Memo

SUBJECT
Proposed Fiero Well Abandonment

TO
Peter Ramanauskas
U.S. Environmental Protection Agency
Region 5
77 West Jackson Boulevard LU-9J
Chicago, Illinois 60604-3590

DATE
April 8, 2022

DEPARTMENT
Environment

PROJECT NUMBER
30112891

COPIES TO
Dave Favero, RACER Trust and Project File

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As you are aware the current owner of the northern portion of the Fiero properties, Green for Life (GFL), is in the process of constructing additions to existing structures and building new structures on their property. **Figure 1** shows the existing and planned structures. The addition of a tipping building (within the northern portion of area of interest [AOI] F-16) includes two monitoring wells, MWF16-03 and MWF16-10 in the building footprint. Additionally, MWF16-11 is located within an area of ongoing construction. Based on a March 21, 2022 site visit, these monitoring wells could not be located using a surveyor, metal detector, and hand digging. As such these three monitoring wells are confirmed not able to be located and do not warrant further action. MWF16-03, MWF16-10, and MWF16-11 were installed in 2004 and 2005, respectively, to assess impacts to groundwater within the former Plant 17 footprint.

In addition, the below listed monitoring wells that are included in the temporary Fiero monitoring plan could not be visually located on March 10, 2022. To locate the wells, a surveyor was used as well as metal detector and hand digging on March 21, 2022 (**Figure 2**):

- MWF16-01 – Located after hand digging
- MWF16-09 – Located but damaged and not able to be used for monitoring
- MWF16-17 – Located after trailer moved by GFL
- MWF16-12 – Located after hand digging
- MWF16-20 – Location currently covered by large pile of rubble – not located
- MWF16-19 – Located after hand digging
- MWF16-07 – Located after hand digging

With regards to MWF16-03 and MWF16-10, MWF16-03 is located north of former Plant 17 and has been sampled twice since its installation, once in 2004 and once in 2005 (**Figure 3**). The well was installed as part of the Resource Conservation Recovery Act (RCRA) Facility Investigation (RFI) Work Plan Addendum Number 13 Fiero (Plant 17) Sewer and Subsurface Investigation (ENCORE 2004). The purpose of the well was to assess potential impacts to soil and groundwater from the storm sewer system. Analytical results from both samples showed detections of ethylbenzene, toluene, and xylenes. The results did not exceed any criteria at the time and the historical data only exceed the current Residential Fiero Site Specific Vapor Intrusion Criteria (SSVIC) values. No chlorinated compounds were detected in either sample. Currently, MWF16-03 is not included in annual sampling or gauging and is only used as a northern delineation point for the chlorinated impacts present on the Fiero properties. MWF16-03 is located approximately 300 feet south of the residential properties in the northern portion

of the Site. Additionally, groundwater flow at the Site is observed to be toward the southwest; therefore, migration of constituents of concern (COC) would not be expected to migrate north toward the residential properties. There are other nearby existing monitoring wells that have historically been non-detect to COCs detected below criteria, such as the following, which could serve as delineation points (**Figure 3**).

- MWF16-08 (northeast and abandoned) – 2005/2006 non-detect for volatile organic compounds (VOCs)
- MWF8-01 (northeast near property boundary) – historically and in 2021 non-detect for VOCs and part of annual groundwater monitoring program
- MWF16-09 (east but damaged) – 2005 , low-level detections of tetrachloroethylene (PCE) but well below criteria; 2006 non-detect
- MWF2 (northwest near property boundary) – 2001/2002 low level detections of BTEX but well below criteria
- MWF16-01 (west near existing building) – 2004/2006/2021 – non-detect

Given that MWF16-03 is in the tipping building footprint, is not proposed for regular monitoring and sampling, is greater than 100 feet from the property boundary, and historical and current results show COCs as non-detect or below criteria for monitoring wells to the west, north and east of MW16-03, replacement of this well following construction of the tipping building is not warranted.

