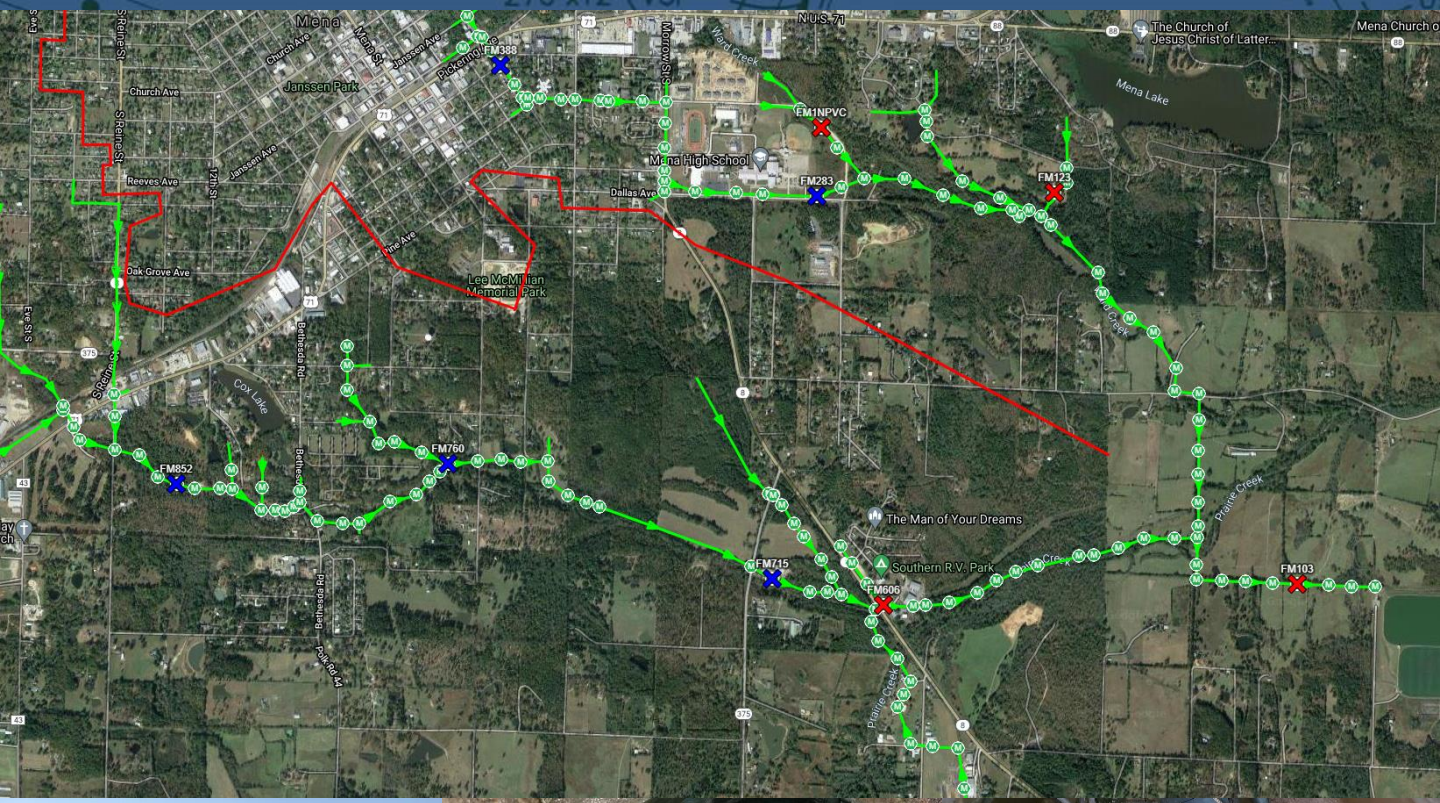
MENA, AR

FLOW MONITORING REPORT

FEBRUARY – MAY 2021



2021 MENA, AR FLOW MONITORING REPORT

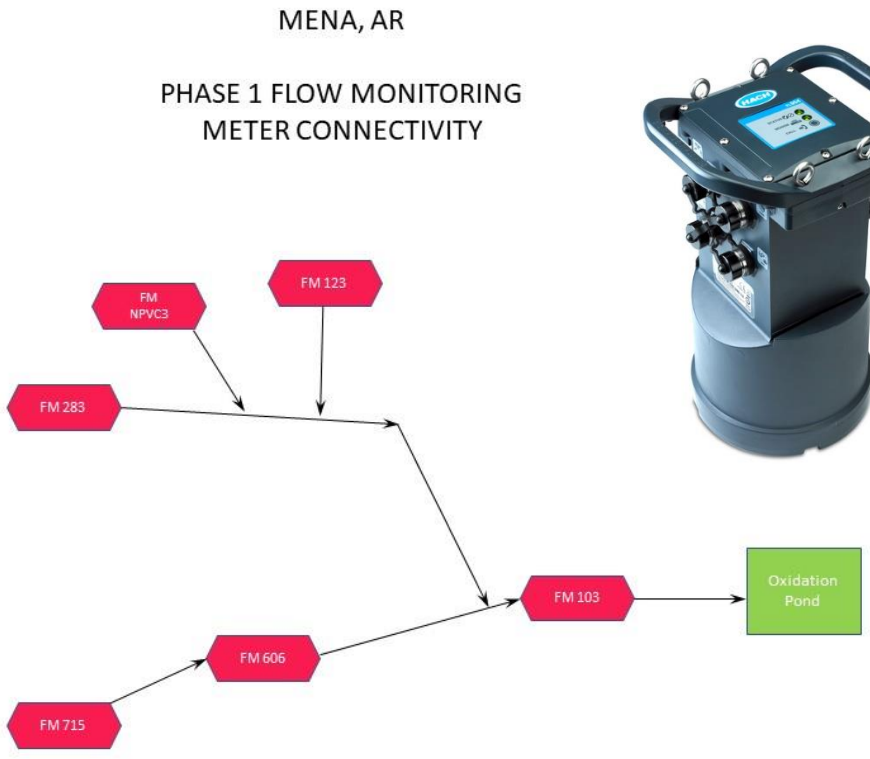
EXECUTIVE SUMMARY

The following report is for the flow monitoring activities in Mena, AR. The objective of this flow monitoring project is to identify and quantify base wastewater flow for selected locations in the sewer system and identify the incoming flow rates to the treatment facilities. The project was divided into Phase 1 and Phase 2. After 60 days of monitoring, data analysts provided general I/I trends and some of the monitors were moved to identify areas of higher wet weather flows.

Crews installed six (6) flow monitors the study area. For Phase 1, the meters were installed on February 3, 2021 and collected data until April 29, 2021. For Phase 2, four meters were moved on April 29, 2021 and collected data until May 26, 2021. Due to the historic freeze and snow/ice storm at the end of February, crews could not access the meters to change the batteries and data was lost. The project was extended at no additional cost.

The flow monitors were operated and maintained following industry standards. Data was checked online daily, and sites were visited every two weeks to ensure proper operation. All meters were calibrated before installation as well as every two weeks to verify sensor operation. Meter connectivity for both phases is provided in the report. Phase 1 example is shown in Figure 1. The following report includes all information collected and summary documentation for the project.

Figure 1



FLOW MONITOR AND RAIN GAUGE INSTALLATION

Gravity Flow Monitors

For this project, each flow monitor used area-velocity technology to obtain the velocity of the flow and pressure sensors to measure the depth of flow. Area velocity technology allows the sensor to take several readings throughout the flow profile to get an actual average velocity. The monitors used in this study were *Hach FL900 Series Flow Loggers with Submersible Area/Velocity.*

Each meter was carefully installed to maximize its effectiveness. The meters were installed in the incoming lines to the manhole. Sites were selected in manholes with smooth and laminar flow. The monitors were set to take readings in fifteen-minute intervals. Every site was calibrated to verify the validity of the data. Actual field measurements were compared to the meter readings. If needed, adjustments were made. The site location forms are included on the submittal drive. The site location summary is provided in Table 1.

Table 1

MENA, AR

Site Location Summary

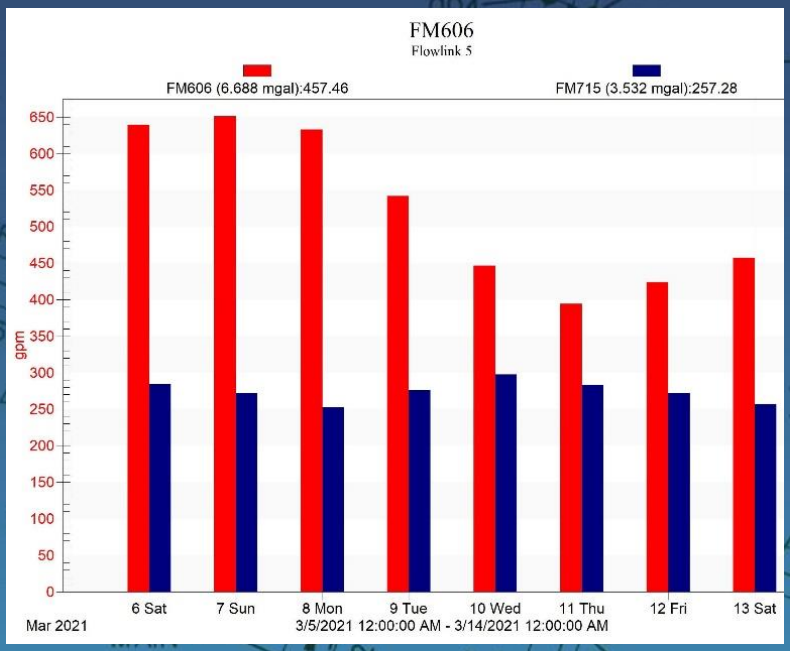
FLOW MONITORS

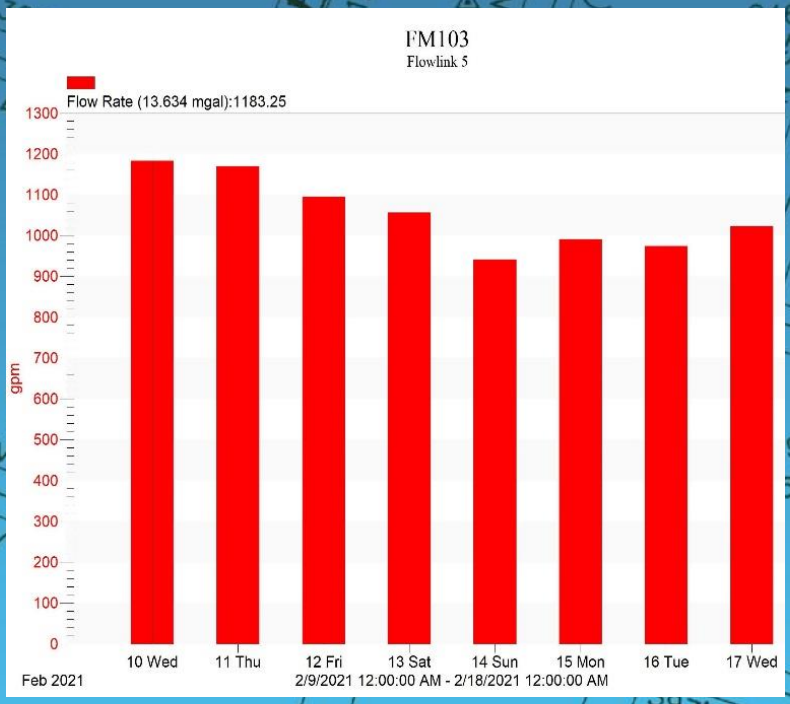
PHASE 1

Site Name	Manhole No.	Description of Location	Diameter (in)	Installation Date	Sensor Type
FM103	103	323 Polk County Rd 53	24	2/3/2021	AV9000
FM123	123	2805 Midland Rd	8	2/3/2021	AV9000
FMNPVC3	NPVC3	1200 Dallas Ave	12	2/3/2021	AV9000
FM283	283	1200 Dallas Ave	15	2/3/2021	AV9000
FM606	606	121 Industrial Ln	18	2/3/2021	AV9000
FM715	715	1 Hot Rod Ln	15	2/3/2021	AV9000
PHASE 2					
FM283	283	1200 Dallas Ave	15	2/3/2021	AV9000
FM388	388	1st and Martin St.	12	4/23/2021	AV9000
FM715	715	1 Hot Rod Ln	15	2/3/2021	AV9000
FM760	760	2109 S Mena St	15.25	4/23/2021	AV9000
FM852	852	1108 Parker Dr	12	4/23/2021	AV9000
FM1101	1100	3607 HWY 375	10	4/23/2021	AV9000

RESULTS

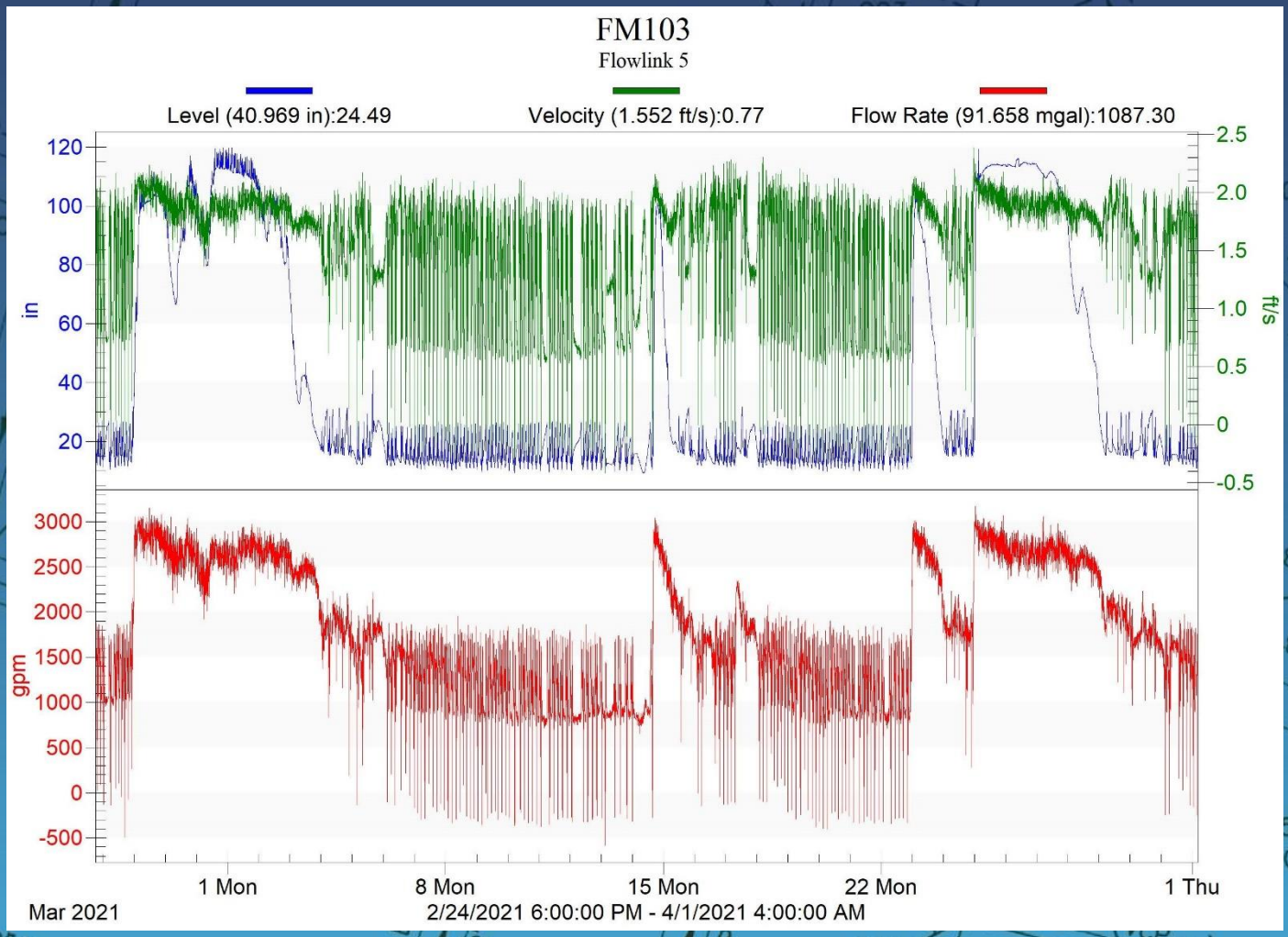
Reviewing the flow data, general trends were documented. Dry weather data was isolated for each site and averaged by the number of days used in the calculation. For phase 1, approximately 8 to 10 days were used to get an average daily flow with no rainfall influence. Due to the large amount of rain during phase 2, only 3 or 4 days were used. The calculations are included in table 2. Note that these calculations are a very small window of typical flows that occurs in Mena during a full year.

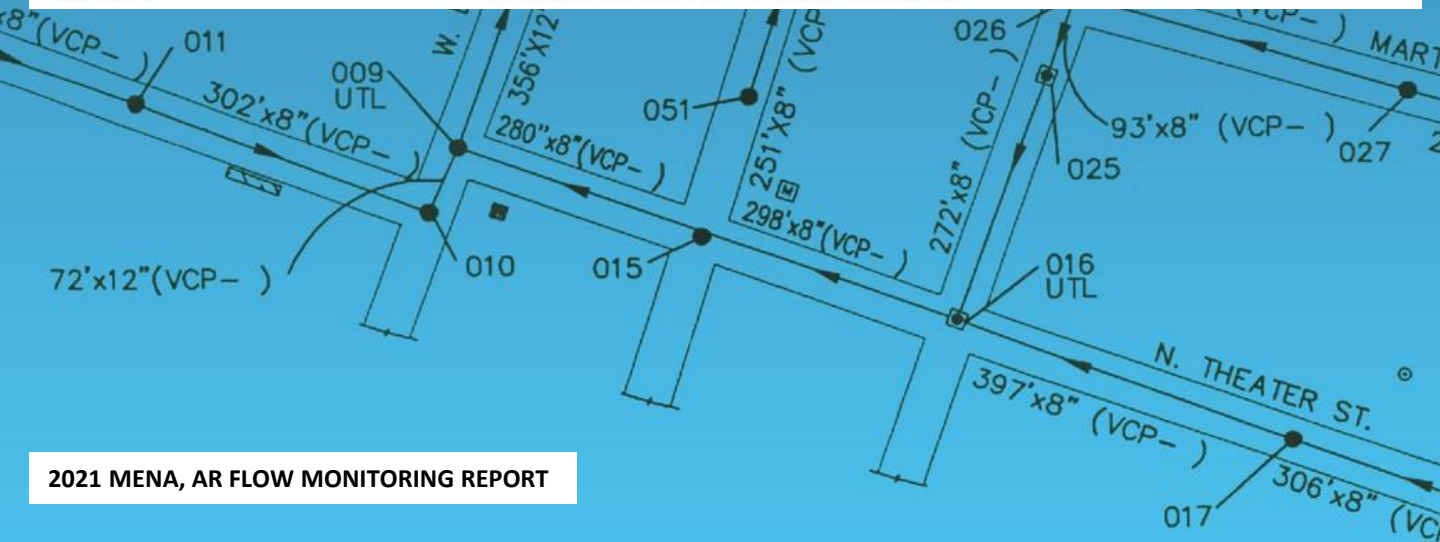




RESULTS

For wet weather peak flows, the highest flow rate peaks from three different storm events was recorded in table 2. The values are general trends observed during the study and may show different values over a long-term study.





RESULTS

Table 2

MENA, AR FLOW MONITORING

Phase 1

Typical dry weather daily average flow		Wet weather peak flow rate**		
SITE	GPM	GPM	GPM	GPM
FM103	1052	3717	3170	3151
FM123	89	864	789	516
FMNPVC3	63	496	442	432
FM283	384	3254	3414	3112
FM606	523	2633	2269	2179
FM715	274	2274	1869	1454

Phase 2

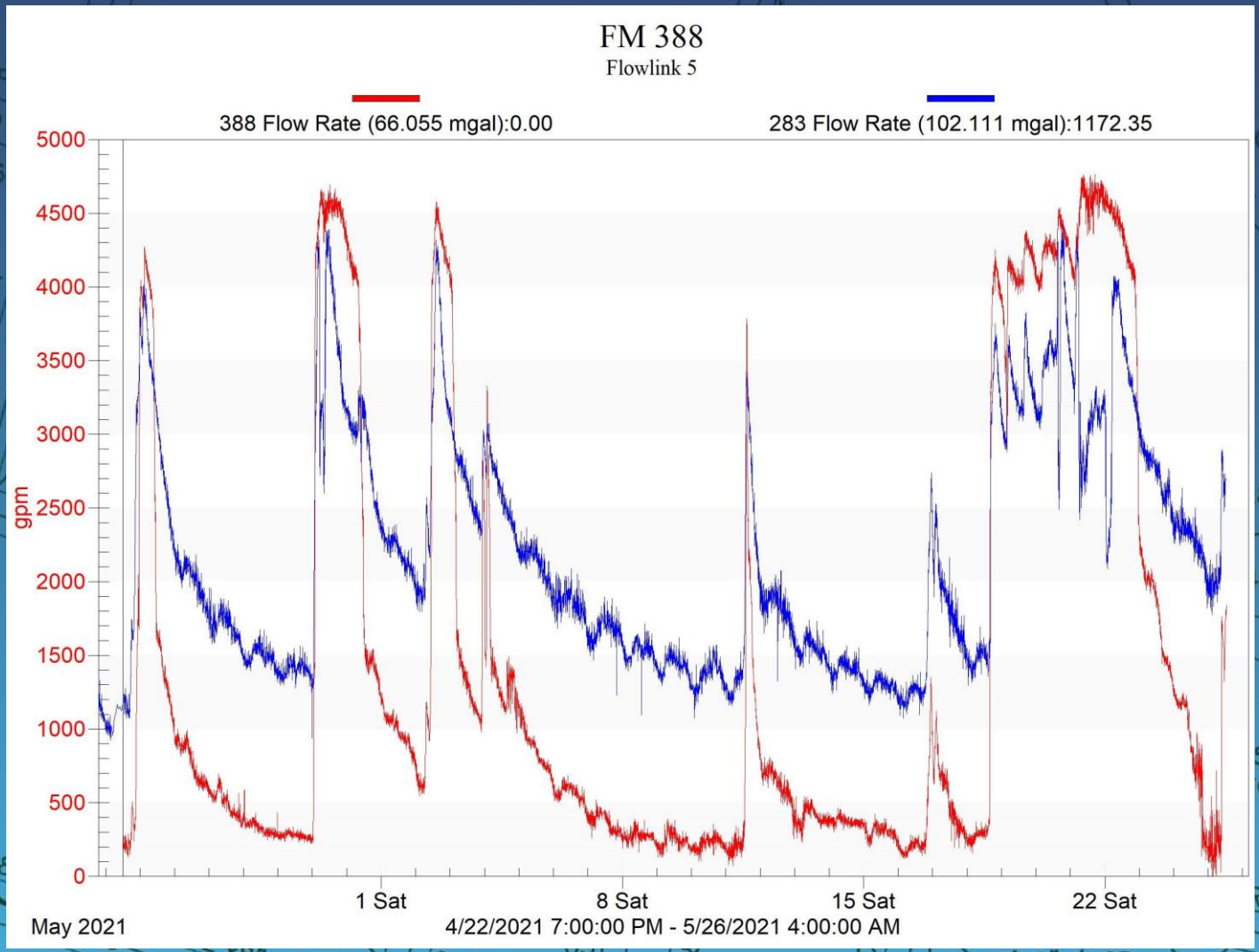
Typical dry weather daily average flow*		Wet weather peak flow rate**		
SITE	GPM	GPM	GPM	GPM
FM283	384	3254	3414	3112
FM388	250	4763	4691	4577
FM715	274	2274	1869	1454
FM760	490	2667	2505	1904
FM852	268	1786	1740	1428
FM1101	108	902	830	502

*For phase 2, there was limited dry weather flow to choose from

** Wet weather peak flow rates were chosen from three different storm events

RESULTS

There is one issue to note during wet weather flows. FM388 flows into meter FM283. During dry weather flow, FM388 is substantially lower than FM283. But during wet weather events, the peaks are higher at FM388 than FM283. This shows that there is an overflow problem between these two sites. Due to the very high spikes in wet weather flow at FM388, it appears that the issues are mainly caused upstream from this site.



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Mena, AR Flow

Site Location Report

Site ID	Device Type	Installation Date	Installed By
FM103	Flow Meter	2/3/2021	J. Cawthon

Address	Location Details	Traffic Area ?
323 Polk County Rd 53	next to the plant	No

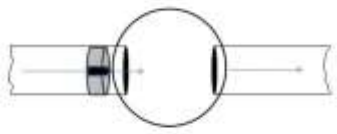
Installation Manhole	Material	Evidence of Surcharge ?
103	Reinforced Concrete Pipe	No

Gas Levels			
Oxygen	Carbon Monoxide	Hydrogen Sulfide	Lower Explosive Limit
20.90%	0.00%	0.00%	0

Installation Pipe	Material	Inside Diameter
incoming	VCP	24

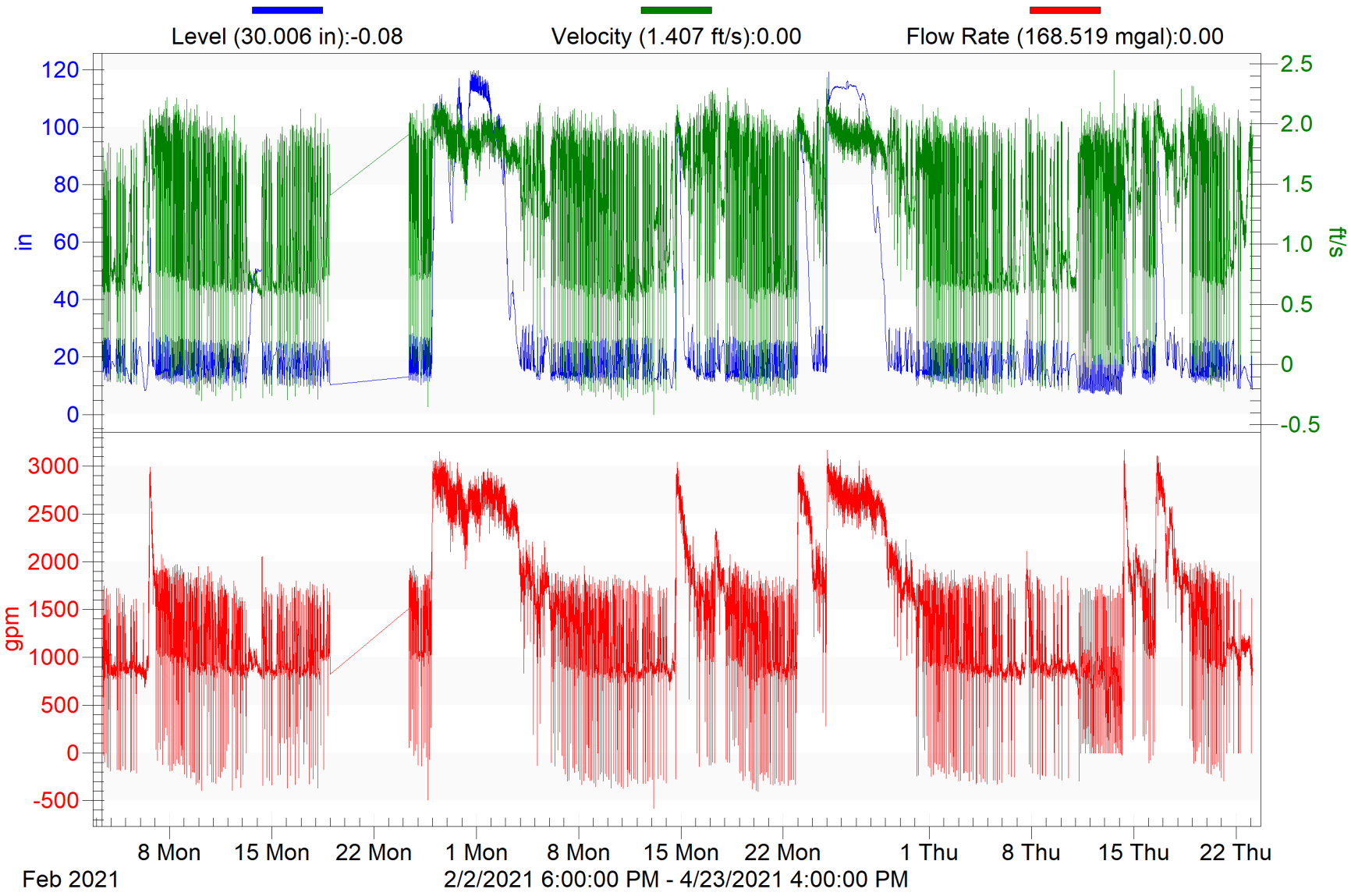
Hydraulic Conditions
Slow and smooth. Evidence of surcharge

General Conditions

Map Image	Area Image	Sensor Ring Image
		
Map_FM103	FM103 Area	FM103 Pipe
Downhole Image	**Pipe Image**	**Install Schematic (Top)**
		
Aerial_FM103	FM103 Inner	FM103 Schematic

FM103

Flowlink 5



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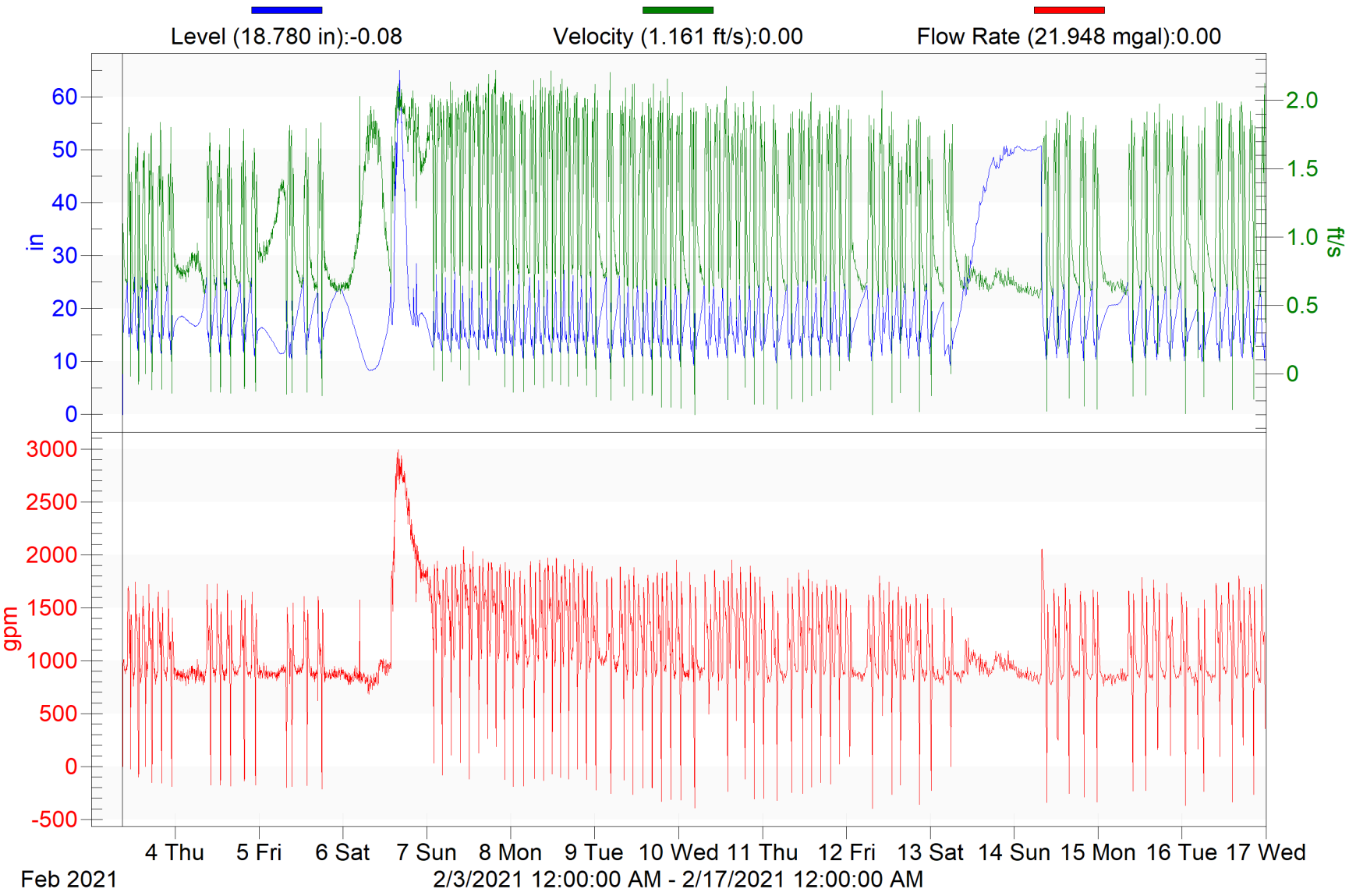

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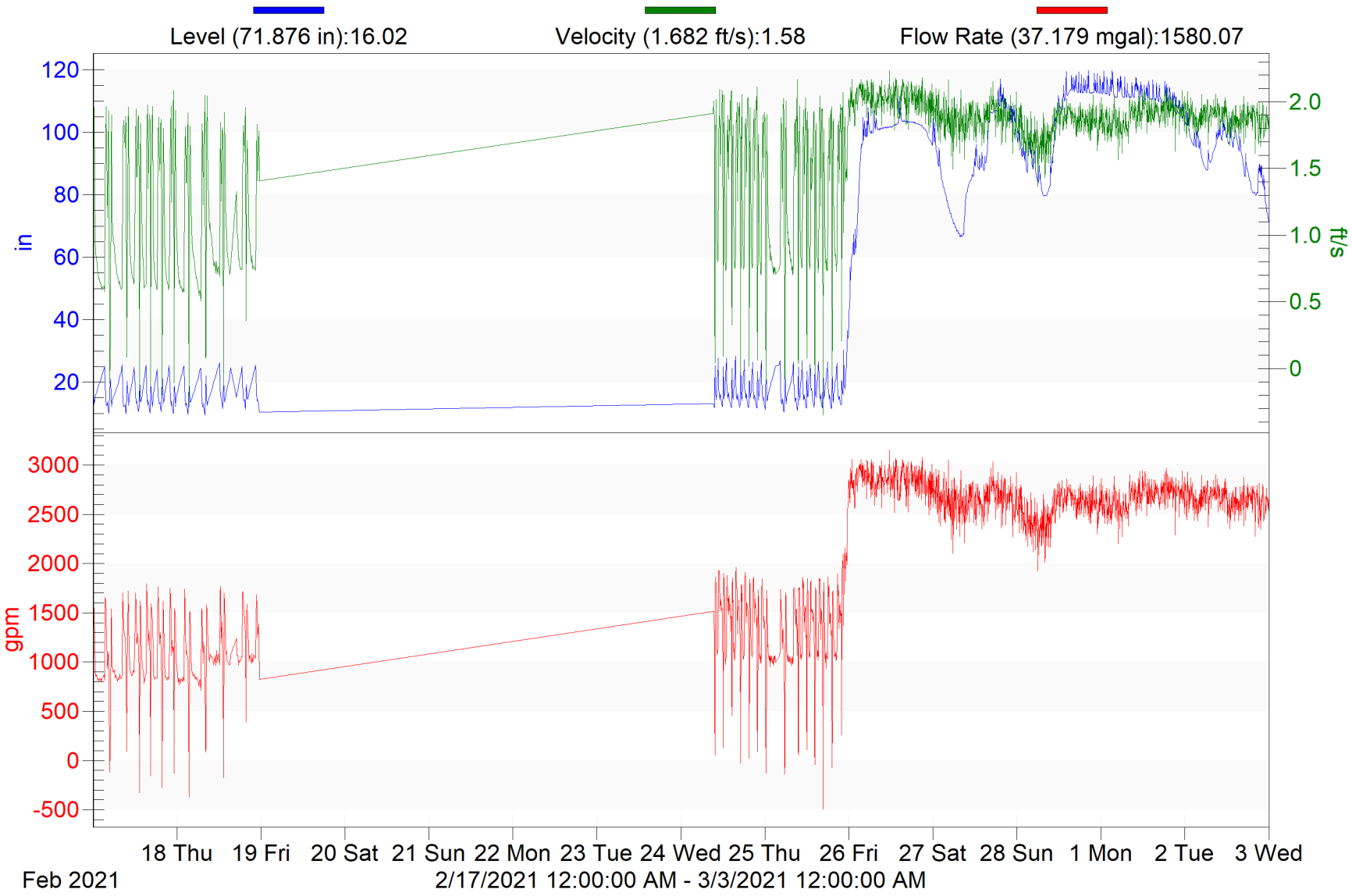

