NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF ENVIRONMENTAL REMEDIATION
BCP Significant Threat Determination Report

4/15/2020

Site Code C360182 **Site Name** Centre Avenue Development - South
City New Rochelle **Town** New Rochelle (c)
Region 3 **County** Westchester
Current Classification A
Estimated Size 0.4600 **Allowable Use**
Significant Threat: Yes **Project Manager** Michael Kilmer

Summary of Approvals

Originator/Supervisor: Dan Bendell **04/13/2020**

Regional Hazardous Waste Remedial Engineer: Daniel Bendell: **04/14/2020**

BEEI of NYSDOH: **04/14/2020**

CO Bureau Director: Janet Brown, Director, Region 3: **04/13/2020**

Assistant Division Director: George Heitzman, P.E.: **04/15/2020**

Basis for Significant Threat Determination

Tetrachloroethylene (PCE), 1,1,1-Trichloroethane (1,1,1-TCA) and their breakdown products were detected in on site soil vapor samples at levels that warrant mitigation and in groundwater above groundwater standards. The source is likely the on-site historic electroplating and metal finishing business that was a registered generator of 1,1,1-TCA waste. The source of PCE is likely from the State Superfund site Industrial Overall Services Corp (360109) where the remedial investigation of that site has revealed on-site soil sources as well as groundwater contamination. It appears that both sites have co-mingled PCE, 1,1,1-TCA, and their respective breakdown products contamination in the groundwater.

The following are concentration ranges of 1,1,1-TCA and its breakdown products detected in the groundwater on-site: 1,1,1-TCA (18-1000000 ppb), 1,1-DCA (11-40 ppb), 1,1-DCE (30-28000 ppb), and 1,2-DCA (40 ppb).

The following are concentration ranges of PCE and its breakdown products detected in the groundwater on-site: PCE (18 ppb), TCE (180-3700 ppb), cis-1,2-DCE (26-32 ppb), trans-1,2-DCE (20-35 ppb), and vinyl chloride (17 ppb).

The following are concentration ranges of TCE and 1,1,1-TCA and its breakdown products in the sub-slab soil vapor: TCE
(11-184 ug/m3), 1,1,1-TCA (15100 ug/m3), and 1,1-DCE (16-184 ug/m3).

Site Description - Last Review: 06/12/2019

Location

The 0.46-acre rectangular-shaped site is located in an urban area in the Downtown District of the City of New Rochelle, New York and is identified as Section 2, Block 437, Lots 1, 3 and 42 on the Westchester County Tax Map. Lots 1 and 3 are identified by address 339 Huguenot Street and Lot 42 is identified by 33-35 Centre Avenue. The property is undergoing a lot merger in conjunction with development. The site is located on the northern part of the city block bordered by Centre Avenue to the north, Huguenot Street to the east, Columbus Avenue to the south, and Relyea Place to the west. The site is bordered to the south by multi-story residential and commercial buildings.

Site Features

The site encompasses an area of about 20,000 square feet (0.46 acres). Sidewalk elevations (el) generally increase from southwest to northeast and range from about el 87.3 to 97.2 feet referenced to the North American Vertical Datum of 1988 (NAVD88). The site is occupied by a one-story industrial building with a partial cellar occupied by an electroplating and metal-finishing business, and an open-air parking lot.

Current Zoning and Land Use

The site is located within the Downtown Business (DB) (eastern portion) and Light Industry (LI) (western portion) zoning districts. Permitted principal uses of DB districts include stores, retail, offices, and residential units located on the second floor and above only. Permitted principal uses of LI districts include manufacturers, offices, medical facilities and parking garages. The current zoning designation is consistent with the proposed development. The surrounding area includes commercial, industrial, residential and institutional buildings.

Past Use of the Site

Based on review of Sanborn fire insurance maps, Lots 1 and 3 were developed with dwellings between 1887 and 1951 and with a parking lot between 1990 and 2003. Lot 42 is shown as undeveloped land prior to 1931, as a garage in 1931, and subsequently developed with residential, commercial and industrial buildings. Lot 42 has been occupied by an electroplating and metal-finishing business since 1971. The site is registered as a Conditionally Exempt Small Quantity Generator (CESQG) (Facility ID No.NYD002015402 [Eric S. Turner & Company, Inc.]). The site was historically listed as a Large Quantity Generator (LQG) and as a Small Quantity Generator

(SGQ) for the generation of characteristic hazardous waste D001 (ignitable waste), D002 (corrosive waste), D005 (barium), D007 (chromium), D008 (lead), D039 (tetrachloroethene [PCE]), and U226 (1,1,1-trichloroethane [1,1,1-TCA]) between 1984 and 2004. The site is also identified as a New York State Department of Environmental Conservation (NYSDEC) Air Discharge Facility (Facility ID No. 3611900260 [Eric S. Turner & Company, Inc.]) for potential uncontrolled emissions less than 100 tons of total hazardous air pollutants per year.

Site Geology and Hydrogeology

According to the 1970 Geologic Map of New York – Lower Hudson Sheet published by the University of the State of New York, the bedrock underlying the site is of the Hartland Formation, and is comprised primarily of basal amphibolite overlain by politic schists. Soil borings were advanced to explore the subsurface conditions during the 24 January 2018 Phase II Environmental Site Assessment by WCD Ground, LLC (WCD) and the 25 January 2018 Summary Report of Environmental Investigation by WCD. During the previous subsurface investigations at the site, historic fill was identified across the site from grade surface to depths ranging from 1 to 7.5 feet below grade surface (bgs). Historic fill was generally deeper on the eastern portion of the site. Historic fill predominately consisted of brown and black sand with varying amounts of gravel, brick, organic material, asphalt, metal and clay. Sand with varying amounts of silt, clay and gravel was observed beneath the historic fill. Regional groundwater flow direction for the area is estimated to the south-southwest. Groundwater underlying the site is reported to range from about 5 to 15 feet bgs across the site footprint.

Contaminants of Concern (Including Materials Disposed)	**Quantity Disposed**
OU 01	
tetrachloroethene (PCE)	UNKNOWN
trichloroethene (TCE)	UNKNOWN
1,1-dichloroethene	UNKNOWN
1,1,1-Trichloroethane(TCA)	UNKNOWN
1,1 dichloroethene	UNKNOWN
chromium	UNKNOWN
nickel	UNKNOWN
barium	UNKNOWN

Analytical Data Available for :

Applicable Standards Exceeded for:

Site Environmental Assessment - Last Review: 06/12/2019

The primary contaminants of concern include volatile organic compounds (VOC), semivolatile organic compounds (SVOC) and metals in soil, and chlorinated VOCs (CVOC) in groundwater and soil vapor. Contaminant concentrations detected above

applicable regulatory standards for each media (soil, groundwater, soil vapor) are summarized below.

Soil - A total of 20 soil samples were collected during previous investigations. Soil sample analytical results were compared to UU and RURR SCOs. Analytes detected with concentrations above the restricted residential soil cleanup objectives are listed below.

SVOCs – benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, dibenzo(a,h)anthracene, and ideno(1,2,3-cd)pyrene

*Metals – barium, chromium, and nickel.

Groundwater - A total of 15 groundwater samples were collected during previous investigations. Groundwater sample analytical results were compared to the NYSDEC SGVs. Analytes detected with concentrations above NYSDEC SGVs are listed below.

VOCs – 1,1,1-TCA, 1,1-dichoethane, 1,1-DCE, PCE, and TCE

Soil Vapor - A total of four soil vapor samples and one outdoor ambient air sample were collected during previous investigations. Soil vapor sample analytical results were compared to the minimum soil vapor concentrations recommending mitigation as set forth in the NYSDOH October 2006 Guidance for Evaluating Soil Vapor Intrusion in New York State Decision Matrices for Sub-slab Vapor and Indoor Air and subsequent updates (2017).

Relevant findings are listed below.

Total VOC concentrations ranged from 6,279 to 278,781 ug/m3

Site Health Assessment - Last Update:

Information submitted with the BCP application regarding the conditions at the site are currently under review and will be revised as additional information becomes available.

	Start		End	
OU 01				
Agreement	6/13/19	ACT	6/28/19	ACT
Application Approval	1/22/19	ACT	6/13/19	ACT
Application Approval Amendment	8/28/19	ACT	12/12/19	ACT
Application Completion	12/3/18	ACT	1/22/19	ACT
Application Completion Amendment	7/10/19	ACT	8/28/19	ACT
Certificate of Completion	11/1/20	PLN	12/31/20	PLN
OGC Docket - Eligibility Determination	1/22/19	ACT	6/13/19	ACT
OGC Docket - Eligibility Determination	8/28/19	ACT	9/27/19	ACT
Reclass Pkg.	4/15/20	ACT	4/24/20	PLN
Remedial Action	9/30/20	PLN	12/31/20	PLN
Remedial Design	8/31/20	PLN	8/31/20	PLN
Remedial Investigation	9/9/19	ACT	8/31/20	PLN
OU 01A				
Remedial Action	2/26/20	ACT	9/30/20	PLN

Site Code C360182 **Site Name** Centre Avenue Development - South

Remedy Description and Cost

Remedy Description for Operable Unit 01

Total Cost

Remedy Description for Operable Unit 01A

Excavation and off-site disposal of all on-site soils which exceed unrestricted SCOs for semi-volatil organic compounds (SVOCs), polychlorinated biphenyls (PCBs), pesticides, and metals, as defined by 6 NYCRR Part 375-6.8. Approximately 7,000 cubic yards of contaminated soil will be removed from the site.

