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Via Electronic Mail

July 8, 2022

Lynn M. Winterberger
NYSDEC- RCRA Permitting Section
Bureau of Hazardous Waste and Radiation Management
Division of Materials Management
625 Broadway
Albany New York 12233

Re: Response to Comments on 2021 Annual Groundwater Monitoring Program Report, dated July 2021
Pfizer, Rouses Point, NY (NYD002081396)

Dear Lynn:

On behalf of Pfizer, Woodard & Curran is submitting this response to the New York State Department of Environmental Conservation's (NYSDEC) June 1, 2022 comments on the 2021 Annual Groundwater Monitoring Program Report, dated July 2021, particularly with respect to the continuing groundwater monitoring program.

Comment responses will be implemented during the July 2022 groundwater monitoring event and incorporated into a Groundwater Monitoring Plan provided for review and approval by the Department for sampling events going forward.

Each NYSDEC comment is provided below in italicized format followed by the comment response.

***Comment 1:* Section 1 Introduction** *states "The July 2020 GWMP Evaluation Report provided an optimized and updated GWMP for the Site based on current conditions which was adopted starting with the 2020 groundwater monitoring event. As part of that optimization, the report also recommended annual reviews of groundwater data to evaluate changes to Site conditions to continue to improve the monitoring program."*

Please note, Wyeth should not remove groundwater monitoring wells from any event without prior written concurrence from the Department. Based on the combined agencies' review of the report, as well as discussion held during the March 24, 2022 Teams meeting (March 24 meeting) regarding the site groundwater, Wyeth must retain monitoring wells MW-18 and MW-18S which are located in proximity to the Rouses Point Elementary School.

Additionally, Wyeth must include a new sentinel well on Academy Street between MW- 32S and MW-37.

Response:

As requested, monitoring wells MW-18 and MW-18S will remain in the GWMP and will be included in the next monitoring event scheduled for July 2022. An additional well couplet (shallow and deep till) between MW-32S and MW-37 will be installed and sampled prior to

additional remedial efforts in the Buildings 18 & 27 area currently planned for late 2022 or 2023.

As discussed in recent meetings, the proposed GWMP in the Draft Corrective Measures Study (CMS) Report that was submitted to the NYSDEC on March 29, 2013 was never formally commented on nor formally approved and Wyeth has therefore been voluntarily performing monitoring since that date. Going forward, we will obtain approval from the Department prior to implementing further changes to the current plan recently reviewed by the Department.

Comment 2: ***Section 1.3 Hydrogeology*** *states "The shallow till hydrostratigraphic unit represents the primary mechanism for potential exposure off-Site through vapor intrusion and/or potential groundwater-surface water interaction. The hydraulic conductivity of the shallow till unit is low, and contaminant migration is not significant in this unit. The deep till is the primary unit through which regional groundwater flow occurs. This unit is considered important for evaluation of potential contaminant migration, but it does not represent a significant exposure risk due to its depth."*

Wyeth must continue monitoring the designated sentinel wells to confirm that there is no pathway of volatilization and groundwater-surface interactions taking place.

Response: As discussed above, MW-18S and MW-18 will be included in the GWMP going forward. MW-38S was the only other offsite well that was eliminated as a result of the July 2020 GWMP Evaluation, as wells further downgradient act as sentinel wells.

Comment 3: ***Section 2. 2021 Groundwater Monitoring Program Data Evaluation*** *states "The sampling program included wells specified in the July 2020 GWMP Evaluation Report and on-site monitoring wells associated with ongoing investigation activities at Buildings 18 and 27…"*

As noted above, the 2021 sampling program did not include sampling of MW-18 and MW-18S, these wells must be retained in the GWM program and Wyeth must resume sampling these wells at the next event. Past data suggests that the contaminant plume is not currently impacting these wells as they are cross-gradient, but they are in close proximity to MW-39 and MW-21, both of which are contaminated with Carbon Tetrachloride. MW-39 is a similar distance south of the site suggesting that the plume is not missing MW-18 and MW-18S by a wide margin. It is stated that an objective of the groundwater monitoring program is evaluation of the threat of vapor intrusion. Due to the sensitive nature of receptors at the school, The Department requires that MW-18 and MW-18S continue to be monitored and serve as sentinel wells to confirm that, at a minimum, this contaminant plume does not migrate towards and/or impact the school in the future.

Response: As discussed above, monitoring wells MW-18 and MW-18S will remain in the GWMP and will be included in the next monitoring event.