As noted previously MWF16-09 was damaged during GFL construction activities and is unable to be used for monitoring. This monitoring well was scheduled to be utilized for gauging only during the Fiero Temporary Monitoring Plan but is not used in the annual monitoring plan for the Site. The screen interval for MWF16-09 is from 21.5 feet to 31.5 feet bgs and the screen interval for MWF8-01 (located northeast of MWF16-09) is 18 feet to 28 feet bgs. Therefore, due to the proximity of MWF8-01 to MWF16-09 and similar screen intervals, MWF16-09 is proposed to be properly abandoned and MWF8-01 will be used for gauging purposes during the Fiero Temporary Monitoring Program.

MWF16-10 and MWF16-11 are located within the north central portion of the former Plant 17 footprint and have been sampled four and six times, respectively, most recently in 2021 (**Figure 3**). Based on a review of available documents, it appears the wells were installed as part of the Fiero Sewer and Subsurface Investigation with the purpose of monitoring potential impacts to soil and groundwater. Analytical results from each sample collected from MWF16-10 and MWF16-11 showed detections of PCE. All results are below the generic criteria and Fiero SSVIAC. Currently, MWF16-10 and MWF16-11 are gauged annually as part of the annual monitoring plan and are used in generating the site-wide groundwater contours. In addition, there are no other nearby wells that could serve the roles of MWF16-10 and MWF16-11 as the wells are used to define our current understanding of the chlorinated groundwater impacts. Furthermore, both wells are included in the Fiero Temporary Monitoring Program on a semi-annual sampling basis for 2022. After GFL completes its construction in this area, we will coordinate with GFL to find locations near to the original locations to install two replacement wells so they can continue to provide data for this portion of the Site.

References

ENCORE. 2004. RCRA Facility Investigation Work Plan Addendum Number 13 Fiero (Plant 17) Sewer and Subsurface Investigations. September 24, 2004.

Attachments **Figure 1** – GFL Layout; **Figure 2** – Fiero Temporary Monitoring Plan; **Figure 3** – Former Fiero Groundwater and Soil Vapor Analytical Summary

Service Layer Credits: Google Earth Pro Aerial Dated March 19, 2021

W Beverly Ave
E Beverly Ave
Price St
W Tennyson Ave
Mansfield Ave
Baldwin Ave
Saint Louis Ave
W Kennett Rd
E Kennett Rd
Parkdale Ave
N Merrimac St
Saint Clair St

MWF2
MWF8-01
MWM26-20
MWF16-02
MWF16-01
MWF16-03
MWF16-09
PROPOSED TIPPING BUILDING
MWF16-10
PZF17-02
PZF17-04
PZF17-05
MWF16-17
MWF16-11
VAP-2 -21
SB-53-21 SB-52-21
SB-21-21
SB-26-21
SB-04-21
MWF16-05
SB-08-21
VAP-20-21
SB-51-21
SB-06-21
SB-48-21
SB-07-21
VAP-18-21
SB-47-21
SB-10-21
SB-13-21
SB-09-21
VAP-23-21
VAP-04-21
SB-55-21
SB-14-21
MWF16-12
SB-37-21
VAP-05-21
SB-39-21
SB-17-21
SB-43-21
SB-23-21
VAP-19-21
VAP-08-21
SB-36-21
MWF16-18
SB-41-21
SB-57-21
VAP-09-21
PROPOSED REPAIR FACILITY
SB-31-21
SB-19-21
SB-45-21
SB-32-21
SB-35-21
VAP-11-21
MWF16-20
SB-16-21
SB-22-21
MWF16-06
MWM1-01
MWF16-24
SB-18-21
VAP-13-21
MWF16-26
MWF16-19
VAP-14-21
MWF16-16
VAP-12-21
MWF16-22
VAP-10-21
MWF7-03
MWF16-07
MWF16-15
MWF16-25
VAP-01-21
VAP-03-21
MWF7-02
MWF16-23
MWOS-08
VAP-06-21
MWOS-09
MW-06-20
MWF15-01
MW-08-21
VAP-07-21
MW-07-20
VAP-15-21
MWOS-10
VAP-02-21
VAP-16-21
MW-05-18
VAP-17-21