Total Cost

SIGNIFICANT THREAT DETERMINATION WORKSHEET

□ State Superfund Program
6 NYCRR 375-2.7

✓ Brownfield Cleanup Program
ECL 27-1411.1(c)

Site Name: Centre Ave Development South
Site ID No. C360182
City/Town: New Rochelle
County: Westchester

1. Has all available and relevant evidence regarding the Site been reviewed and the factors in 375-2.7(a)(3) considered?	✓ Yes (go to 2)	□ No (stop)	□ Unsure (stop)
2. Does Site contamination result in significant adverse impacts (375-2.7(a)(1)) to:			
a. species that are endangered, threatened, or of concern?	□ Yes (go to b)	✓ No (go to b)	□ Unsure (go to b)
b. protected streams, tidal/freshwater wetlands, or significant fish and wildlife habitat?	□ Yes (go to c)	✓ No (go to c)	□ Unsure (go to c)
c. flora or fauna from bioaccumulation or leads to a recommendation to limit consumption?	□ Yes (go to d)	✓ No (go to d)	□ Unsure (go to d)
d. fish, shellfish, crustacea, or wildlife from concentrations that cause adverse/chronic effects?	□ Yes (go to e)	✓ No (go to e)	□ Unsure (go to e)
e. the environment due to a fire, spill, explosion, or reaction that generates toxic gases, vapors, fumes, mists or dusts?	□ Yes (go to f)	✓ No (go to f)	□ Unsure (go to f)
f. areas where individuals or water supplies may be present and NYSDOH has determined there to be a significantly increased risk to public health (including from soil vapor)?	✓ Yes (go to 3)	□ No (go to 3)	□ Unsure (go to 3)
3. Does Site contamination result in significant environmental damage (375-2.7(a)(2))?	□ Yes (go to 4)	✓ No (go to 4)	□ Unsure (stop)
4. If any box in items 2 or 3 have been checked "Yes," the site presents a significant threat to public health or the environment; check here.	Significant threat to: ✓ Public Health □ Environment		
5. If no boxes in items 2 or 3 have been checked "Yes," the site does not present a significant threat to public health or the environment; check here.	□ Not a Significant Threat		

Michael Kilmer	*Michael Kilmer*	3/31/20
Project Manager Name/Title (Print)	Project Manager Name (Signature)	Date
Janet Brown	Janet E Brown	4/14/20
Bureau Director/RHWRE Name/Title (Print)	Bureau Director/RHWRE Name (Signature)	Date

07/29/10

ingestion of the groundwater or direct exposure through excavation work. However, groundwater in this area of New Rochelle is not used for drinking. In addition, the impacted Site groundwater is not likely to have an ecological pathway.

Finally, the cVOCs detected in soil vapor can result in soil vapor intrusion into the future on-Site buildings. A sub-slab depressurization system with the foundation sealed by a soil vapor barrier are recommended to be installed beneath the future on-Site buildings to mitigate the potential for vapor intrusion.

6.2 HUMAN HEALTH EXPOSURE ASSESSMENT

There are potential exposure pathways related to the contamination if left unaddressed:

The pathway of the contaminated groundwater to human receptors is limited to the direct ingestion of the groundwater or direct exposure through excavation work. Groundwater was found to contain CVOC at levels that exceed the AWQS. However, groundwater in this area in New Rochelle is not used for drinking water and once the site is redeveloped, excavation to the depths at which groundwater is present (between 16-18 ft bgs) is unlikely. After source zone treatment occurs, the groundwater will naturally attenuate with time and is not anticipated to be a pathway for human heath exposure in the future post remediation and mitigation.

PAHs, metals, and pesticides exceedances of the RRSCOs in the Site soil that consist of contaminated fill from 0 to approximately 12 ft bgs pose a direct exposure risk to human health. The exposure pathway to humans can be through direct dermal contact with the contaminated soils or incidental ingestion. However, the soil source will be removed through Site remediation activities, which call for the source removal excavation of all on-Site soils above the bedrock.

The cVOC levels in the Site soil vapors were found to exceed the NYSDOH Matrix A and B threshold values. The exposure route for soil vapor through the inhalation of the contaminated soil vapor that may intrude into the enclosed spaces of any planned Site development will be mitigated by a sub-slab depressurization system after the foundation is sealed with a vapor barrier to prevent intrusion via any potential cracks in the foundation in the future as the groundwater is attenuating.

6.3 FISH AND WILDLIFE IMPACT ANALYSIS

The Site does not contain any ecologically sensitive resources and hence the contaminated soils are not expected to have any impacts on any ecological resources.

NOTE:
THIS PLAN IS FOR LOCATING SITE BOUNDARIES ONLY.

LEGEND:

- PROPERTY LINE

Scale 1" = 80'

0 80 160

REFERENCE
1. MAP ACQUIRED FROM WESTCHESTER GIS DATABASE, DATED 2019.

SESI
CONSULTING ENGINEERS D.P.C.
SOILS / FOUNDATIONS
SITE DESIGN
ENVIRONMENTAL
12A MAPLE AVE. PINE BROOK, N.J. 07058 PH: 973-808-9050

dwg by: aas
chk by: SSG
scale: AS NOTED
date: 01/22/2020

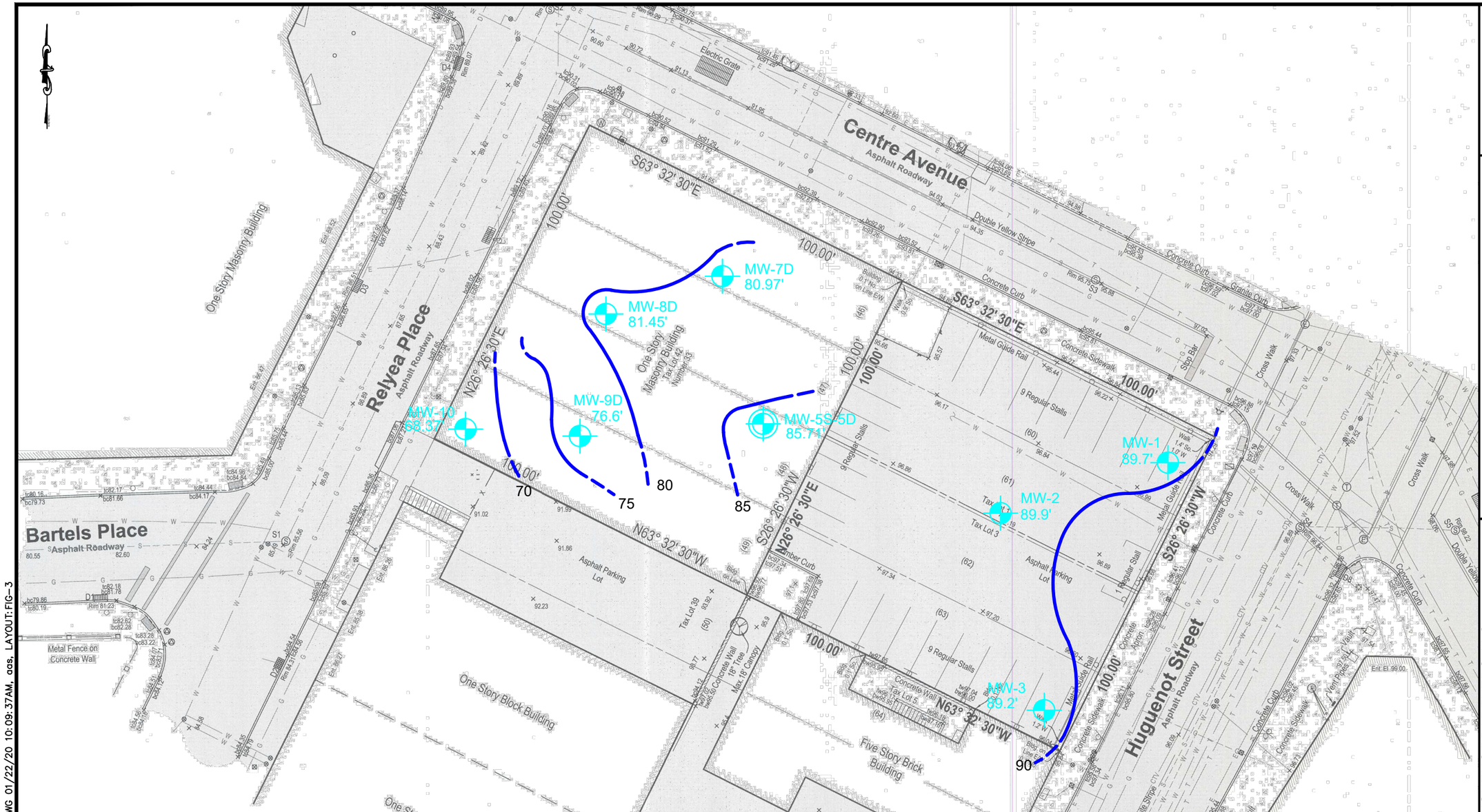
HUGUENOT PARTNERS, LLC
33 CENTRE AVENUE
SECTION NO.2, BLOCK NO. 437 LOTS 1, 3, AND 42
NEW ROCHELLE, NEW YORK

SITE PLAN

job no: 10567
drawing no:

FIG-2

N:\ACAD\10567\CADD\10567 SITE PLAN.DWG 01/22/20 10:07:20AM, aas, LAYOUT:FIG-2


Centre Avenue
Asphalt Roadway
Double Yellow Stripe
Concrete Curb
Granite Curb
Concrete Sidewalk
Metal Guide Rail
Stop Bar
Cross Walk
9 Regular Stalls
1 Regular Stall
Relyea Place
Asphalt Roadway
Bartels Place
Asphalt Roadway
Huguenot Street
Asphalt Roadway
Asphalt Parking Lot
One Story Masonry Building
One Story Masonry Building Tax Lot 42 Number 53
One Story Block Building
Five Story Brick Building
Metal Fence on Concrete Wall
Concrete Wall
10" Tree
Max 18" Canopy
Tax Lot 39
Tax Lot 3
Tax Lot 5
Electric Grate
Rim 95.75
Rim 81.23
Rim 89.07
Rim 90.29
Rim 91.13
Rim 94.31
Rim 95.88
Rim 96.22
Rim 96.89
Rim 97.08
Ent. El. 99.00
Inv. El. 87.51
Inv. El. 87.61
Inv. El. 87.76
Inv. El. 87.85
Inv. El. 87.91
Inv. El. 87.96
Inv. El. 88.01
Inv. El. 88.06
Inv. El. 88.11
Inv. El. 88.16
Inv. El. 88.21
Inv. El. 88.26
Inv. El. 88.31
Inv. El. 88.36
Inv. El. 88.41
Inv. El. 88.46
Inv. El. 88.51
Inv. El.

