



# Measurement

Information in this document explains how to access measured quantity data for locations.

Gulfstream

# Measurement

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## Important Information – Please Read

The information provided herein is for informational purposes only and does not modify any provision in Gulfstream's FERC Gas Tariff. If a conflict exists between this information and Gulfstream's FERC Gas Tariff, the provisions in Gulfstream's FERC Gas Tariff apply. Gulfstream makes no representation or warranty as to the completeness or accuracy of this information. Gulfstream shall not be liable for any informational errors, incompleteness or delays, or for any actions taken in reliance on this information.

To review the tariff language specific to any topic, go to [Gulfstream's Informational Postings page](#), and select **Tariff** from the left hand navigation menu.

# Measurement

## Introduction

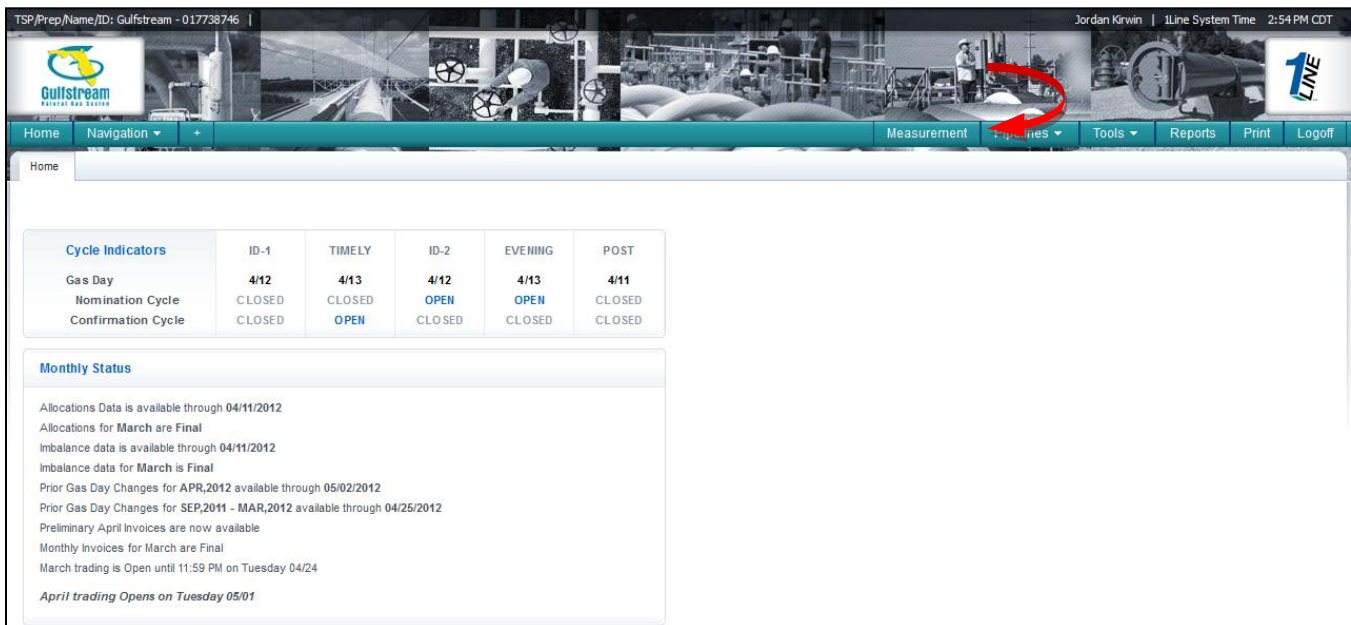
Operators and their agents have the ability to view the best available measurement data associated with their locations via the 1Line System. In order to view that data, operators or their agents must have the **View Measurement** role. In 1Line, measurement quantities can be accessed two different ways. Measurement quantities may be viewed from Williams Measurement System (WMS) or from the 1Line Navigation Menu. When a meter is assigned to a Location in 1Line, the measurement data will be extracted from WMS during the 11:00 AM and Evening batch jobs.

## Williams Measurement System (WMS)

Williams Measurement System (WMS) provides customers with the most up-to-date information. Security measures will ensure that customers can only see the information that they are entitled to see.

To gain access to the Williams Measurement System (WMS):

1. Select the **Measurement** tab on the right hand side of the Banner Menu on the Customer Activities home page in 1Line.