LEGEND

- EXISTING MONITORING WELL
- SOIL BORING (ARCADIS OCTOBER 2021)
- VERTICAL AQUIFER PROFILE (VAP, ARCADIS OCTOBER 2021)
- CURRENT OR FORMER RACER PROPERTY

PROPOSED OR EXISTING BUILDING

- EXISTING BUILDING
- PROPOSED BUILDING

PROPOSED OR EXISTING UTILITY

- WATER
- GAS/FUEL
- UNKNOWN UTILITY
- ELECTRICAL
- OVERHEAD
- STORM SEWER
- SANITARY SEWER
- TELECOMMUNICATION
- WELLS PROPOSED FOR ABANDONMENT

0 200 400
SCALE IN FEET

RACER TRUST
PONTIAC NORTH CAMPUS
PONTIAC, MICHIGAN

GFL LAYOUT

ARCADIS

FIGURE
1

CITY: LANSING DIV: ENV DB: D.AKENS PIC:S.INSALACO PM: B. SAUNDERS TM: L. CRISP TR: PROJECT NUMBER: 30075936.0005 COORDINATE SYSTEM: NAD 1983 StatePlane Michigan South FIPS 2113 Feet Intl
D:\GIS\Project Files\MotorsLiquidationCompany\PontiacNorthCampus\Documents\Former_Fiero_Property\GPL\GFL_Layout.mxd PLOTTED: 11/23/2021 12:00:19 PM BY: TYarbrough

Service Layer Credits: Google Earth Pro Aerial Dated March 19, 2021

MWF2
Located after digging
MWF8-01
Confirmed not able to be Located
Located - believed to be damaged. TD supposed to be - 31.5, currently at 8.03
MWF16-02
MWF16-01
MWF16-03
MWF16-09
PZF17-01
PZF17-02
MWF16-10
Confirmed not able to be Located
Located after trailer moved by GFL
PZF17-03
PZF17-04
MWF16-17
Confirmed not able to be Located
MWF16-11
MWF16-05
Located after digging
PZF17-05
MW-09-22
MWF16-12
MWF16-18
Located after digging
Covered by large pile of rubble
MWF16-24
MWF16-26
TW-12-22
MWF16-06
MWF16-20
Located after digging
MWF16-16
MWF16-19
MWF16-22
MW-13-22
MW-10-22
MWF16-07
MWF16-15
MWF16-25
MW-11-22
MWF7-03
MWF16-23
MWF7-02
MWOS-08
MWOS-09R
MW-06-20
SV-01-21
SV-02-21
MW-08-21
UNKNOWN-01
MWF15-01
SV-06-21
MWOS-10R
SV-05-21
MW-07-20
SV-04-21
SV-03-21
MW-05-18
MWW10-04
MW-02-17
MWF12-01R
MWF12-02R

LEGEND

- EXISTING MONITORING WELL
- SOIL VAPOR MONITORING PROBE
- QUARTELY SAMPLING
- SEMI-ANNUAL SAMPLING
- GAUGE ONLY
- NOT MONITORED AS PART OF THE FIERO TEMPORARY MONITORING PLAN
- CURRENT OR FORMER RACER PROPERTY

0 200 400

SCALE IN FEET

RACER TRUST
PONTIAC NORTH CAMPUS
PONTIAC, MICHIGAN

FIERO TEMPORARY MONITORING PLAN

ARCADIS

FIGURE
2

CITY: LANSING DIV: ENV DB: D.AKENS PIC:S.INSALACO PM: B. SAUNDERS TM: L. CRISP TR: PROJECT NUMBER: 30075936.0005 COORDINATE SYSTEM: NAD 1983 StatePlane Michigan South FIPS 2113 Feet Intl
T:_ENV\NoviBrighton_MI\MotorsLiquidationCompany\PontiacNorthCampus\Documents\Former_Fiero_Property\FormerFiero_TemporaryMonitorignPlan_202202.mxd PLOTTED: 2/17/2022 10:58:17 AM BY: AKENS