	NYSDEC RESTRICTED COMMERCIA	NYSDEC RESTRICTED INDUSTRIAL	NYSDEC RESIDENTIAL	NYSDEC Restricted Residential	NYSDEC Unrestricted Use
Dieldrin	1.4	2.8	0.039	0.2	0.005
4,4'-DDE	62	120	1.8	8.9	0.0033
4,4'-DDD	92	180	2.6	13	0.0033
4,4'-DDT	47	94	1.7	7.9	0.0033
cis-Chlordane	24	47	0.91	4.2	0.094
PCBs, Total	1	25	1	1	0.1
Fluoranthene	500	1000	100	100	100
Benzo(a)anthracene	5.6	11	1	1	1
Benzo(a)pyrene	1	1.1	1	1	1
Benzo(b)fluoranthene	5.6	11	1	1	1
Benzo(k)fluoranthene	56	110	1	3.9	0.8
Chrysene	56	110	1	3.9	1
Phenanthrene	500	1000	100	100	100
Dibenzo(a,h)anthracene	0.56	1.1	0.33	0.33	0.33
Indeno(1,2,3-cd)pyrene	5.6	11	0.5	0.5	0.5
Pyrene	500	1000	100	100	100
3-Methylphenol/4-Methylphenol	500	1000	34	100	0.33
Barium, Total	400	10000	350	400	350
Copper, Total	270	10000	270	270	50
Lead, Total	1000	3900	400	400	63
Mercury, Total	2.8	5.7	0.81	0.81	0.18
Nickel, Total	310	10000	140	310	30
Zinc, Total	10000	10000	2200	10000	109
Trichloroethene	200	400	10	21	0.47
Trichloroethene	200	400	10	21	0.47

Sample Location (Sample Depth)	B-1 (2-3)
SAMPLING DATE	9/10/2019
Nickel, Total	30.5

Sample Location (Sample Depth)	B-1 (5-6)
SAMPLING DATE	9/10/2019
Copper, Total	57.5
Nickel, Total	45.3

Sample Location (Sample Depth)	B-1 (10-11)
SAMPLING DATE	9/10/2019
Barium, Total	416
Copper, Total	70.3
Nickel, Total	138

Sample Location (Sample Depth)	B-3 (6-7)
SAMPLING DATE	9/11/2019
Copper, Total	54.3
Nickel, Total	32.7

Sample Location (Sample Depth)	B-2 (6-7)
SAMPLING DATE	9/10/2019
Copper, Total	242
Nickel, Total	111

Sample Location (Sample Depth)	B-17 (1.5-2.5)
SAMPLING DATE	10/30/2019
Copper, Total	396
Nickel, Total	577
Zinc, Total	160

Sample Location (Sample Depth)	B-4 (4-5)
SAMPLING DATE	9/11/2019
Dieldrin	0.0234
4,4'-DDE	0.0417
4,4'-DDD	0.156 E
Benzo(a)anthracene	16
Benzo(a)pyrene	14
Benzo(b)fluoranthene	18
Benzo(k)fluoranthene	6
Chrysene	17
Dibenzo(a,h)anthracene	2.1
Indeno(1,2,3-cd)pyrene	9.1
Lead, Total	126
Mercury, Total	0.302
Zinc, Total	254

Sample Location (Sample Depth)	B-4 (4-5)
SAMPLING DATE	9/11/2019
4,4'-DDD	0.173

Sample Location (Sample Depth)	B-4 (7-8)
SAMPLING DATE	9/11/2019
4,4'-DDD	0.00558

Sample Location (Sample Depth)	B-9 (3-4)
SAMPLING DATE	9/11/2019
4,4'-DDE	0.00647
4,4'-DDD	0.0183
cis-Chlordane	0.186 IPE
Benzo(a)anthracene	1.7
Benzo(a)pyrene	1.6
Benzo(b)fluoranthene	2.1
Chrysene	1.8
Indeno(1,2,3-cd)pyrene	1.1
Lead, Total	117
Mercury, Total	0.238
Zinc, Total	198

Sample Location (Sample Depth)	B-9 (3-4)
SAMPLING DATE	9/11/2019
cis-Chlordane	0.281 IP

Sample Location (Sample Depth)	B-9 (6-7)
SAMPLING DATE	9/11/2019
4,4'-DDD	0.00485

Sample Location (Sample Depth)	B-6 (10-11)
SAMPLING DATE	9/10/2019
Nickel, Total	58.1

Sample Location (Sample Depth)	B-16 (3-4)
SAMPLING DATE	9/10/2019
Mercury, Total	2.54
Nickel, Total	357
Trichloroethene	1.5
Sample Location (Sample Depth)	**B-16 (7-8)**
SAMPLING DATE	9/10/2019
Nickel, Total	163
Trichloroethene	0.55

Sample Location (Sample Depth)	B-7 (1-2)
SAMPLING DATE	9/10/2019
Copper, Total	230
Lead, Total	122
Nickel, Total	320
Trichloroethene	0.92

Sample Location (Sample Depth)	B-19 (4-5)
SAMPLING DATE	10/30/2019
Copper, Total	118
Nickel, Total	136
Sample Location (Sample Depth)	**B-19 (5.5-6.5)**
Copper, Total	63.8
Nickel, Total	160
Mercury, Total	0.208

Sample Location (Sample Depth)	B-12 (3-4)
SAMPLING DATE	10/30/2019
Copper, Total	172
Nickel, Total	249
Sample Location (Sample Depth)	**B-12 (8-9)**
Copper, Total	121
Nickel, Total	233

Sample Location (Sample Depth)	B-18 (2-3)
SAMPLING DATE	10/30/2019
Copper, Total	384
Lead, Total	102
Nickel, Total	1600
Mercury, Total	0.555
Zinc, Total	182

Sample Location (Sample Depth)	B-8 (4-5)
SAMPLING DATE	9/11/2019
Fluoranthene	120 E
Benzo(a)anthracene	64
Benzo(a)pyrene	56
Benzo(b)fluoranthene	69
Benzo(k)fluoranthene	25
Chrysene	61
Dibenzo(a,h)anthracene	8.6
Indeno(1,2,3-cd)pyrene	36
Pyrene	120 E
3-Methylphenol/4-Methylphenol	0.43 J
Sample Location (Sample Depth)	**B-8 (4-5)**
SAMPLING DATE	9/11/2019
Fluoranthene	150
Phenanthrene	100
Pyrene	130
Sample Location (Sample Depth)	**B-8 (5-6)**
SAMPLING DATE	9/11/2019
Copper, Total	92.1
Nickel, Total	44.1

Sample Location (Sample Depth)	B-13 (3-4)
SAMPLING DATE	9/11/2019
4,4'-DDT	0.00913
Copper, Total	50.3
Sample Location (Sample Depth)	**B-13 (6-7)**
SAMPLING DATE	9/11/2019
4,4'-DDE	0.134
4,4'-DDT	0.521 E
Benzo(a)anthracene	1.1
Benzo(b)fluoranthene	1.2
Chrysene	1
Indeno(1,2,3-cd)pyrene	0.61
Lead, Total	357
Zinc, Total	151
Sample Location (Sample Depth)	**B-13 (6-7)**
SAMPLING DATE	9/11/2019
4,4'-DDT	0.589

Sample Location (Sample Depth)	B-14 (2-3)
SAMPLING DATE	9/11/2019
4,4'-DDT	0.00624

Sample Location (Sample Depth)	B-10 (2-3)
SAMPLING DATE	9/10/2019
4,4'-DDE	0.00392
4,4'-DDT	0.0091
Lead, Total	123
Zinc, Total	113
Sample Location (Sample Depth)	**B-10 (7-8)**
SAMPLING DATE	9/10/2019
4,4'-DDE	0.00962
4,4'-DDD	0.0075
4,4'-DDT	0.0307
Benzo(a)anthracene	1.4
Benzo(a)pyrene	1.4
Benzo(b)fluoranthene	1.8
Chrysene	1.5
Indeno(1,2,3-cd)pyrene	1
Copper, Total	53.7
Lead, Total	431
Zinc, Total	204
Sample Location (Sample Depth)	**B-10 (11-12)**
SAMPLING DATE	9/10/2019
Copper, Total	94.8

Sample Location (Sample Depth)	B-15 (3-4)
SAMPLING DATE	9/10/2019
4,4'-DDE	0.00524
4,4'-DDT	0.0055
Barium, Total	441
Lead, Total	192
Zinc, Total	216
Sample Location (Sample Depth)	**B-15 (6-7)**
SAMPLING DATE	9/10/2019
Dieldrin	0.0122
4,4'-DDE	0.0162
4,4'-DDD	0.0102
4,4'-DDT	0.0327
Lead, Total	66.4
Zinc, Total	144

NOTE:
THIS PLAN IS FOR LOCATING BORING ONLY. OTHER SITE WORK SHOWN HERE IS NOT INTENDED FOR CONSTRUCTION.
ALL CONCENTRATIONS IN MILLIGRAMS PER KILOGRAM (MG/KG)

REFERENCE
1. EXIST CONDITIONS & BOUNDARY ARE TAKEN FROM "BOUNDARY SURVEY OF LOTS 46 THRU 49 AND 60 THRU 63 INCL. MAP OR PROPERTY BELONGING TO MARIA R. LAWTON, DECEASED" PREPARED BY H2M ARCHITECTS AND ENGINEERS DATED SEPT. 28, 2018.

