Operations & Maintenance Inc.
Riverview Business Park
1850 Route 57
Fulton, NY 13069

Gary Mullen, Jr.
Project Manager
gmullenomi@gmail.com
315-378-5088

May 26, 2021

BY E-MAIL AND OVERNIGHT DELIVERY (For Original Signed PRR Only)

Michael Belveg, Assistant Engineer (Environmental)
New York State Department of Environmental Conservation
Division of Environmental Remediation
615 Erie Boulevard West
Syracuse, NY 13204
michael.belveg@dec.ny.gov

Re: Former Miller Container Site – Registry Site # 738029 (the "Site")
- Submission of Periodic Review Report (PRR)
Reporting Period: April 30, 2020 – April 30, 2021

Michael:

Enclosed are the following documents that make up the PRR submittal for the referenced Site for the 2020-2021 reporting period:

a) PRR signed by the Site Owner, Riccelli Fulton, LLC (copy of original). Riccelli is certifying to the portion of the PRR that covers the Institutional Controls (ICs) associated with the Site;
b) PRR signed by Patrick Martin, P.E. on behalf of the Remedial Party (RP), Miller Brewing Company (original signature). This PRR reflects revisions made to the form PRR to reflect the division of certification responsibility between the Site Owner and the RP. As discussed with the Department, the RP is certifying the portion of the PRR that covers the Engineering Controls (ECs) associated with the Site[1]; and
c) Year 24 Annual Groundwater Monitoring Report. This is in the same format that we have used in the course of the remediation. We will continue to use this format for PRR purposes as provided in the Site Management Plan (SMP) (October 2016) (see section 5.3 of the SMP). Appendices will be sent as an electronic copy only.

[1] Note that Box 3 in the RP version of the PRR makes reference to the recorded Declaration of Covenants and Restrictions as containing the existing ICs because that reflects our understanding of the scope of the ICs that are in effect. However, the RP is making no certification as to the ICs because that is the obligation of the Site Owner

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In accordance with the directions provided under the Department's March 19, 2021 email sent to Jay Eversman at the Anheuser-Busch Cos., LLC, all the enclosures will be forwarded to you by e-mail. In addition, the original paper copy of the PRR signed by Patrick Martin will be sent to you by overnight delivery.

Regards,
OPERATIONS & MAINTENANCE, INC.

Gary Mullen
Digitally signed by Gary Mullen
DN: cn=Gary Mullen, o=OMI, ou, email=gmullenomi@gmail.com, c=US
Date: 2021.05.26 14:03:16 -04'00'

Gary Mullen
Project Manager

Enclosures
ecc: Margaret Sheen, Esq., NYSDEC Region 7
Harry Warner, NYSDEC Region 7
Eamonn O'Neil, NYSDOH
Maureen Schuck, NYSDOH
Greg Novitzki, Riccelli Fulton, LLC
Will Orton, Riccelli Fulton, LLC
Richard J. Riccelli, Riccelli Fulton, LLC
Jay Eversman, Esq. Anheuser-Busch Cos.,.LLC
William Buchan, OMI
Patrick Martin, P.E., Golder Associates

Enclosure 2

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Site Management Periodic Review Report Notice
Institutional and Engineering Controls Certification Form

Site Details **Box 1**

Site No. **738029**

Site Name Former Miller Container Site

Site Address: NY Route 57 Zip Code: 13069
City/Town: Volney
County: Oswego
Site Acreage: 12.704

Reporting Period: April 30, 2020 to April 30, 2021

	YES	NO
1. Is the information above correct?	☑	☐
If NO, include handwritten above or on a separate sheet.		
2. Has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment during this Reporting Period?	☐	☑
3. Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))?	☐	☑
4. Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period?	☐	☑
If you answered YES to questions 2 thru 4, include documentation or evidence that documentation has been previously submitted with this certification form.		
5. Is the site currently undergoing development?	☐	☑

Box 2

	YES	NO
6. Is the current site use consistent with the use(s) listed below? Commercial and Industrial	☑	☐
7. Are all ICs in place and functioning as designed?	☑	☐

IF THE ANSWER TO EITHER QUESTION 6 OR 7 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

Signature of Owner, Remedial Party or Designated Representative

Date

SITE NO. 738029

Box 3

Description of Institutional Controls

Parcel	Owner	Institutional Control
	Riccelli Fulton, LLC	Ground Water Use Restriction

Box 4

Description of Engineering Controls

Parcel	Engineering Control
	Groundwater Treatment System Air Sparging/Soil Vapor Extraction

Box 5

Periodic Review Report (PRR) Certification Statements

1. I certify by checking "YES" below that:

   a) the Periodic Review report and all attachments were prepared under the direction of, and reviewed by, the party making the Engineering Control certification;

   b) to the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted engineering practices; and the information presented is accurate and compete.

YES	NO
☐	☐

2. For each Engineering control listed in Box 4, I certify by checking "YES" below that all of the following statements are true:

   (a) The Engineering Control(s) employed at this site is unchanged since the date that the Control was put in-place, or was last approved by the Department;

   (b) nothing has occurred that would impair the ability of such Control, to protect public health and the environment;

   (c) access to the site will continue to be provided to the Department, to evaluate the remedy, including access to evaluate the continued maintenance of this Control;

   (d) nothing has occurred that would constitute a violation or failure to comply with the Site Management Plan for this Control; and

   (e) if a financial assurance mechanism is required by the oversight document for the site, the mechanism remains valid and sufficient for its intended purpose established in the document.

YES	NO
☐	☐

IF THE ANSWER TO QUESTION 2 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

_____ _____

Signature of Owner, Remedial Party or Designated Representative Date

IC CERTIFICATIONS
SITE NO. 738029

Box 6

SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE

I certify that all information and statements in Boxes 1,2, and 3 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I Richard J. Riuelli (print name) at 6131 E. Taft Rd (print business address),

am certifying as Owner (Owner or Remedial Party)

for the Site named in the Site Details Section of this form.

Richard J Riuelli
Signature of Owner, Remedial Party, or Designated Representative Rendering Certification

5-20-2021
Date

EC CERTIFICATIONS

Box 7

Professional Engineer Signature

I certify that all information in Boxes 4 and 5 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I _____ at _____,
print name print business address

am certifying as a Professional Engineer for the _____
(Owner or Remedial Party)

_____	_____	_____
Signature of Professional Engineer, for the Owner or Remedial Party, Rendering Certification	Stamp (Required for PE)	Date

Enclosure 2

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Site Management Periodic Review Report Notice
Institutional and Engineering Controls Certification Form

Site Details **Box 1**

Site No. **738029**

Site Name Former Miller Container Site

Site Address: NY Route 57 Zip Code: 13069
City/Town: Volney
County: Oswego
Site Acreage: 12.704

Reporting Period: April 30, 2020 to April 30, 2021

	YES	NO
1. Is the information above correct?	X	☐
If NO, include handwritten above or on a separate sheet.		
2. Has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment during this Reporting Period?	☐	X
3. Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))?	☐	X
4. Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period?	☐	X
If you answered YES to questions 2 thru 4, include documentation or evidence that documentation has been previously submitted with this certification form.		
5. Is the site currently undergoing development?	☐	X

Box 2

	YES	NO
6. Is the current site use consistent with the use(s) listed below? Commercial and Industrial	X	☐
7. Are all ICs in place and functioning as designed?	X	☐

IF THE ANSWER TO EITHER QUESTION 6 OR 7 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

Signature of Owner, Remedial Party or Designated Representative

Date

SITE NO. 738029 **Box 3**

Description of Institutional Controls

Parcel	Owner	Institutional Control
	Riccelli Fulton, LLC	Ground Water Use Restriction

NOT APPLICABLE TO REMEDIAL PARTY, ICs ARE THE RESPONSIBILITY OF THE SITE OWNER AS RECORDED IN THE DECLARATION OF COVENANTS & RESTRICTIONS FOR THE SITE

Box 4

Description of Engineering Controls

Parcel	Engineering Control
TAX MAP # 254.00-05-04.01	Groundwater Treatment System Air Sparging/Soil Vapor Extraction GROUNDWATER EXTRACTION SYSTEM

Box 5

Periodic Review Report (PRR) Certification Statements

1. I certify by checking "YES" below ~~that:~~ WITH THE EXCEPTION OF BOXES 1, 2 & 3 THAT:

   a) the Periodic Review report and all attachments were prepared under the direction of, and reviewed by, the party making the Engineering Control certification;

   b) to the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted engineering practices; and the information presented is accurate and compete.

YES	NO
X	☐

2. For each Engineering control listed in Box 4, I certify by checking "YES" below that all of the following statements are true:

   (a) The Engineering Control(s) employed at this site is unchanged since the date that the Control was put in-place, or was last approved by the Department;

   (b) nothing has occurred that would impair the ability of such Control, to protect public health and the environment;

   (c) ~~access to the site will continue to be provided to the Department, to evaluate the remedy, including access to evaluate the continued maintenance of this Control~~; SITE ACCESS IS THE RESPONSIBILITY OF THE SITE OWNER, NOT THAT OF THE REMEDIAL PARTY

   (d) nothing has occurred that would constitute a violation or failure to comply with the Site Management Plan for this Control; and

   (e) if a financial assurance mechanism is required by the oversight document for the site, the mechanism remains valid and sufficient for its intended purpose established in the document.

   (f) ALL ENGINEERING CONTROLS ARE IN PLACE AND FUNCTIONING AS DESIGNED

YES	NO
X	☐

IF THE ANSWER TO QUESTION 2 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

Signature of Owner, Remedial Party or Designated Representative

Date

IC CERTIFICATIONS
SITE NO. 738029

Box 6

SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE

I certify that all information and statements in Boxes 1,2, and 3 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I _____ at _____,
print name print business address

am certifying as _____(Owner or Remedial Party)

for the Site named in the Site Details Section of this form.

_____ _____
Signature of Owner, Remedial Party, or Designated Representative Rendering Certification Date

EC CERTIFICATIONS

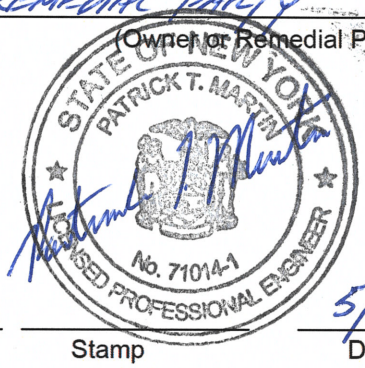
Box 7

Professional Engineer Signature

I certify that all information in Boxes 4 and 5 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I PATRICK T. MARTIN at 455 COMMERCE DR. STE 8, BUFFALO, NY 14228
print name print business address

am certifying as a Professional Engineer for the REMEDIAL PARTY
(Owner or Remedial Party)



Signature of Professional Engineer, for the Owner or Remedial Party, Rendering Certification

Stamp (Required for PE)

Date 5/25/21

Annual Groundwater Monitoring Report Year 24 (May 2020- April 2021)

Miller Brewing Groundwater Recovery and Treatment System
NYSDEC Site # 7-38-029
Former Miller Container Site
Volney, New York

Submitted To:
New York State Department of Environmental Conservation
Division of Environmental Remediation
615 Erie Boulevard West
Syracuse, NY 13204

Prepared by:
Operations & Maintenance Inc.
1850 Route 57
Fulton, New York 13069

May 2021

Table of Contents

INTRODUCTION

Operations & Maintenance, Inc. (OMI) has prepared this Annual Groundwater Monitoring Report (AGWMR) on behalf of Miller Brewing Company (Remedial Party – RP) for submission to the New York State Department of Environmental Conservation (NYSDEC) for the Former Miller Container site (NYSDEC Site #7-38-029) located in Volney, NY. It reflects the progress made toward achieving the Remediation Goals identified at 6.0 of the Record of Decision (ROD) (dated March 1995) that was issued by NYSDEC for this Site and the associated Standards, Criteria, and Guidance (SCGs).

This report covers the period from April 30, 2020 to April 30, 2021 inclusive (operating year) and is organized in general accordance with the NYSDEC approved outline. This report is being submitted in conjunction with the completed "*Site Management Periodic Review Report Notice - Institutional and Engineering Controls Certification Form*" and the combined documents fulfill the requirements of the approved Site Management Plan (December 2016) for submittal of an annual Periodic Review Report (PRR).

The responsibilities for implementing the SMP are divided between the Site Owner and the RP, because the RP has no control over the Site Owner's activities on the Site. Therefore, as the RP, Miller Brewing Company is responsible for the three Engineering Controls (ECs) that are identified in the SMP (i.e., the Groundwater Extraction System, Groundwater Treatment Facility and Soil Vapor Extraction System). A detailed discussion of the RP responsibilities is included in Section 6.2 of the SMP. The Site Owner, currently Riccelli Fulton, LLC (Riccelli), is responsible for the Institutional Controls (ICs). The ICs are defined in Section 2.3 of the approved SMP and in the Declaration of Covenants and Restrictions recorded June 26, 2015 in the Oswego County Clerk's office.

This report is focused on the reporting of all relevant operations, monitoring and data reporting associated with the ECs to assess and support the certification that they are functioning correctly and continue to address the Remediation Goals for the Site.

OVERALL SITE PROGRESS

Monitoring well and recovery well sampling demonstrates that the contaminant plume on the Former Miller Container site continues to shrink. The contaminant levels reported in the outlying monitoring wells continue to trend downward. The VOC levels reported from the sampling of the source recovery wells also continue to decline.

Since November of 2013, the City of Fulton Water Treatment Facility has been mothballed because its operation was no longer necessary due to the drop of contaminant levels in municipal production well, M-2A. The RP does not conduct sampling of M-2A because water from this well is not being used by the City as a source of drinking water. Currently, water is being pumped from M-2A to the Oswego River in accordance with a NYSDEC Consent Order with Riccelli Fulton, LLC.

The Soil Vapor Extraction system continues to accelerate the site remediation by providing mass removal in conjunction with the groundwater recovery system. The SVE system is also providing additional protection against Soil Vapor Intrusion into the on-site structure.

Progress made toward achieving the Remediation Goals identified in the ROD for this Site is discussed under the Conclusions section of this report.

REMEDIAL TREATMENT SYSTEM OPERATION

GROUNDWATER RECOVERY SYSTEM

The current groundwater recovery system consists of nine (9) groundwater Recovery Wells (RWs). The nine Recovery Wells were in operation for the entire reporting period with minor exceptions when the system was off for maintenance or offline due to equipment malfunction. Operation of recovery well RW-10 was halted on August 19, 2015. The lack of flow from this recovery well and its impact on the recovery system's ability to mitigate off site migration is discussed below.

The following table summarizes the flow rates for the nine Recovery Wells for the 2020-2021 operating year.

April 30, 2020 - April 30, 2021

Well	Total (gallons)	GPD	GPM
RW-2	1845904	5057	3.51
RW-3	85031	233	0.16
RW-4	301667	826	0.57
RW-5R	826413	2264	1.57
RW-8	861677	2361	1.64
RW-9	55180	151	0.10
RW-11	447684	1227	0.85
RW-12	1208093	3310	2.30
RW-13	349198	957	0.66
Totals	**5,980,847**	**16,386**	**11.4**

Based on the individual recovery well totalizers, a total of 5,980,847 gallons of groundwater were recovered during the reporting period at an average flow rate of 11.4 gallons per minute to the treatment system. The production rates are constantly monitored throughout the year and adjustments are made to improve the rates from individual wells.

The flow to the Air Stripper Treatment (AST) system is also monitored using an electromechanical flow meter. This meter indicated a total of 7,239,904 gallons of water were treated at the Groundwater Treatment Facility (GWTF). The readings from the AST influent flow meter are assumed to be more representative of the actual flow that passes through the treatment system. The daily totalizer readings from the AST flow meter are presented in Appendix A.

RECOVERY SYSTEM MONITORING RESULTS

The operating recovery wells were sampled four times during the reporting period. Samples were collected from the in-line taps and submitted for laboratory analysis. The results were reported to NYSDEC in the quarterly monitoring reports submitted for the site.

The following table summarizes the laboratory analytical results for the RW samples collected during the monitoring events this reporting period. The summary table includes all results for any compound reported at or above the Method Detection Limit (MDL) in any sample. All concentrations are presented in μg/l:

RECOVERY WELLS - USEPA Method 8260c

WELL	Date	1,1-DCA	1,1-DCE	c-1,2-DCE	PCE	1,1,1-TCA	TCE	Vinyl Chloride
RW-2	9-Jul-20	**15**	**8.6**	**72**	**140**	**9.6**	**40**	**6.6**
	27-Oct-20	**12**	**8.4**	**49**	**120**	**9.0**	**30**	4.9
	13-Jan-21	**17**	**12**	**60**	**120**	**13**	**37**	**6.0**
	14-Apr-21	**10**	**8.5**	**45**	**170**	**8.9**	**27**	3.2
RW-3	9-Jul-20	1.3	1.7	**24**	**70**	4.3	**9.0**	<0.5
	19-Oct-20	0.86	1.3	**14**	**58**	3.1	**6.8**	<0.5
	13-Jan-21	1.1	1.5	**19**	**48**	3.6	**9.6**	0.63
	14-Apr-21	0.70	0.86	**12**	**58**	2.6	**5.4**	<0.5
RW-4	9-Jul-20	4.5	4.2	**78**	**120**	**13**	**10.0**	**9.5**
	19-Oct-20	3.4	3.1	**61**	**93**	**8.4**	**11**	**7.2**
	13-Jan-21	**5.1**	4.7	**85**	**93**	**13**	**14**	**14**
	14-Apr-21	3.3	3.1	**89**	**96**	**8.2**	**11**	**9.2**
RW-5R	9-Jul-20	2.0	1.9	**13**	**84**	2.1	**6.4**	<2
	27-Oct-20	<2	<2	**12**	**67**	<2	**5.3**	<2
	13-Jan-21	2.3	1.8	**17**	**66**	2.1	**7.4**	<2
	14-Apr-21	1.6	1.3	**12**	**73**	1.5	4.8	<0.5
RW-8	9-Jul-20	4.6	1.9	**30**	**10.0**	2.3	2.4	2.2
	27-Oct-20	3.4	1.5	**21**	**7.8**	1.7	2.0	1.7
	13-Jan-21	2.3	1.2	**10.0**	4.8	1.5	1.3	1.00
	14-Apr-21	1.2	0.74	4.0	3.4	0.97	0.81	<0.5
RW-9	9-Jul-20	**53**	**25**	**600**	**37**	**5.2**	**67**	**7.2**
	27-Oct-20	**40**	**17**	**470**	**32**	4.1	**50**	**5.8**
	13-Jan-21	**22**	**9.6**	**240**	**16**	2.7	**28**	**13**
	14-Apr-21	**22**	**16**	**230**	**28**	3.2	**43**	2.3
RW-11	9-Jul-20	<0.5	<0.5	0.88	2.0	<0.5	<0.5	<0.5
	27-Oct-20	<0.5	<0.5	0.84	1.8	<0.5	<0.5	<0.5
	13-Jan-21	<0.5	<0.5	<0.5	2.0	<0.5	<0.5	<0.5
	14-Apr-21	<0.5	<0.5	<0.5	1.8	<0.5	<0.5	<0.5
RW-12	9-Jul-20	0.79	0.50	<0.5	2.5	0.67	<0.5	<0.5
	27-Oct-20	0.64	<0.5	<0.5	2.2	0.50	<0.5	<0.5
	13-Jan-21	0.94	0.60	<0.5	2.4	0.70	<0.5	<0.5
	14-Apr-21	0.62	0.53	<0.5	2.1	0.52	<0.5	<0.5
RW-13	9-Jul-20	4.6	4.7	**7.1**	<0.5	2.8	4.9	<0.5
	27-Oct-20	3.9	4.0	**7.2**	<0.5	2.6	3.4	<0.5
	13-Jan-21	**5.2**	**5.4**	**9.8**	<0.5	3.4	4.8	<0.5
	14-Apr-21	3.8	4.6	4.8	0.70	1.3	3.7	<0.5

An estimate of the mass-removal of site related contaminants of concern was calculated for the reporting period by multiplying the total gallons recovered from each well by the average concentration of each compound reported. Based on the calculation method, a total of 2.708 kg (5.97 lbs) of contaminants were removed from the groundwater recovered from the RWs. The following table summarizes the calculations. The readings are presented in grams:

WELL	Flow in Liters	1,1-DCA	1,1-DCE	c-1,2-DCE	PCE	1,1,1-TCA	TCE	Vinyl Chloride	Total VOC
RW-2	6987485	94	66	395	961	71	234	36	1856
RW-3	321876	0.32	0.43	5.6	19	1.1	2.5	0.20	29
RW-4	1141930	4.7	4.3	89	115	12.2	13.1	11.4	250
RW-5R	3128304	6.2	5.2	42	227	5.9	19	0.0	305
RW-8	3261792	9.4	4.4	53	21	5.3	5.3	5.3	104
RW-9	208878	7.2	3.5	80.4	5.9	0.79	9.8	1.5	109
RW-11	1694663	0.0	0.0	1.5	3.2	0.0	0.0	0.0	4.7
RW-12	4573115	3.4	2.5	0.0	10.5	2.7	0.0	0.0	19.2
RW-13	1321854	5.8	6.2	9.6	0.9	3.3	6	0.0	31
Totals	22639898	131	92	676	1363	102	289	55	2708

The table below represents the calculated mass removal since the startup of the GWTF (1997). Using these figures, an estimated 687 pounds of contaminants have been removed using the groundwater recovery well network.

Calculated Mass Removal
(pounds)

Year	Calculated Mass	Year	Calculated Mass
1997-1998	180	2009-2010	7.9
1998-1999	100	2010-2011	16.8
1999-2000	50	2011-2012	30.8
2000-2001	35	2012-2013	24.6
2001-2002	47	2013-2014	16.5
2002-2003	37.4	2014-2015	17.3
2003-2004	27.9	2015-2016	8.9
2004-2005	32.4	2016-2017	7.6
2005-2006	10.4	2017-2018	6.1
2006-2007	3.7	2018-2019	4.6
2007-2008	3.5	2019-2020	6.0
2008-2009	6.8	2020-2021	6.0
		Total	687.2

GROUNDWATER TREATMENT SYSTEM

The groundwater treatment system processes the combined influent of the Recovery Wells through the air stripper prior to discharge. The system was in continuous operation throughout the reporting period except for brief periods of system maintenance. Based on the in-line flow meter, a total of 7,239,904 gallons of recovered groundwater were discharged after treatment. The flow rate through the facility varies slightly throughout the year from seasonal fluctuation in production.

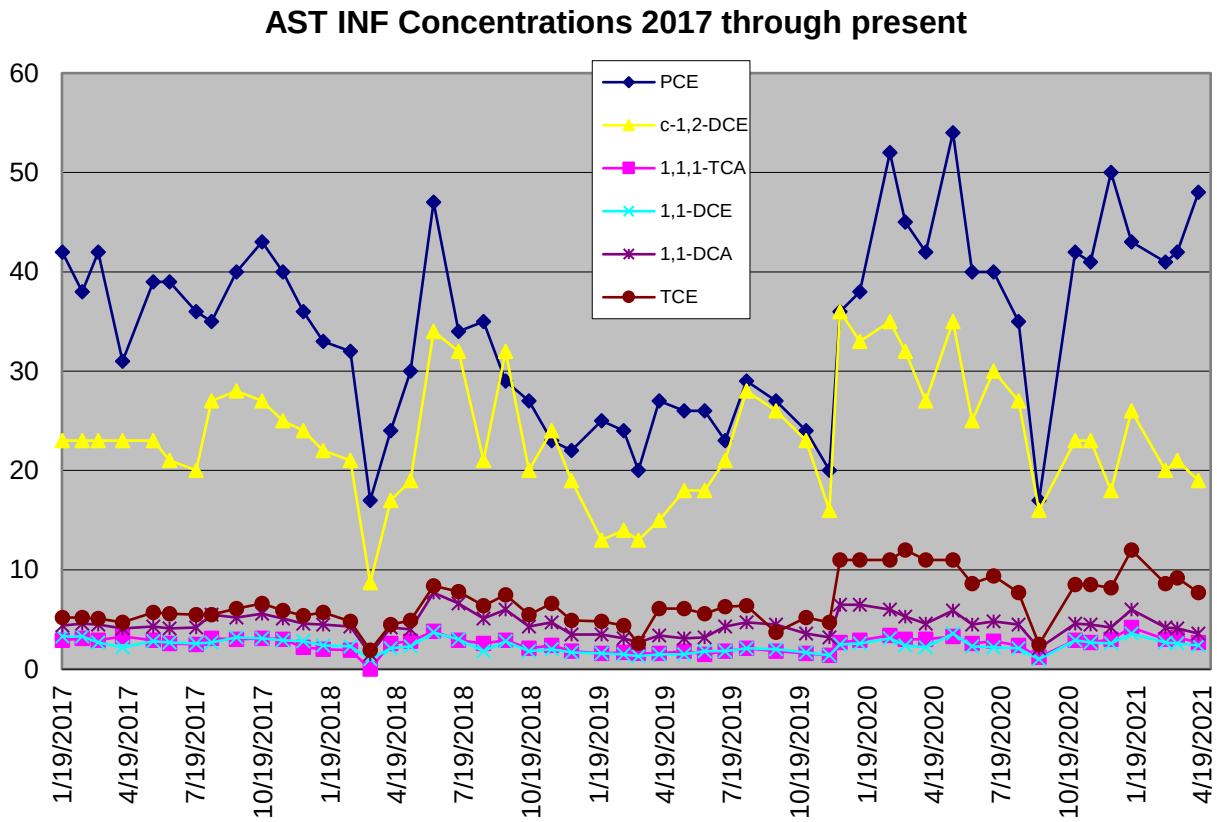
Influent and effluent samples from the Groundwater Treatment Facility (GWTF) are collected from the in-line sampling ports on a monthly basis and analyzed in accordance with the approved SMP. The influent sample is referred to as "AST INF" and the effluent is referred to as the "Final EFF." The results are reported to NYSDEC monthly.

