



Measurement

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

Transco

Measurement

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Important Information – Please Read

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

Measurement

Introduction

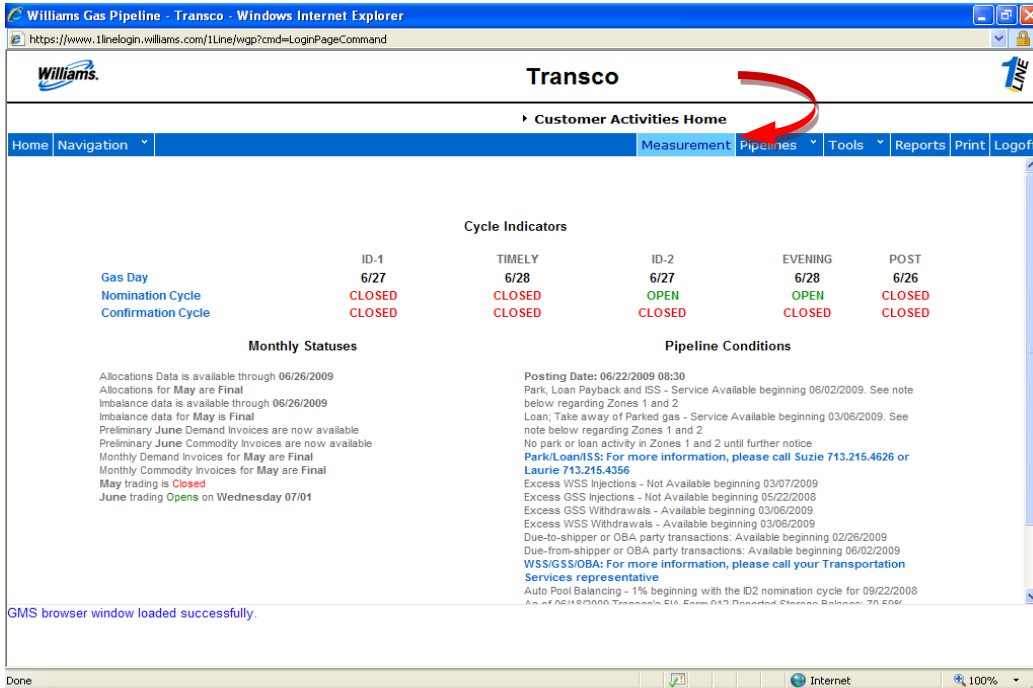
Operators and their agents have the ability to view the best available measurement data associated with their locations via the 1Line System. In order to view that data, operators or their agents must have the **View Measurement** role. In 1Line, measurement quantities can be accessed two different ways. 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 a web browser window titled "Williams Gas Pipeline - Transco - Windows Internet Explorer". The address bar shows the URL: <https://www.1linelogin.williams.com/1Line/wgp?cmd=LoginPageCommand>. The page header includes the Williams logo, the Transco logo, and a "1LINE" logo. Below the header is a navigation menu with tabs: Home, Navigation, Measurement, Pipelines, Tools, Reports, Print, and Logoff. A red arrow points to the "Measurement" tab. The main content area is divided into several sections: "Cycle Indicators" with a table of data, "Monthly Statuses", and "Pipeline Conditions".

	ID-1	TIMELY	ID-2	EVENING	POST
Gas Day	6/27	6/28	6/27	6/28	6/26
Nomination Cycle	CLOSED	CLOSED	OPEN	OPEN	CLOSED
Confirmation Cycle	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED

Monthly Statuses

Allocations Data is available through 06/26/2009
Allocations for May are Final
Imbalance data is available through 06/26/2009
Imbalance data for May is Final
Preliminary June Demand Invoices are now available
Preliminary June Commodity Invoices are now available
Monthly Demand Invoices for May are Final
Monthly Commodity Invoices for May are Final
May trading is **Closed**
June trading **Opens** on Wednesday 07/01

