering Conditions for CMF Normal Op. Pressure 47.0 psig Eq. Vapor Pressure 0.0 psig CPL 1.0003																				

Run	TEMPERATURE		PRESSURE		PULSES	Run Accepted ?		IMF	Flowrate
	Tp	Tm	Pp	Pm	N				bbl/hr
1	59.9	59.9	19.0	47.0	11858.196	1	Yes	1.00186	391.219
2	59.8	59.8	19.0	47.0	11858.232	2	Yes	1.00186	390.932
3	59.7	59.7	19.0	47.0	11857.608	3	Yes	1.00191	390.241
4	59.3	59.3	19.0	47.0	11858.011	4	Yes	1.00187	389.603
5	58.9	58.9	19.0	47.0	11859.717	5	Yes	1.00172	389.170
6	58.3	58.3	19.0	47.0	11853.056	6	No	1.00227	388.885
Average	59.5	59.5	19.0	47.0	11858.3526			1.00184	390.233

(1) GSVp: BPV * [CTSp * CPSp * CTLp * CPLp = CCFp]

BPV	CTSp	CPSp	CTLp	CPLp	CCFp	GSVp
1.18820	0.99999	1.00002	1.00025	1.00010	1.00036	1.18863

(2) ISVm: [N(avg) + NKF = IVm] * [CTLm * CPLm = CCFm]

N(avg)	NKF	IVm	CTLm	CPLm	CCFm	ISVm
11858.3526	10000.0000	1.18584	1.00025	1.00026	1.00051	1.18644

(3) Proving Factors:

>>>> (1) GSVp + ISVm = 1.0018 MF
 (2) MF * CPL = 1.0021 CMF
 (3) 1 + MF = 0.9982 MA
 (4) NKF + MF = 9982.0 KF
 (5) KF + CPL = 9979.0 CKF

Repeatability: 0.019 %
 Uncertainty: 0.023 %

Trans. Serial No.	
Flow Calib Factor	
Density Calib Factor	
Frequency Set Point	
Flowrate Set Point	
Zero Verified	Zeroed
As Found	As Left

Technician

Witness

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 Revision: 1

Customer: WPX -
 Operator:
 Location:
 Federal ID: SEC 33 T24N R8W

Meter Data WPX112 WPX 112 Factor Tracked Meter Factor(MF) Temp Compensated No NKF 10000.0000 N/bbl Manufacturer Micro Motion Size 2.00 in Serial No. Model No. CMF 200M	Product Data Name Crude Batch No. Obs. Gravity 44.2 °API Obs. Temp 102.0 °F Obs. Press 0.0 psi API Table Table A - Crude Oil (2004) Base Density 40.5 °API HYC Y	Proving Data <u>Previous</u> <u>Current</u> Task ID 1489701156 1489702123 Date 03/16/2017 03/16/2017 Time 9:52 10:08 Product Crude Crude Flowrate 42 bbl/hr 31 bbl/hr Totalizer Throughput Base Density 40.5 °API 40.5 °API Avg Prvr Temp 97.0 97.2 Avg Prvr Press 38.0 38.0 Repeatability 0.040 % 0.036 % MF 1.0006 1.0008 MF Variance -0.0015 0.0002
Prover Data BPV 1.18820 bbl I.D. 7.981 in W.T. 0.322 in Manufacturer Type Displacement-Sphere Serial No. 23MM Elasticity 3.0E7 1/psi Pipe Gc 1.86E-5 1/°F Certified	Tolerances Tolerance Type: Repeatability Maximum Deviation: 0.050 % Enabled? Y Passed? Y Min # of Runs: 5 Criteria: 5 out of 5 consecutive runs Avg X Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Prev X Factor Count Sought: 1 Prev X Factor Count Used: 0 Cut Off History? N Cutoff Date: Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Proving Mode: Volumetric Density Mode: Manual Calc. Method: Avg. Meter Factor Proving Method: PIU Passes Per Run 1	Liquid Properties at Metering Conditions for CMF Normal Op. Pressure 37.0 psig Eq. Vapor Pressure 0.0 psig CPL 1.0002

Run	TEMPERATURE Tp Tm	PRESSURE Pp Pm	PULSES N	Run Accepted ?	IMF	Flowrate bbl/hr
1	99.5 99.5	38.0 39.0	11880.439	1 Yes	1.00089	31.222
2	97.9 97.9	38.0 39.0	11879.780	2 Yes	1.00091	31.252
3	97.0 97.0	38.0 39.0	11883.661	3 Yes	1.00057	31.263
4	95.8 95.8	38.0 39.0	11881.154	4 Yes	1.00075	31.267
5	95.6 95.6	38.0 39.0	11879.141	5 Yes	1.00093	31.275
Average	97.2 97.2	38.0 39.0	11880.8350		1.00081	31.256

(1) GSVp: BPV * [CTSp * CPSp * CTLp * CPLp = CCFp]

BPV	CTSp	CPSp	CTLp	CPLp	CCFp	GSVp
1.18820	1.00089	1.00003	0.98111	1.00024	0.98205	1.16887

(2) ISVm: [N(avg) + NKF = IVm] * [CTLm * CPLm = CCFm]

N(avg)	NKF	IVm	CTLm	CPLm	CCFm	ISVm
11880.8350	10000.0000	1.18808	0.98111	1.00024	0.98135	1.16592

(3) Proving Factors:

>>>> (1) GSVp ÷ ISVm = 1.0008 MF
 (2) MF * CPL = 1.0010 CMF
 (3) 1 ÷ MF = 0.9992 MA
 (4) NKF + MF = 9992.0 KF
 (5) KF + CPL = 9990.0 CKF

Repeatability: 0.036 %
 Uncertainty: 0.019 %

Trans. Serial No. Flow Calib Factor Density Calib Factor Frequency Set Point Flowrate Set Point Zero Verified As Found	Zeroed As Left
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Technician:
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Witness:

Customer: WPX -
 Operator:
 Location:
 Federal ID: SEC 33 T24N R8W

Meter Data WPX112 WPX 112 Factor Tracked Meter Factor(MF) Temp Compensated No NKF 10000.0000 N/bbl Manufacturer Micro Motion Size 2.00 In Serial No. Model No. CMF200M	Product Data Name Crude Batch No. Obs. Gravity 42.3 °API Obs. Temp 79.8 °F Obs. Press 0.0 psi API Table Table A - Crude Oil (2004) Base Density 40.6 °API HYC Y	Proving Data <u>Previous</u> <u>Current</u> Task ID 1486759280 1486760468 Date 02/10/2017 02/10/2017 Time 7:41 8:01 Product Crude Crude Flowrate 42 bbl/hr 31 bbl/hr Totalizer Throughput Base Density 40.6 °API 40.6 °API Avg Prvr Temp 79.3 79.9 Avg Prvr Press 40.0 40.0 Repeatability 0.022 % 0.018 % MF 1.0018 1.0021 MF Variance 0.0008 0.0003
Prover Data BPV 1.18620 bbl I.D. 7.981 in W.T. 0.322 in Manufacturer DOMINION Type Displacement-Sphere Serial No. 23MM Elasticity 3.0E7 1/psi Pipe Gc 1.86E-5 1/°F Certified	Tolerances Tolerance Type: Repeatability Maximum Deviation: 0.050 % Enabled? Y Passed? Y Min # of Runs: 5 Criteria: 5 out of 5 consecutive runs Avg X Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Prev X Factor Count Sought: 1 Prev X Factor Count Used: 0 Cut Off History? N Cutoff Date: Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Proving Mode: Volumetric Density Mode: Manual Calc. Method: Avg. Meter Factor Proving Method: PIU Passes Per Run 1	Liquid Properties at Metering Conditions for CMF Normal Op. Pressure 42.0 psig Eq. Vapor Pressure 0.0 psig CPL 1.0002

Run	TEMPERATURE Tp Tm	PRESSURE Pp Pm	PULSES N	Run Accepted ?	IMF	Flowrate bbl/hr
1	81.4 81.4	40.0 42.0	11863.440	1 Yes	1.00199	31.340
2	80.1 80.1	40.0 42.0	11861.867	2 Yes	1.00208	31.328
3	79.4 79.4	40.0 42.0	11860.686	3 Yes	1.00215	31.357
4	79.4 79.4	40.0 42.0	11862.156	4 Yes	1.00203	31.332
5	79.4 79.4	40.0 42.0	11860.521	5 Yes	1.00217	31.344
Average	79.9 79.9	40.0 42.0	11861.7340		1.00208	31.340

(1) GSVp: BPV * [CTSp * CPSP * CTLp * CPLp = CCFp]

BPV	CTSp	CPSP	CTLp	CPLp	CCFp	GSVp
1.18620	1.00037	1.00003	0.98991	1.00024	0.99054	1.17696

(2) ISVm: [N(avg) ÷ NKF = IVm] * [CTLm * CPLm = CCFm]

N(avg)	NKF	IVm	CTLm	CPLm	CCFm	ISVm
11861.7340	10000.0000	1.18617	0.98991	1.00025	0.99016	1.17450

(3) Proving Factors:

>>>> (1) GSVp + ISVm = 1.0021 MF
 (2) MF * CPL = 1.0023 CMF
 (3) 1 + MF = 0.9979 MA
 (4) NKF + MF = 9979.0 KF
 (5) KF + CPL = 9977.0 CKF

Repeatability: 0.018 %
 Uncertainty: 0.010 %

Trans. Serial No.	
Flow Calib Factor	
Density Calib Factor	
Frequency Set Point	
Flowrate Set Point	
Zero Verified	Zeroed
As Found	As Left

Technician:

Witness:

PROVE

Customer: WPX -
 Operator:
 Location:
 Federal ID: SEC 33 T24N R8W

Meter Data	Product Data	Proving Data
WPX112 WPX 112 Factor Tracked Meter Factor(MF) Temp Compensated No NKF 10000.0000 N/bbl Manufacturer Micro Motion Size in Serial No. Model No. CMF200M	Name Crude Batch No. Obs. Gravity 44.0 °API Obs. Temp 97.0 °F Obs. Press 0.0 psi API Table Table A - Crude Oil (2004) Base Density 40.8 °API HYC Y	<u>Previous</u> <u>Current</u> Task ID 1484353852 1484356414 Date 01/13/2017 01/13/2017 Time 11:30 12:13 Product Crude Crude Flowrate 41 bbl/hr 31 bbl/hr Totalizer Throughput Base Density 40.8°API 40.8 °API Avg Prvr Temp 95.2 96.5 Avg Prvr Press 35.0 37.0 Repeatability 0.022 % 0.039 % MF 1.0010 1.0010 MF Variance 0.0000
Prover Data BPV 1.18820 bbl I.D. 7.981 in W.T. 0.322 in Manufacturer DOMINION Type Displacement-Sphere Serial No. 23MM Elasticity 3.0E7 1/psi Pipe Gc 1.86E-5 1/°F Certified	Tolerances Tolerance Type: Repeatability Maximum Deviation: 0.060 % Enabled? Y Passed? Y Min # of Runs: 5 Criteria: 5 out of 5 consecutive runs Avg X Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Prev X Factor Count Sought: 1 Prev X Factor Count Used: 0 Cut Off History? N Cutoff Date: Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Proving Mode: Volumetric Density Mode: Manual Calc. Method: Avg. Meter Factor Proving Method: PIU Passes Per Run 1	Liquid Properties at Metering Conditions for CMF Normal Op. Pressure 36.0 psig Eq. Vapor Pressure 0.0 psig CPL 1.0002

Run	TEMPERATURE		PRESSURE		PULSES	Run Accepted ?		IMF	Flowrate
	Tp	Tm	Pp	Pm	N				bb/hr
1	96.7	96.7	37.0	37.0	11879.839	1	Yes	1.00088	31.262
2	96.4	96.4	37.0	37.0	11876.142	2	Yes	1.00120	31.244
3	96.3	96.3	37.0	37.0	11878.296	3	Yes	1.00101	31.250
4	96.6	96.6	37.0	37.0	11880.736	4	Yes	1.00081	31.251
5	96.4	96.4	37.0	37.0	11878.270	5	Yes	1.00101	31.284
Average	96.5	96.5	37.0	37.0	11878.6566			1.00098	31.258

(1) GSVp: $BPV * [CTSp * CPSp * CTLp * CPLp = CCFp]$

BPV	CTSp	CPSp	CTLp	CPLp	CCFp	GSVp
1.18820	1.00068	1.00003	0.98140	1.00023	0.98232	1.16719

(2) ISVm: $[N(avg) + NKF = IVm] * [CTLm * CPLm = CCFm]$

N(avg)	NKF	IVm	CTLm	CPLm	CCFm	ISVm
11878.6566	10000.0000	1.18787	0.98140	1.00023	0.98163	1.16605

(3) Proving Factors:

>>>> (1) GSVp ÷ ISVm = 1.0010 MF
 (2) MF * CPL = 1.0012 CMF
 (3) 1 ÷ MF = 0.9990 MA
 (4) NKF ÷ MF = 9990.0 KF
 (5) KF ÷ CPL = 9988.0 CKF

Repeatability: 0.039 %
 Uncertainty: 0.021 %

Trans. Serial No. Flow Calib Factor Density Calib Factor Frequency Set Point Flowrate Set Point Zero Verified As Found	Zeroed As Left
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Technician: Clinton York - Meter Provers Inc.

Witness:

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 Revision: 1

Customer: WPX -
 Operator:
 Location:
 Federal ID: SEC 32 T24N R8W

Meter Data	Product Data	Proving Data
WPX114H WPX 114H Factor Tracked Meter Factor(MF) Temp Compensated No NKF 10000.0000 N/bbl Manufacturer Micro Motion Size 2.00 in Serial No. 14504519 Model No. CMF200M	Name Crude Batch No. Obs. Gravity 43.4 °API Obs. Temp 100.1 °F Obs. Press 0.0 psi API Table Table A - Crude Oil (2004) Base Density 39.9 °API HYC Y	<u>Previous</u> <u>Current</u> Task ID 1486762844 1486764182 Date 02/10/2017 02/10/2017 Time 8:40 9:03 Product Crude Crude Flowrate 42 bbl/hr 21 bbl/hr Totalizer Throughput Base Density 39.9°API 39.9 °API Avg Prvr Temp 99.3 99.1 Avg Prvr Press 37.0 42.0 Repeatability 0.028 % 0.012 % MF 1.0014 1.0013 MF Variance -0.0011 -0.0001
Prover Data BPV 1.18820 bbl I.D. 7.981 in W.T. 0.322 in Manufacturer DOMINION Type Displacement-Sphere Serial No. 23MM Elasticity 3.0E7 1/psi Pipe Gc 1.86E-5 1/°F Certified	Tolerances Tolerance Type: Repeatability Maximum Deviation: 0.050 % Enabled? Y Passed? Y Min # of Runs: 5 Criteria: 5 out of 5 consecutive runs Avg X Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Prev X Factor Count Sought: 1 Prev X Factor Count Used: 0 Cut Off History? N Cutoff Date: Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Proving Mode: Volumetric Density Mode: Manual Calc. Method: Avg. Meter Factor Proving Method: PIU Passes Per Run 1	Liquid Properties at Metering Conditions for CMF Normal Op. Pressure 44.0 psig Eq. Vapor Pressure 0.0 psig CPL 1.0003

Run	TEMPERATURE Tp Tm	PRESSURE Pp Pm	PULSES N	Run Accepted ?	IMF	Flowrate bbl/hr
1	99.9 99.9	42.0 44.0	11876.179	1 Yes	1.00125	20.829
2	99.3 99.3	42.0 44.0	11875.587	2 Yes	1.00130	20.841
3	98.9 98.9	42.0 44.0	11875.165	3 Yes	1.00131	20.841
4	98.7 98.7	42.0 44.0	11875.224	4 Yes	1.00131	20.822
5	98.6 98.6	42.0 44.0	11874.543	5 Yes	1.00137	20.881
Average	99.1 99.1	42.0 44.0	11875.3396		1.00131	20.843

(1) GSVp: BPV * [CTSp * CPSP * CTLp * CPLp = CCFp]

BPV	CTSp	CPSP	CTLp	CPLp	CCFp	GSVp
1.18820	1.00073	1.00003	0.98028	1.00026	0.98128	1.16596

(2) ISVm: [N(avg) ÷ NKF = IVm] * [CTLm * CPLm = CCFm]

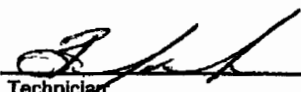
N(avg)	NKF	IVm	CTLm	CPLm	CCFm	ISVm
11875.3396	10000.0000	1.18753	0.98028	1.00027	0.98054	1.16442

(3) Proving Factors:

>>>> (1) GSVp ÷ ISVm = 1.0013 MF
 (2) MF * CPL = 1.0016 CMF
 (3) 1 ÷ MF = 0.9987 MA
 (4) NKF + MF = 9987.0 KF
 (5) KF + CPL = 9984.0 CKF