Individual VOCs were reported in the AST INF samples at concentrations in excess of the MDL. The highest reported concentrations were PCE ranging from 17μg/l to 54μg/l and its daughter product, cis-1,2-DCE from 16μg/l to 35μg/l. Graphical analysis from January 2017 through April 2021 of the data indicates that the concentrations of individual and total VOCs continue to demonstrate variability over time with an overall declining trend. The increase starting in December 2019 was due to increased volume being recovered from RW-2. A new pump with larger pumping capacity was installed to increase mass removal.

The following table summarizes the AST INF sampling results for this reporting period. The line graph that follows the table represents the past five years of AST INF analytical data. All concentrations are presented in μg/l.

AST INFLUENT SAMPLE RESULTS SUMMARY

DATE	1,1-DCA	1,1-DCE	c-1,2-DCE	PCE	1,1,1-TCA	TCE	VC	**TOTAL**
15-May-20	**5.9**	3.6	**35**	**54**	3.3	**11**	2.1	114.9
10-Jun-20	4.5	2.3	**25**	**40**	2.6	**8.6**	1.3	84.3
9-Jul-20	4.8	2.2	**30**	**41**	2.8	**9.4**	1.6	91.8
12-Aug-20	4.5	2.1	**27**	**35**	2.4	**7.7**	1.6	80.3
9-Sep-20	2.1	1.00	**16**	**17**	1.2	2.5	<0.5	39.8
28-Oct-20	4.6	2.6	**23**	**42**	2.9	**8.5**	1.2	84.8
18-Nov-20	4.5	2.7	**23**	**41**	2.7	**8.5**	1.3	83.7
16-Dec-20	4.2	2.6	**18**	**50**	3.0	**8.2**	0.9	86.9
13-Jan-21	**6.0**	3.6	**26**	**43**	4.2	**12**	1.7	96.5
8-Feb-21	4.2	2.7	**20**	**41**	3.0	**8.6**	1.2	80.7
16-Mar-21	4.1	2.6	**21**	**42**	3.2	**9.2**	1.3	83.4
13-Apr-21	3.6	2.4	**19**	**46**	2.7	**7.7**	0.73	82.1



The treatment system continues to perform as intended. The VOCs in the recovered groundwater are removed by the air stripper prior to discharge. To date, there has been no reported concentration of any compound in excess of the discharge limits (see Appendix W of the SMP), for the Final EFF sample**.** The Air Stripper Treatment (AST) system continues to reduce the contaminant load to below the MDL of 1.0 μg/l from the recovered groundwater.

An additional requirement to monitor for Total Dissolved Solids (TDS) was placed on the Final EFF sample as part of the renewal of the substantive requirements of the SPDES program. Although listed as a limit on the substantive requirements, the requirement for TDS is one of monitor and report only. The GWTF does not have the ability to remove TDS from the recovered groundwater. The TDS, in mg/l, is reported to NYSDEC monthly. The TDS levels ranged from 1700 mg/l to 2000 mg/l as seen in the following table.

DATE	2020-2021 TDS mg/l	2019-2020 TDS mg/l	2018-2019 TDS mg/l	2017-2018 TDS mg/l	2016-2017 TDS mg/l	2015-2016 TDS mg/l
June	2000	1200	2000	2600	2200	2300
July	2000	1300	1900	2600	2200	2200
August	2000	2000	2000	2200	2500	2100
September	1700	2100	2100	2200	2300	2000
October	2000	1700	1800	2000	2200	2300
November	1900	1200	1400	1900	1800	2300
December	2000	2100	1700	2100	1800	2300
January	1900	2100	1700	2100	2200	2100
February	1900	2000	1500	2100	2000	2200
March	1800	1800	1400	2100	2300	2400
April	1800	2300	1500	2000	2000	2400
May		2000	1300	2000	2100	2000

REMEDIAL SYSTEM PERFORMANCE

The following table represents the annual average pumping rate, in gallons per minute, for each of the recovery wells. Production rates noted from RW-2, RW-3 RW-4, RW-9, RW-11, RW-12 and RW-13 fluctuated slightly from previous reporting periods. The reduced production from RW-5R noted is due to impeller wear from excessive silt in the recovered groundwater. RW-8 reduction is also due to impeller wear and fouling. Both of these pumps will be placed on a shorter maintenance schedule to improve production rates for the coming reporting period.

Average Annual Flow Rate (GPM)

Well	2016-2017	2017-2018	2018-2019	2019-2020	2020-2021
RW-2	2.36	1.40	1.45	2.24	3.51
RW-3	0.23	0.29	0.24	0.25	0.16
RW-4	0.57	0.65	0.45	0.43	0.57
RW-5R	2.49	2.65	2.30	2.36	1.57
RW-8	3.48	3.34	3.15	2.46	1.64
RW-9	0.16	0.11	0.10	0.13	0.10
RW-11	1.24	1.30	1.03	0.93	0.85
RW-12	1.57	2.50	2.35	2.52	2.30
RW-13	1.72	0.77	1.04	0.73	0.66
System Flow Average	13.82	13.01	12.11	12.05	11.36

CITY OF FULTON WATER TREATMENT FACILITY (WTF)

The City of Fulton WTF remained off throughout the reporting period. As noted in the previous annual reports, the treatment system was shut May 20, 2012. At the time of shut-down, the water from M-2A was directed to the Oswego River and continues to be directed to the river under the SPDES permit obtained by Riccelli Fulton, LLC. The City was given approval to use the water from K-1 without treatment on December 13, 2012.

The water from M-2A continued to be discharged directly to the Oswego River throughout this entire reporting period due to elevated chloride levels.

GROUNDWATER MONITORING RESULTS

Annual sampling of select groundwater monitoring wells, known as the Early Warning Network (EWN), and quarterly sampling of the active recovery wells is performed to evaluate the effectiveness of the groundwater recovery system.

For evaluation of the groundwater recovery system, the EWN and active RW wells are divided into six functional groups. They are the; Northern Operable Unit Source (NOU-S) and Plume (NOU-P) areas, the Southern Operable Unit Source (SOU-S) and Plume (SOU-P) areas, the Taylor Property (TP), and Municipal Well Field (MWF).

The following table lists the wells and their sampling frequency (ƒ), either annually (A) or quarterly (Q) in their functional monitoring groups.

FUNCTIONAL MONITORING GROUPS											
Northern Operable Unit				Southern Operable Unit				Taylor Property		Municipal Wells	
Source Area		Plume Area		Source Area		Plume Area					
Well	ƒ	Well	ƒ	Well	ƒ	Well	ƒ	Well	ƒ	Well	ƒ
MW-2S	A	MW-8I	A	MW-36S	A	MW-37I	A	MW-14D	A	MW-28S	A
MW-3D	A	MW-8D	A			MW-54I	A	MW-21S	A	MW-28I	A
MW-16D	A	MW-13D	A			RW-8	Q	MW-32D	A		
MW-38S	A	MW-17D	A			RW-9	Q	MW-33S	A		
RW-2	Q	MW-51D	A					MW-34D	A		
RW-3	Q	MW-56D	A					MW-35D	A		
RW-4	Q	MW-61D	A					RW-11	Q		
RW-5R	Q	RW-13	Q					RW-12	Q		

The laboratory analytical results for the sampling of the RWs were reported in previous sections. The results for the functional monitoring groups are reported below. Figure 2 has been included as a reference to the location of the functional monitoring well groups. The Taylor Property has been included in the NOU-P area. The NOU-S area is shown in orange and the NOU-P is yellow. The SOU-S is pink, and SOU-P is a lighter shade of pink. The Municipal Well Field is shaded green. Figure 1 depicts the location of monitoring and recovery wells referenced in this report with the exception of the replacement well RW-5R. Figure 3 depicts the location of the DPE wells, SVE wells and replacement RW-5R.

NORTHERN OPERABLE UNIT

NOU-Source Area

Four groundwater monitoring wells (MW-2S, MW-3D, MW-16D and MW-38S) are sampled annually and, three recovery wells (RW-3, RW-4, and RW-5R) are sampled quarterly to monitor and evaluate water quality in the NOU-Source area. The analytical data from the April 2018 sampling through the April 2021 sampling is summarized in the table below for trend assessment. All concentrations are presented in μg/l:

MW-2S	1,1-DCA	1,1-DCE	c-1,2-DCE	PCE	1,1,1-TCA	TCE	Vinyl Chloride	TOTAL VOCs
23-Apr-18	<10	<10	**650**	**45**	<10	<10	**14**	709
16-Apr-19	<5	<5	**600**	**46**	<5	**6.5**	<5	653
15-Apr-20	<5	<5	**500**	**39**	<5	**5.2**	**6.5**	551
13-Apr-21	<5	<5	**190**	**38**	<5	<5	**6.5**	235
MW-3D								
23-Apr-18	<2	3.6	**18**	**160**	**9.0**	**9.2**	3.0	203
16-Apr-19	<2	<2	2.8	**110**	<2	4.0	<2	117
15-Apr-20	1.1	2.1	**6.5**	**88**	**6.6**	**8.2**	<1	113
13-Apr-21	<1	<1	**2.8**	**35**	**1.8**	**3.2**	<1	43
MW-16D								
23-Apr-18	4.2	**5.0**	**8.0**	**28**	**15**	1.3	2.8	64
16-Apr-19	**6.4**	**4.9**	**19**	**55**	**17**	2.7	3.2	108
16-Apr-20	**6.9**	**9.0**	**58**	**81**	**24**	**11**	**9.0**	199
13-Apr-21	4.0	**6.7**	**38**	**90**	**19**	**5.4**	**4.3**	167
MW-38S								
23-Apr-18	**72**	**23**	**41**	**78**	**8.1**	**10.0**	<2	232
16-Apr-19	**95**	**27**	**58**	**83**	**12**	**13**	<2	288
16-Apr-20	**150**	**60**	**160**	**120**	**21**	**16**	<2	527
13-Apr-21	**35**	**8.9**	**54**	**55**	**6.7**	**7.8**	<1	167

A review of the data for this reporting period along with the past five years of historic data for each of these wells is discussed below.

MW-2S and MW-3D have shown improvements in the water quality over the past four years. Concentrations of certain compounds continue to fluctuate in these two wells. The COCs in these two wells clearly demonstrate a declining trend as noted on the line graphs of the past 5-year data set (Appendix C). The VOC concentrations will continue to be monitored in these monitoring wells.

The VOC levels reported for the April 2021 sampling event for MW-38S and MW-16D were less than the concentrations reported in 2020. The decreasing trends noted in MW-38S appear to continue when viewed over the previous 5-year period. MW-16D may have experienced a peak in 2020 indicated by the line graphs of the past 5-years presented in Appendix C. Additional samples will be collected from these wells in October 2021 to monitor the trend and determine if adjustment to the remedial activities will be recommended.

NOU-Plume Area

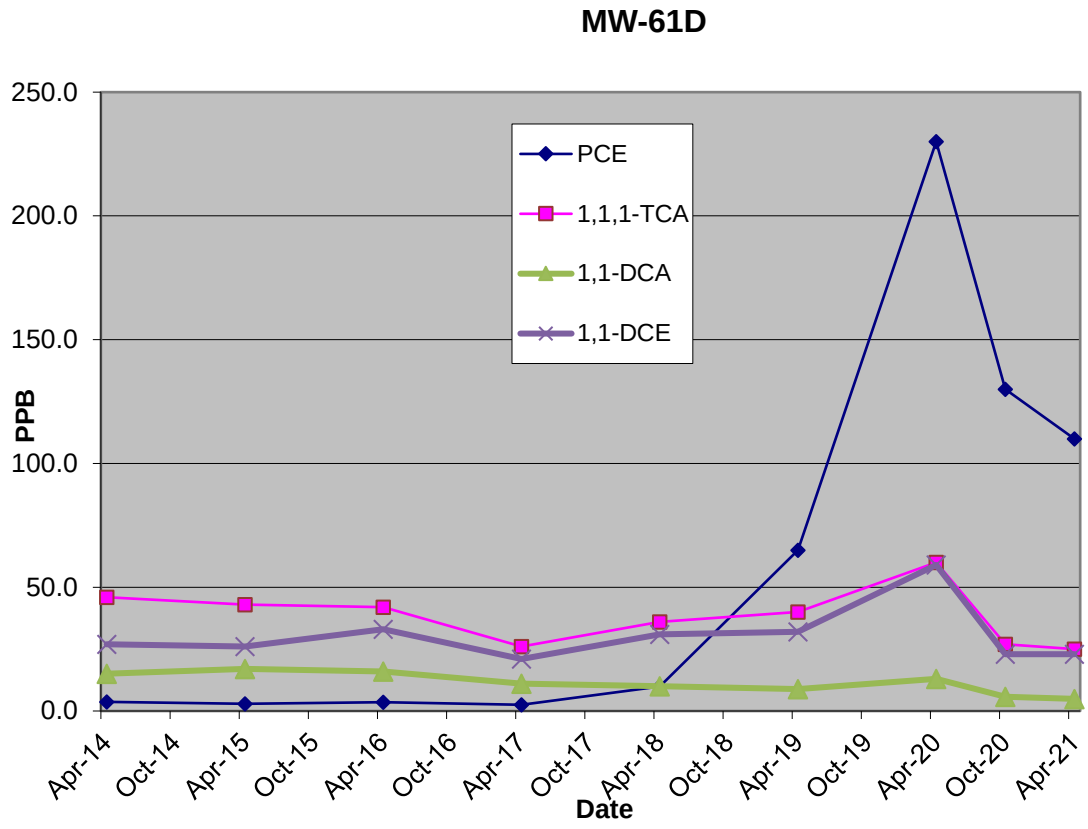
Seven groundwater monitoring wells (MW-8I, MW-8D, MW-13D, MW-17D, MW-51D, MW-56D, and MW-61D) are sampled annually and two recovery wells (RW-13 and RW-2) are sampled quarterly to monitor and evaluate water quality in NOU-P. No site related VOCs were detected at or above the SCG concentration of 5.0 µg/l during the reporting period in the samples collected from MW-8I, MW-13D, MW-51D, or MW-56D.

One or more VOCs were reported in samples collected from MW-8D, MW-17D and MW-61D at concentrations >5.0 µg/l for the April 2021 sampling event. The following table summarizes the results for these wells. All concentrations are presented in µg/l.

MW-8D	1,1-DCA	1,1-DCE	c-1,2-DCE	PCE	1,1,1-TCA	TCE	TOTAL
23-Apr-18	3.4	3.4	1.4	**17**	**7.1**	1.6	34
16-Apr-19	**6.2**	**5.1**	**5.8**	**19**	**11**	4.8	52
15-Apr-20	**7.6**	**6.8**	**14**	**8.5**	**11**	**8.4**	56
13-Apr-21	**6.0**	**4.6**	3.6	**13**	**8.5**	**8.2**	44
MW-17D	1,1-DCA	1,1-DCE	c-1,2-DCE	PCE	1,1,1-TCA	TCE	TOTAL
23-Apr-18	**6.4**	2.7	1.3	2.0	**6.0**	<0.5	18
16-Apr-19	**5.8**	1.8	1.3	1.6	**5.2**	<0.5	16
15-Apr-20	**12**	**5.7**	3.2	2.2	**9.6**	<0.5	33
13-Apr-21	**7.8**	3.0	3.6	2.0	**5.0**	0.53	22
MW-61D	1,1-DCA	1,1-DCE	c-1,2-DCE	PCE	1,1,1-TCA	TCE	TOTAL
23-Apr-18	**10.0**	**31**	**28**	**9.9**	**36**	1.00	116
16-Apr-19	**8.9**	**32**	**29**	**65**	**40**	3.3	178
15-Apr-20	**8.9**	**32**	**29**	**65**	**40**	3.3	178
13-Apr-21	4.6	**23**	**16**	**110**	**25**	**5.1**	184

The contaminant levels reported for the samples collected from MW-8D and MW-17D are consistent with historical values.

The following graph depicts VOCs in MW-61D for the past eight years. MW-61D contaminant concentrations increased slightly up to 2020 and appear to be on the way down. The recently upgraded pump in RW-2 may be the reason for this change in MW-61D. An additional sample will be collected from this monitoring well in October 2021 to determine if additional recovery efforts are recommended for this area.



Monitoring wells, MW-8I, MW-13D, MW-51D and MW-56D in NOU-P continue to demonstrate variable concentrations of site related VOCs with slowly declining trends. These trends indicate that the recovery well network in this area is effectively reducing the overall VOC concentrations and, is achieving hydraulic control, preventing downgradient migration of the contaminants of concern.

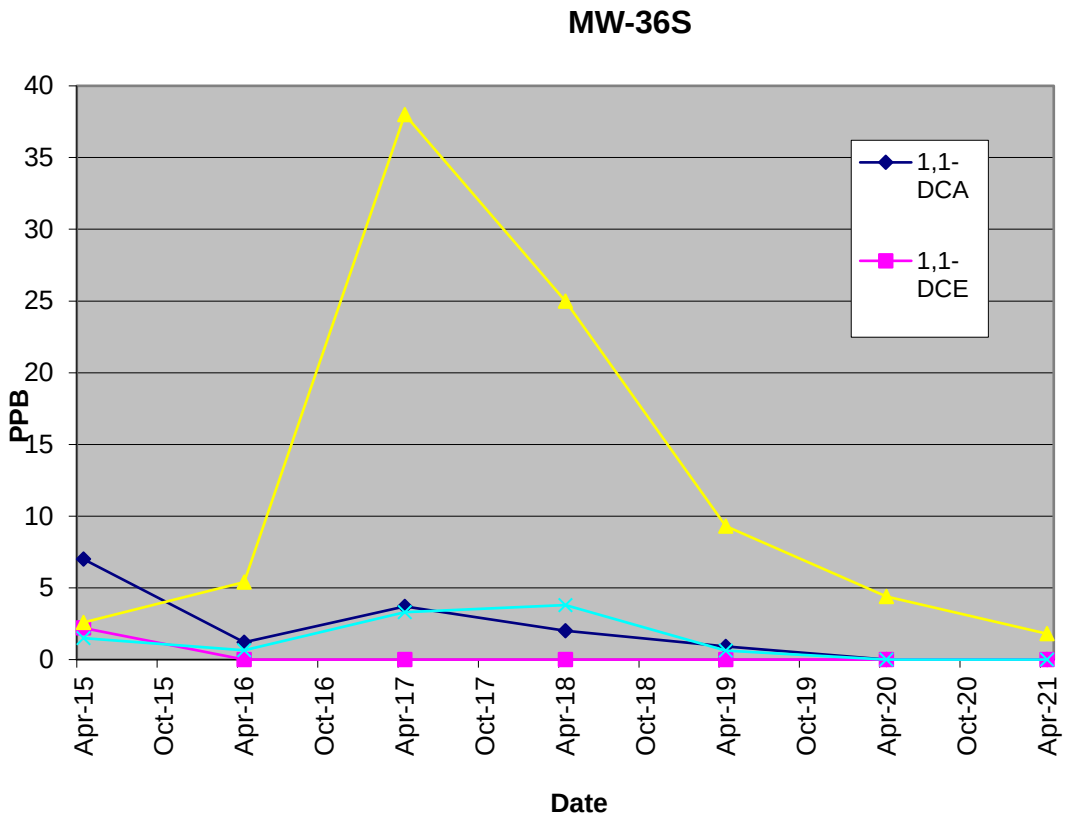
SOUTHERN OPERABLE UNIT

SOU-Source Area

SOU-S is evaluated by the annual sampling of MW-36S. A summary of the analytical results for samples collected from MW-36S is included in the following table. All concentrations are presented in μg/l.

MW-36S	1,1-DCA	1,1-DCE	c-1,2-DCE	PCE	1,1,1 - TCA	TCE	Vinyl Chloride	TOTAL
23-Apr-18	2.0	<0.5	**25**	<0.5	<0.5	0.68	3.8	**31**
16-Apr-19	0.92	<0.5	**9.3**	<0.5	<0.5	<0.5	0.63	**11**
15-Apr-20	<1	<1	**4.4**	<1	<1	<1	<1	**4.4**
13-Apr-21	<1	<1	1.8	<1	<1	<1	<1	**1.8**

A review of the data for MW-36S for the past seven years (see line graph below) indicates that the concentration of individual VOCs in the groundwater at this location demonstrate an overall declining trend.



SOU-Plume Area

SOU-P is monitored and evaluated by the annual sampling of MW-37I, MW-54I and the quarterly sampling of RW-8 and RW-9. No COCs were reported in the samples collected from MW-54I at concentrations above the MDL of 0.5 µg/l for the past 4 years. No site related VOCs were reported in the annual sample collected from MW-37I at a concentration greater than the SCG of 5.0 µg/l. The results for MW-37I, RW-8 and RW-9 are summarized in the table below. All concentrations are presented in µg/l.

MW-37I	1,1-DCA	1,1-DCE	c-1,2-DCE	PCE	1,1,1-TCA	TCE	Vinyl Chloride	TOTAL
23-Apr-18	1.2	<0.5	2.2	**5.2**	<0.5	<0.5	<0.5	8.6
16-Apr-19	1.3	<0.5	2.4	**7.4**	0.58	0.50	<0.5	12.2
15-Apr-20	1.2	<0.5	1.6	3.8	<1	<1	<1	6.6
13-Apr-21	<1	<1	1.5	2.8	<1	<1	<1	4.3
RW-8	1,1-DCA	1,1-DCE	c-1,2-DCE	PCE	1,1,1-TCA	TCE	Vinyl Chloride	TOTAL
9-Jul-20	4.6	1.9	**30**	**10.0**	2.3	2.4	2.2	53
27-Oct-20	3.4	1.5	**21**	**7.8**	1.7	2.0	1.7	39
13-Jan-21	2.3	1.2	**10.0**	4.8	1.5	1.3	1.00	22
14-Apr-21	1.2	0.74	4.0	3.4	0.97	0.81	<0.5	11
RW-9	1,1-DCA	1,1-DCE	c-1,2-DCE	PCE	1,1,1-TCA	TCE	Vinyl Chloride	TOTAL
9-Jul-20	**53**	**25**	**600**	**37**	**5.2**	**67**	**7.2**	794
27-Oct-20	**40**	**17**	**470**	**32**	4.1	**50**	**5.8**	619
13-Jan-21	**22**	**9.6**	**240**	**16**	2.7	**28**	**13**	331
14-Apr-21	**22**	**16**	**230**	**28**	3.2	**43**	2.3	345

The analytical data for MW-37I has shown a decreasing trend over the past 5 years as noted on the line graph in Appendix C. The analytical data from the sampling of RW-8 and RW-9 continues to demonstrate declining concentrations of all COCs.

FORMER TAYLOR PROPERTY

The Former Taylor Property Monitoring Well network is directly upgradient of the City of Fulton Municipal Well M-2A. Groundwater quality on the Taylor Property is monitored and evaluated by the collection and analysis of groundwater samples from six monitoring wells (MW-14D, MW-21S, MW-32D, MW-33S, MW-34D, and MW-35D) annually, and two recovery wells, RW-11, and RW-12 quarterly. The declining trends noted at these wells in the past Annual Reports continue and indicate that hydraulic control is being maintained in this area and the recovery well network is protective of the municipal well field.

The concentrations reported for all Taylor Property wells, except MW-34D, now meet SCGs for the identified COCs. The VOC concentrations reported in MW-34D continue to decline as noted in the table below and in the graph of analytical data from this well included in Appendix C.

As noted above, recovery operations from RW-10 were halted in August 2015 and the pump was allowed to remain off to determine if its operation is necessary to maintain the current downward trends noted in the surrounding monitoring wells (MW-21S, MW-33S, MW-34D and MW-35D). Line graphs of the analytical data for the past 5 years from these wells are included in Appendix C. The data supports allowing RW-10 to remain off-line since the concentrations in these monitoring wells are consistently below the SCGs and the concentration of PCE in MW-34D is trending down. Continued monitoring of these wells on an annual basis will provide sufficient information to determine if resumption of pumping at RW-10 is required.

The results of the sampling of MW-34D are summarized in the following table. All concentrations are presented in μg/l.

MW-34D	1,1-DCA	1,1-DCE	PCE	1,1,1-TCA	TOTAL
10-Apr-17	0.58	0.77	**7.8**	2.7	12
23-Apr-18	0.67	0.81	**8.5**	2.6	13
16-Apr-19	0.70	0.68	**8.6**	3.0	13
15-Apr-20	<1	<1	**8.8**	3.0	12
13-Apr-21	<1	<1	**5.3**	1.6	7

CITY OF FULTON MUNICIPAL WELL FIELD

Early warning detection for the City of Fulton Well field is provided by the annual sampling of monitoring wells MW-28S and MW-28I. MW-28S has not reported any compounds above the MDL of 0.5 μg /l since October 2008 and no compounds were reported in MW-28I since April 2017.

Concentrations of PCE and 1.1.1-TCA reported in the samples collected from MW-28I since April 2018 are presented in the following table. All concentrations are presented in μg/l.

MW-28I	PCE	1,1,1-TCA
23-Apr-18	<0.5	<0.5
16-Apr-19	<0.5	<0.5
14-Apr-20	<0.5	<0.5
13-Apr-21	<0.5	<0.5

SOIL VAPOR EXTRACTION SYSTEM

Two areas identified in a 2008 subsurface investigation have been under the influence of the SVE remedial system since February 2011. The operation of the SVE system is broken up into the Northern and Southern areas described below. The details of the installation can be found in the NYSDEC-approved Soil Vapor Extraction System Construction Completion Report prepared by AECOM (dated August 16, 2012) (Appendix T to the SMP).

The SVE system was in continuous operation this entire reporting period. Certain wells are utilized for extraction based on historical analytical data and physical location. The following table presents the previous cycling operation prior to September 2015. The final column denotes the wells in operation from September 2015 through April 2021.