LEGEND:
- B-11 - COMPLETED SOIL BORING LOCATION
- APPROXIMATE AREA OF FORMER ELECTROPLATING OPERATIONS. DIMENSION ARE BASED ON WCD UNSCALED MAP
- 320 - CONCENTRATION EXCEEDS MORE THAN ONE OF THE APPLICABLE NYSDEC SCO'S
- 0.92 - CONCENTRATION EXCEEDS THE NYSDEC UNRESTRICTED USED SCO

SCALE: 1"=30'
0 30 60

dwg by: AG
chk by: SSG
scale: AS NOTED
date: 10/08/19

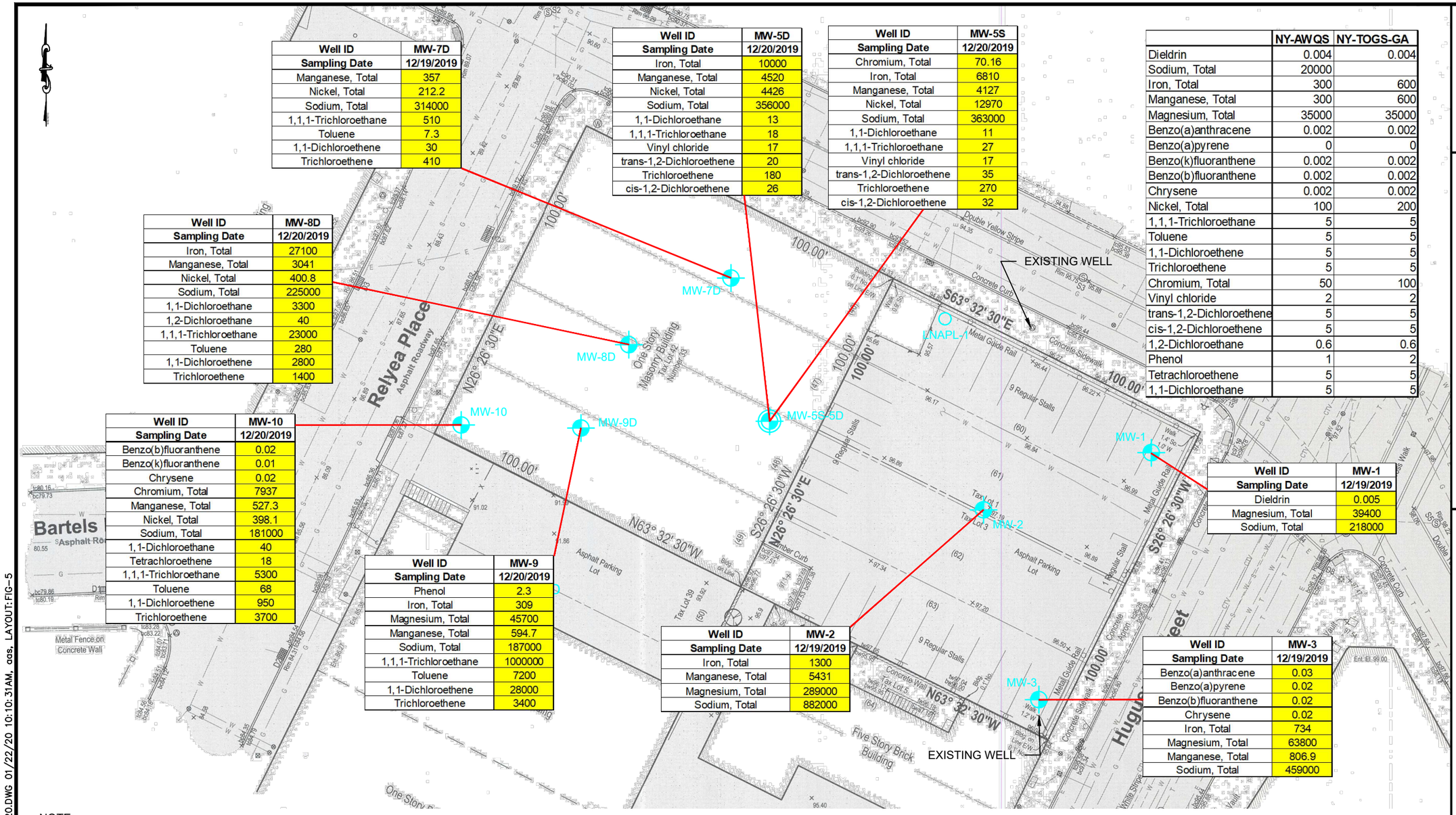
SESI CONSULTING ENGINEERS D.P.C.
SOILS / FOUNDATIONS
SITE DESIGN
ENVIRONMENTAL
12A MAPLE AVE. PINE BROOK, N.J. 07058 PH: 973-808-9050

project: HUGUENOT PARTNERS, LLC
33 CENTRE AVENUE
SECTION NO. 2, BLOCK NO. 437
LOTS 1, 3 AND 42
NEW ROCHELLE, NEW YORK

drawing title: SOIL SAMPLE RESULTS PLAN

job no: 10567
drawing no: FIG-4

N:\ACAD\10567\CADD\10567-FIG-3.1 SOIL IRM.DWG 01/22/20 10:10:02AM, gas, LAYOUT:FIG-4



Well ID	MW-7D
Sampling Date	12/19/2019
Manganese, Total	357
Nickel, Total	212.2
Sodium, Total	314000
1,1,1-Trichloroethane	510
Toluene	7.3
1,1-Dichloroethene	30
Trichloroethene	410

Well ID	MW-5D
Sampling Date	12/20/2019
Iron, Total	10000
Manganese, Total	4520
Nickel, Total	4426
Sodium, Total	356000
1,1-Dichloroethane	13
1,1,1-Trichloroethane	18
Vinyl chloride	17
trans-1,2-Dichloroethene	20
Trichloroethene	180
cis-1,2-Dichloroethene	26

Well ID	MW-5S
Sampling Date	12/20/2019
Chromium, Total	70.16
Iron, Total	6810
Manganese, Total	4127
Nickel, Total	12970
Sodium, Total	363000
1,1-Dichloroethane	11
1,1,1-Trichloroethane	27
Vinyl chloride	17
trans-1,2-Dichloroethene	35
Trichloroethene	270
cis-1,2-Dichloroethene	32

	NY-AWQS	NY-TOGS-GA
Dieldrin	0.004	0.004
Sodium, Total	20000	
Iron, Total	300	600
Manganese, Total	300	600
Magnesium, Total	35000	35000
Benzo(a)anthracene	0.002	0.002
Benzo(a)pyrene	0	0
Benzo(k)fluoranthene	0.002	0.002
Benzo(b)fluoranthene	0.002	0.002
Chrysene	0.002	0.002
Nickel, Total	100	200
1,1,1-Trichloroethane	5	5
Toluene	5	5
1,1-Dichloroethene	5	5
Trichloroethene	5	5
Chromium, Total	50	100
Vinyl chloride	2	2
trans-1,2-Dichloroethene	5	5
cis-1,2-Dichloroethene	5	5
1,2-Dichloroethane	0.6	0.6
Phenol	1	2
Tetrachloroethene	5	5
1,1-Dichloroethane	5	5

Well ID	MW-8D
Sampling Date	12/20/2019
Iron, Total	27100
Manganese, Total	3041
Nickel, Total	400.8
Sodium, Total	225000
1,1-Dichloroethane	3300
1,2-Dichloroethane	40
1,1,1-Trichloroethane	23000
Toluene	280
1,1-Dichloroethene	2800
Trichloroethene	1400

Well ID	MW-10
Sampling Date	12/20/2019
Benzo(b)fluoranthene	0.02
Benzo(k)fluoranthene	0.01
Chrysene	0.02
Chromium, Total	7937
Manganese, Total	527.3
Nickel, Total	398.1
Sodium, Total	181000
1,1-Dichloroethane	40
Tetrachloroethene	18
1,1,1-Trichloroethane	5300
Toluene	68
1,1-Dichloroethene	950
Trichloroethene	3700

Well ID	MW-9
Sampling Date	12/20/2019
Phenol	2.3
Iron, Total	309
Magnesium, Total	45700
Manganese, Total	594.7
Sodium, Total	187000
1,1,1-Trichloroethane	1000000
Toluene	7200
1,1-Dichloroethene	28000
Trichloroethene	3400

Well ID	MW-2
Sampling Date	12/19/2019
Iron, Total	1300
Manganese, Total	5431
Magnesium, Total	289000
Sodium, Total	882000

Well ID	MW-1
Sampling Date	12/19/2019
Dieldrin	0.005
Magnesium, Total	39400
Sodium, Total	218000

Well ID	MW-3
Sampling Date	12/19/2019
Benzo(a)anthracene	0.03
Benzo(a)pyrene	0.02
Benzo(b)fluoranthene	0.02
Chrysene	0.02
Iron, Total	734
Magnesium, Total	63800
Manganese, Total	806.9
Sodium, Total	459000

NOTE:
THIS PLAN IS FOR LOCATING MONITORING WELLS AND CONTAMINANT FOUND IN EACH TEST. ALL CONCENTRATIONS IN ug/L (ppb).

LEGEND:

MW-6 - MONITORING WELL LOCATION

MW-5S/5D - SHALLOW/DEEP NESTED MONITORING WELL LOCATION; 5S/5D ONLY

40 - Exceeds NY-AWQS: New York TOGS 1.1.1 Ambient Water Quality Standards and NY-TOGS-GA: New York TOGS 1.1.1 Groundwater Effluent Limitations

SCALE: 1"=30'

0 30 60

REFERENCE

1. EXIST CONDITIONS & BOUNDARY ARE TAKEN FROM "BOUNDARY SURVEY OF LOTS 46 THRU 49 AND 60 THRU 63 INCL. MAP OR PROPERTY BELONGING TO MARIA R. LAWTON, DECEASED" PREPARED BY H2M ARCHITECTS AND ENGINEERS DATED SEPT. 28, 2018.

SESI CONSULTING ENGINEERS D.P.C.
SOILS / FOUNDATIONS
SITE DESIGN
ENVIRONMENTAL
12A MAPLE AVE. PINE BROOK, N.J. 07058 PH: 973-808-9050

dwg by: aas
chk by: SSG
scale: AS NOTED
date: 1/3/2020

project: HUGUENOT PARTNERS, LLC
33 CENTRE AVENUE
SECTION NO. 2, BLOCK NO. 437
LOTS 1, 3 AND 42
NEW ROCHELLE, NEW YORK

drawing title: SAMPLING LOCATION PLAN & CONTAMINANT DISTRIBUTION IN GROUNDWATER

job no: 10567
drawing no:

FIG-5

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Sample Name	SV-1
Date	12/11/2019
Trichloroethene	53.5
1,1-Dichloroethene	16

Sample Name	SV-2
Date	12/11/2019
Trichloroethene	11.4

Sample Name	SV-5
Date	12/11/2019
1,1-Dichloroethene	1110
Trichloroethene	184
1,1,1-Trichloroethane	15100

	Units	NYSDOH Standards	
		NY-SSC-A	NY-SSC-B
1,1-Dichloroethene	ug/m3	6	
Trichloroethene	ug/m3	6	
1,1,1-Trichloroethane	ug/m3		100

NOTE:
1. THIS PLAN IS FOR LOCATING SOIL VAPOR SAMPLING POINTS AND THEIR RESULTS.
2. NY-SSC-A: NEW YORK DOH MATRIX A SUB-SLAB VAPOR CONCENTRATIONS CRITERIA PER GUIDANCE FOR EVALUATING SOIL VAPOR INTRUSION, UPDATED MAY 2017.
2. NY-SSC-B: NEW YORK DOH MATRIX B SUB-SLAB VAPOR CONCENTRATIONS CRITERIA PER GUIDANCE FOR EVALUATING SOIL VAPOR INTRUSION, UPDATED MAY 2017.