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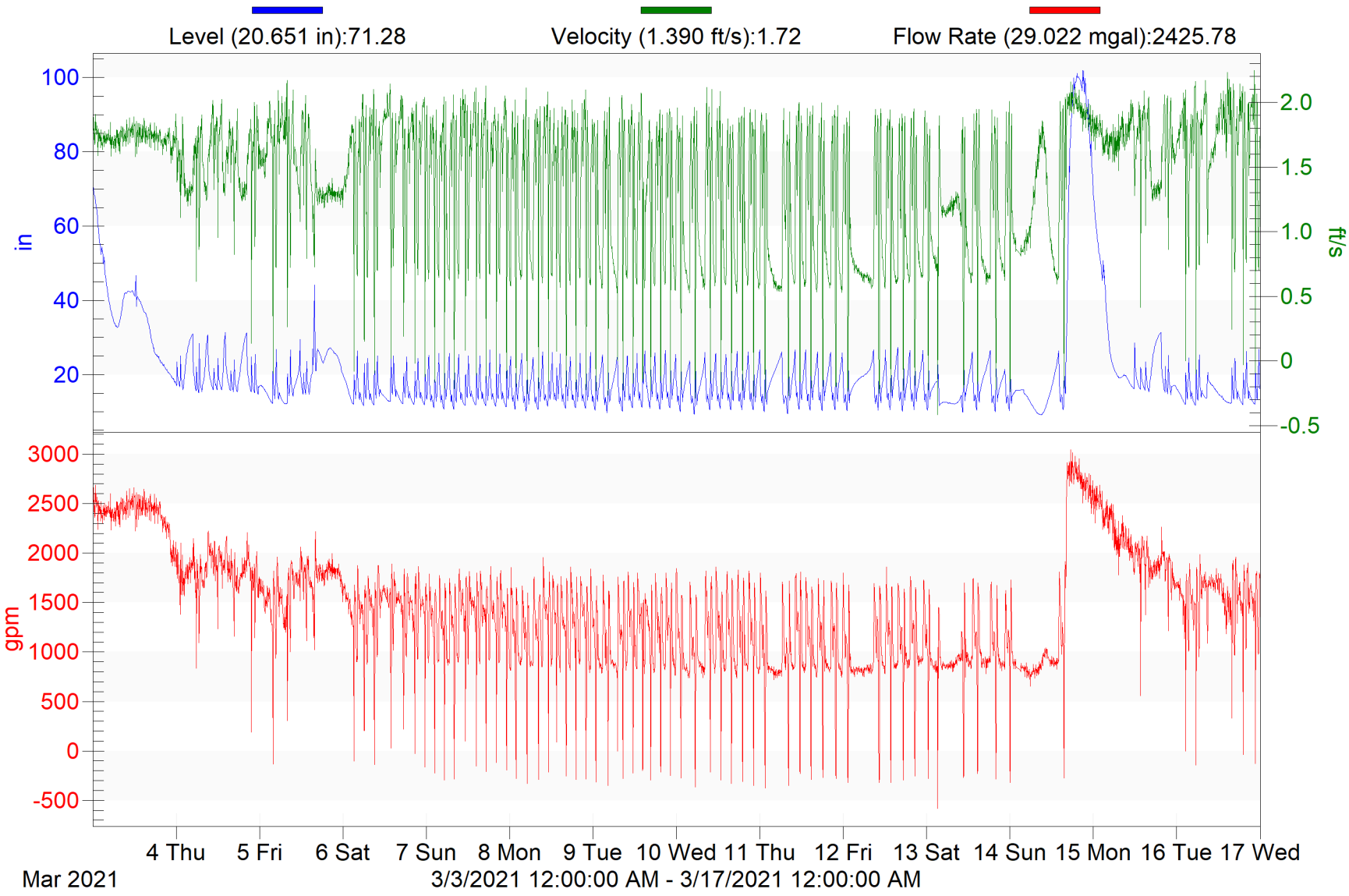

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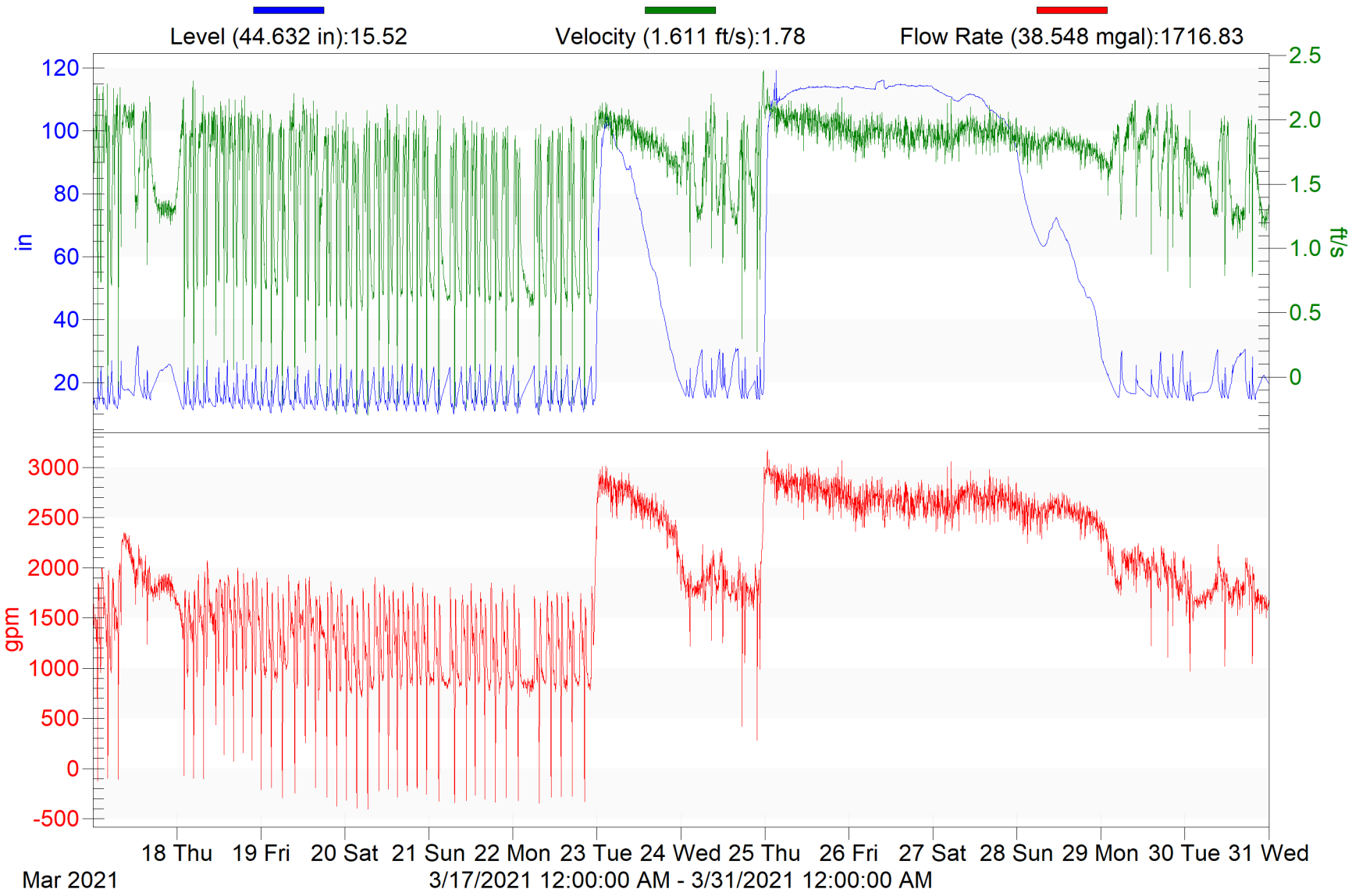

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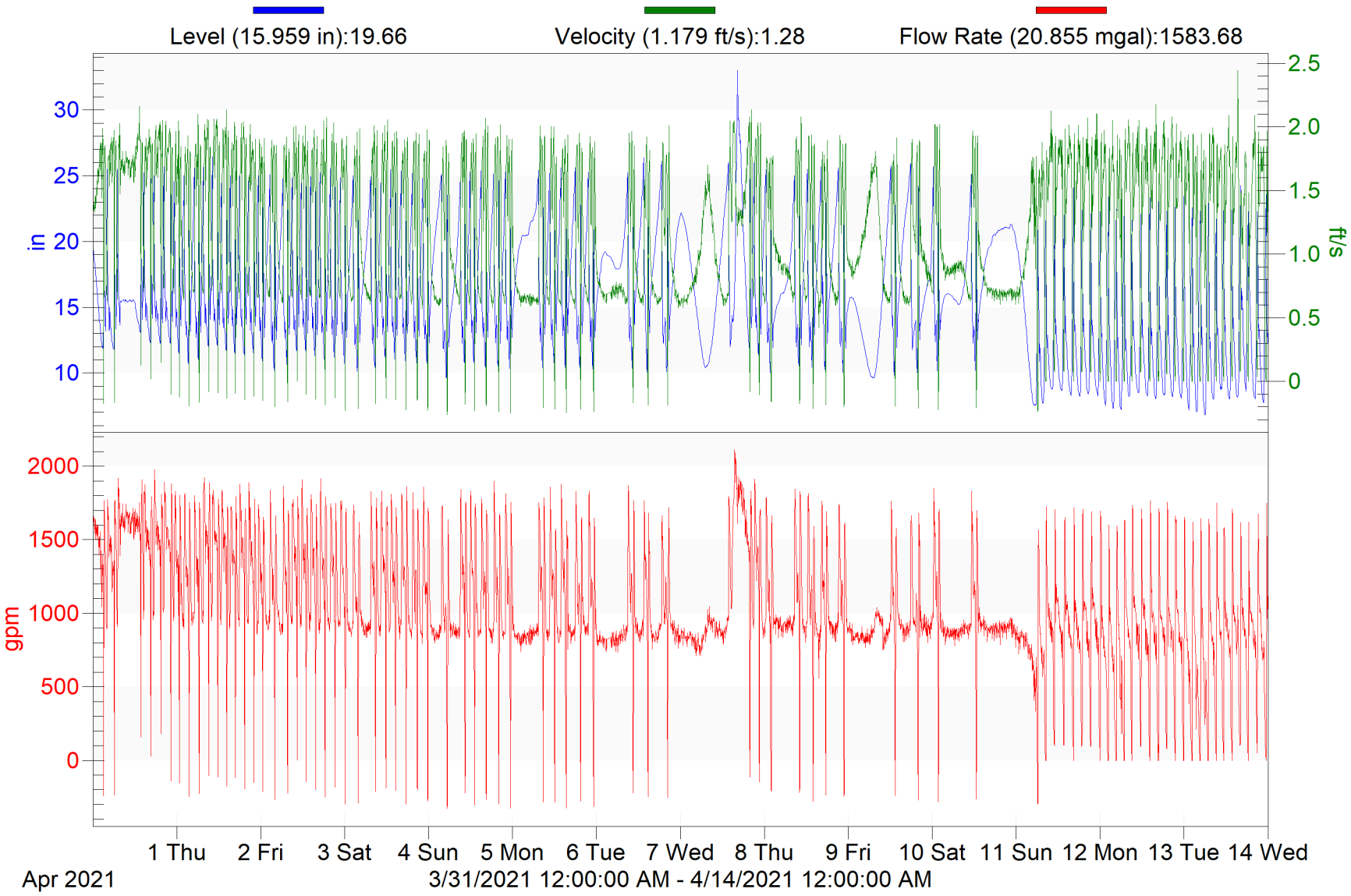

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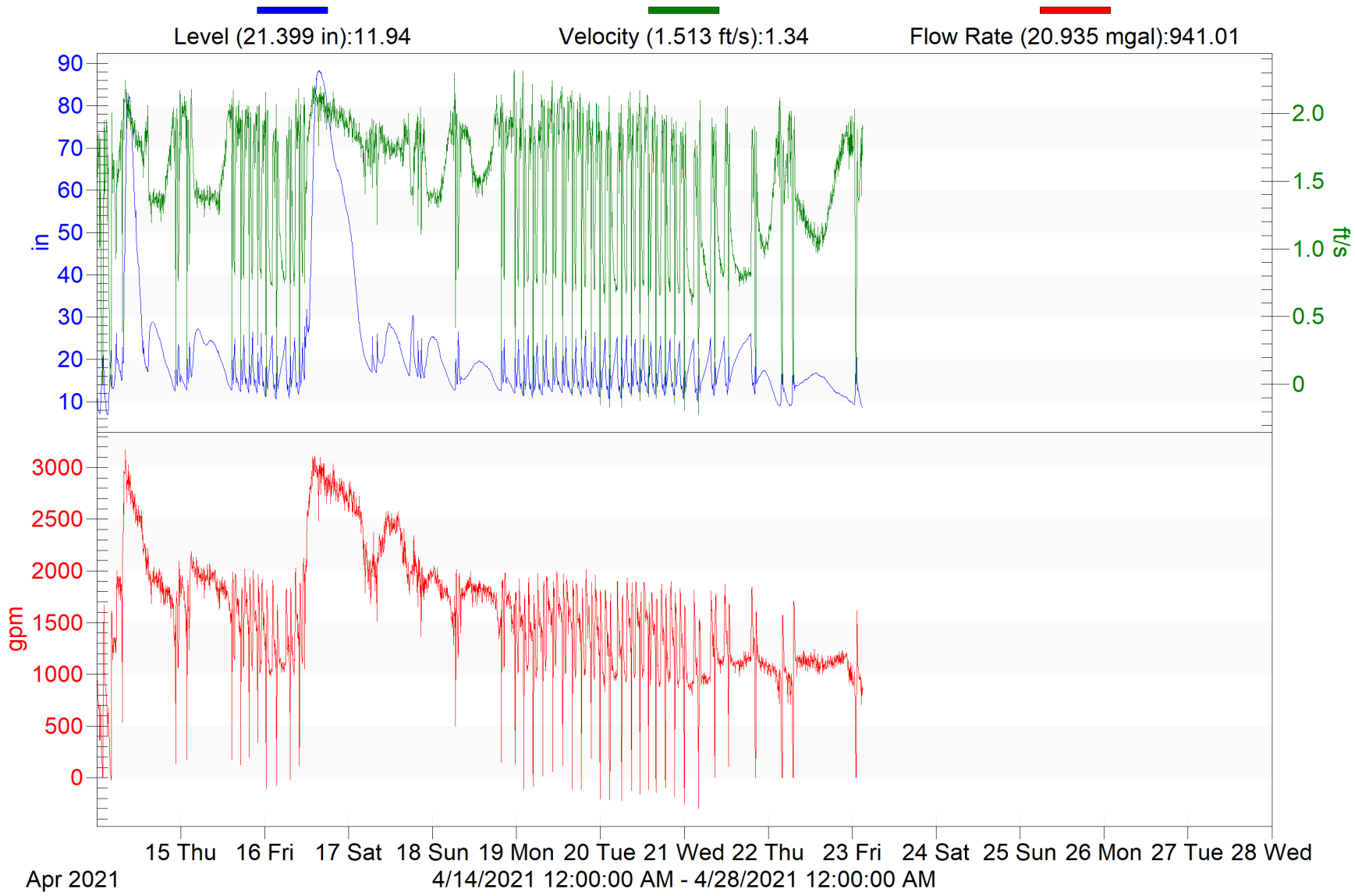

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Mena, AR Flow

Site Location Report

Site ID	Device Type	Installation Date	Installed By
FM123	Flow Meter	2/3/2021	J. Cawthon

Address	Location Details	Traffic Area ?
2805 Midland Rd	Field behind house	No

Installation Manhole	Material	Evidence of Surcharge ?
123	Reinforced Concrete Pipe	No

Gas Levels			
Oxygen	Carbon Monoxide	Hydrogen Sulfide	Lower Explosive Limit
20.90%	0.00%	0.00%	0

Installation Pipe	Material	Inside Diameter
Incoming	PVC	8

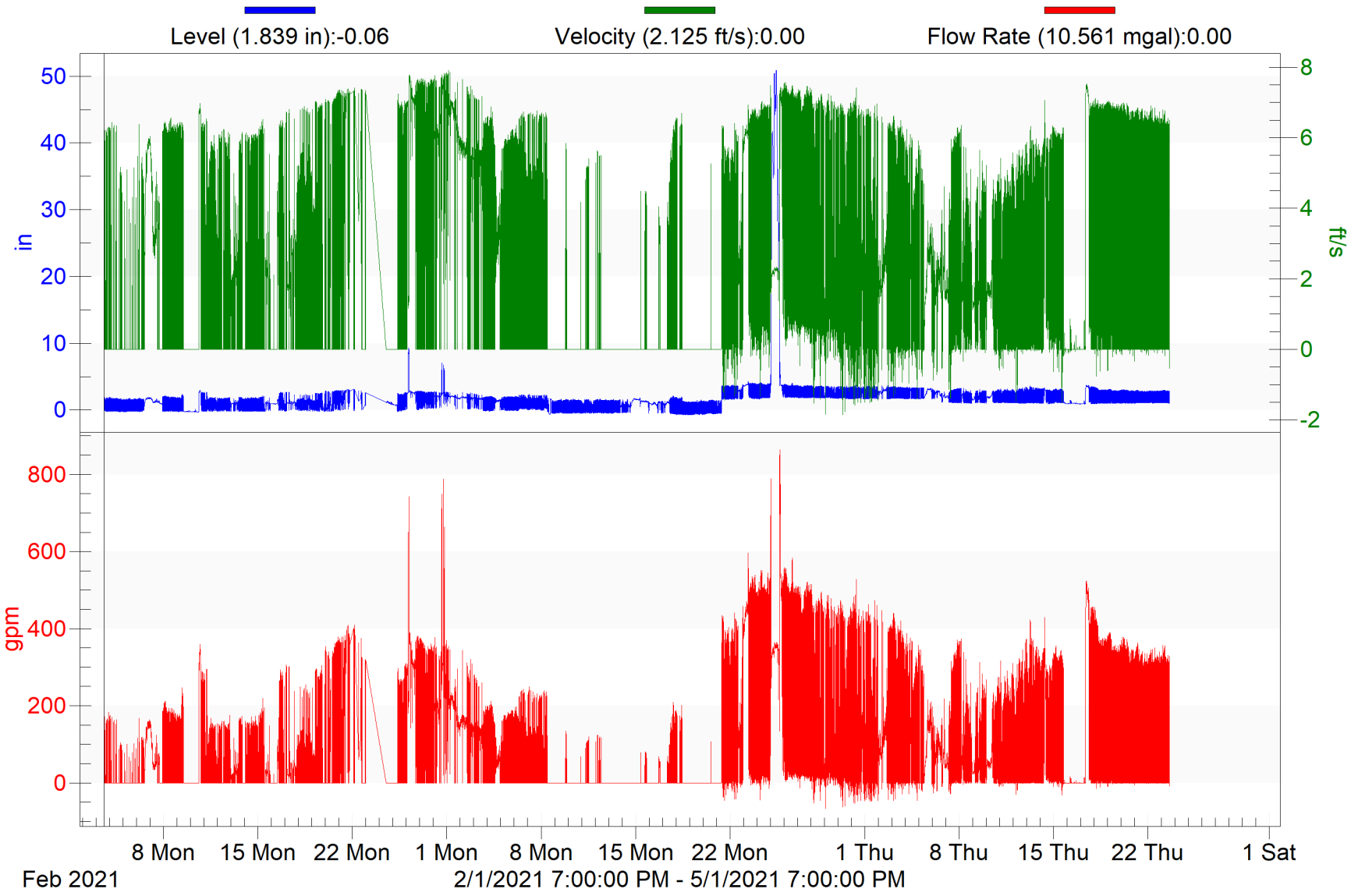
Hydraulic Conditions
Normal depth of flow and velocity. Lift station nearby

General Conditions

Map Image	Area Image	Sensor Ring Image
		
Map_FM123	FM123 Area	FM123 Pipe
Downhole Image	**Pipe Image**	**Install Schematic (Top)**
		
Aerial_FM123	FM123 Inner	FM123 Schematic

FM123

Flowlink 5



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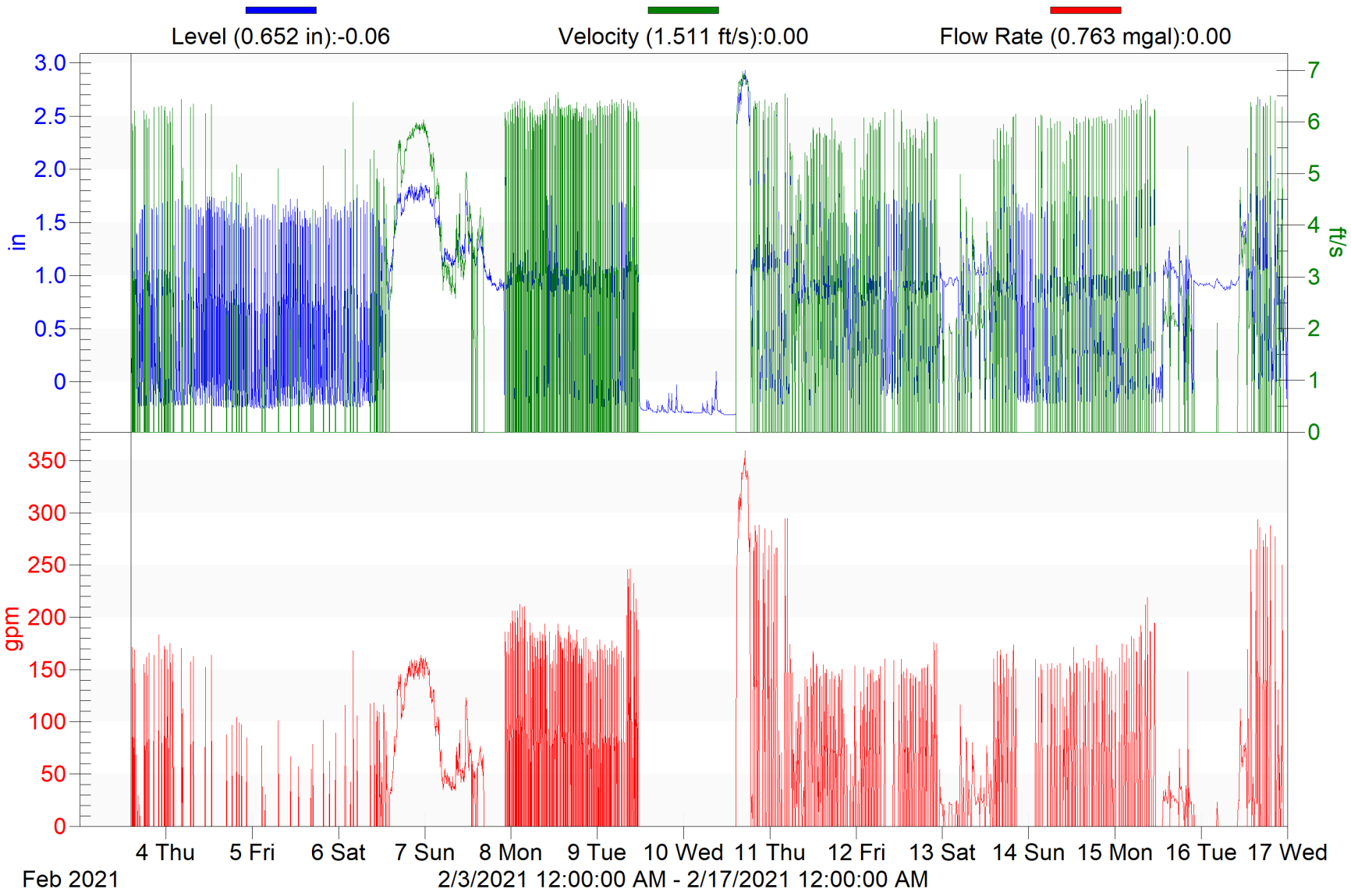

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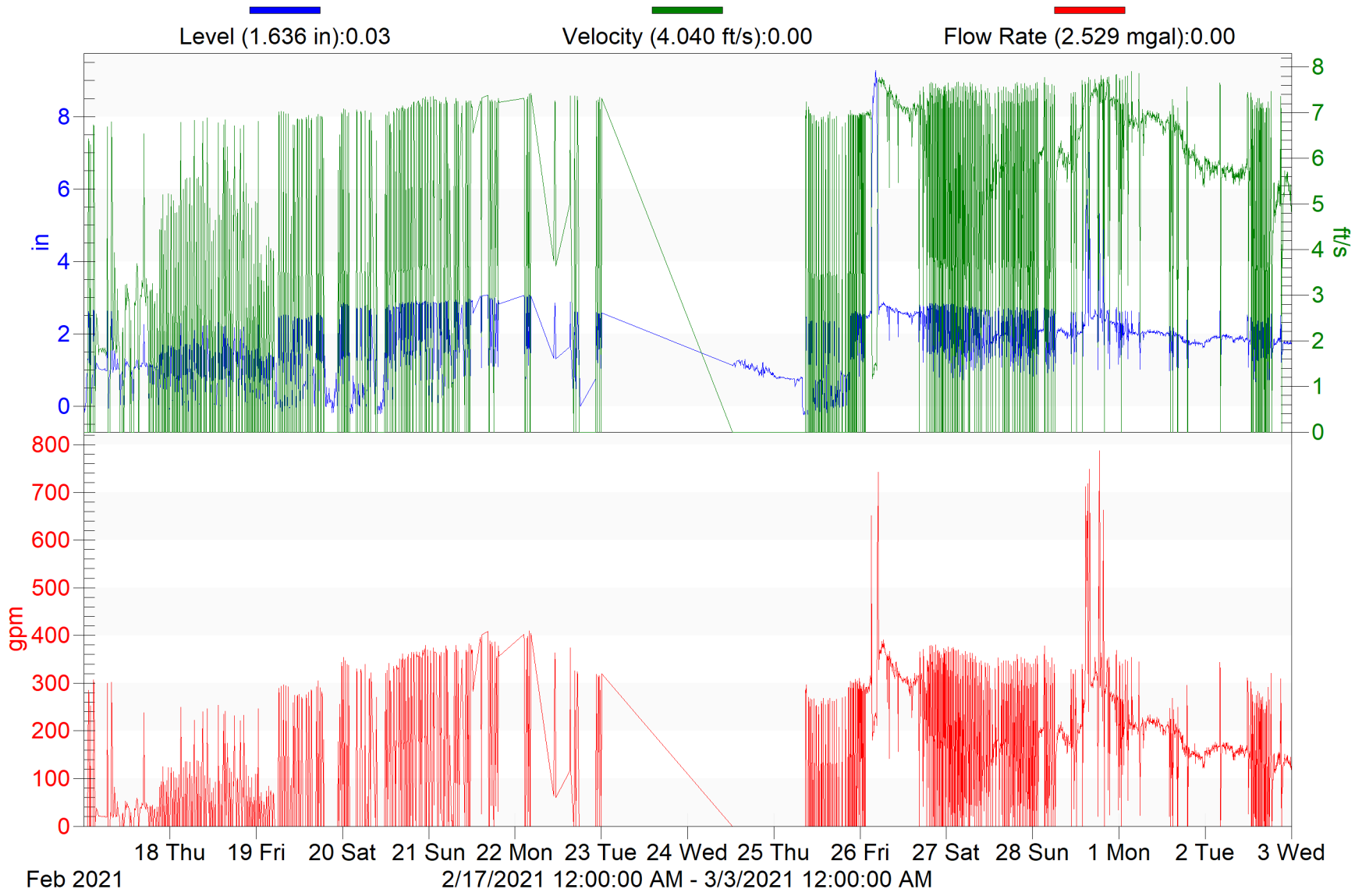

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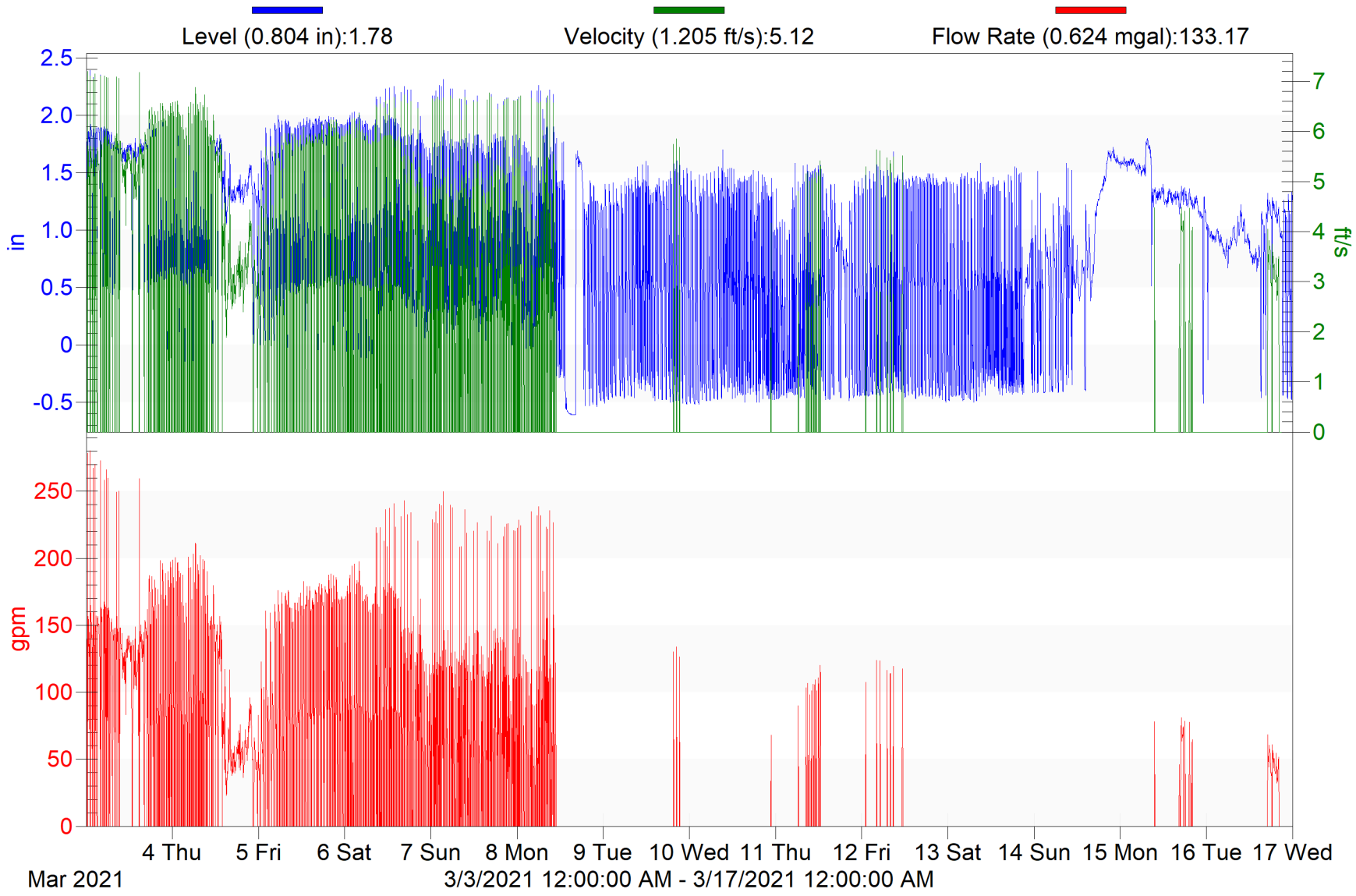
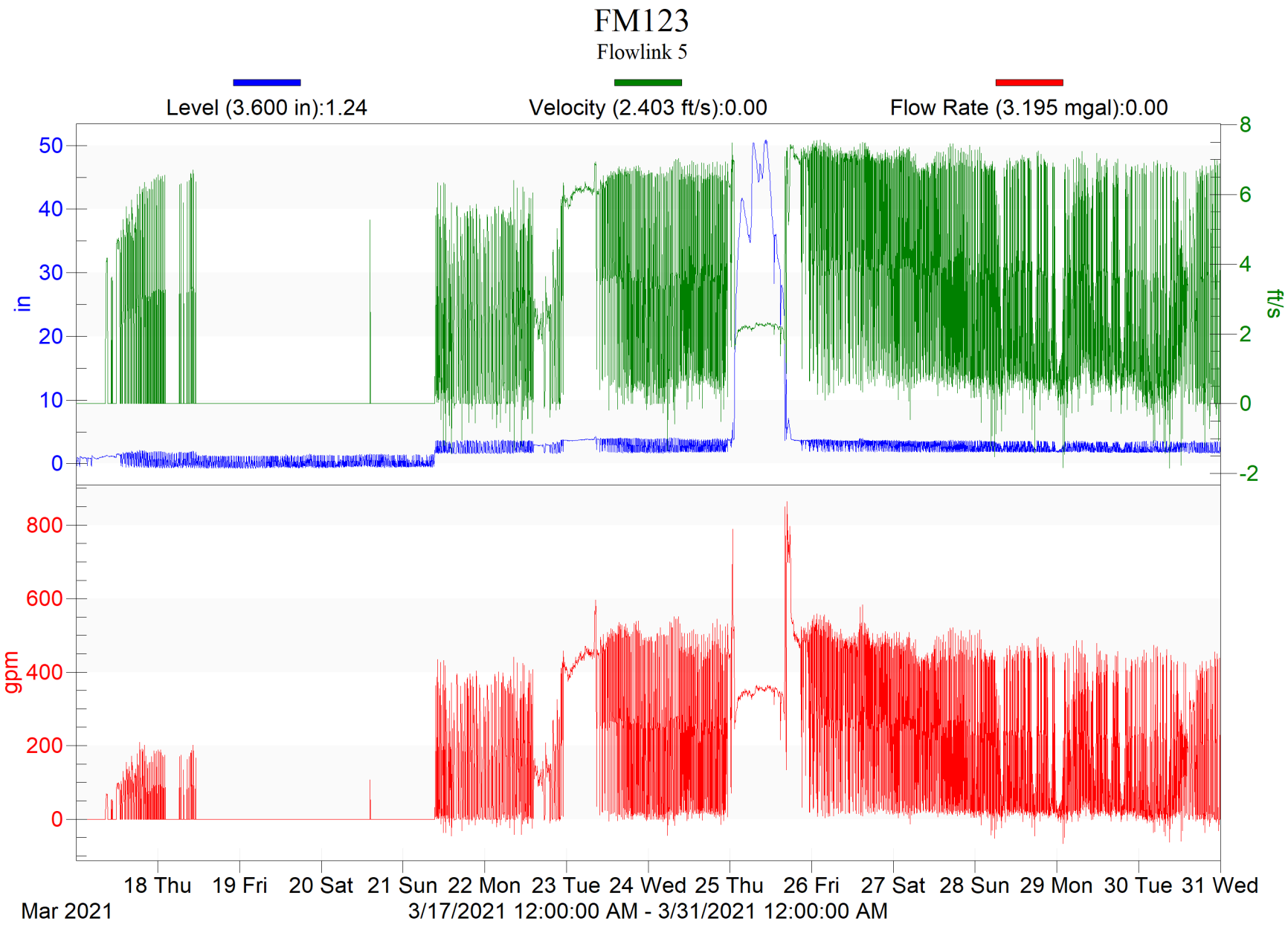
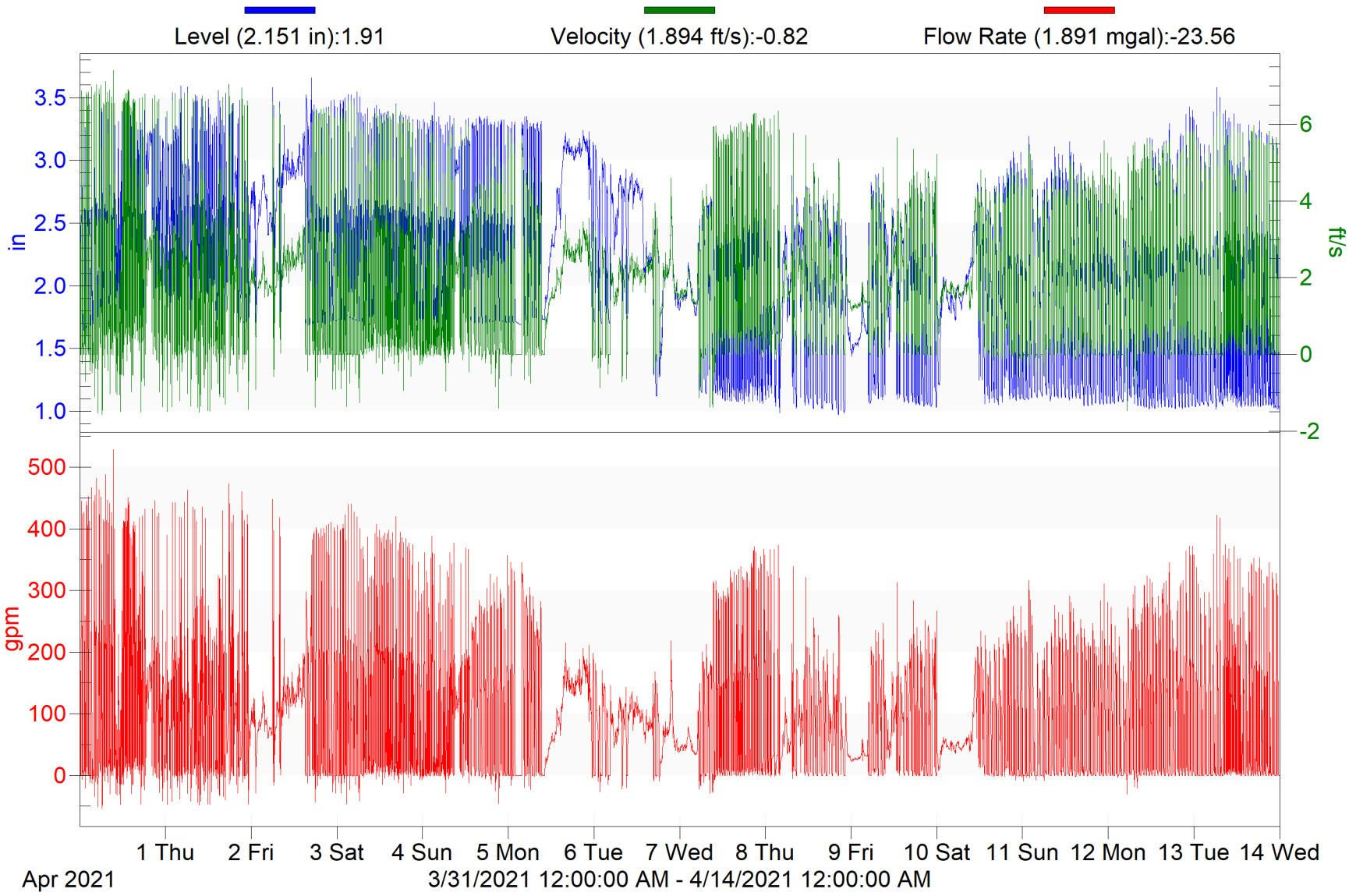