The screenshot shows the 1Line system interface. The banner menu at the top includes 'Home', 'Navigation', 'Measurement', 'Activities', 'Tools', 'Reports', 'Print', and 'Logoff'. The 'Measurement' tab is highlighted. Below the banner menu, the page displays 'Cycle Indicators' and 'Monthly Status' information.

Cycle Indicators	ID-1	TIMELY	ID-2	EVENING	POST
Gas Day	4/12	4/13	4/12	4/13	4/11
Nomination Cycle	CLOSED	CLOSED	OPEN	OPEN	CLOSED
Confirmation Cycle	CLOSED	OPEN	CLOSED	CLOSED	CLOSED

**Monthly Status**

Allocations Data is available through 04/11/2012  
Allocations for March are Final  
Imbalance data is available through 04/11/2012  
Imbalance data for March is Final  
Prior Gas Day Changes for APR,2012 available through 05/02/2012  
Prior Gas Day Changes for SEP,2011 - MAR,2012 available through 04/25/2012  
Preliminary April Invoices are now available  
Monthly Invoices for March are Final  
March trading is Open until 11:59 PM on Tuesday 04/24  
April trading Opens on Tuesday 05/01



- Once you select the measurement tab, it will open a new browser. Below is a view of the WMS home page.

Williams Measurement System

Thu Apr 12 2012 14:53:40 GMT-0500 (Central Daylight Time)

GULFSTREAM NATURAL

Williams

Flow Volumes

Meter Characteristics

Reports

Data Extract

3rd Party Vol

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Meter Station: 3800 - ROCK ROAD

Meter: 0 - ALL

Production Date: 201204

Accounting Date: 201204

Williams Gas Measurement on the WEB may not be available from 11:00 PM to 4:00 AM CCT each day.

This data is provided for informational purposes only. The data may not have been audited for accuracy or corrected and may be subject to change. GULFSTREAM reports the data on an "as available" basis and reflects the most recently available data for each location as of the date the report or data is generated. In that regard, data may not be available from all locations at all times due to maintenance, equipment malfunction or interruption in data transmittal. The data is provided on an "as is" basis for informational purposes only, and GULFSTREAM makes no representation or warranty as to the completeness or accuracy of the information and does not represent or warrant that the data is fit for any particular use or purpose. GULFSTREAM shall not be liable for any informational errors, incompleteness or delays, or for any actions taken in reliance on the reported data.

wgphouwmsweb01(prod01)

Williams

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Williams

## WMS Navigation Menu

- Flow Volumes – Allows the meter operator to view the daily measured quantity for meter including measurement for current days flow. Data displayed includes Production Date, Mcf @ 14.73, BTU value, DT quantity, Volume Type, and Status.
- Meter Characteristics – Displays detailed descriptions of the individual meter runs for the meter station.
- Reports – Allows you to run various reports including Chromatograph, Monthly Volumes, Lab Analysis, Audit and Gas Quantity Statement
- Data Extract – Allows you to extract data based on different preferences such as daily, hourly and gas analysis.
- 3rd Party Volumes – If there is a 3rd party volume found for your particular meter station, it will display that data and allow you to print.

## Flow Volumes

From the **Flow Volume** tab on the WMS home page, the customer is able to view different types of volume pertaining to their meter station(s).

To view flow volumes:

1. **Select** the desired **meter station, meter, production date** and **accounting date**.
2. Then select > **Flow Volumes**
  - Daily Volume data is displayed first by default.
  - You can either print, view meter characteristics or go back to the Home page.

3. To see hourly volume data, select the production date in blue and data will then be displayed.

The pictures below show the Daily and Hourly measurement data you would see in WMS.

