



January 13, 2023

Ms. Karen Cahill
Project Manager
NYSDEC - Region 7 Office
Division of Environmental Remediation
615 Erie Boulevard West
Syracuse, NY 13204

RE: Revised Proposal for Sampling PFAS in Soil
800 Hiawatha Blvd. West (Former Roth Steel Site)
NYSDEC BCP Site No. C734083
JMT Job No. 16-S0140N

Dear Ms. Cahill:

On behalf of the Onondaga County Industrial Development Agency (OCIDA), JMT of New York, Inc. (JMT) is submitting this revision of the October 26, 2022 sampling plan for PFAS in soil at the Former Roth Steel Site (BCP Site No. C734083) based on the November 4, 2022 and December 15, 2022 Comment Letters from New York State Department of Environment Conservation (NYSDEC). This sampling plan has been prepared in accordance with NYSDEC's November 2022 Guidance for sampling of PFAS under the Part 375 Remedial Program.

In response to comment number 5 in NYSDEC's December 21, 2021 correspondence on the August 2021 Analysis of Alternatives/Remedial Work Plan (AA/RWP), a representative number of soil samples are proposed to be collected for PFAS testing. During the Remedial Investigation for the site and IRM sampling along the Lake Trail, soil was sampled at 42 locations. This includes soil borings, test pits and surface samples collected in 2016-2019 on the OCIDA portion of the site (15.1 acres, August 2012 Amendment). Based on this number of sample locations and the NYSDEC target (typically 10% for PFAS samples), soil will be sampled at five locations and tested for PFAS constituents. As requested by NYSDEC, sample locations will include the ASR disposal area in OU-1, a sample near well MW-2A, and a sample in the former "vehicle storage" area. It should be noted that NYSDEC's December 21, 2021, comment letter initially requested a sample in the "metal storage" area, but a subsequent NYSDEC email (February 18, 2022) clarified that the sample should be collected in the former "vehicle storage" area.

As shown in attached Figure 1, the five proposed PFAS sample locations are designated as (22)B-32 through (22)B-36. Sample location (22)B-35 is located adjacent to MW-2A and will also serve to characterize the former "vehicle storage" area. The (22)B-35 soil sample will be tested from the 0-2 feet interval. It should be noted that a cap is proposed for this area. As such, it should not be necessary to subdivide the 0-2 ft. interval into smaller segments for lab testing. Since the remaining four sample locations are all in areas where a cap may not be placed (see Figure 12, Revised AA/RWP, March 2022), the shallow soil interval will be subdivided into three segments (0-2", 2-12", 12-24"). Three quality

control samples (duplicate, matrix spike, and a matrix spike duplicate) will also be collected. Since the soil samples will be collected from 0 to 2 feet below ground surface, a hand auger or shovel will be used. Prior shallow soil sampling efforts at the site with a Geoprobe generally resulted in poor recovery.

Field personnel will follow the best management practices outlined in the November 2022 *Sampling, Analysis, and Assessment of Per- and Polyfluoroalkyl Substances (PFAS) Under NYSDEC's Part 375 Remedial Programs*, including sampling protocols in Appendix B of the NYSDEC's guidance document. All samples will be jarred in appropriate containers supplied by a laboratory certified for PFAS. Samples will be analyzed by EPA Method 1663 (see attached Alpha Analytical info sheet for analyte list and reporting limits). The laboratory will report the results in a Category B deliverable.

Concurrent with the PFAS soil sampling, JMT also will collect soil from three intervals (0-2", 2-12", 12-24") at three locations for polychlorinated biphenyls (PCBs), polyaromatic hydrocarbons (PAHs), and metals analyses via EPA Methods 8082, 8270, and 6010. These locations coincide with PFAS samples (22) B-33, (22) B-34, and (22) B-36, as shown on attached Figure 1. Per NYSDEC, any surface debris will be removed prior to sample collection, and if any of the proposed surface soil sampling locations are located in areas in which a concrete pad is present, this may be noted, and the locations adjusted by 20 feet in any direction without prior DEC approval. OCIDA understands that based on the results of this new sampling and the future site development plan, additional surface samples may be necessary to define the extent of a potential cap. This proposed approach is consistent with a phone conversation between JMT and NYSDEC on December 22, 2022.