Comment 4: ***Section 3.4 Recommendations for Ongoing Monitoring Based on Data Evaluation***

After the explanation provided by Woodard & Curran on the Mann-Kendall and MAROS analysis contained in the report and further discussion during the March 24 meeting, most monitoring

wells that are non-detect after 10 sequential sampling events would be considered as candidates to drop from future sampling events.

The Department has determined that breakdown products are continuing to form, therefore Wyeth must retain the following on-site monitoring wells within the GWMP as they are within boundaries of each correspondent plume area:

MW-30	*Trichloroethene, 1,2-Dichloroethane, Cis-1,2-Dichloroethene*
MW-34S	*1,2-Dichloroethane*
MW-5S	*1,2-Dichloroethane, Cis-1,2-Dichloroethene*
MW-8S	*Trichloroethene, Cis-1,2-Dichloroethene*
MW-38S	*Carbon tetrachloride*

The status of MW-30S in the shallow till is unclear. It shows as sampled with detectable data in the 2021 AGWR in Figures 3.1, 3.3 and 3.4. MW-30S is marked as ND for trichloroethene in section 4.5 On-Site Trend Analysis Summary in the 2020 Groundwater Monitoring Program Evaluation Report.

Additionally, the 2021 AGWR report addresses a general decrease of contaminants over time. Although at a gradual rate, Appendix A: Trend Plots for Selected Monitoring Wells suggests an overall decrease of the main contaminants except for MW-21, in which Carbon tetrachloride shows a nondecreasing trend in the period 2017 – 2021 despite the July 2016 ISCO event.

The Department recommends that Wyeth continue to address breakdown products in plots and diagrams every time there is representative exceedance in reference to their parent-product and standards (MW-33, MW-23, MW-19). Wyeth should indicate spreading within a plume of its parent-product.

Response: We have evaluated the five wells the Department has requested be added back into the GWMP. Please see the table below for the explanation for each well to include or exclude from the GWMP:

MW-30	Wyeth will add MW-30 back into the program, while upgradient it has had detections of 1,2-dichloroethane above the 0.6 µg/L standard.
MW-34S	While MW-34S is located laterally within the 1,2-dichloroethane plume, the plume is limited to the deep till monitored by MW-34. There have been no detections of 1,2-dichloroethane since at least 2010. There are downgradient shallow wells to monitor any offsite transport in the shallow till (e.g., MW-19S, MW-23S, and MW-36S). Therefore, the routine monitoring of MW-34S does not provide valuable information and it will not be added back into the GWMP at this time. The well will continue to be maintained for future sampling consideration.

MW-5S	While MW-5S is located laterally within the 1,2-dichloroethane and cis-1,2-DCE plume, the plume is limited to the deep till monitored by MW-5. There have been no detections of cis-1,2-DCE since at least 2010 and no detection of 1,2-dichloroethane since 2011. There are downgradient shallow wells to monitor any offsite transport in the shallow till (e.g., MW-9S and MW-32S). Therefore, the routine monitoring of MW-5S does not provide valuable information and it will not be added back into the GWMP. It may be added as a downgradient monitoring well during remediation of the Buildings 18 and 27 area and would be included in the associated ICM or CMI Work Plan accordingly.
MW-8S	MW-8S has been dry since 2009 and will not be including in the GWMP. The well will continue to be maintained for future sampling consideration.
MW-38S	MW-38S is located outside the footprint of the carbon tetrachloride plume and carbon tetrachloride has not been detected. There is a downgradient well to monitor in this area (i.e., MW-22S). Therefore, the routine monitoring of MW-38S does not provide valuable information and it will not be added back into the GWMP at this time. The well will continue to be maintained for future sampling consideration.

MW-30S was retained in the monitoring program based on the 2020 GWMP Evaluation and there have been no recommendations to remove it. MW-30S was sampled in 2021 but it did not have detectable concentrations of compounds as shown on Figures 3.1, 3.3, and 3.4 (attached for reference).

Wyeth will continue to address breakdown products in plots and diagrams and discuss if a breakdown plume is spreading in the annual monitoring reports.

Comment 5: ***Section 3.4.1 Annual Groundwater Monitoring Program*** *lists the inclusion of 34 monitoring wells in the annual reports based on your analysis, "Based upon a review of the 2021 groundwater data and the current site understanding, it is recommended that the ongoing groundwater monitoring program include the same 34 wells as recommended in the 2020 GWMP Evaluation Report."*

To confirm common understanding of the wells that Wyeth would like to remove from sampling event requirements, Wyeth must provide a list containing these monitoring wells that shows ten (10) sequential non detection data results for all contaminants. In the likelihood that a sample could not be taken during a particular sampling event it would not count in the sequential non detection data and additional event results must be provided. This ensures that there are ten sequential non-detect events.