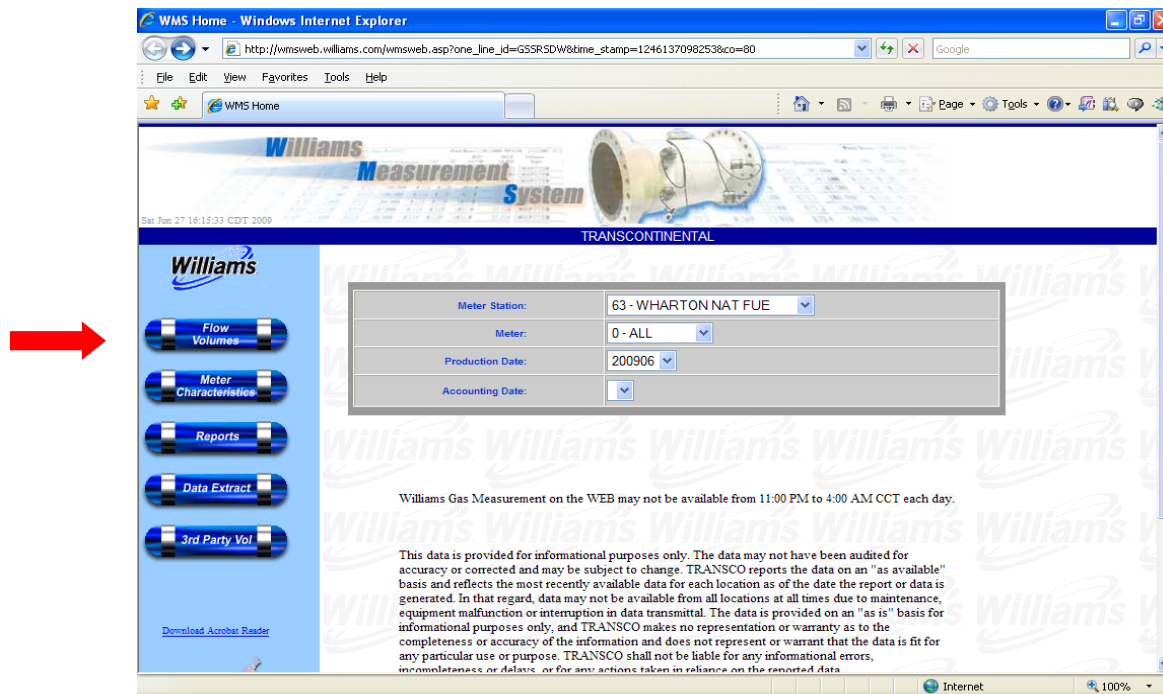
Pipeline Conditions

Posting Date: 06/22/2009 08:30
Park, Loan Payback and ISS - Service Available beginning 06/02/2009. See note below regarding Zones 1 and 2
Loan; Take away of Parked gas - Service Available beginning 03/06/2009. See note below regarding Zones 1 and 2
No park or loan activity in Zones 1 and 2 until further notice
Park/Loan/ISS: For more information, please call Suzie 713.215.4626 or Laurie 713.215.4356
Excess WSS Injections - Not Available beginning 03/07/2009
Excess GSS Injections - Not Available beginning 05/22/2008
Excess GSS Withdrawals - Available beginning 03/06/2009
Excess WSS Withdrawals - Available beginning 03/06/2009
Due-to-shipper or OBA party transactions: Available beginning 02/26/2009
Due-from-shipper or OBA party transactions: Available beginning 06/02/2009
WSS/GSS/OBA: For more information, please call your Transportation Services representative
Auto Pool Balancing - 1% beginning with the ID2 nomination cycle for 09/22/2008

GMS browser window loaded successfully.



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



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:

- Select** the desired **meter station**, **meter**, **production date** and **accounting date**.
- 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.

