



Advanced Metering Infrastructure (AMI)

- How can AMI help you?

Tyler Tucker

Sensus – Manager Technical Solutions

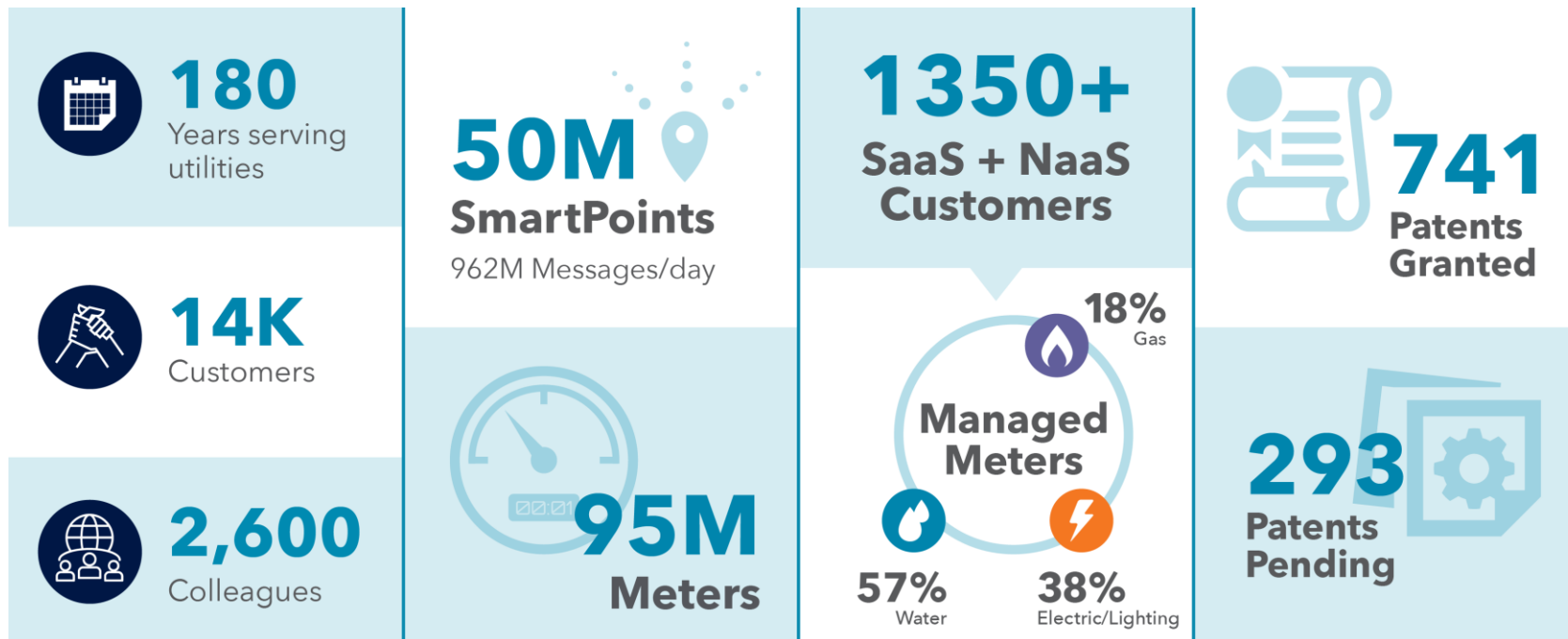
Agenda

- Sensus Introduction
- Metering Through the Years
- What is AMI?
- How can AMI help you?
 - Software Showcase
- Questions



Sensus a Xylem Brand

- Global Water, Gas, and Electric meter manufacturer
- More than 100 years of meter sales and service
- 1800+ Fixed Based (AMI) and 4600+ WB/DB (AMR) customers in NA
- 50+ Million Smart Points deployed in NA