Dates	01/14/15	03/13/15	04/14/15	06/03/15	07/01/15	08/14/15	09/29/15
Well	03/13/15	04/14/15	06/03/15	07/01/15	08/14/15	09/29/15	04/30/21
DPEN-1	**ON**	off	off	off	off	off	**ON**
DPEN-2	**ON**	off	**ON**	off	**ON**	off	**ON**
DPEN-3	**ON**	off	**ON**	off	**ON**	off	off
DPEN-4	**ON**	off	**ON**	off	**ON**	off	**ON**
DPEN-5	**ON**	off	**ON**	off	**ON**	off	off
SVEN-1	**ON**	off	**ON**	off	off	off	off
SVEN-2	**ON**	off	**ON**	off	**ON**	off	**ON**
SVEN-3	**ON**	off	---	off	off	off	off
SVEN-4	**ON**	off	---	off	off	off	off
SVEN-5	**ON**	off	off	off	off	off	off
SVEN-6	off	off	off	off	off	off	**ON**
SVEN-7	**ON**	off	off	off	off	off	**ON**
SVEN-8	**ON**	off	**ON**	off	**ON**	off	**ON**
SVEN-9	---	off	---	off	**ON**	off	off
SVEN-10	off	off	off	off	**ON**	off	**ON**
SVEN-11	off	off	**ON**	off	**ON**	off	**ON**
DPES-1	**ON**	off	**ON**	off	**ON**	off	off
SVES-1	**ON**	off	**ON**	off	**ON**	off	off

Generally, the system is operated to provide between 3.0” Hg to 5.0” Hg vacuum to all the active recovery points. Operational data is collected from the active recovery points as well as the combined influent to provide flow information for calculating mass removal rates. The analytical data from the sampling of certain recovery points and the operational data collected are reviewed to determine the operating strategy of the SVE system. Tables of the analytical data collected throughout the reporting period and the mass removal calculation tables are included in Appendix D.

Soil Vapor Extraction Southern area (SVES)

Vacuum was not applied to any recovery points in the southern area this reporting period. Due to the elevated water table in this area vapor recovery rates are minimal or nonexistent throughout the year therefore extraction was not attempted.

Soil Vapor Extraction Northern area (SVEN)

Samples were collected from a select list of operating vapor extraction wells in the Northern SVE area during this reporting period. The analytical data collected from the SVEN and DPEN wells since August 2018 are presented in the following table. The selection of wells operated this reporting period remained the same as the previous reporting period and were selected based on historical analytical data and physical location. Wells are selected for operation based on the geographic location to limit mounding of the water table and to target the higher level of contamination noted in previous analytical data.

Samples of recovered vapors were collected from DPEN-1, DPEN-2, DPEN-4 and SVEN-2 twice during this reporting period. The data indicates continued operation is providing enhanced mass removal of VOCs and additional protection against vapor intrusion into the on-site structure.

The average total VOC concentrations from each sample, in conjunction with the vapor recovery rate from the specific well were used to estimate the mass removal. Throughout the reporting period, the SVE system was in operation for 365 days and an estimated total of 5.4 pounds of VOC contaminants were removed.

Under the current guidance provided by NYSDOH*, if sub-slab vapors exceed threshold levels for certain compounds, regardless of indoor air concentrations, mitigation is required. The levels of cis-1,2-DCE, 1,1,1-TCA, PCE and TCE reported for DPEN-4 were above the threshold levels established as noted in Table 1 at the end of this section. Once the levels of all VOC in the sub slab vapors being recovered drop below their respective levels, consideration will be given to moving the SVE system to a cyclical operation. If the cyclical operation of the SVE system indicates the levels of VOCs are remaining below the mitigation required levels for all compounds, indoor air quality samples will be collected as part of a Vapor Intrusion Investigation to determine if mitigation is required as directed by the DOH guidance.

Set forth below is a table of the data illustrating the downward trend of sub-slab vapor contaminant concentrations. The SVEN system will continue to be operated on a continuous basis.

DATE	Location	1,1,1-TCA	*1,1-DCA	1,1-DCE	*1,4-Dioxane	cis-1,2-DCE	Methylene Chloride	PCE	TCE	Total VOC
NYSDOH Matrix		B	N/A	A	N/A	A	B	B	A	
Mitigation Req'd Action Level		1000 µg/m³	1000 µg/m³	60 µg/m³	1000 µg/m³	60 µg/m³	1000 µg/m³	1000 µg/m³	60 µg/m³	
08/20/18	DPEN-1	8.4	5.4	2.6	0.36	21	0.38	120	8.7	167
11/20/18	DPEN-1	6.2	3.8	1.3	<1.1	33	<0.52	150	4.5	199
03/08/19	DPEN-1	5.9	3.7	0.56	<1.1	3.3	2.4	130	2.7	149
04/13/20	DPEN-1	2.9	1.4	0.67	<1.1	2.5	<0.52	40	2.1	50
07/22/20	DPEN-1	17	13	5.7	<1.1	54	0.42	83	6.1	179
04/20/21	DPEN-1	9.9	7.3	0.67	<1.1	28	0.76	40	2.4	89
08/20/18	DPEN-2	52	7.4	1.3	39	83	0.63	1900	19	2102
11/20/18	DPEN-2	29	3.8	0.75	3.0	39	2.7	1600	15	1693
03/08/19	DPEN-2	11	2.1	0.5	<1.1	7.2	0.7	350	1.2	373
04/13/20	DPEN-2	9.8	2.0	0.40	<1.1	1.9	0.59	42	0.70	57
07/22/20	DPEN-2	27	15.0	2.10	<1.1	41	0.56	280	11.00	627
04/20/21	DPEN-2	11	2.4	0.48	<1.1	15	1.50	420	3.30	454
08/20/18	DPEN-4	5400	450	57	0.75	4000	15	3900	1000	14823
11/20/18	DPEN-4	5700	340	39	4.3	3600	5.4	3400	1000	14089
03/08/19	DPEN-4	580	100	5	<1.1	510	2.5	920	140	2258
04/13/20	DPEN-4	240	56	2.8	<1.1	170	0.76	160	30	660
07/22/20	DPEN-4	3000	350	65	<1.1	3800	21	1200	510	8946
04/20/21	DPEN-4	2800	230	19	0.79	2700	4.9	1200	710	7665
08/20/18	SVEN-2	7.1	2.2	0.75	400	2.4	0.38	440	16	869
11/20/18	SVEN-2	5.1	<0.61	0.48	240	1.5	0.45	270	2.3	520
03/08/19	SVEN-2	1.4	<0.61	<0.59	94	0.59	0.59	170	0.59	267
04/13/20	SVEN-2	1.5	<0.61	<0.59	57	<0.59	0.59	29	<0.81	88
07/22/20	SVEN-2	8.8	0.97	0.63	110	6.9	0.45	170	2.2	300
04/20/21	SVEN-2	4.6	0.65	<0.59	51	3.1	0.59	63	1.6	125

All readings in µg/m³
* NYSDOH Guidance Document is entitled "Guidance for Evaluating Soil Vapor Intrusion in the State of New York" (October 2006) (Revised May 2017)
** Matrix B is assumed for all compounds not specifically listed

Vapor Phase Carbon Treatment (VPC)

The VPC treatment system is utilized to reduce the VOC levels in the vapors recovered by the SVE system prior to discharge through the effluent stack. The system consists of two vessels with 10,000-pounds each of activated carbon, connected in series.

CONCLUSIONS

1. The following is a list of the Remediation Goals presented in section 6 of the ROD and a brief discussion of the progress that has been made in meeting those goals and associated SCGs.

- "Eliminate to the extent practicable the contamination present within the on-site soils/waste (reduce soil contaminant levels to levels protective of groundwater as indicated in soil tables in section 4.3 [of the ROD])".
    - Initially, this goal was met by the removal of the Spill Containment Tank and surrounding soils in 1986. The soils beneath the floor of the former wastewater treatment area located in the southwest corner of the facility were also identified in the Remedial Investigation (RI) to have contamination in excess of the Soil Cleanup Levels found in the ROD (ROD SCOs). The soils in this area were remediated with the operation of a SVE system from 1997 through 1999. Confirmatory soil samples were collected, and it was determined that the soils beneath the facility in this area were in conformance with the levels noted in the ROD.
    - A subsurface investigation in 2008 identified other areas beneath the floor of the facility and a small area outside the footprint of the facility to the south that could potentially exceed the contaminant levels set forth in the ROD SCOs. These two areas are referenced in the text above as: SVEN (a large area beneath the floor of the facility) and SVES (a small area beneath the roadway to the south of the facility). Additional equipment was installed in 2011 including a new vacuum extraction unit and new extraction wells located throughout both SVEN and SVES. The SVE system is still in operation addressing the soils in the SVEN area. The vacuum extraction in the SVES area is ineffective for most of the year due to the elevated water table.
    - There is currently no other area of potential soil contamination or waste materials requiring a remedial response that has been identified at the site.
    - **Status: Ongoing.** As of October 2017, the ROD SCOs have been replaced by the Soil Cleanup Objectives for Commercial and Industrial uses that are found at 6 NYCRR 375-6.8 (b) (Part 375 SCOs). Attached as Appendix E is a copy of the Part 375 SCOs and their applicability depending on the particular use.
- "Eliminate the potential for direct human or animal contact with contaminated soils on-site"
    - The origination of the contamination on this site was below grade through leaking underground storage tanks and piping. With the removal of the Spill Containment Tank and surrounding soils, the threat of direct contact has been addressed.
    - With respect to the remaining impacted soils that are beneath the facility floor, an SMP has been prepared for implementation under the recorded Declaration of Covenants and Restrictions that requires the use of an excavation work plan for any excavations within a designated area and specifies the actions to be taken to address potential exposure to the contaminants at issue.
    - **Status: Complete with the approval of the SMP and reclassification of the Site from a Class 2 to a Class 4.**

- "Mitigate the impacts of contaminated groundwater to the environment"
    - The groundwater recovery system continues to effectively recover VOCs from the impacted aquifer and discharge of the treated groundwater has been in accordance with the substantive SPDES requirements developed by NYSDEC as shown in the monthly monitoring data submitted to NYSDEC during the reporting period.
    - **Status: Completed**
- "Prevent, to the extent practicable, migration of the contaminants in the source areas to groundwater"
    - The data indicates that the recovery well networks in the NOU and SOU source areas are effectively capturing the impacted groundwater at the source and preventing downgradient migration from those areas. Declining trends noted in the monitoring wells immediately downgradient of the source areas indicate successful hydraulic capture of the plume in the source areas.
    - The reduction in the concentrations noted in the outlying recovery wells and monitoring wells further downgradient indicate hydraulic control in the plume area. Residual concentrations in the plume area have dropped below SCGs in all monitoring wells, except MW-34D, downgradient from the perimeter recovery wells RW-10, RW-11 and RW-12 located adjacent to the former Taylor Property. Although one VOC reported for MW-34D remains above the SCGs, the declining trend noted supports the assumption of hydraulic control in this area. A copy of a graph of the VOC concentrations for MW-34D is included in Appendix C.
    - The installation in 2011 of the SVE system and subsequent operation is removing VOC mass from the vadose and fringe zones, thus preventing the migration of the contaminants from the source areas.
    - **Status: Completed**
- "To the extent practicable, provide for attainment of SGCs for groundwater quality at the limits of the area of concern (AOC). The AOC for the site is the area from the spill source locations to the Fulton municipal well field."
    - Using MW-28I as the "limit" of the AOC with respect to the plume's closest approach to the municipal wells, the concentration of each individual contaminant of concern has decreased steadily since operation of the remedial system began. No individual COC has been reported at the limit of the AOC at a concentration in excess of its respective SCG since February 2003. VOC concentrations within the AOC closer to the source areas continue to decline.
    - **Status: Ongoing**

2. The GWTF continues to perform as designed and is effectively removing the VOC contamination from the recovered groundwater to below the MDL of 1.0 μg/l. The current treatment process used includes the use of air stripping technology. The use of the Liquid Phase Carbon treatment is not necessary for the treatment of the groundwater.

3. The operation of RW-2 continues to provide a benefit to the remedial effort. The calculated mass removal rate for this well remains higher than all other recovery wells. The effects of the pumping at RW-2 appear to have a positive impact on downgradient monitoring wells MW-8D, MW-13D noted as declines in the contaminant concentrations. Trends for PCE in RW-16D steadily increased from April 2017 to a high in October 2020. The levels reported in MW-16D in April of 2021 dropped slightly. PCE concentrations in MW-61D appear to be trending downward since April 2020. Line graphs of the analytical data for these wells are included in Appendix C. This recovery well, RW-2, will continue to be utilized and monitoring of the surrounding wells will also continue. An additional sample will be collected form these two wells in October 2021 to more closely monitor these trends.

4. The production rate from RW-3 decreased when compared to the previous year resulting in a reduced mass removal rate. The VOC concentrations in this Recovery Well remain above SCGs. The declining trend noted in previous Annual Reports continues for many of the compounds. Continued operation and monitoring of this recovery well will provide a benefit to the remedial effort.

5. RW-4 production rate remained consistent when compared to the last reporting period. The levels of VOCs have shown variability over the past year. No definitive trends can be established at this time. Operation of this recovery well will continue, and the VOC concentrations will continue to be monitored.

6. Contaminant concentrations in replacement well RW-5R continue to trend downward. Concentration of COCs remain above the SCGs. The production rate decreased due to pump damage from the silt being drawn into the well's water column. This well will be placed on a more frequent maintenance schedule to improve the recovery rate. This recovery well will remain on throughout the next operating year.

7. RW-8 and RW-9 continue to maintain hydraulic control of the SOU-P area. The VOC concentrations continue to decline in both of these recovery wells. The VOC concentrations in MW-54I, located within the cone of influence of RW-8, remain below the MDL of 0.5 μg/l. MW-37I is located between the SOU-S and RW-8 and RW-9. The decrease in contaminant levels experienced in MW-37I continued throughout this reporting period. Monitoring of MW-37I will continue as well as the operation of RW-8 and RW-9 over the next reporting period. Production rates from RW-8 declined due to impeller degradation and biological fouling. This well will be placed on a more frequent maintenance schedule to improve this rate.

8. The perimeter recovery well RW-10 operation was halted in August 2015. The contaminant levels reported for MW-21S, MW-33S and MW-35D during the groundwater sampling event in 2021 remained consistent at levels below the SCG of 5.0 μg/l and support allowing RW-10 to remain off. Graphical presentation of the analytical data for these wells for the past 5 years are included in Appendix C.

9. The perimeter recovery wells (RW-11 and RW-12) located along the former Taylor Property boundary continue to function efficiently in preventing the migration of impacted ground water to the City of Fulton Well Field evidenced by the reducing trends experienced in all the monitoring wells located on the Former Taylor Property (MW-32D, MW-33S, MW-34D and MW-35D), and on the municipal well field property (MW-28I). The PCE concentration in both of these Recovery Wells is hovering around, and recently fallen below, 2.5 μg/l (50% of the SCGs for groundwater for all of the COCs (see http://www.dec.ny.gov/dos/water_pdf/togs111.pdf). Only MW-34D, downgradient of these recovery wells, has reported concentrations of any COC above 5 μg/l. Analytical data from MW-34D is demonstrating a downward trend in contaminant levels. Line graphs of all the active Recovery Wells are in Appendix C.

10. RW-13 VOC concentrations continue to decline, VOC levels reported for the four sampling events were fluctuating near the SCG of 5.0 μg/l for PCE, 1,1-DCA, 1,1-DCE and TCE. The production rate from this well decreased slightly from 0.73 GPM to 0.66 GPM. The contaminant concentrations in the monitoring wells thought to be under the influence of RW-13 (MW-51D, MW-56D and MW-13D) continue to decline. MW-8D VOC levels appear to remain consistent from the previous reporting period. Continued operation of RW-13 will further reduce the contaminant load in this area of the site.

11. The City of Fulton Water Treatment Facility (WTF) has been shut down and mothballed according to the approved mothball procedures. If, in the future, the City determines the chloride levels in M-2A are acceptable and wishes to introduce the water from M-2A into the distribution system, quarterly monitoring will be required for 4 consecutive quarters. Should any one individual COC, as defined in the IRM Order on Consent, reach or exceed a level of 50% of the MCL, treatment and monitoring requirements will resume.

12. The Early Warning Network sampling schedule is annual based on the determination of NYSDEC. The annual sampling of these wells takes place in April so the data is available for the preparation of the annual reporting period that currently ends on April 30.

13. SVES Operation
    The operation of the SVE system in the southern area is ineffective due to the elevated water table in this area. No vapors were recovered from any extraction points in the southern area this reporting period.

14. SVEN operation
    The SVEN system removed a significant mass of VOC from the vadose and fringe zone beneath the former can plant building in the nine years of operation. The estimated mass removal rate calculated for the 365 days of operation this year increased from 0.54 pounds in 2020 to 5.4 pounds. The calculated rate for 2021 is consistent with 2019 calculations. Periodic monitoring is indicating an overall decreasing trend in the VOC concentrations being recovered. The results from the sampling of DPEN-4 indicate the system should remain in continuous operation. The SVE system is approaching contaminant levels when switching to cyclical operation will be considered.

RECOMMENDATIONS

1. RW-2 and RW-4 will continue operation throughout the next reporting period. No changes are recommended to these wells.
2. RW-3 will continue to operate with no changes. The well pump will be put on a more frequent maintenance schedule to improve the production rate.
3. RW-5R will continue to operate at the restricted flow rate to prevent the removal of silt and sand from the screened zone in this well. Effort will be made to improve the production rate in this well while still limiting the removal of silt.
4. RW-8 and RW-9 will continue to operate throughout the next reporting period. Downgradient monitoring wells MW-53I will be sampled in April 2022 to compare with historical data and verify ongoing hydraulic control of the aquifer in this area.
5. RW-10 will remain off and the analytical data from MW-21S, MW-33S and MW-35D will be evaluated periodically. If the contaminant levels in these monitoring wells show an increasing trend, RW-10 will be brought back on-line.
6. RW-11, RW-12 and RW-13 will continue operation throughout the next reporting period. The contaminant levels in RW-11 and RW-12 are below the SCGs noted above and are nearing 50% of the SCGs. Once VOC levels are shown to be below the 50% level of the SCGs for four consecutive quarters, a request to cease operation of these wells will be considered. PCE, 1,1-DCA and TCE levels in RW-13 continue to fluctuate around the SCG of 5.0 μg/l. No changes are recommended for this area.
7. The operation of the SVE system in the Northern area will continue. The areas around DPEN-4 and DPEN-2 will continue to be the focus of the extraction effort. The extraction wells used this entire reporting period will continue to be utilized. A more focused sampling effort will be implemented concentrating on DPEN-4. Future monitoring will determine if transitioning to cyclical operation or termination of the operation is warranted. Once it is determined the SVE systems have reached their useful life, a Work Plan will be developed to justify permanently stopping the operation. The Work Plan will include a Soil Vapor Intrusion investigation and confirmatory soil sampling plan.

FORMER MILLER CONTAINER SITE
NYSDEC Site # 7-38-029
GWTF TOTALIZER READINGS

May 1, 2020 through April 30, 2021

May-20		Daily Gallons
1	41848285	20491
2	41868776	22402
3	41891178	19474
4	41910652	24380
5	41935032	18453
6	41953485	23071
7	41976556	20295
8	41996851	23502
9	42020353	19707
10	42040060	23570
11	42063630	23697
12	42087327	25777
13	42113104	21276
14	42134380	23262
15	42157642	20036
16	42177678	19341
17	42197019	15626
18	42212645	23838
19	42236483	19687
20	42256170	23616
21	42279786	19711
22	42299497	20548
23	42320045	22670
24	42342715	14109
25	42356824	14443
26	42371267	18874
27	42390141	23332
28	42413473	19490
29	42432963	23326
30	42456289	19412
31	42475701	19377
Total for Month	627416	
Daily Average	20239.23	
Average GPM	14.06	

Jun-20		Daily Gallons
1	42495078	23272
2	42518350	19374
3	42537724	23154
4	42560878	19330
5	42580208	19566
6	42599774	22870
7	42622644	19251
8	42641895	19363
9	42661258	19468
10	42680726	19291
11	42700017	21402
12	42721419	21081
13	42742500	19245
14	42761745	19300
15	42781045	19282
16	42800327	23248
17	42823575	19248
18	42842823	19306
19	42862129	19258
20	42881387	19308
21	42900695	19226
22	42919921	19265
23	42939186	19376
24	42958562	20049
25	42978611	19868
26	42998479	19560
27	43018039	19062
28	43037101	18668
29	43055769	18514
30	43074283	18697
Total for Month	598582	
Daily Average	19952.73	
Average GPM	13.86	

FORMER MILLER CONTAINER SITE
NYSDEC Site # 7-38-029
GWTF TOTALIZER READINGS

May 1, 2020 through April 30, 2021

Jul-20		Daily Gallons
1	43092980	19292
2	43112272	19338
3	43131610	19275
4	43150885	19303
5	43170188	19322
6	43189510	19264
7	43208774	19298
8	43228072	19293
9	43247365	18908
10	43266273	15105
11	43281378	15035
12	43296413	18818
13	43315231	15050
14	43330281	16981
15	43347262	17650
16	43364912	19244
17	43384156	19266
18	43403422	19258
19	43422680	19272
20	43441952	19254
21	43461206	19263
22	43480469	23114
23	43503583	19261
24	43522844	19261
25	43542105	19231
26	43561336	17426
27	43578762	17174
28	43595936	19259
29	43615195	19190
30	43634385	15719
31	43650104	18871
Total for Month	575821	
Daily Average	18574.87	
Average GPM	12.90	

Aug-20		Daily Gallons
1	43668975	23016
2	43691991	19196
3	43711187	19242
4	43730429	16565
5	43746994	14198
6	43761192	19133
7	43780325	15783
8	43796108	18693
9	43814801	19124
10	43833925	19144
11	43853069	19179
12	43872248	19198
13	43891446	19456
14	43910902	11187
15	43922089	19153
16	43941242	19170
17	43960412	15304
18	43975716	19139
19	43994855	20887
20	44015742	21116
21	44036858	19080
22	44055938	19085
23	44075023	17560
24	44092583	16739
25	44109322	18989
26	44128311	19046
27	44147357	15204
28	44162561	15150
29	44177711	22743
30	44200454	18887
31	44219341	15078
Total for Month	569237	
Daily Average	18362.48	
Average GPM	12.75	

FORMER MILLER CONTAINER SITE
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GWTF TOTALIZER READINGS

May 1, 2020 through April 30, 2021

Sep-20		Daily Gallons
1	44234419	18853
2	44253272	18809
3	44272081	11272
4	44283353	15038
5	44298391	18768
6	44317159	14566
7	44331725	10900
8	44342625	14448
9	44357073	12764
10	44369837	14456
11	44384293	19151
12	44403444	23011
13	44426455	23017
14	44449472	15282
15	44464754	19124
16	44483878	19086
17	44502964	22932
18	44525896	19127
19	44545023	19089
20	44564112	19115
21	44583227	20876
22	44604103	21273
23	44625376	19113
24	44644489	19171
25	44663660	19934
26	44683594	22216
27	44705810	19134
28	44724944	19217
29	44744161	19189
30	44763350	19275
Total for Month	544009	
Daily Average	18133.63	
Average GPM	12.59	

Oct-20		Daily Gallons
1	44782625	19177
2	44801802	19257
3	44821059	20009
4	44841068	22291
5	44863359	19282
6	44882641	21797
7	44904438	19297
8	44923735	19314
9	44943049	19282
10	44962331	19276
11	44981607	19284
12	45000891	19334
13	45020225	20573
14	45040798	19284
15	45060082	19134
16	45079216	20573
17	45099789	18937
18	45118726	19314
19	45138040	17013
20	45155053	19256
21	45174309	17495
22	45191804	19134
23	45210938	18937
24	45229875	19174
25	45249049	21365
26	45270414	20000
27	45290414	18266
28	45308680	20448
29	45329128	14977
30	45344105	20123
31	45364228	20122
Total for Month	600878	
Daily Average	19383.16	
Average GPM	13.46	

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GWTF TOTALIZER READINGS

May 1, 2020 through April 30, 2021

Nov-20		Daily Gallons
1	45384350	20119
2	45404469	20119
3	45424588	20155
4	45444743	20228
5	45464971	20243
6	45485214	20271
7	45505485	20287
8	45525772	20289
9	45546061	24299
10	45570360	20310
11	45590670	20288
12	45610958	20333
13	45631291	20339
14	45651630	20352
15	45671982	20316
16	45692298	20342
17	45712640	20334
18	45732974	19297
19	45752271	20372
20	45772643	20465
21	45793108	20503
22	45813611	20421
23	45834032	20975
24	45855007	21673
25	45876680	22001
26	45898681	21476
27	45920157	20589
28	45940746	20500
29	45961246	20545
30	45981791	20720
Total for Month	617563	
Daily Average	20585.43	
Average GPM	14.30	

Dec-20		Daily Gallons
1	46002511	20537
2	46023048	20553
3	46043601	20602
4	46064203	20628
5	46084831	20581
6	46105412	20717
7	46126129	20506
8	46146635	19501
9	46166136	19489
10	46185625	19383
11	46205008	19300
12	46224308	20395
13	46244703	20448
14	46265151	17465
15	46282616	23528
16	46306144	20510
17	46326654	20694
18	46347348	20932
19	46368280	20715
20	46388995	20934
21	46409929	20717
22	46430646	19266
23	46449912	18076
24	46467988	25375
25	46493363	20993
26	46514356	20583
27	46534939	19162
28	46554101	19846
29	46573947	23539
30	46597486	20777
31	46618263	20810
Total for Month	636472	
Daily Average	20531.35	
Average GPM	14.26	

FORMER MILLER CONTAINER SITE
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GWTF TOTALIZER READINGS

May 1, 2020 through April 30, 2021

Jan-21		Daily Gallons
1	46639073	21005
2	46660078	20907
3	46680985	20835
4	46701820	20818
5	46722638	20765
6	46743403	20645
7	46764048	20642
8	46784690	20164
9	46804854	19046
10	46823900	18889
11	46842789	20347
12	46863136	20721
13	46883857	19359
14	46903216	20656
15	46923872	20732
16	46944604	20804
17	46965408	20703
18	46986111	20735
19	47006846	20776
20	47027622	20764
21	47048386	20732
22	47069118	20720
23	47089838	20770
24	47110608	20743
25	47131351	20796
26	47152147	20791
27	47172938	20750
28	47193688	18468
29	47212156	19374
30	47231530	20273
31	47251803	20792
Total for Month	633540	
Daily Average	20436.77	
Average GPM	14.19	