Williams Measurement System  
 Thu Apr 12 2012 15:17:38 SMT-0500 (Central Daylight Time)

Daily Volumes Meter Station: Meter: ALL Effective Accounting Date: 201204

Production Date	Mcf @ 14.73	Btu @ 14.73	Dekatherm	Volume Type	Incomplete
03/01/2012	126104	1,008.90	127221	Computed	N
03/02/2012	139918	1,008.60	141122	Computed	N
03/03/2012	162099	1,013.00	164807	Computed	N
03/04/2012	161424	1,020.90	164791	Computed	N
03/05/2012	160434	1,012.00	162362	Computed	N
03/06/2012	197798	1,011.70	200115	Computed	N
03/07/2012	174772	1,010.40	176586	Computed	N
03/08/2012	188222	1,011.60	190398	Computed	N
03/09/2012	179909	1,010.00	181702	Computed	N
03/10/2012	88852	1,009.20	89068	Computed	N
03/11/2012	95051	1,009.40	95947	Computed	N
03/12/2012	89705	1,011.70	90752	Computed	N
03/13/2012	170152	1,009.10	171708	Computed	N
03/14/2012	202485	1,008.60	204213	Computed	N
03/15/2012	245300	1,008.80	247500	Computed	N
03/16/2012	232948	1,010.80	235461	Computed	N
03/17/2012	186595	1,009.20	187126	Computed	N
03/18/2012	185196	1,003.60	186646	Computed	N
03/19/2012	166134	1,009.10	166636	Computed	N
03/20/2012	195121	1,009.00	198776	Computed	N
03/21/2012	183755	1,008.97	185405	Computed	N
03/22/2012	174384	1,009.09	175964	Computed	N
03/23/2012	205204	1,010.88	208436	Computed	N
03/24/2012	243887	1,009.80	246200	Computed	N
03/25/2012	288058	1,010.40	291044	Computed	N
03/26/2012	287191	1,010.60	290224	Computed	N
03/27/2012	252856	1,010.20	255431	Computed	N
03/28/2012	247368	1,009.60	249740	Computed	N
03/29/2012	241638	1,013.88	244896	Computed	N
03/30/2012	244732	1,010.20	247218	Computed	N
03/31/2012	243600	1,011.00	246338	Computed	N
Total:	5920562		5982682		

Williams Measurement System  
 Thu Apr 12 2012 15:20:47 GMT-0500 (Central Daylight Time)

Hourly Volumes Meter Station: Meter: ALL

Start Time	mcf @ 14.730	DT	Volume Type	Incomplete
03/20/2012 09:00 AM	8,112.33	8,188.68	Computed	
03/20/2012 10:00 AM	8,130.09	8,203.26	Computed	
03/20/2012 11:00 AM	8,130.09	8,204.69	Computed	
03/20/2012 12:00 PM	8,193.73	8,209.38	Computed	
03/20/2012 01:00 PM	8,129.90	8,207.95	Computed	
03/20/2012 02:00 PM	8,153.52	8,209.97	Computed	
03/20/2012 03:00 PM	8,128.47	8,201.63	Computed	
03/20/2012 04:00 PM	8,135.54	8,208.76	Computed	
03/20/2012 05:00 PM	8,141.49	8,214.77	Computed	
03/20/2012 06:00 PM	8,133.58	8,205.97	Computed	
03/20/2012 07:00 PM	8,134.03	8,208.05	Computed	
03/20/2012 08:00 PM	8,130.89	8,200.81	Computed	
03/20/2012 09:00 PM	8,134.32	8,205.90	Computed	
03/20/2012 10:00 PM	8,130.13	8,202.48	Computed	
03/20/2012 11:00 PM	8,123.31	8,195.61	Computed	
03/21/2012 12:00 AM	8,130.83	8,203.19	Computed	
03/21/2012 01:00 AM	8,128.47	8,201.63	Computed	
03/21/2012 02:00 AM	8,127.64	8,200.79	Computed	
03/21/2012 03:00 AM	8,131.83	8,205.02	Computed	
03/21/2012 04:00 AM	8,126.49	8,201.06	Computed	
03/21/2012 05:00 AM	8,131.93	8,200.24	Computed	
03/21/2012 06:00 AM	8,137.17	8,209.89	Computed	
03/21/2012 07:00 AM	8,129.82	8,202.17	Computed	
03/21/2012 08:00 AM	8,116.31	8,184.49	Computed	
Total:	195121	196876		

### Meter Characteristics

Clicking on **Meter Characteristics** will display individual characteristics of each meter at customer's meter station.