Service Layer Credits: Google Earth Pro Aerial Dated March 19, 2021

CITY: LANSING DIV: ENV DB: D.AKENS PIC:S.INSALACO PM: B_SAUNDERS TM: L. CRISP TR: PROJECT NUMBER: 30075936.0005 COORDINATE SYSTEM: NAD 1983 StatePlane Michigan South FIPS 2113 Feet Intl
D:\GIS\Project Files\MotorsLiquidationCompany\PontiacNorthCampus\Documents\Former_Fiero_Property\VI_Investigation\05_VI_Investigation_Fiero_GW_Analytical_SVMP.mxd PLOTTED: 4/5/2022 8:38:45 PM BY: TYarbrough

MWF16-01			
Date	11/22/2004	11/15/2006	06/08/21
Tetrachloroethene	0.64 J	0.96 J	< 1 U

MWF16-10				
Date	5/17/2005	11/16/2006	10/25/2017	06/04/21
Tetrachloroethene	3.1	0.74 J	11	7

MWF16-02		
Date	11/22/2004	11/15/2006
Trichloroethene	< 1 U	0.40 J

MWF16-09		
Date	5/13/2005	11/15/2006
Tetrachloroethene	1.5	< 1 U

MWF16-11						
Date	5/17/2005	11/16/2006	10/25/2017	12/8/2020	3/10/2021	06/03/21
cis-1,2-Dichloroethene	0.77 J	0.96 J	< 1 U	< 1 U	< 1 U	< 1 U
Tetrachloroethene	1.5	4.0	76	98	90	87
Trichloroethene	< 1 U	0.80 J	4	2	2	1

MWF16-18				
Date	5/17/2005	11/17/2006	3/12/2021	06/03/21
1,1-Dichloroethene	0.59 J [0.50 J]	< 4.0 U	< 10 UY	< 10 UY
cis-1,2-Dichloroethene	1.0 J [1.1 J]	< 4.0 U	20 Y	40 Y
Tetrachloroethene	37 [41]	99	**740 Y**	**1240 Y**
Trichloroethene	**31 [33]**	**14**	**10 Y**	**20 Y**

MWF16-17					
Date	5/13/2005	11/16/2006	10/26/2017	3/10/2021	06/03/21
Tetrachloroethene	13	8.6	< 1 U	< 1 U	< 1 U
Trichloroethene	0.47 J	0.36 J	< 1 U	< 1 U	< 1 U

UNKNOWN-01	
Date	4/28/2017
1,1-Dichloroethene	1
Tetrachloroethene	43
Trichloroethene	3

MWF16-05						
Date	11/22/2004	11/16/2006	10/25/2017	12/8/2020	3/10/2021	06/03/21
1,1-Dichloroethene	1.6 J [1.8 J]	< 1.7 U [< 1 U]	< 1 U	< 10 UY	< 10 UY	< 10 UY
cis-1,2-Dichloroethene	< 5.0 U [3.4 J]	< 1.7 U [< 1 U]	< 1 U	< 10 UY	< 10 UY	< 10 UY
Tetrachloroethene	93 **[140]**	41 [37]	12	**470 Y**	**530 Y**	**690 Y**
Trichloroethene	5.9 **[15]**	1.1 J [1.0]	3	**30 Y**	**30 Y**	**40 Y**