The monitoring wells that are marked as decommissioned are: On-site MW-2, MW-3S, MW-4; and Off-site: MW-21-S, MW-37S. The following table provides the explanation associated with these decommissioned wells:

MW-2	*Decommissioned due to construction of structure.*
MW-3S	*Decommissioned due to ISCO.*
MW-4	*Decommissioned and replaced with MW-12*
MW-21S	+
MW-37S	+

+ To expedite our review, the Department requests that Wyeth please provide the explanation(s) associated with the decommissioning of MW-21S and MW-37S.

In other conversations with Wyeth and Woodard & Curran, DEC and NYSDOH have discussed that the annual sampling event for the GWMP should be done on a rolling fifth quarter and should be spaced to occur around the same time in the following quarter. For example, if annual sampling is done in mid-March (first quarter) of the year, the next year's annual sampling event should be done as close as possible to mid- June (second quarter) of the year. This allows the combined agencies to note seasonal fluctuation and if they affect the analytical results over time.

Response: The GWMP optimization was completed to reduce redundancy and select a program that is consistent with the monitoring program goals. While ten sequential non detection results of the selected indicator compounds (TCE and carbon tetrachloride) were used to help evaluate redundancies, this was just part of the evaluation and not intended as a formal program requirement going forward. Some of the wells removed from the program based on the optimization have detectable concentrations of VOCs but are not located within the identified plumes. Except for MW-18S and MW-18, which are being added back to the program, eliminated wells are located upgradient of wells that remain in the program. Wyeth believes there is sufficient coverage of the lateral and vertical extent of the plumes as well as offsite sentinel wells to adequately evaluate the Site.

As described in the Department approved In-Situ Chemical Oxidation (ISCO) Interim Corrective Measure (ICM) Work Plan dated June 5, 2013 and the 2013-2014 Annual Progress Report for RCRA Corrective Action Activities dated April 9, 2014, MW-21S and MW-37S were decommissioned because of ISCO activities. A completed table is presented below.

MW-2	Decommissioned due to construction of structure.
MW-3S	Decommissioned due to ISCO.
MW-4	Decommissioned and replaced with MW-12
MW-21S	Decommissioned on July 30, 2013 to avoid the potential for short-circuiting of ISCO injection chemicals during the injection events.
MW-37S	Decommissioned on August 5, 2013 to allow for installation of a deeper injection point (IP-04) in the same location.

Wyeth agrees to complete the monitoring on a rolling fifth quarter basis beginning with the July 2022 sampling event.

Thank you for your attention on this matter. If you have any questions regarding these comment responses, feel free to contact Nick Hastings at 203-699-6154 or Tom Donohue at 908-901-7395.

Sincerely,

WOODARD & CURRAN, INC.

Kimberly Reinauer
Technical Manager

Nicholas Hastings, PG
Project Director

Enclosure(s)
Selected figures from the 2021 Annual Groundwater Monitoring Program Report

cc: Tom Donohue (Pfizer)
Cecia Bicknell (NYSDEC)
Jack Markey (Woodard & Curran)

PN: 206910

N

Clinton Street

Clinton Street

APPROXIMATE CHEMICAL DEVELOPMENT PLANT PROPERTY BOUNDARY

MW-11

MW-12

MW-4 (DECOMMISSIONED)

MW-13

MW-2 (DECOMMISSIONED)

MW-7

MW-35S MW-35

MW-10

MW-23S MW-23 Pearl Street MW-16S MW-16

MW-8S MW-8

MW-29 MW-29S

MW-24 MW-24S

MW-25 MW-25S

MW-26 MW-26S

MW-3 MW-3S (DECOMMISSIONED)