FM123
Flowlink 5
Level (3.600 in):1.24
Velocity (2.403 ft/s):0.00
Flow Rate (3.195 mgal):0.00
in
ft/s
gpm
50
40
30
20
10
0
8
6
4
2
0
-2
800
600
400
200
0
18 Thu
19 Fri
20 Sat
21 Sun
22 Mon
23 Tue
24 Wed
25 Thu
26 Fri
27 Sat
28 Sun
29 Mon
30 Tue
31 Wed
Mar 2021
3/17/2021 12:00:00 AM - 3/31/2021 12:00:00 AM

FM123

Flowlink 5



FM123

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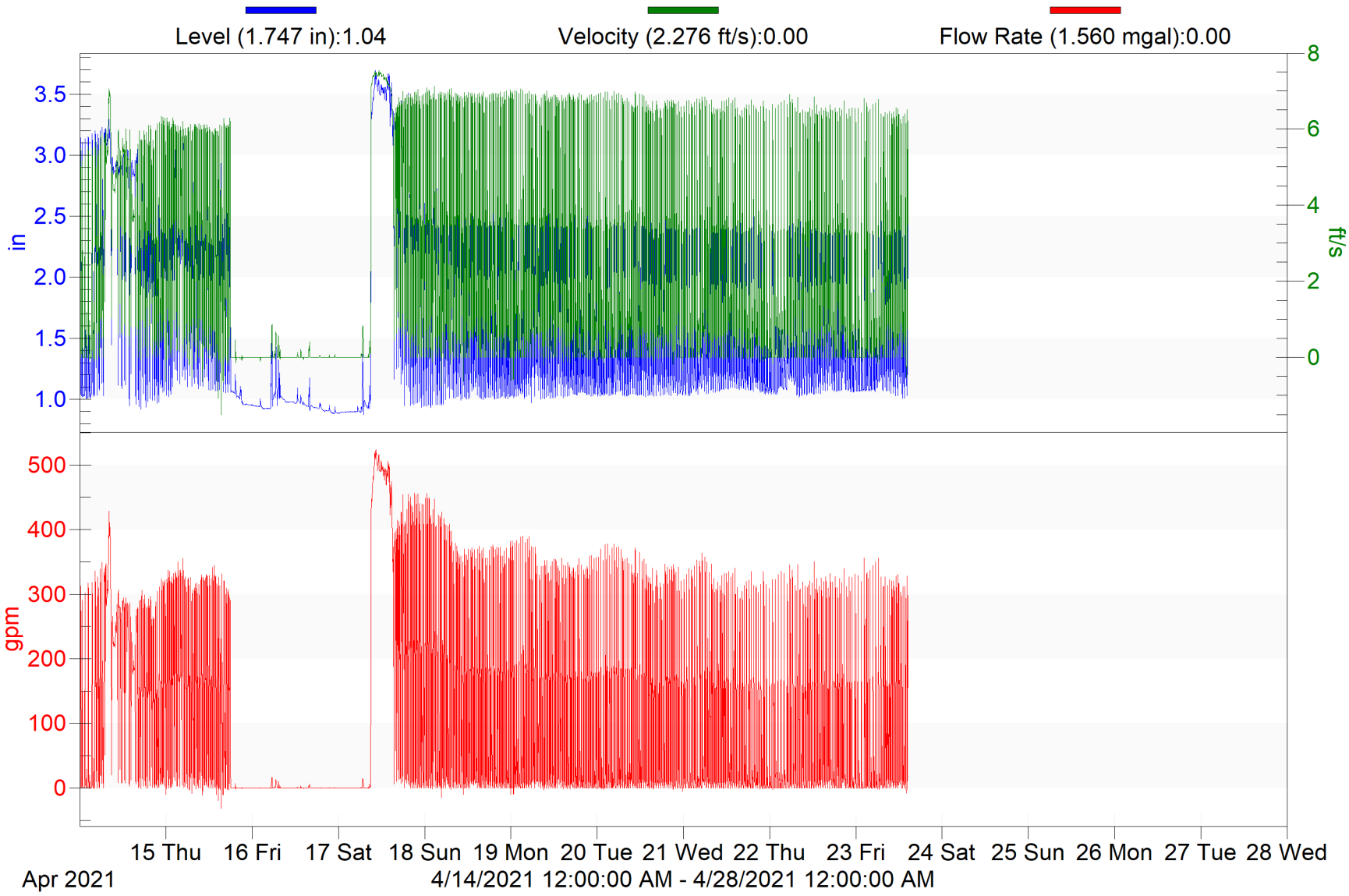

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Mena, AR Flow

Site Location Report

Site ID	Device Type	Installation Date	Installed By
FM283	Flow Meter	2/3/2021	J. Cawthon

Address	Location Details	Traffic Area ?
1200 Dallas Ave	Next tohigh school parking lot	No

Installation Manhole	Material	Evidence of Surcharge ?
283	Reinforced Concrete Pipe	No

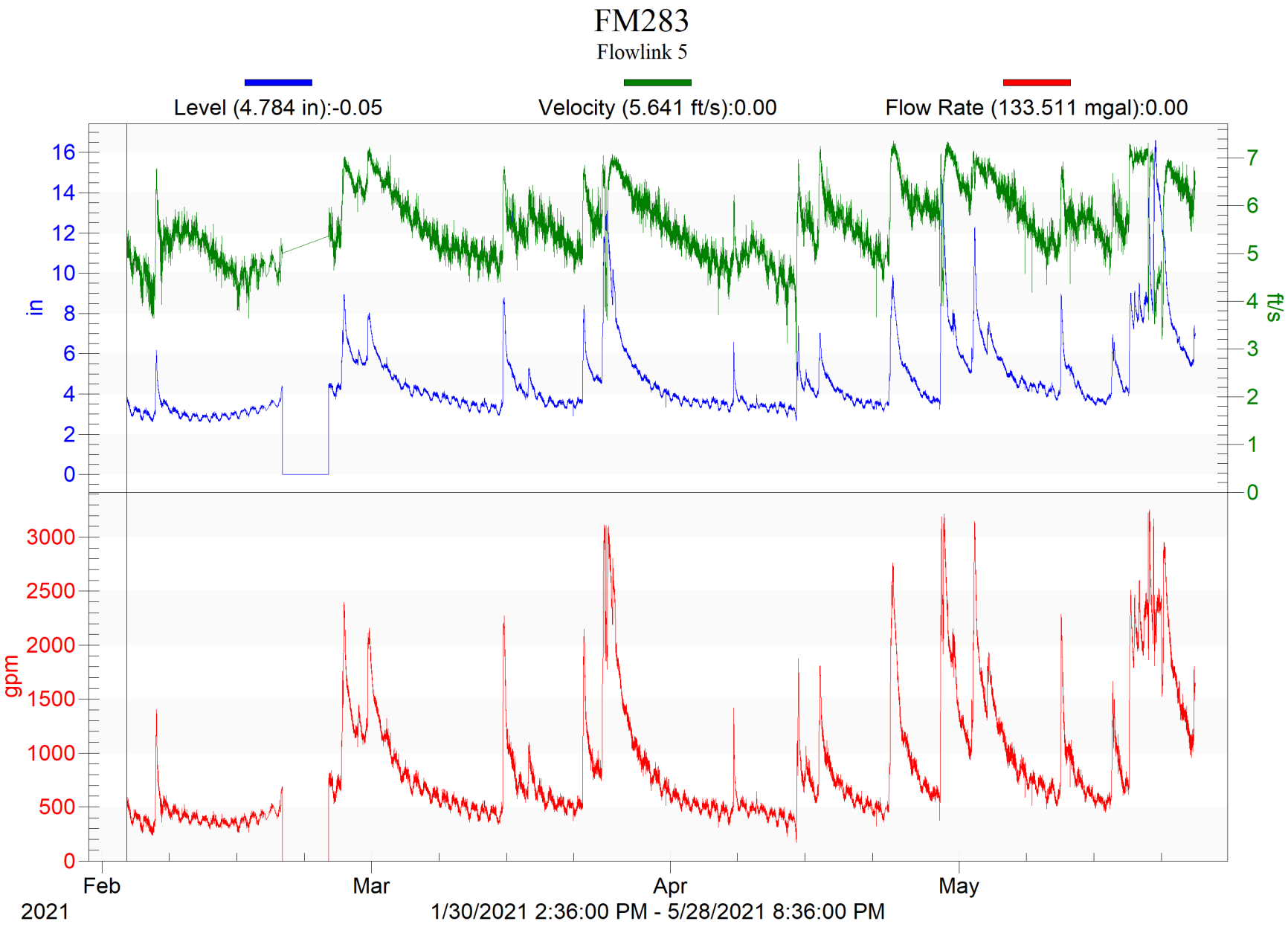
Gas Levels			
Oxygen	Carbon Monoxide	Hydrogen Sulfide	Lower Explosive Limit
20.90%	0.00%	0.00%	0

Installation Pipe	Material	Inside Diameter
incoming	VCP	15

Hydraulic Conditions
Normal level with high velocity

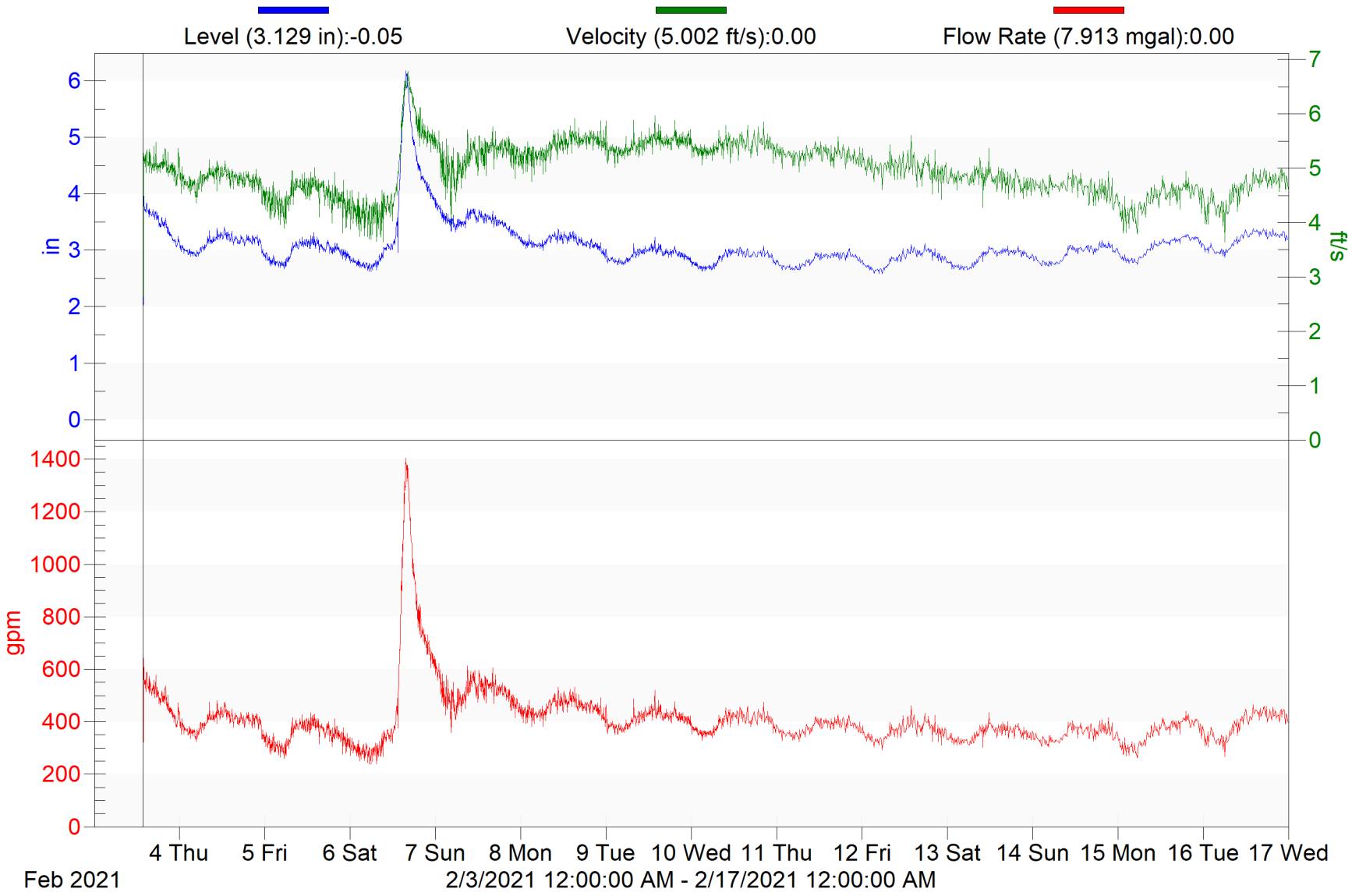
General Conditions

Map Image	Area Image	Sensor Ring Image
		
Map_FM283	FM283 Area	FM283 Pipe
Downhole Image	**Pipe Image**	**Install Schematic (Top)**
		
Aerial_FM283	FM283 Inner	FM283 Schematic


FM283
Flowlink 5
Level (4.784 in):-0.05
Velocity (5.641 ft/s):0.00
Flow Rate (133.511 mgal):0.00
in
ft/s
gpm
16
14
12
10
8
6
4
2
0
7
6
5
4
3
2
1
0
3000
2500
2000
1500
1000
500
0
Feb
Mar
Apr
May
2021
1/30/2021 2:36:00 PM - 5/28/2021 8:36:00 PM

FM283

Flowlink 5



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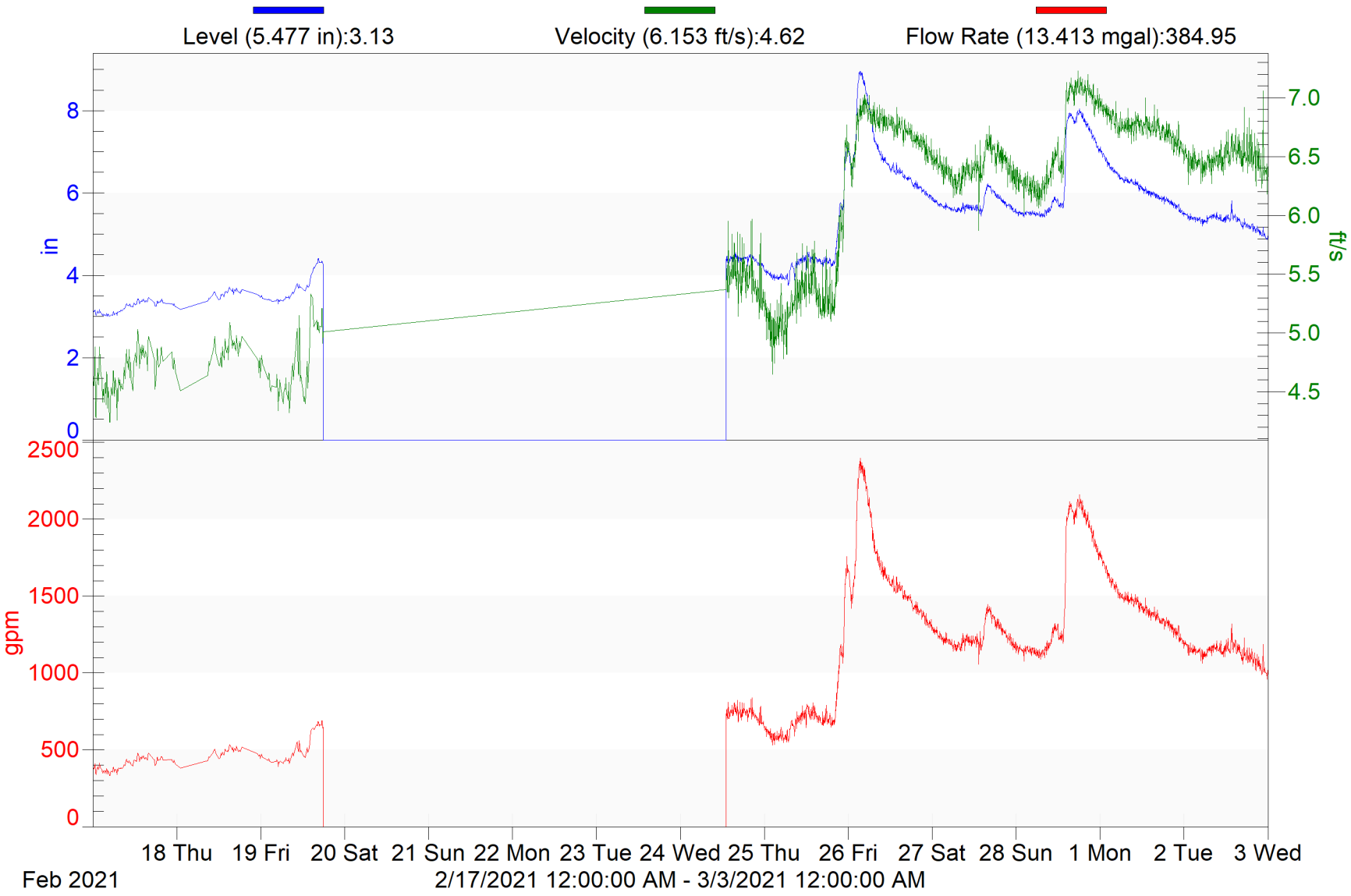

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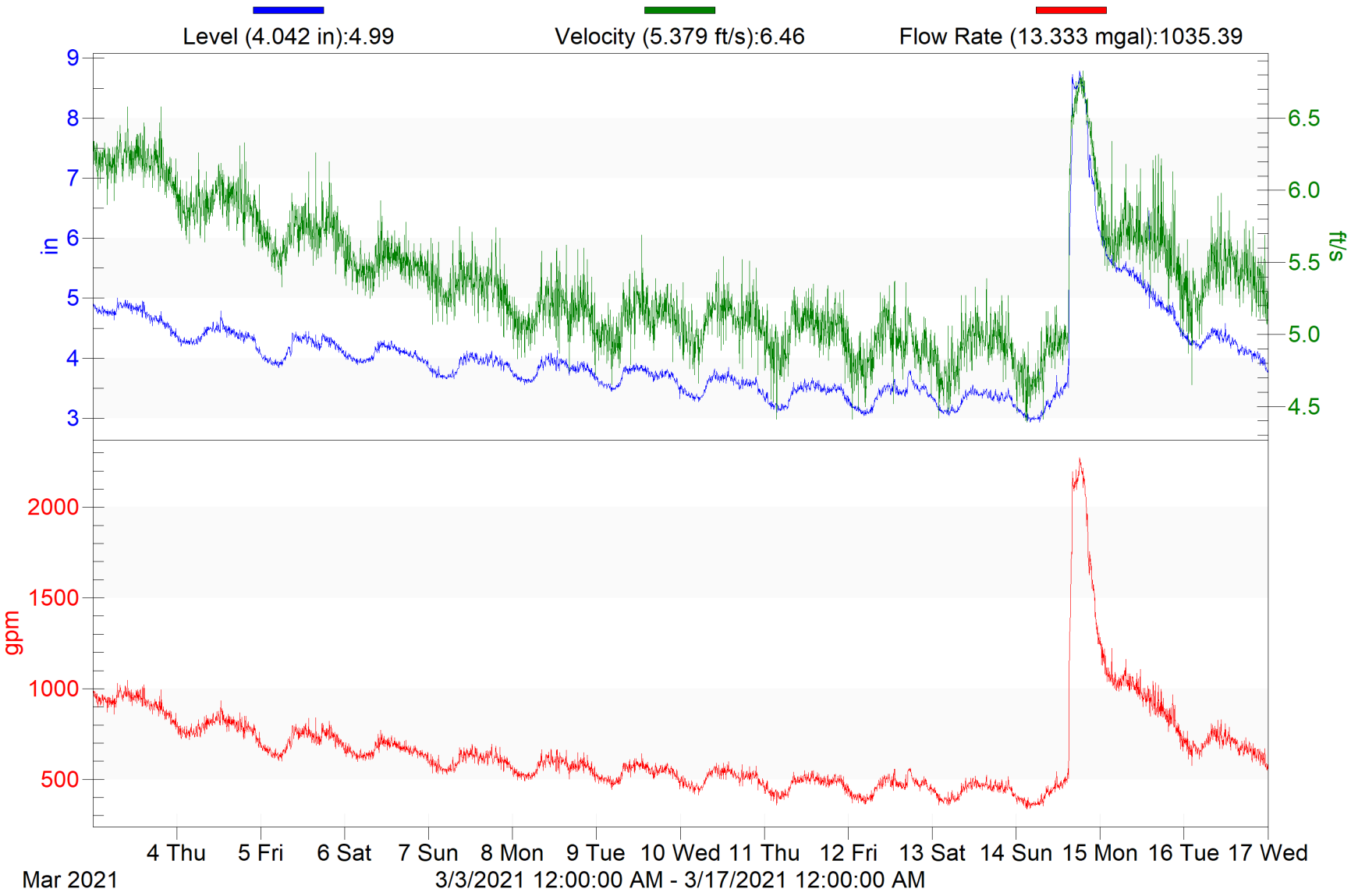

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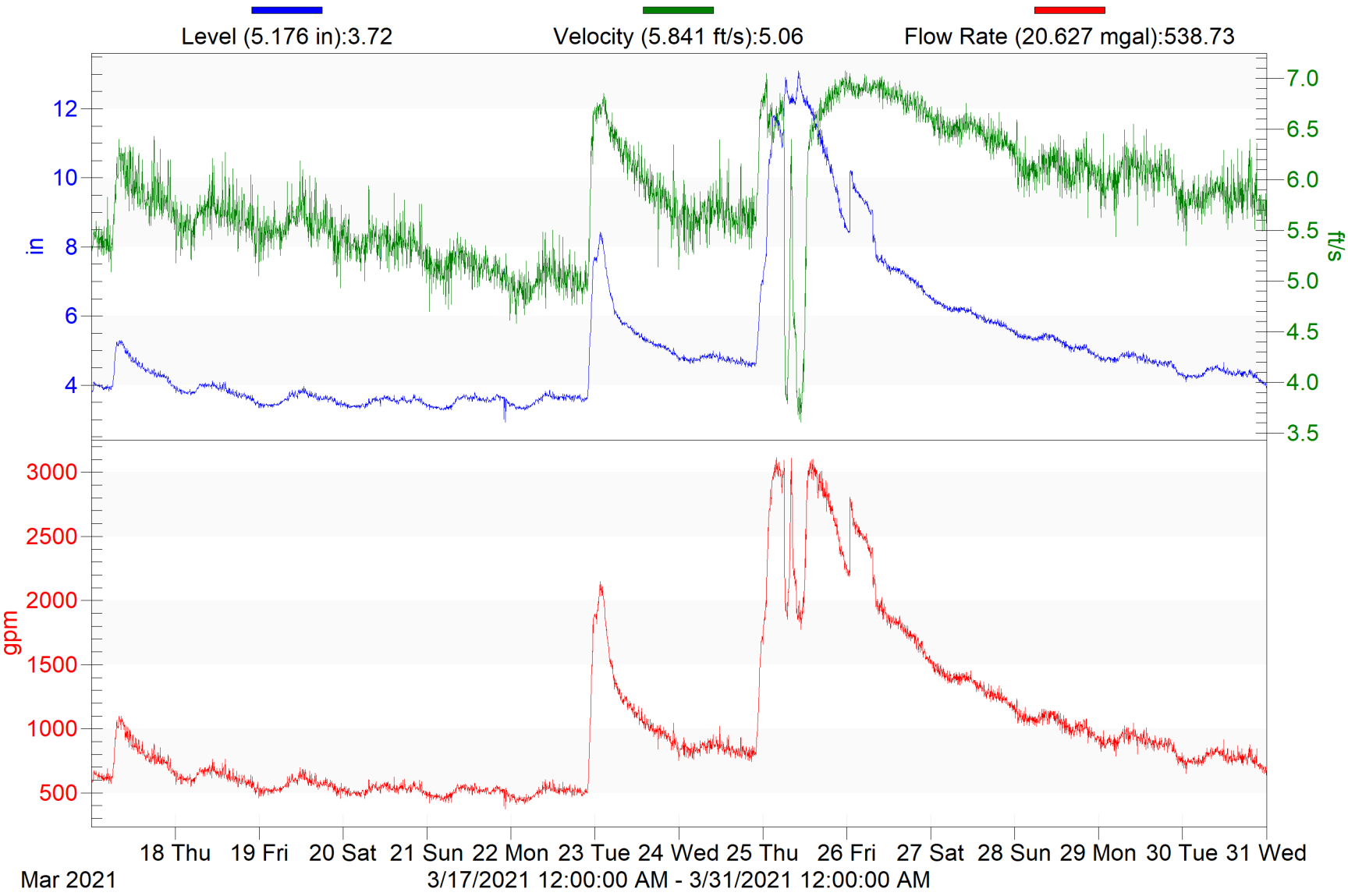

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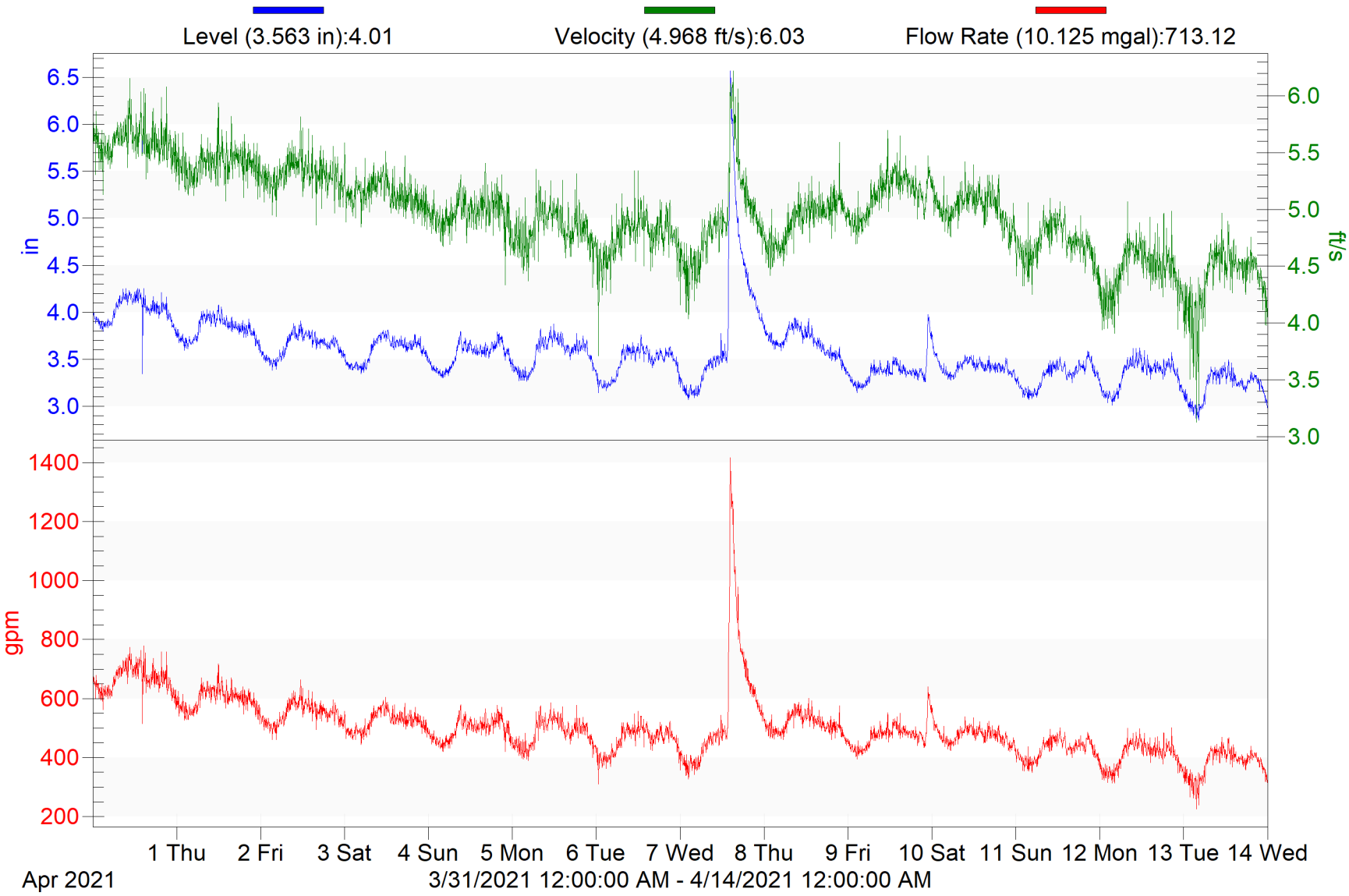

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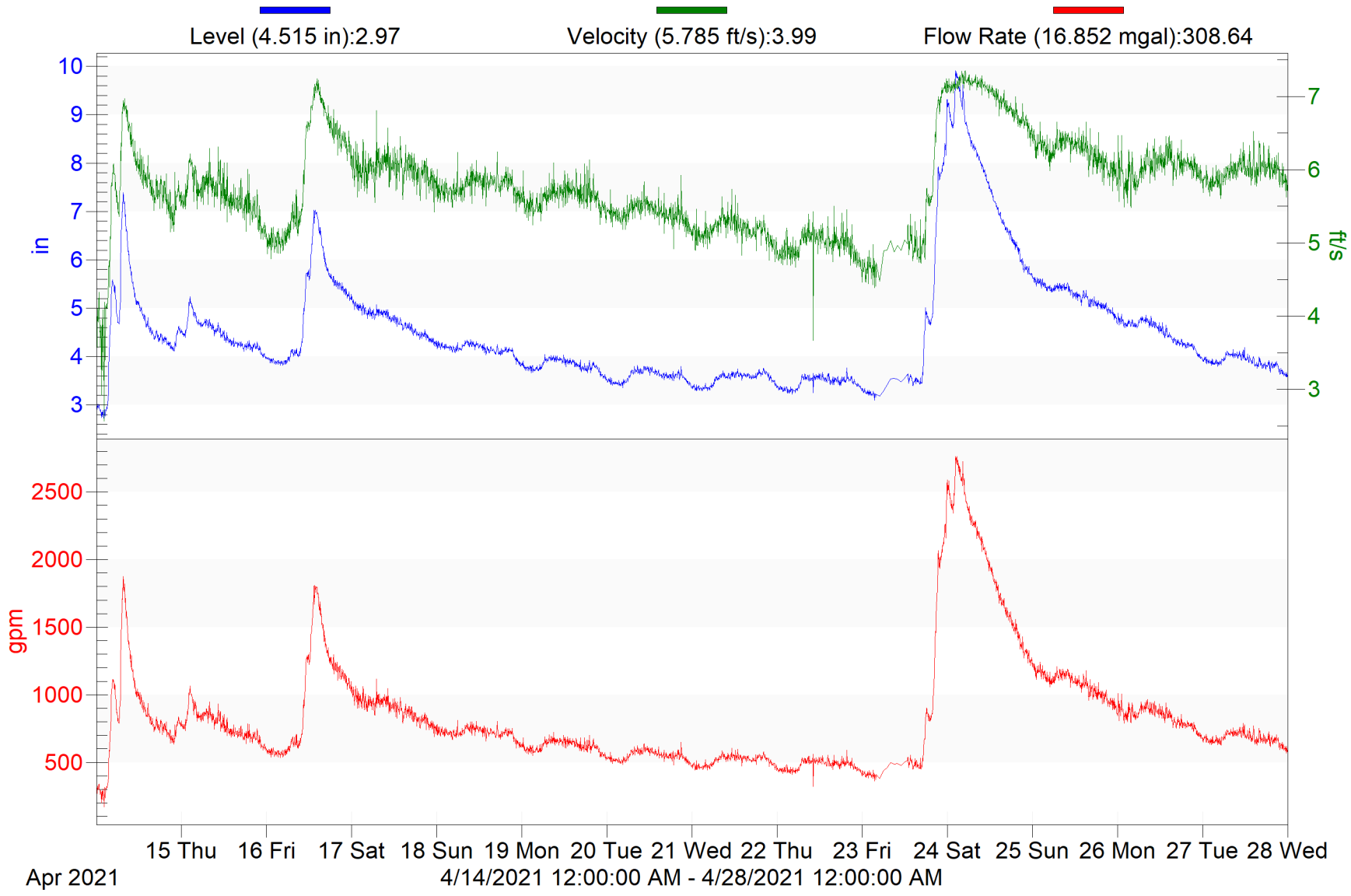

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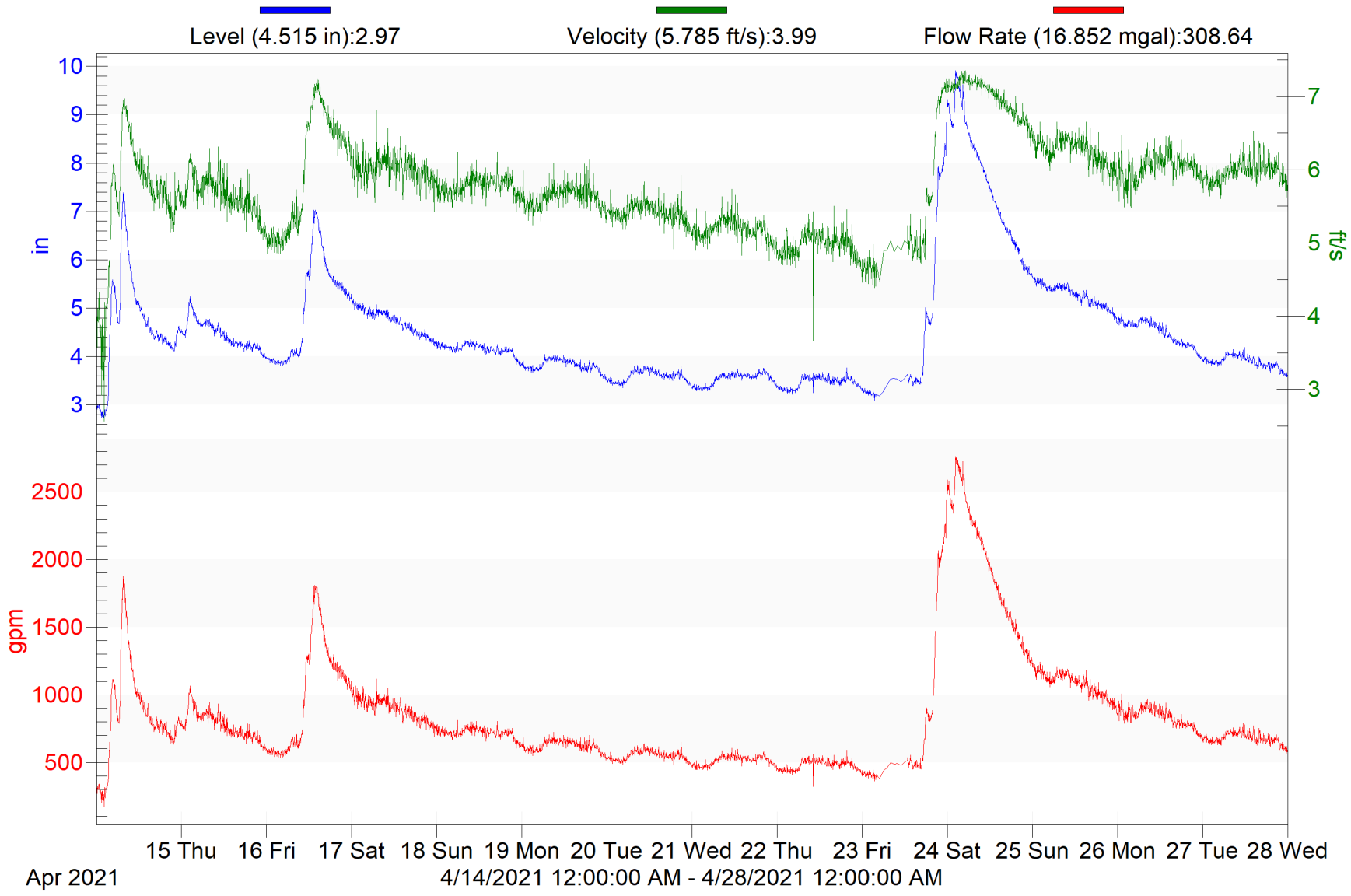