WMS - Daily Volumes - Windows Internet Explorer

http://wmsweb.williams.com/daily_vol.asp?meter_station=3215&meter=0&begin_pdate=06/01/2009&nmcf_pb=14.73&nbtu_pb=1

Williams Measurement System

Daily Volumes - Station: 3215 Meter: ALL Effective Accounting Date: 200906

Production Date	Mcf @ 14.73	Btu @ 14.73	Dekatherm	Volume Type	Incomplete
06-01-2009	250919	1,023.50	256816	Reported	N
06-02-2009	314416	1,023.40	321772	Reported	N
06-03-2009	328212	1,023.00	335761	Reported	N
06-04-2009	312546	1,025.20	320422	Reported	N
06-05-2009	300710	1,024.30	308017	Reported	N
06-06-2009	317967	1,034.10	328810	Reported	N
06-07-2009	317979	1,042.90	331020	Reported	N
06-08-2009	309008	1,036.60	320940	Reported	N
06-09-2009	362273	1,033.70	374482	Reported	N
06-10-2009	384591	1,026.20	394667	Reported	N
06-11-2009	416147	1,024.00	426135	Reported	N
06-12-2009	407014	1,022.20	416050	Reported	N
06-13-2009	365049	1,023.40	373591	Reported	N
06-14-2009	364919	1,023.30	373422	Reported	N
06-15-2009	364941	1,022.60	373189	Reported	N
06-16-2009	321002	1,022.70	328289	Reported	N
06-17-2009	322423	1,026.30	330903	Reported	N
06-18-2009	290510	1,025.30	297860	Reported	N
06-18-2009	319938	1,023.10	327329	Reported	N
06-20-2009	263187	1,022.50	268884	Reported	N
06-21-2009	252989	1,023.10	258933	Reported	N
06-22-2009	253034	1,023.00	258854	Reported	N
06-23-2009	293859	1,023.30	300710	Computed	N
06-24-2009	275103	1,024.10	281732	Computed	N

WMS - Hourly Volumes - Windows Internet Explorer

http://wmsweb.williams.com/hourly_vol.asp?meter_station=3215&meter=0&nmcf_pb=14.73&nbtu_pb=14.73&pdate=06/01/2009

Williams Measurement System

Hourly Volumes - Station: 3215 Meter: ALL

Start Time	mcf @ 14.730	DT	Volume Type	Incomplete
06/01/2009 09:00 AM	11,892.70	12,172.18	Reported	
06/01/2009 10:00 AM	10,242.48	10,493.16	Reported	
06/01/2009 11:00 AM	10,243.66	10,484.39	Reported	
06/01/2009 12:00 PM	10,219.72	10,459.89	Reported	
06/01/2009 01:00 PM	10,222.51	10,462.74	Reported	
06/01/2009 02:00 PM	10,216.46	10,458.55	Reported	
06/01/2009 03:00 PM	10,225.39	10,465.69	Reported	
06/01/2009 04:00 PM	10,319.86	10,562.38	Reported	
06/01/2009 05:00 PM	10,461.98	10,707.84	Reported	
06/01/2009 06:00 PM	10,466.55	10,712.52	Reported	
06/01/2009 07:00 PM	10,471.57	10,717.65	Reported	
06/01/2009 08:00 PM	10,474.28	10,720.43	Reported	
06/01/2009 09:00 PM	10,478.75	10,725.00	Reported	
06/01/2009 10:00 PM	10,480.81	10,706.63	Reported	
06/01/2009 11:00 PM	10,459.90	10,705.71	Reported	
06/02/2009 12:00 AM	10,469.40	10,705.20	Reported	
06/02/2009 01:00 AM	10,454.58	10,700.27	Reported	
06/02/2009 02:00 AM	10,453.98	10,699.85	Reported	
06/02/2009 03:00 AM	10,459.85	10,705.66	Reported	
06/02/2009 04:00 AM	10,455.56	10,701.27	Reported	
06/02/2009 05:00 AM	10,453.08	10,699.72	Reported	
06/02/2009 06:00 AM	10,452.39	10,697.93	Reported	
06/02/2009 07:00 AM	10,436.84	10,682.11	Reported	
06/02/2009 08:00 AM	10,437.19	10,682.47	Reported	
Total:	250919	256816		