MW-30S MW-30

MW-40S MW-40

MW-43

MW-34S MW-34

MW-41S MW-41

MW-33S MW-33

MW-42

MW-5 MW-5S

MW-32 MW-32S

MW-31 MW-31S

MW-14

MW-1 MW-1S

MW-27 MW-27S

MW-28 MW-28S

MW-15

MW-6

MW-20S MW-20

MW-9S MW-9

MW-37S (DECOMMISSIONED) MW-37

MW-21S (DECOMMISSIONED) MW-21

MW-17S MW-17 Academy Street

MW-38S MW-38

MW-22S MW-22

MW-19 MW-19S

MW-36 MW-36S

MW-39 MW-39S

MW-18S MW-18

White Avenue

Maple Street

Lake Street

ACADEMY STREET

EMPLOYEE PARKING

ACADEMY STREET EXTENSION

RECEIVING

BUILDING 25

BUILDING 21

BUILDING 37

BUILDING 35

BUILDING 19

BUILDING 13

BUILDING 9

BUILDING 11

BUILDING 15

SHIPPING

BUILDING 10

BUILDING 8

BUILDING 3A2

BUILDING 4A

BUILDING 32

BUILDING 18

BUILDING 14

BUILDING 6

BUILDING 38

BUILDING 7

BUILDING 3AI

BUILDING 20

BUILDING 12

BUILDING 5

BUILDING 2

BUILDING 1A

BUILDING 22

BUILDING 34

BUILDING 23

BUILDING 16

BUILDING 43

BUILDING 26

BUILDING 31

CONSTRUCTION TRAILERS

existing building

concrete slab

TANK FARM

WATER TANK

LEGEND

APPROXIMATE SITE BOUNDARIES

MONITORING WELL (LOWER TILL)

MONITORING WELL (UPPER TILL)

0 100 200

SCALE IN FEET

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COMMITMENT & INTEGRITY DRIVE RESULTS

REV	DESCRIPTION	DATE

DESIGNED BY:
DRAWN BY:
CHECKED BY:

SITE PLAN AND MONITORING WELL NETWORK

WYETH PHARMACEUTICALS LLC
ROUSES POINT, NEW YORK

GROUNDWATER SAMPLING PROGRAM

JOB NO.: 209610
DATE: July 2021
SCALE: AS NOTED
SHEET: OF

FIGURE 2

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COMMITMENT & INTEGRITY DRIVE RESULTS

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REV | DESCRIPTION | DATE

DESIGNED BY: CJ | CHECKED BY: GSR | DRAWN BY: JAR

2021 DEEP TILL AQUIFER 1,2-DICHLOROETHANE CONCENTRATION ISOPLETHS

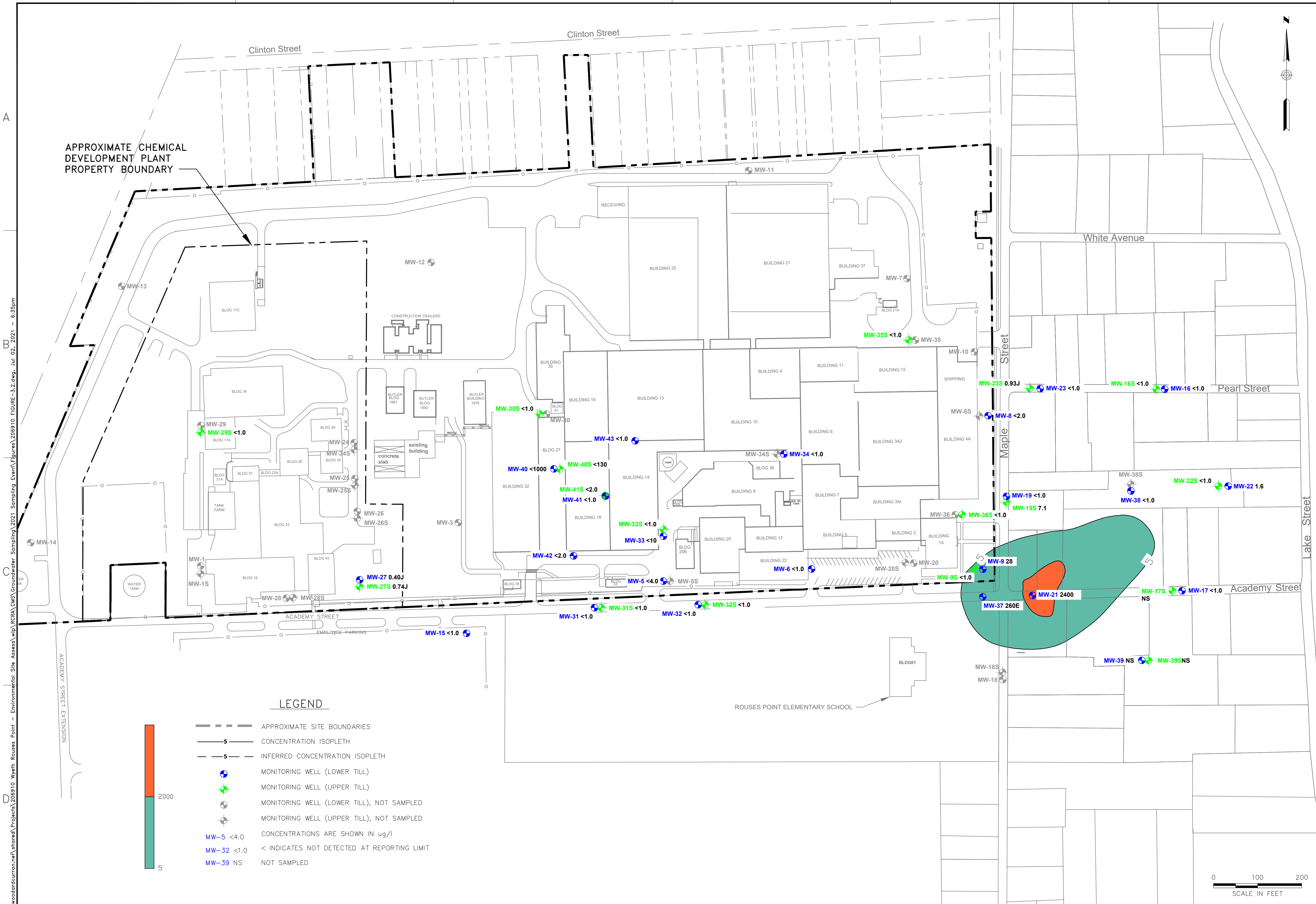
WYETH PHARMACEUTICALS LLC
ROUSES POINT, NEW YORK