Feb-21		Daily Gallons
1	47272595	20590
2	47293185	20551
3	47313736	20565
4	47334301	20665
5	47354966	20691
6	47375657	20614
7	47396271	17063
8	47413334	19934
9	47433268	20450
10	47453718	20461
11	47474179	20526
12	47494705	20623
13	47515328	20535
14	47535863	16502
15	47552365	20490
16	47572855	20359
17	47593214	20450
18	47613664	20419
19	47634083	19934
20	47654017	17063
21	47671080	15663
22	47686743	20334
23	47707077	20288
24	47727365	20419
25	47747784	18313
26	47766097	18440
27	47784537	23529
28	47808066	17642
Total for Month	556263	
Daily Average	19866.54	
Average GPM	13.80	

FORMER MILLER CONTAINER SITE
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GWTF TOTALIZER READINGS

May 1, 2020 through April 30, 2021

Mar-21		Daily Gallons
1	47825708	20649
2	47846357	15981
3	47862338	15483
4	47877821	11689
5	47889510	15428
6	47904938	11672
7	47916610	14280
8	47930890	16665
9	47947555	13637
10	47961192	18463
11	47979655	25627
12	48005282	21092
13	48026374	21073
14	48047447	25135
15	48072582	16721
16	48089303	24850
17	48114153	20871
18	48135024	17872
19	48152896	25066
20	48177962	21042
21	48199004	20925
22	48219929	25335
23	48245264	21132
24	48266396	21166
25	48287562	21190
26	48308752	25511
27	48334263	21238
28	48355501	22943
29	48378444	23939
30	48402383	21287
31	48423670	22167
Total for Month	615604	
Daily Average	19858.19	
Average GPM	13.79	

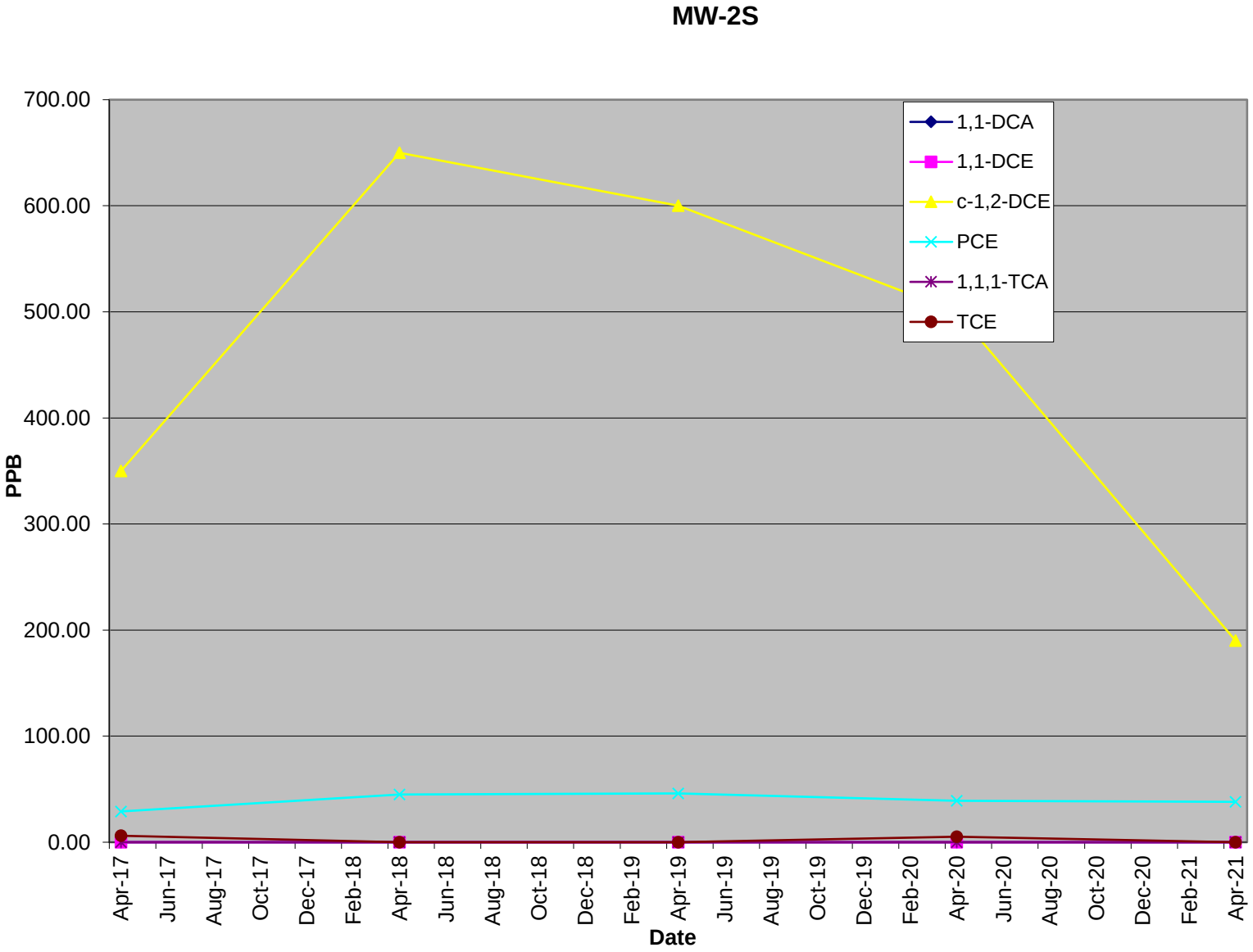
Apr-21		Daily Gallons
1	48445837	25512
2	48471349	22005
3	48493354	22043
4	48515397	21089
5	48536486	21058
6	48557544	21082
7	48578626	21098
8	48599724	25268
9	48624992	21131
10	48646123	21122
11	48667245	20998
12	48688243	21074
13	48709317	20561
14	48729878	20815
15	48750693	20762
16	48771455	20742
17	48792197	20777
18	48812974	20841
19	48833815	20820
20	48854635	24928
21	48879563	20723
22	48900286	20699
23	48920985	20752
24	48941737	20766
25	48962503	20791
26	48983294	20817
27	49004111	16548
28	49020659	20705
29	49041364	25106
30	49066470	21719
5/1/2020	49088189	
Total for Month	664519	
Daily Average	21436.10	
Average GPM	14.89	

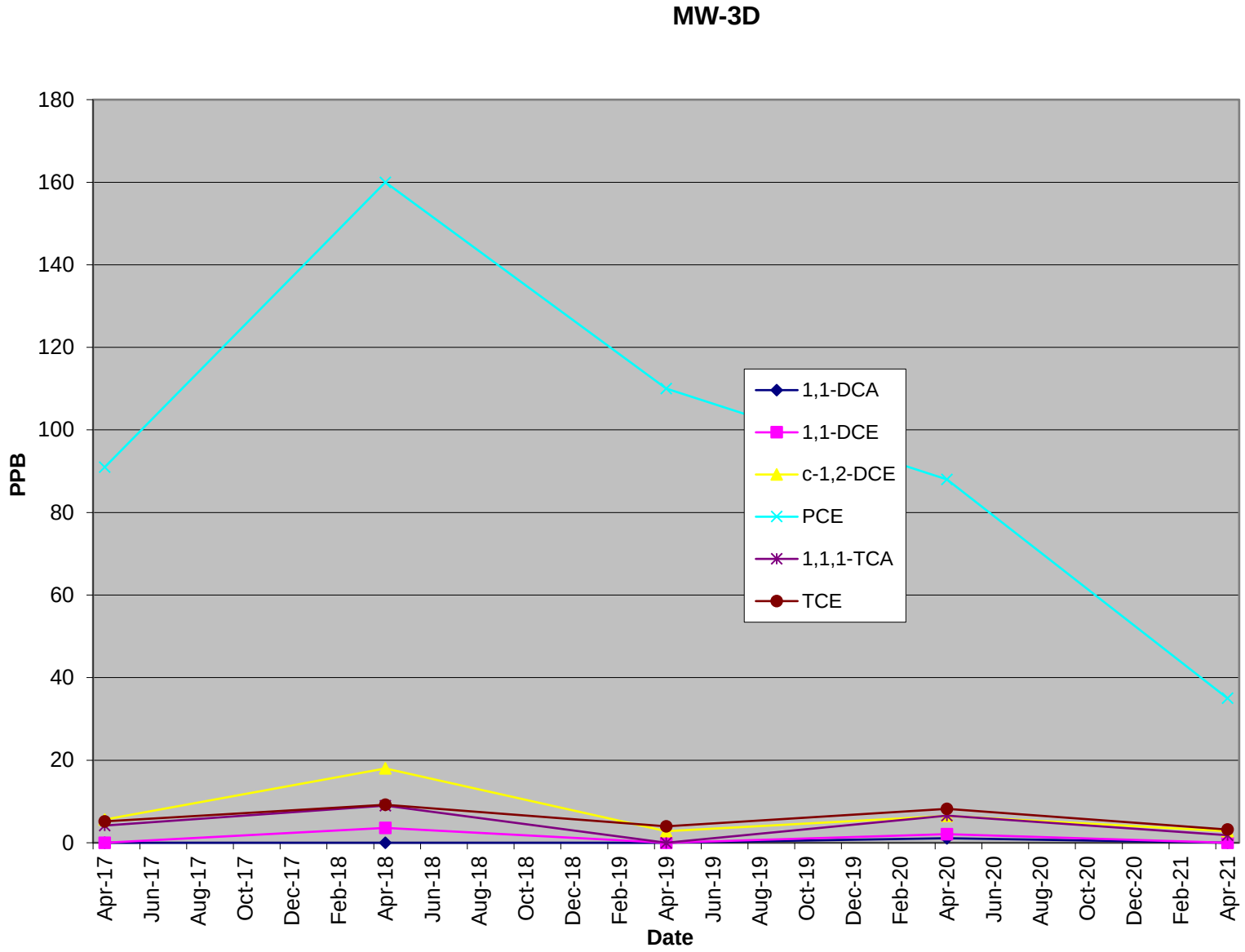
Miller Brewing Company

Fulton Can Plant Site Fulton, NY

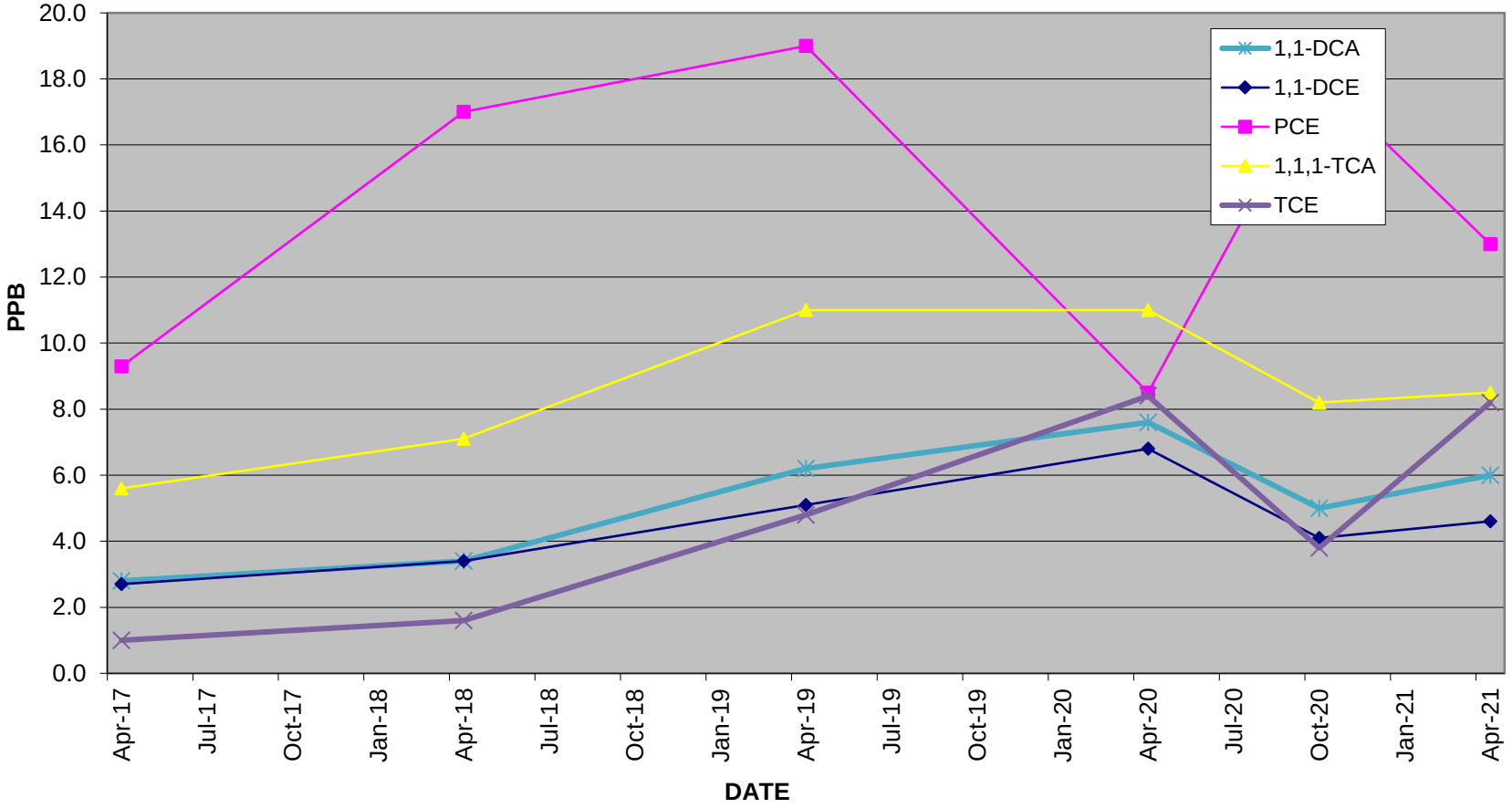
Early Warining Network July 2015

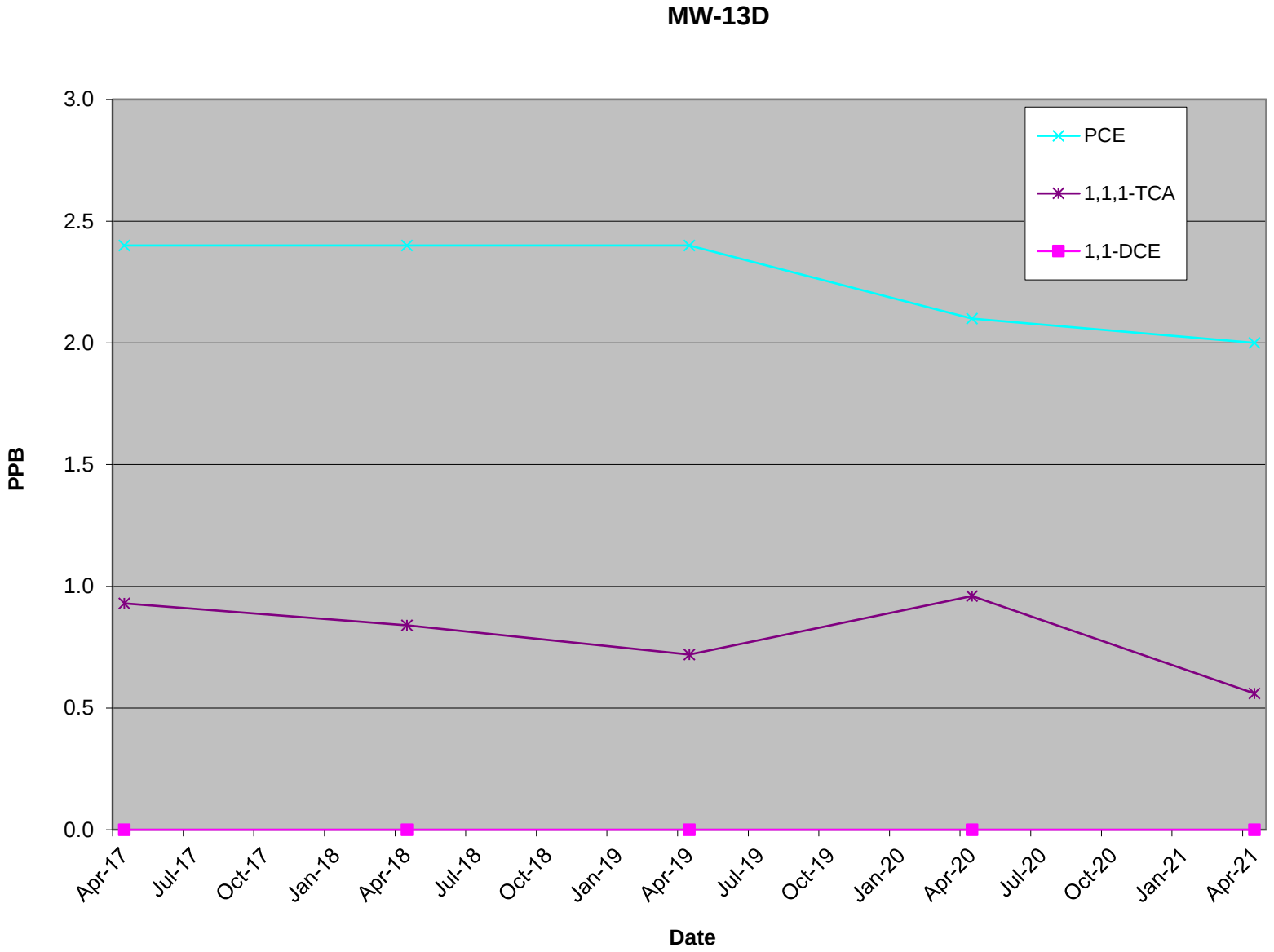
Well ID	Location	Elevation of Measuring Point	Date of Installation
MW-2S	Northern Unit	377.10	9/24/1986
MW-3D	Northern Unit	376.52	7/14/1986
MW-8I	West of Pond	368.12	11/15/1991
MW-8D	West of Pond	368.30	9/18/1986
MW-13D	West of Pond	365.27	12/17/1986
MW-14D	Taylor & Vicinity	380.19	12/18/1986
MW-16D	Northern Unit	366.29	12/12/1989
MW-17D	West of Pond	372.74	4/11/1990
MW-21S	Taylor & Vicinity	379.26	4/23/1990
MW-28S	M-2A	356.94	8/22/1990
MW-28I	M-2A	357.44	8/22/1990
MW-32D	Taylor & Vicinity	377.76	9/12/1990
MW-33S	Taylor & Vicinity	383.23	9/13/1990
MW-34D	Taylor & Vicinity	385.08	9/14/1990
MW-35D	Taylor & Vicinity	381.36	9/18/1990
MW-36S	Southern Unit	376.61	9/14/1990
MW-37I	Southern Unit	377.30	11/15/1990
MW-38S	Northern Unit	373.61	11/26/1990
MW-51D	West of Pond	367.37	11/5/1991
MW-54I	South of Road	372.45	10/31/1991
MW-56D	West of Pond	367.73	12/9/1991
MW-61D	South of Road	368.60	

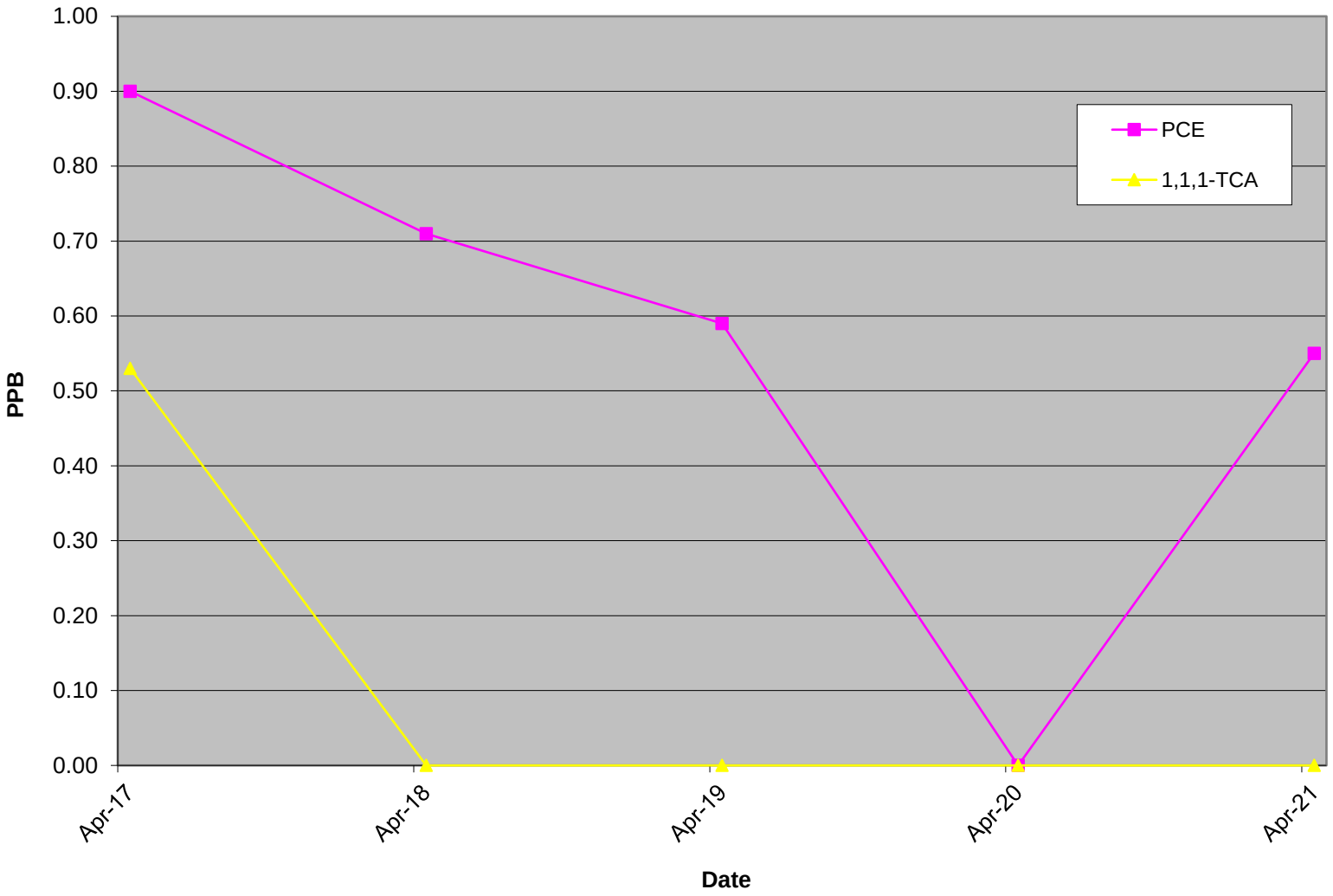

MW-2S
700.00
600.00
500.00
400.00
300.00
200.00
100.00
0.00
PPB
1,1-DCA
1,1-DCE
c-1,2-DCE
PCE
1,1,1-TCA
TCE
Apr-17
Jun-17
Aug-17
Oct-17
Dec-17
Feb-18
Apr-18
Jun-18
Aug-18
Oct-18
Dec-18
Feb-19
Apr-19
Jun-19
Aug-19
Oct-19
Dec-19
Feb-20
Apr-20
Jun-20
Aug-20
Oct-20
Dec-20
Feb-21
Apr-21
Date

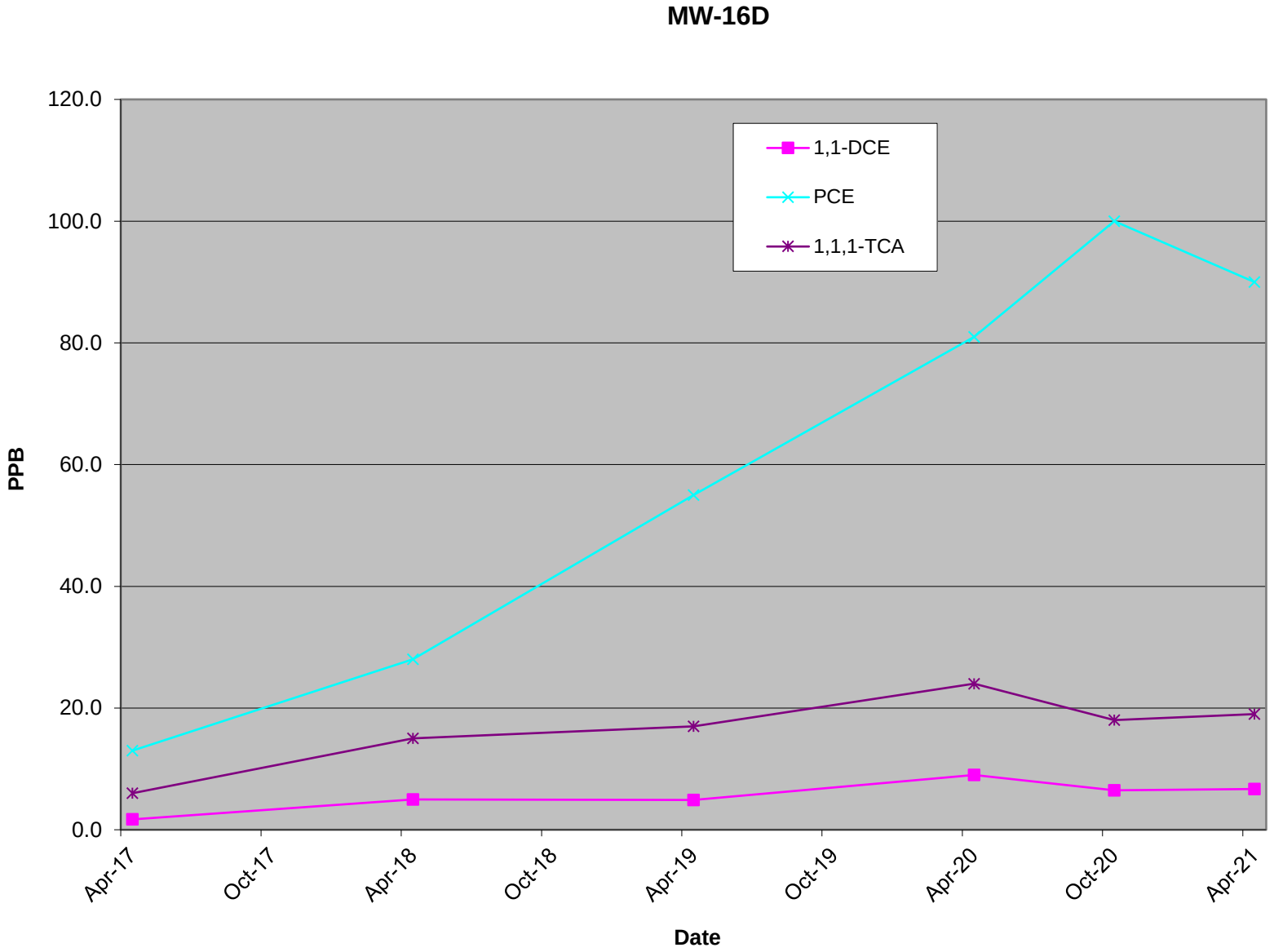

MW-3D
PPB
180
160
140
120
100
80
60
40
20
0
Apr-17
Jun-17
Aug-17
Oct-17
Dec-17
Feb-18
Apr-18
Jun-18
Aug-18
Oct-18
Dec-18
Feb-19
Apr-19
Jun-19
Aug-19
Oct-19
Dec-19
Feb-20
Apr-20
Jun-20
Aug-20
Oct-20
Dec-20
Feb-21
Apr-21
Date
1,1-DCA
1,1-DCE
c-1,2-DCE
PCE
1,1,1-TCA
TCE