Repeatability: 0.012 %
 Uncertainty: 0.006 %

Trans. Serial No. Flow Calib Factor Density Calib Factor Frequency Set Point Flowrate Set Point Zero Verified As Found	Zeroed As Left
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 Technician:

Witness:

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 Revision: 1

Customer: WPX -
 Operator:
 Location:
 Federal ID: SEC 32 T24N R8W

Meter Data WPX114H WPX 114H Factor Tracked Meter Factor(MF) Temp Compensated No NKF 10000.0000 N/bbl Manufacturer Micro Motion Size in Serial No. 14504519 Model No. CMF200M	Product Data Name Crude Batch No. Obs. Gravity 41.4 °API Obs. Temp 71.0 °F Obs. Press 0.0 psi API Table Table A - Crude Oil (2004) Base Density 40.5 °API HYC Y	Proving Data <u>Previous</u> <u>Current</u> Task ID 1484358676 1484359618 Date 01/13/2017 01/13/2017 Time 12:51 13:06 Product Crude Crude Flowrate 42 bbl/hr 21 bbl/hr Totalizer Throughput Base Density 40.5°API 40.5 °API Avg Prvr Temp 78.0 76.2 Avg Prvr Press 38.0 39.0 Repeatability 0.049 % 0.027 % MF 1.0022 1.0025 MF Variance 0.0003
Prover Data BPV 1.18820 bbl I.D. 7.981 in W.T. 0.322 in Manufacturer DOMINION Type Displacement-Sphere Serial No. 23MM Elasticity 3.0E7 1/psi Pipe Gc 1.86E-5 1/F Certified	Tolerances Tolerance Type: Repeatability Maximum Deviation: 0.050 % Enabled? Y Passed? Y Min # of Runs: 5 Criteria: 5 out of 5 consecutive runs Avg X Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Prev X Factor Count Sought: 1 Prev X Factor Count Used: 0 Cut Off History? N Cutoff Date: Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Proving Mode: Volumetric Density Mode: Manual Calc. Method: Avg. Meter Factor Proving Method: PIU Passes Per Run 1	Liquid Properties at Metering Conditions for CMF Normal Op. Pressure 39.0 psig Eq. Vapor Pressure 0.0 psig CPL 1.0002

Run	TEMPERATURE		PRESSURE		PULSES	Run Accepted ?		IMF	Flowrate
	Tp	Tm	Pp	Pm	N				bbl/hr
1	76.6	76.6	39.0	40.0	11858.113	1	Yes	1.00236	20.923
2	76.8	78.6	39.0	40.0	11854.892	2	Yes	1.00263	20.867
3	75.7	75.7	39.0	40.0	11857.576	3	Yes	1.00238	20.941
4	76.2	76.2	39.0	40.0	11856.651	4	Yes	1.00247	20.889
5	76.1	76.1	39.0	40.0	11855.602	5	Yes	1.00256	20.916
Average	76.2	76.2	39.0	40.0	11856.5668			1.00248	20.907

(1) GSVp: $BPV * [CTSp * CPSp * CTLp * CPLp = CCFp]$

BPV	CTSp	CPSp	CTLp	CPLp	CCFp	GSVp
1.18820	1.00030	1.00003	0.99180	1.00023	0.99236	1.17912

(2) ISVm: $[N(avg) \div NKF = IVm] * [CTLm * CPLm = CCFm]$

N(avg)	NKF	IVm	CTLm	CPLm	CCFm	ISVm
11856.5668	10000.0000	1.18566	0.99180	1.00023	0.99203	1.17621

(3) Proving Factors:

>>>> (1) $GSVp \div ISVm = 1.0025$ MF
 (2) $MF * CPL = 1.0027$ CMF
 (3) $1 + MF = 0.9975$ MA
 (4) $NKF \div MF = 9975.1$ KF
 (5) $KF + CPL = 9973.1$ CKF

Repeatability: 0.027 %
 Uncertainty: 0.014 %

Trans. Serial No. Flow Calib Factor Density Calib Factor Frequency Set Point Flowrate Set Point Zero Verified As Found	Zeroed As Left
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Technician: Clinton York - Meter Provers Inc.

Witness:

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 Revision: 1

Customer: WPX -
 Operator:
 Location:
 Federal ID: SEC 32 T24N R8W

Meter Data	Product Data	Proving Data
WPX114H WPX 114H Factor Tracked Meter Factor(MF) Temp Compensated No NKF 10000.0000 N/bbl Manufacturer Micro Motion Size 2.00 in Serial No. 14504519 Model No. CMF 200M	Name Crude Batch No. Obs. Gravity 41.2 °API Obs. Temp 63.0 °F Obs. Press 0.0 psi API Table Table A - Crude Oil (2004) Base Density 40.9 °API HYC Y	Previous Task ID 1489697728 Date 03/16/2017 Time 8:55 Product Crude Flowrate 42 bbl/hr Totalizer Throughput Base Density 40.9°API Current 1489698664 03/16/2017 9:10 Crude 21 bbl/hr 40.9 °API
Prover Data BPV 1.18820 bbl I.D. 7.981 in W.T. 0.322 in Manufacturer Type Displacement-Sphere Serial No. 23MM Elasticity 3.0E7 1/psi Pipe Gc 1.86E-6 1/F Certified	Tolerances Tolerance Type: Repeatability Maximum Deviation: 0.050 % Enabled? Y Passed? Y Min # of Runs: 5 Criteria: 5 out of 5 consecutive runs	Avg Prvr Temp 63.7 63.0 Avg Prvr Press 39.0 38.0 Repeatability 0.047 % 0.013 % MF 1.0030 1.0035 MF Variance 0.0017 0.0005
	Avg X Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Prev X Factor Count Sought: 1 Prev X Factor Count Used: 0 Cut Off History? N Cutoff Date:	Liquid Properties at Metering Conditions for CMF Normal Op. Pressure 38.0 psig Eq. Vapor Pressure 0.0 psig CPL 1.0002
	Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N	
	Proving Mode: Volumetric Density Mode: Manual Calc. Method: Avg. Meter Factor Proving Method: PIU Passes Per Run 1	

Run	TEMPERATURE		PRESSURE		PULSES	Run Accepted ?	IMF	Flowrate bbl/hr
	Tp	Tm	Pp	Pm	N			
1	62.8	62.8	38.0	39.0	11840.782	1 Yes	1.00355	20.839
2	62.9	62.9	38.0	39.0	11842.400	2 Yes	1.00342	20.908
3	63.1	63.1	38.0	39.0	11841.923	3 Yes	1.00347	20.910
4	63.0	63.0	38.0	39.0	11841.713	4 Yes	1.00348	20.896
5	63.1	63.1	38.0	39.0	11841.365	5 Yes	1.00351	20.903
Average	63.0	63.0	38.0	39.0	11841.6366		1.00349	20.891

(1) GSVp: BPV * [CTSp * CPSp * CTLp * CPLp = CCFp]

BPV	CTSp	CPSp	CTLp	CPLp	CCFp	GSVp
1.18820	1.00006	1.00003	0.99848	1.00021	0.99878	1.18675

(2) ISVm: [N(avg) + NKF = IVm] * [CTLm * CPLm = CCFm]

N(avg)	NKF	IVm	CTLm	CPLm	CCFm	ISVm
11841.6366	10000.0000	1.18416	0.99848	1.00022	0.99870	1.18262

(3) Proving Factors:

>>>> (1) GSVp + ISVm = 1.0035 MF
 (2) MF * CPL = 1.0037 CMF
 (3) 1 + MF = 0.9965 MA
 (4) NKF + MF = 9965.1 KF
 (5) KF + CPL = 9963.1 CKF

Repeatability: 0.013 %
 Uncertainty: 0.007 %

Trans. Serial No. Flow Calib Factor Density Calib Factor	
Frequency Set Point Flowrate Set Point Zero Verified As Found	Zeroed As Left

Technician:

PROVE

Witness:

Customer: WPX -
 Operator:
 Location:
 Federal ID: SEC 4 T23N R8W

Meter Data	Product Data	Proving Data
WPX282H WPX 282H Factor Tracked Meter Factor(MF) Temp Compensated No NKF 10000.0000 N/bbl Manufacturer Micro Motion Size 2.00 in Serial No. 14504527 Model No. CMF 200M	Name Crude Batch No. Obs. Gravity 41.3 °API Obs. Temp 72.0 °F Obs. Press 0.0 psi API Table Table A - Crude Oil (2004) Base Density 40.3 °API HYC Y	Previous Current Task ID 1489694289 1489696065 Date 03/16/2017 03/16/2017 Time 7:58 8:11 Product Crude Crude Flowrate 42 bbl/hr 21 bbl/hr Totalizer Throughput Base Density 40.3 °API 40.3 °API Avg Pvr Temp 86.4 86.9 Avg Pvr Press 39.0 38.0 Repeatability 0.026 % 0.042 % MF 1.0006 1.0006 MF Variance 0.0001 0.0000
Prover Data BPV 1.18820 bbl I.D. 7.981 in W.T. 0.322 in Manufacturer Type Displacement-Sphere Serial No. 23MM Elasticity 3.0E7 1/psi Pipe Gc 1.86E-5 1/°F Certified	Tolerances Tolerance Type: Repeatability Maximum Deviation: 0.050 % Enabled? Y Passed? Y Min # of Runs: 5 Criteria: 5 out of 5 consecutive runs Avg X Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Prev X Factor Count Sought: 1 Prev X Factor Count Used: 0 Cut Off History? N Cutoff Date: Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Proving Mode: Volumetric Density Mode: Manual Calc. Method: Avg. Meter Factor Proving Method: PIU Passes Per Run 1	Liquid Properties at Metering Conditions for CMF Normal Op. Pressure 38.0 psig Eq. Vapor Pressure 0.0 psig CPL 1.0002

Run	TEMPERATURE		PRESSURE		PULSES	Run Accepted ?		IMF	Flowrate
	Tp	Tm	Pp	Pm	N				bbl/hr
1	87.0	87.0	38.0	40.0	11879.189	1	Yes	1.00075	20.888
2	85.6	85.6	38.0	40.0	11882.545	2	Yes	1.00045	20.906
3	86.2	86.2	38.0	40.0	11881.801	3	Yes	1.00053	20.884
4	87.1	87.1	38.0	40.0	11882.605	4	Yes	1.00047	20.887
5	88.4	88.4	38.0	40.0	11878.069	5	Yes	1.00087	20.874
Average	86.9	86.9	38.0	40.0	11880.8418			1.00061	20.888

(1) GSVp: $BPV * [CTSp * CPSP * CTLp * CPLp = CCFp]$

BPV	CTSp	CPSP	CTLp	CPLp	CCFp	GSVp
1.18820	1.00050	1.00003	0.98639	1.00023	0.98714	1.17292

(2) ISVm: $[N(avg) + NKF = IVm] * [CTLm * CPLm = CCFm]$

N(avg)	NKF	IVm	CTLm	CPLm	CCFm	ISVm
11880.8418	10000.0000	1.18808	0.98639	1.00024	0.98663	1.17220

(3) Proving Factors:

>>>> (1) GSVp ÷ ISVm = 1.0006 MF
 (2) MF * CPL = 1.0008 CMF
 (3) 1 ÷ MF = 0.9994 MA
 (4) NKF + MF = 9994.0 KF
 (5) KF + CPL = 9992.0 CKF

Repeatability: 0.042 %
 Uncertainty: 0.022 %

Trans. Serial No. Flow Calib Factor Density Calib Factor	
Frequency Set Point Flowrate Set Point Zero Verified As Found	Zeroed As Left

Technician: 
 PROVE

Witness:

Customer: WPX -
 Operator:
 Location:
 Federal ID: SEC 4 T23N R6W

Meter Data	Product Data	Proving Data
WPX282H WPX 282H Factor Tracked Meter Factor(MF) Temp Compensated No NKF 10000.0000 N/bbl Manufacturer Micro Motion Size 2.00 in Serial No. 14504527 Model No. CMF200M	Name Crude Batch No. Obs. Gravity 41.8 °API Obs. Temp 95.6 °F Obs. Press 0.0 psi API Table Table A - Crude Oil (2004) Base Density 38.8 °API HYC Y	Previous Task ID 1486766839 Date 02/10/2017 Time 9:47 Product Crude Flowrate 42 bbl/hr Totalizer Throughput Base Density 38.8°API Current 1486767979 02/10/2017 10:06 Crude 21 bbl/hr 38.8 °API
Prover Data BPV 1.18820 bbl I.D. 7.981 in W.T. 0.322 in Manufacturer DOMINION Type Displacement-Sphere Serial No. 23MM Elasticity 3.0E7 1/psi Pipe Gc 1.86E-5 1/F Certified	Tolerances Tolerance Type: Repeatability Maximum Deviation: 0.050 % Enabled? Y Passed? Y Min # of Runs: 5 Criteria: 5 out of 5 consecutive runs Avg X Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Prev X Factor Count Sought: 1 Prev X Factor Count Used: 0 Cut Off History? N Cutoff Date: Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Proving Mode: Volumetric Density Mode: Manual Calc. Method: Avg. Meter Factor Proving Method: PIU Passes Per Run 1	Avg Prvr Temp 94.2 94.5 Avg Prvr Press 36.0 41.0 Repeatability 0.025 % 0.032 % MF 1.0006 1.0005 MF Variance 0.0002 -0.0001
		Liquid Properties at Metering Conditions for CMF Normal Op. Pressure 42.0 psig Eq. Vapor Pressure 0.0 psig CPL 1.0003

Run	TEMPERATURE		PRESSURE		PULSES	Run Accepted ?		IMF	Flowrate
	Tp	Tm	Pp	Pm	N				bbl/hr
1	94.5	94.5	41.0	42.0	11881.391	1	Yes	1.00071	20.852
2	94.2	94.2	41.0	42.0	11884.277	2	Yes	1.00047	20.823
3	94.3	94.3	41.0	42.0	11882.510	3	Yes	1.00062	20.820
4	94.7	94.7	41.0	42.0	11884.688	4	Yes	1.00045	20.781
5	94.8	94.8	41.0	42.0	11885.322	5	Yes	1.00039	20.758
Average	94.5	94.5	41.0	42.0	11883.6376			1.00053	20.807

(1) GSVp: $BPV * [CTSp * CPSp * CTLp * CPLp = CCFp]$

BPV	CTSp	CPSp	CTLp	CPLp	CCFp	GSVp
1.18820	1.00064	1.00003	0.98283	1.00025	0.98373	1.16887

(2) ISVm: $[N(avg) + NKF = IVm] * [CTLm * CPLm = CCFm]$

N(avg)	NKF	IVm	CTLm	CPLm	CCFm	ISVm
11883.6376	10000.0000	1.18836	0.98283	1.00025	0.98308	1.16825

(3) Proving Factors:

>>>> (1) GSVp + ISVm = 1.0005 MF
 (2) MF * CPL = 1.0008 CMF
 (3) 1 + MF = 0.9995 MA
 (4) NKF + MF = 9995.0 KF
 (5) KF + CPL = 9992.0 CKF

Repeatability: 0.032 %
 Uncertainty: 0.017 %

Trans. Serial No. Flow Calib Factor Density Calib Factor Frequency Set Point Flowrate Set Point Zero Verified As Found	Zeroed As Left
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Technician:

Witness:

PROVE

Customer: WPX -
 Operator:
 Location:
 Federal ID: SEC 4 T23N R8W

Meter Data WPX282H WPX 282H Factor Tracked Meter Factor(MF) Temp Compensated No NKF 10000.0000 N/bbl Manufacturer Micro Motion Size in Serial No. 14604527 Model No. CMF200M	Product Data Name Crude Batch No. Obs. Gravity 42.2 °API Obs. Temp 86.0 °F Obs. Press 0.0 psi API Table Table A - Crude Oil (2004) Base Density 40.0 °API HYC Y	Proving Data <table style="width:100%;"> <tr> <th style="text-align: left;"><u>Previous</u></th> <th style="text-align: left;"><u>Current</u></th> </tr> <tr> <td>Task ID 1484362484</td> <td>1484363710</td> </tr> <tr> <td>Date 01/13/2017</td> <td>01/13/2017</td> </tr> <tr> <td>Time 13:54</td> <td>14:15</td> </tr> <tr> <td>Product Crude</td> <td>Crude</td> </tr> <tr> <td>Flowrate 42 bbl/hr</td> <td>21 bbl/hr</td> </tr> <tr> <td>Totalizer</td> <td></td> </tr> <tr> <td>Throughput</td> <td></td> </tr> <tr> <td>Base Density 40.0 °API</td> <td>40.0 °API</td> </tr> <tr> <td>Avg Prvr Temp 80.8</td> <td>81.6</td> </tr> <tr> <td>Avg Prvr Press 39.0</td> <td>39.0</td> </tr> <tr> <td>Repeatability 0.047 %</td> <td>0.017 %</td> </tr> <tr> <td>MF 1.0007</td> <td>1.0004</td> </tr> <tr> <td>MF Variance</td> <td>-0.0003</td> </tr> </table>	<u>Previous</u>	<u>Current</u>	Task ID 1484362484	1484363710	Date 01/13/2017	01/13/2017	Time 13:54	14:15	Product Crude	Crude	Flowrate 42 bbl/hr	21 bbl/hr	Totalizer		Throughput		Base Density 40.0 °API	40.0 °API	Avg Prvr Temp 80.8	81.6	Avg Prvr Press 39.0	39.0	Repeatability 0.047 %	0.017 %	MF 1.0007	1.0004	MF Variance	-0.0003
<u>Previous</u>	<u>Current</u>																													
Task ID 1484362484	1484363710																													
Date 01/13/2017	01/13/2017																													
Time 13:54	14:15																													
Product Crude	Crude																													
Flowrate 42 bbl/hr	21 bbl/hr																													
Totalizer																														
Throughput																														
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Avg Prvr Press 39.0	39.0																													
Repeatability 0.047 %	0.017 %																													
MF 1.0007	1.0004																													
MF Variance	-0.0003																													
Prover Data BPV 1.18820 bbl I.D. 7.981 in W.T. 0.322 in Manufacturer DOMINION Type Displacement-Sphere Serial No. 23MM Elasticity 3.0E7 1/psi Pipe Gc 1.86E-5 1/F Certified	Tolerances Tolerance Type: Repeatability Maximum Deviation: 0.050 % Enabled? Y Passed? Y Min # of Runs: 5 Criteria: 5 out of 5 consecutive runs Avg X Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Prev X Factor Count Sought: 1 Prev X Factor Count Used: 0 Cut Off History? N Cutoff Date: Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Proving Mode: Volumetric Density Mode: Manual Calc. Method: Avg. Meter Factor Proving Method: PIU Passes Per Run 1	Liquid Properties at Metering Conditions for CMF Normal Op. Pressure 40.0 psig Eq. Vapor Pressure 0.0 psig CPL 1.0002																												

Run	TEMPERATURE		PRESSURE		PULSES	Run Accepted ?	IMF	Flowrate bbl/hr
	Tp	Tm	Pp	Pm	N			
1	80.4	80.4	39.0	40.0	11882.290	1 Yes	1.00037	20.838
2	81.9	81.9	39.0	40.0	11883.230	2 Yes	1.00033	20.743
3	81.9	81.9	39.0	40.0	11883.249	3 Yes	1.00033	20.817
4	81.9	81.9	39.0	40.0	11881.154	4 Yes	1.00050	20.939
5	81.9	81.9	39.0	40.0	11882.410	5 Yes	1.00040	20.813
Average	81.6	81.6	39.0	40.0	11882.4666		1.00039	20.830

(1) GSVp: BPV * [CTSp * CPSP * CTLp * CPLp = CCFp]

BPV	CTSp	CPSP	CTLp	CPLp	CCFp	GSVp
1.18820	1.00040	1.00003	0.98912	1.00023	0.98977	1.17604

(2) ISVm: [N(avg) ÷ NKF = IVm] * [CTLm * CPLm = CCFm]

N(avg)	NKF	IVm	CTLm	CPLm	CCFm	ISVm
11882.4666	10000.0000	1.18825	0.98912	1.00023	0.98935	1.17560

(3) Proving Factors:

>>>> (1) GSVp ÷ ISVm = 1.0004 MF
 (2) MF * CPL = 1.0006 CMF
 (3) 1 + MF = 0.9996 MA
 (4) NKF + MF = 9996.0 KF
 (5) KF + CPL = 9994.0 CKF

Repeatability: 0.017 %
 Uncertainty: 0.009 %

Trans. Serial No.	
Flow Calib Factor	
Density Calib Factor	
Frequency Set Point	
Flowrate Set Point	
Zero Verified	Zeroed
As Found	As Left

Technician: Clinton York - Meter Provers Inc.

Witness:

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 Revision: 1

Customer: WPX -
 Operator:
 Location:
 Federal ID: SEC.3L T23N R8W

Meter Data 67455821 WPX 404H Factor Tracked Composite MF(CMF) Temp Compensated No NKF 10000.0000 N/bbl Manufacturer Micro Motion Size 2.00 in Serial No. 14502902 Model No.	Product Data Name Crude Batch No. Obs. Gravity 41.8 °API Obs. Temp 84.0 °F Obs. Press 0.0 psi API Table Table A - Crude Oil (2004) Base Density 39.8 °API HYC Y	Proving Data <table style="width:100%;"> <tr> <th style="text-align: left;"><u>Previous</u></th> <th style="text-align: left;"><u>Current</u></th> </tr> <tr> <td>Task ID 1484269828</td> <td>1484270892</td> </tr> <tr> <td>Date 01/12/2017</td> <td>01/12/2017</td> </tr> <tr> <td>Time 12:10</td> <td>12:28</td> </tr> <tr> <td>Product Crude</td> <td>Crude</td> </tr> <tr> <td>Flowrate 42 bbl/hr</td> <td>21 bbl/hr</td> </tr> <tr> <td>Totalizer</td> <td></td> </tr> <tr> <td>Throughput</td> <td></td> </tr> <tr> <td>Base Density 39.8 °API</td> <td>39.8 °API</td> </tr> <tr> <td>Avg Prvr Temp 82.9</td> <td>83.7</td> </tr> <tr> <td>Avg Prvr Press 39.0</td> <td>40.0</td> </tr> <tr> <td>Repeatability 0.044 %</td> <td>0.047 %</td> </tr> <tr> <td>CMF 0.9977</td> <td>0.9932</td> </tr> <tr> <td>CMF Variance 0.0098</td> <td>-0.0045</td> </tr> </table>	<u>Previous</u>	<u>Current</u>	Task ID 1484269828	1484270892	Date 01/12/2017	01/12/2017	Time 12:10	12:28	Product Crude	Crude	Flowrate 42 bbl/hr	21 bbl/hr	Totalizer		Throughput		Base Density 39.8 °API	39.8 °API	Avg Prvr Temp 82.9	83.7	Avg Prvr Press 39.0	40.0	Repeatability 0.044 %	0.047 %	CMF 0.9977	0.9932	CMF Variance 0.0098	-0.0045
<u>Previous</u>	<u>Current</u>																													
Task ID 1484269828	1484270892																													
Date 01/12/2017	01/12/2017																													
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CMF Variance 0.0098	-0.0045																													
Prover Data BPV 1.18820 bbl I.D. 7.981 in W.T. 0.322 in Manufacturer DOMINION Type Displacement-Sphere Serial No. 23MM Elasticity 3.0E7 1/psi Pipe Gc 1.86E-5 1/F Certified	Tolerances Tolerance Type: Repeatability Maximum Deviation: 0.050 % Enabled? Y Passed? Y Min # of Runs: 5 Criteria: 5 out of 5 consecutive runs Avg X Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Prev X Factor Count Sought: 1 Prev X Factor Count Used: 0 Cut Off History? N Cutoff Date: Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Proving Mode: Volumetric Density Mode: Manual Calc. Method: Avg. Meter Factor Proving Method: PIU Passes Per Run 1	Liquid Properties at Metering Conditions for CMF Normal Op. Pressure 41.0 psig Eq. Vapor Pressure 0.0 psig CPL 1.0002																												

Run	TEMPERATURE		PRESSURE		PULSES	Run Accepted ?		IMF	Flowrate
	Tp	Tm	Pp	Pm	N				bb/hr
1	83.9	83.9	40.0	41.0	11973.682	1	Yes	0.99281	20.680
2	83.7	83.7	40.0	41.0	11974.093	2	Yes	0.99278	20.686
3	83.7	83.7	40.0	41.0	11972.115	3	Yes	0.99293	20.687
4	83.6	83.6	40.0	41.0	11968.323	4	Yes	0.99325	20.690
5	83.9	83.9	40.0	41.0	11971.422	5	Yes	0.99289	20.678
Average	83.7	83.7	40.0	41.0	11971.9270			0.99295	20.680

(1) GSVp: $BPV * [CTSp * CPSp * CTLp * CPLp = CCFp]$

BPV	CTSp	CPSp	CTLp	CPLp	CCFp	GSVp
1.18820	1.00044	1.00003	0.98808	1.00024	0.98878	1.17487

(2) ISVm: $[N(avg) + NKF = IVm] * [CTLm * CPLm = CCFm]$

N(avg)	NKF	IVm	CTLm	CPLm	CCFm	ISVm
11971.9270	10000.0000	1.19719	0.98808	1.00024	0.98832	1.18321

(3) Proving Factors:

>>>> (1) GSVp + ISVm = 0.9930 MF
 (2) MF * CPL = 0.9932 CMF
 (3) 1 ÷ MF = 1.0070 MA
 (4) NKF ÷ MF = 10070 KF
 (5) KF ÷ CPL = 10068 CKF

Repeatability: 0.047 %
 Uncertainty: 0.025 %

Trans. Serial No. Flow Calib Factor Density Calib Factor Frequency Set Point Flowrate Set Point Zero Verified As Found	Zeroed As Left
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Technician: Clinton York - Meter Provers Inc.

Witness:

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 Revision: 1

Customer: WPX -
 Operator:
 Location:
 Federal ID: SEC.3L T23N R8W

Meter Data 67455821 WPX 404H Factor Tracked Composite MF(CMF) Temp Compensated No NKF 10000.0000 N/bbl Manufacturer Micro Motion Size 2.00 In Serial No. 14502902 Model No.	Product Data Name Crude Batch No. Obs. Gravity 43.4 °API Obs. Temp 90.0 °F Obs. Press 0.0 psi API Table Table A - Crude Oil (2004) Base Density 40.8 °API HYC Y	Proving Data <table style="width:100%;"> <tr> <th style="text-align: left;">Previous</th> <th style="text-align: left;">Current</th> </tr> <tr> <td>Task ID 1489628384</td> <td>1489629320</td> </tr> <tr> <td>Date 03/15/2017</td> <td>03/15/2017</td> </tr> <tr> <td>Time 13:39</td> <td>13:55</td> </tr> <tr> <td>Product Crude</td> <td>Crude</td> </tr> <tr> <td>Flowrate 42 bbl/hr</td> <td>21 bbl/hr</td> </tr> <tr> <td>Totalizer</td> <td></td> </tr> <tr> <td>Throughput</td> <td></td> </tr> <tr> <td>Base Density 40.8°API</td> <td>40.8 °API</td> </tr> <tr> <td>Avg Prvr Temp 88.1</td> <td>89.4</td> </tr> <tr> <td>Avg Prvr Press 40.0</td> <td>38.0</td> </tr> <tr> <td>Repeatability 0.038 %</td> <td>0.022 %</td> </tr> <tr> <td>CMF 0.9976</td> <td>0.9932</td> </tr> <tr> <td>CMF Variance 0.0029</td> <td>-0.0044</td> </tr> </table>	Previous	Current	Task ID 1489628384	1489629320	Date 03/15/2017	03/15/2017	Time 13:39	13:55	Product Crude	Crude	Flowrate 42 bbl/hr	21 bbl/hr	Totalizer		Throughput		Base Density 40.8°API	40.8 °API	Avg Prvr Temp 88.1	89.4	Avg Prvr Press 40.0	38.0	Repeatability 0.038 %	0.022 %	CMF 0.9976	0.9932	CMF Variance 0.0029	-0.0044
Previous	Current																													
Task ID 1489628384	1489629320																													
Date 03/15/2017	03/15/2017																													
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Prover Data BPV 1.18820 bbl I.D. 7.981 In W.T. 0.322 In Manufacturer Type Displacement-Sphere Serial No. 23MM Elasticity 3.0E7 1/psi Pipe Gc 1.86E-5 1/°F Certified	Tolerances Tolerance Type: Repeatability Maximum Deviation: 0.050 % Enabled? Y Passed? Y Min # of Runs: 5 Criteria: 5 out of 5 consecutive runs Avg X Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Prev X Factor Count Sought: 1 Prev X Factor Count Used: 0 Cut Off History? N Cutoff Date: Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Proving Mode: Volumetric Density Mode: Manual Calc. Method: Avg. Meter Factor Proving Method: PIU Passes Per Run 1	Liquid Properties at Metering Conditions for CMF Normal Op. Pressure 38.0 psig Eq. Vapor Pressure 0.0 psig CPL 1.0002																												

Run	TEMPERATURE		PRESSURE		PULSES	Run Accepted ?		IMF	Flowrate
	Tp	Tm	Pp	Pm	N				bbl/hr
1	89.1	89.1	38.0	39.0	11971.660	1	Yes	0.99306	20.680
2	89.4	89.4	38.0	39.0	11972.342	2	Yes	0.99302	20.666
3	89.4	89.4	38.0	39.0	11970.524	3	Yes	0.99317	20.652
4	89.5	89.5	38.0	39.0	11972.170	4	Yes	0.99302	20.646
5	89.6	89.6	38.0	39.0	11973.172	5	Yes	0.99295	20.679
Average	89.4	89.4	38.0	39.0	11971.9736			0.99304	20.665

(1) GSVp: BPV * [CTS_p * CPS_p * CTL_p * CPL_p = CCF_p]

BPV	CTS _p	CPS _p	CTL _p	CPL _p	CCF _p	GSVp
1.18820	1.00055	1.00003	0.98503	1.00023	0.98583	1.17136

(2) ISVm: [N(avg) + NKF + IVm] * [CTL_m * CPL_m = CCF_m]

N(avg)	NKF	IVm	CTL _m	CPL _m	CCF _m	ISVm
11971.9736	10000.0000	1.19720	0.98503	1.00024	0.98527	1.17957

(3) Proving Factors:

>>>> (1) GSVp ÷ ISVm = 0.9930 MF
 (2) MF * CPL = 0.9932 CMF
 (3) 1 ÷ MF = 1.0070 MA
 (4) NKF ÷ MF = 10070 KF
 (5) KF ÷ CPL = 10068 CKF

Repeatability: 0.022 %
 Uncertainty: 0.012 %

Trans. Serial No. Flow Calib Factor Density Calib Factor Frequency Set Point Flowrate Set Point Zero Verified As Found	Zeroed As Left
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Technician:

PROVE

Witness:

Customer: WPX -
 Operator:
 Location:
 Federal ID: SEC.3L T23N R8W

Meter Data	Product Data	Proving Data																												
67455821 WPX 404H Factor Tracked Composite MF(CMF) Temp Compensated No NKF 10000.0000 N/bbl Manufacturer Micro Motion Size 2.00 in Serial No. 14502902 Model No.	Name Crude Batch No. Obs. Gravity 42.4 °API Obs. Temp 91.3 °F Obs. Press 0.0 psi API Table Table A - Crude Oil (2004) Base Density 39.7 °API HYC Y	<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:50%; text-align: left;">Previous</th> <th style="width:50%; text-align: left;">Current</th> </tr> </thead> <tbody> <tr> <td>Task ID 1486771354</td> <td>1486772420</td> </tr> <tr> <td>Date 02/10/2017</td> <td>02/10/2017</td> </tr> <tr> <td>Time 11:02</td> <td>11:20</td> </tr> <tr> <td>Product Crude</td> <td>Crude</td> </tr> <tr> <td>Flowrate 42 bbl/hr</td> <td>21 bbl/hr</td> </tr> <tr> <td>Totalizer</td> <td></td> </tr> <tr> <td>Throughput</td> <td></td> </tr> <tr> <td>Base Density 39.7 °API</td> <td>39.7 °API</td> </tr> <tr> <td>Avg Pvr Temp 90.4</td> <td>90.1</td> </tr> <tr> <td>Avg Pvr Press 37.0</td> <td>44.0</td> </tr> <tr> <td>Repeatability 0.021 %</td> <td>0.036 %</td> </tr> <tr> <td>CMF 0.9989</td> <td>0.9947</td> </tr> <tr> <td>CMF Variance 0.0057</td> <td>-0.0042</td> </tr> </tbody> </table>	Previous	Current	Task ID 1486771354	1486772420	Date 02/10/2017	02/10/2017	Time 11:02	11:20	Product Crude	Crude	Flowrate 42 bbl/hr	21 bbl/hr	Totalizer		Throughput		Base Density 39.7 °API	39.7 °API	Avg Pvr Temp 90.4	90.1	Avg Pvr Press 37.0	44.0	Repeatability 0.021 %	0.036 %	CMF 0.9989	0.9947	CMF Variance 0.0057	-0.0042
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CMF Variance 0.0057	-0.0042																													
Prover Data BPV 1.18820 bbl I.D. 7.981 in W.T. 0.322 in Manufacturer DOMINION Type Displacement-Sphere Serial No. 23MM Elasticity 3.0E7 1/psi Pipe Gc 1.86E-5 1/F Certified	Tolerances Tolerance Type: Repeatability Maximum Deviation: 0.050 % Enabled? Y Passed? Y Min # of Runs: 5 Criteria: 5 out of 5 consecutive runs Avg X Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Prev X Factor Count Sought: 1 Prev X Factor Count Used: 0 Cut Off History? N Cutoff Date: Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Proving Mode: Volumetric Density Mode: Manual Calc. Method: Avg. Meter Factor Proving Method: PIU Passes Per Run 1	Liquid Properties at Metering Conditions for CMF Normal Op. Pressure 45.0 psig Eq. Vapor Pressure 0.0 psig CPL 1.0003																												