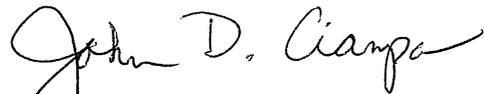
At the four locations ((22)B-32, (22)B-33, (22)B-34, (22)B-36)) where samples will be collected from the 12-24" interval, the lab analysis for this deeper interval will be put on hold until the results from the upper intervals are obtained. Lab testing of the 12-24" interval will only be performed if a restricted residential use is proposed, and the data is required to determine if a cap is necessary.

Sampling will be conducted when weather conditions are favorable to allow collection via hand tools (i.e., spring 2023). After sampling is complete, the data will be validated by a third-party data validator and entered into EQUIS. The results will be compiled into an updated AA/RWP that will also address other NYSDEC comments (as discussed in JMT's October 14, 2022 correspondence). It is anticipated that the updated AA/RWP will be submitted within 45 days of receipt of the validated lab results. All results will be compared to applicable soil SCOs. As previously indicated, OCIDA understands that additional pre-design sampling may be necessary to establish the limits for the site cap based upon the site development plan.

If you have any comments or questions regarding the proposed sampling plan, feel free to contact me at 518-782-0882 or e-mail jciampa@jmt.com.

Sincerely,

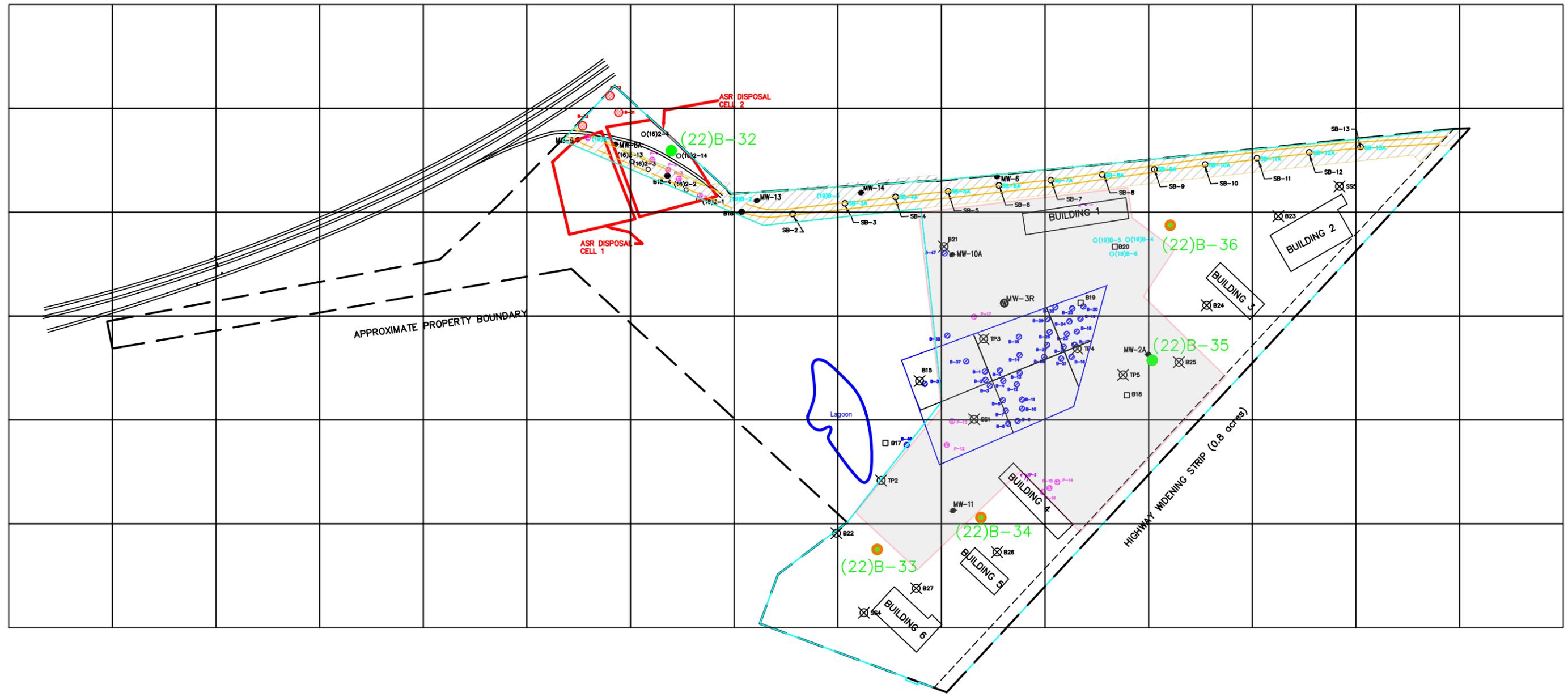
JMT of New York, Inc.