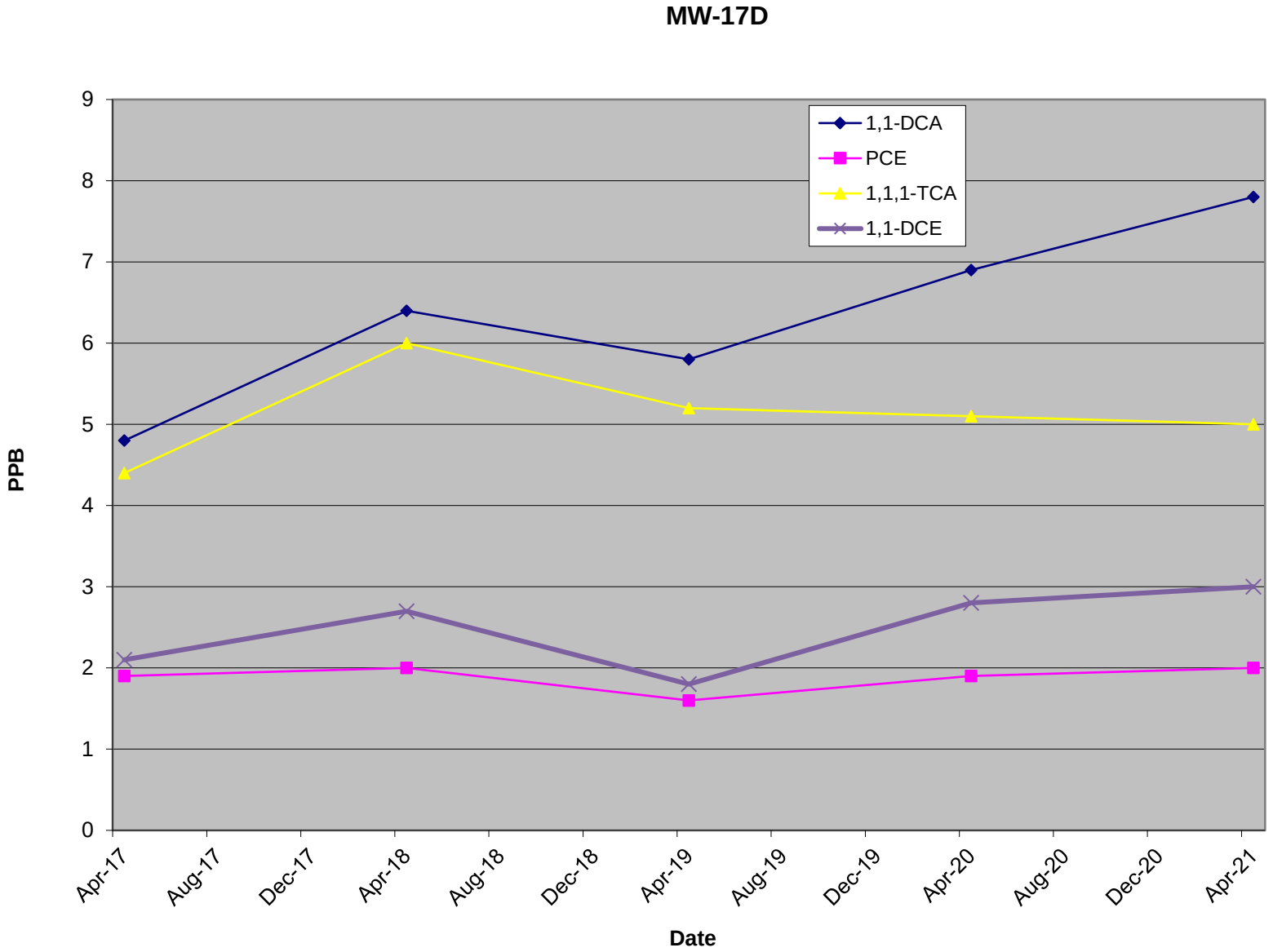
MW-8D
2017-Present

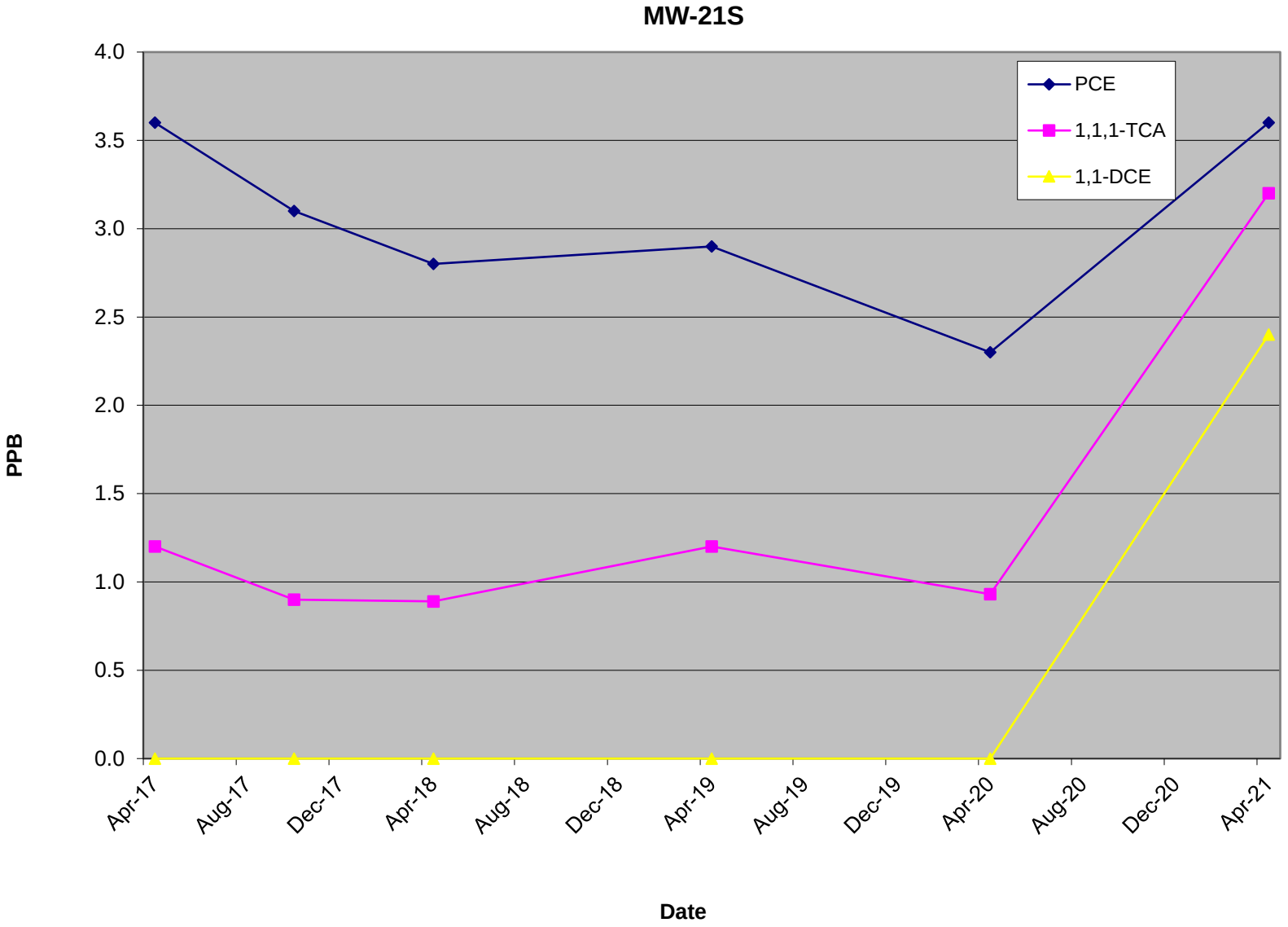


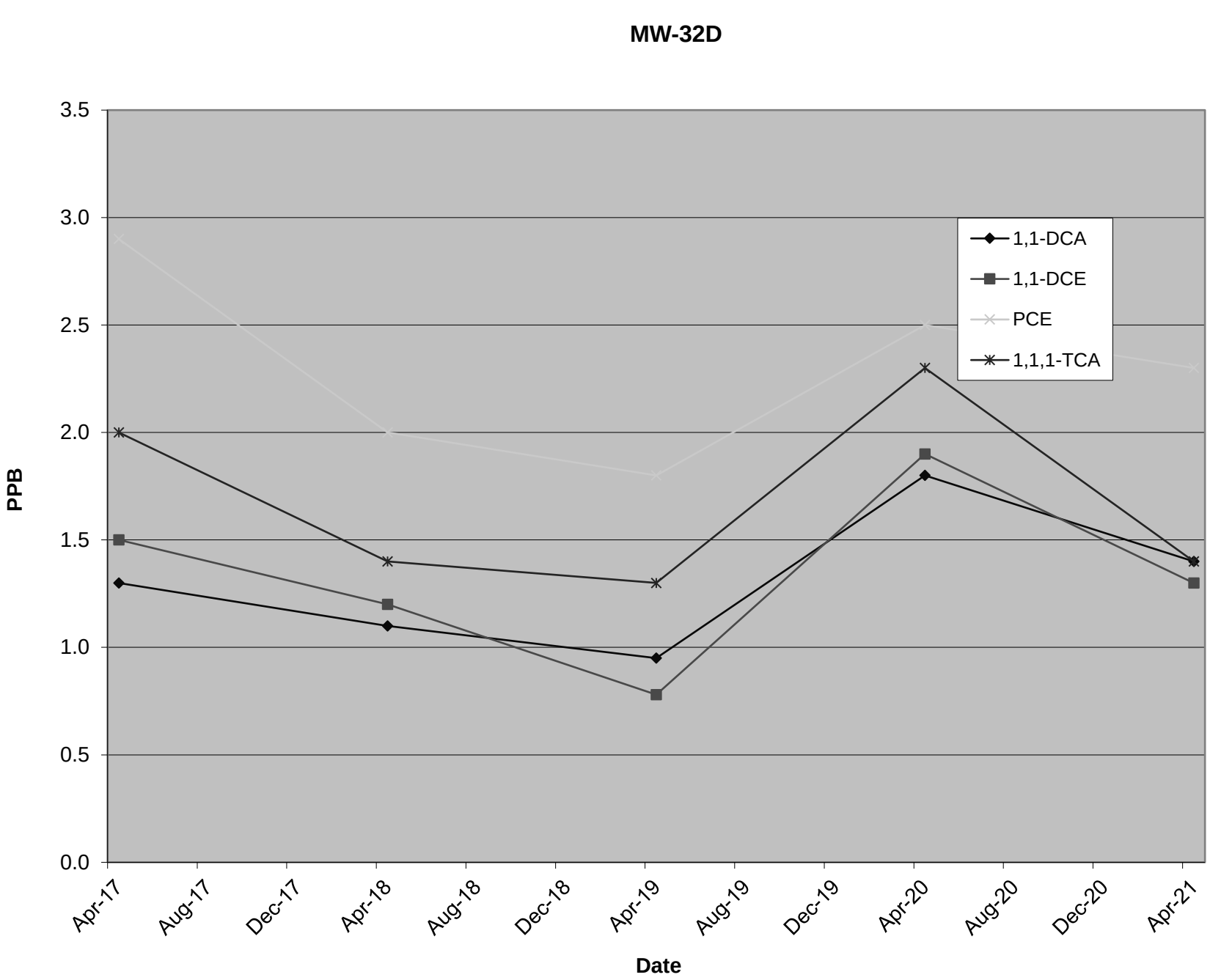

MW-13D
PPB
3.0
2.5
2.0
1.5
1.0
0.5
0.0
PCE
1,1,1-TCA
1,1-DCE
Apr-17
Jul-17
Oct-17
Jan-18
Apr-18
Jul-18
Oct-18
Jan-19
Apr-19
Jul-19
Oct-19
Jan-20
Apr-20
Jul-20
Oct-20
Jan-21
Apr-21
Date

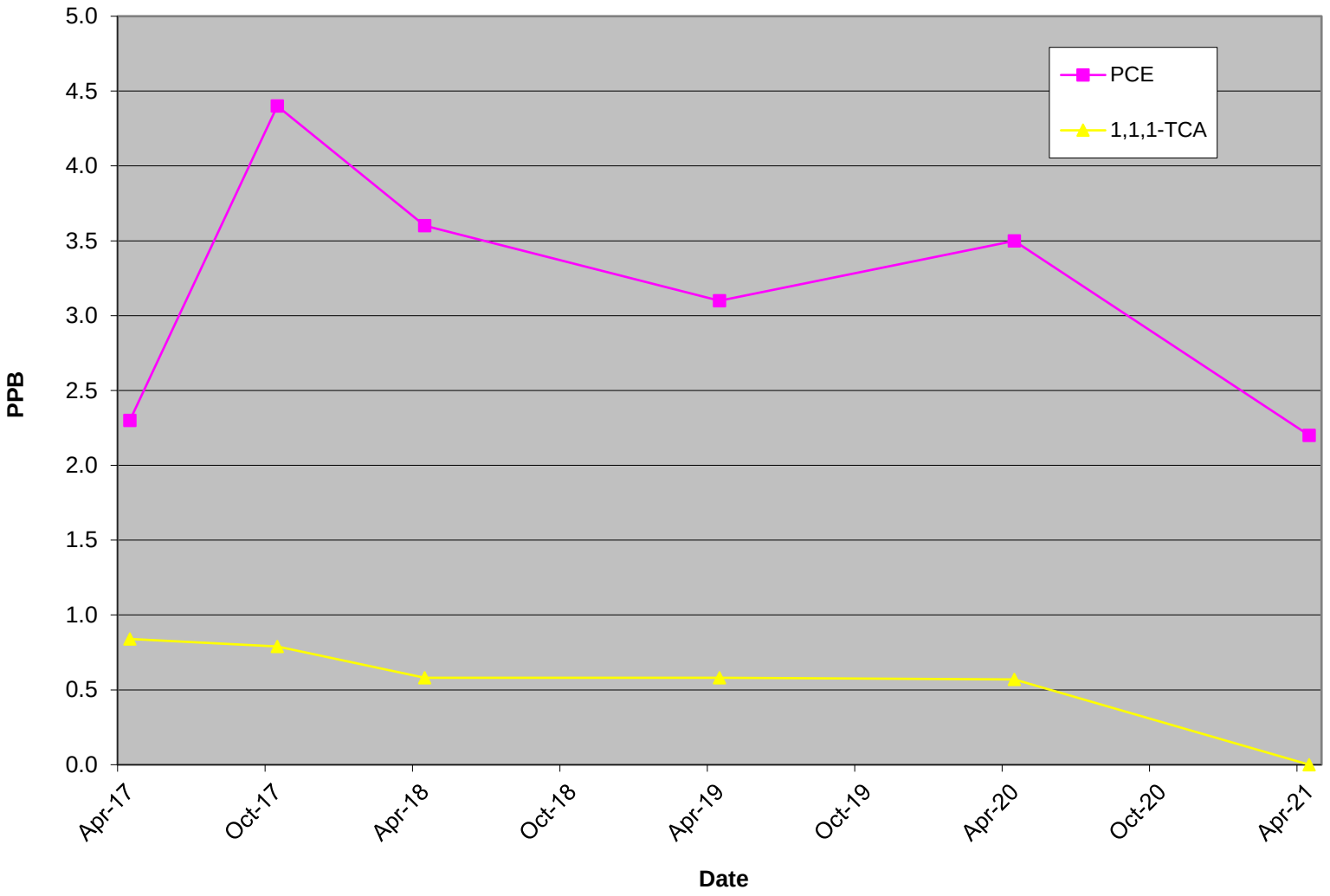

MW-14D 2017-Present
1.00
0.90
0.80
0.70
0.60
0.50
0.40
0.30
0.20
0.10
0.00
PPB
PCE
1,1,1-TCA
Apr-17
Apr-18
Apr-19
Apr-20
Apr-21
Date

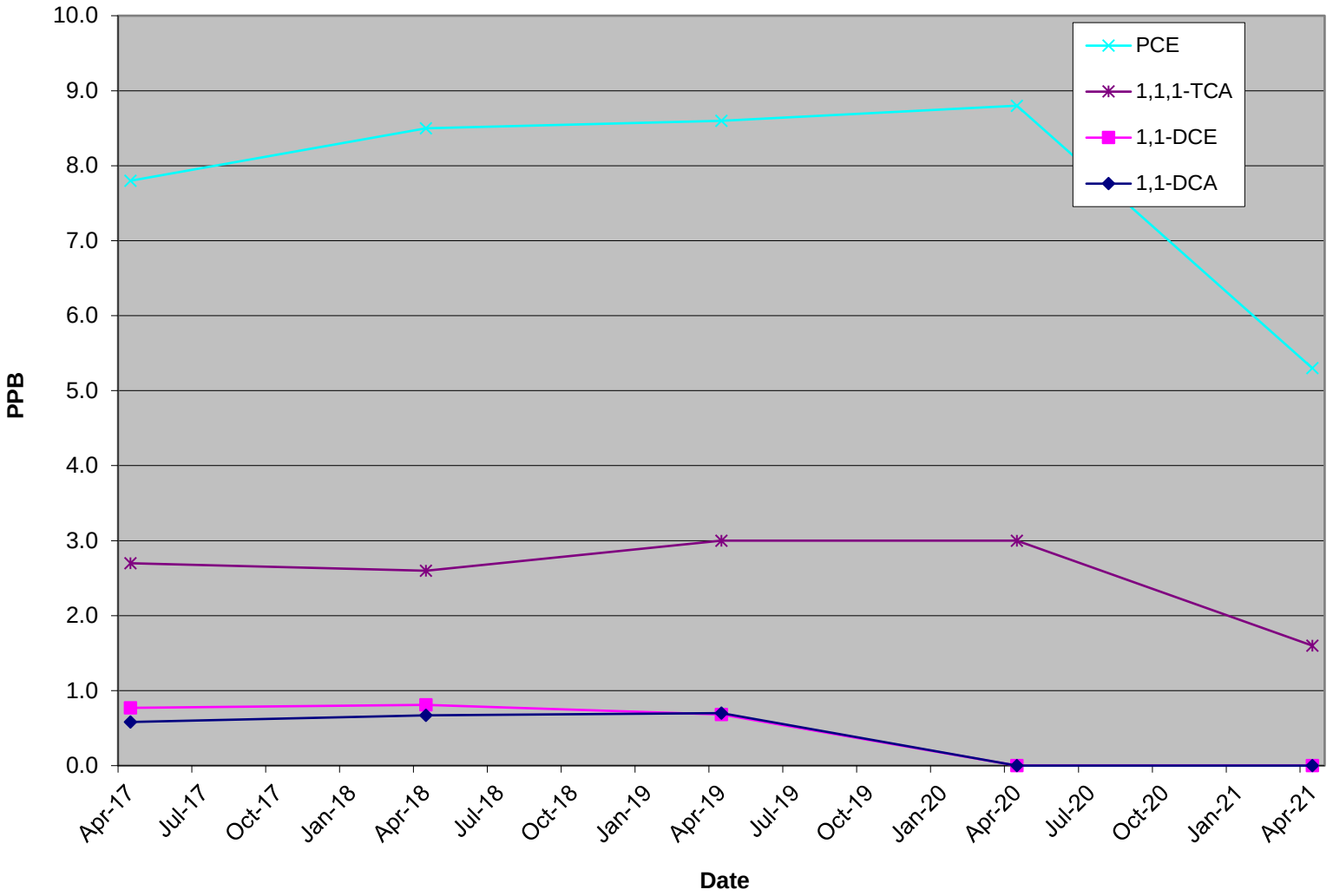

MW-16D
120.0
100.0
80.0
60.0
40.0
20.0
0.0
PPB
1,1-DCE
PCE
1,1,1-TCA
Apr-17
Oct-17
Apr-18
Oct-18
Apr-19
Oct-19
Apr-20
Oct-20
Apr-21
Date

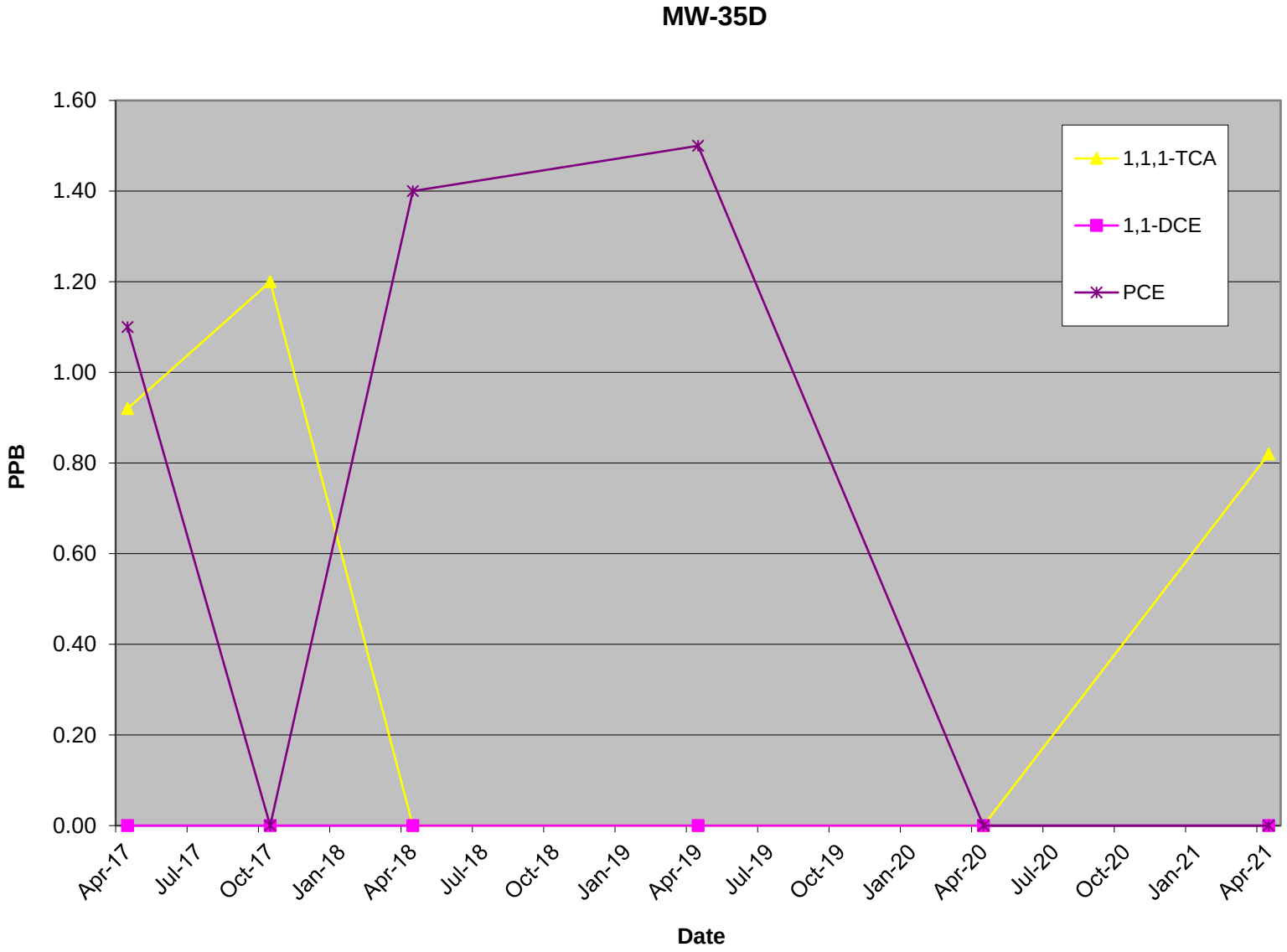

MW-17D
PPB
Date
1,1-DCA
PCE
1,1,1-TCA
1,1-DCE
0
1
2
3
4
5
6
7
8
9
Apr-17
Aug-17
Dec-17
Apr-18
Aug-18
Dec-18
Apr-19
Aug-19
Dec-19
Apr-20
Aug-20
Dec-20
Apr-21