LEGEND:

SV-5 - SOIL VAPOR POINT LOCATION

16 - EXCEEDS NY SOIL VAPOR STANDARDS

REFERENCE
1. EXIST CONDITIONS & BOUNDARY ARE TAKEN FROM "BOUNDARY SURVEY OF LOTS 46 THRU 49 AND 60 THRU 63 INCL. MAP OR PROPERTY BELONGING TO MARIA R. LAWTON, DECEASED" PREPARED BY H2M ARCHITECTS AND ENGINEERS DATED SEPT. 28, 2018.

SCALE: 1"=30'
0 30 60

SESI CONSULTING ENGINEERS D.P.C.
SOILS / FOUNDATIONS
SITE DESIGN
ENVIRONMENTAL
12A MAPLE AVE. PINE BROOK, N.J. 07058 PH: 973-808-9050

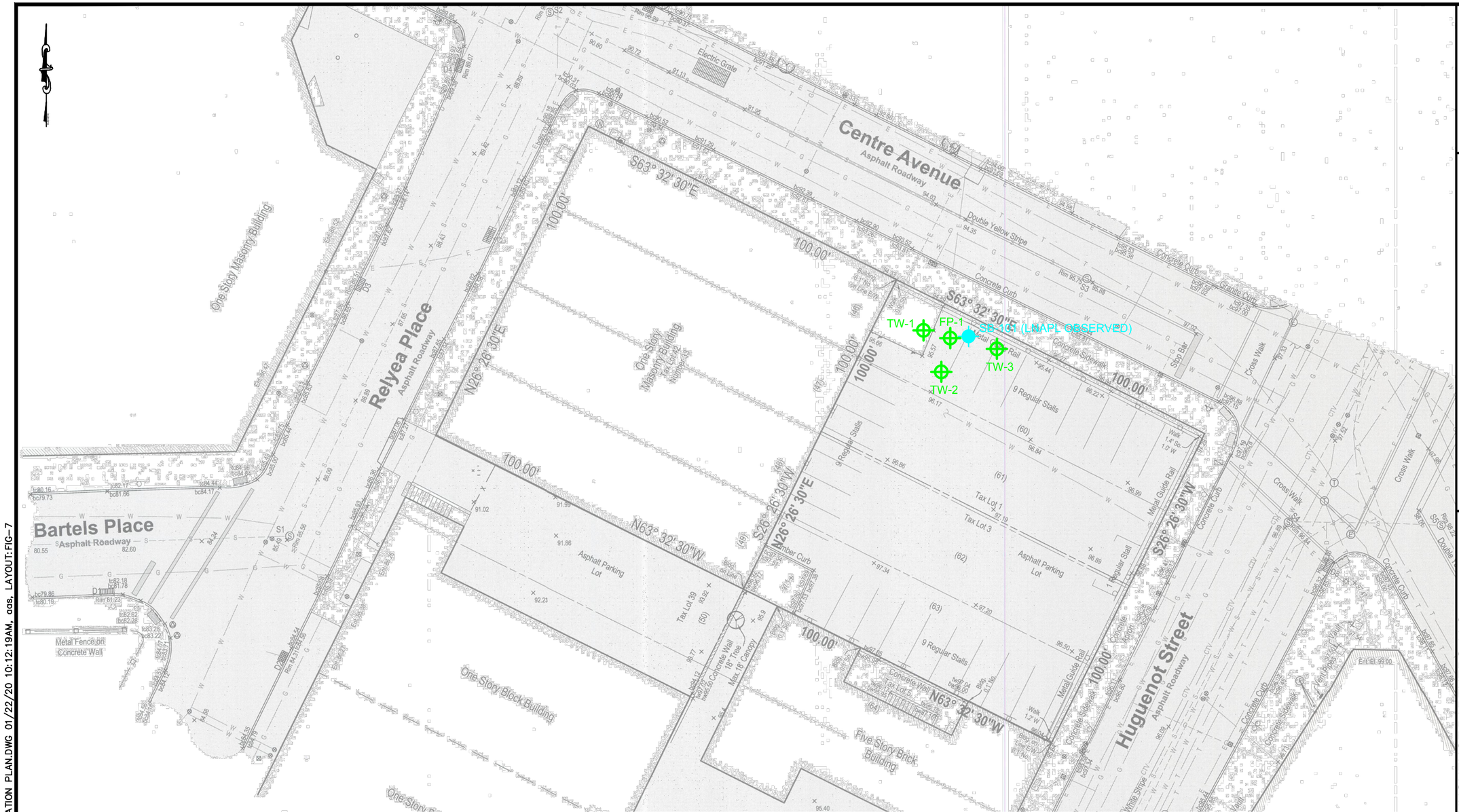
dwg by: aas
chk by: SSG
scale: AS NOTED
date: 1/7/2020

project: HUGUENOT PARTNERS, LLC
33 CENTRE AVENUE
SECTION NO. 2, BLOCK NO. 437
LOTS 1, 3 AND 42
NEW ROCHELLE, NEW YORK

drawing title: SOIL VAPOR SAMPLING PLAN AND RESULTS

job no: 10567
drawing no: FIG-6

N:\ACAD\10567\CADD\RWP\10567-FIG-4,3A.SOIL VAPOR SAMPLING PLAN.DWG 01/22/20 10:10:50AM, gas, LAYOUT:FIG-6


Centre Avenue
Asphalt Roadway
Double Yellow Stripe
Concrete Curb
Granite Curb
Concrete Sidewalk
Stop Bar
Cross Walk
Relyea Place
Asphalt Roadway
Bartels Place
Asphalt Roadway
Huguenot Street
Asphalt Roadway
One Story Masonry Building
One Story Masonry Building
Tax Lot Number
Asphalt Parking Lot
Asphalt Parking Lot
One Story Block Building
Five Story Brick Building
Metal Fence on Concrete Wall
Concrete Wall
18" Tree
Max. 16" Canopy
Metal Guide Rail
Concrete Curb
Concrete Sidewalk
Tax Lot 1
Tax Lot 3
Tax Lot 39
Tax Lot 5
9 Regular Stalls
1 Regular Stall
Electric Grate
Rim 88.07
Rim 95.78
Rim 81.23
Rim 83.13
Rim 85.86
Rim 85.57
Rim 85.66
Rim 85.33
Rim 84.88
Rim 85.44
Rim 85.96
Rim 86.42
Rim 86.47
Rim 86.58
Rim 86.69
Rim 86.84
Rim 87.88
Rim 88.42
Rim 88.47
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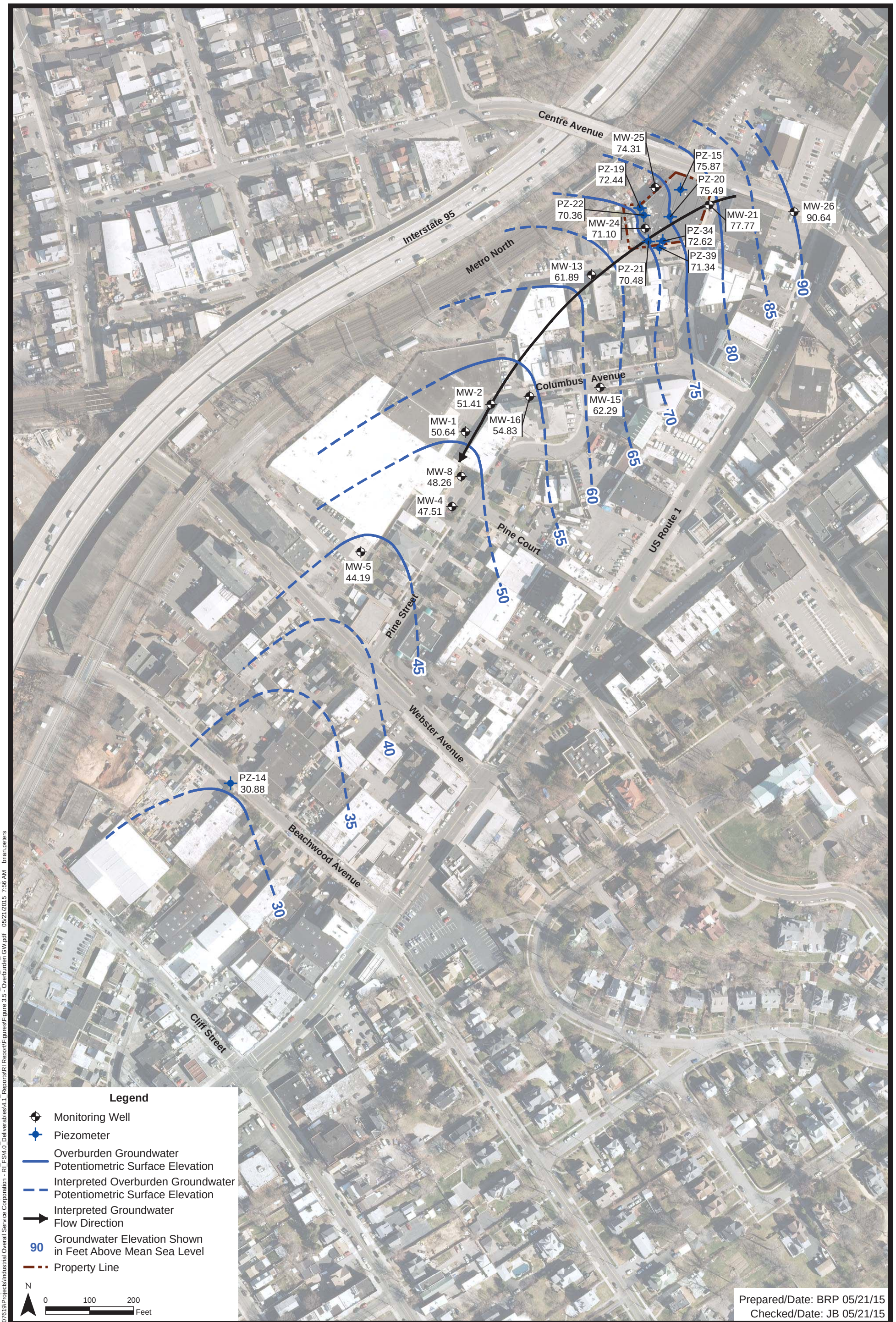
Rim 90.97
Rim