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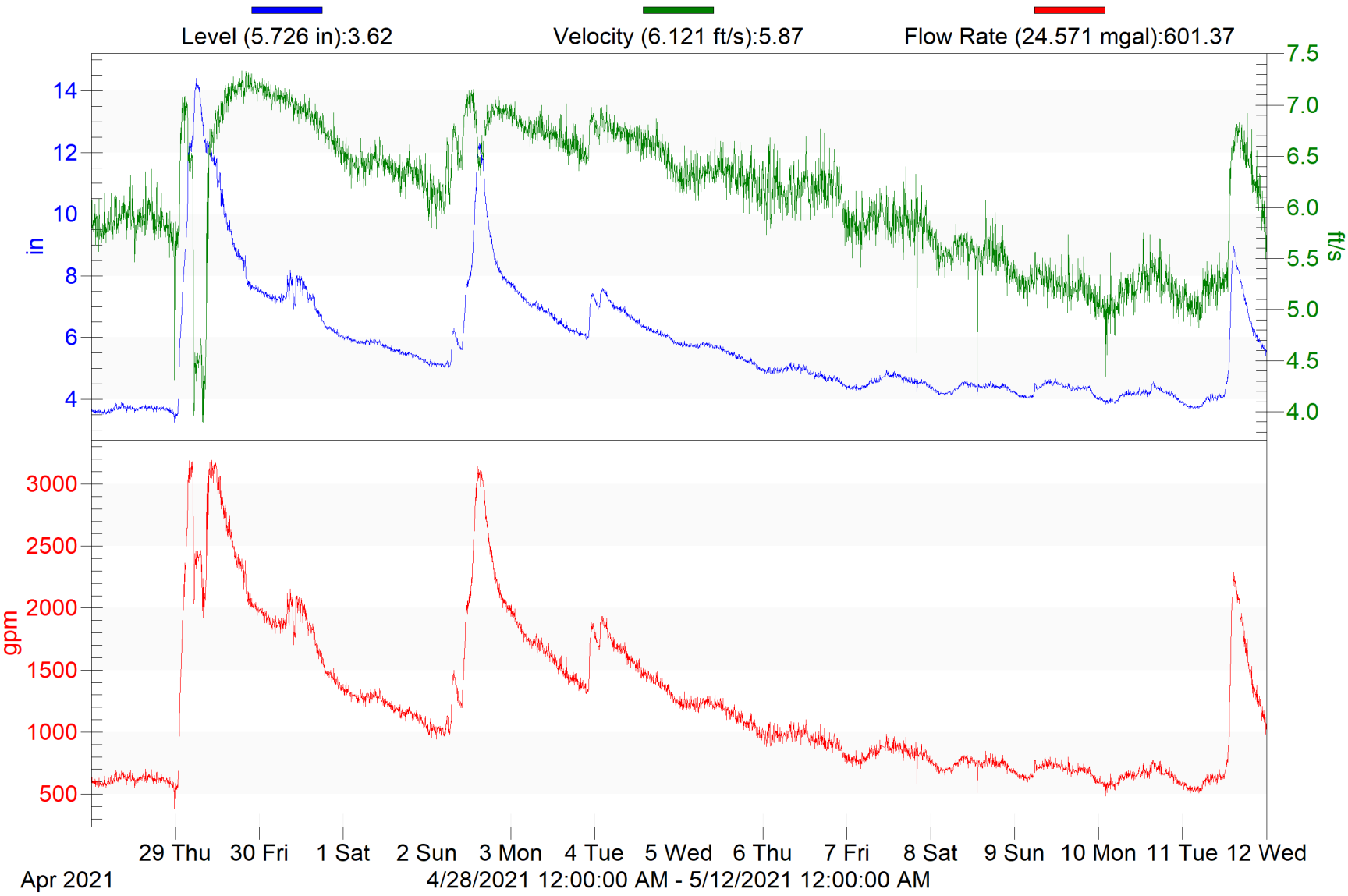

FM283

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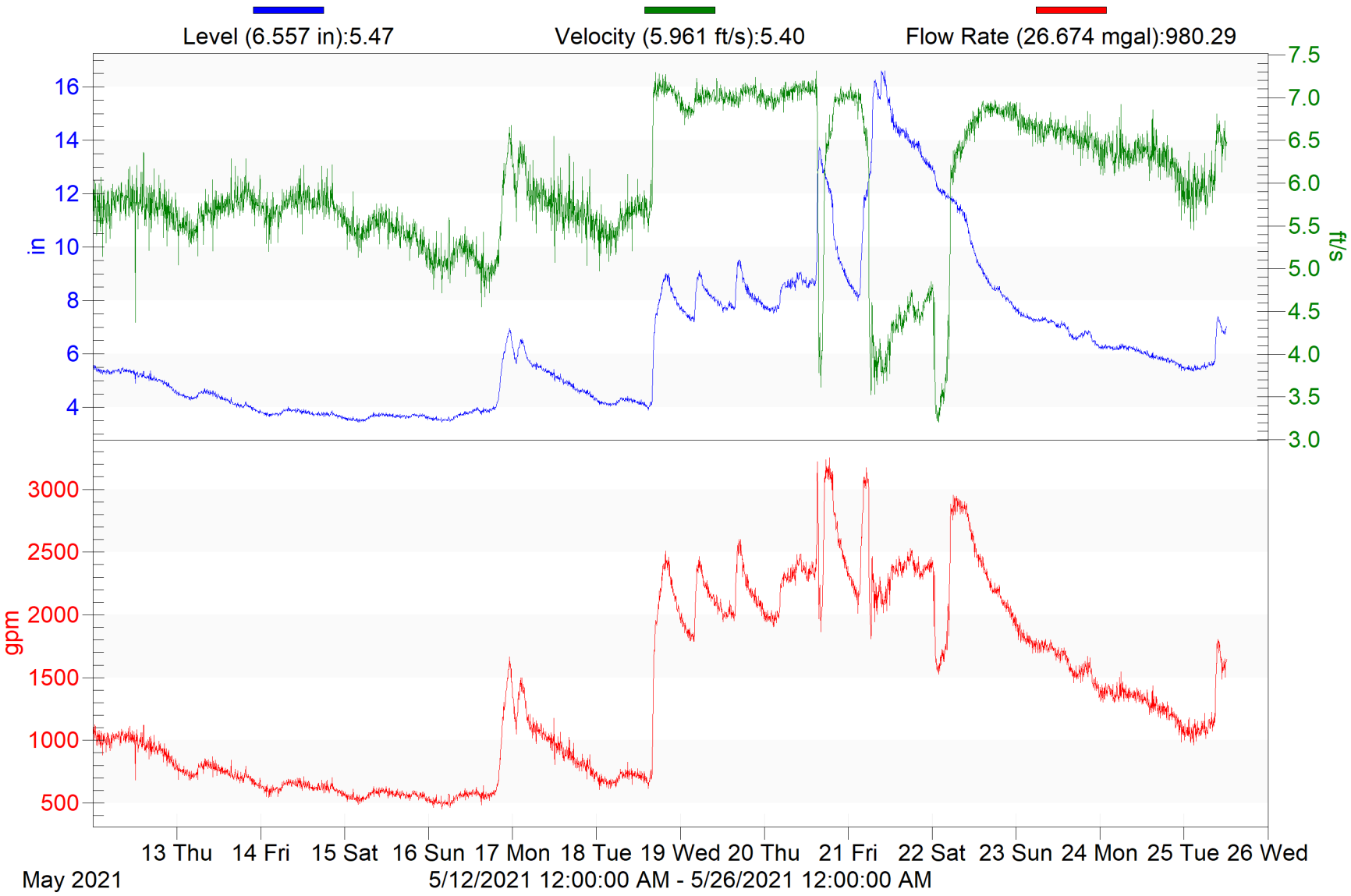

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Mena, AR Flow

Site Location Report

Site ID	Device Type	Installation Date	Installed By
FM388	Flow Meter	4/23/2021	J. Cawthon

Address	Location Details	Traffic Area ?
1st and Martin St.	middle of the intersection	Yes

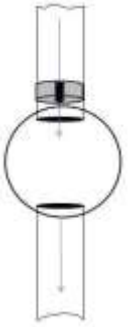
Installation Manhole	Material	Evidence of Surcharge ?
388	Brick	No

Gas Levels			
Oxygen	Carbon Monoxide	Hydrogen Sulfide	Lower Explosive Limit
20.70%	10.00%	0.00%	0

Installation Pipe	Material	Inside Diameter
incoming	VCP	12

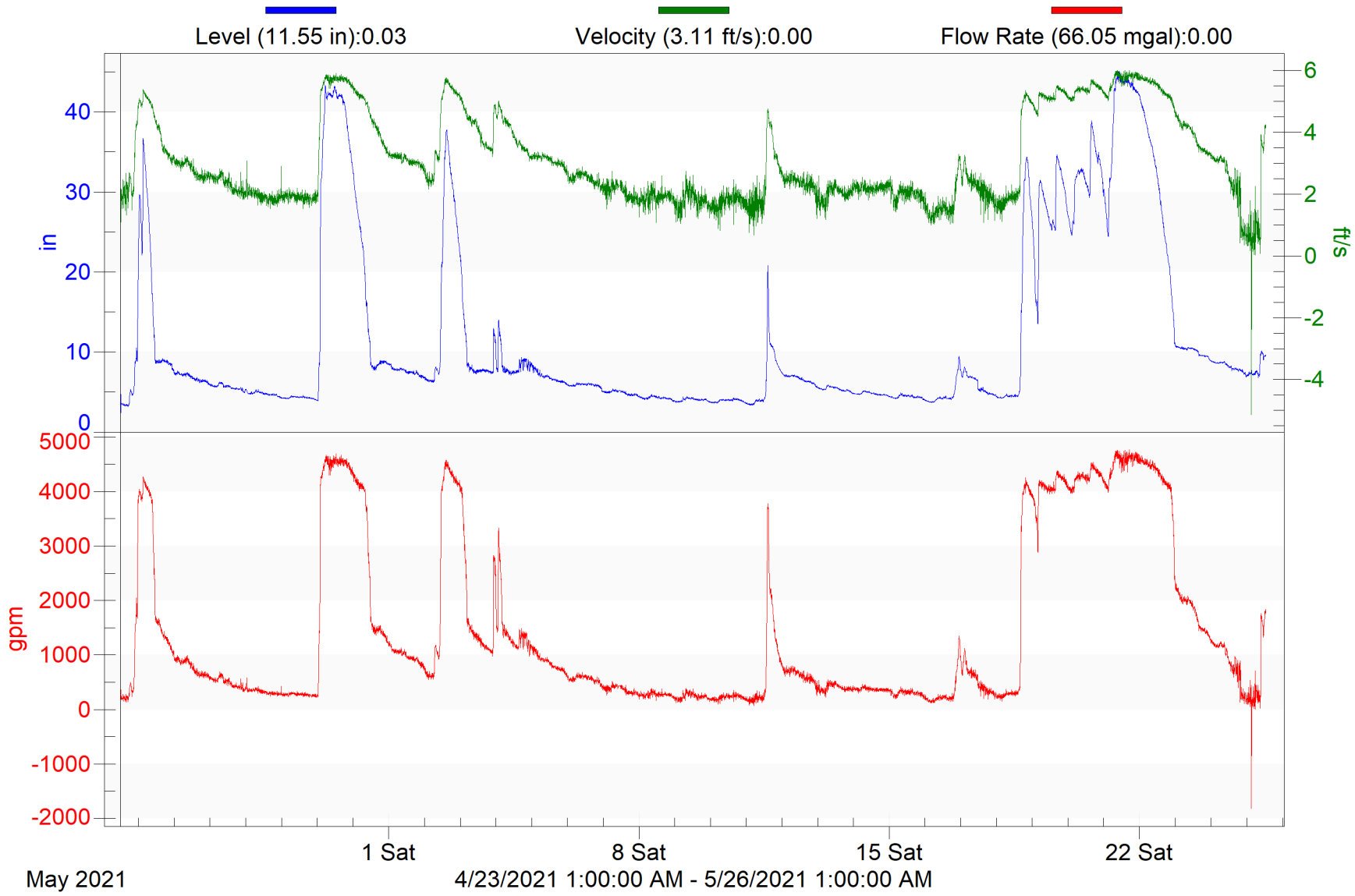
Hydraulic Conditions
Normal level with high velocity

General Conditions
light traffic

Map Image	Area Image	Sensor Ring Image
		
Map_FM388	FM388 Area	FM388 Pipe
Downhole Image	**Pipe Image**	**Install Schematic (Top)**
		
Aerial_FM388	FM388 Inner	FM388 Schematic

FM 388

Flowlink 5



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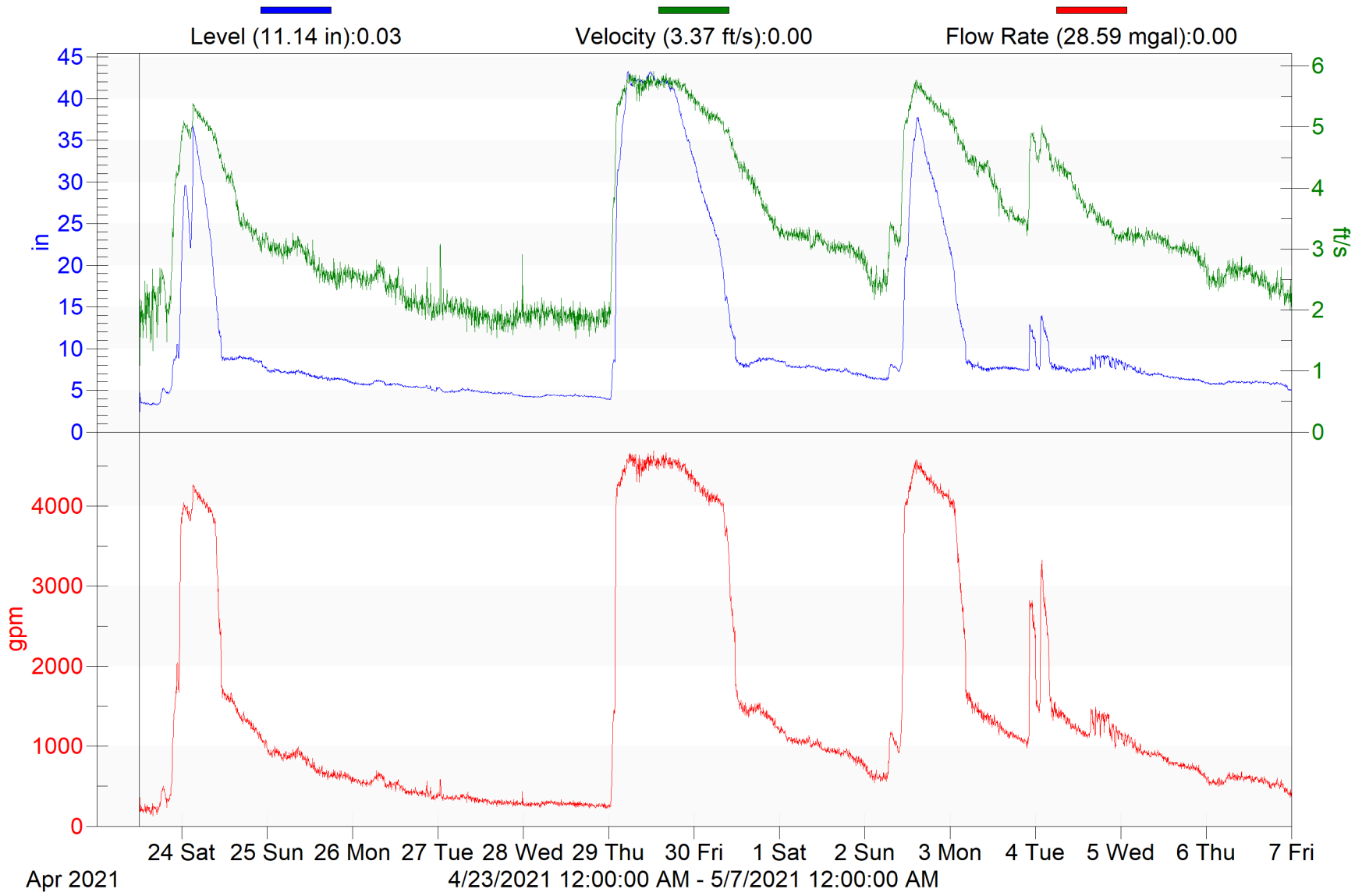

FM 388

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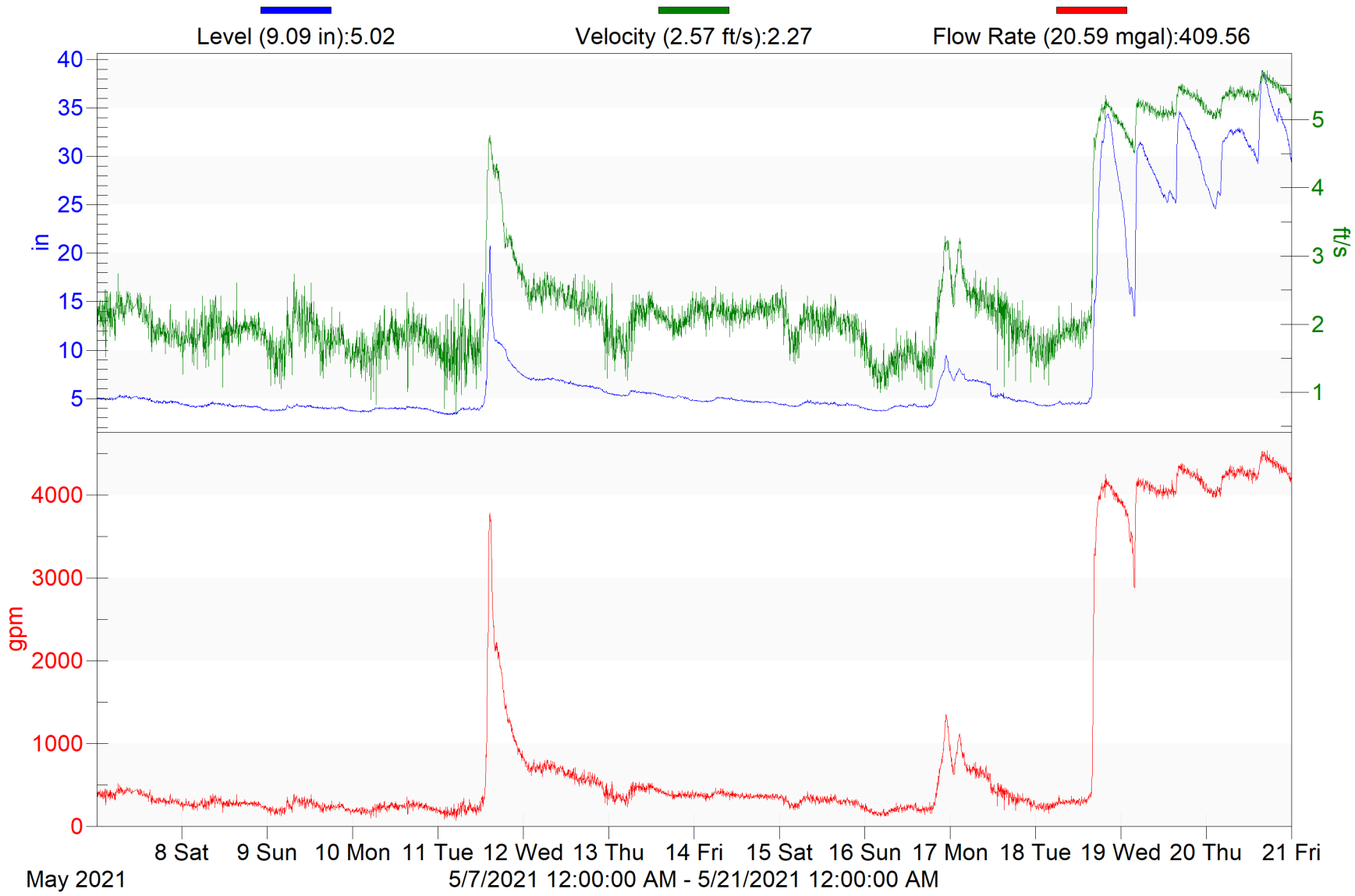

FM 388

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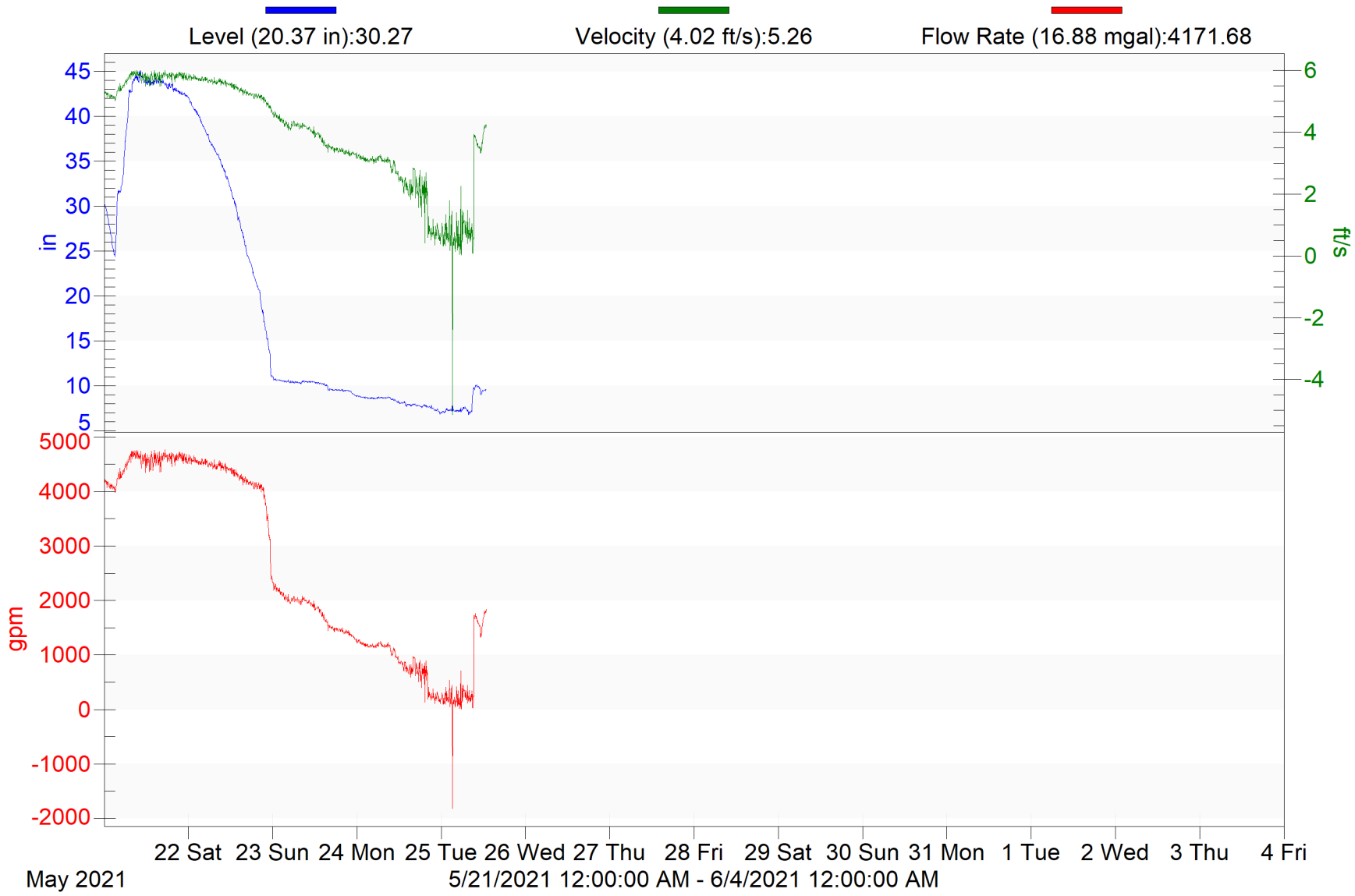

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Mena, AR Flow

Site Location Report

Site ID	Device Type	Installation Date	Installed By
FM606	Flow Meter	2/3/2021	J. Cawthon

Address	Location Details	Traffic Area ?
121 Industrial Ln	next to waste company	No

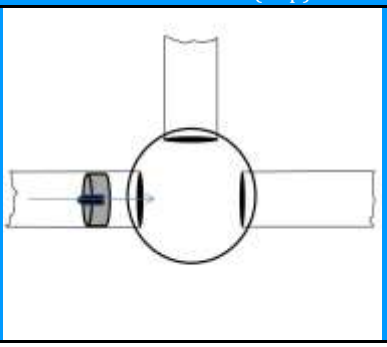
Installation Manhole	Material	Evidence of Surcharge ?
606	Reinforced Concrete Pipe	No

Gas Levels			
Oxygen	Carbon Monoxide	Hydrogen Sulfide	Lower Explosive Limit
20.90%	0.00%	0.00%	0

Installation Pipe	Material	Inside Diameter
	VCP	18

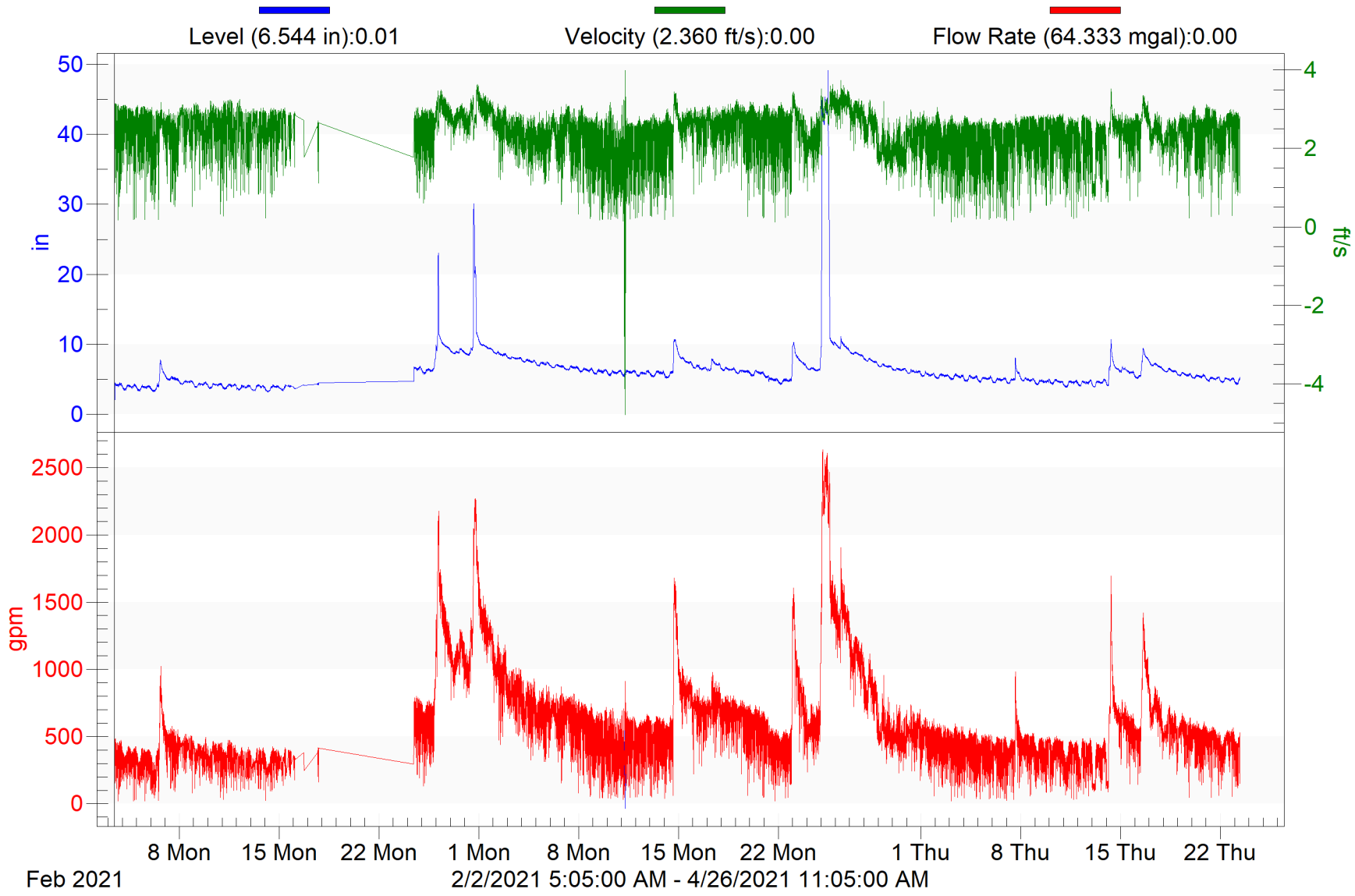
Hydraulic Conditions
Normal Level with high velocity

General Conditions

Map Image	Area Image	Sensor Ring Image
		
Map_FM606	FM606 Area	FM606 Pipe
Downhole Image	**Pipe Image**	**Install Schematic (Top)**
		