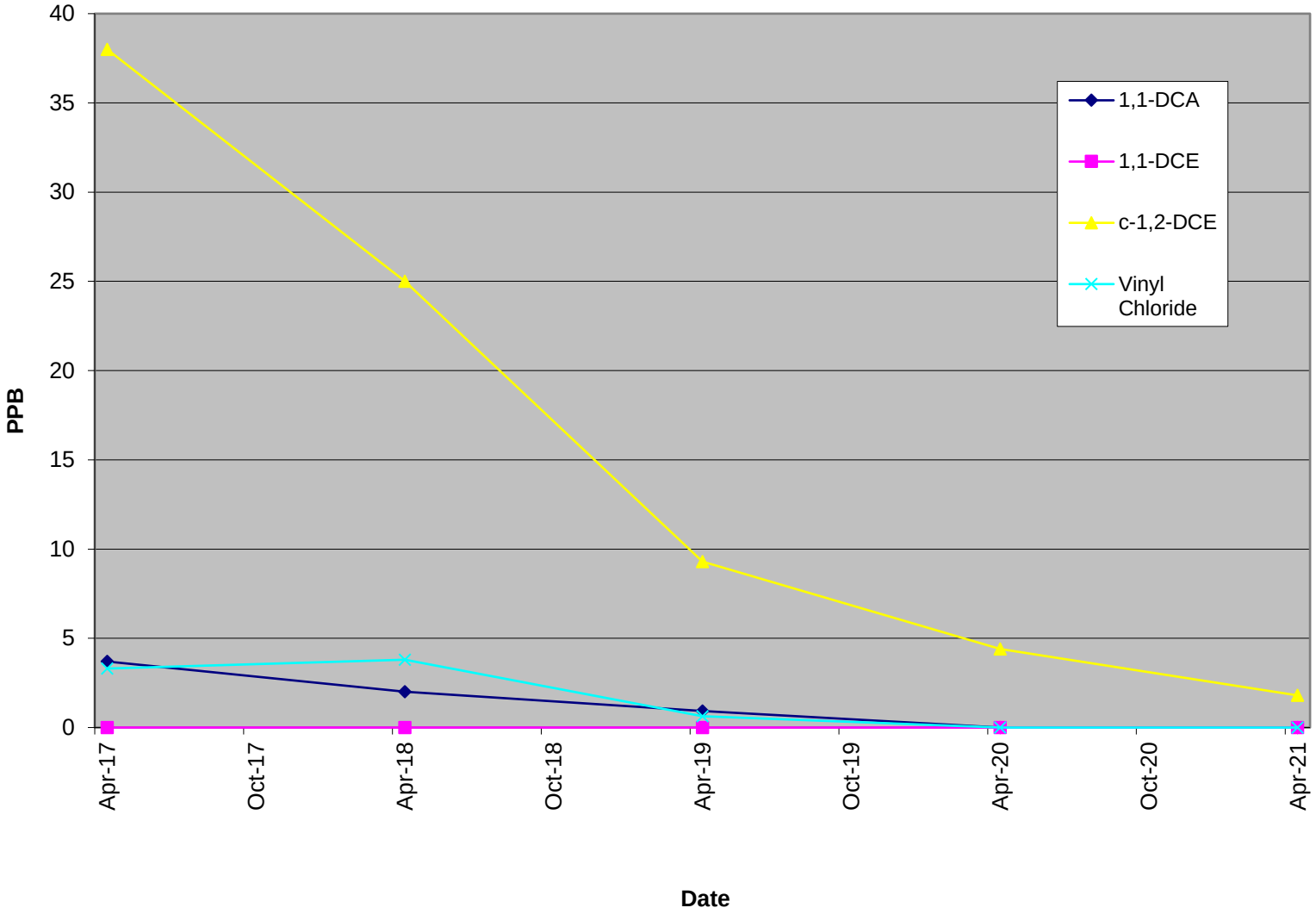

MW-21S
PPB
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
PCE
1,1,1-TCA
1,1-DCE
Apr-17
Aug-17
Dec-17
Apr-18
Aug-18
Dec-18
Apr-19
Aug-19
Dec-19
Apr-20
Aug-20
Dec-20
Apr-21
Date

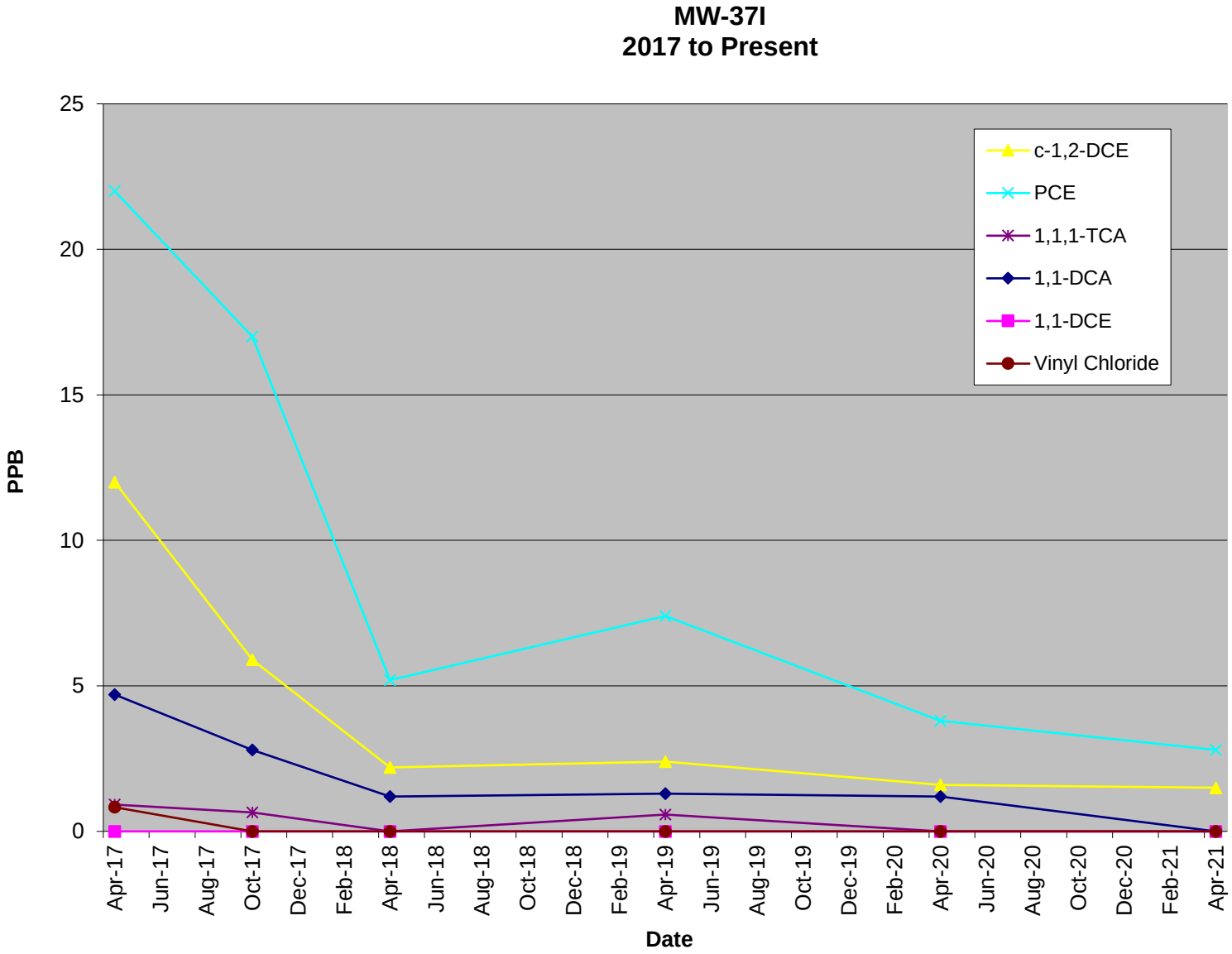

MW-32D
PPB
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
Apr-17
Aug-17
Dec-17
Apr-18
Aug-18
Dec-18
Apr-19
Aug-19
Dec-19
Apr-20
Aug-20
Dec-20
Apr-21
Date
1,1-DCA
1,1-DCE
PCE
1,1,1-TCA

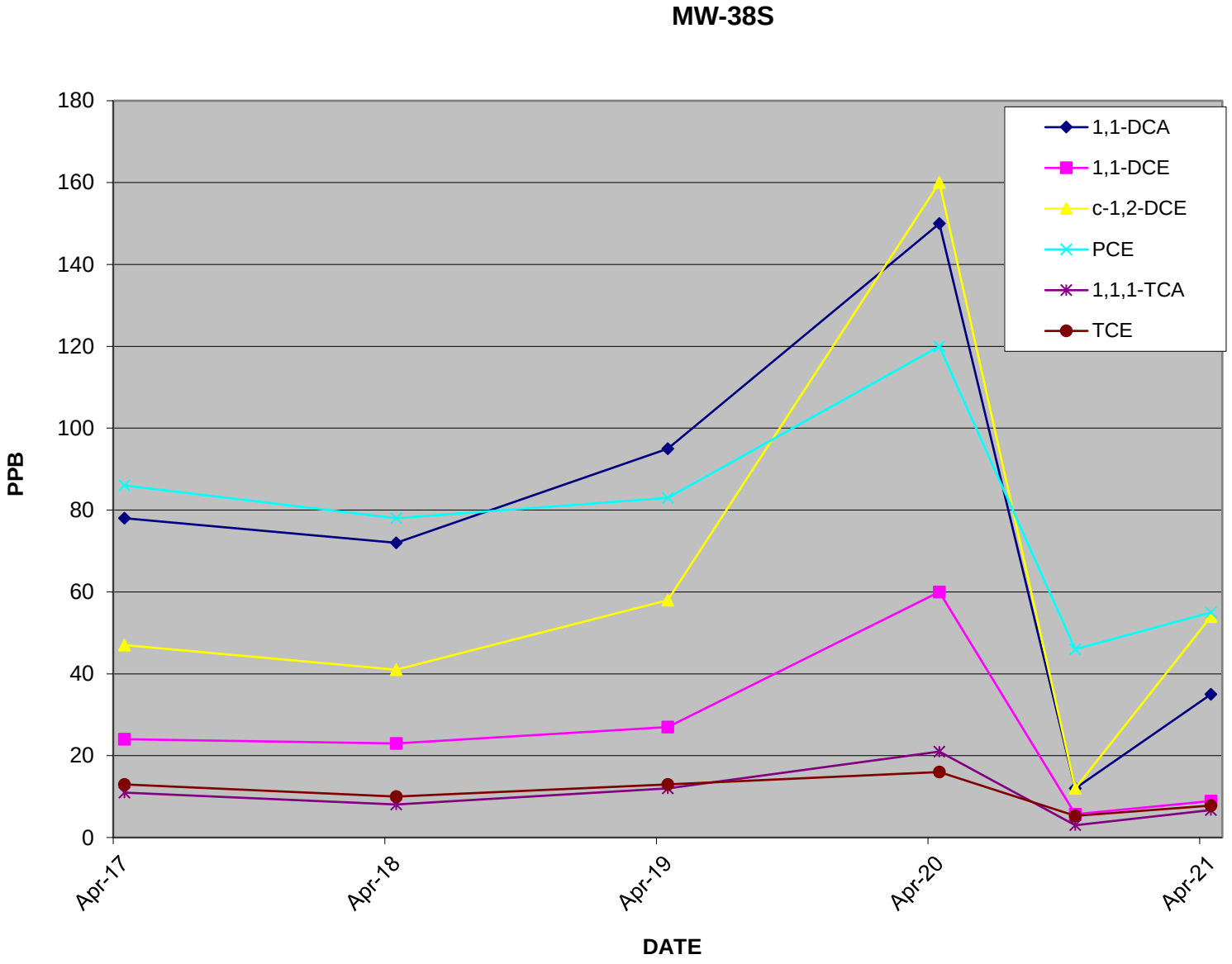

MW-33S
5.0
4.5
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
PPB
PCE
1,1,1-TCA
Apr-17
Oct-17
Apr-18
Oct-18
Apr-19
Oct-19
Apr-20
Oct-20
Apr-21
Date


MW-34D
PPB
10.0
9.0
8.0
7.0
6.0
5.0
4.0
3.0
2.0
1.0
0.0
PCE
1,1,1-TCA
1,1-DCE
1,1-DCA
Apr-17
Jul-17
Oct-17
Jan-18
Apr-18
Jul-18
Oct-18
Jan-19
Apr-19
Jul-19
Oct-19
Jan-20
Apr-20
Jul-20
Oct-20
Jan-21
Apr-21
Date

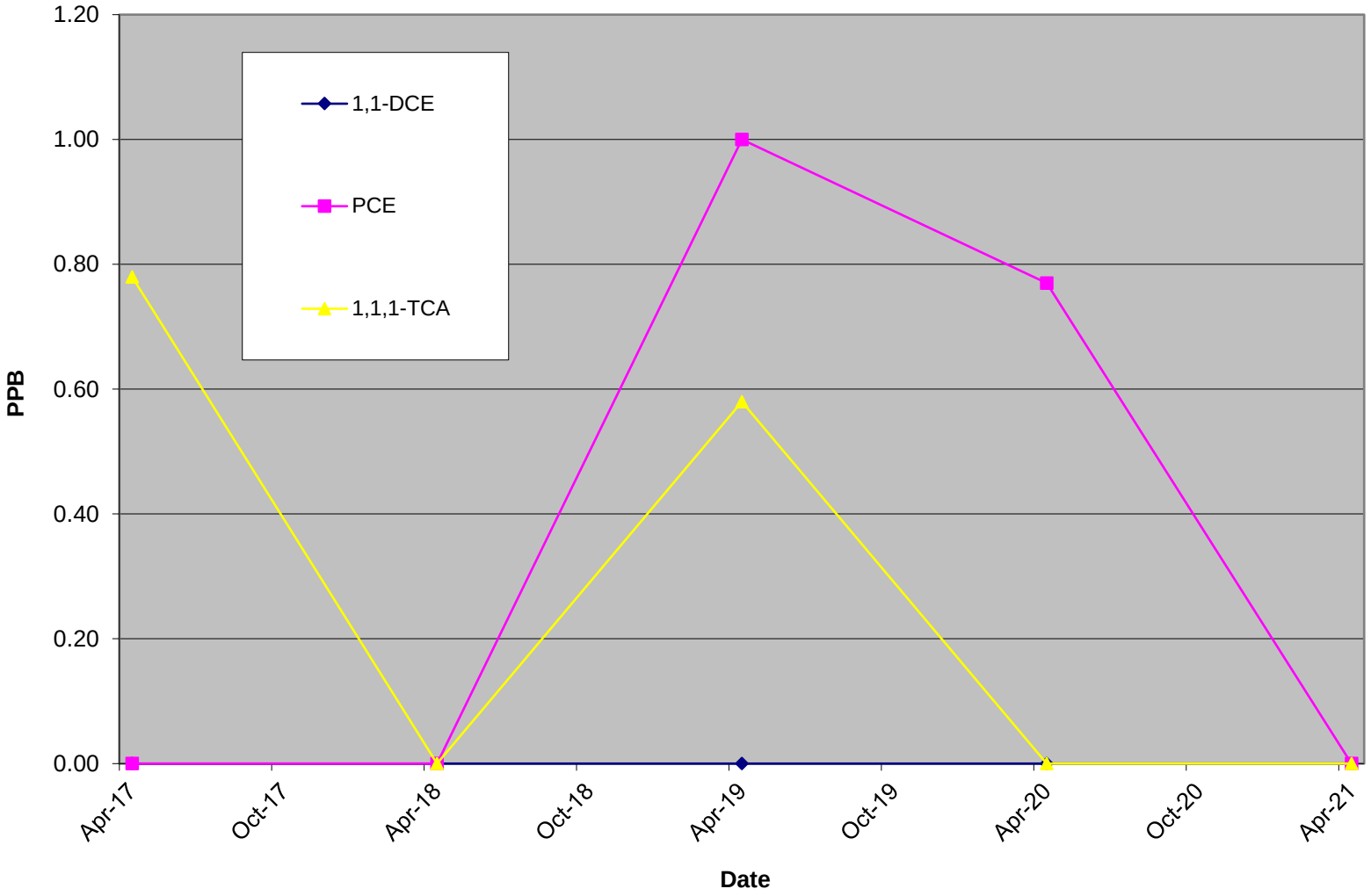

MW-35D
1.60
1.40
1.20
1.00
0.80
0.60
0.40
0.20
0.00
PPB
1,1,1-TCA
1,1-DCE
PCE
Apr-17
Jul-17
Oct-17
Jan-18
Apr-18
Jul-18
Oct-18
Jan-19
Apr-19
Jul-19
Oct-19
Jan-20
Apr-20
Jul-20
Oct-20
Jan-21
Apr-21
Date

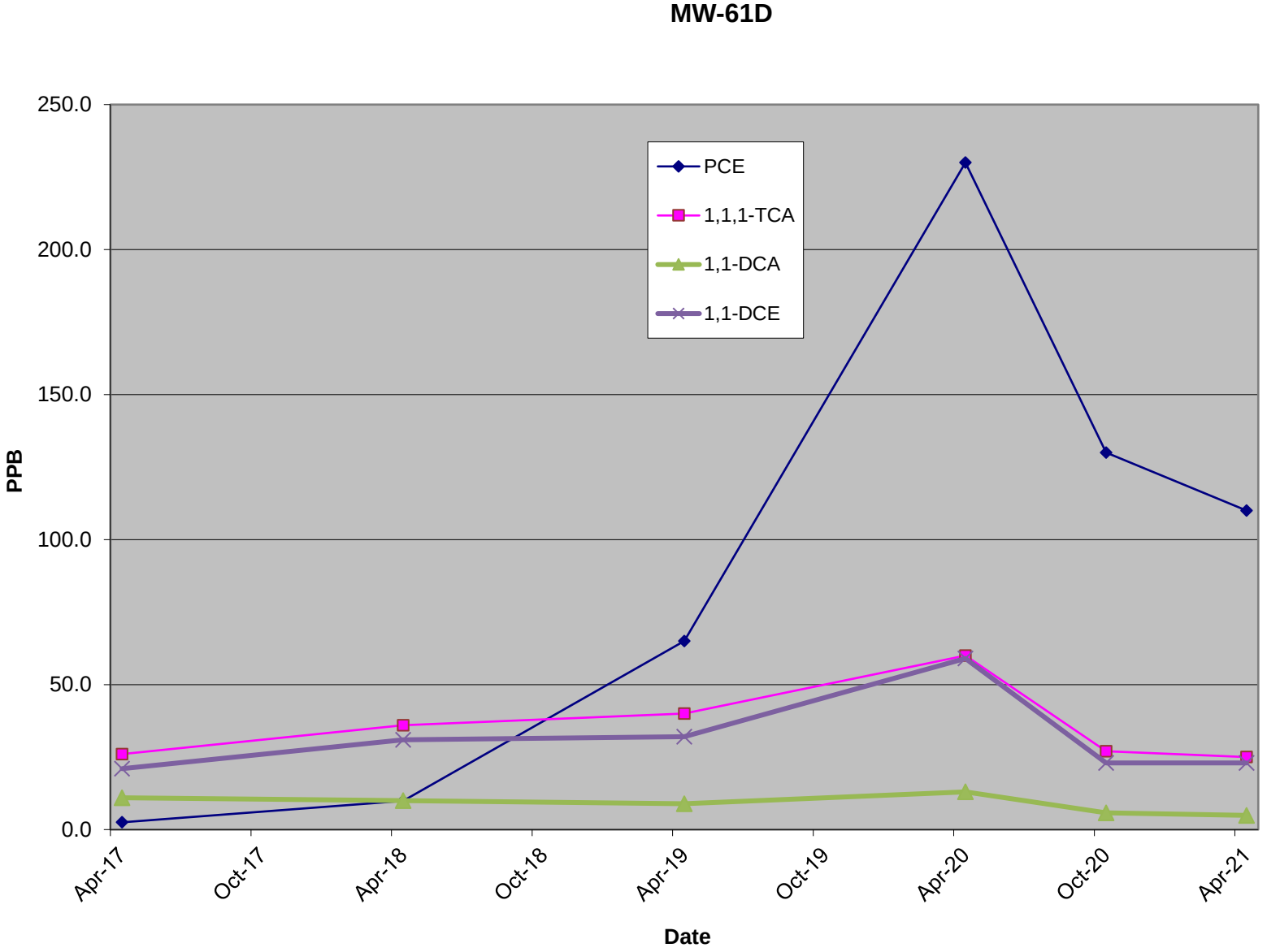

MW-36S
PPB
40
35
30
25
20
15
10
5
0
Apr-17
Oct-17
Apr-18
Oct-18
Apr-19
Oct-19
Apr-20
Oct-20
Apr-21
Date
1,1-DCA
1,1-DCE
c-1,2-DCE
Vinyl Chloride


MW-37I
2017 to Present
PPB
25
20
15
10
5
0
Apr-17
Jun-17
Aug-17
Oct-17
Dec-17
Feb-18
Apr-18
Jun-18
Aug-18
Oct-18
Dec-18
Feb-19
Apr-19
Jun-19
Aug-19
Oct-19
Dec-19
Feb-20
Apr-20
Jun-20
Aug-20
Oct-20
Dec-20
Feb-21
Apr-21
Date
c-1,2-DCE
PCE
1,1,1-TCA
1,1-DCA
1,1-DCE
Vinyl Chloride

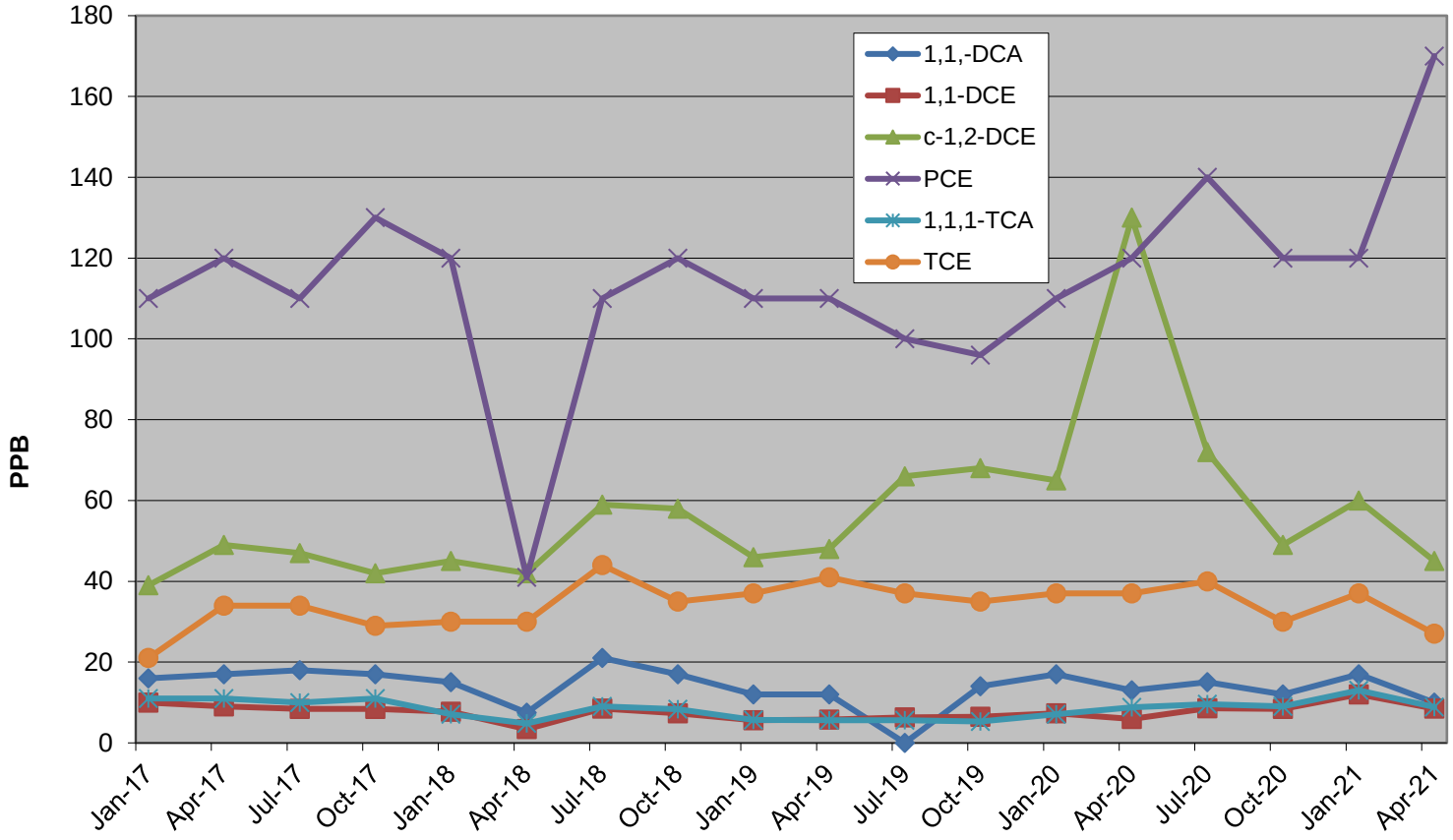

MW-38S
180
160
140
120
100
80
60
40
20
0
PPB
Apr-17
Apr-18
Apr-19
Apr-20
Apr-21
DATE
1,1-DCA
1,1-DCE
c-1,2-DCE
PCE
1,1,1-TCA
TCE