Sensus in Illinois

Core & Main



Authorized Distributor for IL



6 Supporting Branches



5 Dedicated Metering Specialist

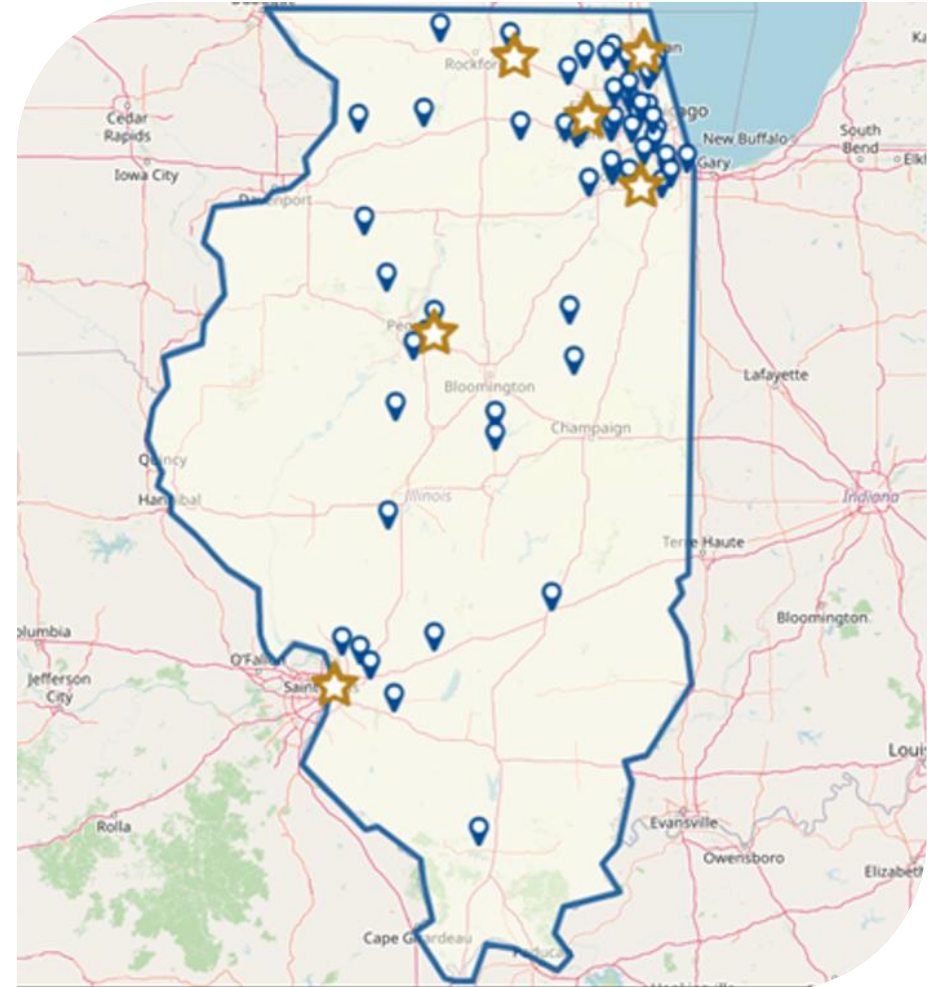
90+ AMI Customers



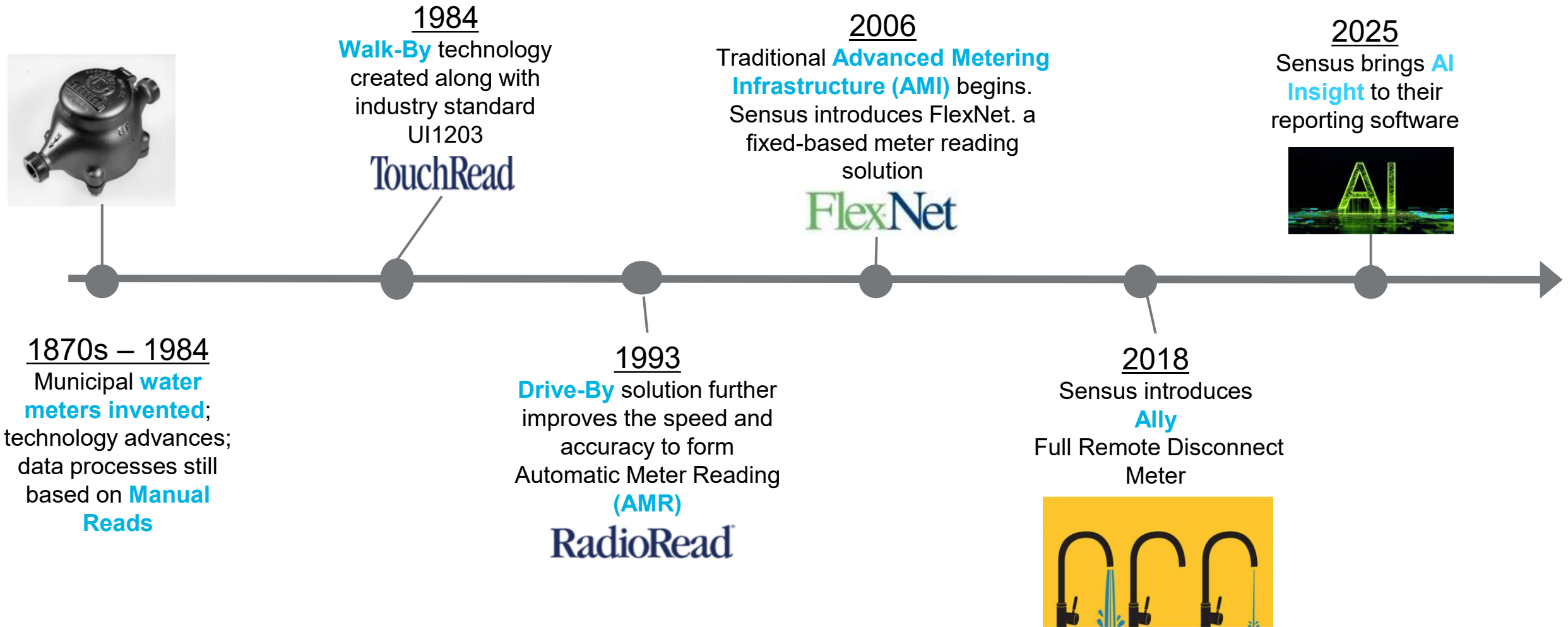
Utility Sizes Range from 500 to 50,000 services