To view meter characteristics:

1. Select the respective **meter station**, **meter number** (active or inactive), **production date** and **accounting date** from the dropdown lists on the WMS home page.
2. Then select > **Meter Characteristics**.
  - Once data is displayed you can print or go back to Home page

Meter Type:	ROTARY	Status:	ACTIVE
Effective Date:	8/1/2010 9:00:00 AM	EFM Device Type:	FLOW AUTOMATION
Pipe Id:	2	Tap Type:	FLANGE
Orifice Id:	0	Pressure Tap Location:	UPSTREAM
BETA Ratio:	0	Pressure Type:	PSIA
Calculation Type:	AGA7/AGA8	Pipe Metal:	CARBON
AGA Calculation Method:	Detail	Orifice Plate Metal:	STAINLESS

## Reports

From the **Reports** area of WMS, a variety of measurement reports can be accessed.

To view reports:

1. **Select** the **meter** of interest from the drop down box.
1. **Select** the preferred type of **report** from the list on the left-hand side of the page.
  - Types of Reports include: Chromatograph, monthly volumes, lab analysis, audit, and gas quantity

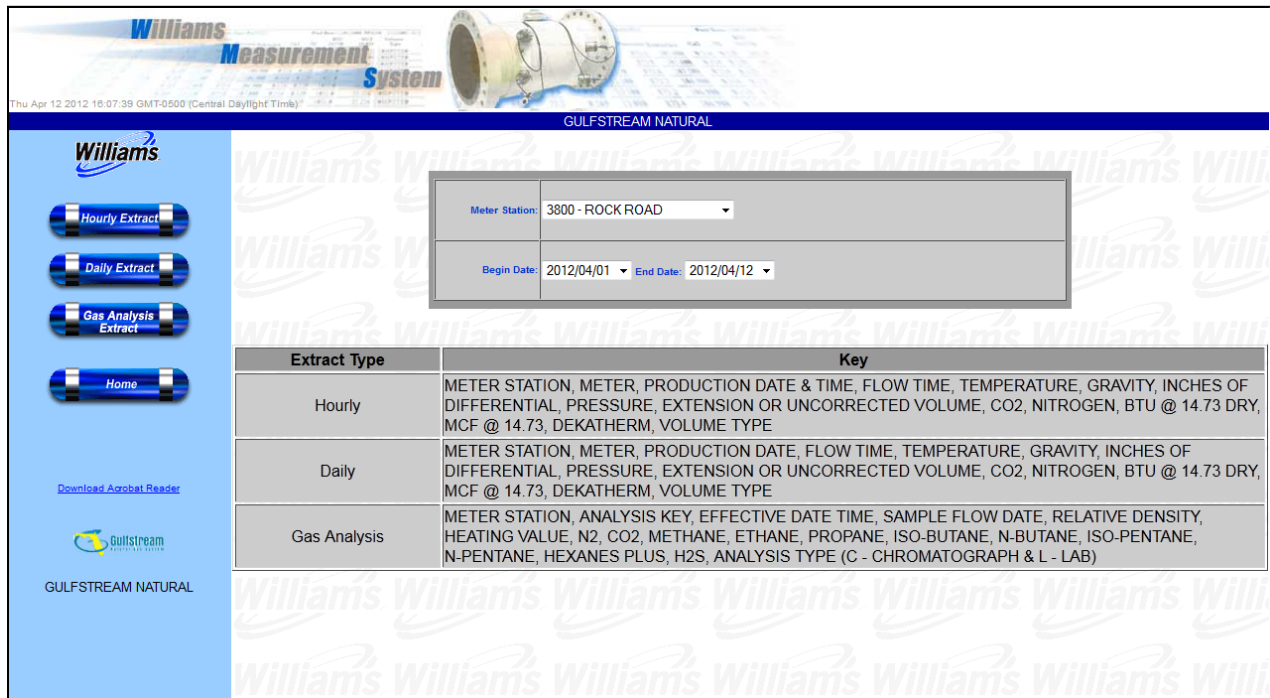
Meter Station: 3800 - ROCK ROAD

- Chromatograph Report
- Monthly Volumes
- Lab Analysis Report
- Audit Report
- Gas Quantity Statement
- Home

## Data Extract

The **Data Extract** option allows you to extract data for a particular meter station. Each data extract is different and provides different detailed information. On the bottom of the page is a key which lists the different characteristics in the data requested.