Run	TEMPERATURE		PRESSURE		PULSES N	Run Accepted ?		IMF	Flowrate bbl/hr
	Tp	Tm	Pp	Pm					
1	90.4	90.4	44.0	44.0	11953.990	1	Yes	0.99458	20.724
2	90.2	90.2	44.0	44.0	11954.633	2	Yes	0.99452	20.694
3	90.0	90.0	44.0	44.0	11958.191	3	Yes	0.99422	20.701
4	90.1	90.1	44.0	44.0	11955.494	4	Yes	0.99445	20.701
5	90.1	90.1	44.0	44.0	11956.107	5	Yes	0.99440	20.705
Average	90.1	90.1	44.0	44.0	11955.8830			0.99443	20.705

(1) GSVp: BPV * [CTSp * CPSP * CTLp * CPLp = CCFp]

BPV	CTSp	CPSP	CTLp	CPLp	CCFp	GSVp
1.18820	1.00056	1.00004	0.98487	1.00026	0.98572	1.17123

(2) ISVm: [N(avg) + NKF = IVm] * [CTLm * CPLm = CCFm]

N(avg)	NKF	IVm	CTLm	CPLm	CCFm	ISVm
11955.8830	10000.0000	1.19557	0.98487	1.00026	0.98513	1.17779

(3) Proving Factors:

>>>>	(1) GSVp + ISVm =	0.9944	MF	Trans. Serial No. Flow Calib Factor Density Calib Factor Frequency Set Point Flowrate Set Point Zero Verified As Found
	(2) MF * CPL =	0.9947	CMF	
	(3) 1 + MF =	1.0056	MA	
	(4) NKF + MF =	10056	KF	
	(5) KF + CPL =	10053	CKF	

Repeatability: 0.036 %
 Uncertainty: 0.019 %

Technician:

Witness:

PROVE

Customer: WPX -
 Operator:
 Location:
 Federal ID: SEC.11A T23N R8W NMPM

Meter Data	Product Data	Proving Data
67413184 WPX 407H Factor Tracked Composite MF(CMF) Temp Compensated No NKF 10000.0000 N/bbl Manufacturer Micro Motion Size 2.00 in Serial No. 14494853 Model No.	Name Crude Batch No. Obs. Gravity 45.5 °API Obs. Temp 96.0 °F Obs. Press 0.0 psi API Table Table A - Crude Oil (2004) Base Density 42.3 °API HYC Y	Previous Current Task ID 1486674095 1486676160 Date 02/09/2017 02/09/2017 Time 8:01 8:19 Product Crude Crude Flowrate 41 bbl/hr 21 bbl/hr Totalizer Throughput Base Density 42.3 °API 42.3 °API Avg Prvr Temp 100.6 100.3 Avg Prvr Press 34.0 40.0 Repeatability 0.028 % 0.032 % CMF 0.9902 0.9899 CMF Variance -0.0003 -0.0003
Prover Data BPV 1.18820 bbl I.D. 7.981 in W.T. 0.322 in Manufacturer DOMINION Type Displacement-Sphere Serial No. 23MM Elasticity 3.0E7 1/psi Pipe Gc 1.86E-5 1/°F Certified	Tolerances Tolerance Type: Repeatability Maximum Deviation: 0.050 % Enabled? Y Passed? Y Min # of Runs: 5 Criteria: 5 out of 6 consecutive runs Avg X Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Prev X Factor Count Sought: 1 Prev X Factor Count Used: 0 Cut Off History? N Cutoff Date: Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Proving Mode: Volumetric Density Mode: Manual Calc. Method: Avg. Meter Factor Proving Method: PIU Passes Per Run 1	Liquid Properties at Metering Conditions for CMF Normal Op. Pressure 44.0 psig Eq. Vapor Pressure 0.0 psig CPL 1.0003

Run	TEMPERATURE Tp	Tm	PRESSURE Pp	Pm	PULSES N	Run Accepted ?	IMF	Flowrate bbl/hr
1	100.2	100.2	40.0	44.0	12018.305	1 Yes	0.98941	20.747
2	100.1	100.1	40.0	44.0	12014.567	2 Yes	0.98971	20.696
3	100.2	100.2	40.0	44.0	12015.053	3 Yes	0.98968	20.700
4	100.3	100.3	40.0	44.0	12014.820	4 Yes	0.98970	20.682
5	100.4	100.4	40.0	44.0	12014.365	5 Yes	0.98973	20.664
Average	100.3	100.3	40.0	44.0	12015.4220		0.98965	20.698

(1) GSVp: BPV * [CTSp * CPSP * CTLp * CPLp = CCFp]

BPV	CTSp	CPSP	CTLp	CPLp	CCFp	GSVp
1.18820	1.00075	1.00003	0.97909	1.00026	0.98011	1.16457

(2) ISVm: [N(avg) + NKF = IVm] * [CTLm * CPLm = CCFm]

N(avg)	NKF	IVm	CTLm	CPLm	CCFm	ISVm
12015.4220	10000.0000	1.20154	0.97909	1.00029	0.97937	1.17675

(3) Proving Factors:

>>>> (1) GSVp + ISVm = 0.9896 MF
 (2) MF * CPL = 0.9899 CMF
 (3) 1 + MF = 1.0105 MA
 (4) NKF + MF = 10105 KF
 (5) KF + CPL = 10102 CKF

Repeatability: 0.032 %
 Uncertainty: 0.017 %

Trans. Serial No. Flow Calib Factor Density Calib Factor Frequency Set Point Flowrate Set Point Zero Verified As Found	Zeroed As Left
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Technician: 
 PROVEIT

Witness:

Customer: WPX -
 Operator:
 Location:
 Federal ID: SEC.11A T23N R8W NMPM

Meter Data	Product Data	Proving Data
67413184 WPX 407H Factor Tracked Composite MF(CMF) Temp Compensated No NKF 10000.0000 N/bbl Manufacturer Micro Motion Size 2.00 in Serial No. 14494853 Model No.	Name Crude Batch No. Obs. Gravity 45.4 °API Obs. Temp 101.5 °F Obs. Press 0.0 psi API Table Table A - Crude Oil (2004) Base Density 41.7 °API HYC Y	<u>Previous</u> <u>Current</u> Task ID 1488182234 1488184756 Date 03/10/2017 03/10/2017 Time 8:43 9:25 Product Crude Crude Flowrate 41 bbl/hr 21 bbl/hr Totalizer Throughput Base Density 41.7°API 41.7 °API Avg Prvr Temp 102.9 106.2 Avg Prvr Press 34.0 37.0 Repeatability 0.026 % 0.035 % CMF 0.9906 0.9902 CMF Variance 0.0007 -0.0004
Prover Data BPV 1.18820 bbl I.D. 7.981 in W.T. 0.322 in Manufacturer Type Displacement-Sphere Serial No. 23MM Elasticity 3.0E7 1/psi Pipe Gc 1.86E-5 1°F Certified	Tolerances Tolerance Type: Repeatability Maximum Deviation: 0.050 % Enabled? Y Passed? Y Min # of Runs: 5 Criteria: 5 out of 6 consecutive runs Avg X Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Prev X Factor Count Sought: 1 Prev X Factor Count Used: 0 Cut Off History? N Cutoff Date: Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Proving Mode: Volumetric Density Mode: Manual Calc. Method: Avg. Meter Factor Proving Method: PIU Passes Per Run 1	
		Liquid Properties at Metering Conditions for CMF Normal Op. Pressure 40.0 psig Eq. Vapor Pressure 0.0 psig CPL 1.0003

Run	TEMPERATURE		PRESSURE		PULSES	Run Accepted ?		IMF	Flowrate
	Tp	Tm	Pp	Pm	N				bbl/hr
1	106.6	106.6	37.0	40.0	12011.780	1	Yes	0.99006	20.381
2	106.1	106.1	37.0	40.0	12015.387	2	Yes	0.98976	20.511
3	106.1	106.1	37.0	40.0	12014.983	3	Yes	0.98979	20.721
4	106.2	106.2	37.0	40.0	12012.479	4	Yes	0.98999	20.580
5	106.3	106.3	37.0	40.0	12011.143	5	Yes	0.99011	20.698
Average	106.2	106.2	37.0	40.0	12013.1544			0.98994	20.578

(1) GSVp: BPV * [CTSp * CPSP * CTLp * CPLp = CCFp]

BPV	CTSp	CPSP	CTLp	CPLp	CCFp	GSVp
1.18820	1.00086	1.00003	0.97618	1.00024	0.97728	1.16120

(2) ISVm: [N(avg) ÷ NKF = IVm] * [CTLm * CPLm = CCFm]

N(avg)	NKF	IVm	CTLm	CPLm	CCFm	ISVm
12013.1544	10000.0000	1.20132	0.97618	1.00026	0.97643	1.17300

(3) Proving Factors:

>>>>	(1)	GSVp + ISVm =	0.9899	MF	Trans. Serial No. Flow Calib Factor Density Calib Factor Frequency Set Point Flowrate Set Point Zero Verified As Found
	(2)	MF * CPL =	0.9902	CMF	
	(3)	1 + MF =	1.0102	MA	
	(4)	NKF + MF =	10102	KF	
	(5)	KF + CPL =	10099	CKF	

Repeatability: 0.035 %
 Uncertainty: 0.019 %

Technician:

Witness:

PROVE

Customer: WPX -

Operator:

Location:

Federal ID:

Meter Data	Product Data	Proving Data
WPX395H WPX 395H Factor Tracked Composite MF(CMF) Temp Compensated No NKF 10000.0000 N/bbl Manufacturer Micro Motion Size In Serial No. 14233156 Model No. CMF 300M	Name Crude Batch No. Obs. Gravity 42.6 °API Obs. Temp 90.0 °F Obs. Press 0.0 psi API Table Table A - Crude Oil (2004) Base Density 40.0 °API HYC Y	Previous Current Task ID 1484342220 1485982838 Date 01/13/2017 02/01/2017 Time 8:17 8:00 Product Crude Crude Flowrate 251 bbl/hr 215 bbl/hr Totalizer 452050 455768 Throughput 3718 Base Density 41.5 °API 40.0 °API
Prover Data BPV 1.18620 bbl I.D. 7.981 In W.T. 0.322 In Manufacturer DOMINION Type Displacement-Sphere Serial No. 23MM Elasticity 3.0E7 1/psi Pipe Gc 1.86E-5 1°F Certified	Tolerances Tolerance Type: Repeatability Maximum Deviation: 0.050 % Enabled? Y Passed? Y Min # of Runs: 5 Criteria: 5 out of 5 consecutive runs Avg X Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Prev X Factor Count Sought: 1 Prev X Factor Count Used: 0 Cut Off History? N Cutoff Date: Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Proving Mode: Volumetric Density Mode: Manual Calc. Method: Avg. Meter Factor Proving Method: PIU Passes Per Run 1	Avg Prvr Temp 76.9 83.8 Avg Prvr Press 82.0 82.0 Repeatability 0.041 % 0.035 % CMF 1.0016 1.0021 CMF Variance 0.0000
		Liquid Properties at Metering Conditions for CMF Normal Op. Pressure 82.0 psig Eq. Vapor Pressure 0.0 psig CPL 1.0005

Run	TEMPERATURE Tp Tm	PRESSURE Pp Pm	PULSES N	Run Accepted ?	IMF	Flowrate bbl/hr
1	83.2 83.2	82.0 82.0	11870.514	1 Yes	1.00147	215.422
2	83.5 83.5	82.0 82.0	11868.306	2 Yes	1.00167	214.979
3	83.7 83.7	82.0 82.0	11870.212	3 Yes	1.00152	214.953
4	84.2 84.2	82.0 82.0	11868.603	4 Yes	1.00182	214.891
5	84.5 84.5	82.0 82.0	11868.363	5 Yes	1.00169	215.508
Average	83.8 83.8	82.0 82.0	11868.7996		1.00163	215.151

(1) GSVp: BPV * [CTSp * CPSP * CTLp * CPLp = CCFp]

BPV	CTSp	CPSP	CTLp	CPLp	CCFp	GSVp
1.18620	1.00044	1.00007	0.98801	1.00048	0.98899	1.17512

(2) ISVm: [N(avg) + NKF = IVm] * [CTLm * CPLm = CCFm]

N(avg)	NKF	IVm	CTLm	CPLm	CCFm	ISVm
11868.7996	10000.0000	1.18688	0.98801	1.00048	0.98848	1.17321

(3) Proving Factors:

>>>> (1) GSVp + ISVm = 1.0016 MF
 (2) MF * CPL = 1.0021 CMF
 (3) 1 + MF = 0.9984 MA
 (4) NKF + MF = 9984.0 KF
 (5) KF + CPL = 9979.0 CKF

 Repeatability: 0.035 %
 Uncertainty: 0.019 %

Trans. Serial No.	
Flow Calib Factor	
Density Calib Factor	
Frequency Set Point	
Flowrate Set Point	
Zero Verified	Zeroed
As Found	As Left

Technician:

Witness:

 PROVEIT


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 02/01/2017 9:00 Page: 1
 Revision: 2

Customer: WPX -
Operator:
Location:
Federal ID:

Meter Data WPX395H WPX 395H Factor Tracked Composite MF(CMF) Temp Compensated No NKF 10000.0000 N/bbl Manufacturer Micro Motion Size in Serial No. 14233156 Model No. CMF 300M	Product Data Name Crude Batch No. Obs. Gravity 42.4 °API Obs. Temp 75.3 °F Obs. Press 0.0 psi API Table Table A - Crude Oil (2004) Base Density 41.1 °API HYC Y	Proving Data Previous Current Task ID 1485982838 1488487710 Date 02/01/2017 03/02/2017 Time 8:00 7:48 Product Crude Crude Flowrate 215 bbl/hr 242 bbl/hr Totalizer 455768 462477 Throughput 3718 6709 Base Density 40.0°API 41.1 °API
Prover Data BPV 1.18820 bbl I.D. 7.981 in W.T. 0.322 in Manufacturer Type Displacement-Sphere Serial No. 23MM Elasticity 3.0E7 1/psi Pipe Gc 1.86E-5 1°F Certified	Tolerances Tolerance Type: Repeatability Maximum Deviation: 0.050 % Enabled? Y Passed? Y Min # of Runs: 5 Criteria: 5 out of 6 consecutive runs Avg X Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Prev X Factor Count Sought: 1 Prev X Factor Count Used: 0 Cut Off History? N Cutoff Date: Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Proving Mode: Volumetric Density Mode: Manual Calc. Method: Avg. Meter Factor Proving Method: PIU Passes Per Run 1	Avg Pvr Temp 83.8 75.2 Avg Pvr Press 82.0 82.0 Repeatability 0.035 % 0.047 % CMF 1.0021 1.0019 CMF Variance 0.0000 -0.0002
Liquid Properties at Metering Conditions for CMF Normal Op. Pressure 82.0 psig Eq. Vapor Pressure 0.0 psig CPL 1.0005		

Run	TEMPERATURE		PRESSURE		PULSES	Run Accepted ?	IMF	Flowrate bbl/hr
	Tp	Tm	Pp	Pm	N			
1	75.1	75.1	82.0	82.0	11870.434	1 Yes	1.00132	242.687
2	75.2	75.2	82.0	82.0	11866.935	2 Yes	1.00162	242.275
3	75.1	75.1	82.0	82.0	11867.757	3 Yes	1.00154	241.866
4	75.2	75.2	82.0	82.0	11872.400	4 Yes	1.00115	241.463
5	75.3	75.3	82.0	82.0	11869.790	5 Yes	1.00137	241.438
Average	75.2	75.2	82.0	82.0	11869.4632		1.00140	241.946

(1) GSVp: BPV * [CTSp * CPSP * CTLp * CPLp = CCFp]

BPV	CTSp	CPSP	CTLp	CPLp	CCFp	GSVp
1.18820	1.00028	1.00007	0.99225	1.00048	0.99307	1.17997

(2) ISVm: [N(avg) ÷ NKF = IVm] * [CTLm * CPLm = CCFm]

N(avg)	NKF	IVm	CTLm	CPLm	CCFm	ISVm
11869.4632	10000.0000	1.18695	0.99225	1.00048	0.99273	1.17832

(3) Proving Factors:

>>>> (1) GSVp + ISVm = 1.0014 MF
(2) MF * CPL = 1.0019 CMF
(3) 1 + MF = 0.9986 MA
(4) NKF + MF = 9986.0 KF
(5) KF + CPL = 9981.0 CKF