MWF16-16							
Date	5/16/2005	11/17/2006	10/25/2017	9/2/2020	12/8/2020	3/10/2021	06/08/21
1,1-Dichloroethene	1.1	1.8	< 1 U	< 1 U	< 10 UY	< 10 UY	< 10 UY
cis-1,2-Dichloroethene	4.1	9.1	19	15	< 10 UY	< 10 UY	10 Y
trans-1,2-Dichloroethene	0.35 J	1.0	2	< 1 U	< 10 UY	< 10 UY	< 10 UY
Tetrachloroethene	0.58 J	0.43 J	14	**250 Y**	**260 Y**	**260 Y**	**290 Y**
Trichloroethene	**33**	**31**	7	**19**	< 10 UY	< 10 UY	**10 Y**

MWF16-04		
Date	11/23/2004	11/16/2006
Tetrachloroethene	1.5	1.3

MWF16-12				
Date	5/13/2005	11/16/2006	3/10/2021	06/03/21
1,1-Dichloroethene	< 1 U	0.46 J	< 1 U	< 1 U
cis-1,2-Dichloroethene	11	3.6	< 1 U	< 1 U
trans-1,2-Dichloroethene	1.8	0.57 J	< 1 U	< 1 U
Tetrachloroethene	1.2	6.8	40	43
Trichloroethene	0.41 J	0.81 J	< 1 U	< 1 U

MWF16-15							
Date	5/16/2005	11/17/2006	9/22/2016	4/27/2017	10/25/2017	9/1/2020	06/07/21
1,1-Dichloroethene	0.41 J	0.70 J	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
cis-1,2-Dichloroethene	< 1 U	< 1 U	5	14	15	1	4
Tetrachloroethene	4.4	0.57 J	UJ	< 1 U	< 1 U	< 1 U	< 1 U
Trichloroethene	0.42 J	0.29 J	< 1 U	2	2	< 1 U	2

MWF16-21		
Date	2/6/2006	11/16/2006
cis-1,2-Dichloroethene	0.43 J	1.3
trans-1,2-Dichloroethene	< 1 U	0.17 J
Tetrachloroethene	0.70 J	0.58 J

MWF16-14		
Date	5/16/2005	11/17/2006
1,1-Dichloroethene	2.4	0.56 J
cis-1,2-Dichloroethene	6.4	1.2
trans-1,2-Dichloroethene	0.63 J	< 1 U
Tetrachloroethene	53	7.8
Trichloroethene	**25**	**11**

MWF16-20			
Date	2/6/2006	11/16/2006	06/03/21
1,1-Dichloroethene	0.66 J	0.78 J	15
cis-1,2-Dichloroethene	< 1 U	< 1 U	4
Tetrachloroethene	1.2	0.70 J	9
Trichloroethene	0.30 J	0.65 J	7

MWF16-22					
Date	2/6/2006	11/17/2006	9/2/2020	06/04/21	
1,1-Dichloroethene	0.88 J	0.49 J	< 1 U	< 1 U	
cis-1,2-Dichloroethene	4.1	4.2	5	9	
trans-1,2-Dichloroethene	0.44 J	0.34 J	< 1 U	< 1 U	
Tetrachloroethene	11	13	73	82	
Trichloroethene	2.6	2.1	2	2	

MWF16-06								
Date	11/23/2004	11/16/2006	4/28/2017	10/4/2018	10/7/2019	10/15/2020	3/10/2021	06/04/21
1,1-Dichloroethene	24	6.9	24	9 Y	12	23 r	30 Y	20 Y
cis-1,2-Dichloroethene	14	4.9	28	12 Y	17	**82 r**	**150 Y**	**90 Y**
trans-1,2-Dichloroethene	0.62 J	0.28 J	< 1 U	< 5 UY	< 1 U	2 r	< 10 UY	< 10 UY
Tetrachloroethene	9.4	4.9	43	70 Y	76	127 r	100 Y	80 Y
Trichloroethene	2.6 J	1.3	**11**	**12 Y**	**12**	**24 r**	**30 Y**	**20 Y**