Over half a million services supported across IL



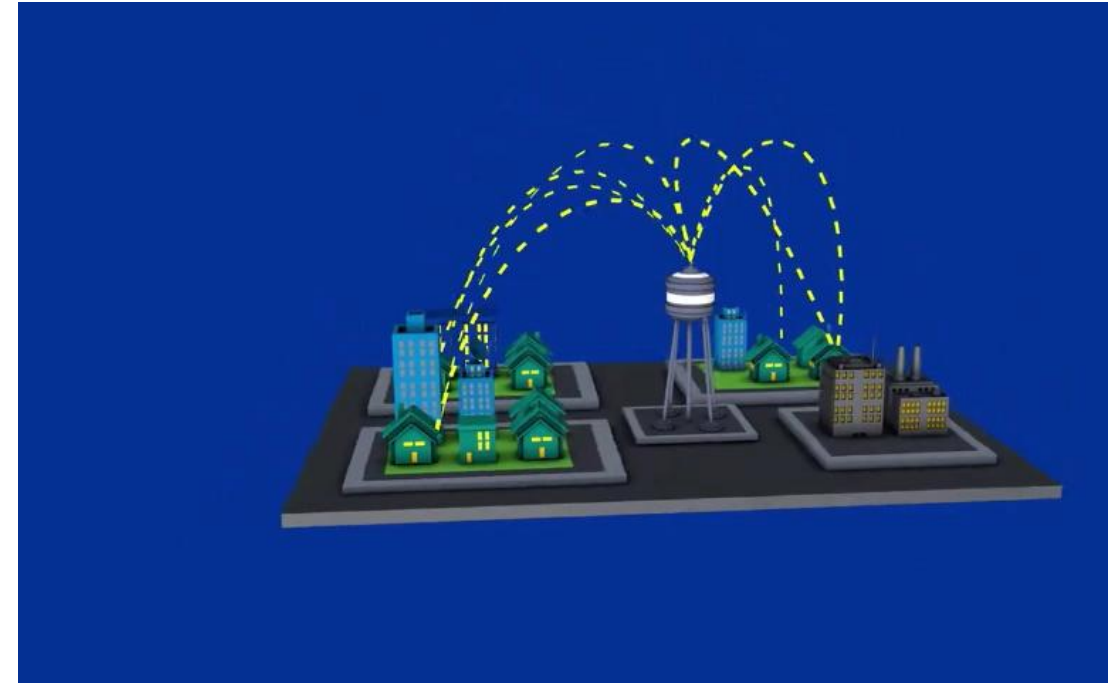
Metering Through the Years



What is AMI?

AMI = Advanced Metering Infrastructure

- Eliminates mobile route reader
- Reads are collected on an hourly basis - Automatically
- Provides 2-Way Communication
 - On Demand Reads
 - Remote Disconnect
 - Alarm Notifications
- Improved Customer Service



Proactive vs Reactive

How can AMI help you?