Repeatability: 0.047 %
Uncertainty: 0.025 %

Trans. Serial No. Flow Calib Factor Density Calib Factor Frequency Set Point Flowrate Set Point Zero Verified As Found	Zeroed As Left
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Technician

PROVEIT

Witness:

Customer: WPX -
Operator:
Location:
Federal ID:

Meter Data WPX395H WPX 395H Factor Tracked Meter Factor(MF) Temp Compensated No NKF 10000.0000 N/bbl Manufacturer Micro Motion Size in Serial No. 14233156 Model No. CMF 300M	Product Data Name Crude Batch No. Obs. Gravity 42.0 °API Obs. Temp 66.0 °F Obs. Press 0.0 psi API Table Table A - Crude Oil (2004) Base Density 41.5 °API HYC Y	Proving Data Previous Current Task ID 1484342220 Date 01/13/2017 Time 8:17 Product Crude Flowrate 251 bbl/hr Totalizer 452050 Throughput Base Density 41.5 °API Avg Pvr Temp 76.9 Avg Pvr Press 82.0 Repeatability 0.041 % MF 1.0016 MF Variance
Prover Data BPV 1.18820 bbl I.D. 7.981 in W.T. 0.322 in Manufacturer DOMINION Type Displacement-Sphere Serial No. 23MM Elasticity 3.0E7 1/psi Pipe Gc 1.86E-5 1/F	Tolerances Tolerance Type: Repeatability Maximum Deviation: 0.050 % Enabled? Y Passed? Y Min # of Runs: 5 Criteria: 5 out of 5 consecutive runs Avg X Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Prev X Factor Count Sought: 1 Prev X Factor Count Used: 0 Cut Off History? N Cutoff Date: Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Proving Mode: Volumetric Density Mode: Manual Calc. Method: Avg. Meter Factor Proving Method: PIU Passes Per Run 1	Liquid Properties at Metering Conditions for CMF Normal Op. Pressure 82.0 psig Eq. Vapor Pressure 0.0 psig CPL 1.0005
Certified		

Run	TEMPERATURE		PRESSURE		PULSES	Run Accepted ?		IMF	Flowrate
	Tp	Tm	Pp	Pm	N				bbl/hr
1	76.8	76.8	82.0	82.0	11868.383	1	Yes	1.00152	252.965
2	76.9	76.9	82.0	82.0	11865.387	2	Yes	1.00178	252.556
3	76.9	76.9	82.0	82.0	11865.800	3	Yes	1.00174	249.422
4	76.9	76.9	82.0	82.0	11868.020	4	Yes	1.00155	249.449
5	76.9	76.9	82.0	82.0	11870.220	5	Yes	1.00137	248.837
Average	76.9	76.9	82.0	82.0	11867.5620			1.00159	250.646

(1) GSVp: BPV * [CTSp * CPSp * CTLp * CPLp = CCFp]

BPV	CTSp	CPSp	CTLp	CPLp	CCFp	GSVp
1.18820	1.00031	1.00007	0.99134	1.00048	0.99219	1.17892

(2) ISVm: [N(avg) + NKF = IVm] * [CTLm * CPLm = CCFm]

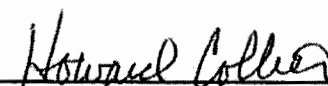
N(avg)	NKF	IVm	CTLm	CPLm	CCFm	ISVm
11867.5620	10000.0000	1.18676	0.99134	1.00048	0.99182	1.17705

(3) Proving Factors:

>>>> (1) GSVp ÷ ISVm = 1.0016 MF
(2) MF * CPL = 1.0021 CMF
(3) 1 ÷ MF = 0.9984 MA
(4) NKF ÷ MF = 9984.0 KF
(5) KF ÷ CPL = 9979.0 CKF

Repeatability: 0.041 %
Uncertainty: 0.022 %

Trans. Serial No. Flow Calib Factor Density Calib Factor Frequency Set Point Flowrate Set Point Zero Verified As Found	Zeroed As Left
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Technician: Clinton York - Meter Provers Inc.

Witness: --

PROVEIT

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PROVEIT PROVEIT 6.7.0.0

01/13/2017 10:06 Page: 1
Revision: 1

Customer: WPX -
 Operator:
 Location:
 Federal ID: SEC.11A T23N R8W NMPM

Meter Data	Product Data	Proving Data
67413184 WPX 407H Factor Tracked Composite MF(CMF) Temp Compensated No NKF 10000.0000 N/bbl Manufacturer Micro Motion Size 2.00 in Serial No. 14494853 Model No.	Name Crude Batch No. Obs. Gravity 44.9 °API Obs. Temp 83.0 °F Obs. Press 0.0 psi API Table Table A - Crude Oil (2004) Base Density 42.8 °API HYC Y	Previous Current Task ID 1484082007 1484082906 Date 01/10/2017 01/10/2017 Time 8:00 8:15 Product Crude Crude Flowrate 41 bbl/hr 14 bbl/hr Totalizer Throughput Base Density 42.8 °API 42.8 °API Avg Prvr Temp 82.7 82.8 Avg Prvr Press 37.0 41.0 Repeatability 0.021 % 0.026 % CMF 0.9910 0.9905 CMF Variance -0.0049 -0.0005
Prover Data BPV 1.18820 bbl I.D. 7.981 in W.T. 0.322 in Manufacturer DOMINION Type Displacement-Sphere Serial No. 23MM Elasticity 3.0E7 1/psi Pipe Gc 1.86E-5 1°F Certified	Tolerances Tolerance Type: Repeatability Maximum Deviation: 0.050 % Enabled? Y Passed? Y Min # of Runs: 5 Criteria: 5 out of 6 consecutive runs Avg X Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Prev X Factor Count Sought: 1 Prev X Factor Count Used: 0 Cut Off History? N Cutoff Date: Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Proving Mode: Volumetric Density Mode: Manual Calc. Method: Avg. Meter Factor Proving Method: PIU Passes Per Run 1	Liquid Properties at Metering Conditions for CMF Normal Op. Pressure 40.0 psig Eq. Vapor Pressure 0.0 psig CPL 1.0002

Run	TEMPERATURE Tp Tm	PRESSURE Pp Pm	PULSES N	Run Accepted ?	IMF	Flowrate bbl/hr
1	83.7 83.7	41.0 41.0	12005.744	1 Yes	0.99015	14.352
2	83.4 83.4	41.0 41.0	12003.768	2 Yes	0.99031	14.432
3	83.2 83.2	41.0 41.0	12003.099	3 Yes	0.99036	14.400
4	81.5 81.5	41.0 41.0	12002.141	4 Yes	0.99041	14.481
5	82.3 82.3	41.0 41.0	12004.398	5 Yes	0.99023	14.415
Average	82.8 82.8	41.0 41.0	12003.8300		0.99029	14.416

(1) GSVp: BPV * [CTSp * CPSp * CTLp * CPLp = CCFp]

BPV	CTSp	CPSp	CTLp	CPLp	CCFp	GSVp
1.18820	1.00042	1.00003	0.98813	1.00025	0.98882	1.17492

(2) ISVm: [N(avg) + NKF = IVm] * [CTLm * CPLm = CCFm]

N(avg)	NKF	IVm	CTLm	CPLm	CCFm	ISVm
12003.8300	10000.0000	1.20038	0.98813	1.00025	0.98838	1.18643

(3) Proving Factors:

>>>> (1) GSVp + ISVm = 0.9903 MF
 (2) MF * CPL = 0.9905 CMF
 (3) 1 + MF = 1.0098 MA
 (4) NKF + MF = 10098 KF
 (5) KF + CPL = 10096 CKF

Trans. Serial No. Flow Calib Factor Density Calib Factor Frequency Set Point Flowrate Set Point Zero Verified As Found	Zeroed As Left
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Repeatability: 0.026 %
 Uncertainty: 0.014 %

Technician:

Witness:

PROVE

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 PROVE-1100-1000

01/10/2017 8:07 Page: 1
 Revision: 1

Customer: WPX -
 Operator:
 Location:
 Federal ID: SEC.36 T24N R8W

Meter Data 68425694 WPX 133H Factor Tracked Composite MF(CMF) Temp Compensated No NKF 10000.0000 N/bbl Manufacturer Micro Motion Size 2.00 in Serial No. Model No.	Product Data Name Crude Batch No. Obs. Gravity 43.2 °API Obs. Temp 91.0 °F Obs. Press 0.0 psi API Table Table A - Crude Oil (2004) Base Density 40.5 °API HYC Y	Proving Data <u>Previous</u> <u>Current</u> Task ID 1492212263 1492213240 Date 04/14/2017 04/14/2017 Time 11:24 11:40 Product Crude Crude Flowrate 42 bbl/hr 21 bbl/hr Totalizer Throughput Base Density 40.5 °API 40.5 °API Avg Prvr Temp 94.5 96.2 Avg Prvr Press 32.0 31.0 Repeatability 0.045 % 0.017 % CMF 0.9982 0.9955 CMF Variance 0.0018 -0.0027
Prover Data BPV 1.18820 bbl I.D. 7.981 in W.T. 0.322 in Manufacturer Type Displacement-Sphere Serial No. 23MM Elasticity 3.0E7 1/psi Pipe Gc 1.86E-5 1/PF Certified	Tolerances Tolerance Type: Repeatability Maximum Deviation: 0.050 % Enabled? Y Passed? Y Min # of Runs: 5 Criteria: 5 out of 12 consecutive runs Avg X Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Prev X Factor Count Sought: 1 Prev X Factor Count Used: 0 Cut Off History? N Cutoff Date: Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Proving Mode: Volumetric Density Mode: Manual Calc. Method: Avg. Meter Factor Proving Method: PIU Passes Per Run 1	Liquid Properties at Metering Conditions for CMF Normal Op. Pressure 38.0 psig Eq. Vapor Pressure 0.0 psig CPL 1.0002

Run	TEMPERATURE		PRESSURE		PULSES	Run Accepted ?		IMF	Flowrate
	Tp	Tm	Pp	Pm	N				bbl/hr
1	96.7	96.7	31.0	39.0	11946.449	1	Yes	0.99526	20.902
2	96.1	96.1	31.0	39.0	11945.746	2	Yes	0.99530	20.671
3	96.0	96.0	31.0	39.0	11946.286	3	Yes	0.99525	20.812
4	96.1	96.1	31.0	39.0	11944.250	4	Yes	0.99542	20.759
5	96.1	96.1	31.0	39.0	11944.327	5	Yes	0.99542	20.765
Average	96.2	96.2	31.0	39.0	11945.4116			0.99533	20.782

(1) GSVp: BPV * [CTSp * CPSp * CTLp * CPLp = CCFp]

BPV	CTSp	CPSp	CTLp	CPLp	CCFp	GSVp
1.18820	1.00067	1.00003	0.98162	1.00019	0.98249	1.16739

(2) ISVm: [N(avg) ÷ NKF = IVm] * [CTLm * CPLm = CCFm]

N(avg)	NKF	IVm	CTLm	CPLm	CCFm	ISVm
11945.4116	10000.0000	1.19454	0.98162	1.00024	0.98186	1.17287

(3) Proving Factors:

>>>> (1) GSVp ÷ ISVm = 0.9953 MF
 (2) MF * CPL = 0.9955 CMF
 (3) 1 ÷ MF = 1.0047 MA
 (4) NKF ÷ MF = 10047 KF
 (5) KF + CPL = 10045 CKF

Repeatability: 0.017 %
 Uncertainty: 0.009 %

Trans. Serial No. Flow Calib Factor Density Calib Factor Frequency Set Point Flowrate Set Point Zero Verified As Found	Zeroed As Left
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Technician:
 PROVE

Witness:

Customer: WPX -
 Operator:
 Location:
 Federal ID: SEC.36 T24N R8W

Meter Data 68425694 WPX 133H Factor Tracked Composite MF(CMF) Temp Compensated No NKF 10000.0000 N/bbl Manufacturer Micro Motion Size 2.00 in Serial No. Model No.	Product Data Name Crude Batch No. Obs. Gravity 43.2 °API Obs. Temp 91.0 °F Obs. Press 0.0 psi API Table Table A - Crude Oil (2004) Base Density 40.5 °API HYC Y	Proving Data <table style="width:100%;"> <tr> <th style="text-align: left;"><u>Previous</u></th> <th style="text-align: left;"><u>Current</u></th> </tr> <tr> <td>Task ID 1489615798</td> <td>1492212263</td> </tr> <tr> <td>Date 03/15/2017</td> <td>04/14/2017</td> </tr> <tr> <td>Time 10:09</td> <td>11:24</td> </tr> <tr> <td>Product Crude</td> <td>Crude</td> </tr> <tr> <td>Flowrate 21 bbl/hr</td> <td>42 bbl/hr</td> </tr> <tr> <td>Totalizer</td> <td></td> </tr> <tr> <td>Throughput</td> <td></td> </tr> <tr> <td>Base Density 41.3°API</td> <td>40.5 °API</td> </tr> <tr> <td>Avg Pvr Temp 93.2</td> <td>94.5</td> </tr> <tr> <td>Avg Pvr Press 38.0</td> <td>32.0</td> </tr> <tr> <td>Repeatability 0.026 %</td> <td>0.045 %</td> </tr> <tr> <td>CMF 0.9964</td> <td>0.9982</td> </tr> <tr> <td>CMF Variance -0.0025</td> <td>0.0018</td> </tr> </table>	<u>Previous</u>	<u>Current</u>	Task ID 1489615798	1492212263	Date 03/15/2017	04/14/2017	Time 10:09	11:24	Product Crude	Crude	Flowrate 21 bbl/hr	42 bbl/hr	Totalizer		Throughput		Base Density 41.3°API	40.5 °API	Avg Pvr Temp 93.2	94.5	Avg Pvr Press 38.0	32.0	Repeatability 0.026 %	0.045 %	CMF 0.9964	0.9982	CMF Variance -0.0025	0.0018
<u>Previous</u>	<u>Current</u>																													
Task ID 1489615798	1492212263																													
Date 03/15/2017	04/14/2017																													
Time 10:09	11:24																													
Product Crude	Crude																													
Flowrate 21 bbl/hr	42 bbl/hr																													
Totalizer																														
Throughput																														
Base Density 41.3°API	40.5 °API																													
Avg Pvr Temp 93.2	94.5																													
Avg Pvr Press 38.0	32.0																													
Repeatability 0.026 %	0.045 %																													
CMF 0.9964	0.9982																													
CMF Variance -0.0025	0.0018																													
Prover Data BPV 1.18820 bbl I.D. 7.981 in W.T. 0.322 in Manufacturer Type Displacement-Sphere Serial No. 23MM Elasticity 3.0E7 1/psi Pipe Gc 1.86E-5 1°F Certified	Tolerances Tolerance Type: Repeatability Maximum Deviation: 0.050 % Enabled? Y Passed? Y Min # of Runs: 5 Criteria: 5 out of 12 consecutive runs Avg X Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Prev X Factor Count Sought: 1 Prev X Factor Count Used: 0 Cut Off History? N Cutoff Date: Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Proving Mode: Volumetric Density Mode: Manual Calc. Method: Avg. Meter Factor Proving Method: PIU Passes Per Run 1	Liquid Properties at Metering Conditions for CMF Normal Op. Pressure 39.0 psig Eq. Vapor Pressure 0.0 psig CPL 1.0002																												

Run	TEMPERATURE		PRESSURE		PULSES	Run Accepted ?	IMF	Flowrate bbl/hr
	Tp	Tm	Pp	Pm	N			
1	89.2	89.2	32.0	40.0	11914.086	1 Yes	0.99782	41.591
2	94.1	94.1	32.0	40.0	11913.281	2 Yes	0.99798	41.564
3	95.6	95.6	32.0	40.0	11913.962	3 Yes	0.99794	41.560
4	96.5	96.5	32.0	40.0	11910.250	4 Yes	0.99827	41.589
5	96.9	96.9	32.0	40.0	11914.470	5 Yes	0.99793	41.541
Average	94.5	94.5	32.0	40.0	11913.2098		0.99799	41.569

(1) GSVp: BPV * [CTSp * CPSp * CTLp * CPLp = CCFp]

BPV	CTSp	CPSp	CTLp	CPLp	CCFp	GSVp
1.18820	1.00064	1.00003	0.98249	1.00020	0.98334	1.16840

(2) ISVm: [N(avg) + NKF = IVm] * [CTLm * CPLm = CCFm]

N(avg)	NKF	IVm	CTLm	CPLm	CCFm	ISVm
11913.2098	10000.0000	1.19132	0.98249	1.00025	0.98274	1.17076

(3) Proving Factors:

>>>> (1) GSVp ÷ ISVm = 0.9980 MF
 (2) MF * CPL = 0.9982 CMF
 (3) 1 + MF = 1.0020 MA
 (4) NKF ÷ MF = 10020 KF
 (5) KF ÷ CPL = 10018 CKF

Repeatability: 0.045 %
 Uncertainty: 0.024 %

Trans. Serial No. Flow Calib Factor Density Calib Factor Frequency Set Point Flowrate Set Point Zero Verified As Found	Zeroed As Left
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Technician:
PROVE