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

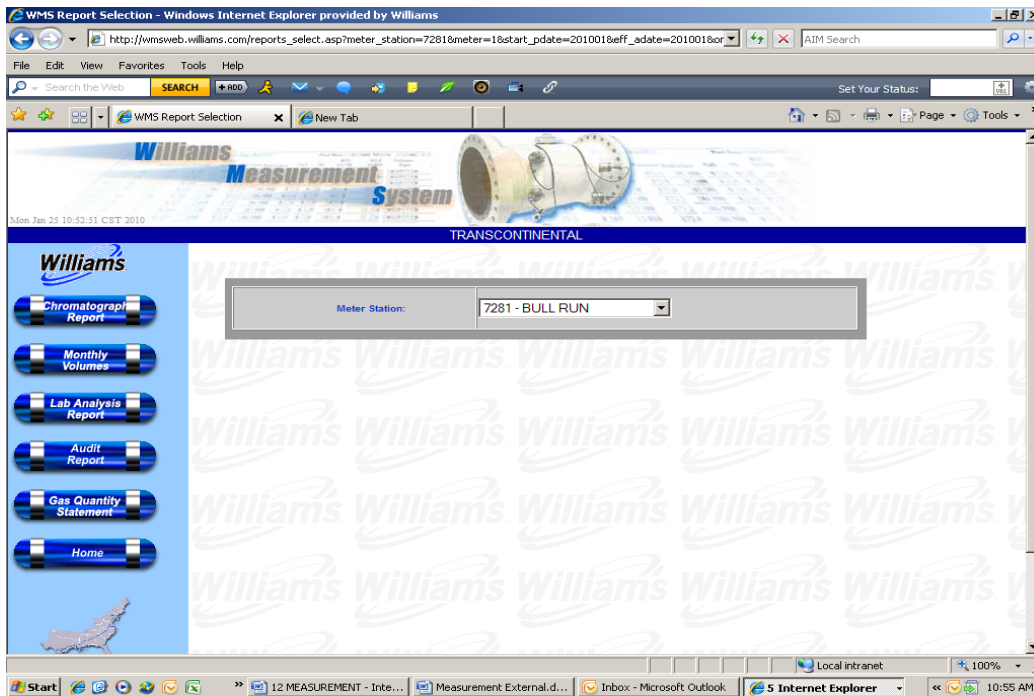
Meter Type:	ULTRASONIC	Status:	ACTIVE
Effective Date:	1/20/2006 9:00:00 AM	EFM Device Type:	FLOW AUTOMATION
Pipe Id:	14 999	Tap Type:	FLANGE
Orifice Id:	0	Pressure Tap Location:	UPSTREAM
BETA Ratio:	0	Pressure Type:	PSIA
Calculation Type:	AGA7/AGA8	Pipe Metal:	CARBON
AGA Calculation Method:	Detail	Orifice Plate Metal:	STAINLESS

Reports

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

To view reports:

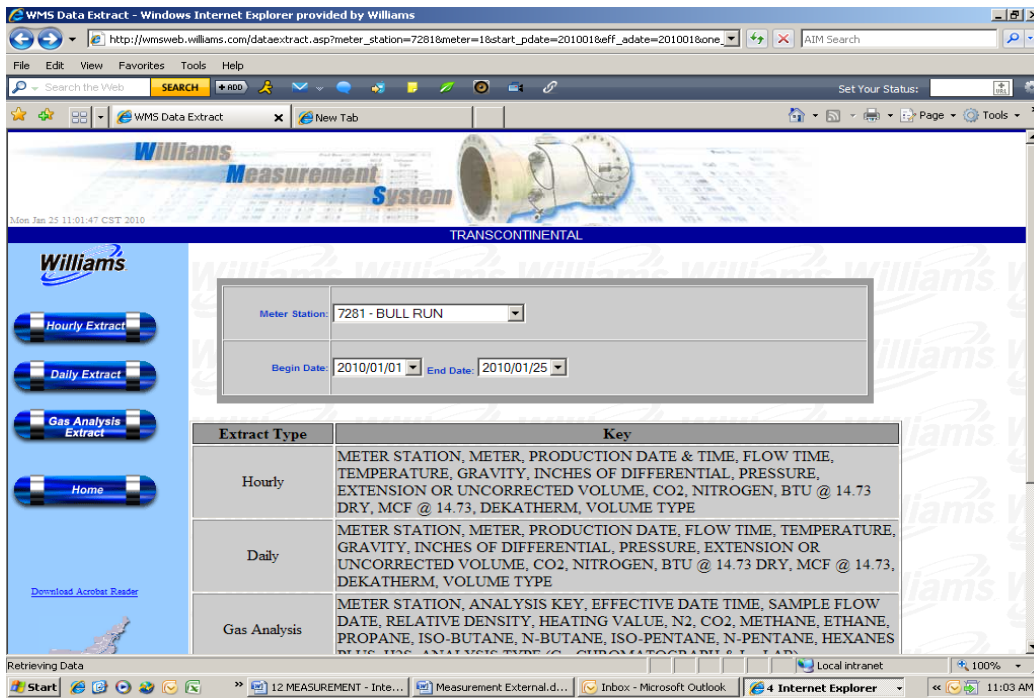
1. **Select** the **meter** of interest from the drop down box.
1. **Select** the preferred type of **report** from the list on the left-hand side of the page.
 - Types of Reports include: Chromatograph, monthly volumes, lab analysis, audit, and gas quantity