Software Demonstration

- Sensus Analytics
- Xylem Data Lake

Sensus Analytics

Utility Dashboard

SENSUSANALYTICS

trmil WATER

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Access



Admin



Alert
Manager



Billing
Access



Device
Access



Xylem
Data Lake

Insight



Alarm
Insight



Files
Dashboard



Meter
Insight



Pressure
Profile



Service
Management

Sensus Analytics

Utility Insight

SENSUSANALYTICS

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Meter Insight

Billing Cycle:

All Cycles

YESTERDAY

TODAY

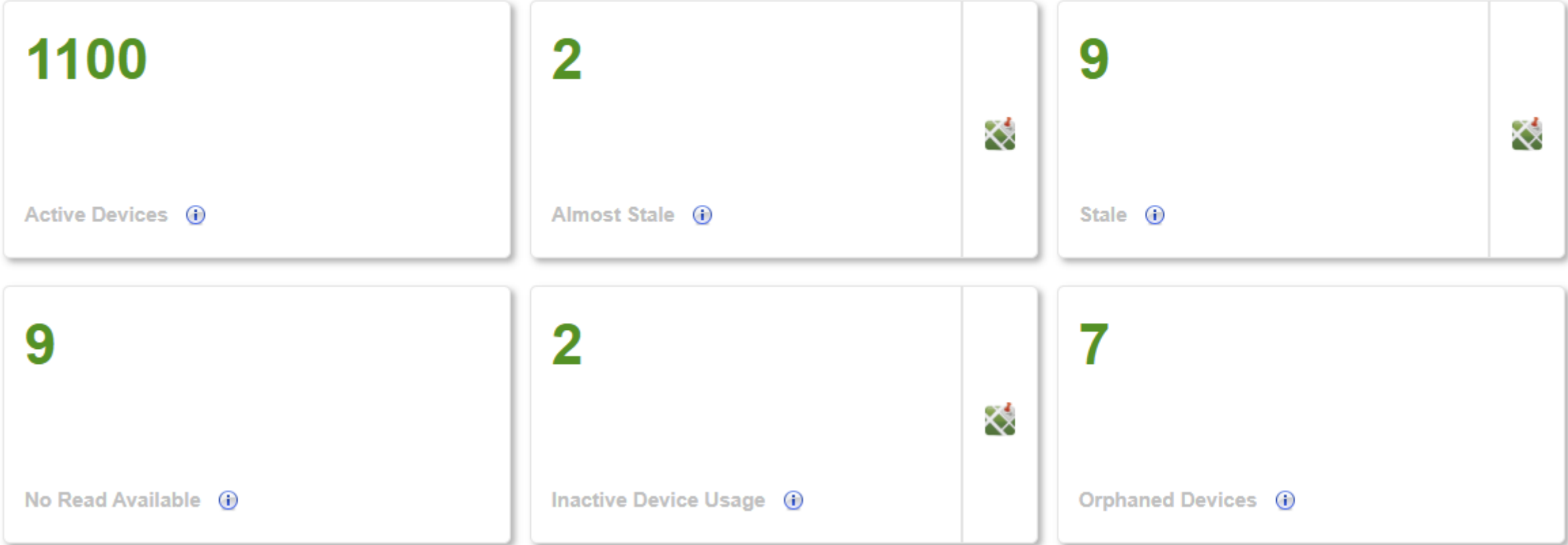
07/13/2026

Apply

Device Group:

All Groups

Meter Insight was last updated at 9:37 AM on July 13, 2026 CDT



Sensus Analytics

Customer Information

Device Access

TRMIL - Tremont, IL

WATER

T

Customer Name

Search

Active Devices Only

Address

Customer Name

Account ID

Device ID

Radio ID

Billing Cycle

Latest Read

07/01/2026 - 07/08/2026

24h

3d

7d

1m

3m

6m

12m

Usage

Alarms

Notifications

Details

Actions History 2

07/01/2026 11:50 AM CDT to 07/08/2026 11:50 AM CDT

3608 US Gallons (us gal)

min: 0 max: 491 avg: 21.476

Consumption Graph

Reads Graph

Date Range Detail Level

All Intervals

GAL

CF

Zoom

12h

1d

All

Device Pressure

Weather Temperature

Device Temperature

US Gallons (us gal)

1 Jul

2 Jul

3 Jul

4 Jul

5 Jul

6 Jul

7 Jul

8 Jul

9 Jul

1 Jul

3 Jul

5 Jul

7 Jul

9 Jul

US Gallons (us gal)

Weather Temperature

Device Temperature

Device Pressure

Latitude/Longitude

40.51654 , -89.48871

Latest Read (Sensors)