Witness:

Customer:
Operator:
Location:
Federal ID: SHL SEC.25M T24N R8W NMPM

Meter Data	Product Data	Proving Data
67455818 WPX 131H Factor Tracked Composite MF(CMF) Temp Compensated No NKF 10000.0000 N/bbl Manufacturer Micro Motion Size 2.00 in Serial No. 14504523 Model No.	Name Crude Batch No. Obs. Gravity 43.5 °API Obs. Temp 96.0 °F Obs. Press 0.0 psi API Table Table A - Crude Oil (2004) Base Density 40.4 °API HYC Y	<u>Previous</u> <u>Current</u> Task ID 1492220293 1492221131 Date 04/14/2017 04/14/2017 Time 13:38 13:52 Product Crude Crude Flowrate 42 bbl/hr 21 bbl/hr Totalizer Throughput Base Density 40.4 °API 40.4 °API Avg Prvr Temp 75.8 67.5 Avg Prvr Press 32.0 32.0 Repeatability 0.013 % 0.021 % CMF 1.0034 1.0056 CMF Variance -0.0035 0.0022
Prover Data BPV 1.18820 bbl I.D. 7.981 in W.T. 0.322 in Manufacturer Type Displacement-Sphere Serial No. 23MM Elasticity 3.0E7 1/psi Pipe Gc 1.86E-5 1/°F Certified	Tolerances Tolerance Type: Repeatability Maximum Deviation: 0.050 % Enabled? Y Passed? Y Min # of Runs: 6 Criteria: 5 out of 5 consecutive runs Avg X Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Prev X Factor Count Sought: 1 Prev X Factor Count Used: 0 Cut Off History? N Cutoff Date: Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Proving Mode: Volumetric Density Mode: Manual Calc. Method: Avg. Meter Factor Proving Method: PIU Passes Per Run 1	Liquid Properties at Metering Conditions for CMF Normal Op. Pressure 37.0 psig Eq. Vapor Pressure 0.0 psig CPL 1.0002

Run	TEMPERATURE		PRESSURE		PULSES	Run Accepted ?	IMF	Flowrate bbl/hr
	Tp	Tm	Pp	Pm	N			
1	69.1	69.1	32.0	39.0	11820.840	1 Yes	1.00534	20.984
2	68.1	68.1	32.0	39.0	11820.516	2 Yes	1.00534	20.937
3	67.5	67.5	32.0	39.0	11817.950	3 Yes	1.00555	20.945
4	66.2	66.2	32.0	39.0	11819.909	4 Yes	1.00536	20.944
5	66.3	66.3	32.0	39.0	11817.806	5 Yes	1.00554	20.942
Average	67.5	67.5	32.0	39.0	11819.4042		1.00543	20.951

(1) GSVp: BPV * [CTSp * CPSp * CTLp * CPLp = CCFp]

BPV	CTSp	CPSp	CTLp	CPLp	CCFp	GSVp
1.18820	1.00014	1.00003	0.99621	1.00018	0.99656	1.18411

(2) ISVm: [N(avg) ÷ NKF = IVm] * [CTLm * CPLm = CCFm]

N(avg)	NKF	IVm	CTLm	CPLm	CCFm	ISVm
11819.4042	10000.0000	1.18194	0.99621	1.00022	0.99643	1.17772

(3) Proving Factors:

>>>> (1) GSVp ÷ ISVm = 1.0054 MF
 (2) MF * CPL = 1.0056 CMF
 (3) 1 ÷ MF = 0.9946 MA
 (4) NKF ÷ MF = 9946.3 KF
 (5) KF ÷ CPL = 9944.3 CKF

Repeatability: 0.021 %
 Uncertainty: 0.011 %

Trans. Serial No. Flow Calib Factor Density Calib Factor Frequency Set Point Flowrate Set Point Zero Verified As Found	Zeroed As Left
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Technician:

PROVE

Witness:

Customer:
Operator:
Location:
Federal ID: SHL SEC.25M T24N R8W NMPM

Meter Data	Product Data	Proving Data
67455818 WPX 131H Factor Tracked Composite MF(CMF) Temp Compensated No NKF 10000.0000 N/bbl Manufacturer Micro Motion Size 2.00 in Serial No. 14504523 Model No.	Name Crude Batch No. Obs. Gravity 43.5 °API Obs. Temp 96.0 °F Obs. Press 0.0 psi API Table Table A - Crude Oil (2004) Base Density 40.4 °API HYC Y	Previous Current Task ID 1489623501 1492220293 Date 03/15/2017 04/14/2017 Time 12:18 13:38 Product Crude Crude Flowrate 21 bbl/hr 42 bbl/hr Totalizer Throughput Base Density 41.4°API 40.4 °API Avg Pvr Temp 60.8 75.8 Avg Pvr Press 37.0 32.0 Repeatability 0.041 % 0.013 % CMF 1.0069 1.0034 CMF Variance 0.0029 -0.0035
Prover Data BPV 1.18820 bbl I.D. 7.981 in W.T. 0.322 in Manufacturer Type Displacement-Sphere Serial No. 23MM Elasticity 3.0E7 1/psi Pipe Gc 1.86E-5 1/F Certified	Tolerances Tolerance Type: Repeatability Maximum Deviation: 0.050 % Enabled? Y Passed? Y Min # of Runs: 5 Criteria: 5 out of 5 consecutive runs Avg X Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Prev X Factor Count Sought: 1 Prev X Factor Count Used: 0 Cut Off History? N Cutoff Date: Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Proving Mode: Volumetric Density Mode: Manual Calc. Method: Avg. Meter Factor Proving Method: PIU Passes Per Run 1	
		Liquid Properties at Metering Conditions for CMF Normal Op. Pressure 37.0 psig Eq. Vapor Pressure 0.0 psig CPL 1.0002

Run	TEMPERATURE		PRESSURE		PULSES	Run Accepted ?	IMF	Flowrate bbl/hr
	Tp	Tm	Pp	Pm	N			
1	82.0	82.0	32.0	39.0	11848.849	1 Yes	1.00320	41.778
2	77.2	77.2	32.0	39.0	11848.802	2 Yes	1.00312	41.803
3	74.9	74.9	32.0	39.0	11846.775	3 Yes	1.00325	41.804
4	73.1	73.1	32.0	39.0	11846.499	4 Yes	1.00323	41.783
5	71.9	71.9	32.0	39.0	11846.004	5 Yes	1.00325	41.783
Average	75.8	75.8	32.0	39.0	11847.3858		1.00321	41.790

(1) GSVp: BPV * [CTSp * CPSp * CTLp * CPLp = CCFp]

BPV	CTSp	CPSp	CTLp	CPLp	CCFp	GSVp
1.18820	1.00029	1.00003	0.99201	1.00018	0.99251	1.17930

(2) ISVm: [N(avg) ÷ NKF = IVm] * [CTLm * CPLm = CCFm]

N(avg)	NKF	IVm	CTLm	CPLm	CCFm	ISVm
11847.3858	10000.0000	1.18474	0.99201	1.00023	0.99224	1.17555

(3) Proving Factors:

>>>> (1) GSVp ÷ ISVm = 1.0032 MF
 (2) MF * CPL = 1.0034 CMF
 (3) 1 ÷ MF = 0.9968 MA
 (4) NKF + MF = 9968.1 KF
 (5) KF + CPL = 9966.1 CKF

Repeatability: 0.013 %
 Uncertainty: 0.007 %

Trans. Serial No. Flow Calib Factor Density Calib Factor Frequency Set Point Flowrate Set Point Zero Verified As Found	Zeroed As Left
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Technician:
 PROVE

Witness:

Customer: WPX -
 Operator:
 Location:
 Federal ID: SEC.36 T24N R8W

Meter Data	Product Data	Proving Data
67455819 WPX 143H Factor Tracked Composite MF(CMF) Temp Compensated No NKF 10000.0000 N/bbl Manufacturer Micro Motion Size 2.00 in Serial No. 14505452 Model No.	Name Crude Batch No. Obs. Gravity 44.4 °API Obs. Temp 94.0 °F Obs. Press 0.0 psi API Table Table A - Crude Oil (2004) Base Density 41.4 °API HYC Y	<u>Previous</u> <u>Current</u> Task ID 1492216011 1492217190 Date 04/14/2017 04/14/2017 Time 12:26 12:46 Product Crude Crude Flowrate 42 bbl/hr 21 bbl/hr Totalizer Throughput Base Density 41.4 °API 41.4 °API Avg Pvr Temp 100.9 100.0 Avg Pvr Press 32.0 32.0 Repeatability 0.031 % 0.020 % CMF 1.0039 1.0074 CMF Variance -0.0042 0.0035
Prover Data BPV 1.18820 bbl I.D. 7.981 in W.T. 0.322 in Manufacturer Type Displacement-Sphere Serial No. 23MM Elasticity 3.0E7 1/psi Pipe Gc 1.86E-5 1/F Certified	Tolerances Tolerance Type: Repeatability Maximum Deviation: 0.050 % Enabled? Y Passed? Y Min # of Runs: 5 Criteria: 5 out of 5 consecutive runs Avg X Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Prev X Factor Count Sought: 1 Prev X Factor Count Used: 0 Cut Off History? N Cutoff Date: Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Proving Mode: Volumetric Density Mode: Manual Calc. Method: Avg. Meter Factor Proving Method: PIU Passes Per Run 1	
		Liquid Properties at Metering Conditions for CMF Normal Op. Pressure 39.0 psig Eq. Vapor Pressure 0.0 psig CPL 1.0002

Run	TEMPERATURE		PRESSURE		PULSES	Run Accepted ?	IMF	Flowrate bbl/hr
	Tp	Tm	Pp	Pm	N			
1	100.1	100.1	32.0	40.0	11804.826	1 Yes	1.00728	20.964
2	99.8	99.8	32.0	40.0	11804.806	2 Yes	1.00725	20.956
3	100.0	100.0	32.0	40.0	11806.853	3 Yes	1.00708	20.960
4	100.0	100.0	32.0	40.0	11804.767	4 Yes	1.00725	20.983
5	100.1	100.1	32.0	40.0	11807.095	5 Yes	1.00709	20.982
Average	100.0	100.0	32.0	40.0	11805.6694		1.00719	20.969

(1) GSVp: BPV * [CTSp * CPSp * CTLp * CPLp = CCFp]

BPV	CTSp	CPSp	CTLp	CPLp	CCFp	GSVp
1.18820	1.00074	1.00003	0.97946	1.00020	0.98041	1.16492

(2) ISVm: [N(avg) ÷ NKF = IVm] * [CTLm * CPLm = CCFm]

N(avg)	NKF	IVm	CTLm	CPLm	CCFm	ISVm
11805.6694	10000.0000	1.18057	0.97946	1.00026	0.97971	1.15662

(3) Proving Factors:

>>>> (1) GSVp ÷ ISVm = 1.0072 MF
 (2) MF * CPL = 1.0074 CMF
 (3) 1 ÷ MF = 0.9929 MA
 (4) NKF ÷ MF = 9928.5 KF
 (5) KF ÷ CPL = 9926.5 CKF

Repeatability: 0.020 %
 Uncertainty: 0.011 %

Trans. Serial No. Flow Calib Factor Density Calib Factor Frequency Set Point Flowrate Set Point Zero Verified As Found	Zeroed As Left
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Technician: 
 PROVE

Witness:

Customer: WPX -
 Operator:
 Location:
 Federal ID: SEC.36 T24N R8W

Meter Data	Product Data	Proving Data
67455819 WPX 143H Factor Tracked Composite MF(CMF) Temp Compensated No NKF 10000.0000 N/bbl Manufacturer Micro Motion Size 2.00 in Serial No. 14505452 Model No.	Name Crude Batch No. Obs. Gravity 44.4 °API Obs. Temp 94.0 °F Obs. Press 0.0 psi API Table Table A - Crude Oil (2004) Base Density 41.4 °API HYC Y	<u>Previous</u> <u>Current</u> Task ID 1489619851 1492216011 Date 03/15/2017 04/14/2017 Time 11:17 12:26 Product Crude Crude Flowrate 21 bbl/hr 42 bbl/hr Totalizer Throughput Base Density 42.8°API 41.4 °API Avg Prvr Temp 91.4 100.9 Avg Prvr Press 36.0 32.0 Repeatability 0.016 % 0.031 % CMF 1.0081 1.0039 CMF Variance 0.0036 -0.0042
Prover Data BPV 1.18820 bbl I.D. 7.981 in W.T. 0.322 in Manufacturer Type Displacement-Sphere Serial No. 23MM Elasticity 3.0E7 1/psi Pipe Gc 1.86E-5 1°F Certified	Tolerances Tolerance Type: Repeatability Maximum Deviation: 0.050 % Enabled? Y Passed? Y Min # of Runs: 5 Criteria: 5 out of 5 consecutive runs Avg X Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Prev X Factor Count Sought: 1 Prev X Factor Count Used: 0 Cut Off History? N Cutoff Date: Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Proving Mode: Volumetric Density Mode: Manual Calc. Method: Avg. Meter Factor Proving Method: PIU Passes Per Run 1	
		Liquid Properties at Metering Conditions for CMF Normal Op. Pressure 39.0 psig Eq. Vapor Pressure 0.0 psig CPL 1.0003

Run	TEMPERATURE		PRESSURE		PULSES	Run Accepted ?	IMF	Flowrate
	Tp	Tm	Pp	Pm	N			bbl/hr
1	100.5	100.5	32.0	40.0	11849.586	1 Yes	1.00347	41.830
2	101.0	101.0	32.0	40.0	11848.684	2 Yes	1.00356	41.767
3	101.0	101.0	32.0	40.0	11847.740	3 Yes	1.00364	41.810
4	100.9	100.9	32.0	40.0	11846.293	4 Yes	1.00376	41.791
5	100.8	100.8	32.0	40.0	11845.970	5 Yes	1.00378	41.760
Average	100.9	100.9	32.0	40.0	11847.6546		1.00364	41.792

(1) GSVp: $BPV * [CTSp * CPSp * CTLp * CPLp = CCFp]$

BPV	CTSp	CPSp	CTLp	CPLp	CCFp	GSVp
1.18820	1.00076	1.00003	0.97900	1.00021	0.97998	1.16441

(2) ISVm: $[N(avg) \div NKF = IVm] * [CTLm * CPLm = CCFm]$

N(avg)	NKF	IVm	CTLm	CPLm	CCFm	ISVm
11847.6546	10000.0000	1.18477	0.97900	1.00026	0.97925	1.16019

(3) Proving Factors:

>>>> (1) GSVp + ISVm = 1.0036 MF
 (2) MF * CPL = 1.0039 CMF
 (3) 1 + MF = 0.9964 MA
 (4) NKF + MF = 9964.1 KF
 (5) KF + CPL = 9961.1 CKF

Trans. Serial No.	
Flow Calib Factor	
Density Calib Factor	
Frequency Set Point	
Flowrate Set Point	
Zero Verified	Zeroed
As Found	As Left

Repeatability: 0.031 %
 Uncertainty: 0.017 %

Technician: PROVE

Witness:

Customer: WPX -
 Operator:
 Location:
 Federal ID: SEC.24H T23N R8W

Meter Data	Product Data	Proving Data
67421809 WPX 153H Factor Tracked Composite MF(CMF) Temp Compensated No NKF 10000.0000 N/bbl Manufacturer Micro Motion Size 2.00 in Serial No. 14497222 Model No.	Name Crude Batch No. Obs. Gravity 41.3 °API Obs. Temp 90.0 °F Obs. Press 0.0 psi API Table Table A - Crude Oil (2004) Base Density 38.8 °API HYC Y	Previous Current Task ID 1492114573 1492115937 Date 04/13/2017 04/13/2017 Time 8:16 8:38 Product Crude Crude Flowrate 42 bbl/hr 25 bbl/hr Totalizer Throughput Base Density 38.8 °API 38.8 °API Avg Pvr Temp 89.7 92.9 Avg Pvr Press 32.0 32.0 Repeatability 0.048 % 0.043 % CMF 1.0042 1.0057 CMF Variance -0.0033 0.0015
Prover Data BPV 1.18820 bbl I.D. 7.981 in W.T. 0.322 in Manufacturer Type Displacement-Sphere Serial No. 23MM Elasticity 3.0E7 1/psi Pipe Gc 1.86E-5 1/PF Certified	Tolerances Tolerance Type: Repeatability Maximum Deviation: 0.050 % Enabled? Y Passed? Y Min # of Runs: 5 Criteria: 5 out of 8 consecutive runs Avg X Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Prev X Factor Count Sought: 1 Prev X Factor Count Used: 0 Cut Off History? N Cutoff Date: Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Proving Mode: Volumetric Density Mode: Manual Calc. Method: Avg. Meter Factor Proving Method: PIU Passes Per Run 1	
		Liquid Properties at Metering Conditions for CMF Normal Op. Pressure 38.0 psig Eq. Vapor Pressure 0.0 psig CPL 1.0002