REMEDIAL INVESTIGATION
INDUSTRIAL OVERALL SERVICES
NEW ROCHELLE, NEW YORK

MACTEC

2015 OVERBURDEN
GROUNDWATER CONTOURS
Project 3612112221 Figure 3.5

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REMEDIAL INVESTIGATION
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2015 BEDROCK
GROUNDWATER CONTOURS
Project 3612112221 Figure 3.6

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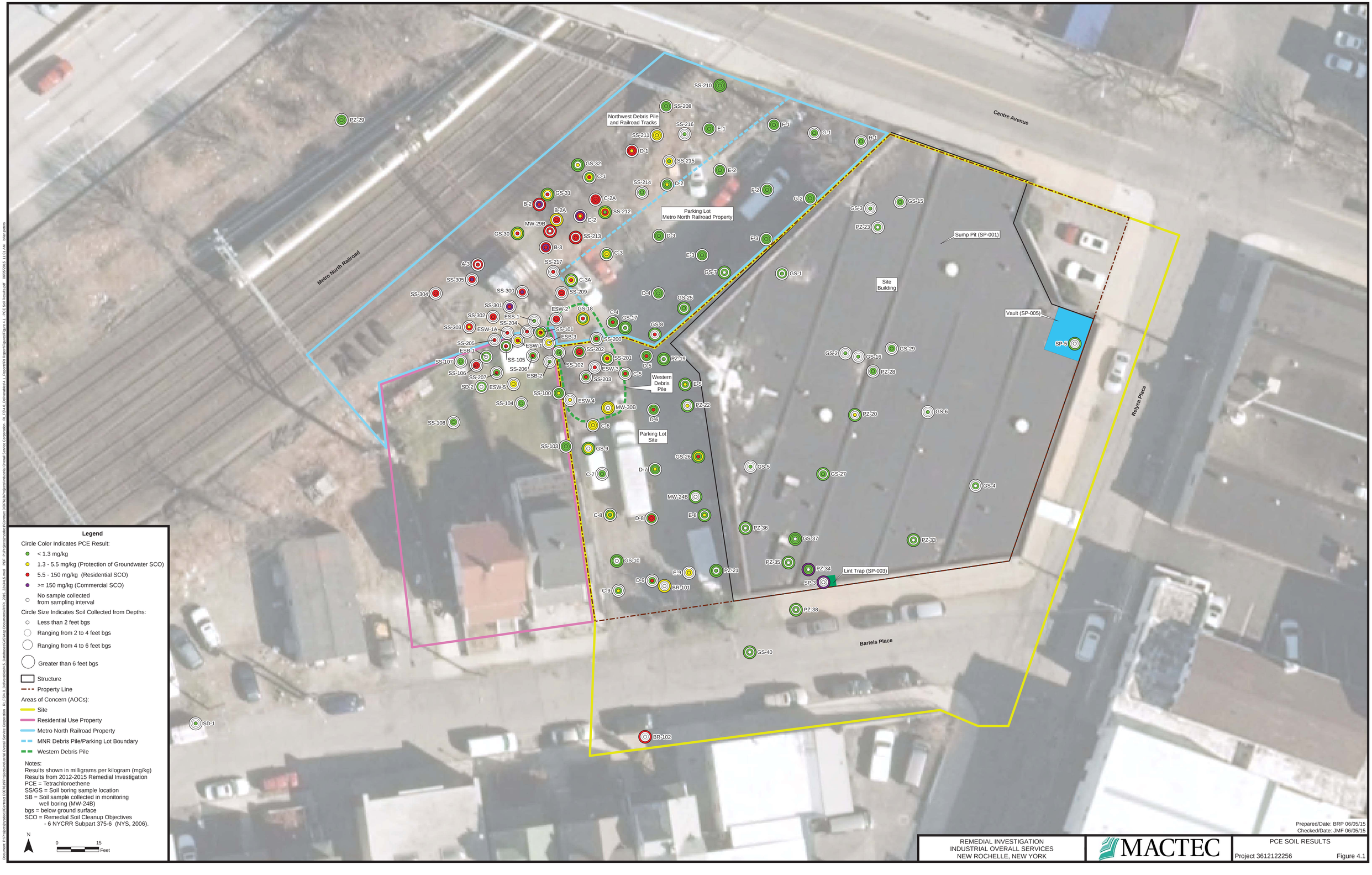

Legend

Circle Color Indicates PCE Result:

- < 1.3 mg/kg
- 1.3 - 5.5 mg/kg (Protection of Groundwater SCO)
- 5.5 - 150 mg/kg (Residential SCO)
- >= 150 mg/kg (Commercial SCO)
- No sample collected from sampling interval

Circle Size Indicates Soil Collected from Depths:

- Less than 2 feet bgs
- Ranging from 2 to 4 feet bgs
- Ranging from 4 to 6 feet bgs
- Greater than 6 feet bgs

- Structure
- Property Line

Areas of Concern (AOCs):

- Site
- Residential Use Property
- Metro North Railroad Property
- MNR Debris Pile/Parking Lot Boundary
- Western Debris Pile

Notes:
Results shown in milligrams per kilogram (mg/kg)
Results from 2012-2015 Remedial Investigation
PCE = Tetrachloroethene
SS/GS = Soil boring sample location
SB = Soil sample collected in monitoring well boring (MW-24B)
bgs = below ground surface
SCO = Remedial Soil Cleanup Objectives - 6 NYCRR Subpart 375-6 (NYS, 2006).

N

0 15 Feet

Prepared/Date: BRP 06/05/15
Checked/Date: JMF 06/05/15

REMEDIAL INVESTIGATION
INDUSTRIAL OVERALL SERVICES
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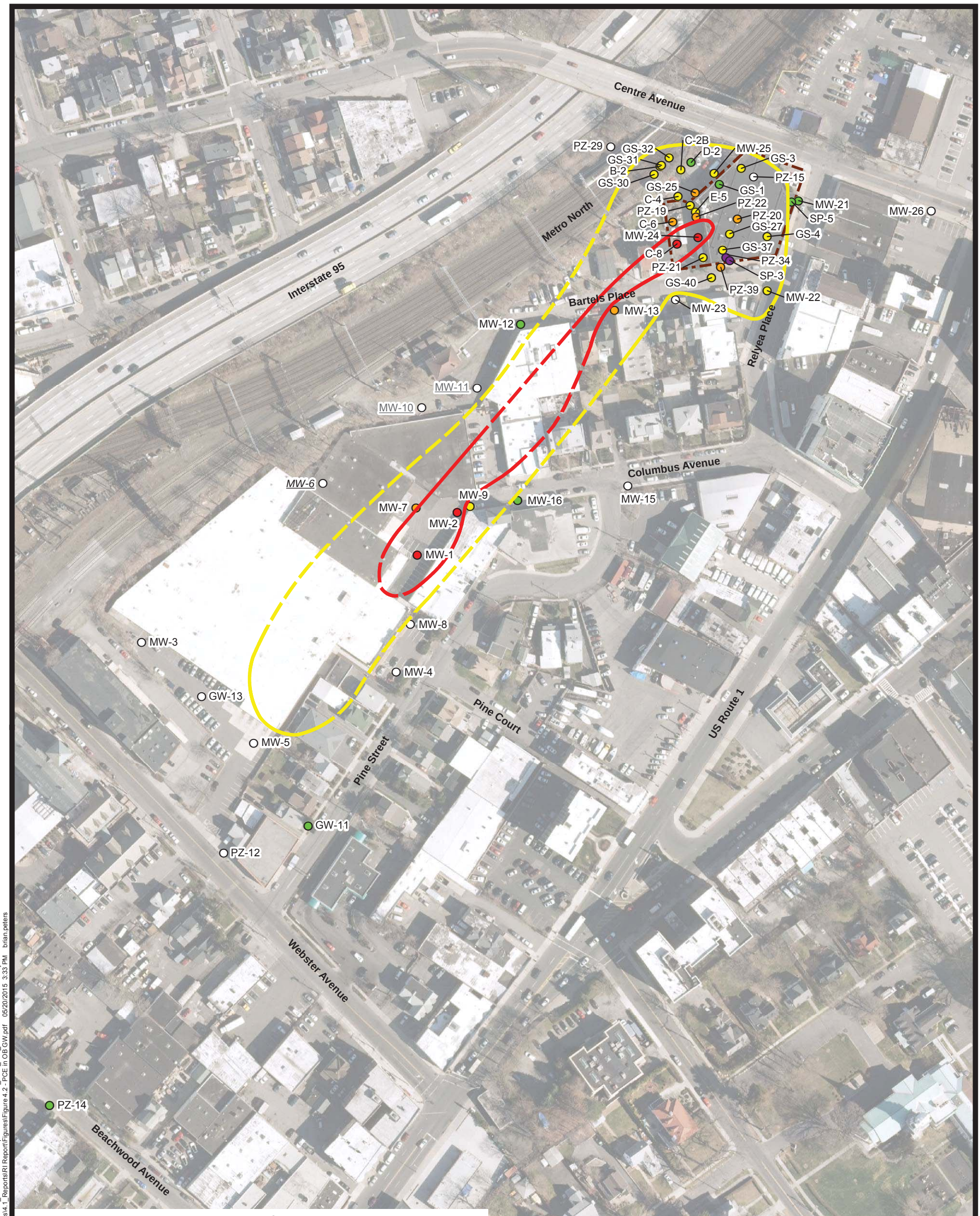
PCE SOIL RESULTS

Project 3612122256 Figure 4.1



REMEDIAL INVESTIGATION
INDUSTRIAL OVERALL SERVICES
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PCE CONCENTRATIONS IN
OVERBURDEN GROUNDWATER
Project 3612112221 Figure 4.2