1. On the Home page, select a meter station from the drop down box, and Select > **Data Extract**.
2. On the Data Extract screen, select a **meter station** and a **beginning** and **end date**.
3. From the left side of the page, select the desired data report.
  - Types of Data Extract Reports include: **daily**, **hourly** and **gas analysis**



Extract Type	Key
Hourly	METER STATION, METER, PRODUCTION DATE & TIME, FLOW TIME, TEMPERATURE, GRAVITY, INCHES OF DIFFERENTIAL, PRESSURE, EXTENSION OR UNCORRECTED VOLUME, CO2, NITROGEN, BTU @ 14.73 DRY, MCF @ 14.73, DEKATHERM, VOLUME TYPE
Daily	METER STATION, METER, PRODUCTION DATE, FLOW TIME, TEMPERATURE, GRAVITY, INCHES OF DIFFERENTIAL, PRESSURE, EXTENSION OR UNCORRECTED VOLUME, CO2, NITROGEN, BTU @ 14.73 DRY, MCF @ 14.73, DEKATHERM, VOLUME TYPE
Gas Analysis	METER STATION, ANALYSIS KEY, EFFECTIVE DATE TIME, SAMPLE FLOW DATE, RELATIVE DENSITY, HEATING VALUE, N2, CO2, METHANE, ETHANE, PROPANE, ISO-BUTANE, N-BUTANE, ISO-PENTANE, N-PENTANE, HEXANES PLUS, H2S, ANALYSIS TYPE (C - CHROMATOGRAPH & L - LAB)

## 3rd Party Volumes

If there are any third parties related to the meter station, that volume data will show on the screen.

1. On the Home page, **select** the desired **meter station** from the dropdown box.
2. Select> **Third Party Volumes**
  - If there is any third party related to the meter station, data information will be displayed





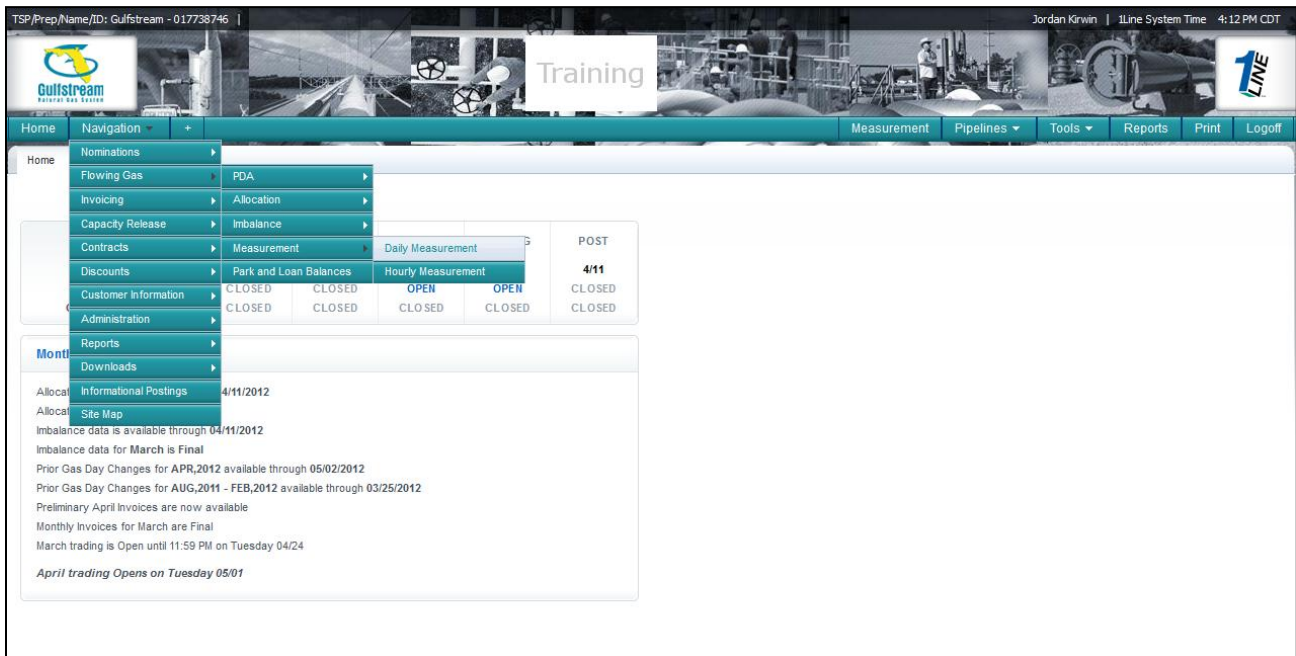
## Measurement in 1Line

Another way to get the daily and hourly measurement volumes is from within 1Line.