TEMPERATURE

70.2 F

07/13/2026 04:00 AM CDT

PRESSURE

51.8 PSI

07/13/2026 09:00 AM CDT

Valve State

Opened

07/08/2026 11:53 AM CDT

Last Valve Action

Tyler Tucker (Device Access)

07/08/2026 11:53 AM CDT

Device Status

ACTIVE

Account Status

A

Product Type

-

Service Type

W

Sensus Analytics

Detailed Usage Reports

7/13/26, 11:46 AM

Customer Name: [REDACTED]
Address: [REDACTED]
Account ID: 0137320000
Device ID: 80704900
Radio ID: 87019874
Date Range: 2026-07-01 to 2026-07-08

Device Access

Usage Report
Date Range Detail Level - All Intervals
07/01/2026 11:50 AM CDT to 07/08/2026 11:50 AM CDT
1438 US Gallons (us gal)
min: 0 max: 65 avg: 8.55952

Time ↓	Read (GAL)	Consumption (GAL)
07/08/2026 11:59 PM CDT		0
07/08/2026 11:00 PM CDT	489225	0
07/08/2026 10:00 PM CDT	489225	9
07/08/2026 09:00 PM CDT	489216	44
07/08/2026 08:00 PM CDT	489172	13
07/08/2026 07:00 PM CDT	489159	11
07/08/2026 06:00 PM CDT	489148	0
07/08/2026 05:00 PM CDT	489148	0
07/08/2026 04:00 PM CDT	489148	0
07/08/2026 03:00 PM CDT	489148	0
07/08/2026 02:00 PM CDT	489148	0
07/08/2026 01:00 PM CDT	489148	0
07/08/2026 12:00 PM CDT	489148	0

Sensus Analytics

Remote Disconnect with Ally



Device Access

TRMIL - Tremont, IL

WATER

Customer Name Search

Active Devices Only

Address Customer Name Account ID 0137330000 Device ID 84703892 Radio ID 90113340 Billing Cycle IR Latest Read 417960 GAL 07/14/2026 09:00 AM CDT

Enter or select a date range
07/01/2026 - 07/08/2026

24h 3d 7d 1m 3m 6m 12m

Usage Alarms Notifications Details Actions History 2

Issued Time ↓	Action	Status	Read Values	Initiating User	Initiating Application	Expected Time	Actual Time	Details
07/08/2026 11:51 AM CDT	Open	✓	415376 GAL	Tyler Tucker	Device Access	07/08/2026 11:52 AM CDT	07/08/2026 11:53 AM CDT	
07/08/2026 11:45 AM CDT	Close	✓	415376 GAL	Tyler Tucker	Device Access	07/08/2026 11:47 AM CDT	07/08/2026 11:48 AM CDT	

Items per page: 20 1 - 2 of 2

- Read Meter
- Close Meter Valve
- Reduce Meter Valve
- Groups

Valve State
Opened
07/08/2026 11:53 AM CDT
Last Valve Action
Tyler Tucker (Device Access)
07/08/2026 11:53 AM CDT