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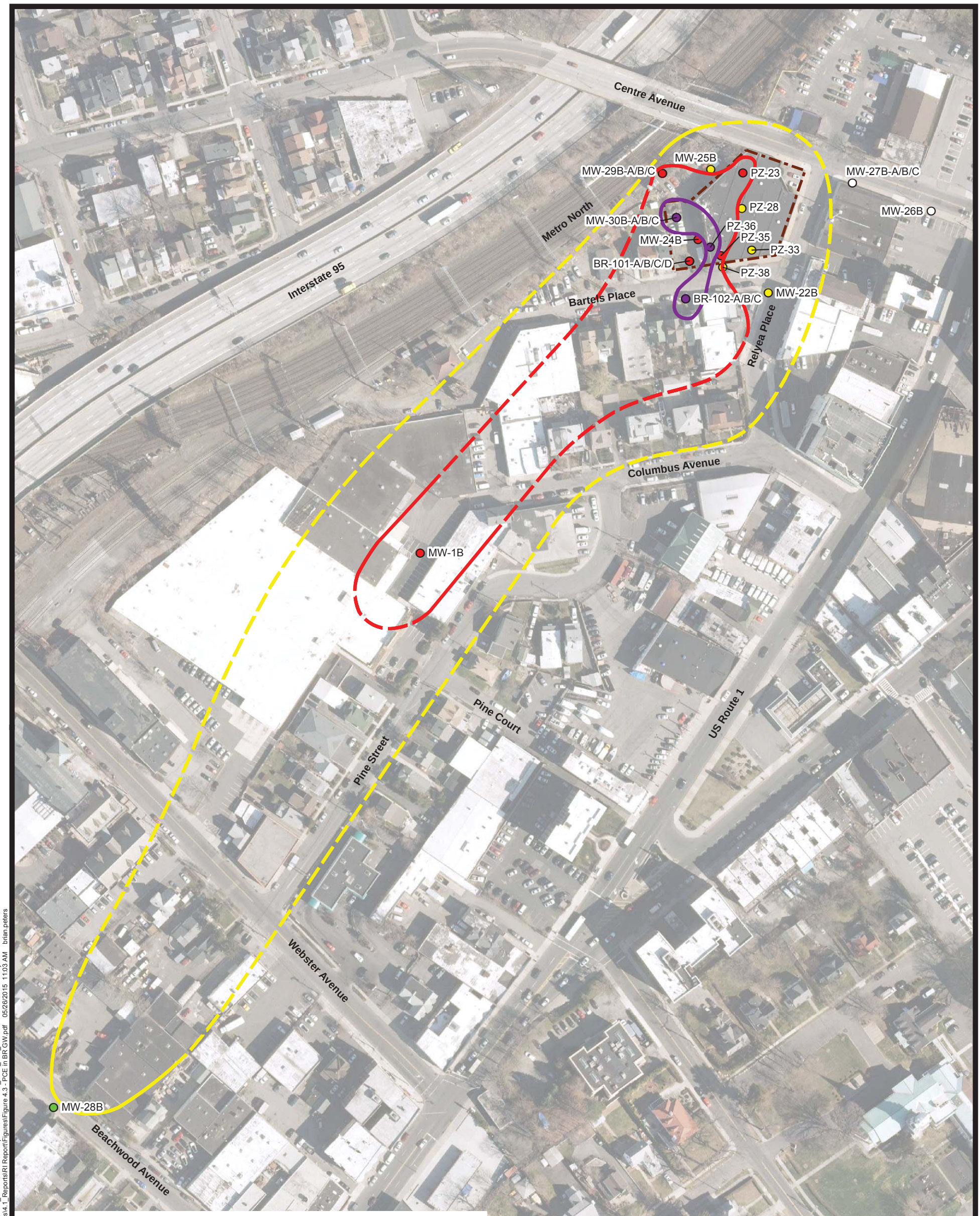

REMEDIAL INVESTIGATION
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PCE CONCENTRATIONS IN
BEDROCK GROUNDWATER
Project 3612112221 Figure 4.3

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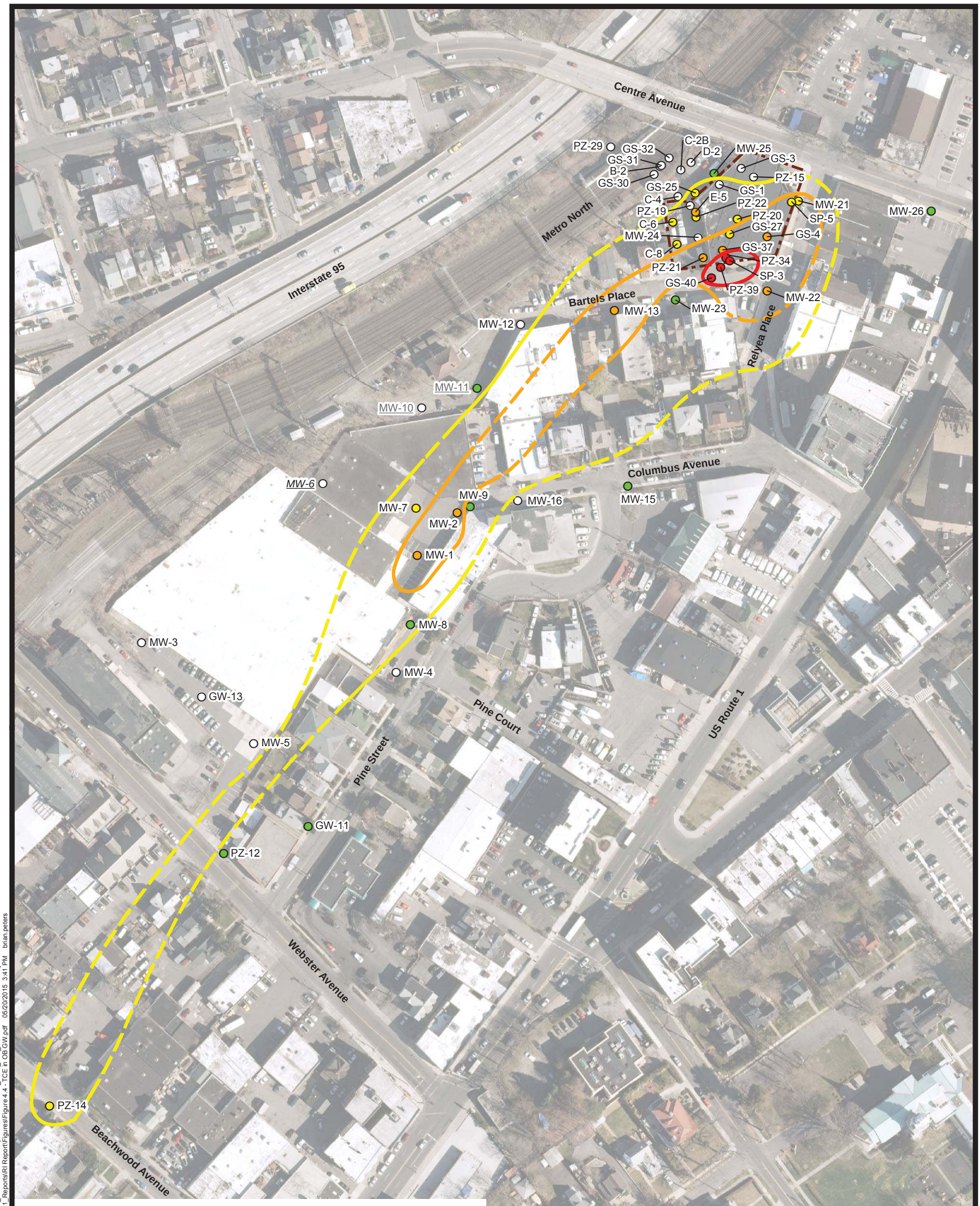

Legend

TCE in Groundwater:
- < 5 µg/L
- 5 - 100 µg/L
- 100 - 1,000 µg/L
- > 1,000 µg/L
- Non-Detect

- Interpreted Area of TCE Detected in Groundwater at Concentrations exceeding 1,000 µg/L
- Interpreted Area of TCE Detected in Groundwater at Concentrations exceeding 100 µg/L
- Interpreted Area of TCE Detected in Groundwater at Concentrations exceeding 5 µg/L
- Property Line

TCE = Trichloroethene

Results Shown in µg/L from 2012-2015

µg/L = micrograms per Liter

MW-26 = Groundwater Sampling Location

MW-6 = TCE Results Shown from December 2008

MW-10 = Well Decommissioned in 2015

N

0 70 140 Feet

Prepared/Date: BRP 05/20/15
Checked/Date: JB 05/20/15

REMEDIAL INVESTIGATION
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TCE CONCENTRATIONS IN
OVERBURDEN GROUNDWATER
Project 3612112221 Figure 4.4