Aerial_FM606	FM606 Inner	FM606 Schematic

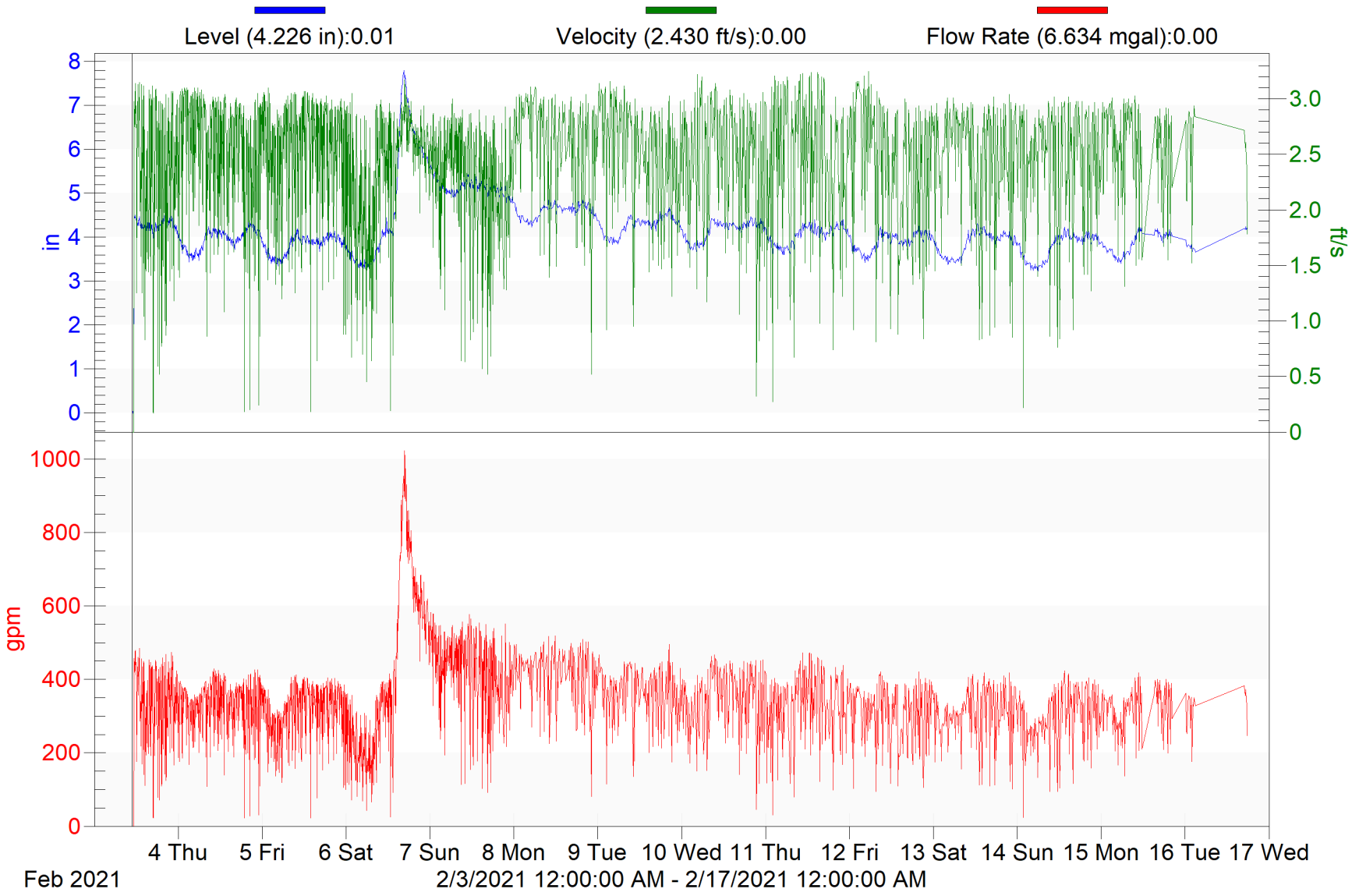
FM606

Flowlink 5



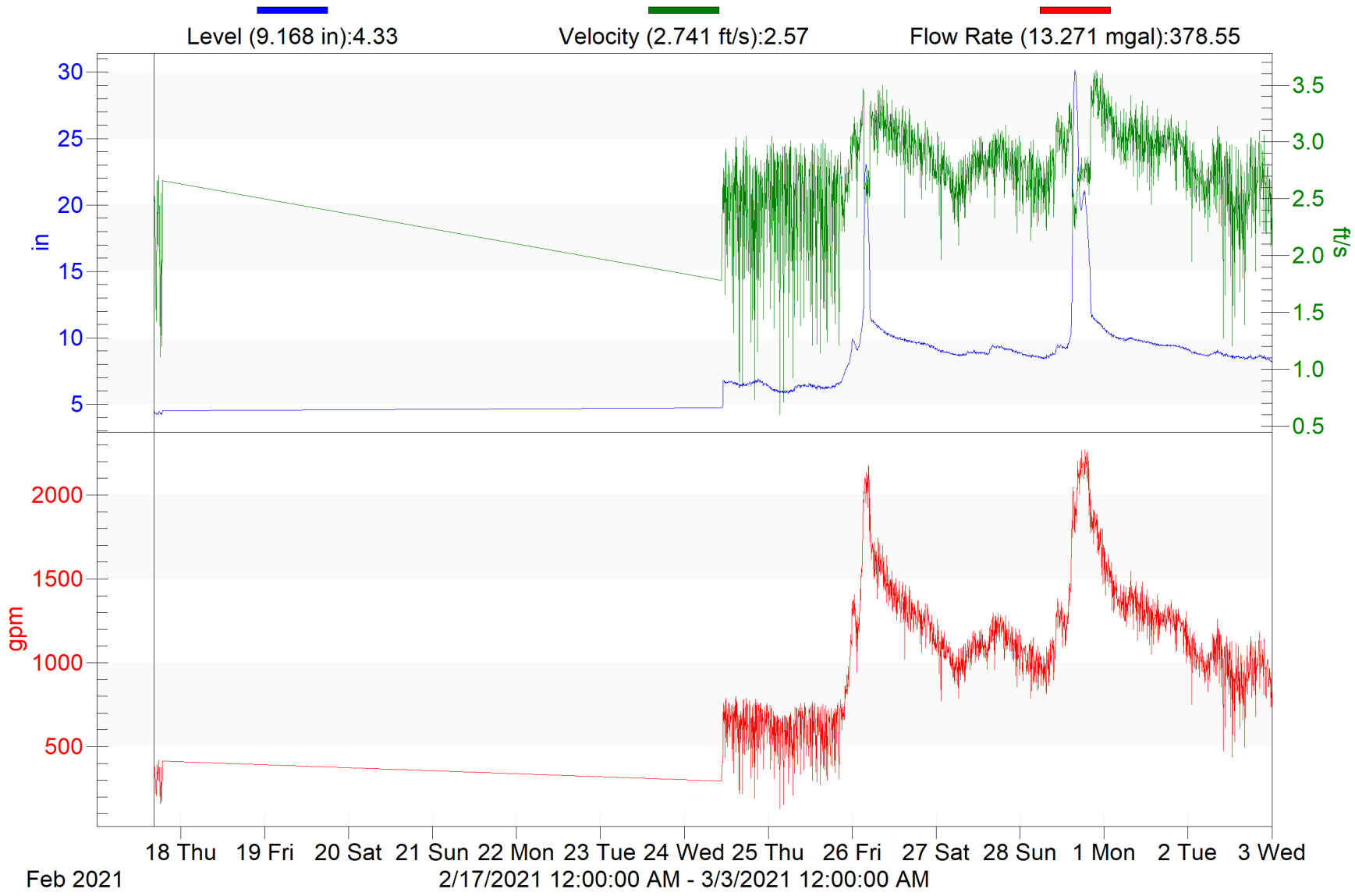
FM606

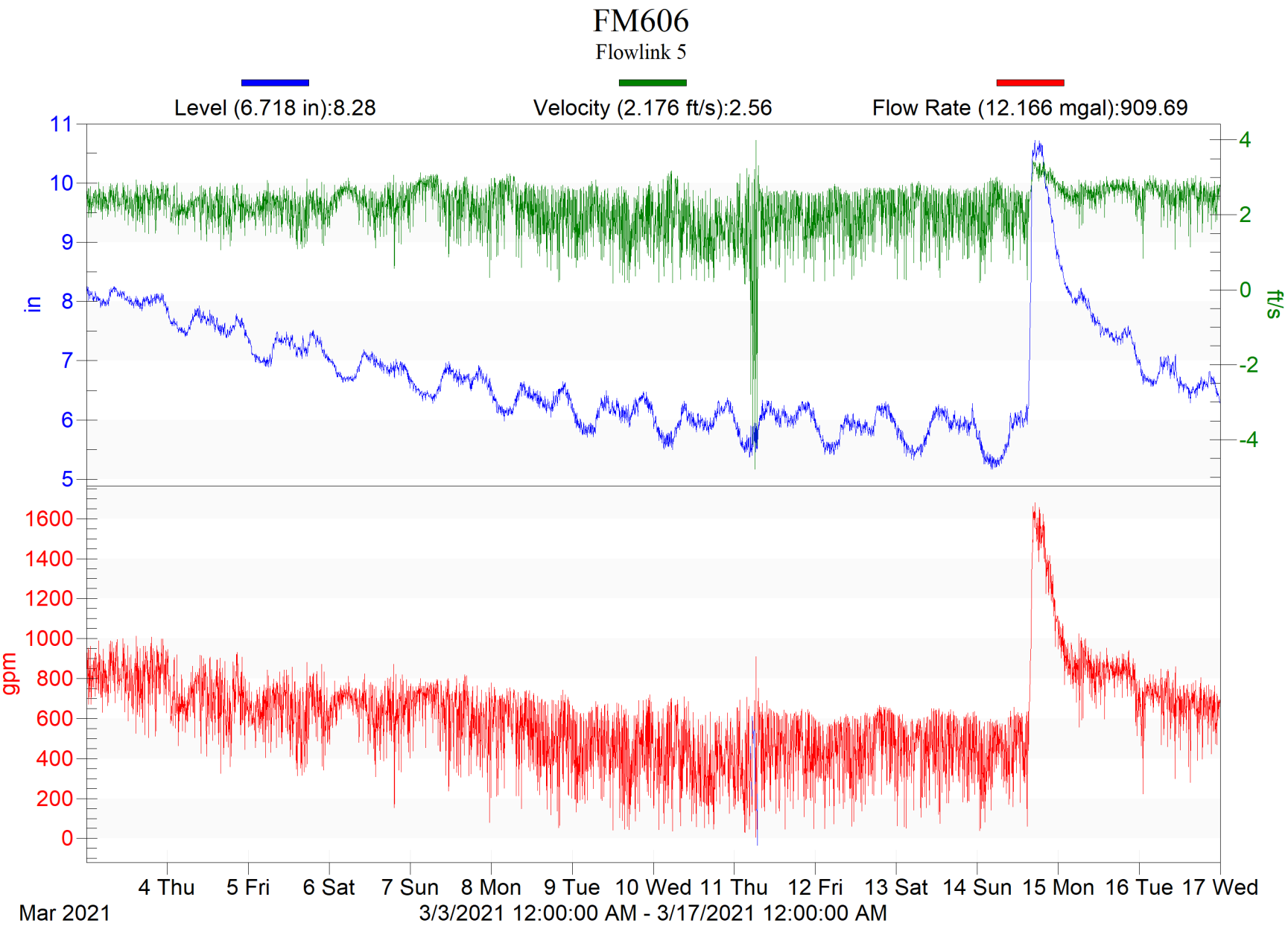
Flowlink 5



FM606

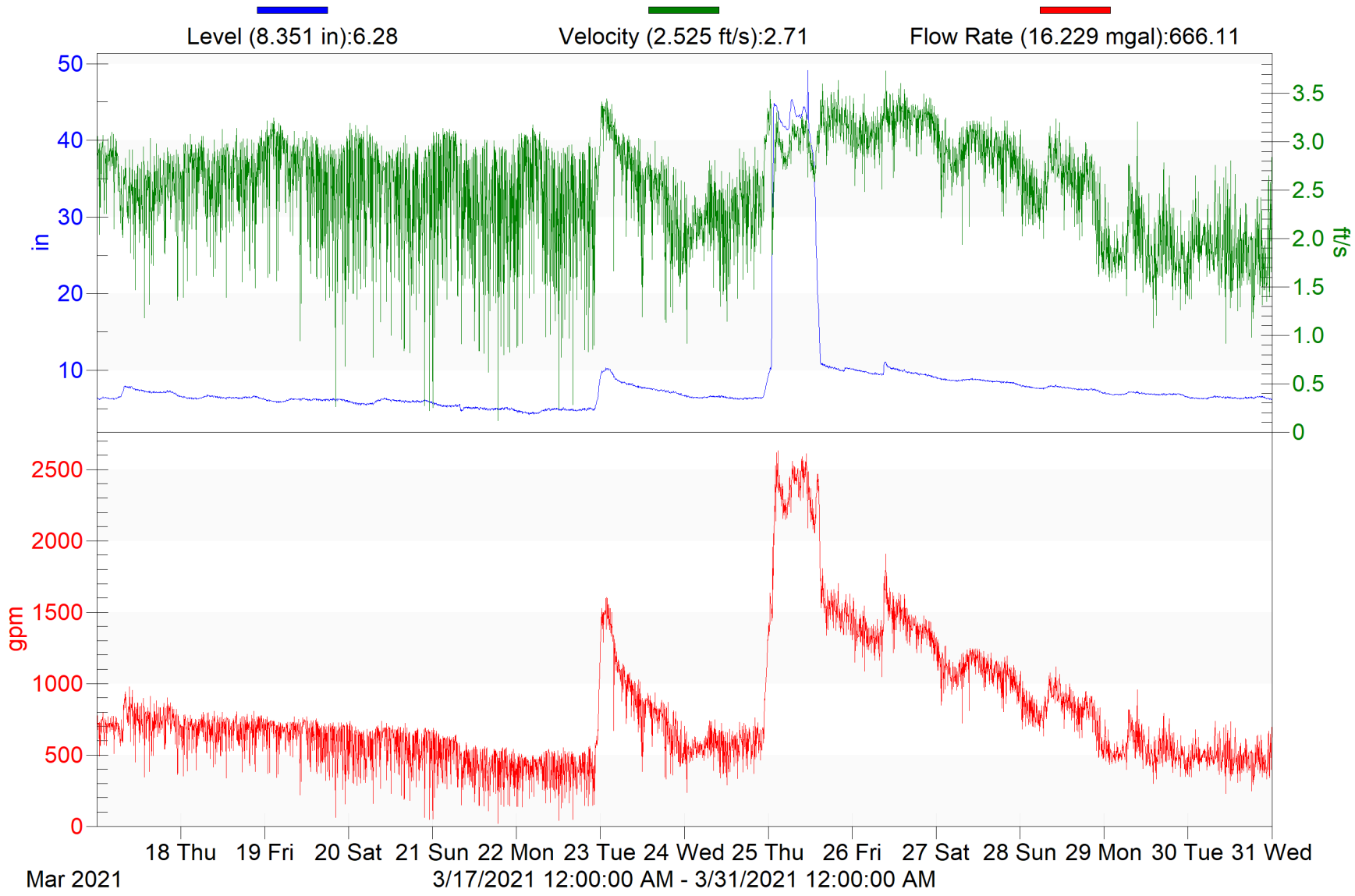
Flowlink 5

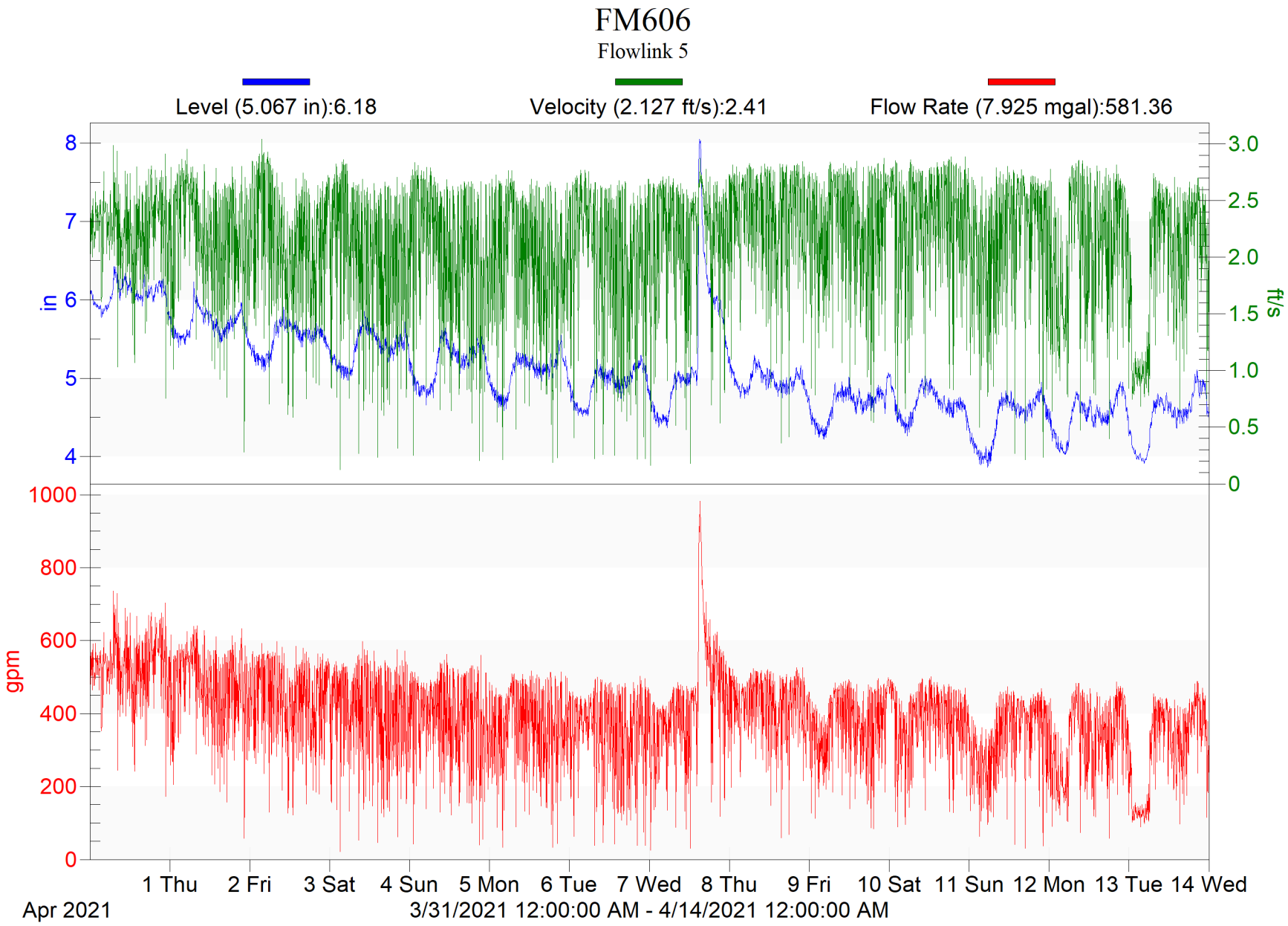



FM606
Flowlink 5
Level (6.718 in):8.28
Velocity (2.176 ft/s):2.56
Flow Rate (12.166 mgal):909.69
in
ft/s
gpm
11
10
9
8
7
6
5
4
2
0
-2
-4
1600
1400
1200
1000
800
600
400
200
0
4 Thu
5 Fri
6 Sat
7 Sun
8 Mon
9 Tue
10 Wed
11 Thu
12 Fri
13 Sat
14 Sun
15 Mon
16 Tue
17 Wed
Mar 2021
3/3/2021 12:00:00 AM - 3/17/2021 12:00:00 AM

FM606

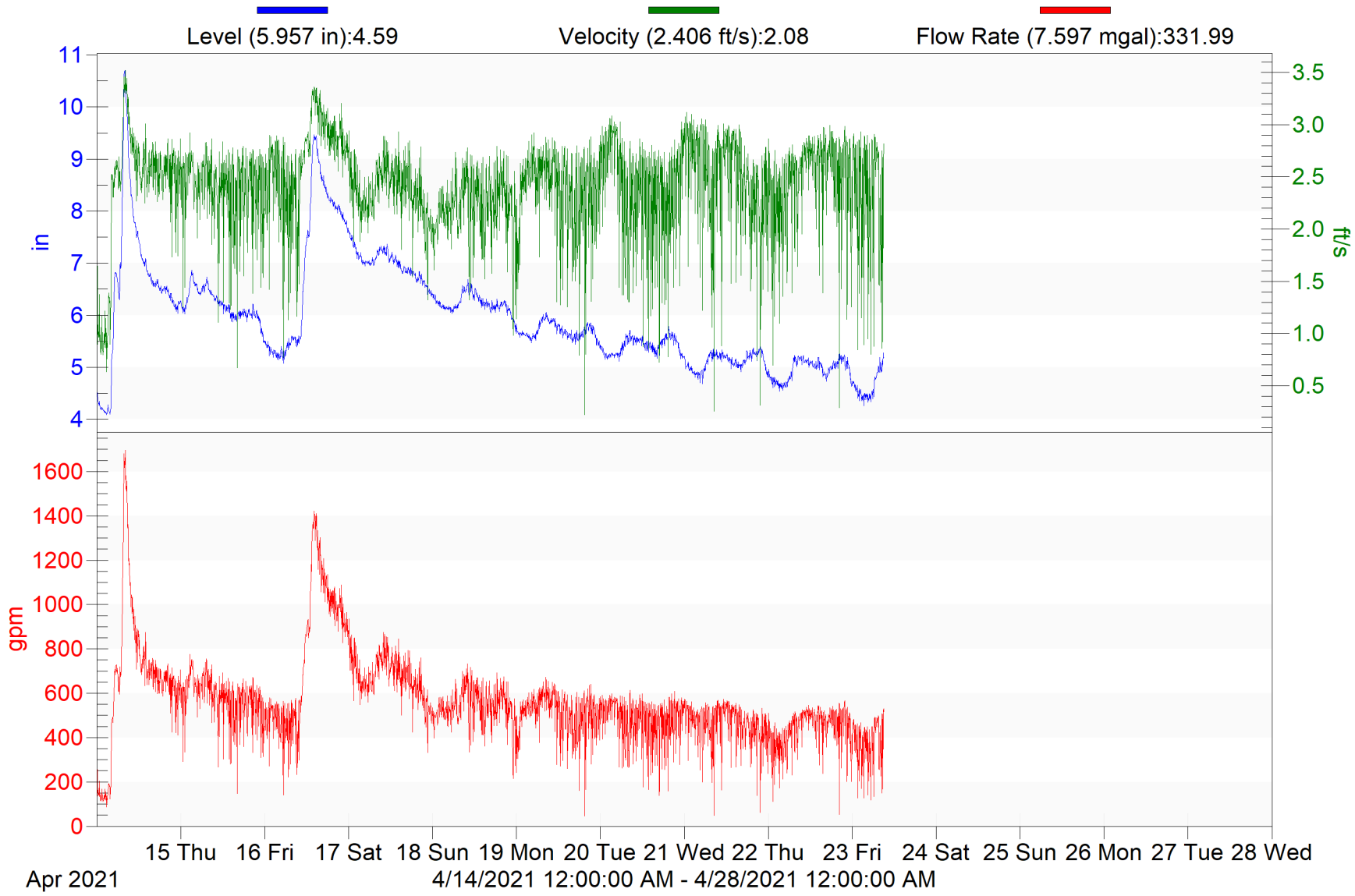
Flowlink 5




FM606
Flowlink 5
Level (5.067 in):6.18
Velocity (2.127 ft/s):2.41
Flow Rate (7.925 mgal):581.36
in
ft/s
gpm
8
7
6
5
4
3.0
2.5
2.0
1.5
1.0
0.5
0
1000
800
600
400
200
0
1 Thu
2 Fri
3 Sat
4 Sun
5 Mon
6 Tue
7 Wed
8 Thu
9 Fri
10 Sat
11 Sun
12 Mon
13 Tue
14 Wed
Apr 2021
3/31/2021 12:00:00 AM - 4/14/2021 12:00:00 AM

FM606

Flowlink 5



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Mena, AR Flow

Site Location Report

Site ID	Device Type	Installation Date	Installed By
FM715	Flow Meter	2/3/2021	J. Cawthon

Address	Location Details	Traffic Area ?
1 Hot Rod Ln	Next to building	No

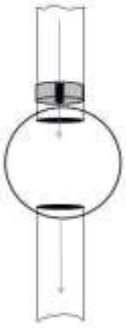
Installation Manhole	Material	Evidence of Surcharge ?
715	Reinforced Concrete Pipe	No

Gas Levels			
Oxygen	Carbon Monoxide	Hydrogen Sulfide	Lower Explosive Limit
20.90%	0.00%	0.00%	0

Installation Pipe	Material	Inside Diameter
	VCP	15

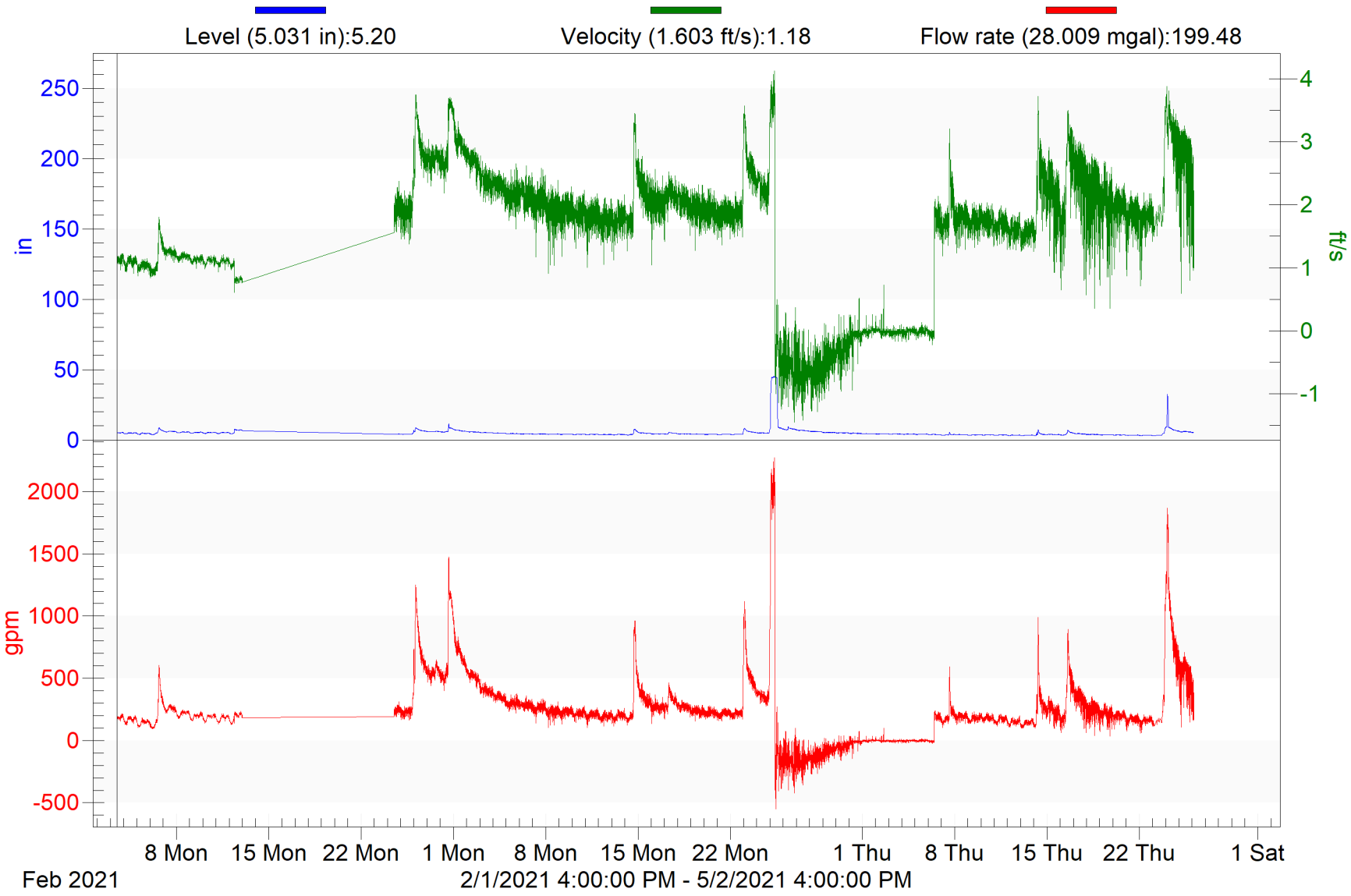
Hydraulic Conditions
Normal level and velocity. Evidence of surcharge

General Conditions
S/N for the AV sensor we replaced 200600587565

Map Image	Area Image	Sensor Ring Image
		
Map_FM715	FM715 Area	FM715 Pipe
Downhole Image	**Pipe Image**	**Install Schematic (Top)**
		
Aerial_FM715	FM715 Inner	FM715 Schematic

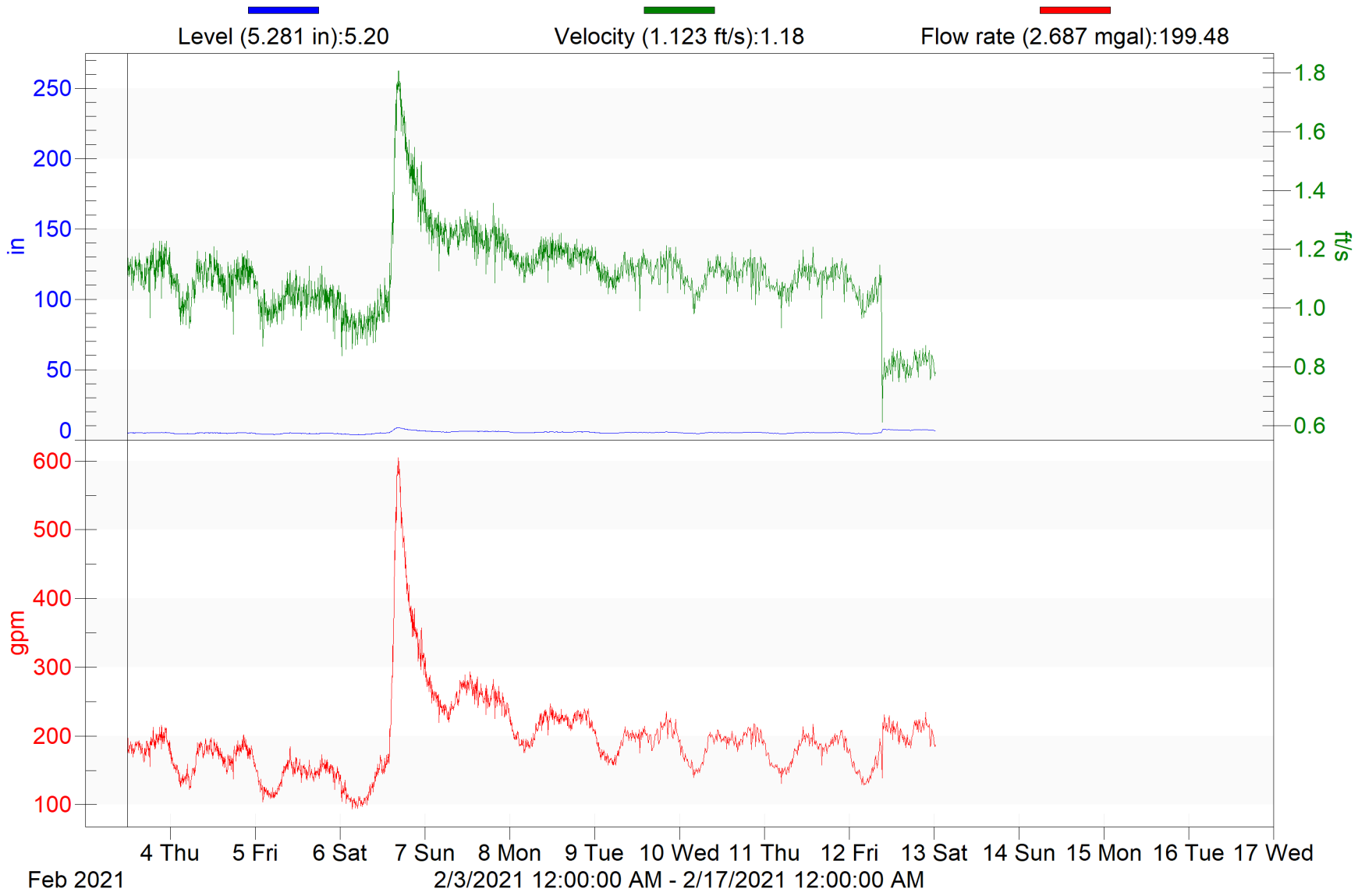
FM715

Flowlink 5



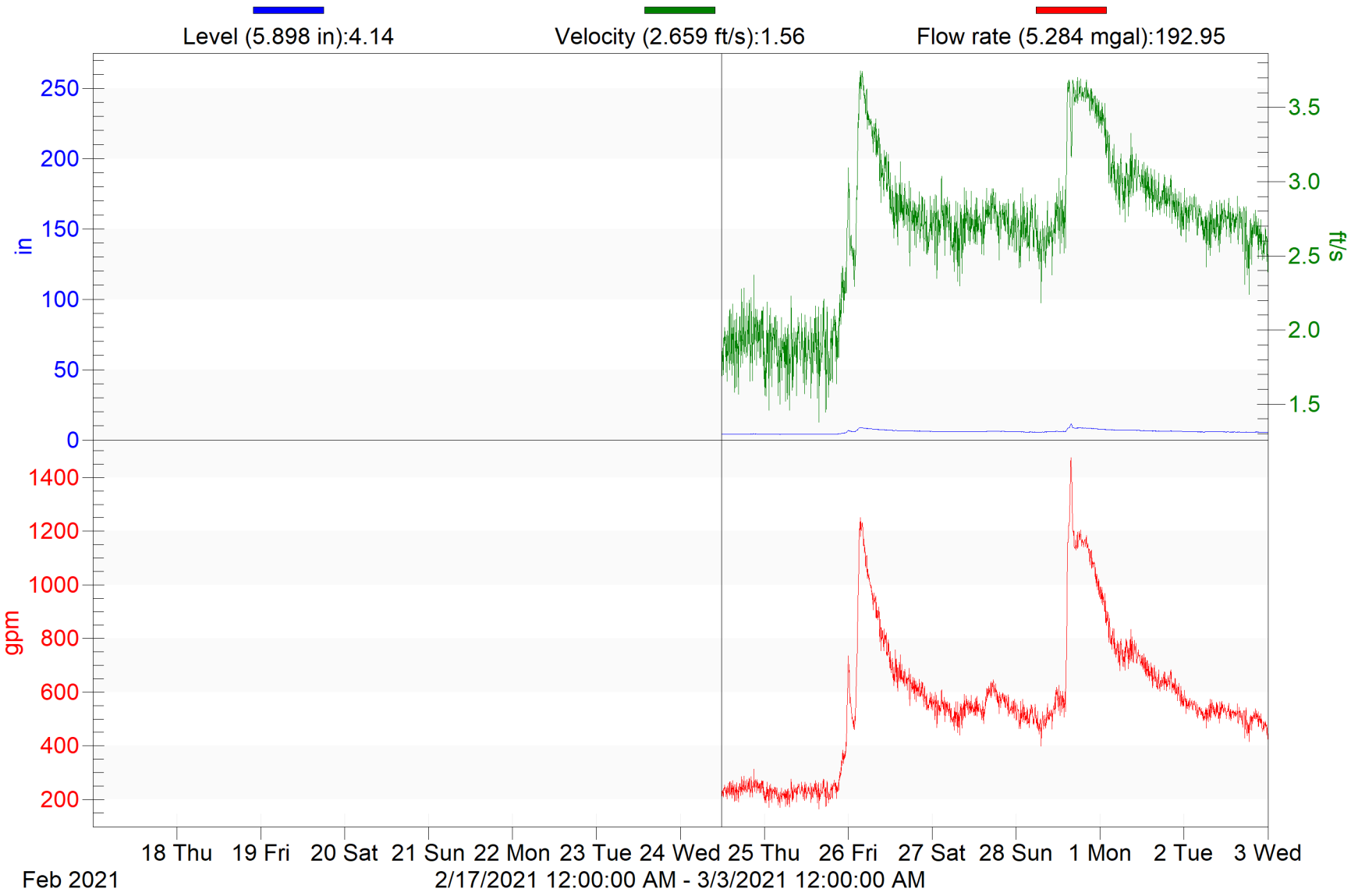
FM715

Flowlink 5



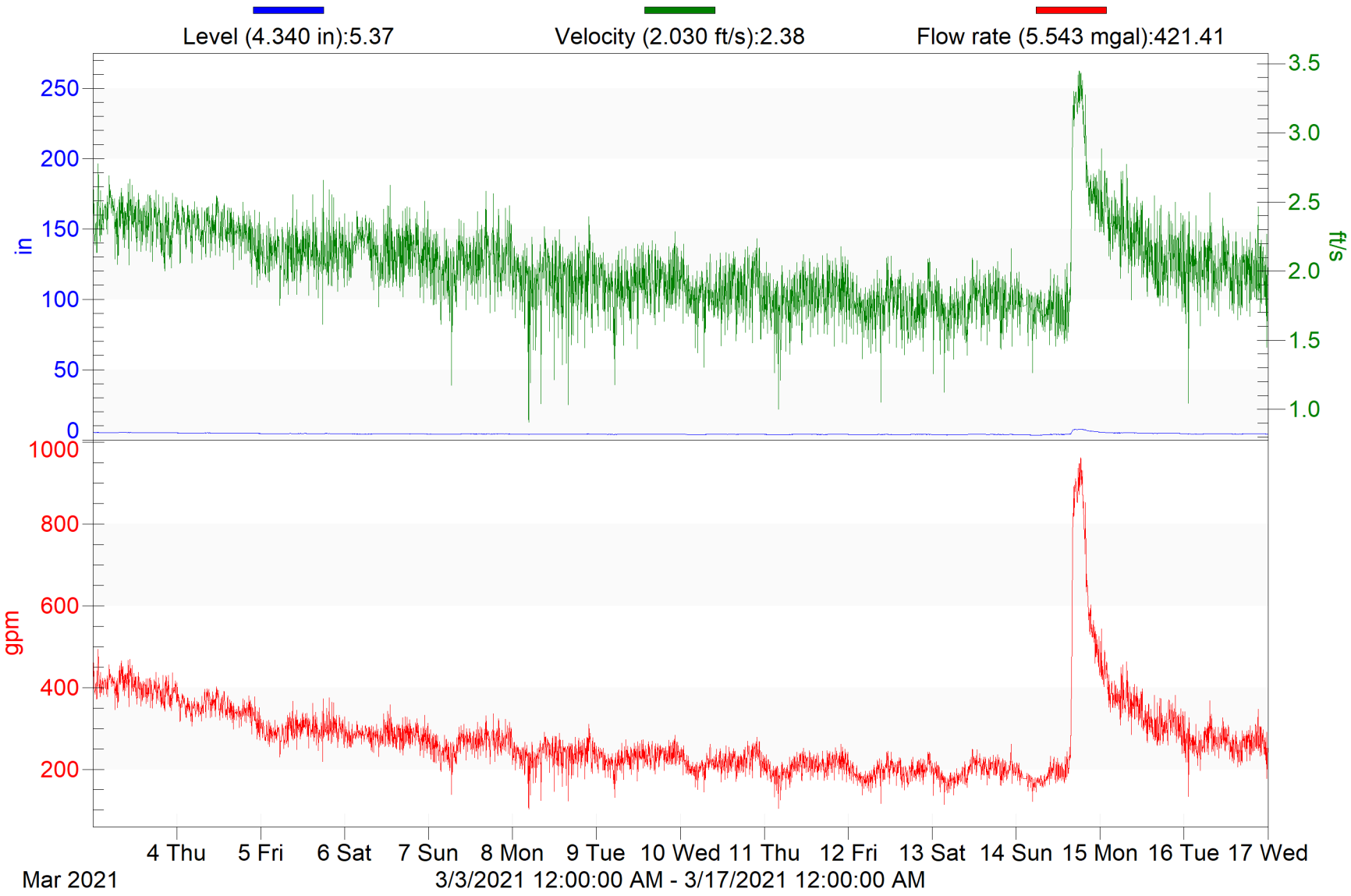
FM715

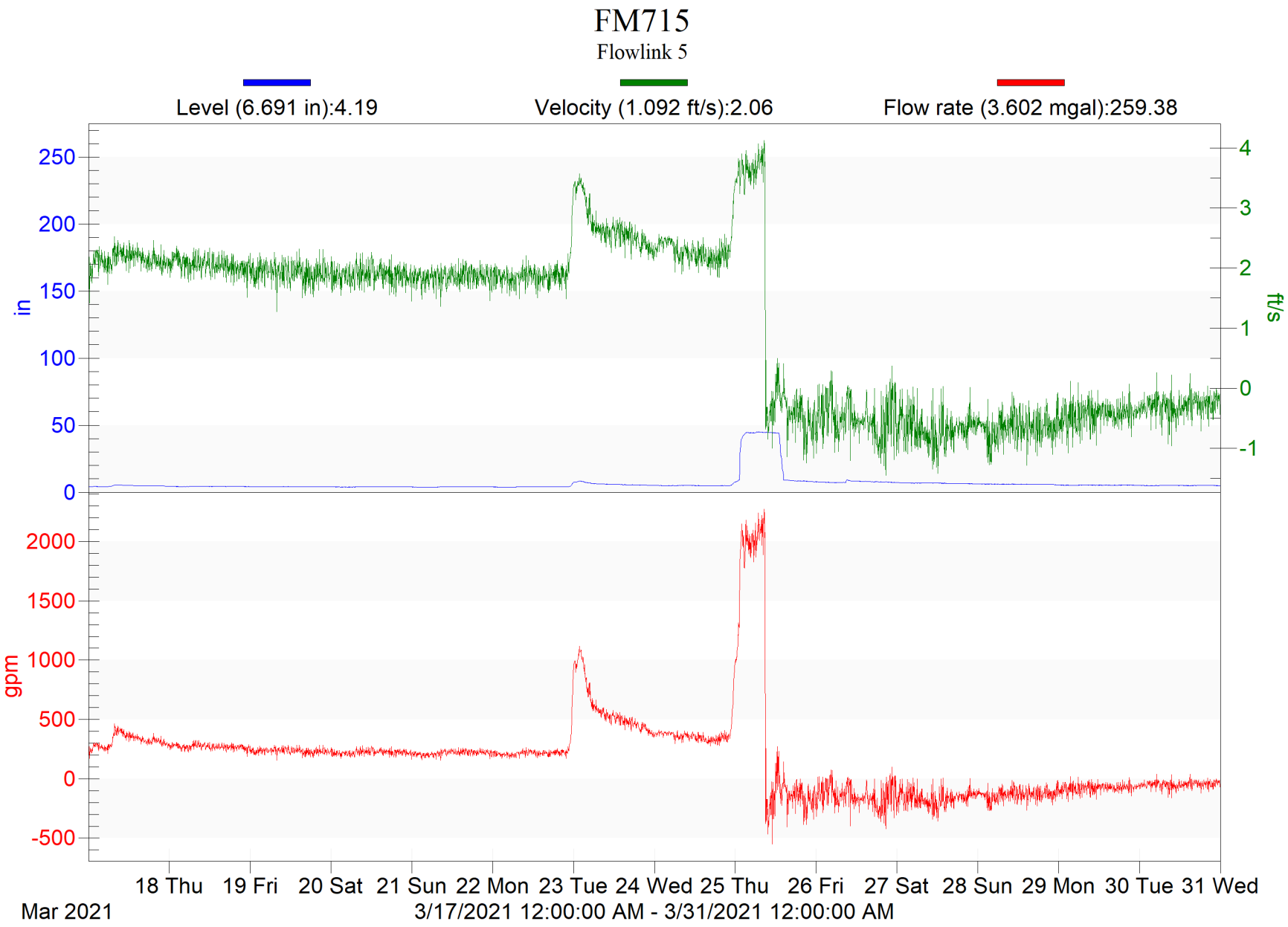
Flowlink 5



FM715

Flowlink 5



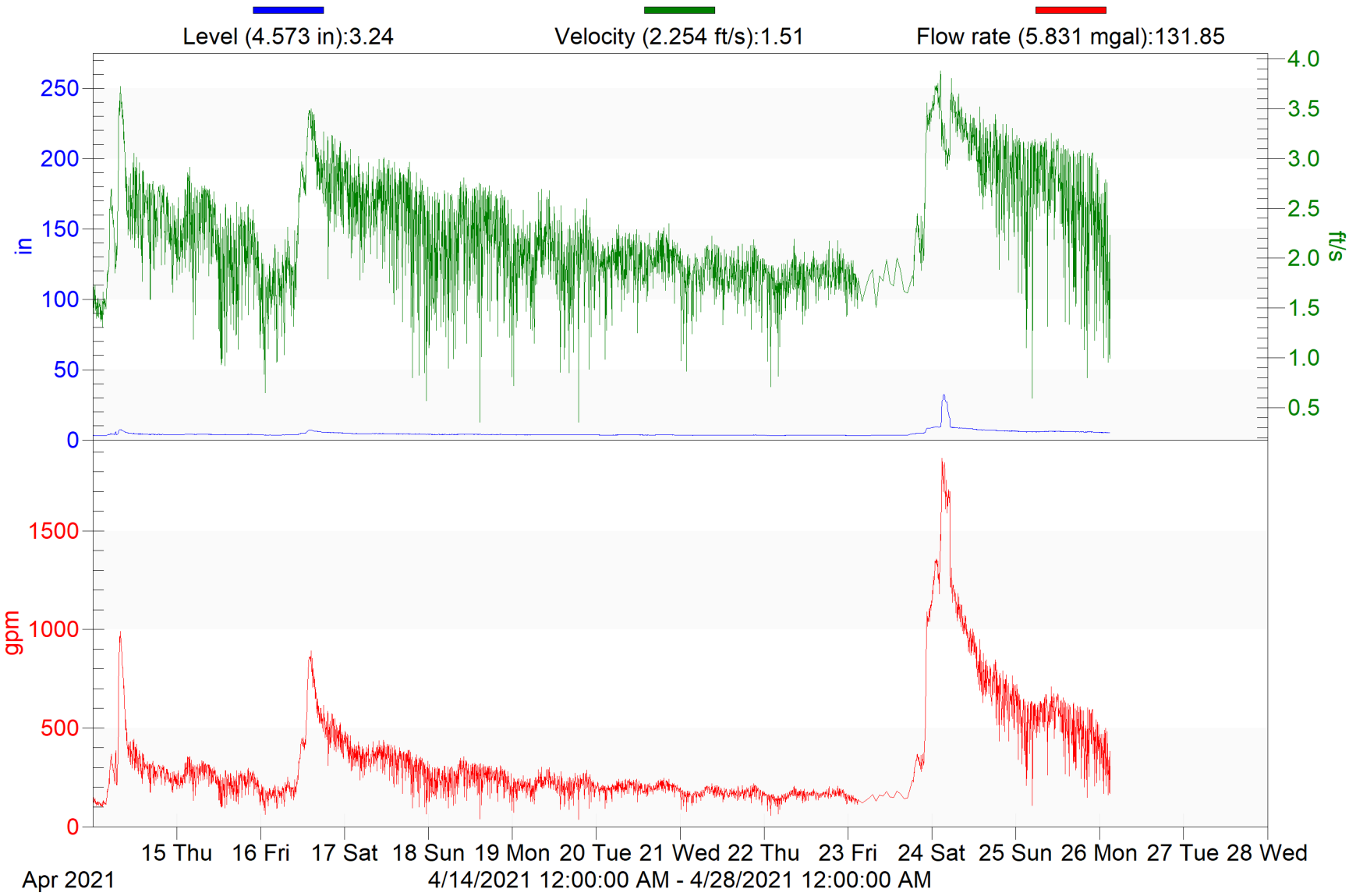

FM715
Flowlink 5
Level (6.691 in):4.19
Velocity (1.092 ft/s):2.06
Flow rate (3.602 mgal):259.38
in
ft/s
gpm
250
200
150
100
50
0
4
3
2
1
0
-1
2000
1500
1000
500
0
-500
18 Thu
19 Fri
20 Sat
21 Sun
22 Mon
23 Tue
24 Wed
25 Thu
26 Fri
27 Sat
28 Sun
29 Mon
30 Tue
31 Wed
Mar 2021
3/17/2021 12:00:00 AM - 3/31/2021 12:00:00 AM