Device Status
ACTIVE
Account Status
A
Product Type
-
Service Type
W

Sensus Analytics

Alarm Notifications

 Alarm Insight

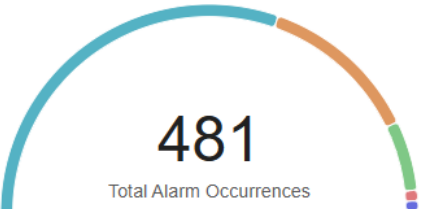
TRMIL - Tremont, IL

 WATER

Dashboard

Updated at 10:15 AM CDT 2,608 Devices

7d All Alarms



481
Total Alarm Occurrences

171
Distinct Devices

7
Distinct Alarms

Top Alarms

Meter Communication Failed292

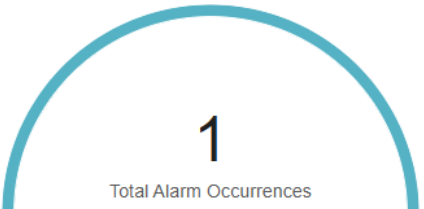
Reverse Flow120

Continuous Flow52

Last 7 days

View Details

Register EOL



1
Total Alarm Occurrences

1
Distinct Devices

1
Distinct Alarms

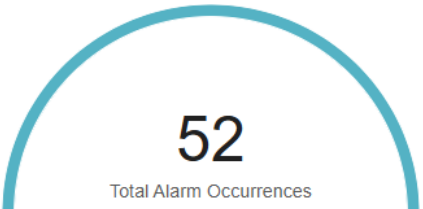
Top Alarms

Register Error1

Last 7 days

View Details

Continuous Flow



52
Total Alarm Occurrences

46
Distinct Devices

1
Distinct Alarms

Top Alarms

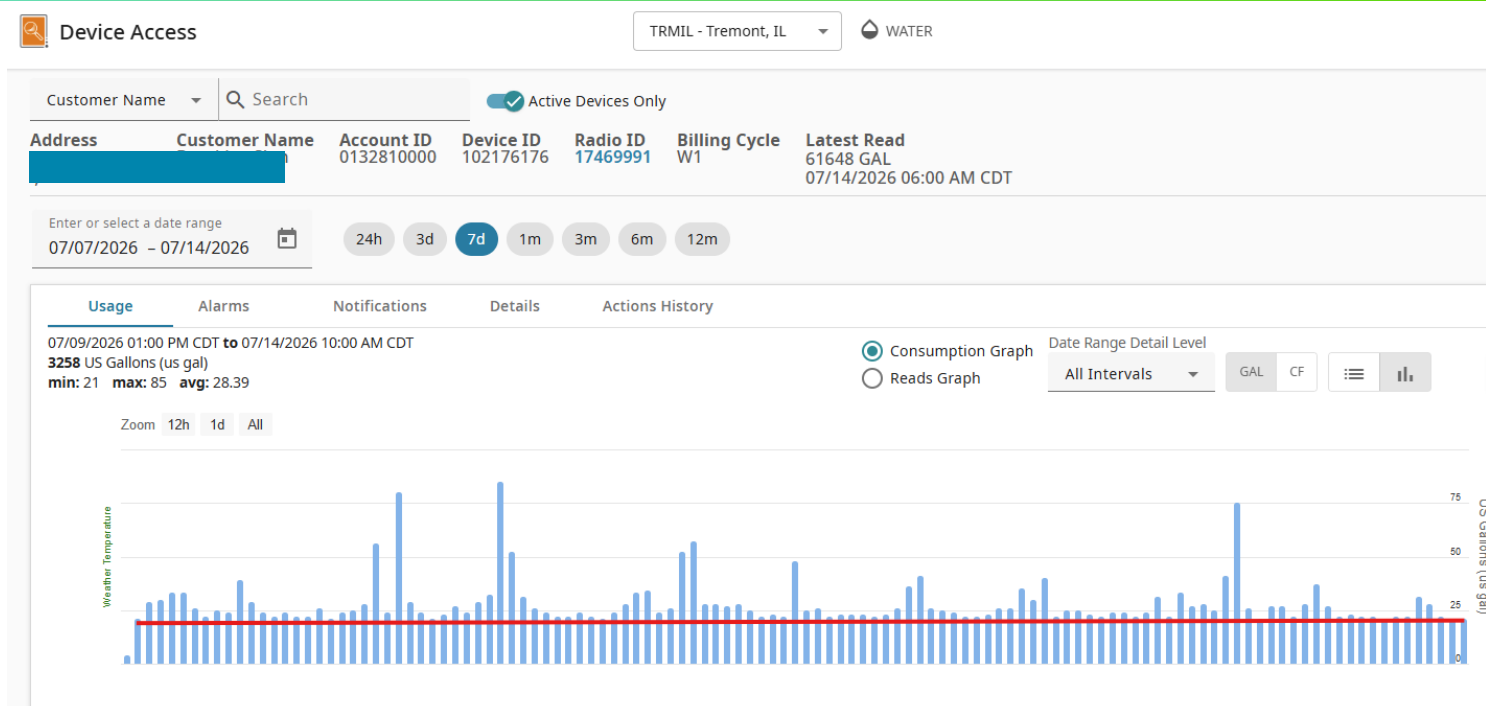
Continuous Flow52

Last 7 days

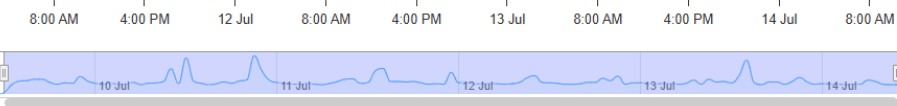
View Details

Sensus Analytics

Leak Monitoring



Meter ID	Account	Address	Start Time	End Time	Average	Hours
78594382	0120260000	805 S Sampson St	7/7/2026 4:00	7/8/2026 3:00	43	24
102176176	0132810000	325 S Locust St	7/9/2026 11:00	7/14/2026 0:00	29	110
98471348	0100830000	324 N Harris St	7/10/2026 5:00	7/11/2026 5:00	22	25
72171533	0107720000	301 W Franklin St	7/8/2026 9:00	7/10/2026 3:00	19	43
80704896	0129930000	201 S Sampson St	7/12/2026 9:00	7/14/2026 0:00	19	40
86115287	0138050000	112 E Lee St	7/10/2026 14:00	#####	18	34
83930858	0137960000	100 Lake St	7/11/2026 3:00	#####	17	45
96056568	0114910000	S Wingate Dr	7/7/2026 0:00	#####	17	86