Run	TEMPERATURE		PRESSURE		PULSES	Run Accepted ?	IMF	Flowrate
	Tp	Tm	Pp	Pm	N			bbl/hr
1	92.7	92.7	32.0	40.0	11822.767	1 Yes	1.00560	25.032
2	93.0	93.0	32.0	40.0	11824.629	2 Yes	1.00544	25.132
3	92.6	92.6	32.0	40.0	11826.142	3 Yes	1.00532	25.113
4	93.0	93.0	32.0	40.0	11821.004	4 Yes	1.00575	25.091
5	93.1	93.1	32.0	40.0	11822.816	5 Yes	1.00561	25.130
Average	92.9	92.9	32.0	40.0	11823.4716		1.00554	25.100

(1) GSVp: BPV * [CTSp * CPSP * CTLp * CPLp = CCFp]

BPV	CTSp	CPSP	CTLp	CPLp	CCFp	GSVp
1.18820	1.00061	1.00003	0.98363	1.00019	0.98445	1.16972

(2) ISVm: [N(avg) ÷ NKF = IVm] * [CTLm * CPLm = CCFm]

N(avg)	NKF	IVm	CTLm	CPLm	CCFm	ISVm
11823.4716	10000.0000	1.18235	0.98363	1.00024	0.98387	1.16328

(3) Proving Factors:

>>>> (1) GSVp ÷ ISVm = 1.0055 MF
 (2) MF * CPL = 1.0057 CMF
 (3) 1 ÷ MF = 0.9945 MA
 (4) NKF ÷ MF = 9945.3 KF
 (5) KF ÷ CPL = 9943.3 CKF

Repeatability: 0.043 %
 Uncertainty: 0.023 %

Trans. Serial No.	
Flow Calib Factor	
Density Calib Factor	
Frequency Set Point	
Flowrate Set Point	
Zero Verified	Zeroed
As Found	As Left

Technician: 
 PROVE

Witness:

Customer: WPX -
 Operator:
 Location:
 Federal ID: SEC.24H T23N R8W

Meter Data	Product Data	Proving Data
67421809 WPX 153H Factor Tracked Composite MF(CMF) Temp Compensated No NKF 10000.0000 N/bbl Manufacturer Micro Motion Size 2.00 in Serial No. 14497222 Model No.	Name Crude Batch No. Obs. Gravity 41.3 °API Obs. Temp 90.0 °F Obs. Press 0.0 psi API Table Table A - Crude Oil (2004) Base Density 38.8 °API HYC Y	Previous Current Task ID 1489093880 1492114573 Date 03/09/2017 04/13/2017 Time 8:11 8:16 Product Crude Crude Flowrate 25 bbl/hr 42 bbl/hr Totalizer Throughput Base Density 38.9°API 38.8 °API Avg Pvr Temp 80.7 89.7 Avg Pvr Press 40.0 32.0 Repeatability 0.040 % 0.048 % CMF 1.0075 1.0042 CMF Variance 0.0012 -0.0033
Prover Data BPV 1.18820 bbl I.D. 7.981 in W.T. 0.322 in Manufacturer Type Displacement-Sphere Serial No. 23MM Elasticity 3.0E7 1/psi Pipe Gc 1.86E-5 1°F Certified	Tolerances Tolerance Type: Repeatability Maximum Deviation: 0.050 % Enabled? Y Passed? Y Min # of Runs: 5 Criteria: 5 out of 8 consecutive runs Avg X Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Prev X Factor Count Sought: 1 Prev X Factor Count Used: 0 Cut Off History? N Cutoff Date: Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Proving Mode: Volumetric Density Mode: Manual Calc. Method: Avg. Meter Factor Proving Method: PIU Passes Per Run 1	
		Liquid Properties at Metering Conditions for CMF Normal Op. Pressure 38.0 psig Eq. Vapor Pressure 0.0 psig CPL 1.0002

Run	TEMPERATURE		PRESSURE		PULSES	Run Accepted ?	IMF	Flowrate bbl/hr
	Tp	Tm	Pp	Pm	N			
1	84.3	84.3	32.0	40.0	11843.083	1 Yes	1.00372	41.831
2	88.7	88.7	32.0	40.0	11841.463	2 Yes	1.00392	41.833
3	91.3	91.3	32.0	40.0	11839.136	3 Yes	1.00419	41.868
4	91.9	91.9	32.0	40.0	11839.850	4 Yes	1.00413	41.792
5	92.1	92.1	32.0	40.0	11839.167	5 Yes	1.00420	41.834
Average	89.7	89.7	32.0	40.0	11840.5398		1.00403	41.832

(1) GSVp: BPV * [CTSp * CPSP * CTLp * CPLp = CCFp]

BPV	CTSp	CPSP	CTLp	CPLp	CCFp	GSVp
1.18820	1.00055	1.00003	0.98523	1.00019	0.98599	1.17155

(2) ISVm: [N(avg) ÷ NKF = IVm] * [CTLm * CPLm = CCFm]

N(avg)	NKF	IVm	CTLm	CPLm	CCFm	ISVm
11840.5398	10000.0000	1.18405	0.98523	1.00024	0.98547	1.16685

(3) Proving Factors:

>>>> (1) GSVp + ISVm = 1.0040 MF
 (2) MF * CPL = 1.0042 CMF
 (3) 1 + MF = 0.9960 MA
 (4) NKF + MF = 9960.2 KF
 (5) KF + CPL = 9958.2 CKF

Repeatability: 0.048 %
 Uncertainty: 0.026 %

Trans. Serial No. Flow Calib Factor Density Calib Factor Frequency Set Point Flowrate Set Point Zero Verified As Found	Zeroed As Left
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Technician:
 PROVE

Witness:

Customer: WPX -
 Operator:
 Location:
 Federal ID: SHL SEC.14 T23N R8W NMPM

Meter Data	Product Data	Proving Data
78448843 WPX 151H Factor Tracked Composite MF(CMF) Temp Compensated No NKF 10000.0000 N/bbl Manufacturer Micro Motion Size 2.00 in Serial No. 14503340 Model No.	Name Crude Batch No. Obs. Gravity 39.6 °API Obs. Temp 91.0 °F Obs. Press 0.0 psi API Table Table A - Crude Oil (2004) Base Density 37.1 °API HYC Y	Previous Task ID 1489097798 Date 03/09/2017 Time 9:16 Product Crude Flowrate 21 bbl/hr Totalizer Throughput Base Density 41.6 °API Current 1492119688 04/13/2017 9:39 Crude 21 bbl/hr 37.1 °API
Prover Data BPV 1.18820 bbl I.D. 7.981 in W.T. 0.322 in Manufacturer Type Displacement-Sphere Serial No. 23MM Elasticity 3.0E7 1/psi Pipe Gc 1.86E-5 1°F Certified	Tolerances Tolerance Type: Repeatability Maximum Deviation: 0.053 % Enabled? Y Passed? Y Min # of Runs: 5 Criteria: 5 out of 6 consecutive runs Avg X Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Prev X Factor Count Sought: 1 Prev X Factor Count Used: 0 Cut Off History? N Cutoff Date: Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Proving Mode: Volumetric Density Mode: Manual Calc. Method: Avg. Meter Factor Proving Method: PIU Passes Per Run 1	Avg Pvr Temp 89.8 95.7 Avg Pvr Press 38.0 38.0 Repeatability 0.037 % 0.034 % CMF 1.0024 1.0022 CMF Variance -0.0002 -0.0002
Liquid Properties at Metering Conditions for CMF Normal Op. Pressure 49.0 psig Eq. Vapor Pressure 0.0 psig CPL 1.0003		

Run	TEMPERATURE		PRESSURE		PULSES	Run Accepted ?	IMF	Flowrate
	TP	Tm	Pp	Pm	N			bb/hr
1	94.9	94.9	38.0	52.0	11868.046	1 Yes	1.00178	20.827
2	95.4	95.4	38.0	52.0	11865.139	2 Yes	1.00204	20.864
3	95.3	95.3	38.0	52.0	11869.106	3 Yes	1.00170	20.871
4	96.3	96.3	38.0	52.0	11866.735	4 Yes	1.00191	20.869
5	96.6	96.6	38.0	52.0	11865.714	5 Yes	1.00199	20.866
Average	95.7	95.7	38.0	52.0	11866.9480		1.00188	20.860

(1) GSVp: $BPV * [CTSp * CPSp * CTLp * CPLp = CCFp]$

BPV	CTSp	CPSp	CTLp	CPLp	CCFp	GSVp
1.18820	1.00066	1.00003	0.98259	1.00022	0.98348	1.16857

(2) ISVm: $[N(avg) \div NKF = IVm] * [CTLm * CPLm = CCFm]$

N(avg)	NKF	IVm	CTLm	CPLm	CCFm	ISVm
11866.9480	10000.0000	1.18669	0.98259	1.00030	0.98288	1.16637

(3) Proving Factors:

>>>> (1) GSVp + ISVm = 1.0019 MF
 (2) MF * CPL = 1.0022 CMF
 (3) 1 ÷ MF = 0.9981 MA
 (4) NKF ÷ MF = 9981.0 KF
 (5) KF ÷ CPL = 9978.0 CKF

Repeatability: 0.034 %
 Uncertainty: 0.018 %

Trans. Serial No. Flow Calib Factor Density Calib Factor Frequency Set Point Flowrate Set Point Zero Verified As Found	Zeroed As Left
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Technician:
PROVE

Witness:

Customer: WPX -
 Operator:
 Location:
 Federal ID: SHL SEC.16 T23N R8W NMPM

Meter Data	Product Data	Proving Data
78448842 WPX 147H Factor Tracked Composite MF(CMF) Temp Compensated No NKF 10000.0000 N/bbl Manufacturer Micro Motion Size 2.00 in Serial No. 14503370 Model No.	Name Crude Batch No. Obs. Gravity 39.6 °API Obs. Temp 92.0 °F Obs. Press 0.0 psi API Table Table A - Crude Oil (2004) Base Density 37.0 °API HYC Y	<u>Previous</u> <u>Current</u> Task ID 1489101032 1482123134 Date 03/09/2017 04/13/2017 Time 10:10 10:38 Product Crude Crude Flowrate 21 bbl/hr 21 bbl/hr Totalizer Throughput Base Density 38.8°API 37.0 °API Avg Prvr Temp 73.8 81.9 Avg Prvr Press 34.0 32.0 Repeatability 0.047 % 0.043 % CMF 1.0008 0.9999 CMF Variance 0.0001 -0.0009
Prover Data BPV 1.18820 bbl I.D. 7.981 in W.T. 0.322 in Manufacturer Type Displacement-Sphere Serial No. 23MM Elasticity 3.0E7 1/psi Pipe Gc 1.86E-5 1°F Certified	Tolerances Tolerance Type: Repeatability Maximum Deviation: 0.052 % Enabled? Y Passed? Y Min # of Runs: 5 Criteria: 5 out of 6 consecutive runs Avg X Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Prev X Factor Count Sought: 1 Prev X Factor Count Used: 0 Cut Off History? N Cutoff Date: Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Proving Mode: Volumetric Density Mode: Manual Calc. Method: Avg. Meter Factor Proving Method: PIU Passes Per Run 1	Liquid Properties at Metering Conditions for CMF Normal Op. Pressure 35.0 psig Eq. Vapor Pressure 0.0 psig CPL 1.0002

Run	TEMPERATURE		PRESSURE		PULSES	Run Accepted ?		IMF	Flowrate
	Tp	Tm	Pp	Pm	N				bb/hr
1	84.9	84.9	32.0	36.0	11893.931	1	Yes	0.99947	20.800
2	82.9	82.9	32.0	36.0	11891.367	2	Yes	0.99964	20.815
3	81.7	81.7	32.0	36.0	11887.950	3	Yes	0.99990	20.827
4	80.4	80.4	32.0	36.0	11888.978	4	Yes	0.99980	20.806
5	79.8	79.8	32.0	36.0	11888.200	5	Yes	0.99985	20.825
Average	81.9	81.9	32.0	36.0	11890.0852			0.99973	20.815

(1) GSVp: BPV * [CTSp * CPSp * CTLp * CPLp = CCFp]

BPV	CTSp	CPSp	CTLp	CPLp	CCFp	GSVp
1.18820	1.00041	1.00003	0.98935	1.00018	0.98996	1.17627

(2) ISVm: [N(avg) ÷ NKF = IVm] * [CTLm * CPLm = CCFm]

N(avg)	NKF	IVm	CTLm	CPLm	CCFm	ISVm
11890.0852	10000.0000	1.18901	0.98935	1.00020	0.98955	1.17658

(3) Proving Factors:

>>>> (1) GSVp ÷ ISVm = 0.9997 MF
 (2) MF * CPL = 0.9999 CMF
 (3) 1 ÷ MF = 1.0003 MA
 (4) NKF ÷ MF = 10003 KF
 (5) KF ÷ CPL = 10001 CKF

Trans. Serial No.	
Flow Calib Factor	
Density Calib Factor	
Frequency Set Point	
Flowrate Set Point	
Zero Verified	Zeroed
As Found	As Left

Repeatability: 0.043 %
 Uncertainty: 0.023 %

Technician:
PROVE

Witness:

Customer: WPX -
 Operator:
 Location:
 Federal ID: SHL SEC.17H T23N R7W NMPM

Meter Data	Product Data	Proving Data
78448840 WPX 163H Factor Tracked Composite MF(CMF) Temp Compensated No NKF 10000.0000 N/bbl Manufacturer Micro Motion Size 2.00 in Serial No. 14497246 Model No. CMF 100M	Name Crude Batch No. Obs. Gravity 45.5 °API Obs. Temp 103.0 °F Obs. Press 0.0 psi API Table Table A - Crude Oil (2004) Base Density 41.7 °API HYC Y	<u>Previous</u> <u>Current</u> Task ID 1489109180 1492204222 Date 03/09/2017 04/14/2017 Time 12:26 9:10 Product Crude Crude Flowrate 37 bbl/hr 38 bbl/hr Totalizer Throughput Base Density 41.7°API 41.7 °API Avg Pvr Temp 98.5 104.7 Avg Pvr Press 38.0 31.0 Repeatability 0.025 % 0.040 % CMF 1.0008 1.0010 CMF Variance 0.0002 0.0002
Prover Data BPV 1.18820 bbl I.D. 7.981 in W.T. 0.322 in Manufacturer Type Displacement-Sphere Serial No. 23MM Elasticity 3.0E7 1/psi Pipe Gc 1.86E-5 1/F Certified	Tolerances Tolerance Type: Repeatability Maximum Deviation: 0.050 % Enabled? Y Passed? Y Min # of Runs: 5 Criteria: 5 out of 5 consecutive runs Avg X Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Prev X Factor Count Sought: 1 Prev X Factor Count Used: 0 Cut Off History? N Cutoff Date: Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Proving Mode: Volumetric Density Mode: Manual Calc. Method: Avg. Meter Factor Proving Method: PIU Passes Per Run 1	Liquid Properties at Metering Conditions for CMF Normal Op. Pressure 37.0 psig Eq. Vapor Pressure 0.0 psig CPL 1.0002

Run	TEMPERATURE		PRESSURE		PULSES	Run Accepted ?		IMF	Flowrate
	Tp	Tm	Pp	Pm	N				bbl/hr
1	103.9	103.9	31.0	38.0	11884.509	1	Yes	1.00059	37.520
2	103.9	103.9	31.0	38.0	11883.459	2	Yes	1.00068	37.466
3	104.9	104.9	31.0	38.0	11880.071	3	Yes	1.00099	37.498
4	105.6	105.6	31.0	38.0	11881.394	4	Yes	1.00088	37.565
5	105.2	105.2	31.0	38.0	11881.454	5	Yes	1.00087	37.477
Average	104.7	104.7	31.0	38.0	11882.1774			1.00080	37.505

(1) GSVp: $BPV * [CTSp * CPSP * CTLp * CPLp = CCFp]$

BPV	CTSp	CPSP	CTLp	CPLp	CCFp	GSVp
1.18820	1.00083	1.00003	0.97696	1.00020	0.97800	1.16206

(2) ISVm: $[N(avg) \div NKF = IVm] * [CTLm * CPLm = CCFm]$

N(avg)	NKF	IVm	CTLm	CPLm	CCFm	ISVm
11882.1774	10000.0000	1.18822	0.97696	1.00025	0.97720	1.16113

(3) Proving Factors:

>>>> (1) GSVp ÷ ISVm = 1.0008 MF
 (2) MF * CPL = 1.0010 CMF
 (3) 1 + MF = 0.9992 MA
 (4) NKF ÷ MF = 9992.0 KF
 (5) KF ÷ CPL = 9990.0 CKF

Repeatability: 0.040 %
 Uncertainty: 0.021 %

Trans. Serial No.	
Flow Calib Factor	
Density Calib Factor	
Frequency Set Point	
Flowrate Set Point	
Zero Verified	Zeroed
As Found	As Left