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.

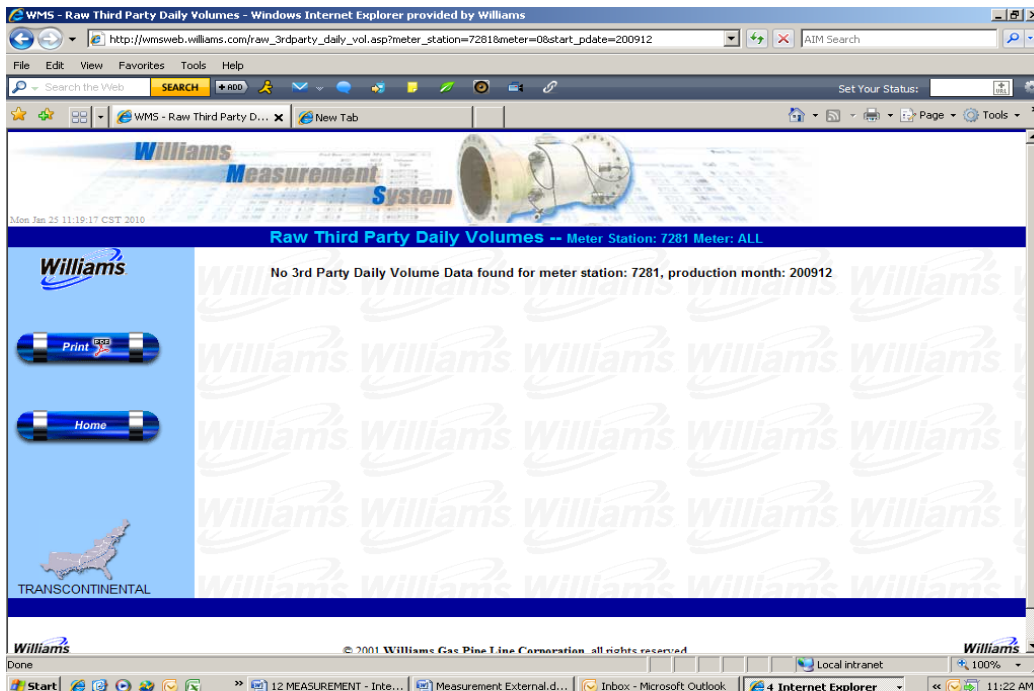
1. On the Home page, select a meter station from the drop down box, and Select > **Data Extract**.
2. On the Data Extract screen, select a **meter station** and a **beginning** and **end date**.
3. From the left side of the page, select the desired data report.
 - Types of Data Extract Reports include: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