98471348	0100830000	324 N Harris St	7/7/2026 16:00	7/8/2026 21:00	17	30
80014471	0103010000	307 Stuber Ct	7/7/2026 0:00	7/9/2026 12:00	16	61
83930858	0137960000	100 Lake St	7/10/2026 2:00	7/11/2026 1:00	16	24
72243610	0121220000	713 E South St	7/12/2026 23:00	7/14/2026 0:00	15	26



Sensus Analytics

Billing Process

Billing Export

[Generate Export](#)

	Billing Date	Created	Billing Cycle	Devices	Stale Devices	User	Used For Billing	Status	Downloads	
	Jul 01 2026	Jul 01 2026 10:35 AM CDT	All Meters	1087	13	village@tremontil.gov	☐	✓ COMPLETE	Export	Stale devices
	Jun 01 2026	Jun 01 2026 02:45 PM CDT	All Meters	1090	10	village@tremontil.gov	☐	✓ COMPLETE	Export	Stale devices
	Apr 30 2026	May 01 2026 11:29 AM CDT	All Meters	1092	10	village@tremontil.gov	☐	✓ COMPLETE	Export	Stale devices
	Mar 31 2026	Apr 01 2026 02:05 PM CDT	All Meters	1094	11	village@tremontil.gov	☐	✓ COMPLETE	Export	Stale devices
	Feb 28 2026	Mar 02 2026 02:50 PM CDT	All Meters	1093	8	village@tremontil.gov	☐	✓ COMPLETE	Export	Stale devices
	Jan 31 2026	Feb 02 2026 04:41 PM CDT	All Meters	1094	12	village@tremontil.gov	☐	✓ COMPLETE	Export	Stale devices
	Dec 31 2025	Jan 02 2026 03:28 PM CDT	All Meters	1093	7	village@tremontil.gov	☐	✓ COMPLETE	Export	Stale devices
	Nov 30 2025	Dec 03 2025 11:00 AM CDT	All Meters	1101	1	village@tremontil.gov	☐	✓ COMPLETE	Export	Stale devices
	Oct 31 2025	Nov 03 2025 09:41 AM CDT	All Meters	1094	9	village@tremontil.gov	☐	✓ COMPLETE	Export	Stale devices
	Sep 30 2025	Oct 06 2025 08:43 AM CDT	All Meters	1095	9	tremontwater@gmail.com	☒	✓ COMPLETE	Export	Stale devices