FM715

Flowlink 5

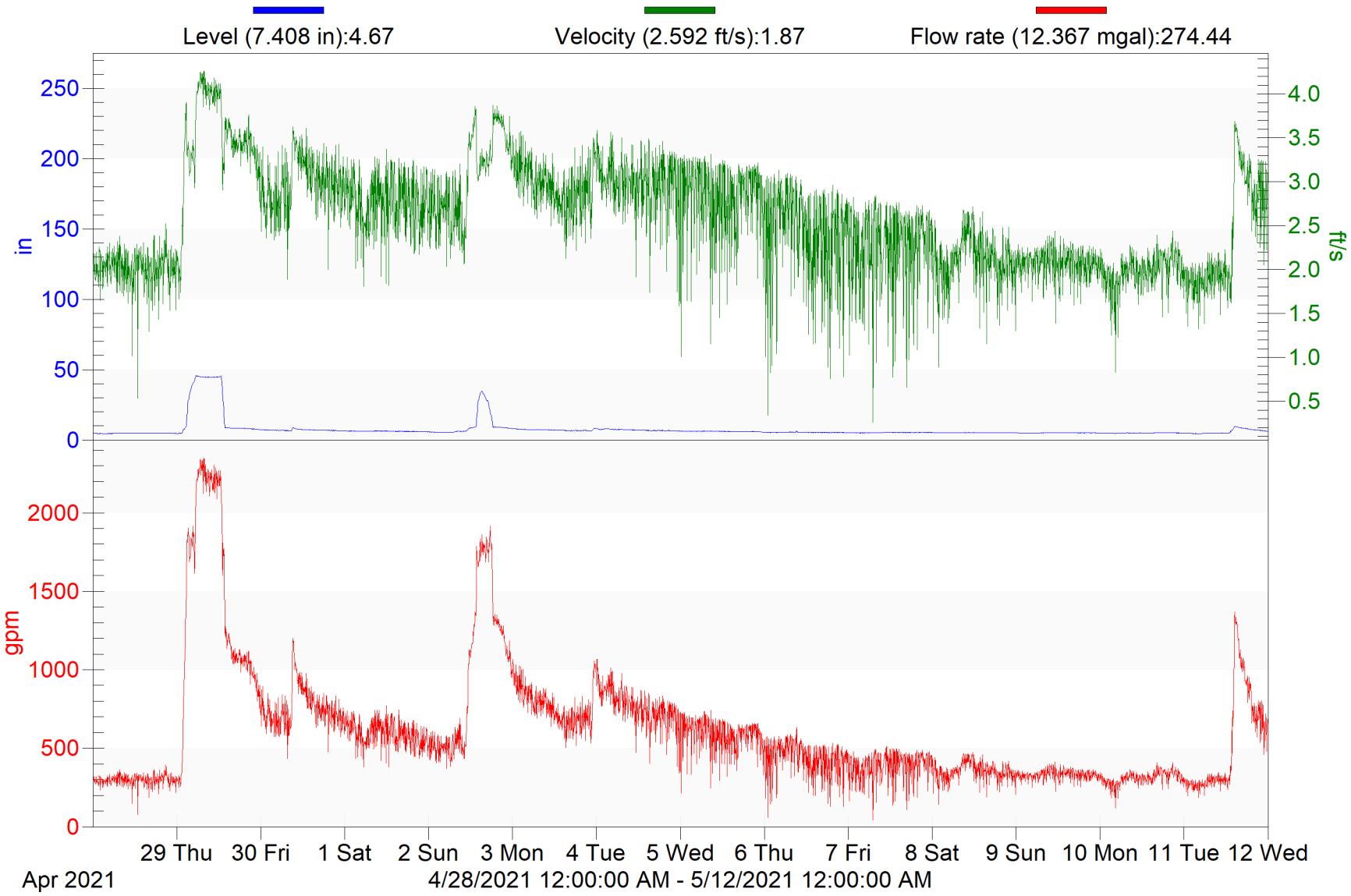
FM715

Flowlink 5



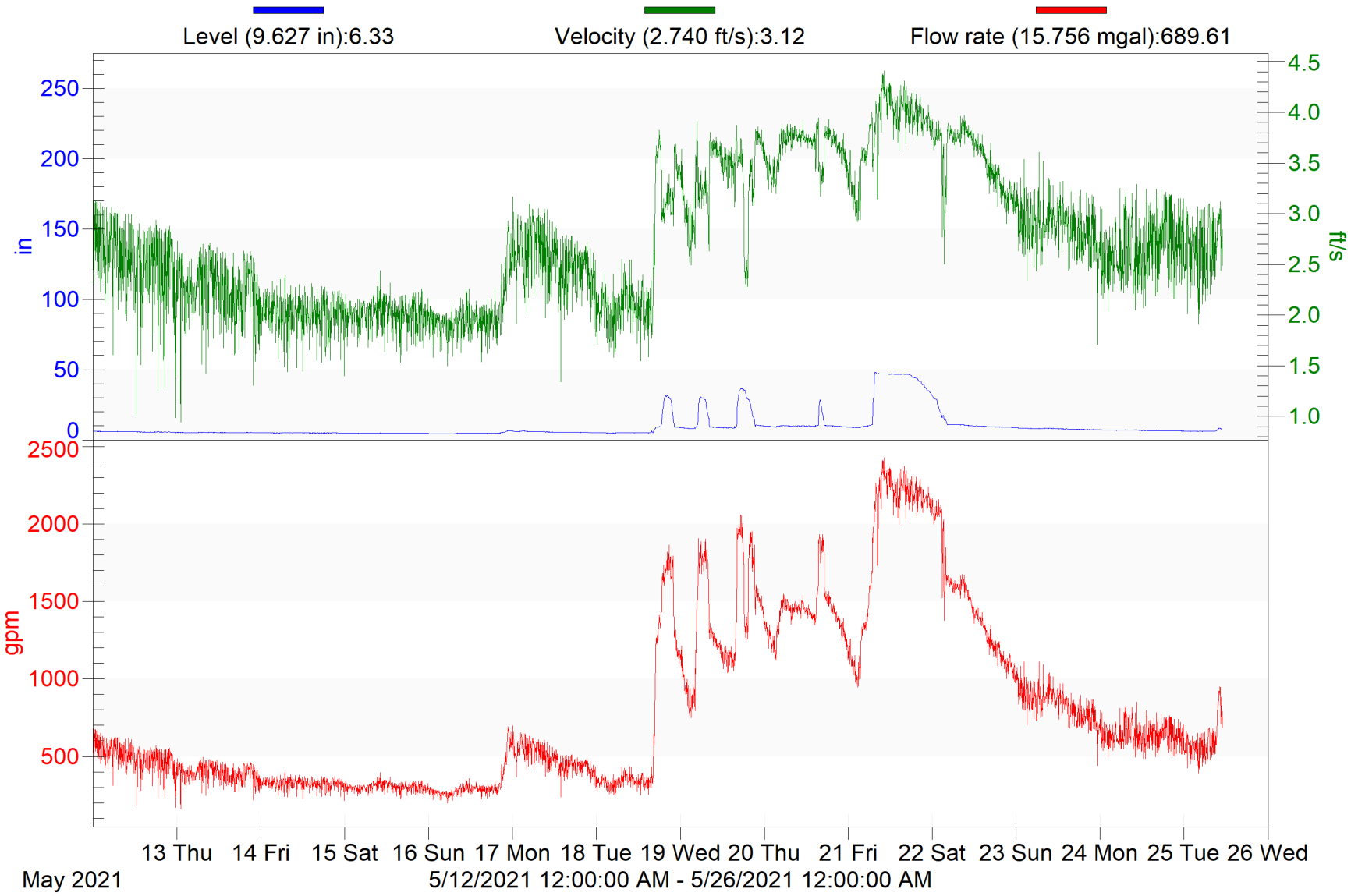
FM715

Flowlink 5



FM715

Flowlink 5



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Mena, AR Flow

Site Location Report

Site ID	Device Type	Installation Date	Installed By
FM760	Flow Meter	4/23/2021	J. Cawthon

Address	Location Details	Traffic Area ?
2109 S Mena St	through a gate and about 100 yards down the right of way.	No

Installation Manhole	Material	Evidence of Surcharge ?
760	Reinforced Concrete Pipe	No

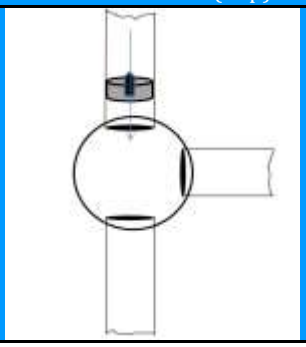
Gas Levels			
Oxygen	Carbon Monoxide	Hydrogen Sulfide	Lower Explosive Limit
20.70%	8.00%	0.00%	0

Installation Pipe	Material	Inside Diameter
incoming	VCP	15.25

Hydraulic Conditions
Normal level and velocity

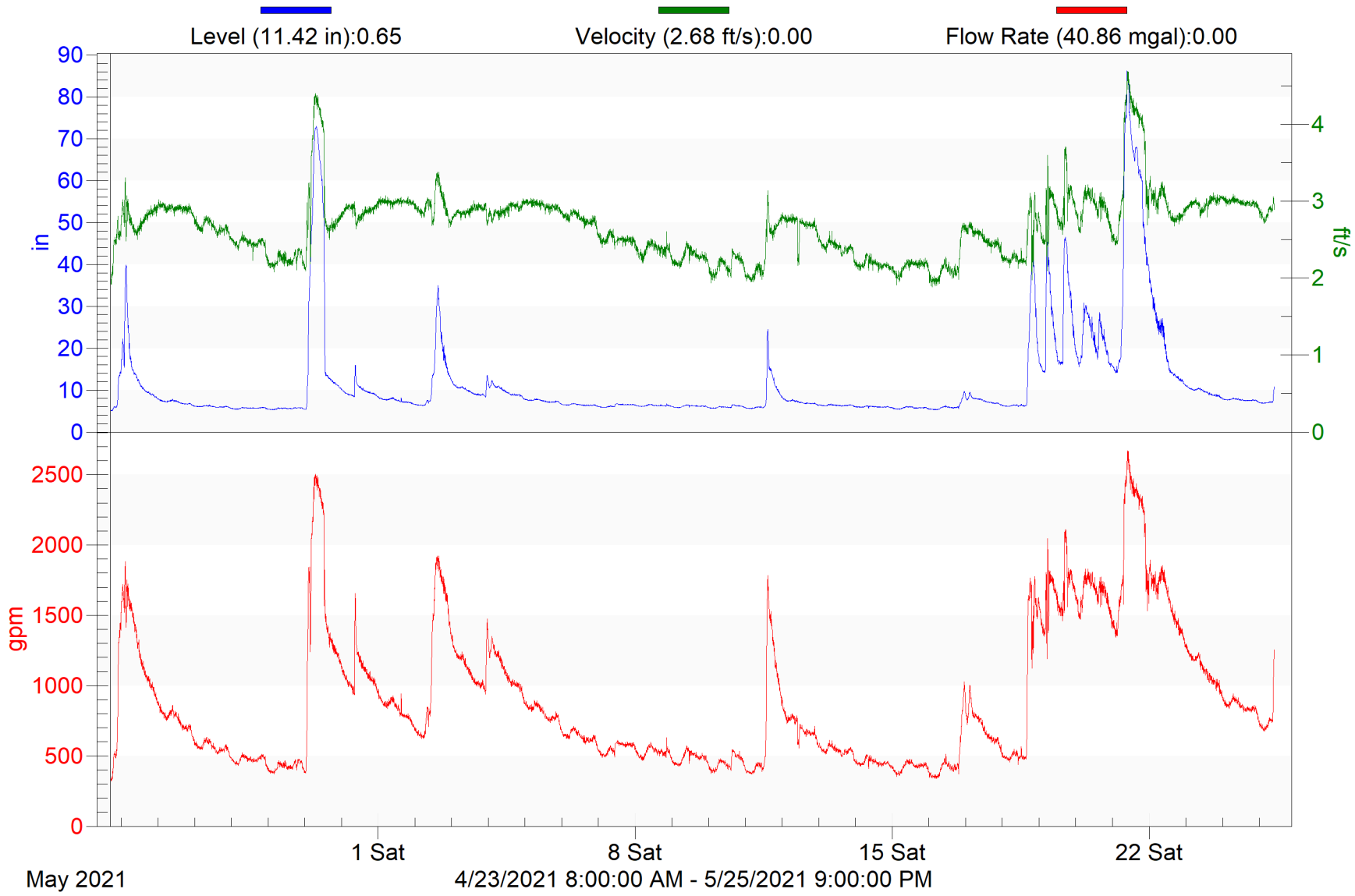
General Conditions

Map Image	Area Image	Sensor Ring Image
		
Map_FM760	FM760 Area	FM760 Pipe

Downhole Image	Pipe Image	Install Schematic (Top)
		
Aerial_FM760	FM760 Inner	FM760 Schematic

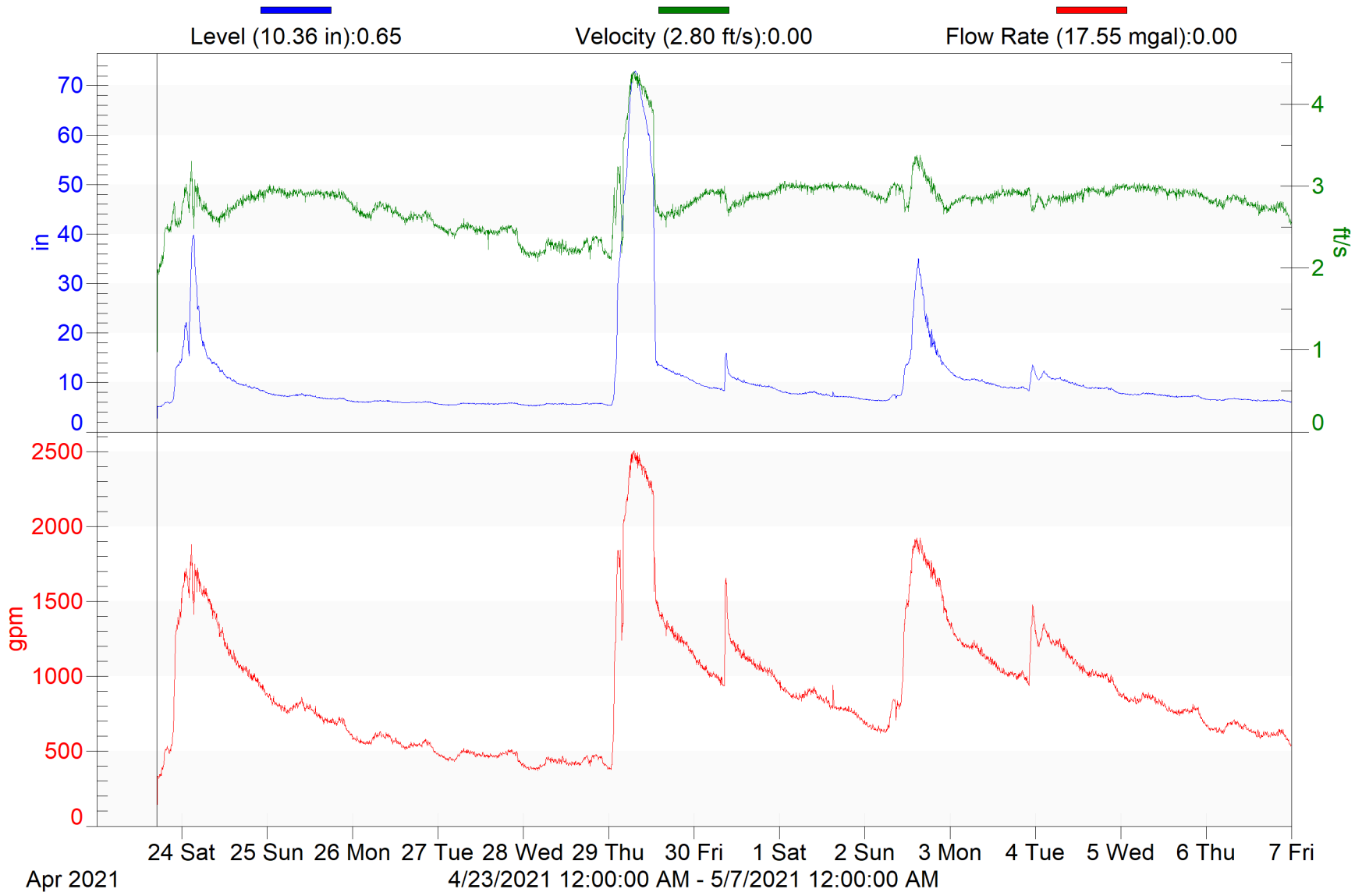
FM 760

Flowlink 5



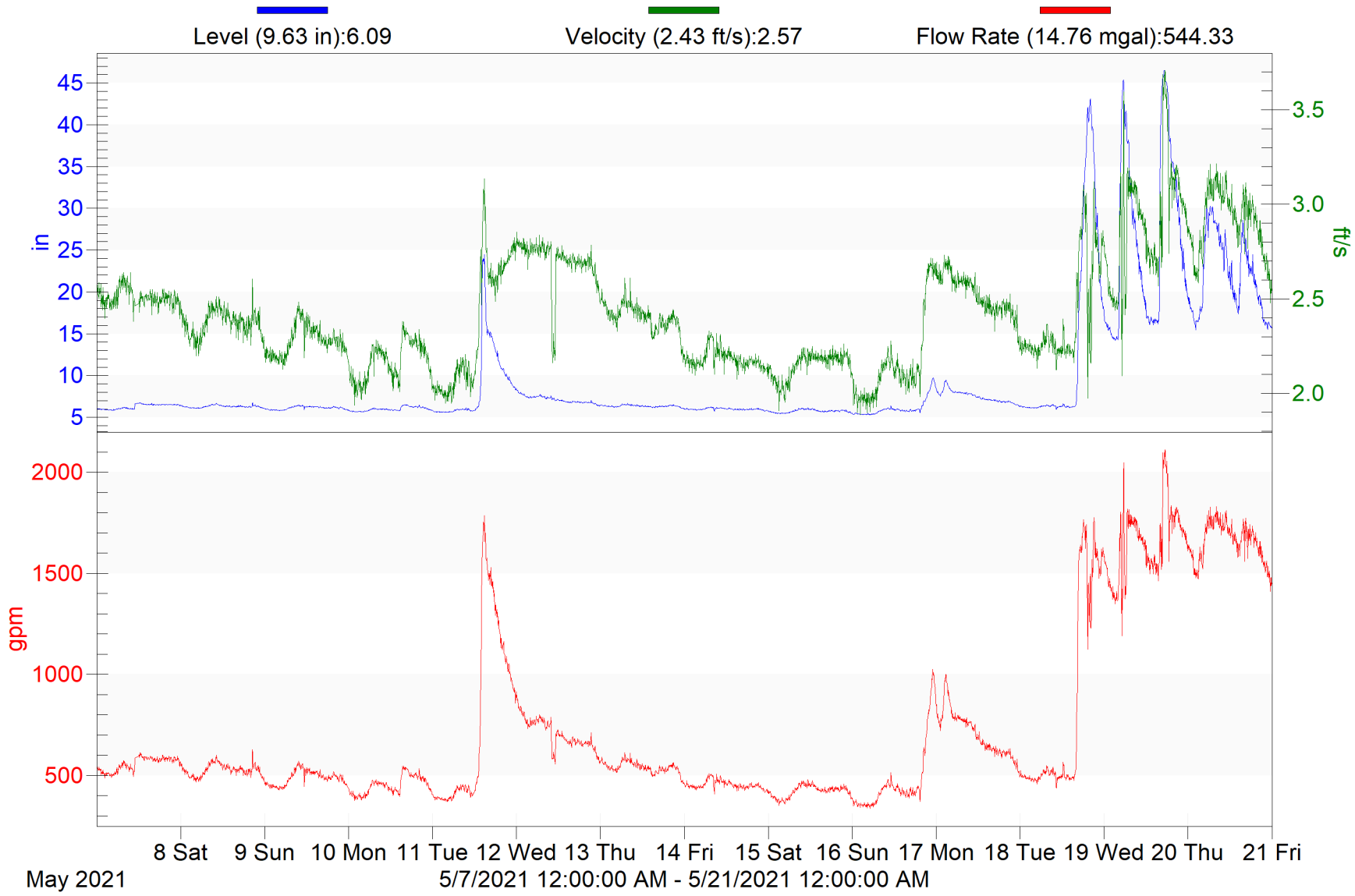
FM 760

Flowlink 5



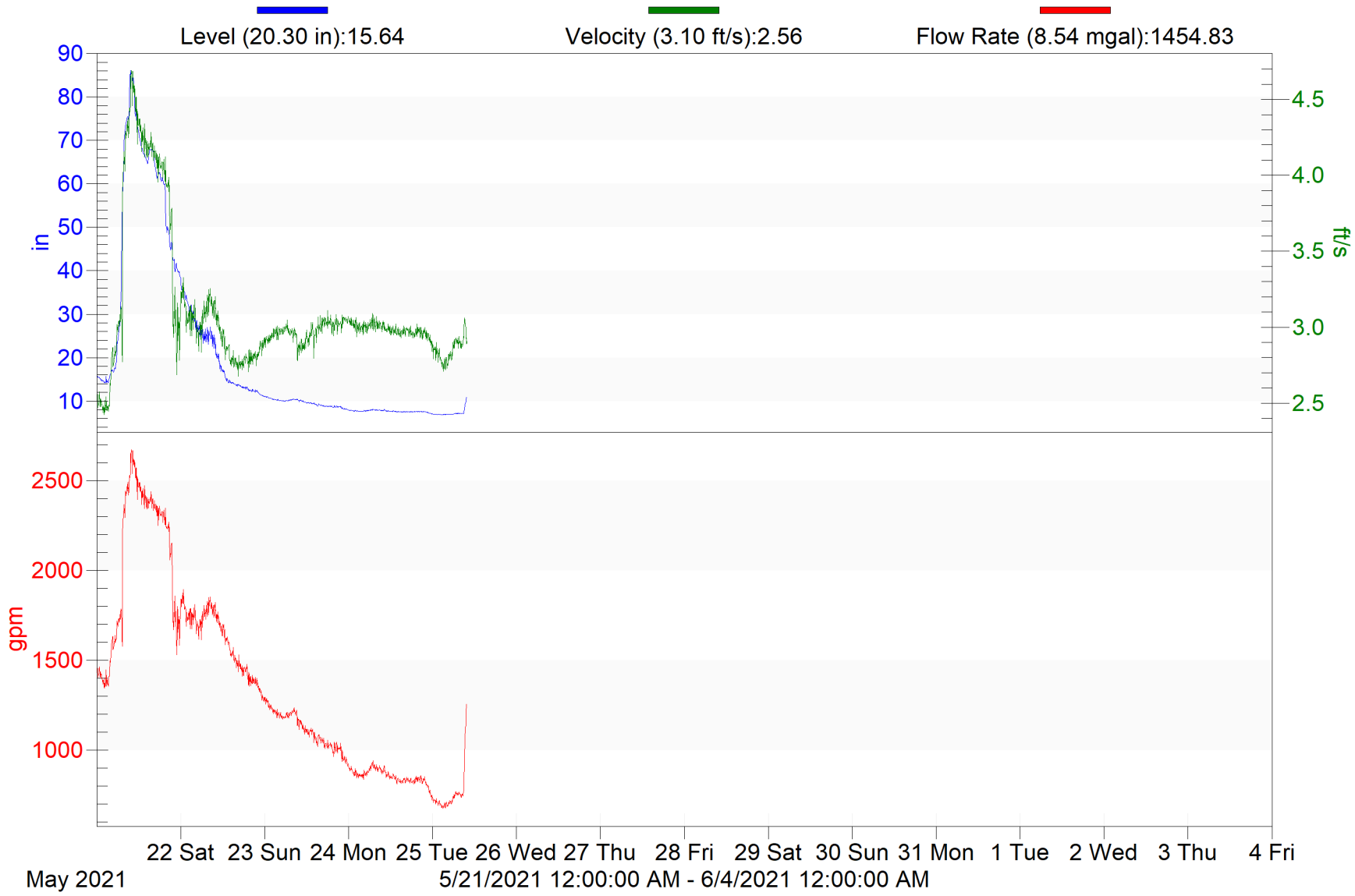
FM 760

Flowlink 5



FM 760

Flowlink 5



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Mena, AR Flow

Site Location Report

Site ID	Device Type	Installation Date	Installed By
FM852	Flow Meter	4/23/2021	J. Cawthon

Address	Location Details	Traffic Area ?
1108 Parker Dr	right of way behind house being built	No

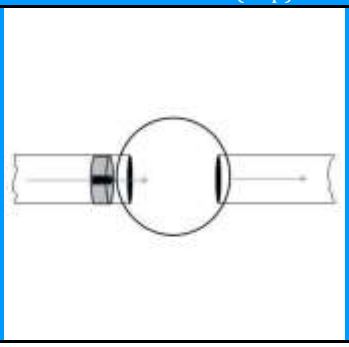
Installation Manhole	Material	Evidence of Surcharge ?
852	Reinforced Concrete Pipe	No

Gas Levels			
Oxygen	Carbon Monoxide	Hydrogen Sulfide	Lower Explosive Limit
20.90%	0.00%	0.00%	0

Installation Pipe	Material	Inside Diameter
incoming	CAS	12

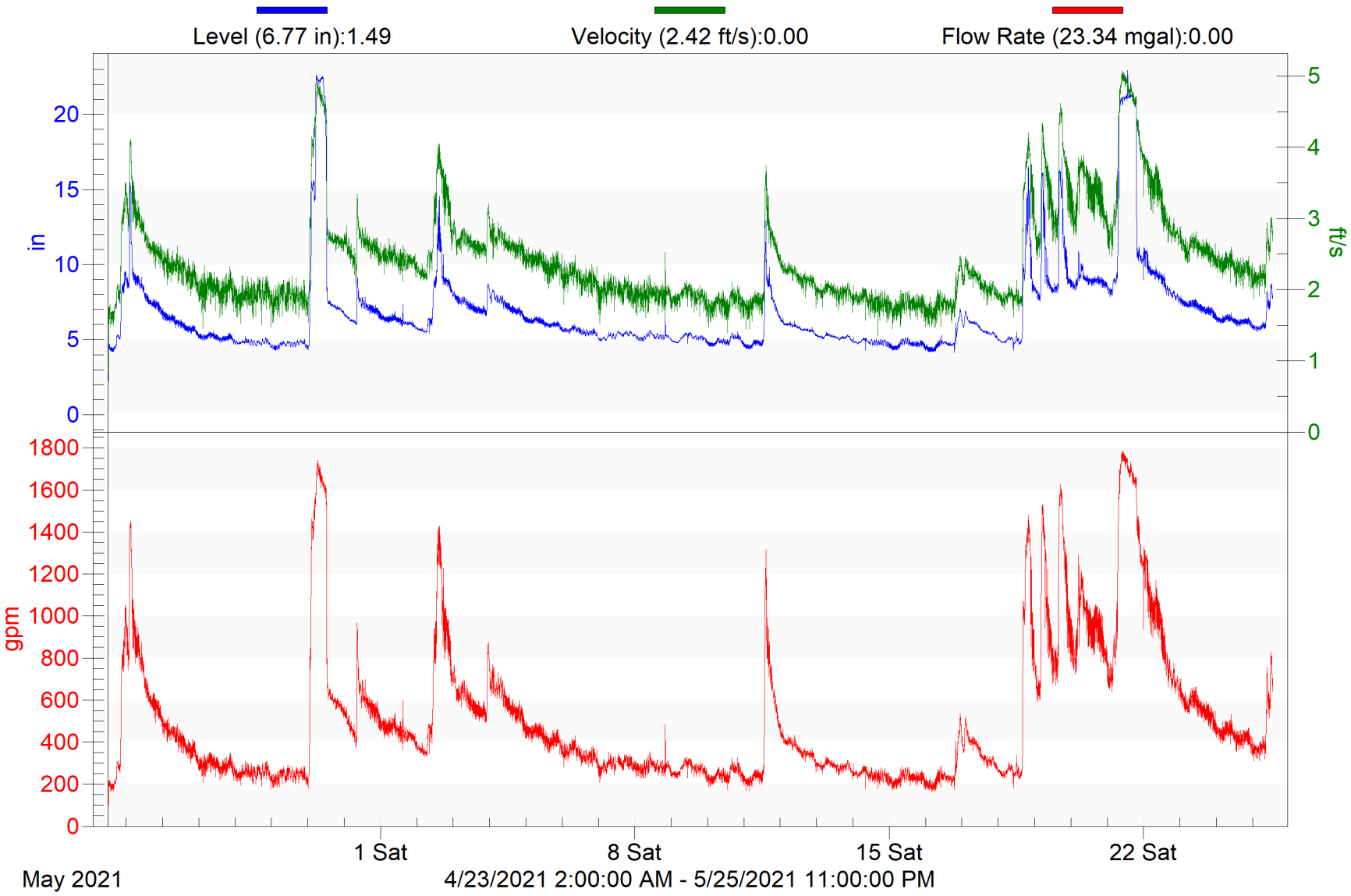
Hydraulic Conditions
Normal level and velocity

General Conditions
Meter was moved from MH852 to MH853. Flow Meter name remained the same

Map Image	Area Image	Sensor Ring Image
		
Map_FM852	FM852 Area	FM852 Pipe
Downhole Image	**Pipe Image**	**Install Schematic (Top)**
		