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

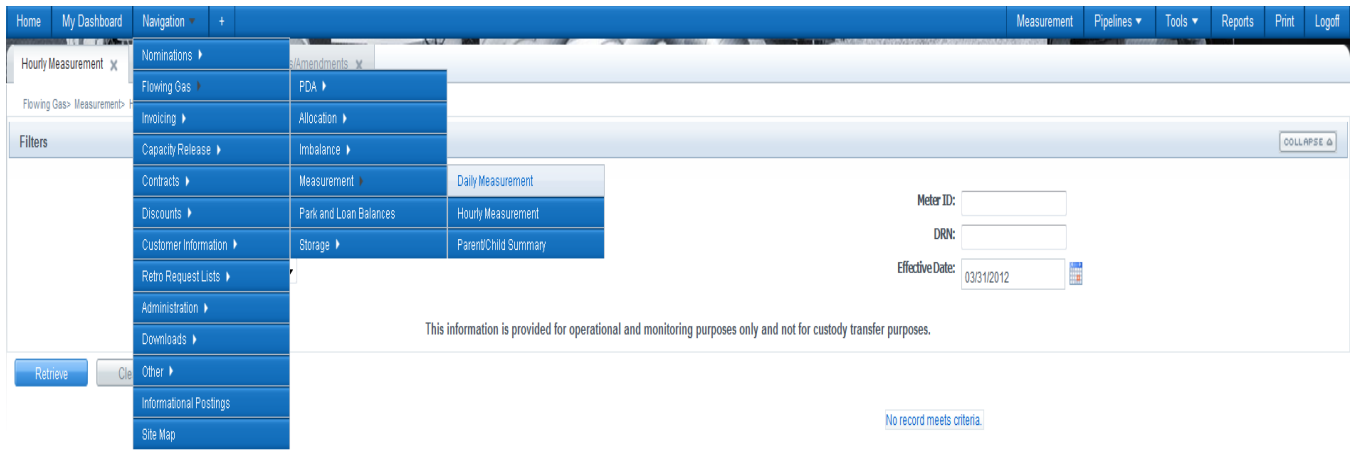
Another way to get the daily and hourly measurement volumes is from within 1Line.

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 **Retrieve** to return measurement and scheduled quantity data