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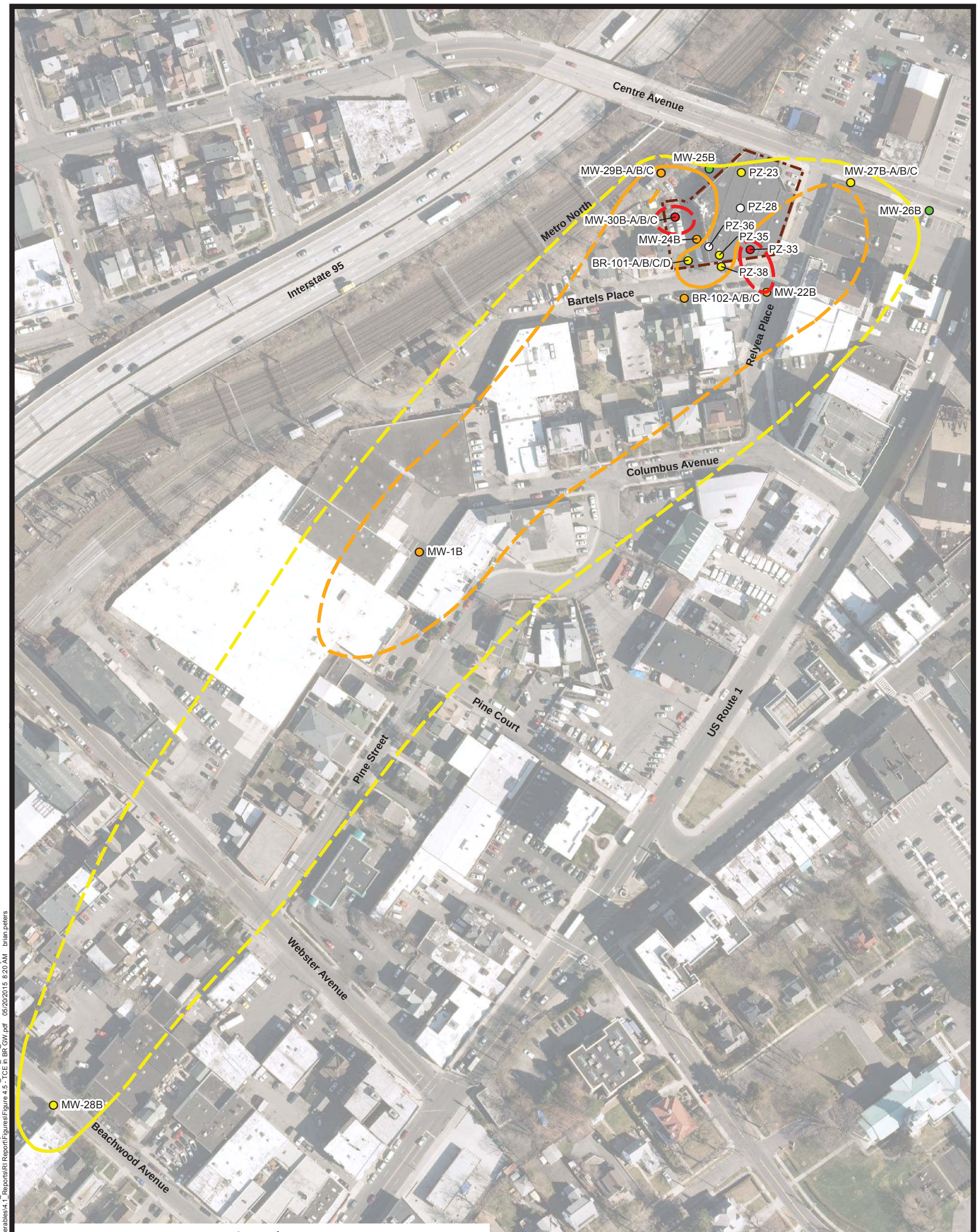

Legend

TCE in Groundwater:
- < 5 µg/L
- 5 - 100 µg/L
- 100 - 1,000 µg/L
- > 1,000 µg/L
- Non-Detect

- Interpreted Area of TCE Detected in Groundwater at Concentrations exceeding 1,000 µg/L
- Interpreted Area of TCE Detected in Groundwater at Concentrations exceeding 100 µg/L
- Interpreted Area of TCE Detected in Groundwater at Concentrations exceeding 5 µg/L
- Property Line

TCE = Trichloroethene
Results Shown in µg/L from 2012-2015
µg/L = micrograms per Liter
MW-26B = Groundwater Sampling Location

N
0 70 140 Feet

Prepared/Date: BRP 05/20/15
Checked/Date: JB 05/20/15

REMEDIAL INVESTIGATION
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TCE CONCENTRATIONS IN
BEDROCK GROUNDWATER
Project 3612112221 Figure 4.5

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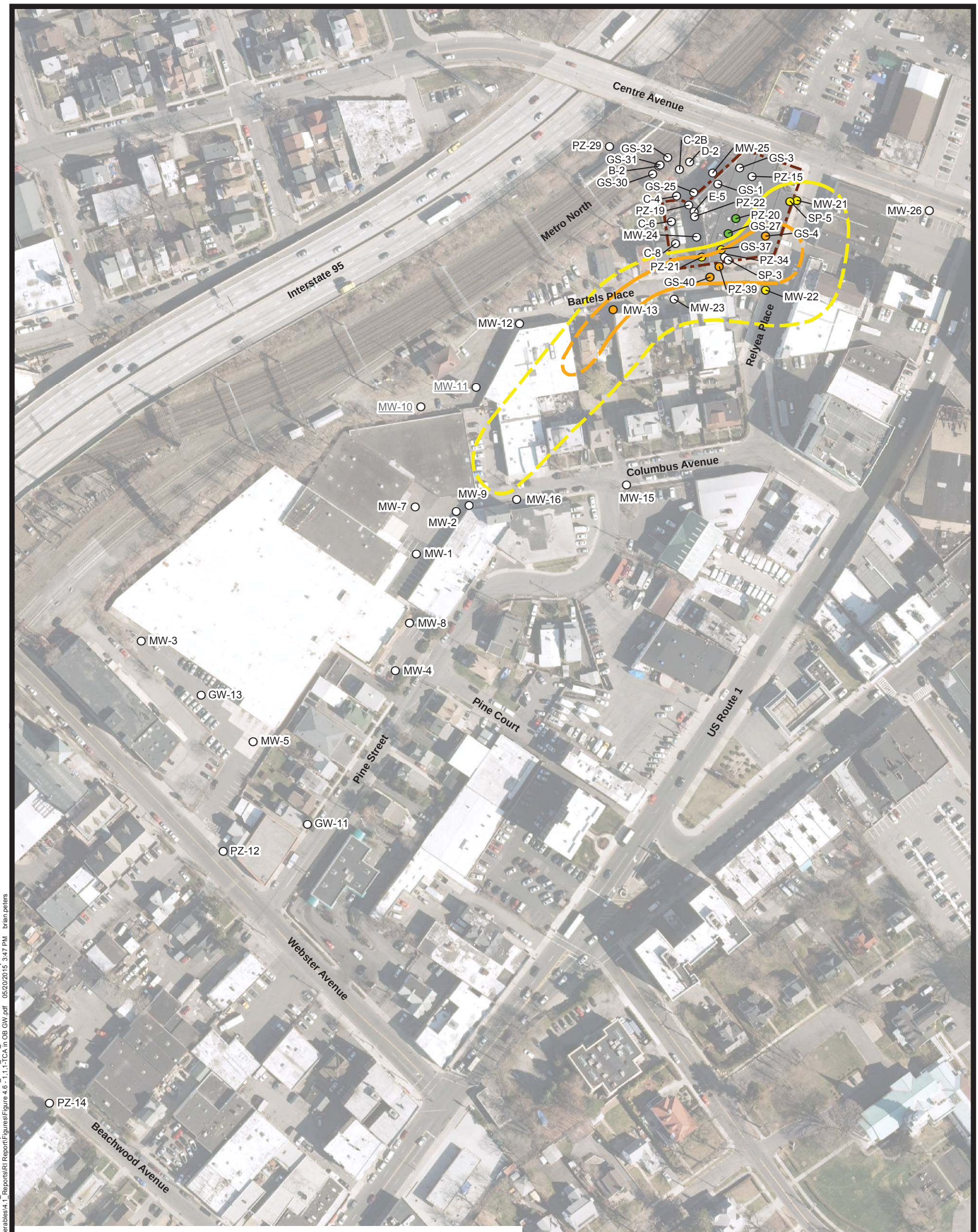

Legend

1,1,1-TCA in Groundwater:
- < 5 µg/L
- 5 - 100 µg/L
- 100 - 1,000 µg/L
- Non-Detect

- Interpreted Area of 1,1,1-TCA Detected in Groundwater at Concentrations exceeding 100 µg/L
- Interpreted Area of 1,1,1-TCA Detected in Groundwater at Concentrations exceeding 5 µg/L
- Property Line

1,1,1-TCA = 1,1,1-Trichloroethane
Results Shown in µg/L from 2012-2015
µg/L = micrograms per Liter
MW-26 = Groundwater Sampling Location
MW-10 = Well Decommissioned in 2015

N
0 70 140 Feet

Prepared/Date: BRP 05/20/15
Checked/Date: JB 05/20/15

REMEDIAL INVESTIGATION
INDUSTRIAL OVERALL SERVICES
NEW ROCHELLE, NEW YORK

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1,1,1-TCA CONCENTRATIONS IN OVERBURDEN GROUNDWATER
Project 3612112221 Figure 4.6

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REMEDIAL INVESTIGATION
INDUSTRIAL OVERALL SERVICES
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1,1,1-TCA CONCENTRATIONS IN
BEDROCK GROUNDWATER
Project 3612112221 Figure 4.7

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NEW YORK STATE OF OPPORTUNITY. Department of Health

ANDREW M. CUOMO
Governor

HOWARD A. ZUCKER, M.D., J.D.
Commissioner

SALLY DRESLIN, M.S., R.N.
Executive Deputy Commissioner

April 14, 2020

Janet Brown, Director
Remedial Bureau C
Division of Environmental Remediation
NYS Department of Environmental Conservation
625 Broadway
Albany, NY 12233

Re: **Significant Threat Determination**
Centre Avenue Development - South
Site #C360182
New Rochelle, Westchester County

Dear Ms. Brown,

At your Department's request, we have reviewed the January 2020 *Remedial Investigation Report* (RIR) for the above-referenced site. I understand that on-site soil, groundwater, and soil vapor are contaminated with at least one of the following chlorinated volatile organic compounds (cVOCs): trichloroethene (TCE), 1,1-dichloroethene (1,1-DCE), and 1,1,1-trichloroethane (1,1,1-TCA). Also, sampling results indicate that site-related contamination in groundwater and soil vapor may be migrating off-site, and if occurring, could affect the indoor air quality of off-site buildings as a result of soil vapor intrusion. Mitigation systems to address the potential for soil vapor intrusion are in place at three off-site buildings in association with the adjacent inactive hazardous waste site Industrial Overall Service Corp. site (360109). However, additional off-site investigations to determine the potential for soil vapor intrusion concerns at remaining nearby parcels are needed.

I also understand that the applicant for the Centre Avenue Development – South brownfield cleanup program site is a volunteer and is not responsible for any off-site contamination associated with the site. Interim remedial measures are currently being carried out at the site, including the removal of all overburden and weathered bedrock along with necessary dewatering. On-site soil vapor will be addressed as detailed in the Remedial Action Work Plan.

Based on this information and the potential for exposures to site-related contamination at off-site properties, I believe that this site represents a significant threat to public health. If you have any questions, please contact me at (518) 402-7860.

Sincerely,

Maureen E. Schuck, Chief
Regions 3 & 6
Bureau of Environmental Exposure Investigation

Ec: C. Vooris/W. Kuehner/e-File
C. Westerman – NYSDOH MARO
D. Taylor – WCDOH
D. Bendell/ M. Kilmer– NYSDEC Region 3