GROUNDWATER SAMPLING PROGRAM

JOB NO.: 209610
DATE: JULY 2021
SCALE: AS NOTED
SHEET: 2 OF 6

FIGURE 3.1

22x34 SHEET 1:2


Clinton Street
APPROXIMATE CHEMICAL DEVELOPMENT PLANT PROPERTY BOUNDARY
White Avenue
Pearl Street
Maple Street
Lake Street
Academy Street
ACADEMY STREET
ACADEMY STREET EXTENSION
EMPLOYEE PARKING
ROUSES POINT ELEMENTARY SCHOOL
MW-11
MW-12
MW-13
MW-14
MW-7
MW-35S <1.0
MW-35
MW-10
MW-23S 0.93J
MW-23 <1.0
MW-16S <1.0
MW-16 <1.0
MW-8S
MW-8 <2.0
MW-30S <1.0
MW-30
MW-29
MW-29S <1.0
MW-24
MW-24S
MW-25
MW-25S
MW-26
MW-26S
MW-3
MW-43 <1.0
MW-40 <1000
MW-40S <130
MW-41S <2.0
MW-41 <1.0
MW-34S
MW-34 <1.0
MW-38S
MW-38 <1.0
MW-22S <1.0
MW-22 1.6
MW-19 <1.0
MW-19S 7.1
MW-36
MW-36S <1.0
MW-33S <1.0
MW-33 <10
MW-42 <2.0
MW-1
MW-1S
MW-27 0.40J
MW-27S 0.74J
MW-28
MW-28S
MW-5 <4.0
MW-5S
MW-6 <1.0
MW-20S
MW-20
MW-9 28
MW-9S <1.0
MW-21 2400
MW-37 260E
MW-17S NS
MW-17 <1.0
MW-31S <1.0
MW-31 <1.0
MW-32S <1.0
MW-32 <1.0
MW-15 <1.0
MW-39 NS
MW-39S NS
MW-18S
MW-18
LEGEND
APPROXIMATE SITE BOUNDARIES
CONCENTRATION ISOPLETH
INFERRED CONCENTRATION ISOPLETH
MONITORING WELL (LOWER TILL)
MONITORING WELL (UPPER TILL)
MONITORING WELL (LOWER TILL), NOT SAMPLED
MONITORING WELL (UPPER TILL), NOT SAMPLED
CONCENTRATIONS ARE SHOWN IN ug/l
MW-5 <4.0
MW-32 <1.0
< INDICATES NOT DETECTED AT REPORTING LIMIT
MW-39 NS
NOT SAMPLED
2000
5
SCALE IN FEET
0
100
200

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DESIGNED BY: CJ | CHECKED BY: GSR
DRAWN BY: JAR | 206910 FIGURE-3.2.dwg