MWF16-25							
Date	11/17/2006	10/1/2018	10/7/2019	9/1/2020	12/9/2020	3/9/2021	06/02/21
1,1-Dichloroethene	0.40 J [0.39 J]	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U [< 1 U]
cis-1,2-Dichloroethene	5.0 [5.0]	5	8	9	8	12	16 [15]
trans-1,2-Dichloroethene	0.28 J [0.21 J]	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	1 [1]

MWF16-19					
Date	5/17/2005	11/16/2006	3/20/2007	4/28/2017	06/04/21
1,1-Dichloroethene	3.2	20	16	27 Y	10 Y
Tetrachloroethene	0.37 J	< 5.9 U	< 6.7 U	< 5 UY	< 10 UY

MWOS-08				
Date	9/2/2020	12/9/2020	3/12/2021	06/02/21
cis-1,2-Dichloroethene	4	4 [4]	6 [6]	4 [4]

MWF7-02										
Date	10/11/2001	1/9/2002	12/16/2003	9/22/2016	10/24/2017	10/4/2018	10/7/2019	10/13/2020	06/08/21	
1,1-Dichloroethene	20	9.1	3.0	20	14 [14]	11 [11]	10	15	20	
cis-1,2-Dichloroethene	0.56	0.33 J	1.7	5	3 [3]	3 [3]	3	3	3	
trans-1,2-Dichloroethene	< 0.15 U	< 0.50 U	0.25 J	< 1 U	< 1 U [< 1 U]	< 1 U [< 1 U]	< 1 U	< 1 U	< 1 U	
Tetrachloroethene	4.7	6.3	1.8	34 J	26 [26]	34 [33]	54	70	82	
Trichloroethene	0.42 J	0.39 J	< 1 U	4	4 [4]	3 [3]	3	3	4	

MWF16-23									
Date	2/7/2006	11/17/2006	10/24/2017	10/1/2018	10/7/2019	9/1/2020	12/8/2020	3/9/2021	06/02/21
1,1-Dichloroethene	2.4	2.7	< 1 U	< 1 U	< 1 U	< 1 U [<1 U]	1 [1]	1 [1]	< 1 U [<1 U]
cis-1,2-Dichloroethene	16	25	5	19	21	11 [10]	11 [11]	11 [11]	11 [11]
trans-1,2-Dichloroethene	1.6	1.7	2	4	3	2 [2]	1 [1]	1 [1]	2 [2]
Trichloroethene	4.5	4.7	**9**	**15**	**20**	**23 [21]**	**20 [21]**	**21 [21]**	**20 [20]**

MWF15-01			
Date	10/11/2001	1/9/2002	06/07/21
Tetrachloroethene	0.28 J	< 1 U	< 1 U

MWOS-09		
Date	9/2/2020	12/8/2020
cis-1,2-Dichloroethene	1	< 1 U

MW-06-20				
Date	9/1/2020	12/7/2020	3/9/2021	06/02/21
cis-1,2-Dichloroethene	7	7	8	8
Trichloroethene	7	8	**11**	**12**

MW-08-21	
Date	06/02/21
cis-1,2-Dichloroethene	11
Trichloroethene	**10**

SV-01-21	
Date	5/27/21
Tetrachloroethene	9.6
Trichloroethene	18

SV-02-21	
Date	5/27/21
Tetrachloroethene	8.3 [7.7]
Trichloroethene	**80 [79]**

MWF16-13		
Date	5/12/2005	11/17/2006
1,1-Dichloroethene	2.4	4.2
cis-1,2-Dichloroethene	2.8	2.0
Tetrachloroethene	3.3	3.9
Trichloroethene	0.48 J	0.89 J

MW-02-17					
Date	10/23/2017	10/2/2018	10/7/2019	10/13/2020	06/07/21
Tetrachloroethene	10	6	10	3	8
Trichloroethene	2	2	4	2	2