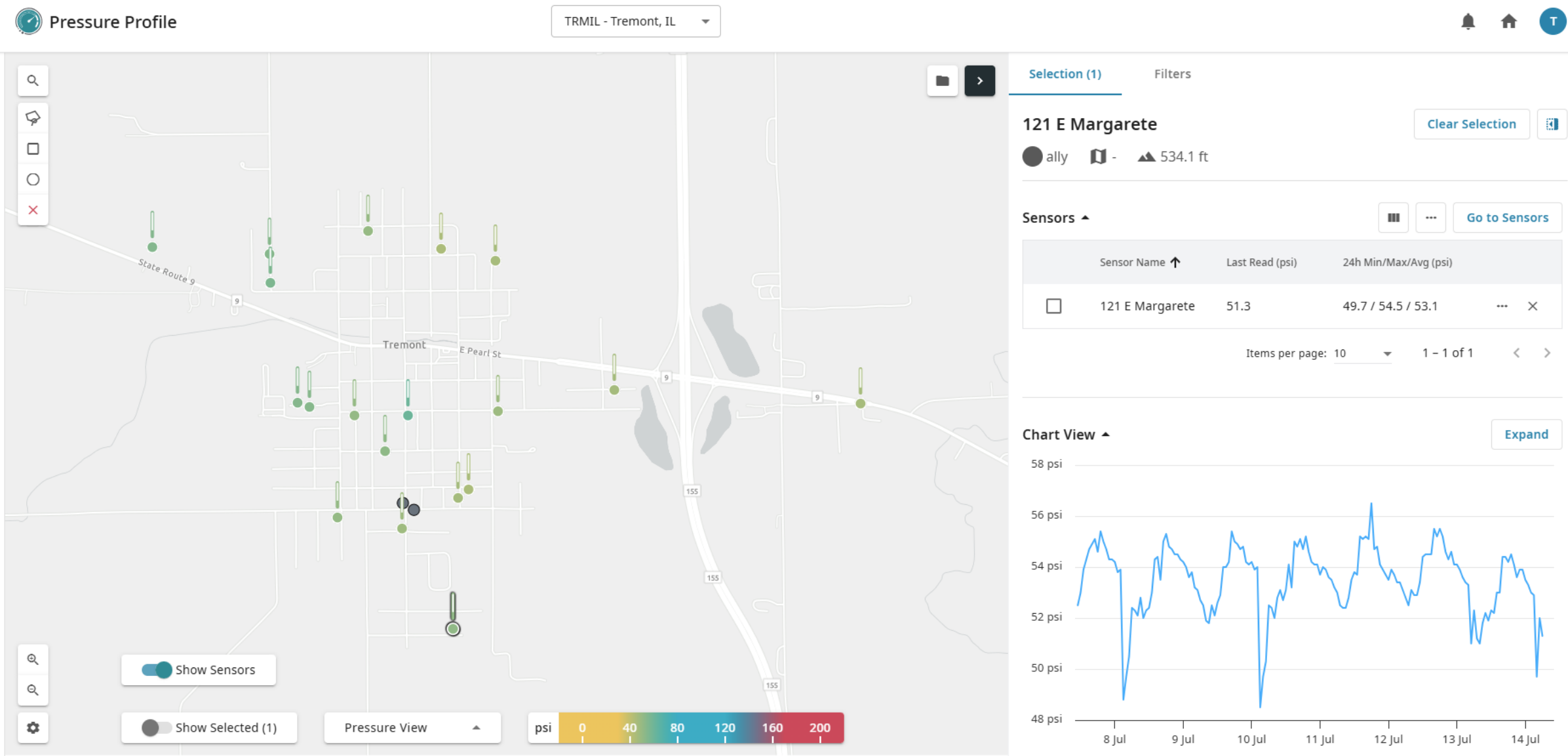
Items per page: 10

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Sensus Analytics

Pressure Dashboard



Xylem Data Lake - Use AI chat to create custom reports

Xylem Data Lake

LHLFL

Superset

Dashboards

Charts

Datasets

SQL

Untitled Query 1

DATABASE

redshift udl-us-east-1-0006

SCHEMA

Select schema or type to search schemas

SEE TABLE SCHEMA

Select table or type to search tables

23

24

25

26

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32

33

meter_id,

SUM(consumption) AS total_jun_consumption

FROM sensus_dm_lhlfl.water_consumption

WHERE consumption_period = 'MONTH'

AND date_local >= '2026-06-01'

AND date_local < '2026-07-01'

GROUP BY meter_id

) jun_data ON may_data.meter_id = jun_data.meter_id

WHERE may_data.total_may_consumption > 0

AND ((jun_data.total_jun_consumption - may_data.total_may_consumption) / NULLIF(may_data.total_may_consumption, 0)) * 100 >= 150

ORDER BY pct_change DESC

RUN

LIMIT: 1 000

00:00:00.00

RESULTS

QUERY HISTORY

CREATE CHART

DOWNLOAD TO CSV

COPY TO CLIPBOARD

Filter results

-- Generated by Xylem InsightAI

SELECT may_data.meter_id, may_data.total_may_consumption,

meter_id	total_may_consumption	total_jun_consumption	pct_change
99449623	1	76	7500
97865099	20	923	4515
97864897	3	125	4066.67
97671605	85	2145	2423.53
97864960	970	20774	2041.65
96962999	23	485	2008.7
97864845	3	60	1900

+ New chat

Today

Show any meters ...

Past week

show me the top ...

Show any meters that have used 150% more usage from May 2026 to June 2026

Here's the SQL query based on your request:

-- Generated by Xylem InsightAI

SELECT

may_data.meter_id,

may_data.total_may_consumption,

jun_data.total_jun_consumption,

ROUND(

((jun_data.total_jun_consumption - may_data.total_may

2

Describe the SQL query you need

AI responses may contain inaccuracies.

Prompting guide



Thanks!