John D. Ciampa, PG

Attachment

cc w/ att.: R. Petrovich, OCIDA
J. Davis, Esq., Barclay Damon
S. Wagh, NYSDOH
M. Schuck, NYSDOH
S. McLaughlin, NYSDOH
M. Sheen, Esq., NYSDEC
G. Priscott, NYSDEC
R.P. Kinchen Central Library



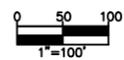
LEGEND

- APPROXIMATE WASTE CELL LOCATIONS
- BAUMGARTNER WASTE CELL SAMPLE LOCATIONS
- PASSERO SAMPLE LOCATIONS
- BROWN AND CALDWELL SAMPLE LOCATIONS
- AECOM SAMPLE LOCATIONS
- FATLYN SOIL TEST BORINGS
- VAPOR POINT SAMPLE LOCATION (2018)
- CLOUGH HARBOR and ASSOCIATES SAMPLE LOCATIONS (SB 1 - SB 13)
- JMT SAMPLE LOCATIONS (2017; B prefix denotes Boring and TP prefix denotes Test Pit)
- JMT SAMPLE LOCATIONS (2017; Originally proposed as Boring but completed as Test Pit)
- GEOTECHNICAL BORINGS (2016 and 2018)
- JMT SAMPLE LOCATIONS (2019)
- MONITORING WELL
- 200' SAMPLING GRID
- 150' SAMPLING GRID
- TRAIL AREA - APPROVED REMEDIATION AREA
- ELEVATED PORTION OF WALKING TRAIL
- GROUND LEVEL PORTION OF WALKING TRAIL
- BCP SITE BOUNDARY

- 2022 Proposed Surface Soil Samples (PFAS, PCBs, metals, PAHs)
- 2022 Proposed PFAS Sampling Locations

NOTES:

1. All historic sample locations are approximate.
2. The 2017 Remedial Investigation sample locations have the nomenclature (17)[Sample Number] in the RIR text and data tables. The (17) prefix was omitted from this map for clarity.
3. The buildings were removed in 2018. Only slabs remain.





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PROPOSED PFAS SOIL SAMPLING LOCATIONS
800 Hiawatha Blvd
Syracuse, New York

PROJ. No.: 16140
DATE: 10/24/2022
SCALE: 1"=100'
DWG. NO. RIR
FIGURE 1



PFAAs via LCMSMS-Isotope Dilution (SOIL)

Holding Time: 90 days
 Container/Sample Preservation: 1 - Plastic 8oz unpreserved