MW-05-18						
Date	10/1/2018	10/7/2019	8/31/2020	12/7/2020	3/9/2021	06/07/21
1,1-Dichloroethene	< 1 U [< 1 U]	< 1 U	< 1 U	2	1	< 1 U
cis-1,2-Dichloroethene	6 [6]	13	3	15	11	11

MW-07-20				
Date	8/31/2020	12/7/2020	3/12/2021	06/07/21
cis-1,2-Dichloroethene	9	12	15	13
Trichloroethene	2	2	3	3

MWF1									
Date	8/23/2001	11/13/2002	12/17/2003	10/27/2004	11/3/2005	11/14/2006	11/7/2007	5/8/2008	12/15/2009
1,1-Dichloroethene	< 0.24 U [< 0.24 U]	0.81 J	1.4	< 1.3 U	0.73 J	0.78 J	0.89 J	0.29 J	0.28 J [0.20 J]
Tetrachloroethene	< 0.23 U [< 0.23 U]	0.46 J	< 1 U	0.38 J	0.47 J	0.41 J	0.59 J	< 1 U	< 1 U [< 1 U]

MWF7-01									
Date	10/11/2001	1/9/2002	12/16/2003	11/1/2004	11/3/2005	11/10/2006	11/7/2007	11/4/2008	
1,1-Dichloroethene	1.2	1.1	3.7	< 3.8 U	6.8	3.0	0.93 J	5.6	
cis-1,2-Dichloroethene	0.23 J	0.43 J	1.6	1.1	2.4	1.2	0.36 J	2.6	
Tetrachloroethene	2.0	0.56 J	1.4	2.6	2.8	2.3	0.95 J	5.5 J	
Trichloroethene	< 0.14 U	< 1 U	< 1 U	0.40 J	0.49 J	0.44 J	0.34 J	0.51 J	
MWF7-01 (CONTINUED)									
Date	12/15/2009	11/4/2010	10/3/2012	12/4/2013	9/19/2014	9/22/2015	9/22/2016	10/24/2017	
1,1-Dichloroethene	2.7	1.9	0.73 J	0.41 J	1.3 [1.7]	3.8	< 1 U	1	
cis-1,2-Dichloroethene	1.3	0.90 J	0.40 J	< 1 U	0.45 J [0.81 J]	1.9	< 1 U	< 1 U	
Tetrachloroethene	3.3	1.6	0.57 J	0.74 J	0.91 J [0.99 J]	2.4	< 1 U	1	
Trichloroethene	0.32 J	< 1 U	< 1 U	< 1 U	0.16 J [0.20 J]	0.66 J	< 1 U	< 1 U	

MWF12-01/MWF12-01R									
Date	9/5/2001	11/13/2002	12/16/2003	10/27/2004	11/3/2005	11/10/2006	11/7/2007	11/4/2008	12/15/2009
1,1-Dichloroethene	3.5	5.8	2.8	10	6.0	0.37 J	6.2	3.0	3.5
cis-1,2-Dichloroethene	< 0.50 U	1.6	0.74	0.67 J	0.30 J	< 1 U	0.61 J	0.55 J	0.59 J
Trichloroethene	0.14 J	< 2.5 U	< 1.4 U	< 2.5 U	< 1 U	< 1 U	< 2.0 U	< 1.7 U	< 2.0 U
MWF12-01 (CONTINUED)									
Date	11/4/2010	9/22/2011	10/3/2012	12/4/2013	9/19/2014	9/22/2015	9/21/2016	10/24/2017	1/16/2018	06/08/21
1,1-Dichloroethene	0.66 J	1.0	0.45 J	1.4	2.2	1.2 [1.2]	< 1 U [< 1 U]	< 1 U [< 1 U]	1	< 1 U
cis-1,2-Dichloroethene	< 1 U	< 1 U	< 1 U	< 1 U	0.20 J	< 1 U [< 1 U]	< 1 U [< 1 U]	< 1 U [< 1 U]	< 1 U	< 1 U
Trichloroethene	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U [< 1 U]	< 1 U [< 1 U]	< 1 U [< 1 U]	< 1 U	< 1 U