2021 DEEP TILL AQUIFER CARBON TETRACHLORIDE CONCENTRATION ISOPLETHS

WYETH PHARMACEUTICALS LLC
ROUSES POINT, NEW YORK

GROUNDWATER SAMPLING PROGRAM

JOB NO.: 209610
DATE: JULY 2021
SCALE: AS NOTED
SHEET: 3 OF 6

FIGURE 3.2

22x34 SHEET 1:2
Clinton Street
White Avenue
Pearl Street
Maple Street
Lake Street
Academy Street
ACADEMY STREET
ACADEMY STREET EXTENSION
EMPLOYEE PARKING
APPROXIMATE CHEMICAL DEVELOPMENT PLANT PROPERTY BOUNDARY
ROUSES POINT ELEMENTARY SCHOOL
RECEIVING
BUILDING 25
BUILDING 21
BUILDING 37
BUILDING 19
BUILDING 13
BUILDING 10
BUILDING 9
BUILDING 11
BUILDING 15
BUILDING 8
BUILDING 3A2
BUILDING 4A
BUILDING 14
BUILDING 18
BUILDING 6
BUILDING 7
BUILDING 3A1
BUILDING 5
BUILDING 2
BUILDING 1A
SHIPPING
CONSTRUCTION TRAILERS
existing building
concrete slab
WATER TANK
MW-11
MW-12
MW-13
MW-7
MW-35S <1.0
MW-35
MW-10
MW-23S 48
MW-23 9.2
MW-16S <1.0
MW-16 2.1
MW-8S
MW-8 94
MW-30S <1.0
MW-30
MW-29
MW-29S <1.0
MW-24
MW-24S
MW-25
MW-25S
MW-26
MW-26S
MW-43 <1.0
MW-40 9600
MW-40S 300
MW-41S <2.0
MW-41 6.8
MW-34S
MW-34 <1.0
MW-38S
MW-38 <1.0
MW-22S <1.0
MW-22 4.5
MW-19 7.9
MW-19S 5.3
MW-36
MW-36S <1.0
MW-33S <1.0
MW-33 180
MW-3
MW-14
MW-1
MW-1S
MW-27 1.2
MW-27S <1.0
MW-28
MW-28S
MW-42 <2.0
MW-6 9.4
MW-20S
MW-20
MW-9 <1.0
MW-9S <1.0
MW-5 150
MW-5S
MW-31S <1.0
MW-31 16
MW-32 <1.0
MW-32S <1.0
MW-37 <1.0
MW-21 <40
MW-17S <1.0
MW-17 <1.0
MW-15 <1.0
MW-39 NS
MW-39S
MW-18S
MW-18
2000
5
LEGEND
APPROXIMATE SITE BOUNDARIES
CONCENTRATION ISOPLETH
INFERRED CONCENTRATION ISOPLETH
MONITORING WELL (LOWER TILL)
MONITORING WELL (UPPER TILL)
MONITORING WELL (LOWER TILL), NOT SAMPLED
MONITORING WELL (UPPER TILL), NOT SAMPLED
MW-5 220 CONCENTRATIONS ARE SHOWN IN ug/l
MW-32 <1 < INDICATES NOT DETECTED AT REPORTING LIMIT
MW-39 NS NOT SAMPLED
0 100 200
SCALE IN FEET
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COMMITMENT & INTEGRITY DRIVE RESULTS
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DESIGNED BY: CJ
DRAWN BY: JAR
CHECKED BY: GSR
206910 FIGURE-3.3.dwg
2021 DEEP TILL AQUIFER
CIS-1,2-DICHLOROETHENE
CONCENTRATION ISOPLETHS
WYETH PHARMACEUTICALS LLC
ROUSES POINT, NEW YORK
GROUNDWATER SAMPLING PROGRAM
JOB NO.: 209610
DATE: JULY 2021
SCALE: AS NOTED
SHEET: 4 OF 6
FIGURE 3.3

22x34 SHEET 1:2

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DESIGNED BY: CJ | CHECKED BY: GSR
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2021 DEEP TILL AQUIFER TRICHLOROETHENE CONCENTRATION ISOPLETHS

WYETH PHARMACEUTICALS LLC
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SHEET: 5 OF 6

FIGURE 3.4

\\woodardcurran.net\shared\Projects\206910 Wyeth Rouses Point - Environmental Site Assess\wip\RCRA\CMS\Groundwater Sampling\2021 Sampling Event\Report\Figures\206910 FIGURE-3.4.dwg, Jul 19, 2021 - 8:50pm