Aerial_FM852	FM852 Inner	FM852 Schematic

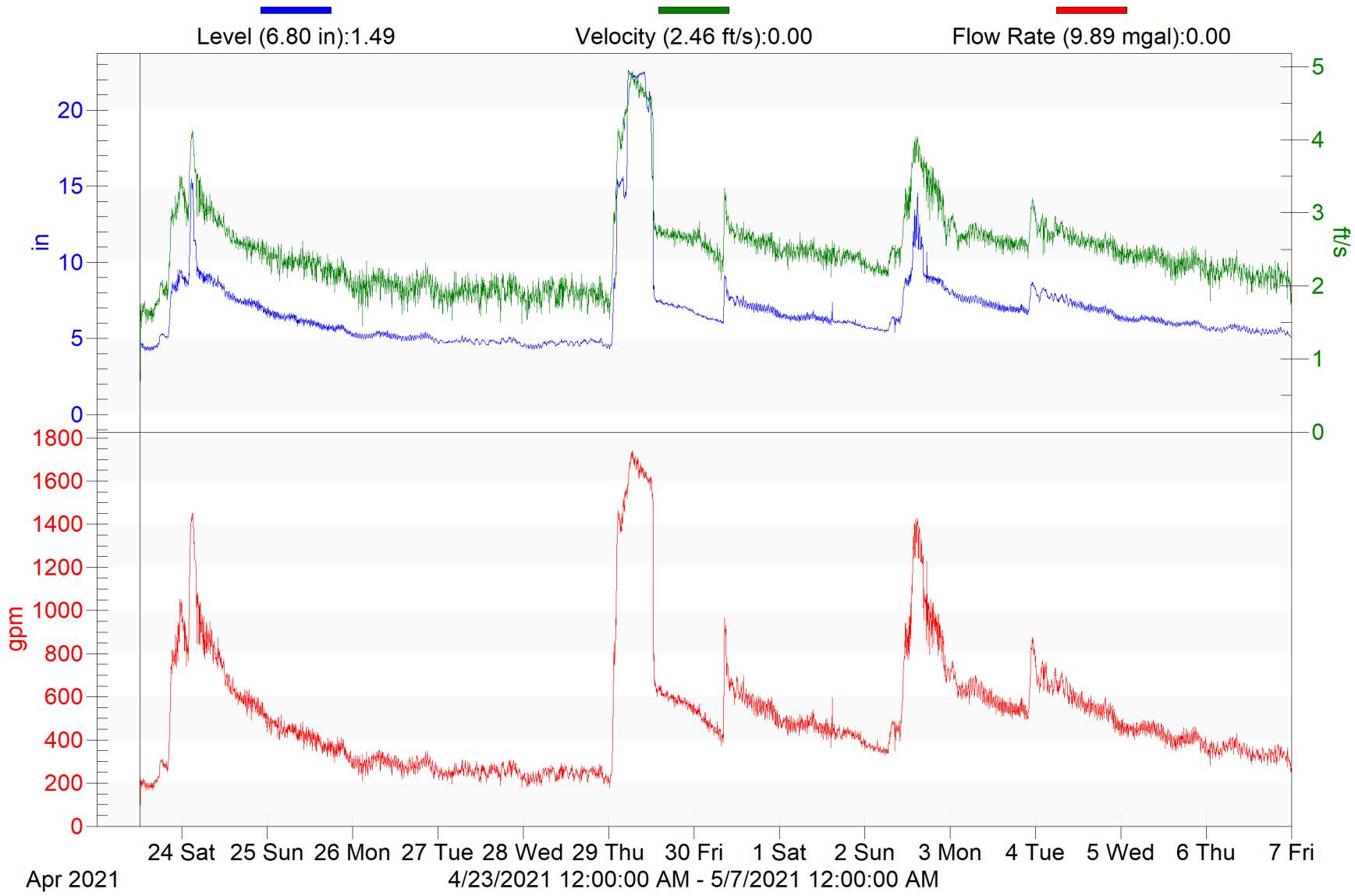
FM 852

Flowlink 5



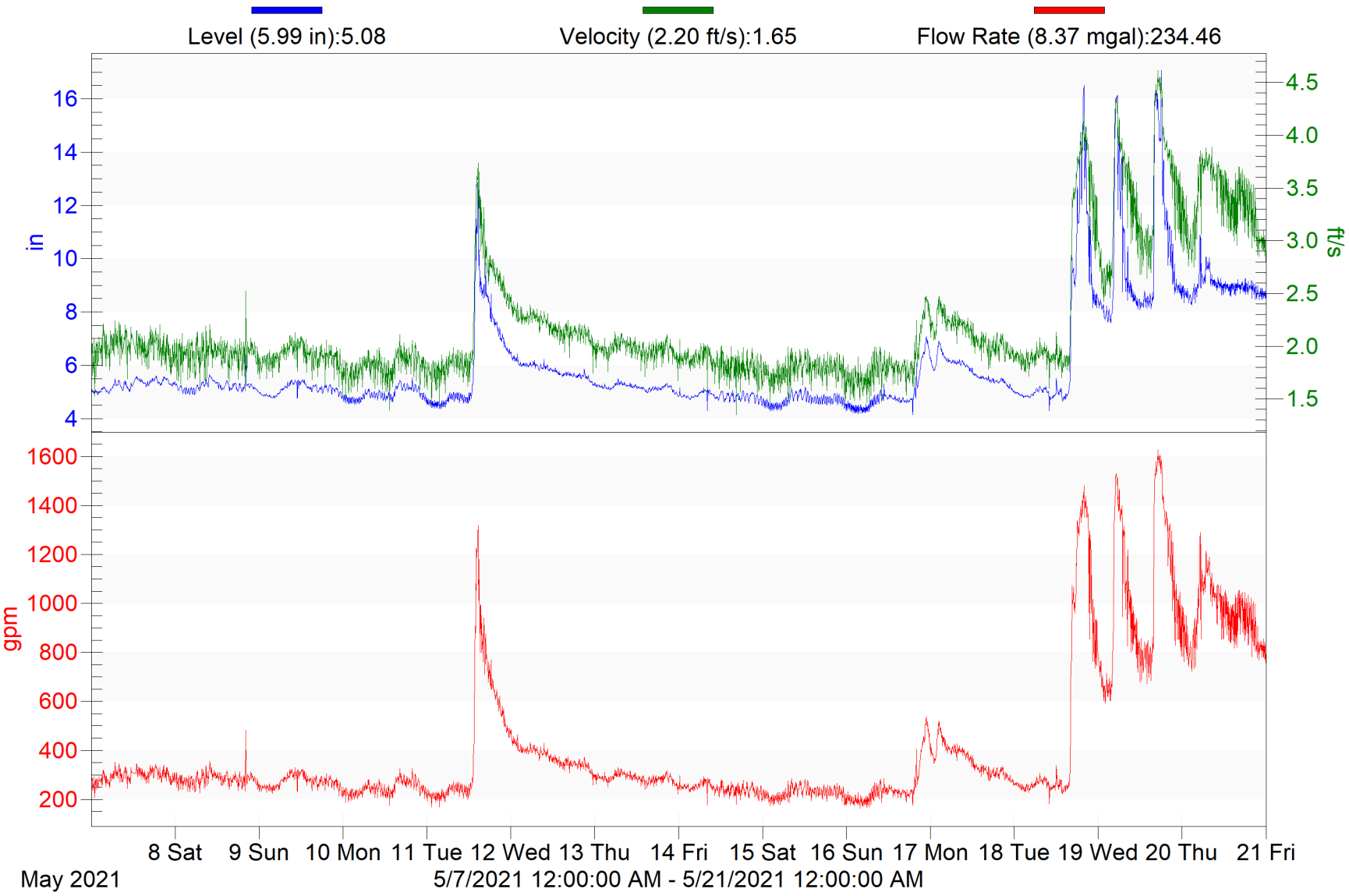
FM 852

Flowlink 5



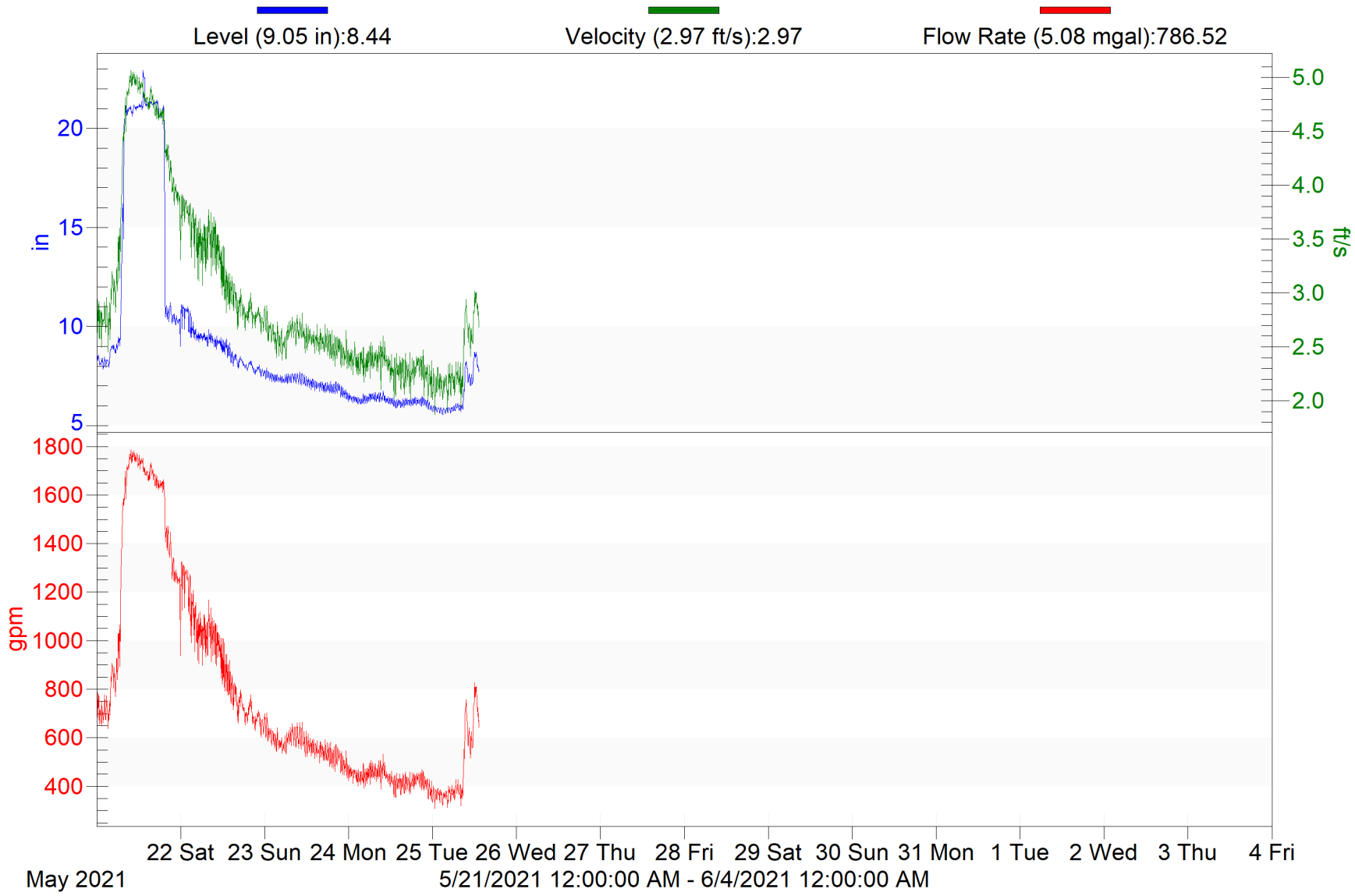
FM 852

Flowlink 5



FM 852

Flowlink 5



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Mena, AR Flow

Site Location Report

Site ID	Device Type	Installation Date	Installed By
FMNPVC3	Flow Meter	2/3/2021	J. Cawthon

Address	Location Details	Traffic Area ?
1200 Dallas Ave	Next to baseball field	No

Installation Manhole	Material	Evidence of Surcharge ?
FMNPVC3	Reinforced Concrete Pipe	No

Gas Levels			
Oxygen	Carbon Monoxide	Hydrogen Sulfide	Lower Explosive Limit
20.90%	0.00%	0.00%	0

Installation Pipe	Material	Inside Diameter
	VCP	12

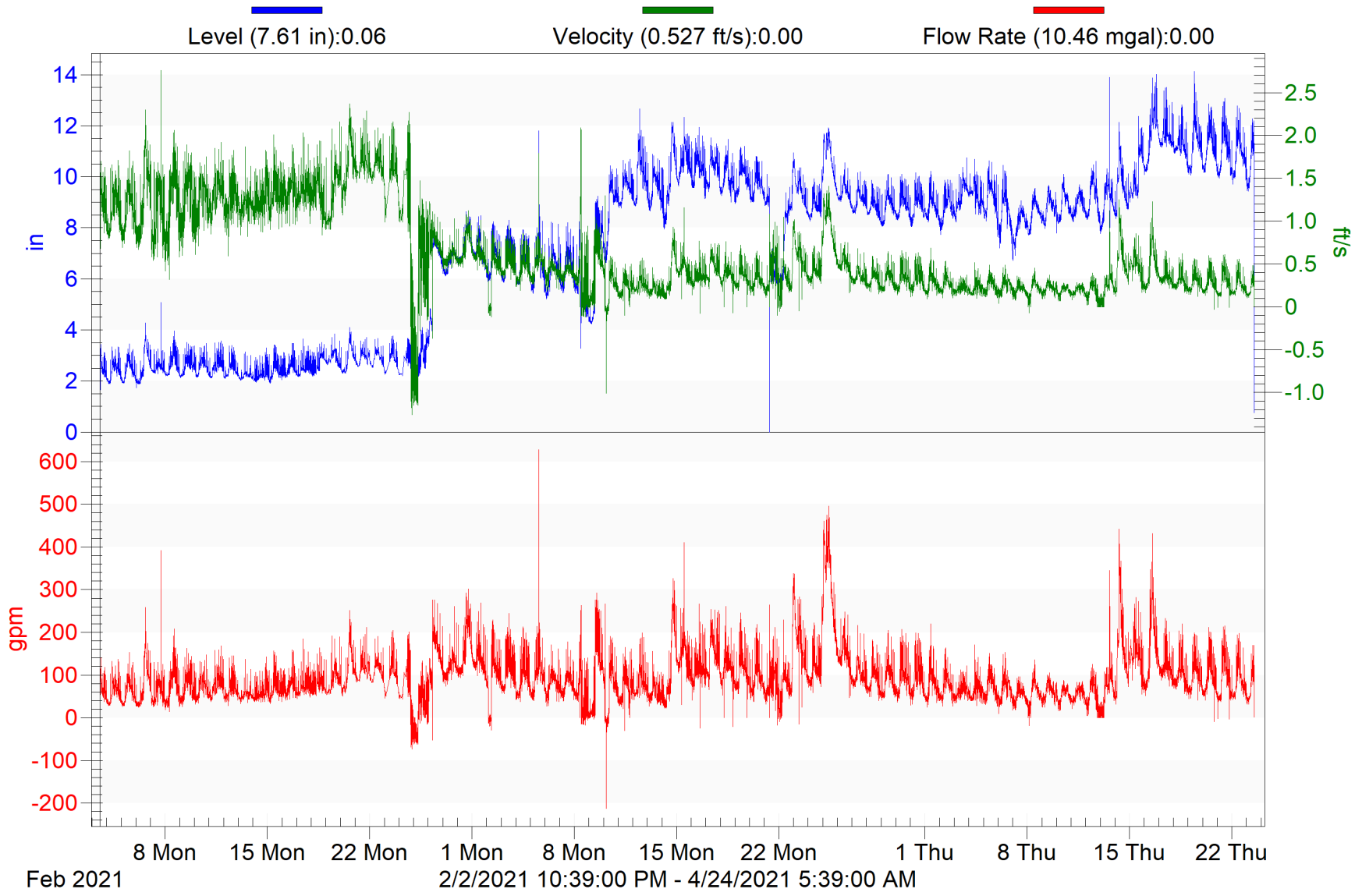
Hydraulic Conditions
Normal level and velocity

General Conditions

Map Image	Area Image	Sensor Ring Image
		
Map_FMNPVC3	FMNPVC3 Area	FMNPVC3 Pipe
Downhole Image	**Pipe Image**	**Install Schematic (Top)**
		
Aerial_FMNPVC3	FMNPVC3 Inner	FMNPVC3 Schematic

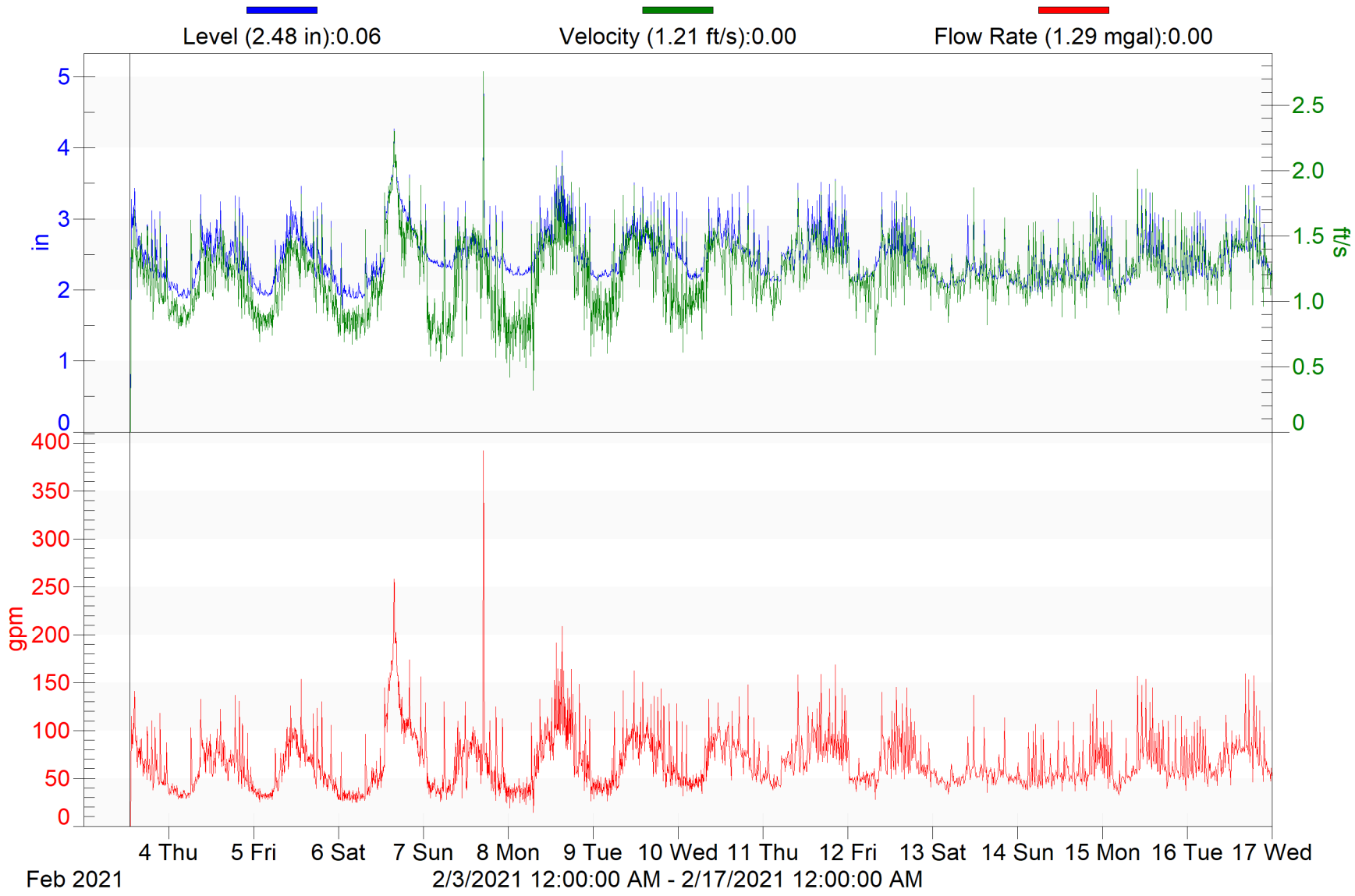
FMNPVC3

Flowlink 5



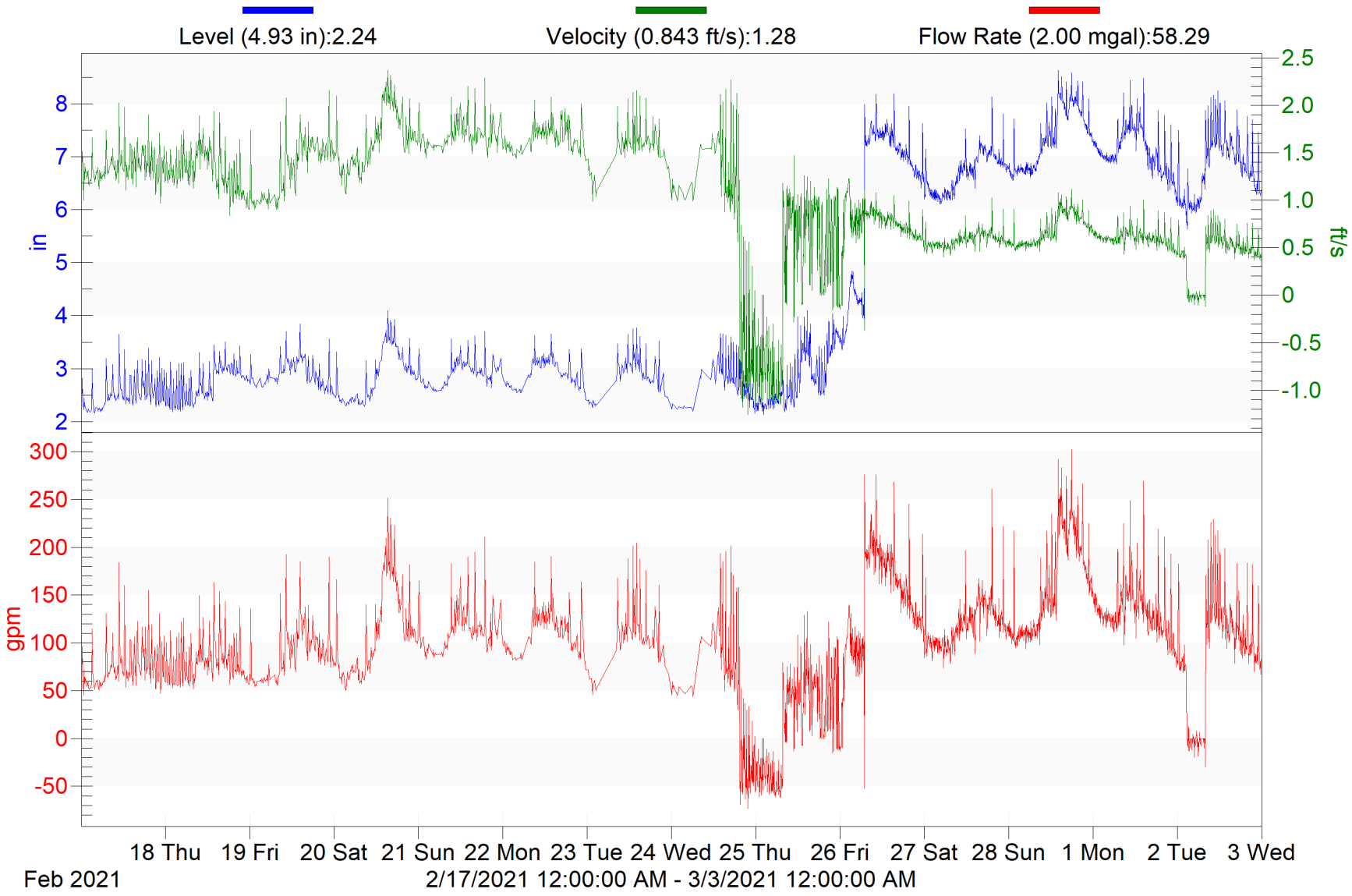
FMNPVC3

Flowlink 5



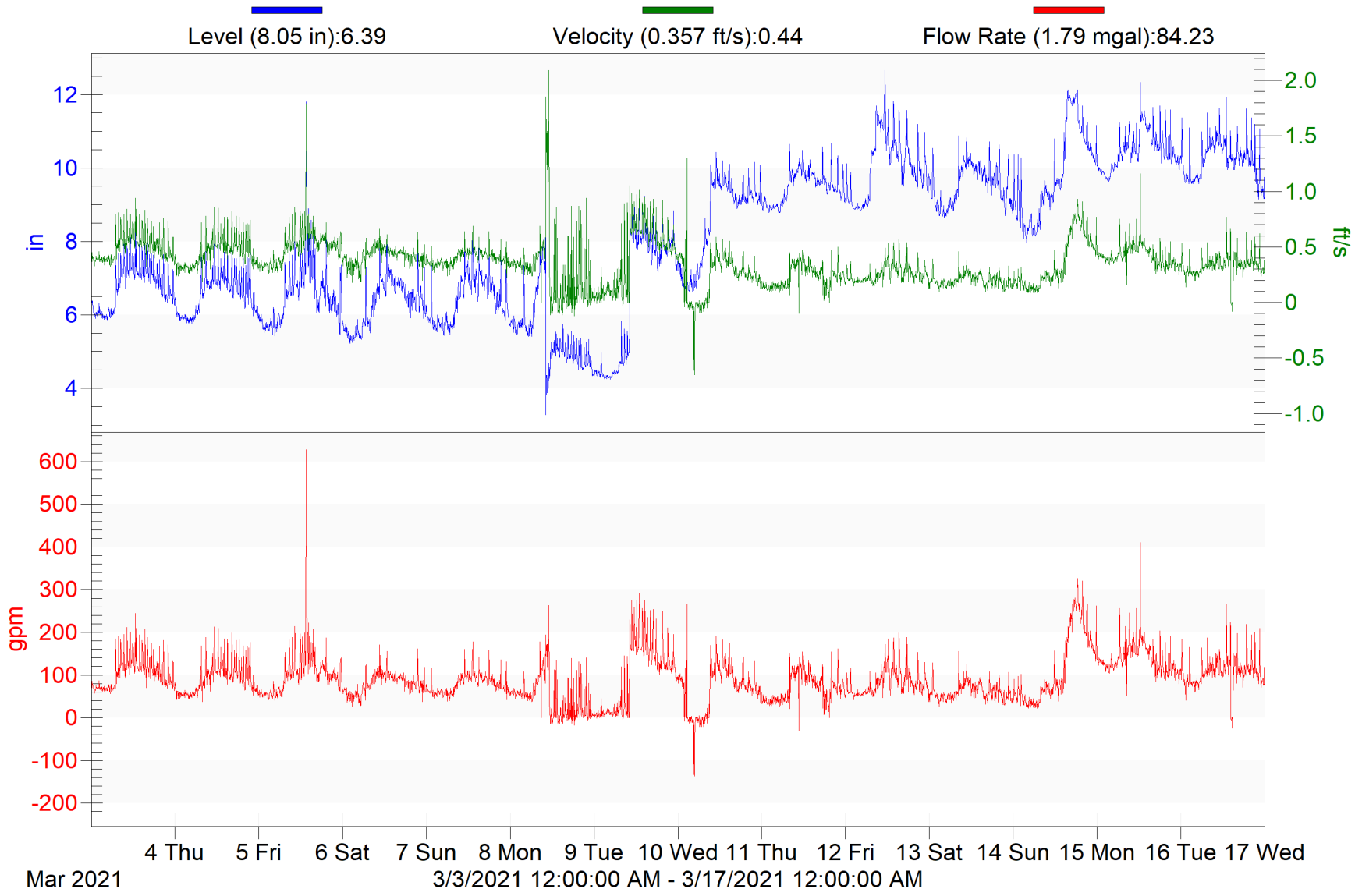
FMNPVC3

Flowlink 5



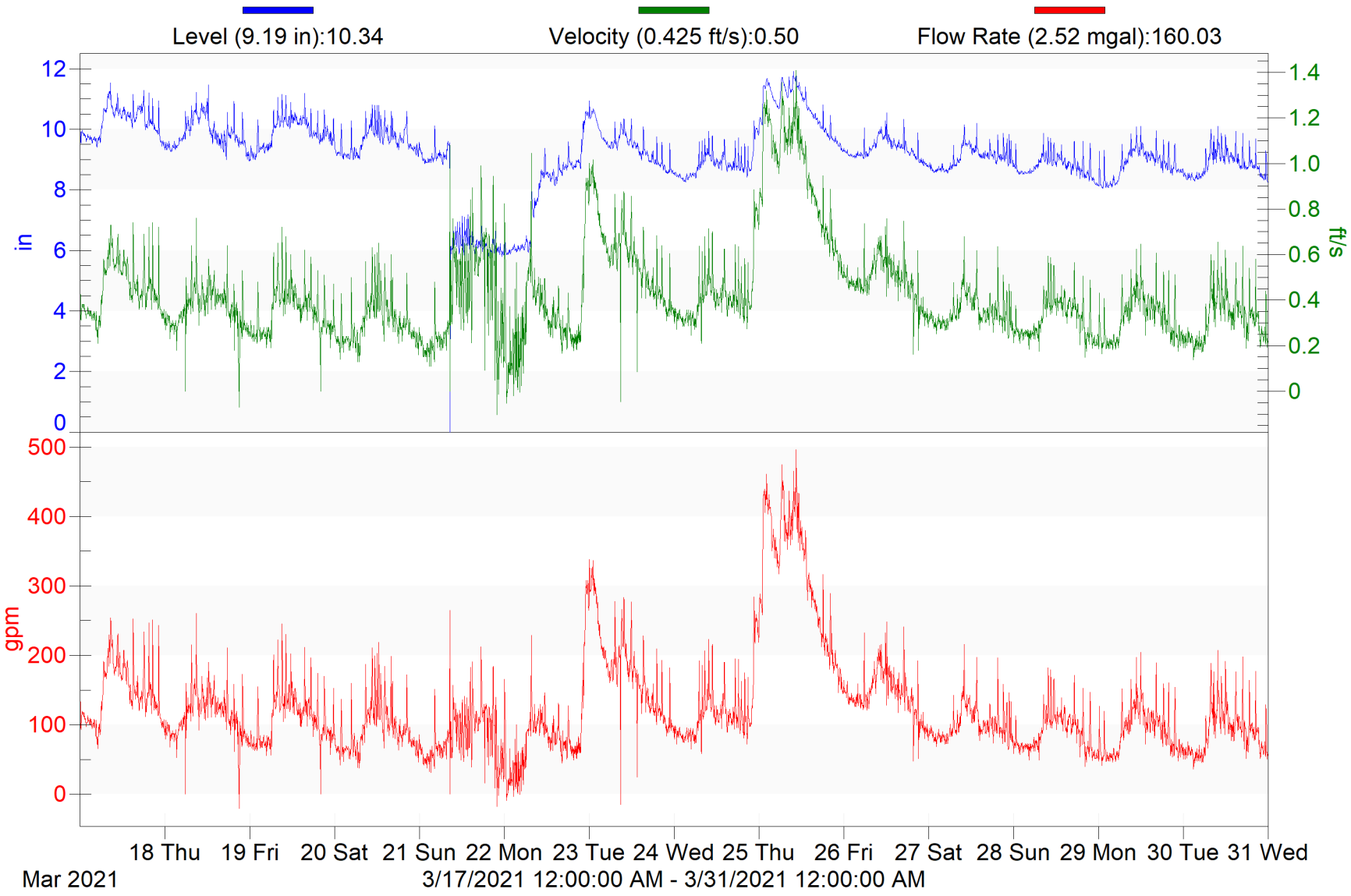
FMNPVC3

Flowlink 5



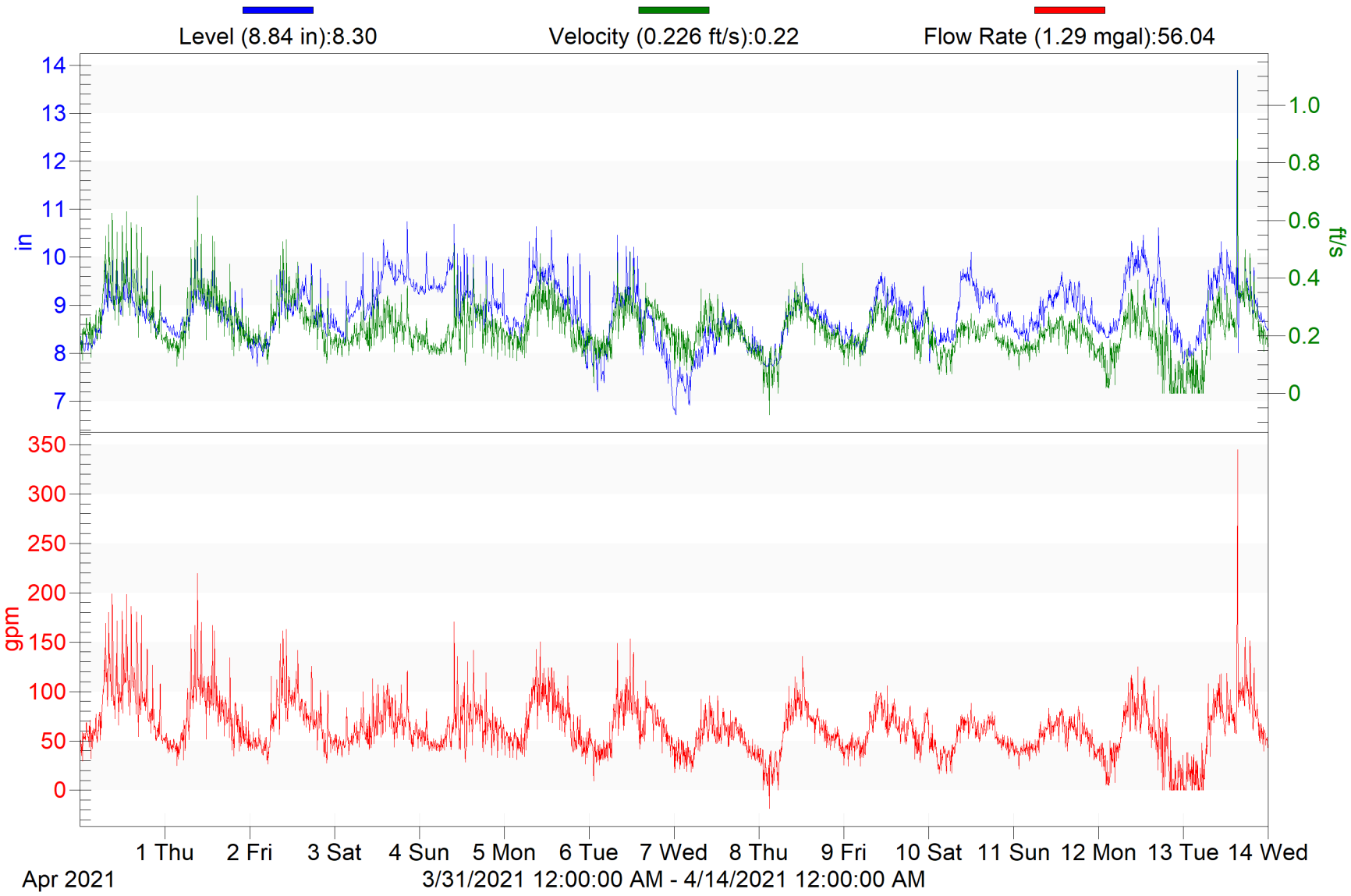
FMNPVC3

Flowlink 5



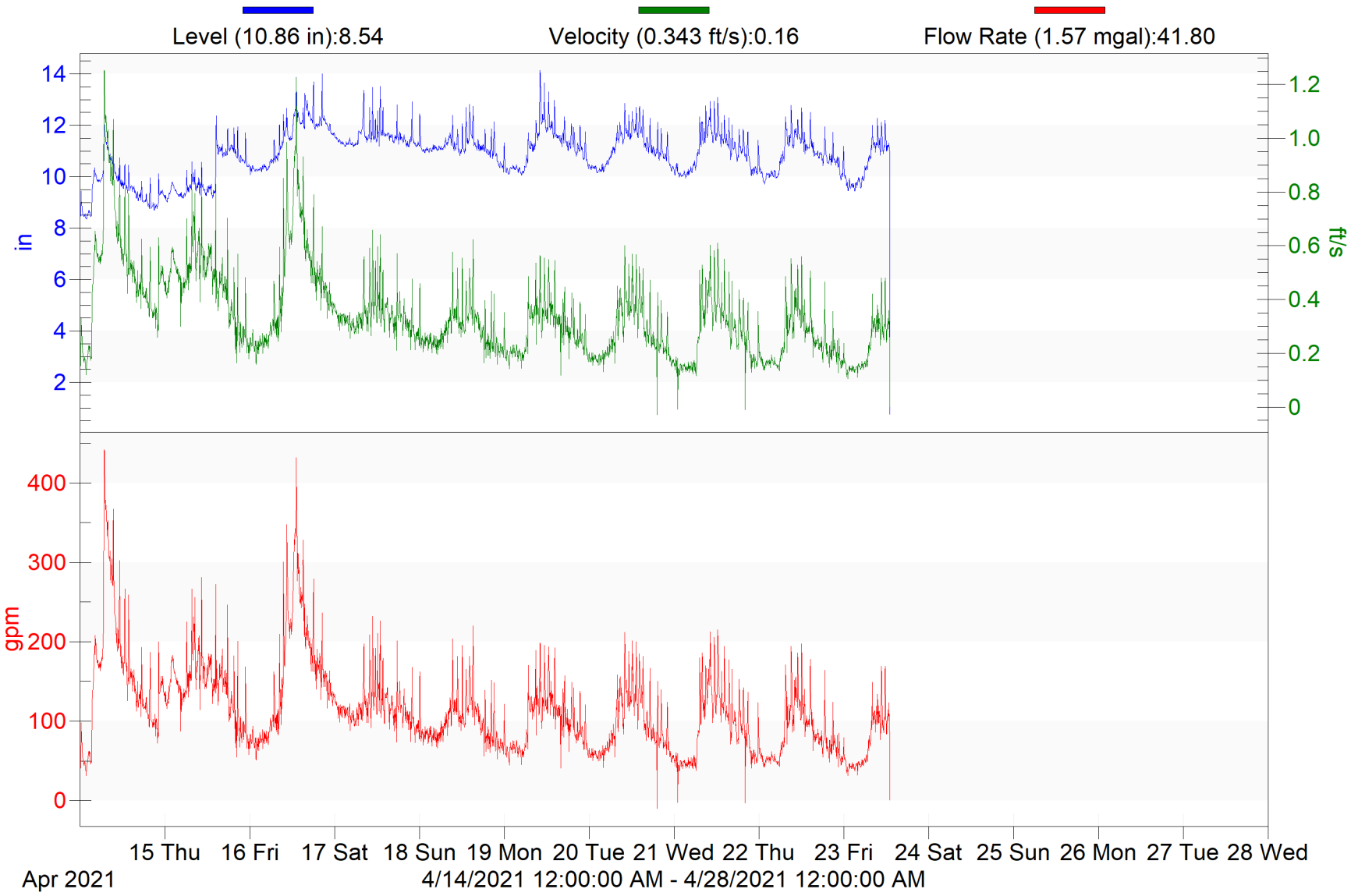
FMNPVC3

Flowlink 5



FMNPVC3

Flowlink 5



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Mena, AR Flow

Site Location Report

Site ID	Device Type	Installation Date	Installed By
fm1101	Flow Meter	4/23/2021	J. Cawthon