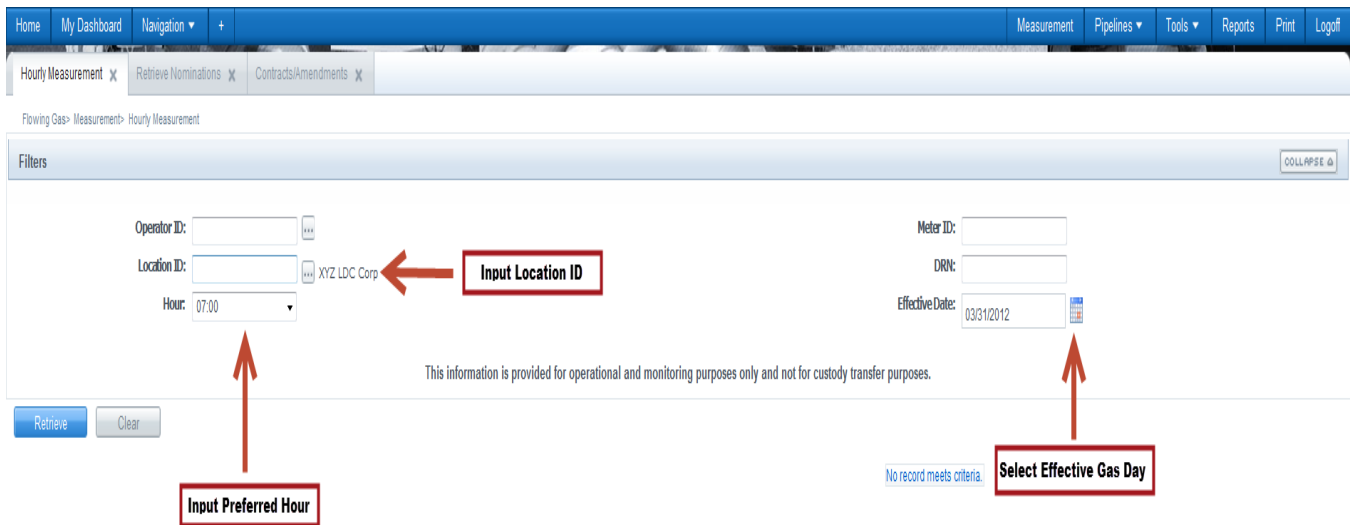
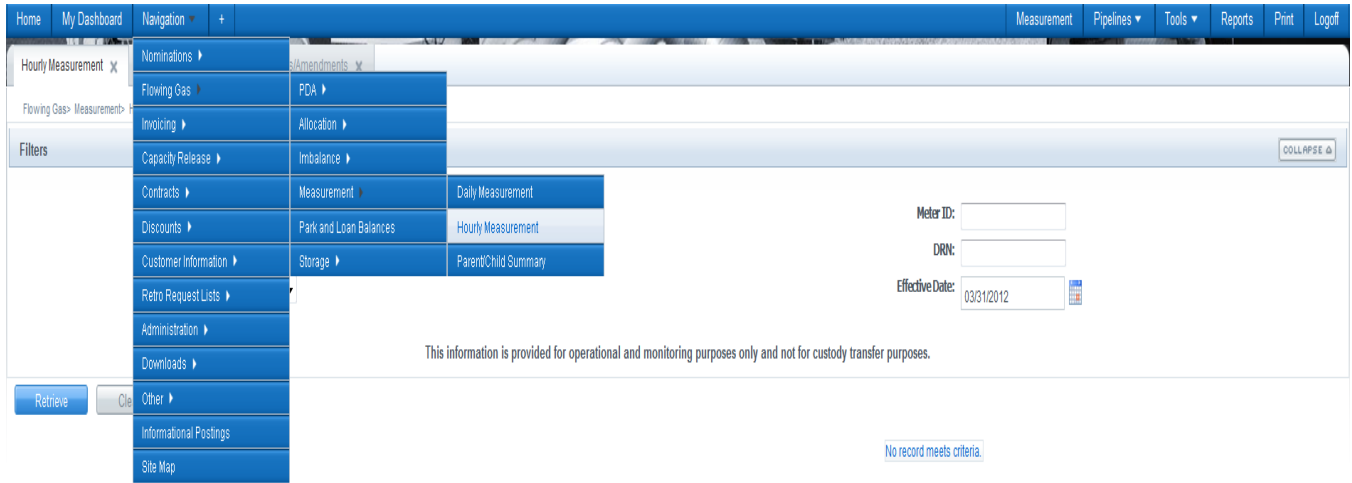
The screenshot shows the 'Daily Measurement' data table. The table has columns for Meter Station ID, Loc Prop, Loc Name, DRN, Acct Per, Beg Date (Gas Day), End Date (Gas Day), Energy Qty (Dth), BTU, Meas Vol (MCF), Meter Source, Strmt Basis Name, Current Daily Scheduled, Dir Flo, Received Date, and Comments. The data shows multiple rows of measurements for XYZ LDC Corporation, with values ranging from 258 to 317 MCF. A summary row at the top indicates 'Total: 61768' for Energy Qty and 'Total: 55480' for Meas Vol. A search message at the top right says 'Search successfully completed. Records found: 31'.

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	Strmt Basis Name	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
9999	9000001	XYZ LDC Corporation			03/01/2012	03/06/2012	315	1.096	287	Actual	ES		0	Delivery 04/03/2012 09:40:01	From GMS interface
9999	9000001	XYZ LDC Corporation			03/01/2012	03/07/2012	300	1.096	274	Actual	ES		0	Delivery 04/03/2012 09:41:30	From GMS interface
9999	9000001	XYZ LDC Corporation			03/01/2012	03/08/2012	258	1.096	235	Actual	ES		0	Delivery 04/03/2012 09:42:49	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 **Retrieve** to return measurement and scheduled quantity data



Parent/Child Summary

This page is available to operators who manage aggregated meters (Meter(s) to Nominatable Location). The information displayed is a monthly page summarizing daily volumes of each child meter as an "add" or "deduct" quantity to parent location's total quantity. It includes a Difference (Diff) column when the child meters have been updated but the aggregation batch has not yet been updated. The Process Measurement batch currently runs twice a day.