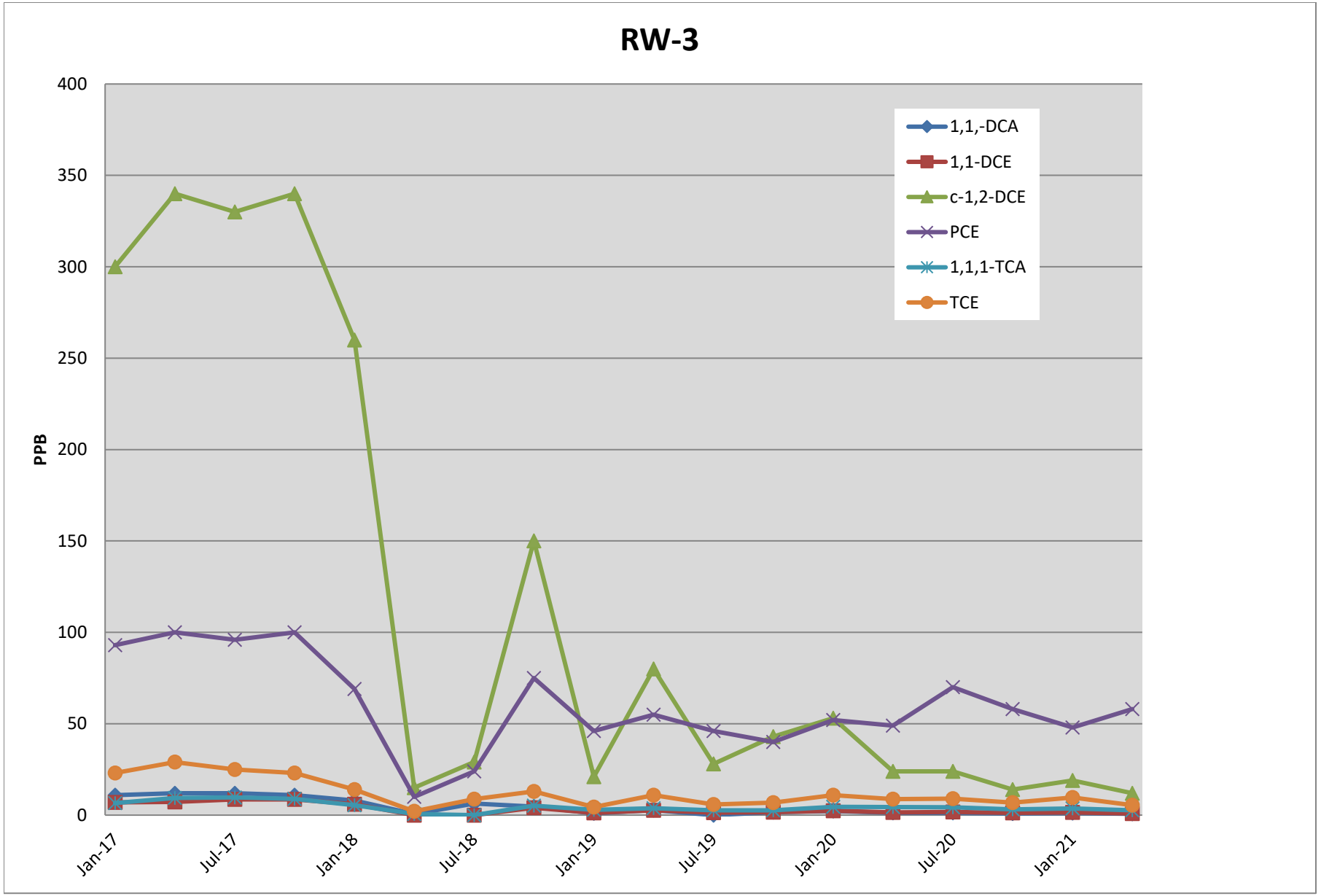
MW-56D
2017-Current

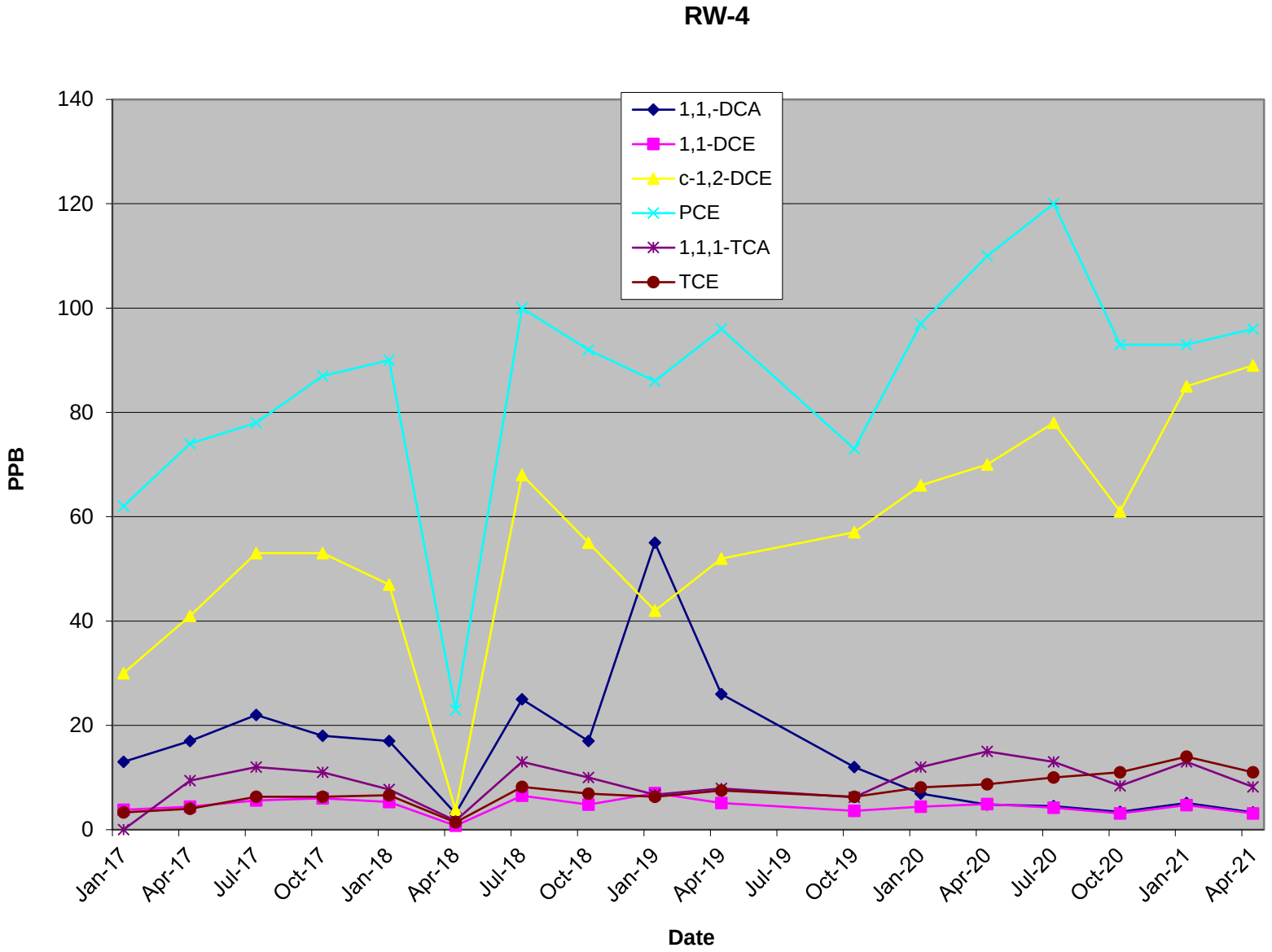


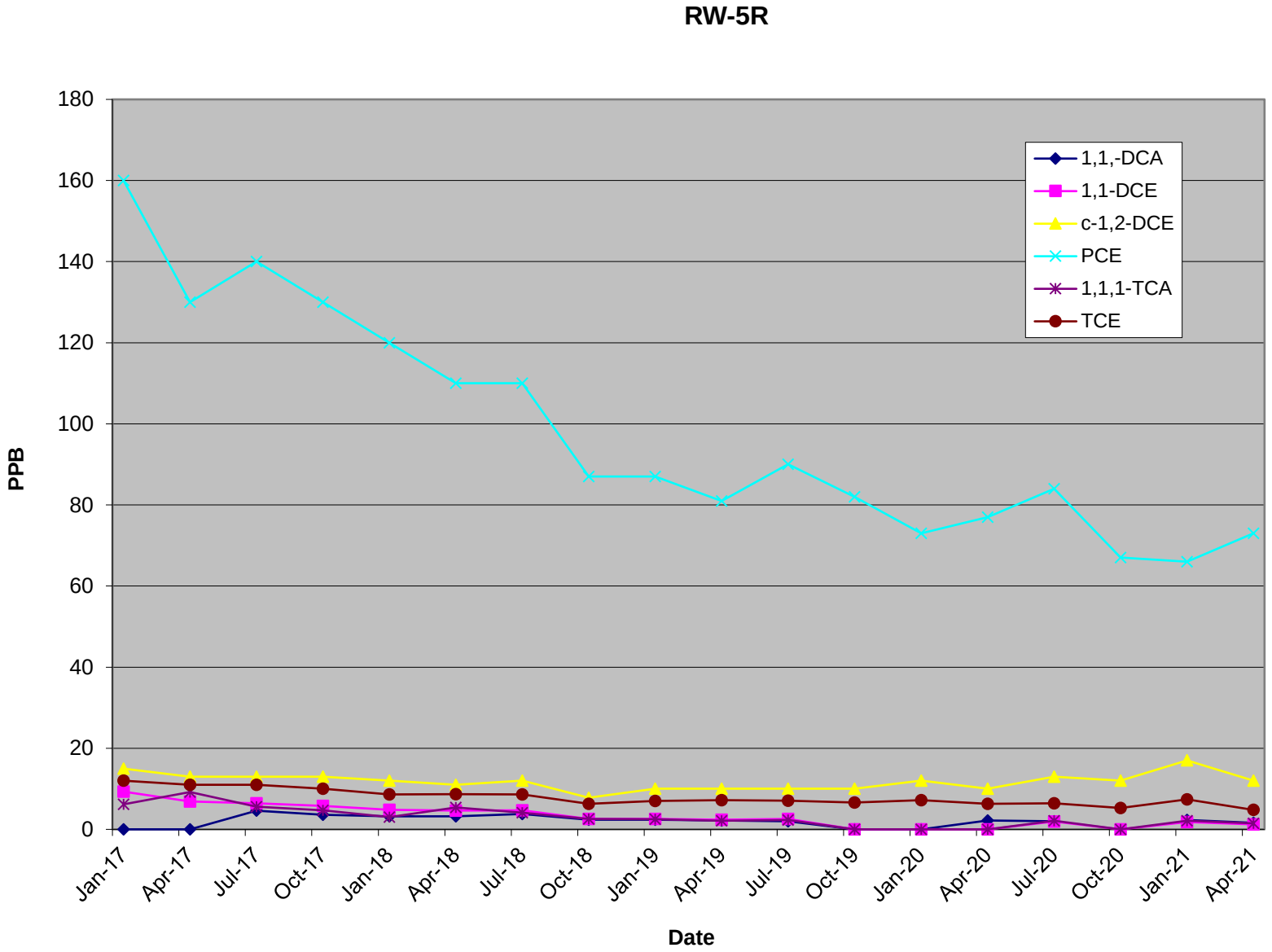

MW-61D
250.0
200.0
150.0
100.0
50.0
0.0
PPB
PCE
1,1,1-TCA
1,1-DCA
1,1-DCE
Apr-17
Oct-17
Apr-18
Oct-18
Apr-19
Oct-19
Apr-20
Oct-20
Apr-21
Date

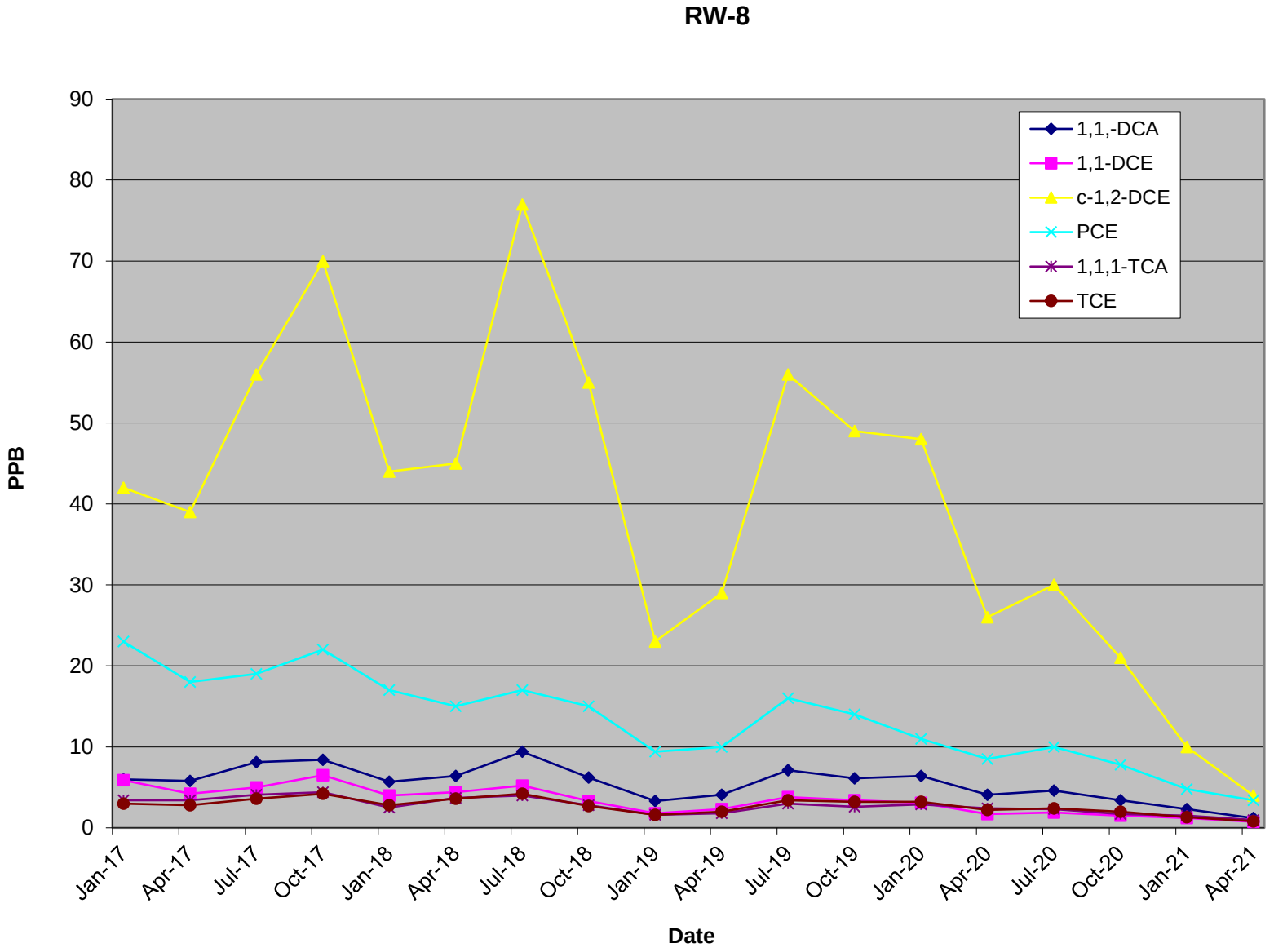
RW-2

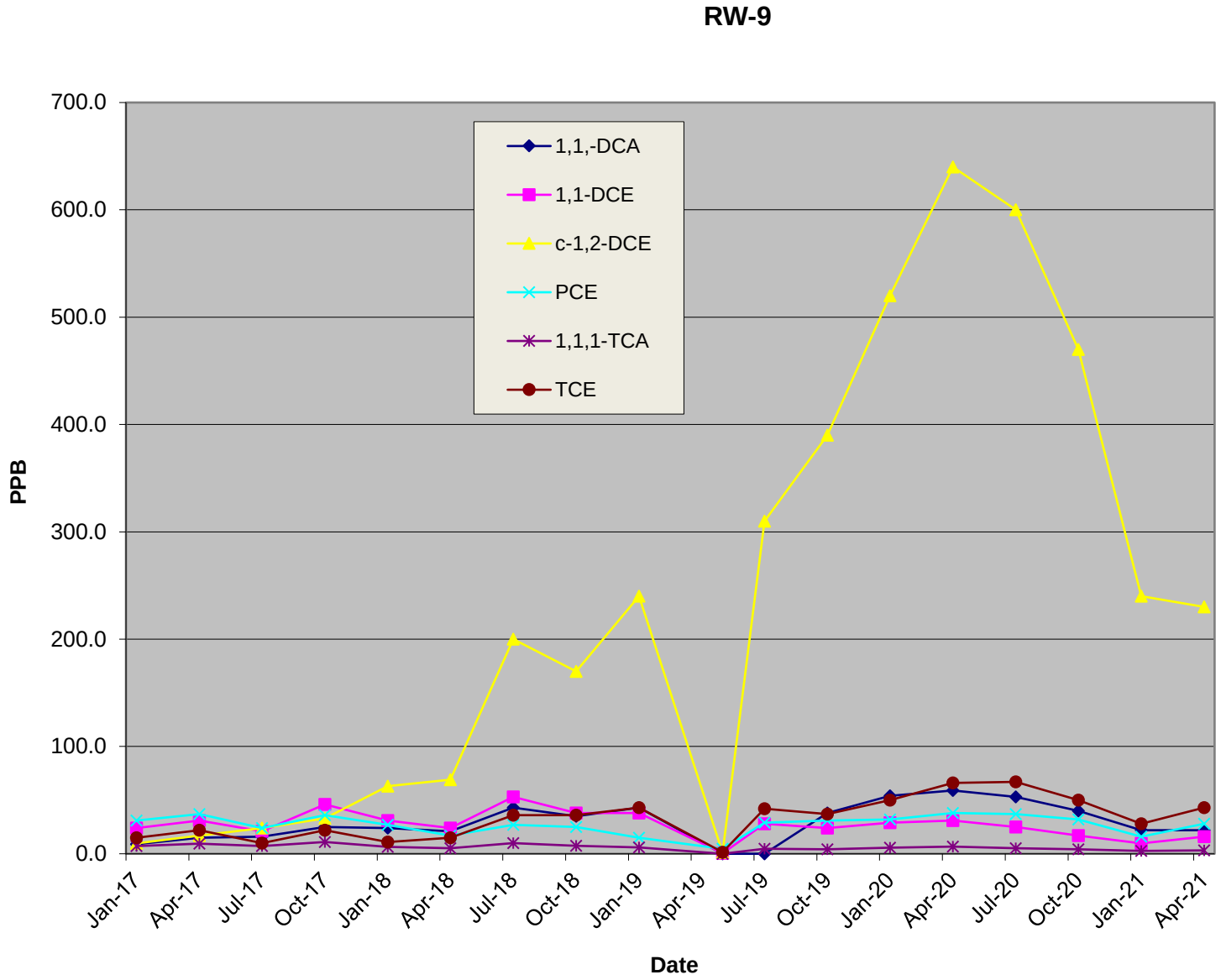

PPB
180
160
140
120
100
80
60
40
20
0
1,1,-DCA
1,1-DCE
c-1,2-DCE
PCE
1,1,1-TCA
TCE
Jan-17
Apr-17
Jul-17
Oct-17
Jan-18
Apr-18
Jul-18
Oct-18
Jan-19
Apr-19
Jul-19
Oct-19
Jan-20
Apr-20
Jul-20
Oct-20
Jan-21
Apr-21

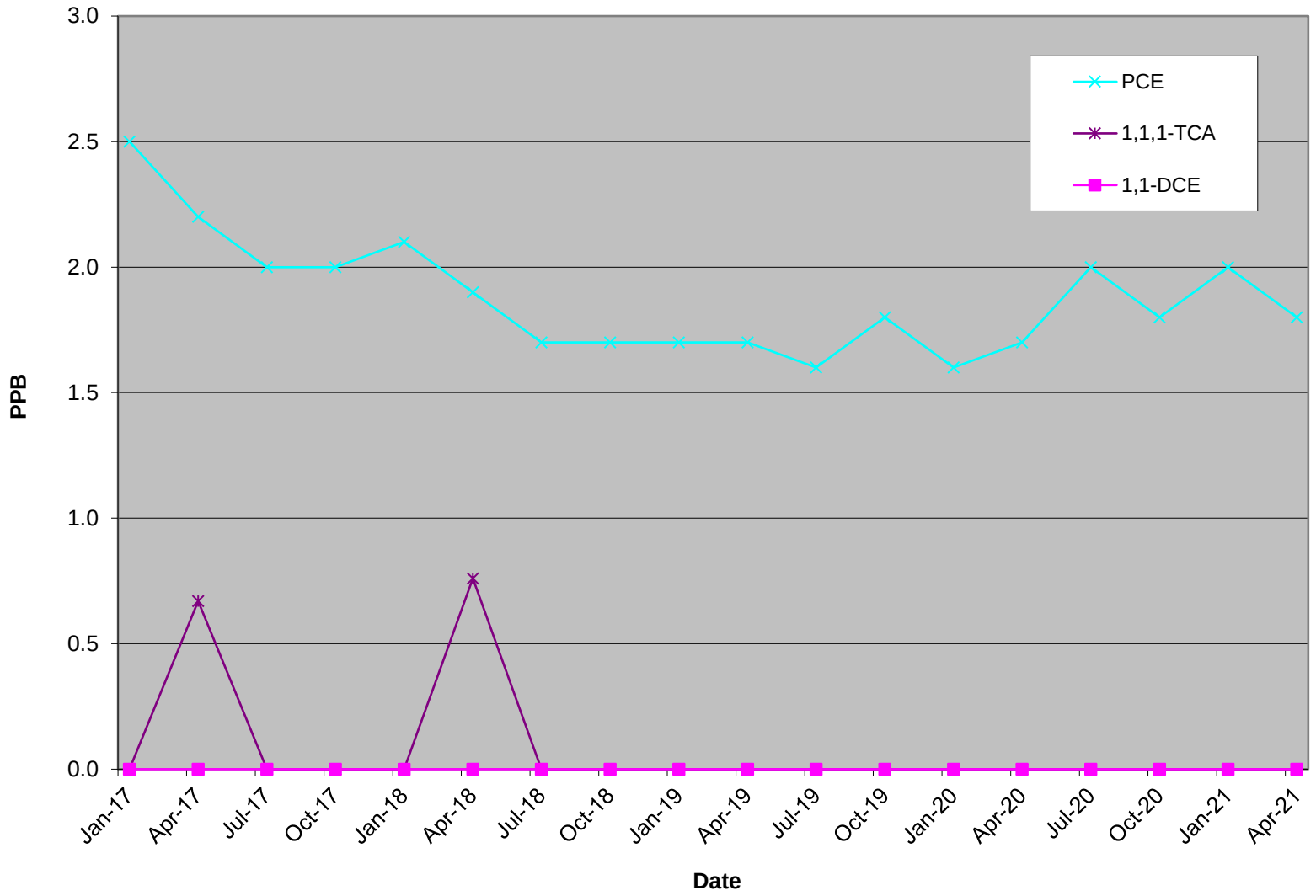

RW-3
PPB
400
350
300
250
200
150
100
50
0
Jan-17
Jul-17
Jan-18
Jul-18
Jan-19
Jul-19
Jan-20
Jul-20
Jan-21
1,1,-DCA
1,1-DCE
c-1,2-DCE
PCE
1,1,1-TCA
TCE


RW-4
1,1,-DCA
1,1-DCE
c-1,2-DCE
PCE
1,1,1-TCA
TCE
PPB
140
120
100
80
60
40
20
0
Jan-17
Apr-17
Jul-17
Oct-17
Jan-18
Apr-18
Jul-18
Oct-18
Jan-19
Apr-19
Jul-19
Oct-19
Jan-20
Apr-20
Jul-20
Oct-20
Jan-21
Apr-21
Date

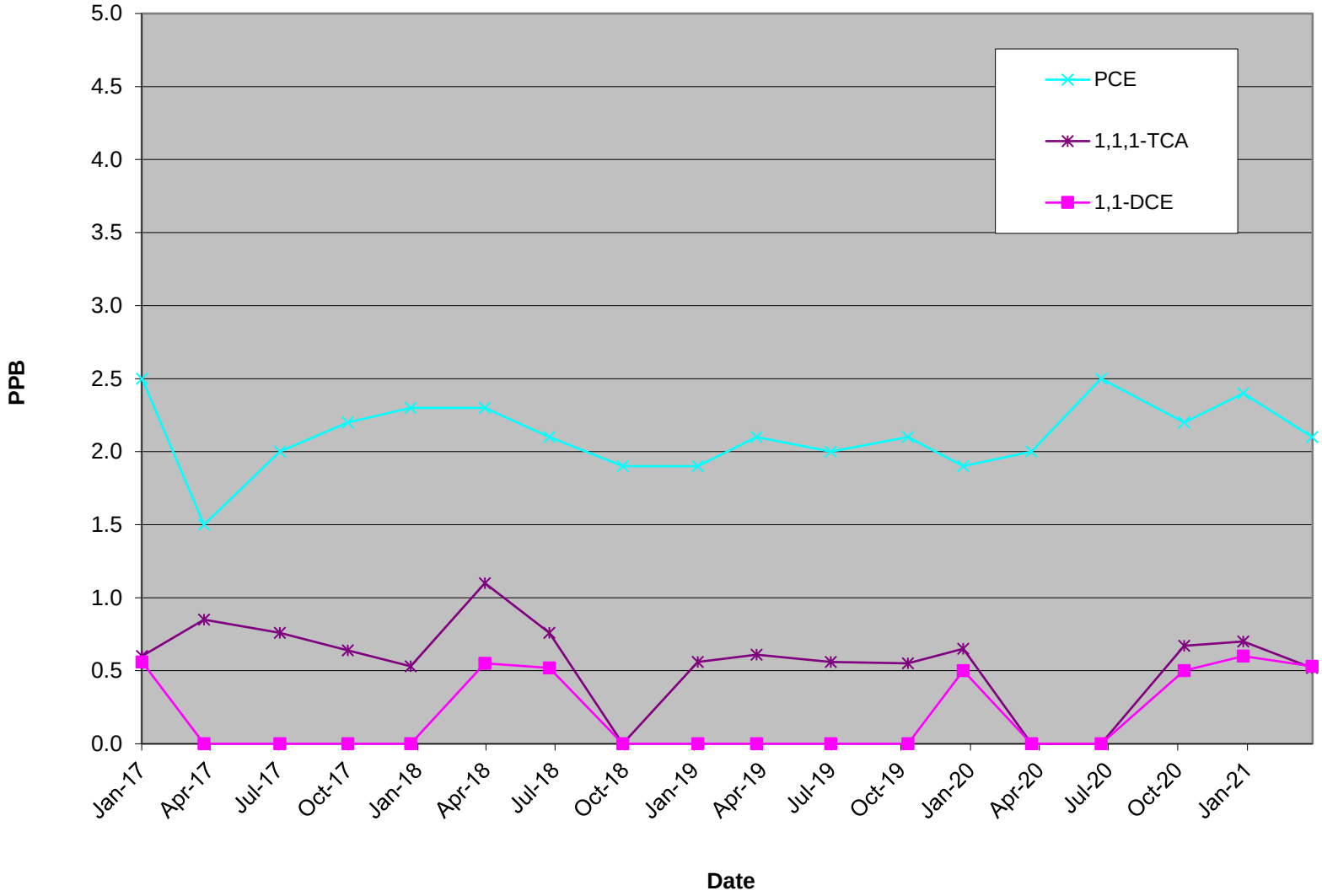

RW-5R
PPB
180
160
140
120
100
80
60
40
20
0
Jan-17
Apr-17
Jul-17
Oct-17
Jan-18
Apr-18
Jul-18
Oct-18
Jan-19
Apr-19
Jul-19
Oct-19
Jan-20
Apr-20
Jul-20
Oct-20
Jan-21
Apr-21
Date
1,1,-DCA
1,1-DCE
c-1,2-DCE
PCE
1,1,1-TCA
TCE