Address	Location Details	Traffic Area ?
3607 HWY 375	back of the property next to a barn	No

Installation Manhole	Material	Evidence of Surcharge ?
1100	Reinforced Concrete Pipe	No

Gas Levels			
Oxygen	Carbon Monoxide	Hydrogen Sulfide	Lower Explosive Limit
20.90%	0.00%	0.00%	0

Installation Pipe	Material	Inside Diameter
incoming		10

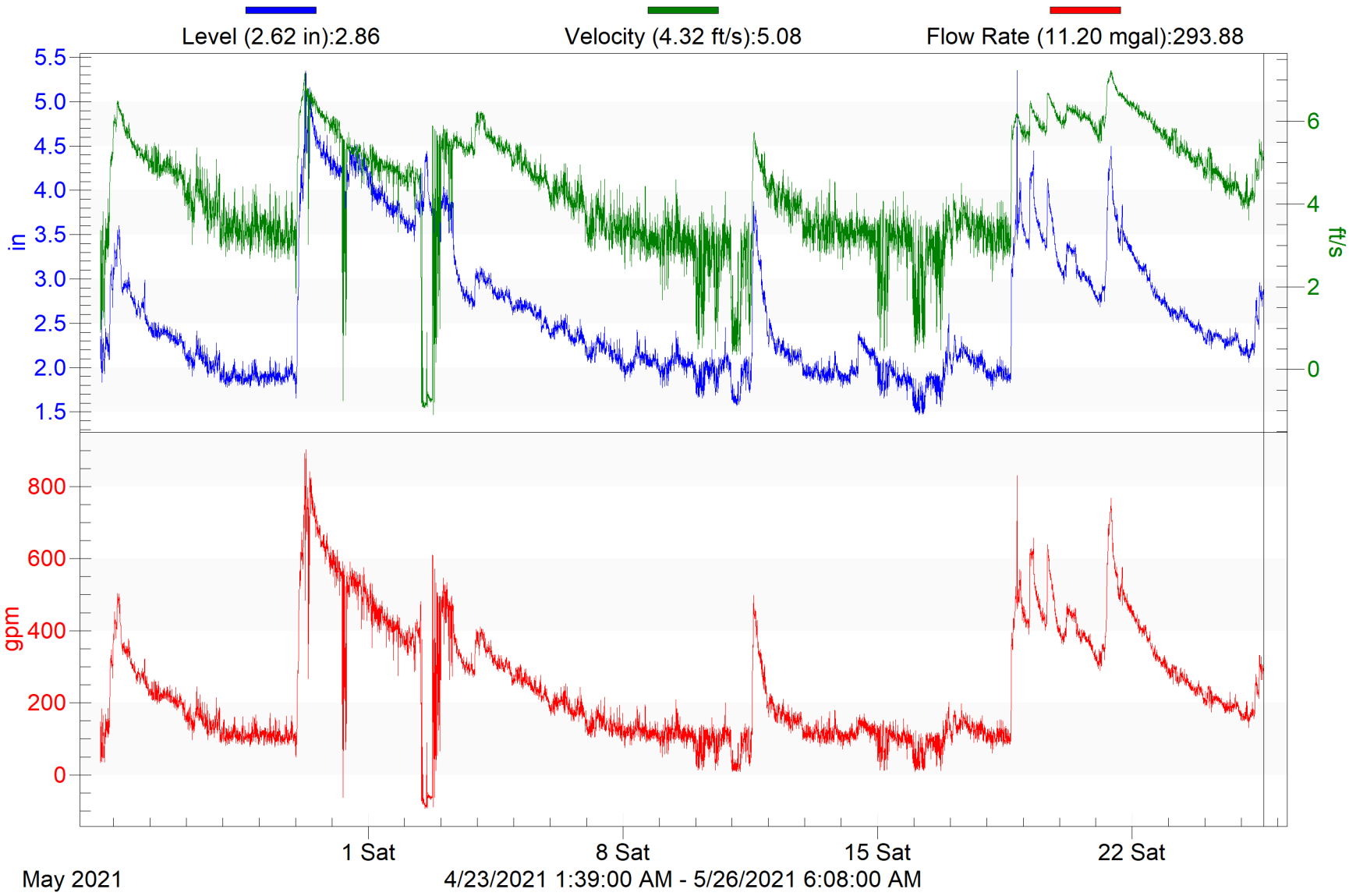
Hydraulic Conditions
Fast moving

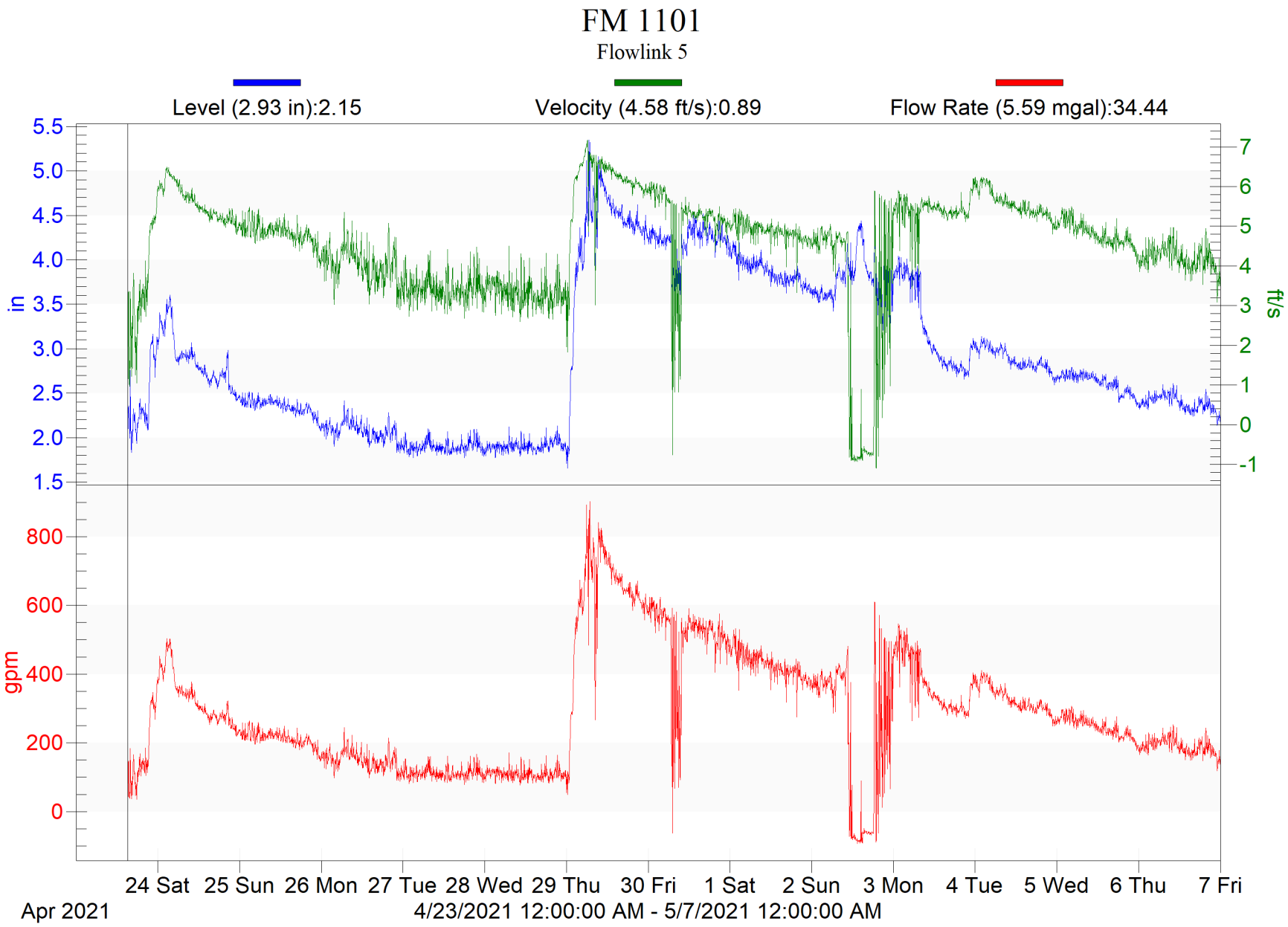
General Conditions
Meter was moved from MH1101 to MH1100. Flow meter name remained

Map Image	Area Image	Sensor Ring Image
		
Map_FM1101	FM1101 Area	FM1101 Pipe
Downhole Image	**Pipe Image**	**Install Schematic (Top)**
		
Aerial_FM1101	FM1101 Inner	FM1101 Schematic

FM 1101

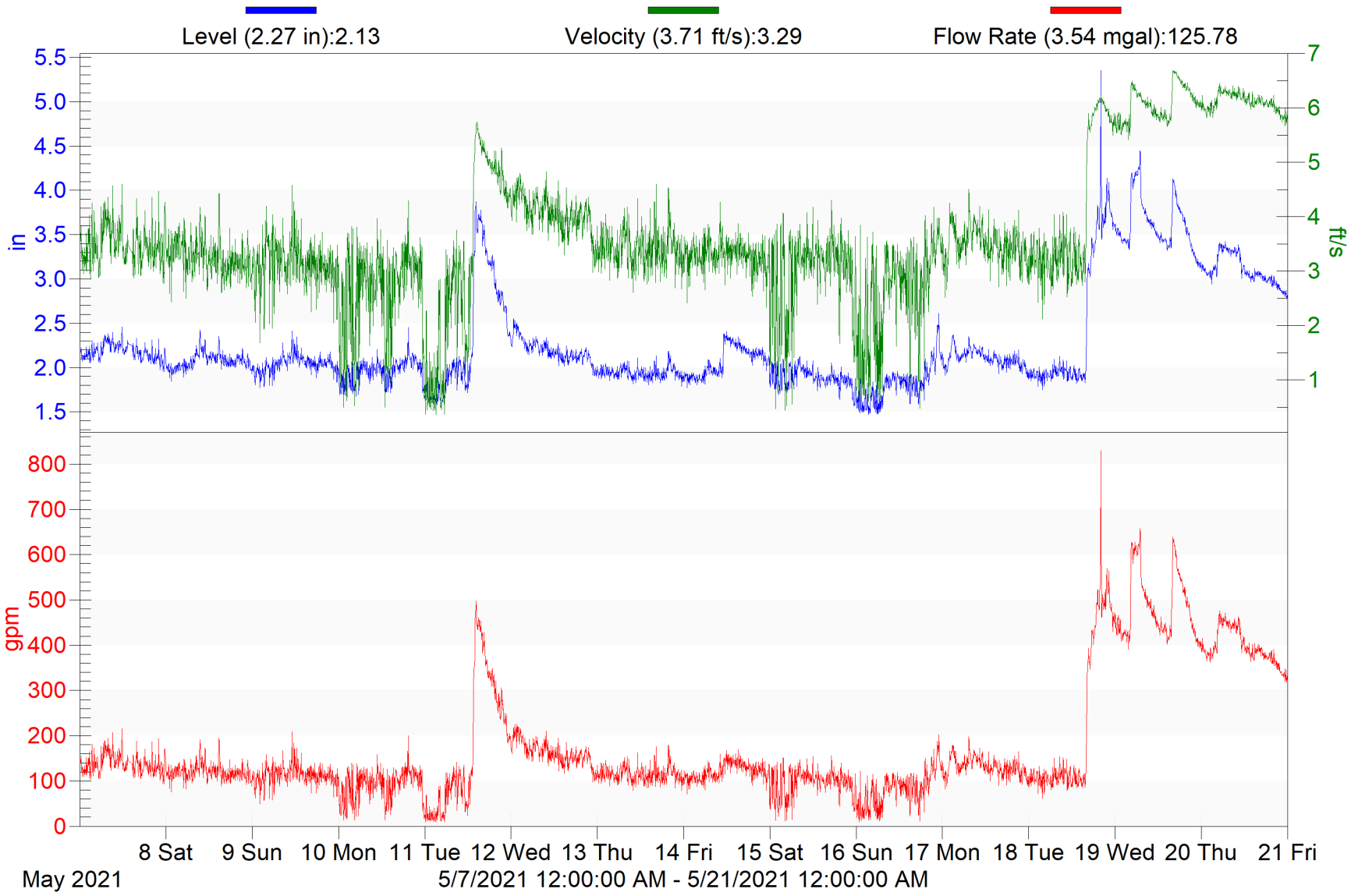
Flowlink 5




FM 1101
Flowlink 5
Level (2.93 in):2.15
Velocity (4.58 ft/s):0.89
Flow Rate (5.59 mgal):34.44
in
ft/s
gpm
5.5
5.0
4.5
4.0
3.5
3.0
2.5
2.0
1.5
7
6
5
4
3
2
1
0
-1
800
600
400
200
0
24 Sat
25 Sun
26 Mon
27 Tue
28 Wed
29 Thu
30 Fri
1 Sat
2 Sun
3 Mon
4 Tue
5 Wed
6 Thu
7 Fri
Apr 2021
4/23/2021 12:00:00 AM - 5/7/2021 12:00:00 AM

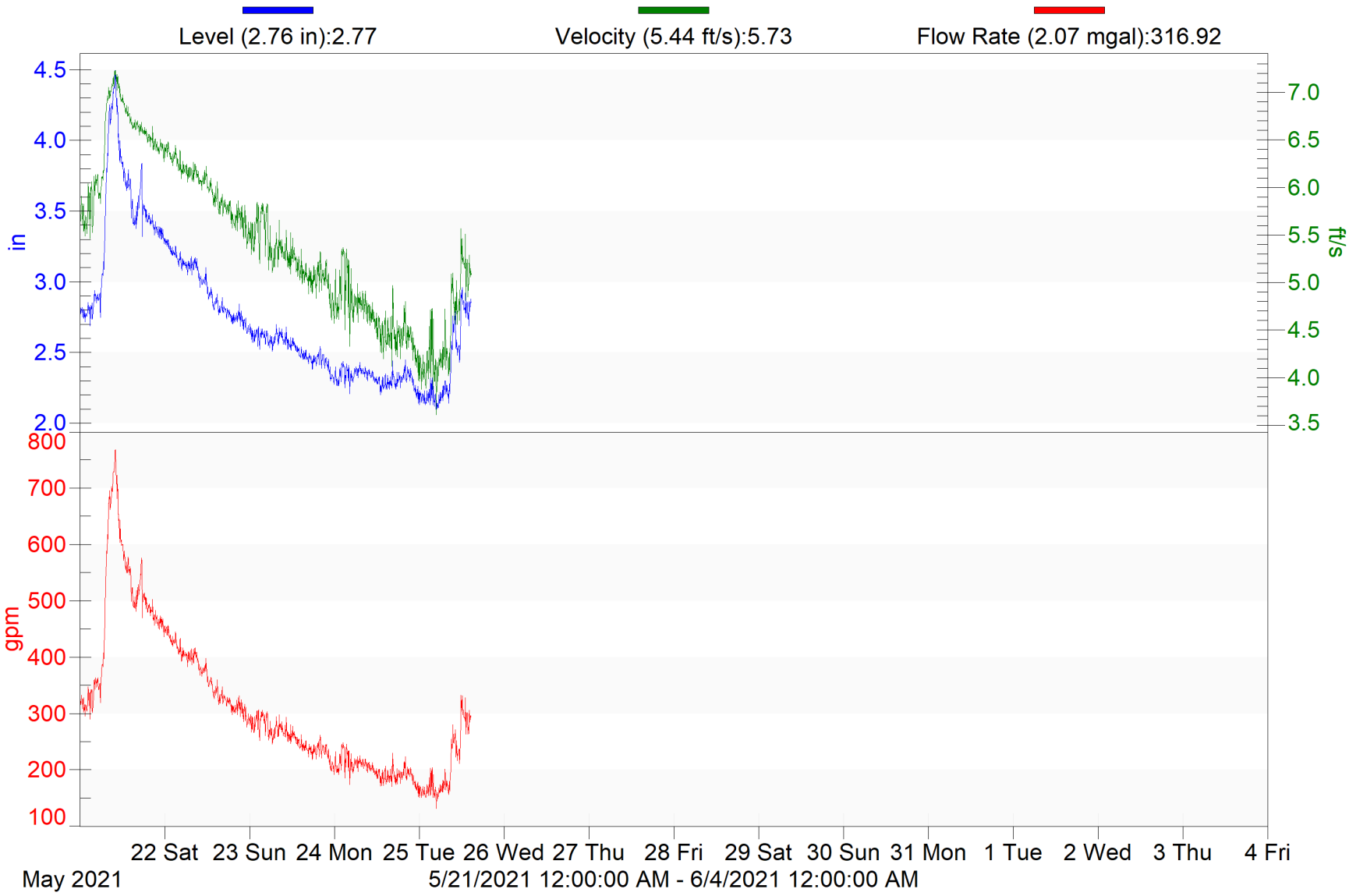
FM 1101

Flowlink 5



FM 1101

Flowlink 5



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COMPLIANCE ENVIROSYSTEMS

Flow Meter Maintenance Report

Site ID	Technician	Date Performed
FM103	J. Cawthon	2/24/2021 9:14:00 AM

Date / Time on Meter	Meter Voltage	Desiccant Status
	12.0	OK

Water Level (Measured)	Silt Level (Measured)
13.25	0.0

Water Level (Meter)	Flow Velocity (Meter)
13.26	2.04

Component Conditions:

Maintenance Performed:

cleaned sensor. Took two measurements and calibrated

Notes:

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Flow Meter Maintenance Report

Site ID	Technician	Date Performed
FM606	J. Cawthon	2/24/2021 11:01:00 AM

Date / Time on Meter	Meter Voltage	Desiccant Status
	12.0	OK

Water Level (Measured)	Silt Level (Measured)
6.75	0.0

Water Level (Meter)	Flow Velocity (Meter)
6.74	2.45

Component Conditions:

Maintenance Performed:

cleaned sensor and took two measurements then calibrated

Notes:

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Flow Meter Maintenance Report

Site ID	Technician	Date Performed
FM715	J. Cawthon	2/24/2021 11:48:00 AM

Date / Time on Meter	Meter Voltage	Desiccant Status
	12.0	OK

Water Level (Measured)	Silt Level (Measured)
4.25	0.0

Water Level (Meter)	Flow Velocity (Meter)
4.24	1.92

Component Conditions:

Maintenance Performed:

cleaned sensor and took two measurements then calibrated

Notes:

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COMPLIANCE ENVIROSYSTEMS

Flow Meter Maintenance Report

Site ID	Technician	Date Performed
FM283	J. Cawthon	2/24/2021 1:02:00 AM

Date / Time on Meter	Meter Voltage	Desiccant Status
	12.0	OK

Water Level (Measured)	Silt Level (Measured)
4.50	0.0

Water Level (Meter)	Flow Velocity (Meter)
4.38	5.44

Component Conditions:

Maintenance Performed:

cleaned sensor and took two measurements then calibrated

Notes:

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Flow Meter Maintenance Report

Site ID	Technician	Date Performed
FMNPVC3	J. Cawthon	2/24/2021 1:25:00 AM

Date / Time on Meter	Meter Voltage	Desiccant Status
	12.0	OK

Water Level (Measured)	Silt Level (Measured)
3.25	0.0

Water Level (Meter)	Flow Velocity (Meter)
3.35	1.71

Component Conditions:

Maintenance Performed:

cleaned sensor and took two measurements then calibrated

Notes:

sensor was moved down the pipe about 4 feet. We pulled it back and repositioned it.

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Flow Meter Maintenance Report

Site ID	Technician	Date Performed
FM103	J. Cawthon	3/8/2021 8:43:00 AM

Date / Time on Meter	Meter Voltage	Desiccant Status
	12.0	OK

Water Level (Measured)	Silt Level (Measured)
13.70	0.0

Water Level (Meter)	Flow Velocity (Meter)
13.91	1.78

Component Conditions:

Maintenance Performed:

cleaned sensor and took two measurements then calibrated

Notes:

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COMPLIANCE ENVIROSYSTEMS

Flow Meter Maintenance Report

Site ID	Technician	Date Performed
FM606	J. Cawthon	3/8/2021 9:07:00 AM

Date / Time on Meter	Meter Voltage	Desiccant Status
	12.0	OK

Water Level (Measured)	Silt Level (Measured)
6.75	0.0

Water Level (Meter)	Flow Velocity (Meter)
6.85	2.67

Component Conditions:

Maintenance Performed:

cleaned sensor and took two measurements then calibrated

Notes:

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COMPLIANCE ENVIROSYSTEMS

Flow Meter Maintenance Report

Site ID	Technician	Date Performed
FM715	J. Cawthon	3/8/2021 9:33:00 AM

Date / Time on Meter	Meter Voltage	Desiccant Status
	12.0	OK

Water Level (Measured)	Silt Level (Measured)
5.25	0.0

Water Level (Meter)	Flow Velocity (Meter)
5.23	1.89

Component Conditions:

Maintenance Performed:

cleaned sensor and took two measurements then calibrated

Notes:

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COMPLIANCE ENVIROSYSTEMS

Flow Meter Maintenance Report

Site ID	Technician	Date Performed
FM283	J. Cawthon	3/8/2021 9:59:00 AM

Date / Time on Meter	Meter Voltage	Desiccant Status
	12.0	OK

Water Level (Measured)	Silt Level (Measured)
4.75	0.0

Water Level (Meter)	Flow Velocity (Meter)
4.73	5.26

Component Conditions:

Maintenance Performed:

cleaned sensor and took two measurements then calibrated

Notes:

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Flow Meter Maintenance Report

Site ID	Technician	Date Performed
FMNPVC3	J. Cawthon	3/8/2021 10:19:00 AM

Date / Time on Meter	Meter Voltage	Desiccant Status
	12.0	OK

Water Level (Measured)	Silt Level (Measured)
4.50	0.0

Water Level (Meter)	Flow Velocity (Meter)
4.43	1.48

Component Conditions:

Maintenance Performed:

cleaned sensor and took two measurements then calibrated

Notes:

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Flow Meter Maintenance Report

Site ID	Technician	Date Performed
FM123	J. Cawthon	3/8/2021 10:48:00 AM

Date / Time on Meter	Meter Voltage	Desiccant Status
	12.0	OK

Water Level (Measured)	Silt Level (Measured)
1.25	0.0

Water Level (Meter)	Flow Velocity (Meter)
1.30	0.00

Component Conditions:

Maintenance Performed:

cleaned sensor and took two measurements then calibrated

Notes:

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COMPLIANCE ENVIROSYSTEMS

Flow Meter Maintenance Report

Site ID	Technician	Date Performed
FM103	J. Cawthon	3/21/2021 8:32:00 AM

Date / Time on Meter	Meter Voltage	Desiccant Status
	12.0	OK

Water Level (Measured)	Silt Level (Measured)
17.25	0.0

Water Level (Meter)	Flow Velocity (Meter)
17.25	1.55

Component Conditions:

Maintenance Performed:

cleaned sensor and took two measurements then calibrated

Notes:

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COMPLIANCE ENVIROSYSTEMS

Flow Meter Maintenance Report

Site ID	Technician	Date Performed
FM606	J. Cawthon	3/21/2021 8:53:00 AM

Date / Time on Meter	Meter Voltage	Desiccant Status
	12.0	OK

Water Level (Measured)	Silt Level (Measured)
4.75	0.0

Water Level (Meter)	Flow Velocity (Meter)
4.80	2.83

Component Conditions:

Maintenance Performed:

cleaned sensor and took two measurements then calibrated

Notes:

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Flow Meter Maintenance Report

Site ID	Technician	Date Performed
FM715	J. Cawthon	3/21/2021 9:07:00 AM

Date / Time on Meter	Meter Voltage	Desiccant Status
	12.0	OK

Water Level (Measured)	Silt Level (Measured)
6.00	0.0

Water Level (Meter)	Flow Velocity (Meter)
5.98	1.77

Component Conditions:

Maintenance Performed:

cleaned sensor and took two measurements then calibrated

Notes:

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COMPLIANCE ENVIROSYSTEMS

Flow Meter Maintenance Report

Site ID	Technician	Date Performed
FM283	J. Cawthon	3/21/2021 9:28:00 AM

Date / Time on Meter	Meter Voltage	Desiccant Status
	12.0	OK

Water Level (Measured)	Silt Level (Measured)
6.25	0.0

Water Level (Meter)	Flow Velocity (Meter)
6.19	5.28

Component Conditions:

Maintenance Performed:

cleaned sensor and took two measurements then calibrated

Notes:

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Flow Meter Maintenance Report

Site ID	Technician	Date Performed
FMNPVC3	J. Cawthon	3/21/2021 9:45:00 AM

Date / Time on Meter	Meter Voltage	Desiccant Status
	12.0	OK

Water Level (Measured)	Silt Level (Measured)
5.60	0.0

Water Level (Meter)	Flow Velocity (Meter)
5.63	0.73

Component Conditions:

Maintenance Performed:

cleaned sensor and took two measurements then calibrated

Notes:

sensor had major ragging

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Flow Meter Maintenance Report

Site ID	Technician	Date Performed
FM123	J. Cawthon	3/21/2021 10:14:00 AM

Date / Time on Meter	Meter Voltage	Desiccant Status
	12.0	OK

Water Level (Measured)	Silt Level (Measured)
2.00	0.0

Water Level (Meter)	Flow Velocity (Meter)
1.90	0.63

Component Conditions:

Maintenance Performed:

cleaned sensor and took two measurements then calibrated

Notes:

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Flow Meter Maintenance Report

Site ID	Technician	Date Performed
FM715	J. Cawthon	3/31/2021 9:40:00 AM

Date / Time on Meter	Meter Voltage	Desiccant Status

Water Level (Measured)	Silt Level (Measured)

Water Level (Meter)	Flow Velocity (Meter)

Component Conditions:

Maintenance Performed:

Notes:

Emergency visit. Called Hach Tech Support and found out the sensor has malfunctioned. Hach is sending me a replacement sub AV sensor. The sensor will be replaced on 4/6/2021.

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COMPLIANCE ENVIROSYSTEMS

Flow Meter Maintenance Report

Site ID	Technician	Date Performed
FM103	J. Cawthon	4/6/2021 10:45:00 AM

Date / Time on Meter	Meter Voltage	Desiccant Status
	12.0	OK

Water Level (Measured)	Silt Level (Measured)
12.75	0.0

Water Level (Meter)	Flow Velocity (Meter)
12.64	1.66

Component Conditions:

Maintenance Performed:

cleaned sensor and took two measurements then calibrated

Notes:

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Flow Meter Maintenance Report

Site ID	Technician	Date Performed
FM606	J. Cawthon	4/6/2021 11:45:00 AM

Date / Time on Meter	Meter Voltage	Desiccant Status
	12.0	OK

Water Level (Measured)	Silt Level (Measured)
5.25	0.0

Water Level (Meter)	Flow Velocity (Meter)
5.09	2.60

Component Conditions:

Maintenance Performed:

cleaned sensor and took two measurements then calibrated

Notes:

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COMPLIANCE ENVIROSYSTEMS

Flow Meter Maintenance Report

Site ID	Technician	Date Performed
FM715	J. Cawthon	4/6/2021 12:40:00 PM

Date / Time on Meter	Meter Voltage	Desiccant Status
	12.0	OK

Water Level (Measured)	Silt Level (Measured)
5.50	0.0

Water Level (Meter)	Flow Velocity (Meter)
5.48	1.84

Component Conditions:

Maintenance Performed:

cleaned sensor and took two measurements then calibrated

Notes:

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Flow Meter Maintenance Report

Site ID	Technician	Date Performed
FM283	J. Cawthon	4/6/2021 1:40:00 AM

Date / Time on Meter	Meter Voltage	Desiccant Status
	12.0	OK

Water Level (Measured)	Silt Level (Measured)
5.90	0.0

Water Level (Meter)	Flow Velocity (Meter)
6.10	4.86

Component Conditions:

Maintenance Performed:

cleaned sensor and took two measurements then calibrated

Notes:

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Flow Meter Maintenance Report

Site ID	Technician	Date Performed
FMNPVC3	J. Cawthon	4/6/2021 2:11:00 AM

Date / Time on Meter	Meter Voltage	Desiccant Status
	12.0	OK

Water Level (Measured)	Silt Level (Measured)
9.10	0.0

Water Level (Meter)	Flow Velocity (Meter)
9.07	0.27

Component Conditions:

Maintenance Performed:

cleaned sensor and took two measurements then calibrated

Notes:

sensor had major ragging

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COMPLIANCE ENVIROSYSTEMS

Flow Meter Maintenance Report

Site ID	Technician	Date Performed
FM123	J. Cawthon	4/6/2021 2:57:00 AM

Date / Time on Meter	Meter Voltage	Desiccant Status
	12.0	OK

Water Level (Measured)	Silt Level (Measured)
2.00	0.0

Water Level (Meter)	Flow Velocity (Meter)
2.19	2.20

Component Conditions:

Maintenance Performed:

cleaned sensor and took two measurements then calibrated

Notes:

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Flow Meter Maintenance Report

Site ID	Technician	Date Performed
FM715	J. Cawthon	4/23/2021 6:28:00 AM

Date / Time on Meter	Meter Voltage	Desiccant Status
	10.9	OK

Water Level (Measured)	Silt Level (Measured)
6.25	0.0

Water Level (Meter)	Flow Velocity (Meter)
6.26	1.79

Component Conditions:

Maintenance Performed:

cleaned sensor and took two measurements then calibrated

Notes:

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Flow Meter Maintenance Report

Site ID	Technician	Date Performed
FM283	J. Cawthon	4/23/2021 12:42:00 PM

Date / Time on Meter	Meter Voltage	Desiccant Status
	11.7	OK

Water Level (Measured)	Silt Level (Measured)
6.10	0.0

Water Level (Meter)	Flow Velocity (Meter)
6.19	4.92

Component Conditions:

Maintenance Performed:

cleaned sensor took two measurements and calibrated

Notes:

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Flow Meter Maintenance Report

Site ID	Technician	Date Performed
FM715	J. Cawthon	5/7/2021 10:25:00 AM

Date / Time on Meter	Meter Voltage	Desiccant Status
	10.8	OK

Water Level (Measured)	Silt Level (Measured)
7.50	0.0

Water Level (Meter)	Flow Velocity (Meter)
7.16	2.28

Component Conditions:

Maintenance Performed:

cleaned sensor took two measurements calibrated to 7.5 and read 7.5 on meter. Successfully made call

Notes:

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COMPLIANCE ENVIROSYSTEMS

Flow Meter Maintenance Report

Site ID	Technician	Date Performed
FM283	J. Cawthon	5/7/2021 10:51:00 AM

Date / Time on Meter	Meter Voltage	Desiccant Status
	11.2	OK

Water Level (Measured)	Silt Level (Measured)
7.40	0.0

Water Level (Meter)	Flow Velocity (Meter)
7.17	5.81

Component Conditions:

Maintenance Performed:

cleaned sensor successfully made call calibrated to 7.5 meter read 7.4 high velocity

Notes:

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COMPLIANCE ENVIROSYSTEMS

Flow Meter Maintenance Report

Site ID	Technician	Date Performed
FM388	J. Cawthon	5/7/2021 11:15:00 AM

Date / Time on Meter	Meter Voltage	Desiccant Status
	11.2	OK

Water Level (Measured)	Silt Level (Measured)
5.00	0.0

Water Level (Meter)	Flow Velocity (Meter)
5.01	2.14

Component Conditions:

Maintenance Performed:

cleaned sensor took three measurements within spec made successful call

Notes:

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COMPLIANCE ENVIROSYSTEMS

Flow Meter Maintenance Report

Site ID	Technician	Date Performed
FM388	J. Cawthon	5/7/2021 11:55:00 AM

Date / Time on Meter	Meter Voltage	Desiccant Status
	11.1	OK

Water Level (Measured)	Silt Level (Measured)
6.60	0.0

Water Level (Meter)	Flow Velocity (Meter)
5.94	2.45

Component Conditions:

Maintenance Performed:

cleaned sensor. Made call. Calibrated to 6.6 meter read 6.62

Notes:

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COMPLIANCE ENVIROSYSTEMS

Flow Meter Maintenance Report

Site ID	Technician	Date Performed
FM852	J. Cawthon	5/7/2021 12:45:00 PM

Date / Time on Meter	Meter Voltage	Desiccant Status
	11.1	OK

Water Level (Measured)	Silt Level (Measured)
5.50	0.0

Water Level (Meter)	Flow Velocity (Meter)
5.24	2.05

Component Conditions:

Maintenance Performed:

cleaned sensor called server calibrated to 5.4 meter read 5.38

Notes:

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COMPLIANCE ENVIROSYSTEMS

Flow Meter Maintenance Report

Site ID	Technician	Date Performed
fm1101	J. Cawthon	5/7/2021 2:22:00 AM

Date / Time on Meter	Meter Voltage	Desiccant Status
	11.2	OK

Water Level (Measured)	Silt Level (Measured)
2.75	0.0

Water Level (Meter)	Flow Velocity (Meter)
2.30	3.41

Component Conditions:

Maintenance Performed:

cleaned sensor made call calibrated to 2.25 meter read 2.27

Notes:

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COMPLIANCE ENVIROSYSTEMS

Flow Meter Maintenance Report

Site ID	Technician	Date Performed
FM760	J. Cawthon	5/25/2021 11:34:00 AM

Date / Time on Meter	Meter Voltage	Desiccant Status
	11.4	OK

Water Level (Measured)	Silt Level (Measured)
8.00	0.0

Water Level (Meter)	Flow Velocity (Meter)
8.89	2.64

Component Conditions:

Maintenance Performed:

cleaned sensor, took two measurements, downloaded, made call

Notes:

calibrate to 8.00, meter read 7.96 and we measured to 8.0

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COMPLIANCE ENVIROSYSTEMS

Flow Meter Maintenance Report

Site ID	Technician	Date Performed
FM715	J. Cawthon	5/25/2021 12:18:00 PM

Date / Time on Meter	Meter Voltage	Desiccant Status
	10.6	OK

Water Level (Measured)	Silt Level (Measured)
8.50	0.0

Water Level (Meter)	Flow Velocity (Meter)
9.98	3.10

Component Conditions:

Maintenance Performed:

cleaned sensor, took two measurements, downloaded, made call

Notes:

calibrate to 8.5, meter read 8.46, actual measurement 8.5

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Flow Meter Maintenance Report

Site ID	Technician	Date Performed
FM283	J. Cawthon	5/25/2021 1:24:00 AM

Date / Time on Meter	Meter Voltage	Desiccant Status
	10.9	OK

Water Level (Measured)	Silt Level (Measured)
12.09	0.0

Water Level (Meter)	Flow Velocity (Meter)
9.89	6.61

Component Conditions:

Maintenance Performed:

cleaned sensor, took two measurements, downloaded, made call

Notes:

calibrate 12.00, we measured 12.09, computer read 12.00

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COMPLIANCE ENVIROSYSTEMS

Flow Meter Maintenance Report

Site ID	Technician	Date Performed
FM388	J. Cawthon	5/25/2021 2:05:00 AM

Date / Time on Meter	Meter Voltage	Desiccant Status
	10.9	OK

Water Level (Measured)	Silt Level (Measured)
9.63	0.0

Water Level (Meter)	Flow Velocity (Meter)
9.58	4.18

Component Conditions:

Maintenance Performed:

cleaned sensor, took two measurements, downloaded, made call

Notes:

we measured 9.63, computer read 9.58

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COMPLIANCE ENVIROSYSTEMS

Flow Meter Maintenance Report

Site ID	Technician	Date Performed
FM852	A. Stutts	5/25/2021 2:45:00 AM

Date / Time on Meter	Meter Voltage	Desiccant Status
	10.8	OK

Water Level (Measured)	Silt Level (Measured)
8.13	0.0

Water Level (Meter)	Flow Velocity (Meter)
8.13	2.81

Component Conditions:

Maintenance Performed:

cleaned sensor, took two measurements, downloaded, made call

Notes:

we measured 8.13, computer read 8.13

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COMPLIANCE ENVIROSYSTEMS

Flow Meter Maintenance Report

Site ID	Technician	Date Performed
fm1101	J. Cawthon	5/25/2021 3:55:00 AM

Date / Time on Meter	Meter Voltage	Desiccant Status
	11.0	OK

Water Level (Measured)	Silt Level (Measured)
4.50	0.0

Water Level (Meter)	Flow Velocity (Meter)
4.43	5.17

Component Conditions:

Maintenance Performed:

cleaned sensor, took two measurements, downloaded, made call

Notes:

calibrate 4.5, we measured 4.5, computer read 4.43