### Daily Measurement

To get Daily Measurement from the 1Line Navigation menu:

1. Select: **Flowing Gas> Measurement> Daily Measurement.**
  - To see **Daily** Measured volumes by Flow Date, one or more of the following fields must be populated: **Operator ID, Meter ID, Location ID** or **DRN.**
  - After filling in the desired filters, select **Refresh** to return measurement and scheduled quantity data



The screenshot displays the 'Daily Measurement' page in the 1Line software. At the top, there is a navigation menu with options like Home, Navigation, Measurement, Pipelines, Tools, Reports, Print, and Logoff. Below the navigation is a breadcrumb trail: 'Flowing Gas > Measurement > Daily Measurement'. A 'Filters' section contains input fields for Operator ID, Location ID (Prop), Meter ID, DRN, Flow Month (MM/YYYY), Flow Date, Recipient Prop/Name, and Contact Name/Phone. There are 'Retrieve', 'Clear', and 'Download' buttons, along with a 'Paging' checkbox. A status message indicates 'Search successfully completed. Records found: 31'. Below the filters is a table with the following data:

Meter Station ID	Loc Prop	Loc Name	DRN	Acct Per	Beg Date (Gas Day)	End Date (Gas Day)	Energy Qty (Dth)	BTU	Meas Vol (MCF)	Meter Source	Stmt Basis	Current Daily Scheduled	Dir Flo	Received Date	Comments
9999	9000001	XYZ LDC Corporation			03/01/2012	03/01/2012	316	1.096	288	Actual	ES	0	Delivery	04/03/2012 09:33:43	From GMS interface
9999	9000001	XYZ LDC Corporation			03/01/2012	03/02/2012	317	1.096	289	Actual	ES	0	Delivery	04/03/2012 09:34:58	From GMS interface
9999	9000001	XYZ LDC Corporation			03/01/2012	03/03/2012	319	1.096	291	Actual	ES	0	Delivery	04/03/2012 09:36:15	From GMS interface
9999	9000001	XYZ LDC Corporation			03/01/2012	03/04/2012	307	1.096	280	Actual	ES	0	Delivery	04/03/2012 09:37:31	From GMS interface
9999	9000001	XYZ LDC Corporation			03/01/2012	03/05/2012	307	1.096	280	Actual	ES	0	Delivery	04/03/2012 09:38:46	From GMS interface

## Hourly Measurement

To get **Hourly** Measurement from the 1Line Navigation menu:

1. Select: **Flowing Gas > Measurement > Hourly Measurement.**
  - To see **Hourly** Measured volumes **by Flow Date**, one or more of the following fields must be populated: **Operator ID, Meter ID, Location ID** or **DRN.**
  - After filling in the desired filters, select **Refresh** to return measurement and scheduled quantity data

## SCADA – Real Time Operator Report

The accuracy and timeliness of the information reported is impacted by the data available at the time the report is requested. This data is not the “scrubbed” measurement information that can be viewed either from the **Measurement** tab or on the 1Line **Daily/Hourly** pages.

Operator and/or Agent access to the report will be the same as current measurement information. The **measurement view** role is required to run the report.

To get the **SCADA – Real Time Operator Report** in 1Line:

1. Select Functional Area of **Measurement**, and the report name **SCADA – Real Time Operator Report.**

Columns used in the report:

- Accumulated Daily Volume – Hourly accumulation for the Gas Day beginning at 9 am CCT
- Spot Flow – Flow rate in Mcf/d at the time the report was requested
- Station Pressure – instantaneous pressure from the last time the meter was polled by SCADA
- BTU – Spot BTU from the last time the meter was polled by SCADA
- Relative Density – Spot Specific Gravity from the last time the meter was polled by SCADA
- Latest Reading – The last time data was read. Previous readings are overwritten as new readings come in
- An Asterisk annotates that one or more columns may have an incomplete update

For assistance in obtaining measured volumes, please contact your Transportation Services Representative.