To get **Parent/Child Summary** from the 1Line Navigation menu:

1. Select: **Flowing Gas> Measurement> Parent/Child Summary.**

- To see **Parent/Child Summary by Parent Location ID, Accounting Period** one or more of the following fields must be populated: **Flow Month** or **Flow Date**
- After filling in the desired filters, select **Retrieve** to return measurement and scheduled quantity data

Operator:	990001 XYZ LDC CORP	990001 XYZ LDC CORP	990001 XYZ LDC CORP	990001 XYZ LDC CORP	990001 XYZ LDC CORP	990001 XYZ LDC CORP	990001 XYZ LDC CORP	990001 XYZ LDC CORP	990001 XYZ LDC CORP	990001 XYZ LDC CORP	990001 XYZ LDC CORP	990001 XYZ LDC CORP	
Mtr/Loc:	9000001	1111 / 1000001	2222 / 1000002	3333 / 1000003	4444 / 1000004	5555 / 1000005	6666 / 1000006	7777 / 1000007	8888 / 1000008	9999 / 1000009	0001 / 900000	0002 / 9000001	
Location Name	XYZ LDC	M1111 CEN	M2222 LAK	M3333 LAK	M4444 LAG	M5555 NEW	M6666 NEW	M7777 BOW	M8888 GRA	M9999 DEP	M0001 COR	M0002 MA	
Relation:	Parent	Child	Child	Child	Child	Child	Child	Child	Child	Child	Child	Child	
Action:		Add	Deduct	Add	Deduct	Deduct	Add	Deduct	Deduct	Deduct	Deduct	Add	
Totals:	13,477,809	8,818,982	(235,657)	62,590	(357)	(537,639)	492,461	(1,819)	(8,177)	(44)	(72,849)	4,960,318	
Gas Day	Qty (Dth)	Qty (Dth)	Qty (Dth)	Qty (Dth)	Qty (Dth)	Qty (Dth)	Qty (Dth)	Qty (Dth)	Qty (Dth)	Qty (Dth)	Qty (Dth)	Qty (Dth)	Diff (Dth)
09/01/2013	458,665	278,806	(5,119)	523	(37)	(73)	45,139	(32)	(28)	(1)	(2,521)	142,008	0
09/02/2013	488,210	302,089	(3,834)	5,955	(53)	(0)	39,514	(36)	(10)	(0)	(2,642)	147,227	0
09/03/2013	511,502	350,922	(6,739)	1,692	(41)	(2,438)	32,486	(36)	(314)	(0)	(2,690)	138,660	0
09/04/2013	486,362	357,452	(13,194)	14	(4)	(570)	33,810	(35)	(628)	(0)	(2,607)	112,124	0
09/05/2013	443,983	305,788	(14,522)	29	(3)	(0)	33,772	(37)	(432)	(1)	(2,569)	121,958	0
09/06/2013	410,745	217,856	(16,445)	0	(0)	(0)	35,059	(35)	(159)	(0)	(2,415)	176,884	0
09/07/2013	372,409	184,268	(5,940)	0	(2)	(55)	25,511	(38)	(28)	(1)	(3,024)	171,718	0
09/08/2013	450,455	250,901	(6,312)	0	(48)	(0)	31,642	(44)	(270)	(0)	(1,142)	175,728	0
09/09/2013	460,554	251,949	(4,448)	2,609	(0)	(0)	44,052	(40)	(430)	(0)	(2,467)	169,329	0
09/10/2013	623,436	413,701	(12,249)	3,244	(0)	(8,150)	14,645	(38)	(468)	(1)	(2,346)	215,098	0
09/11/2013	738,319	482,314	(8,888)	5,829	(12)	(1,375)	22,861	(42)	(490)	(0)	(2,446)	240,568	0
09/12/2013	683,711	419,982	(5,023)	4,923	(84)	(513)	35,848	(40)	(305)	(1)	(2,099)	231,023	0

Meter(s) Aggregation to Nominatable Parent Location Report

Report available on the Informational Postings page showing what meters are associated to a Nominatable location.

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.