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Surrogate Criteria
Perfluorobutanoic Acid (PFBA)	375-22-4	0.8	0.0504	ng/g	40-150	30	40-150	30	30	
Perfluoropentanoic Acid (PFPeA)	2706-90-3	0.4	0.056	ng/g	40-150	30	40-150	30	30	
Perfluorobutanesulfonic Acid (PFBS)	375-73-5	0.2	0.0432	ng/g	40-150	30	40-150	30	30	
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	757124-72-4	0.8	0.0808	ng/g	40-150	30	40-150	30	30	
Perfluorohexanoic Acid (PFHxA)	307-24-4	0.2	0.0464	ng/g	40-150	30	40-150	30	30	
Perfluoropentanesulfonic Acid (PFPeS)	2706-91-4	0.2	0.0232	ng/g	40-150	30	40-150	30	30	
Perfluoroheptanoic Acid (PFHpA)	375-85-9	0.2	0.0232	ng/g	40-150	30	40-150	30	30	
Perfluorohexanesulfonic Acid (PFHxS)	355-46-4	0.2	0.0592	ng/g	40-150	30	40-150	30	30	
Perfluorooctanoic Acid (PFOA)	335-67-1	0.2	0.052	ng/g	40-150	30	40-150	30	30	
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	27619-97-2	0.8	0.28	ng/g	40-150	30	40-150	30	30	
Perfluoroheptanesulfonic Acid (PFHpS)	375-92-8	0.2	0.0368	ng/g	40-150	30	40-150	30	30	
Perfluorononanoic Acid (PFNA)	375-95-1	0.2	0.0784	ng/g	40-150	30	40-150	30	30	
Perfluorooctanesulfonic Acid (PFOS)	1763-23-1	0.2	0.0792	ng/g	40-150	30	40-150	30	30	
Perfluorodecanoic Acid (PFDA)	335-76-2	0.2	0.0752	ng/g	40-150	30	40-150	30	30	
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	39108-34-4	0.8	0.3872	ng/g	40-150	30	40-150	30	30	
Perfluorononanesulfonic Acid (PFNS)	68259-12-1	0.2	0.0424	ng/g	40-150	30	40-150	30	30	
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSA)	2355-31-9	0.2	0.1	ng/g	40-150	30	40-150	30	30	
Perfluoroundecanoic Acid (PFUnA)	2058-94-8	0.2	0.0512	ng/g	40-150	30	40-150	30	30	
Perfluorodecanesulfonic Acid (PFDS)	335-77-3	0.2	0.032	ng/g	40-150	30	40-150	30	30	
Perfluorooctanesulfonamide (FOSA)	754-91-6	0.2	0.0432	ng/g	40-150	30	40-150	30	30	
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NETFOSSAA)	2991-50-6	0.2	0.0824	ng/g	40-150	30	40-150	30	30	
Perfluorododecanoic Acid (PFDoA)	307-55-1	0.2	0.0408	ng/g	40-150	30	40-150	30	30	
Perfluorotridecanoic Acid (PFTrDA)	72629-94-8	0.2	0.0528	ng/g	40-150	30	40-150	30	30	
Perfluorotetradecanoic Acid (PFTTA)	376-06-7	0.2	0.1064	ng/g	40-150	30	40-150	30	30	
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-Pr	13252-13-6	0.8	0.0984	ng/g	40-150	30	40-150	30	30	
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	919005-14-4	0.8	0.1464	ng/g	40-150	30	40-150	30	30	
Perfluorododecane Sulfonic Acid (PFDoDS)	79780-39-5	0.2	0.0384	ng/g	40-150	30	40-150	30	30	
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF)	756426-58-1	0.8	0.196	ng/g	40-150	30	40-150	30	30	
11-Chloroicosafuoro-3-Oxaundecane-1-Sulfonic Acid (11C)	763051-92-9	0.8	0.1672	ng/g	40-150	30	40-150	30	30	
N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	31506-32-8	0.2	0.1	ng/g	40-150	30	40-150	30	30	
N-Ethyl Perfluorooctane Sulfonamide (NETFOSA)	4151-50-2	0.2	0.112	ng/g	40-150	30	40-150	30	30	
N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	24448-09-7	2	0.2504	ng/g	40-150	30	40-150	30	30	
N-Ethyl Perfluorooctanesulfonamido Ethanol (NETFOSE)	1691-99-2	2	0.5104	ng/g	40-150	30	40-150	30	30	
Perfluoro-3-Methoxypropanoic Acid (PFMPA)	377-73-1	0.4	0.0408	ng/g	40-150	30	40-150	30	30	
Perfluoro-4-Methoxybutanoic Acid (PFMBA)	863090-89-5	0.4	0.0312	ng/g	40-150	30	40-150	30	30	
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEEESA)	113507-82-7	0.4	0.0832	ng/g	40-150	30	40-150	30	30	
Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	151772-58-6	0.4	0.0952	ng/g	40-150	30	40-150	30	30	
3-Perfluoropropyl Propanoic Acid (3:3FTCA)	356-02-5	1	0.144	ng/g	40-150	30	40-150	30	30	
2H,2H,3H,3H-Perfluorooctanoic Acid (5:3FTCA)	914637-49-3	5	0.5048	ng/g	40-150	30	40-150	30	30	
3-Perfluoroheptyl Propanoic Acid (7:3FTCA)	812-70-4	5	1.76	ng/g	40-150	30	40-150	30	30	
Perfluoro[13C4]Butanoic Acid (MPFBA)	NONE									20-150
Perfluoro[13C5]Pentanoic Acid (MSPFPEA)	NONE									20-150

Please Note that the RL information provided in this table is calculated using a 100% Solids factor. (Soil/Solids only)
 Please Note that the information provided in this table is subject to change at anytime at the discretion of Alpha Analytical, Inc.



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