LEGEND

- SOIL VAPOR MONITORING POINT
- MONITORING WELL (EXISTING)
- MONITORING WELL (FORMER)
- SOIL BORING
- VOCS LISTED WERE SAMPLED BUT NOT DETECTED IN THIS WELL
- CATCH BASIN
- MANHOLE
- FIRE HYDRANT
- GAS LINE
- SANITARY
- STORM SEWER
- WATER LINE
- 100 FT VAPOR INTRUSION BUFFER ZONE
- F15 AREA OF INTEREST (AOI)
- RESIDENTIAL STRUCTURES WITH FINISHED BASEMENTS
- TRICHLOROETHENE CONCENTRATION IN GROUNDWATER (> OR = TO 8.1 µg/L)
- TETRACHLOROETHENE CONCENTRATION IN GROUNDWATER (> OR = TO 130 µg/L)
- CURRENT OR FORMER RACER PROPERTY

Volatile Organics	Residential Fiero SSVIAC Slab On Grade	Residential Fiero SSVIAC BASE	Non Residential Fiero SSVIAC <50k Slab On Grade	Non Residential Fiero SSVIAC <50k BASE	Non Residential Fiero SSVIAC >50k Slab On Grade	Non Residential Fiero SSVIAC >50k BASE
1,1-Dichloroethene	**410**	**220**	8,300	3,800	13,000	5,700
cis-1,2-Dichloroethene	**110**	**62**	2,300	1,100	3,500	1,600
trans-1,2-Dichloroethene	**480**	**260**	9,800	4,500	15,000	6,700
Tetrachloroethene	**250**	**130**	3,400	1,500	5,000	2,200
Trichloroethene	**15**	**8.1**	210	93	310	140

Volatile Organics	Fiero SSVIAC Soil Gas Residential Slab-on-grade	Fiero SSVIAC Soil Gas Residential Basement
Tetrachloroethene	**1,400**	**1,400**
Trichloroethene	**67**	**67**

NOTES:

1. ALL GROUNDWATER CONCENTRATIONS ARE PRESENTED IN MICROGRAMS PER LITER (µg/L).

2. ALL SOIL GAS CONCENTRATIONS ARE PRESENTED IN MICROGRAMS PER CUBIC METER (µg/m^3)

3. DUPLICATE ANALYSES ARE PRESENTED IN BRACKETS.

4. ONLY DETECTIONS OF CHLORINATED VOCS LISTED ABOVE IN ANALYTICAL DATA ARE SHOWN. AT LEAST ONE DATA POINT SHOWN FOR EACH YEAR, SOME SEMI-ANNUAL DATA OMMITED FOR VISUAL EASE.

5. SSVIAC - SITE SPECIFIC VOLATILIZATION TO INDOOR AIR CRITERIA.

6. "Y" - ELEVATED REPORTING LIMIT DUE TO HIGH TARGET CONCENTRATION.

7. "J" - ESTIMATED CONCENTRATION

8. "U" CONSTITUENT NOT DETECTED; ASSOCIATED REPORTING LIMIT DETECTED.

9. "r" THIS ANALYTE IS BEING REPORTED AS THE BEST RESULTS FROM MULTIPLE RUNS.

10. CRITERIA FROM THE EGLE FORMER FIERO ASSEMBLY SITE-SPECIFIC CRITERIA EVALUATION DATED APRIL 21, 2020.

11. UTILITIES ON FIGURE ARE ONLY SHOWN IN VICINITY OF SOUTHWESTERN PROPERTY BOUNDARY.

0 300 600

SCALE IN FEET

RACER TRUST
PONTIAC NORTH CAMPUS
PONTIAC, MICHIGAN

FORMER FIERO GROUNDWATER AND SOIL VAPOR ANALYTICAL SUMMARY

ARCADIS

FIGURE 3