RW-8
PPB
90
80
70
60
50
40
30
20
10
0
Jan-17
Apr-17
Jul-17
Oct-17
Jan-18
Apr-18
Jul-18
Oct-18
Jan-19
Apr-19
Jul-19
Oct-19
Jan-20
Apr-20
Jul-20
Oct-20
Jan-21
Apr-21
Date
1,1,-DCA
1,1-DCE
c-1,2-DCE
PCE
1,1,1-TCA
TCE


RW-9
700.0
600.0
500.0
400.0
300.0
200.0
100.0
0.0
PPB
1,1,-DCA
1,1-DCE
c-1,2-DCE
PCE
1,1,1-TCA
TCE
Jan-17
Apr-17
Jul-17
Oct-17
Jan-18
Apr-18
Jul-18
Oct-18
Jan-19
Apr-19
Jul-19
Oct-19
Jan-20
Apr-20
Jul-20
Oct-20
Jan-21
Apr-21
Date


RW-11
PPB
3.0
2.5
2.0
1.5
1.0
0.5
0.0
PCE
1,1,1-TCA
1,1-DCE
Jan-17
Apr-17
Jul-17
Oct-17
Jan-18
Apr-18
Jul-18
Oct-18
Jan-19
Apr-19
Jul-19
Oct-19
Jan-20
Apr-20
Jul-20
Oct-20
Jan-21
Apr-21
Date

RW-12


5.0
4.5
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
PPB
PCE
1,1,1-TCA
1,1-DCE
Jan-17
Apr-17
Jul-17
Oct-17
Jan-18
Apr-18
Jul-18
Oct-18
Jan-19
Apr-19
Jul-19
Oct-19
Jan-20
Apr-20
Jul-20
Oct-20
Jan-21
Date

RW-13

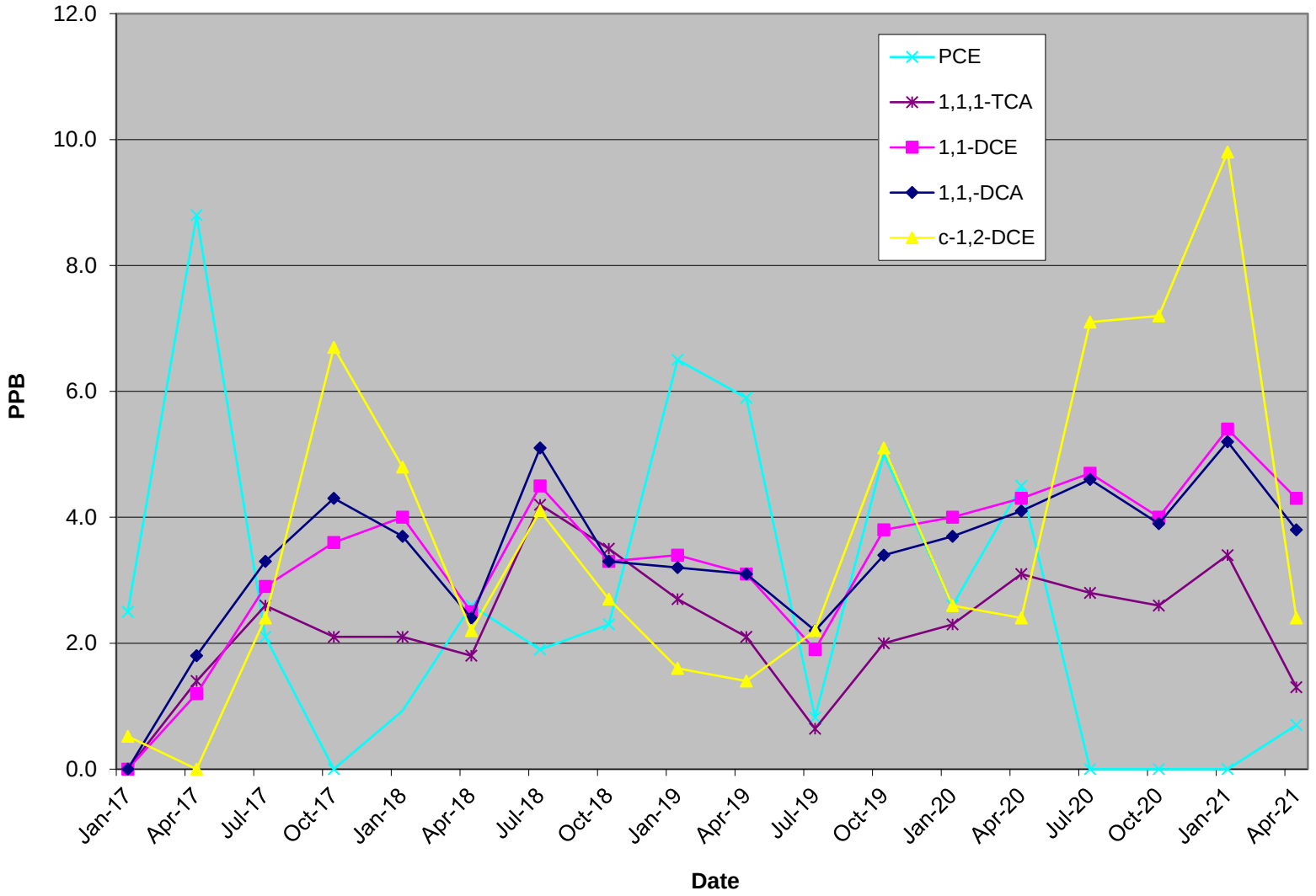

12.0
10.0
8.0
6.0
4.0
2.0
0.0
PPB
PCE
1,1,1-TCA
1,1-DCE
1,1,-DCA
c-1,2-DCE
Jan-17
Apr-17
Jul-17
Oct-17
Jan-18
Apr-18
Jul-18
Oct-18
Jan-19
Apr-19
Jul-19
Oct-19
Jan-20
Apr-20
Jul-20
Oct-20
Jan-21
Apr-21
Date

Table-1
Soil Vapor Extraction Sampling
FORMER MILLER CONTAINER FACILITY

NYSDEC SITE # 7-38-029
DATE: July 22, 2020
Centek Report No.: C2007042

Location	1,1,1-TCA	*1,1-DCA	1,1-DCE	*1,4-Dioxane	cis-1,2-DCE	Methylene Chloride	PCE	TCE
NYSDOH Matrix	B	N/A	A	N/A	A	B	B	A
Mitigation Req'd Action Level	1000 $\mu g/m^3$	1000 $\mu g/m^3$	60 $\mu g/m^3$	1000 $\mu g/m^3$	60 $\mu g/m^3$	1000 $\mu g/m^3$	1000 $\mu g/m^3$	60 $\mu g/m^3$
DPEN-1	17	13	5.7	<1.1	54	0.42	83	6.1
DPEN-2	27	15	2.1	<1.1	41	0.56	280	11
DPEN-4	3000	350	65	<1.1	3800	21	1200	510
SVEN-2	8.8	0.97	0.63	110	6.9	0.45	170	2.2

All readings in $\mu g/m^3$

* Matrix B is assumed for all compounds not specifically listed

TABLE-2
FORMER MILLER CONTAINER FACILITY
SVE SYSTEM MONITORING
July 22, 2020

Well	Delta p	SCFM	Cu M/day	Total VOC ug/m3	ug/day	g/day
DPEN-1	0.25	27.7	1130	179	202345	0.20
DPEN-2	1.33	63.9	2607	377	982960	0.98
DPEN-4	0.08	15.7	639	8946	5720611	5.72
SVEN-2	0.06	13.6	554	300	166137	0.17
SVEN-6	0.01	5.5	226		0	0.00
SVEN-7	0.02	7.8	320		0	0.00
SVEN-8	0.00	0.0	0		0	0.00
SVEN-10	0.05	12.4	506		0	0.00
SVEN-11	0.00	0.0	0		0	0.00
Total Cubic meters per day			5982.34		Grams per day	7.07
					Pounds per day	0.016
					Pounds per month	0.45
					Pounds per year	5.69

Flow rates are calculated using the formula $Q(SCFM)=128.8*K*D^2*SQRT(P*DP/(T+460*S_s))$ from Dwyer where k is flow coeficient for standard Operating ranges

K values	1-Inch	1.5-Inch	2-Inch	3-Inch	4-Inch	6-inch
	0.52	0.58	0.64	0.67	0.67	0.71

Dp differential pressure expressed in inches of Water Column
D inside diameter of pipe expressed in inches
P static line pressure expressed in (psia)
S_s $S_p G_r$ at 60 deg F
The above table applies only to air flowing under standard atmospheric conditions

Table-1
Soil Vapor Extraction Sampling
FORMER MILLER CONTAINER FACILITY

NYSDEC SITE # 7-38-029
DATE: April 20, 2021
Centek Report No.: C2104046

Location	1,1,1-TCA	*1,1-DCA	1,1-DCE	*1,4-Dioxane	cis-1,2-DCE	Methylene Chloride	PCE	TCE
NYSDOH Matrix	B	N/A	A	N/A	A	B	B	A
Mitigation Req'd Action Level	1000 $\mu g/m^3$	1000 $\mu g/m^3$	60 $\mu g/m^3$	1000 $\mu g/m^3$	60 $\mu g/m^3$	1000 $\mu g/m^3$	1000 $\mu g/m^3$	60 $\mu g/m^3$
DPEN-1	9.9	7.3	0.67	<1.1	28	0.76	40	2.4
DPEN-2	11	2.4	0.48	<1.1	15	1.50	420	3.3
DPEN-4	2800	230	19	0.79	2700	4.9	1200	710
SVEN-2	4.6	0.65	<0.59	51	3.1	0.59	63	1.6

All readings in $\mu g/m^3$

* Matrix B is assumed for all compounds not specifically listed

TABLE-2
FORMER MILLER CONTAINER FACILITY
SVE SYSTEM MONITORING
April 20, 2021

Well	Delta p	SCFM	Cu M/day	Total VOC ug/m3	ug/day	g/day
DPEN-1	0.25	27.7	1130	89	100607	0.10
DPEN-2	1.33	63.9	2607	453	1181116	1.18
DPEN-4	0.08	15.7	639	7664	4900823	4.90
SVEN-2	0.06	13.6	554	124	68670	0.07
SVEN-6	0.01	5.5	226		0	0.00
SVEN-7	0.02	7.8	320		0	0.00
SVEN-8	0.00	0.0	0		0	0.00
SVEN-10	0.05	12.4	506		0	0.00
SVEN-11	0.00	0.0	0		0	0.00
Total Cubic meters per day			5982.34		Grams per day	6.25
					Pounds per day	0.014
					Pounds per month	0.40
					Pounds per year	5.03

Flow rates are calculated using the formula $Q(SCFM)=128.8*K*D^2*SQRT(P*DP/(T+460*S_s))$ from Dwyer where k is flow coeficient for standard Operating ranges

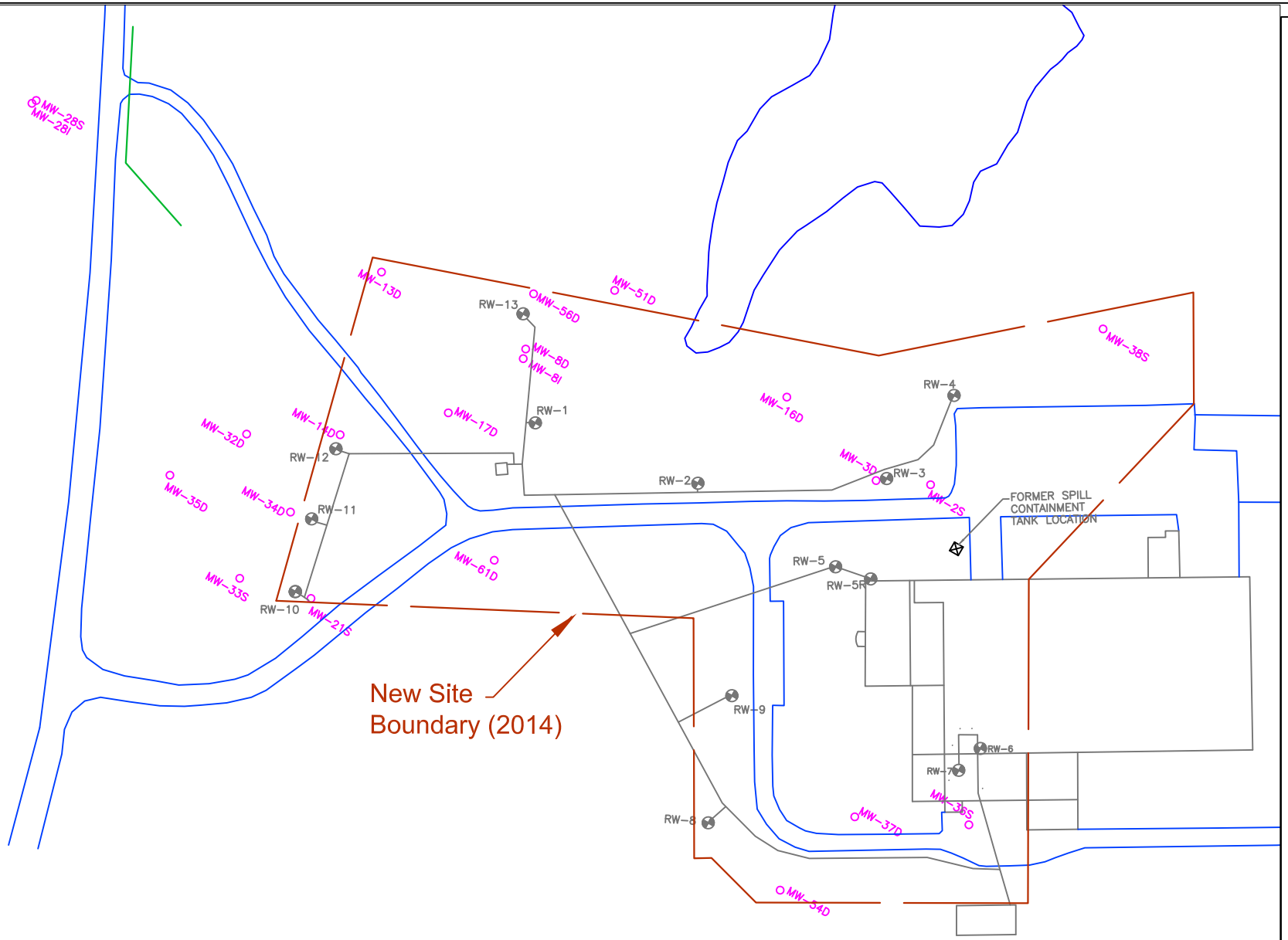
K values	1-Inch	1.5-Inch	2-Inch	3-Inch	4-Inch	6-inch
	0.52	0.58	0.64	0.67	0.67	0.71

Dp differential pressure expressed in inches of Water Column
D inside diameter of pipe expressed in inches
P static line pressure expressed in (psia)
S_s $S_p G_r$ at 60 deg F
The above table applies only to air flowing under standard atmospheric conditions

Appendix E

6 NYCRR PART 375		
Environmental Remediation Programs		
Table 375-6.8 (b)		
	Soil Clean-up Levels (PPM)	
Compound	Commercial	Industrial
1,1-Dichloroethane	240	480
Acetone	500	1000
1,1-Dichloroethene	500	1000
1.2-Dichloroethene (cis-1,2-Dichloroethene)	500	1000
1,1,1-Trichloroethane	150	300
Tetrachloroethylene	150	300
Methylene Chloride	500	1000
Trichloroethylene	200	400
Benzene	44	89
Toluene	500	1000
Xylenes	500	1000
Methyl Isobutyl Ketone	NS	NS
Methyl Butyl Ketone	NS	NS
Methyl Amyl Ketone	NS	NS
4-Methyl-2-Pentanol	NS	NS
alpha-Pinene	NS	NS
Phenanthrene	NS	NS
2-Octanone	NS	NS
Ethylbenzene	390	780

NS - Not Specified



General Notes

RW-5 RECOVERY WELL

MW-16D MONITORING WELL

No.	Revision/Issue	Date

OMI

OPERATIONS & MAINTENANCE INC.
1850 ROUTE 57
FULTON, NY 13069

Project Name and Address

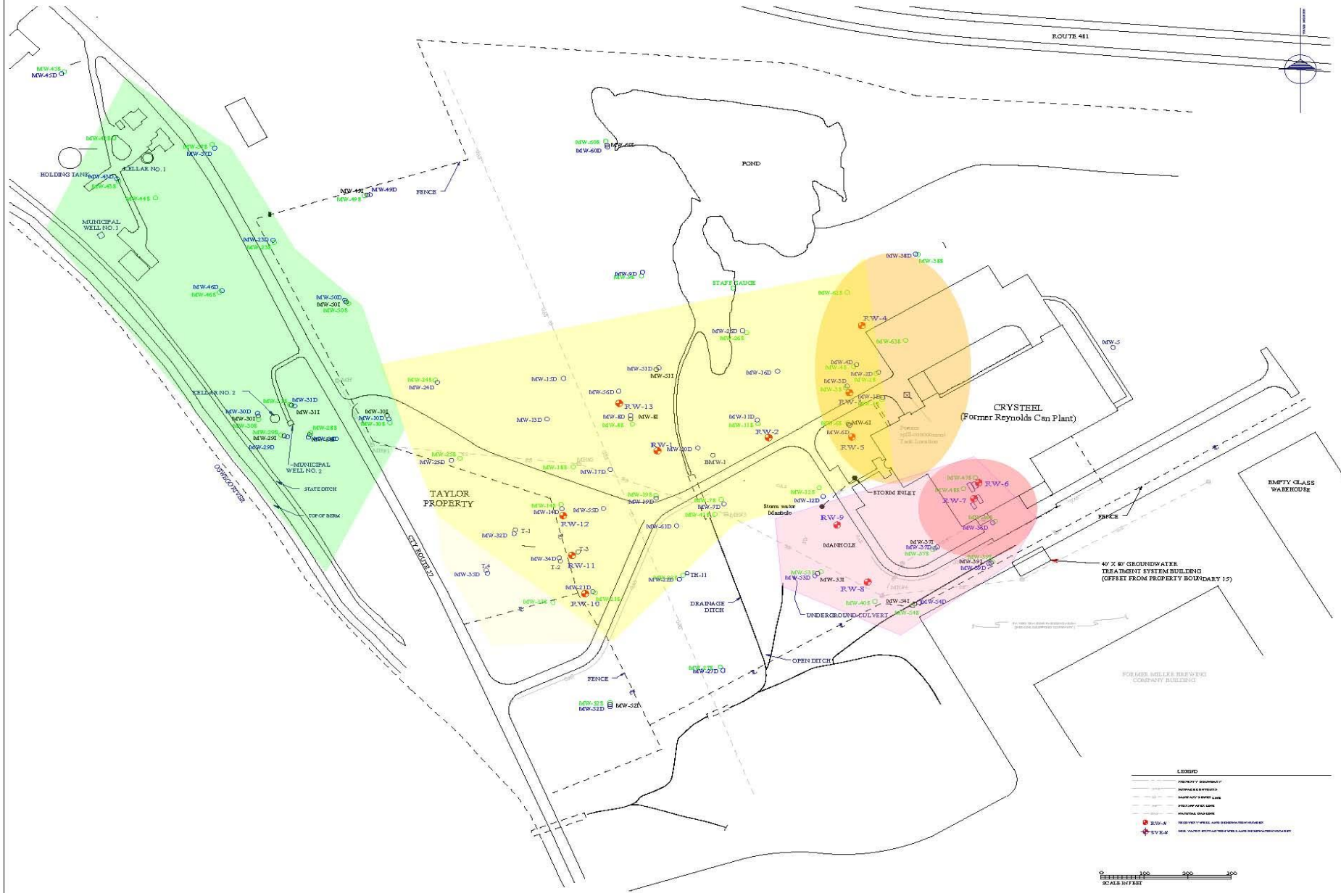
MILLER BREWING CO.
GROUNDWATER TREATMENT FACILITY
1850 ROUTE 57
FULTON, NY 13069

EWN WELLS

Date 07-14-15

Scale 1"=200'

Sheet FIGURE 1

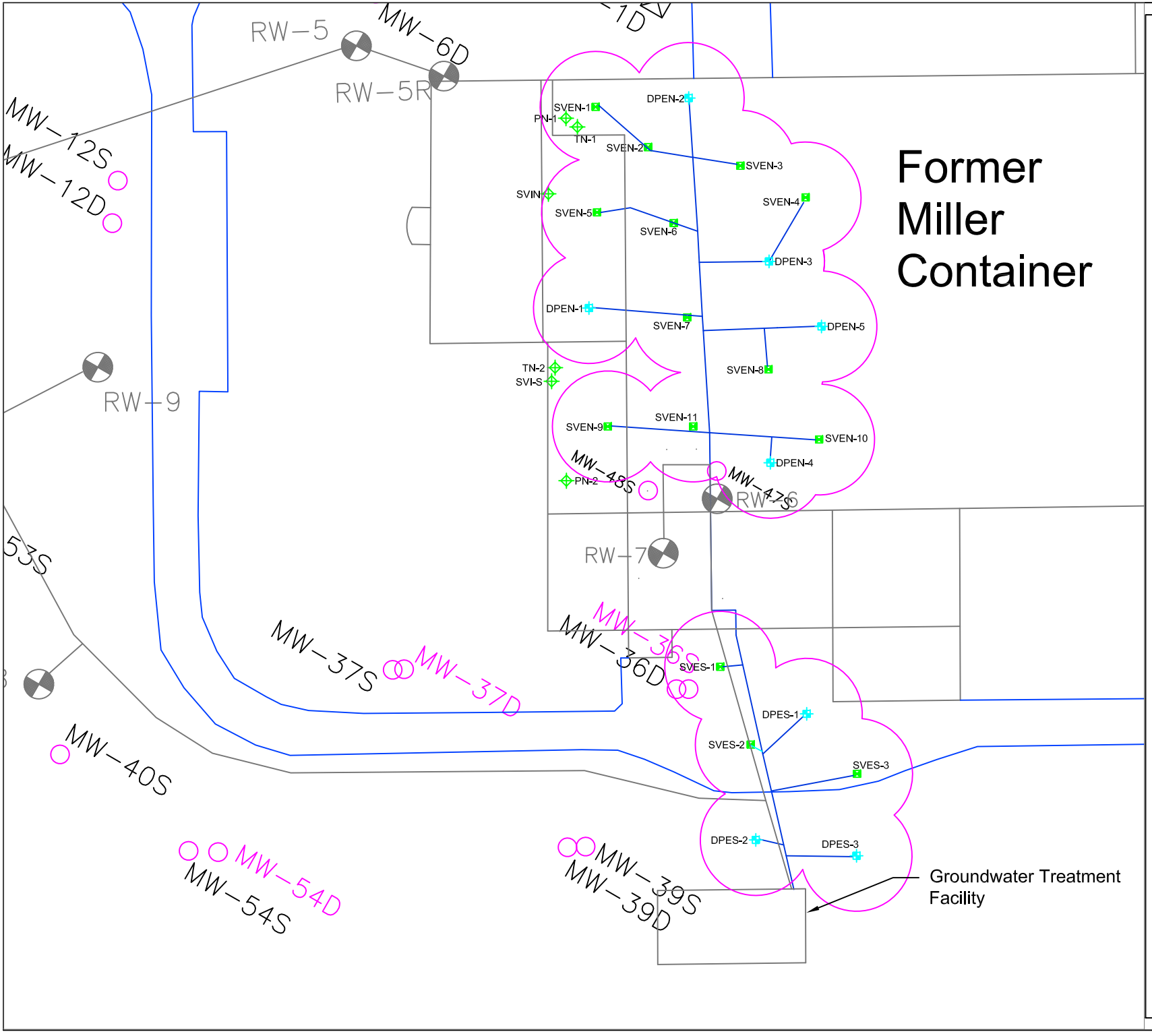


2019-2020 Annual Report

Functional Monitoring Groups
Figure 1

2012-2013 Annual Report

SVE and DPE Layout
Figure 2



General Notes

RW-5 RECOVERY WELL

SVEN-5 SOIL VAPOR EXTRACTION WELL

DPEN-1 DUAL PHASE EXTRACTION WELL

SVI-S SOIL VAPOR EXTRACTION MONITORING POINT

No.	Revision/Issue	Date

OMI
OPERATIONS & MAINTENANCE INC.
1850 ROUTE 57
FULTON, NY 13069

Project Name and Address

MILLER BREWING CO.
GROUNDWATER TREATMENT FACILITY
1850 ROUTE 57
FULTON, NY 13069

2010 SVE SYSTEM

Date 02-14-14

Scale 1"=70'

Sheet FIGURE 3