Technician:

PROVE

Witness:

Customer: WPX -
 Operator:
 Location:
 Federal ID: SHL SEC.4 T23N R8W NMPM

Meter Data 67420186 WPX 283H Factor Tracked Composite MF(CMF) Temp Compensated No NKF 10000.0000 N/bbl Manufacturer Micro Motion Size 2.00 in Serial No. 14494841 Model No.	Product Data Name Crude Batch No. Obs. Gravity 38.4 °API Obs. Temp 64.0 °F Obs. Press 0.0 psi API Table Table A - Crude Oil (2004) Base Density 38.1 °API HYC Y	Proving Data <table style="width:100%;"> <tr> <th></th> <th style="text-align: center;"><u>Previous</u></th> <th style="text-align: center;"><u>Current</u></th> </tr> <tr> <td>Task ID</td> <td>1493165060</td> <td>1493166222</td> </tr> <tr> <td>Date</td> <td>04/25/2017</td> <td>04/25/2017</td> </tr> <tr> <td>Time</td> <td>12:04</td> <td>12:23</td> </tr> <tr> <td>Product</td> <td>Crude</td> <td>Crude</td> </tr> <tr> <td>Flowrate</td> <td>42 bbl/hr</td> <td>31 bbl/hr</td> </tr> <tr> <td>Totalizer</td> <td></td> <td></td> </tr> <tr> <td>Throughput</td> <td></td> <td></td> </tr> <tr> <td>Base Density</td> <td>38.1 °API</td> <td>38.1 °API</td> </tr> <tr> <td>Avg Pvr Temp</td> <td>61.9</td> <td>62.6</td> </tr> <tr> <td>Avg Pvr Press</td> <td>32.0</td> <td>32.0</td> </tr> <tr> <td>Repeatability</td> <td>0.027 %</td> <td>0.050 %</td> </tr> <tr> <td>CMF</td> <td>1.0043</td> <td>1.0046</td> </tr> <tr> <td>CMF Variance</td> <td>-0.0001</td> <td>0.0003</td> </tr> </table>		<u>Previous</u>	<u>Current</u>	Task ID	1493165060	1493166222	Date	04/25/2017	04/25/2017	Time	12:04	12:23	Product	Crude	Crude	Flowrate	42 bbl/hr	31 bbl/hr	Totalizer			Throughput			Base Density	38.1 °API	38.1 °API	Avg Pvr Temp	61.9	62.6	Avg Pvr Press	32.0	32.0	Repeatability	0.027 %	0.050 %	CMF	1.0043	1.0046	CMF Variance	-0.0001	0.0003
	<u>Previous</u>	<u>Current</u>																																										
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Prover Data BPV 1.18820 bbl I.D. 7.981 in W.T. 0.322 in Manufacturer Type Displacement-Sphere Serial No. 23MM Elasticity 3.0E7 1/psi Pipe Gc 1.86E-5 1/°F Certified	Tolerances Tolerance Type: Repeatability Maximum Deviation: 0.050 % Enabled? Y Passed? Y Min # of Runs: 5 Criteria: 5 out of 5 consecutive runs Avg X Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Prev X Factor Count Sought: 1 Prev X Factor Count Used: 0 Cut Off History? N Cutoff Date: Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Proving Mode: Volumetric Density Mode: Manual Calc. Method: Avg. Meter Factor Proving Method: PIU Passes Per Run 1	Liquid Properties at Metering Conditions for CMF Normal Op. Pressure 39.0 psig Eq. Vapor Pressure 0.0 psig CPL 1.0002																																										

Run	TEMPERATURE		PRESSURE		PULSES	Run Accepted ?		IMF	Flowrate
	Tp	Tm	Pp	Pm	N				bbl/hr
1	61.8	61.8	32.0	40.0	11832.908	1	Yes	1.00417	31.502
2	62.4	62.4	32.0	40.0	11829.941	2	Yes	1.00443	31.360
3	62.4	62.4	32.0	40.0	11827.086	3	Yes	1.00467	31.376
4	62.9	62.9	32.0	40.0	11832.183	4	Yes	1.00425	31.323
5	63.7	63.7	32.0	40.0	11827.844	5	Yes	1.00464	31.364
Average	62.6	62.6	32.0	40.0	11829.9924			1.00443	31.385

(1) GSVp: BPV * [CTSp * CPSp * CTLp * CPLp = CCFp]

BPV	CTSp	CPSp	CTLp	CPLp	CCFp	GSVp
1.18820	1.00005	1.00003	0.99872	1.00017	0.99897	1.18698

(2) ISVm: [N(avg) ÷ NKF = IVm] * [CTLm * CPLm = CCFm]

N(avg)	NKF	IVm	CTLm	CPLm	CCFm	ISVm
11829.9924	10000.0000	1.18300	0.99872	1.00021	0.99893	1.18173

(3) Proving Factors:

>>>> (1) GSVp ÷ ISVm = 1.0044 MF
 (2) MF * CPL = 1.0046 CMF
 (3) 1 ÷ MF = 0.9956 MA
 (4) NKF ÷ MF = 9956.2 KF
 (5) KF ÷ CPL = 9954.2 CKF

Repeatability: 0.050 %
 Uncertainty: 0.027 %

Trans. Serial No.	
Flow Calib Factor	
Density Calib Factor	
Frequency Set Point	
Flowrate Set Point	
Zero Verified	Zeroed
As Found	As Left

Technician:

PROVE

Witness:

Customer: WPX -
 Operator:
 Location:
 Federal ID: SHL SEC.4 T23N R8W NMPM

Meter Data	Product Data	Proving Data
67420186 WPX 283H Factor Tracked Composite MF(CMF) Temp Compensated No NKF 10000.0000 N/bbl Manufacturer Micro Motion Size 2.00 in Serial No. 14494841 Model No.	Name Crude Batch No. Obs. Gravity 38.4 °API Obs. Temp 64.0 °F Obs. Press 0.0 psi API Table Table A - Crude Oil (2004) Base Density 38.1 °API HYC Y	<u>Previous</u> <u>Current</u> Task ID 1489706029 1493165060 Date 03/16/2017 04/25/2017 Time 11:13 12:04 Product Crude Crude Flowrate 31 bbl/hr 42 bbl/hr Totalizer Throughput Base Density 38.4°API 38.1 °API Avg Pvr Temp 88.8 61.9 Avg Pvr Press 38.0 32.0 Repeatability 0.033 % 0.027 % CMF 1.0044 1.0043 CMF Variance 0.0009 -0.0001
Prover Data BPV 1.18820 bbl I.D. 7.981 in W.T. 0.322 in Manufacturer Type Displacement-Sphere Serial No. 23MM Elasticity 3.0E7 1/psi Pipe Gc 1.86E-5 1/°F Certified	Tolerances Tolerance Type: Repeatability Maximum Deviation: 0.050 % Enabled? Y Passed? Y Min # of Runs: 5 Criteria: 5 out of 5 consecutive runs Avg X Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Prev X Factor Count Sought: 1 Prev X Factor Count Used: 0 Cut Off History? N Cutoff Date: Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Proving Mode: Volumetric Density Mode: Manual Calc. Method: Avg. Meter Factor Proving Method: PIU Passes Per Run 1	Liquid Properties at Metering Conditions for CMF Normal Op. Pressure 39.0 psig Eq. Vapor Pressure 0.0 psig CPL 1.0002

Run	TEMPERATURE		PRESSURE		PULSES	Run Accepted ?		IMF	Flowrate
	Tp	Tm	Pp	Pm	N				bbl/hr
1	62.8	62.8	32.0	40.0	11834.208	1	Yes	1.00408	41.847
2	61.8	61.8	32.0	40.0	11831.584	2	Yes	1.00428	41.865
3	61.3	61.3	32.0	40.0	11832.106	3	Yes	1.00423	41.859
4	61.6	61.6	32.0	40.0	11834.831	4	Yes	1.00401	41.865
5	62.0	62.0	32.0	40.0	11834.106	5	Yes	1.00408	41.864
Average	61.9	61.9	32.0	40.0	11833.3670			1.00414	41.860

(1) GSVp: $BPV \cdot [CTSp \cdot CPSp \cdot CTLp \cdot CPLp = CCFp]$

BPV	CTSp	CPSp	CTLp	CPLp	CCFp	GSVp
1.18820	1.00004	1.00003	0.99907	1.00017	0.99931	1.18738

(2) ISVm: $[N(avg) \div NKF = IVm] \cdot [CTLm \cdot CPLm = CCFm]$

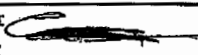
N(avg)	NKF	IVm	CTLm	CPLm	CCFm	ISVm
11833.3670	10000.0000	1.18334	0.99907	1.00021	0.99928	1.18249

(3) Proving Factors:

>>>> (1) $GSVp \div ISVm = 1.0041$ MF
 (2) $MF \cdot CPL = 1.0043$ CMF
 (3) $1 \div MF = 0.9959$ MA
 (4) $NKF \div MF = 9959.2$ KF
 (5) $KF \div CPL = 9957.2$ CKF

Repeatability: 0.027 %
 Uncertainty: 0.014 %

Trans. Serial No.	
Flow Calib Factor	
Density Calib Factor	
Frequency Set Point	
Flowrate Set Point	
Zero Verified	Zeroed
As Found	As Left

Technician: 
 PROVE

Witness:

Customer: WPX -
 Operator:
 Location:
 Federal ID: SEC. 04 T23N R8W NMPM

Meter Data	Product Data	Proving Data
67455820 WPX 150H Factor Tracked Composite MF(CMF) Temp Compensated No NKF 10000.0000 N/bbl Manufacturer Micro Motion Size 2.00 in Serial No. Model No.	Name Crude Batch No. Obs. Gravity 43.5 °API Obs. Temp 87.0 °F Obs. Press 0.0 psi API Table Table A - Crude Oil (2004) Base Density 41.1 °API HYC Y	Previous Task ID 1493085418 Date 04/24/2017 Time 13:58 Product Crude Flowrate 42 bbl/hr Totalizer Throughput Base Density 41.1 °API Current 1493086614 04/24/2017 14:16 Crude 21 bbl/hr 41.1 °API
Prover Data BPV 1.18820 bbl I.D. 7.981 in W.T. 0.322 in Manufacturer Type Displacement-Sphere Serial No. 23MM Elasticity 3.0E7 1/psi Pipe Gc 1.86E-5 1/°F Certified	Tolerances Tolerance Type: Repeatability Maximum Deviation: 0.050 % Enabled? Y Passed? Y Min # of Runs: 5 Criteria: 5 out of 5 consecutive runs	Avg Pvr Temp 84.0 86.6 Avg Pvr Press 32.0 32.0 Repeatability 0.045 % 0.025 % CMF 1.0035 1.0042 CMF Variance -0.0005 0.0007
	Avg X Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Prev X Factor Count Sought: 1 Prev X Factor Count Used: 0 Cut Off History? N Cutoff Date:	Liquid Properties at Metering Conditions for CMF Normal Op. Pressure 38.0 psig Eq. Vapor Pressure 0.0 psig CPL 1.0002
	Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N	
	Proving Mode: Volumetric Density Mode: Manual Calc. Method: Avg. Meter Factor Proving Method: PIU Passes Per Run 1	

Run	TEMPERATURE		PRESSURE		PULSES	Run Accepted ?		IMF	Flowrate
	Tp	Tm	Pp	Pm	N				bbl/hr
1	82.8	82.8	32.0	39.0	11837.543	1	Yes	1.00417	20.929
2	85.0	85.0	32.0	39.0	11839.325	2	Yes	1.00405	20.909
3	87.8	87.8	32.0	39.0	11841.539	3	Yes	1.00393	20.900
4	88.7	88.7	32.0	39.0	11841.677	4	Yes	1.00392	20.919
5	88.9	88.9	32.0	39.0	11839.726	5	Yes	1.00411	20.990
Average	86.6	86.6	32.0	39.0	11839.9620			1.00404	20.929

(1) GSVp: BPV * [CTSp * CPSp * CTLp * CPLp = CCFp]

BPV	CTSp	CPSp	CTLp	CPLp	CCFp	GSVp
1.18820	1.00049	1.00003	0.98642	1.00019	0.98712	1.17290

(2) ISVm: [N(avg) ÷ NKF = IVm] * [CTLm * CPLm = CCFm]

N(avg)	NKF	IVm	CTLm	CPLm	CCFm	ISVm
11839.9620	10000.0000	1.18400	0.98642	1.00024	0.98666	1.16821

(3) Proving Factors:

>>>> (1) GSVp ÷ ISVm = 1.0040 MF
 (2) MF * CPL = 1.0042 CMF
 (3) 1 ÷ MF = 0.9960 MA
 (4) NKF ÷ MF = 9960.2 KF
 (5) KF ÷ CPL = 9958.2 CKF

Repeatability: 0.025 %
 Uncertainty: 0.013 %

Trans. Serial No.	
Flow Calib Factor	
Density Calib Factor	
Frequency Set Point	
Flowrate Set Point	
Zero Verified	Zeroed
As Found	As Left

Technician: 
 PROVE

Witness:

Customer: WPX -
 Operator:
 Location:
 Federal ID: SEG. 04 T23N R8W NMPM

Meter Data	Product Data	Proving Data
67455820 WPX 150H Factor Tracked Composite MF(CMF) Temp Compensated No NKF 10000.0000 N/bbl Manufacturer Micro Motion Size 2.00 in Serial No. Model No.	Name Crude Batch No. Obs. Gravity 43.5 °API Obs. Temp 87.0 °F Obs. Press 0.0 psi API Table Table A - Crude Oil (2004) Base Density 41.1 °API HYC Y	Previous Task ID 1489632518 Date 03/15/2017 Time 14:48 Product Crude Flowrate 21 bbl/hr Totalizer Throughput Base Density 39.6°API Current 1493085418 04/24/2017 13:56 Crude 42 bbl/hr 41.1 °API
Prover Data BPV 1.18820 bbl I.D. 7.981 in W.T. 0.322 in Manufacturer Type Displacement-Sphere Serial No. 23MM Elasticity 3.0E7 1/psi Pipe Gc 1.86E-5 1°F Certified	Tolerances Tolerance Type: Repeatability Maximum Deviation: 0.050 % Enabled? Y Passed? Y Min # of Runs: 5 Criteria: 5 out of 5 consecutive runs Avg X Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Prev X Factor Count Sought: 1 Prev X Factor Count Used: 0 Cut Off History? N Cutoff Date: Prev Meter Factor Deviation: Enabled? N Passed? Y Prod Dep? N Proving Mode: Volumetric Density Mode: Manual Calc. Method: Avg. Meter Factor Proving Method: PIU Passes Per Run 1	Avg Pvr Temp 96.7 84.0 Avg Pvr Press 38.0 32.0 Repeatability 0.024 % 0.045 % CMF 1.0040 1.0035 CMF Variance 0.0012 -0.0005
		Liquid Properties at Metering Conditions for CMF Normal Op. Pressure 38.0 psig Eq. Vapor Pressure 0.0 psig CPL 1.0002

Run	TEMPERATURE		PRESSURE		PULSES	Run Accepted ?		IMF	Flowrate
	Tp	Tm	Pp	Pm	N				bb/hr
1	81.3	81.3	32.0	39.0	11847.857	1	Yes	1.00327	41.814
2	84.3	84.3	32.0	39.0	11849.588	2	Yes	1.00317	41.832
3	85.0	85.0	32.0	39.0	11850.690	3	Yes	1.00309	41.764
4	85.4	85.4	32.0	39.0	11846.348	4	Yes	1.00348	41.783
5	84.1	84.1	32.0	39.0	11845.284	5	Yes	1.00354	41.824
Average	84.0	84.0	32.0	39.0	11847.9534			1.00331	41.803

(1) GSVp: $BPV * [CTSp * CPSp * CTLp * CPLp = CCFp]$

BPV	CTSp	CPSp	CTLp	CPLp	CCFp	GSVp
1.18820	1.00045	1.00003	0.98775	1.00019	0.98841	1.17443

(2) ISVm: $[N(avg) \div NKF = IVm] * [CTLm * CPLm = CCFm]$

N(avg)	NKF	IVm	CTLm	CPLm	CCFm	ISVm
11847.9534	10000.0000	1.18480	0.98775	1.00023	0.98798	1.17056

(3) Proving Factors:

>>>> (1) GSVp ÷ ISVm = 1.0033 MF
 (2) MF * CPL = 1.0035 CMF
 (3) 1 ÷ MF = 0.9967 MA
 (4) NKF ÷ MF = 9967.1 KF
 (5) KF ÷ CPL = 9965.1 CKF

Repeatability: 0.045 %
 Uncertainty: 0.024 %

Trans. Serial No.	
Flow Calib Factor	
Density Calib Factor	
Frequency Set Point	
Flowrate Set Point	
Zero Verified	Zeroed
As Found	As Left

Technician: 
 PROVE

Witness: