

## WTC Dust Sampling & Analysis Report

Neighbors United Below Canal  
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ATTENTION: Jill Sung

Report Date: February 10, 2020  
Materials Received: Chung Pak Housing Complex  
(Latent Dust Residues)  
RJ Lee Group Job No: THH001602  
Analysis Service: WTC Dust Signature

This report discusses sampling and analysis services involving latent World Trade Center (WTC) dust residues, which could be impacted and reentrained as a result of proposed demolition work occurring at 124-125 White Street. Given the well-established toxicological effects associated with exposure to WTC dusts and the scale of work involved with construction of a new jail building, resulting exposure scenarios could lead to serious and negative health outcomes for the exposed population. Particularly where no abatement plan is developed in advance of this work. Not only will the reentrainment of latent dusts affect workers, it will also impact the immediate community - particularly those individuals who reside or work in the area and have an extended or ongoing coexistence with the active construction locale.

Per request of NUBC representatives, RJ Lee Group visited the affected neighborhood and sampled latent dusts within the Chung Pak Housing Complex (96 Baxter St, New York, NY, 11423). Because this building is similar in character to those structures which will be demolished, including 124-125 White Street, the site is representative of the affected community and is expected to contain dusts similar to those which will be disturbed. Upon completion of our sampling activities, collected dusts were submitted via Chain-Of-Custody to our laboratory and analyzed by Scanning Electron Microscopy (SEM) to catalog the physicochemical properties of particulates. Thereafter, these traits were compared against the known signature of dusts generated from the WTC collapse.

Herein are images depicting the Chung Pak building and those surfaces which underwent dust residue sampling:





**Residues from Window Frame Across from Arts & Crafts I**



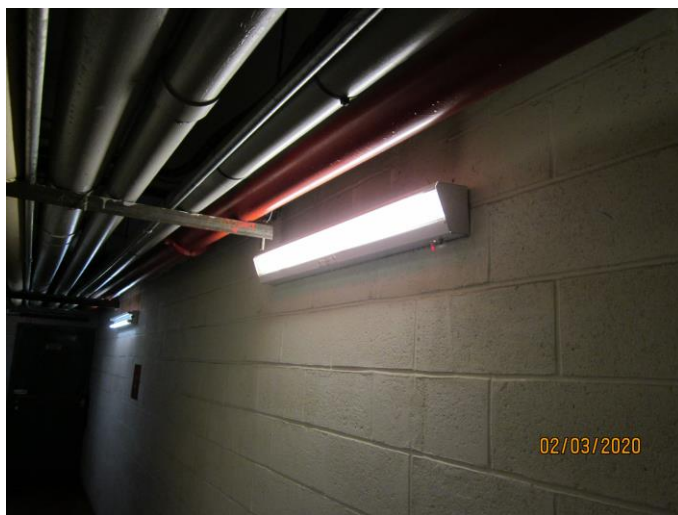
**Residues from Electrical Junction Boxes @ Roof Access Stair Landing**



**Residues from Sprinkler System Riser Surfaces in 9th Floor Stairwell**



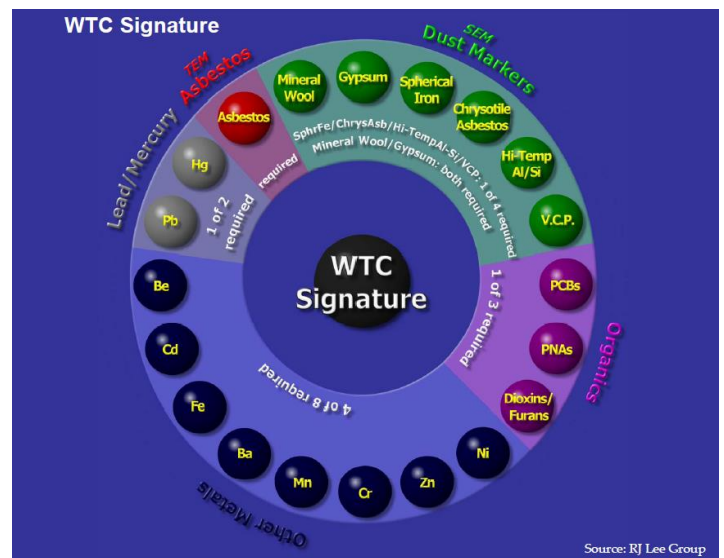
**Residues from Window Frame in Unit 11F**

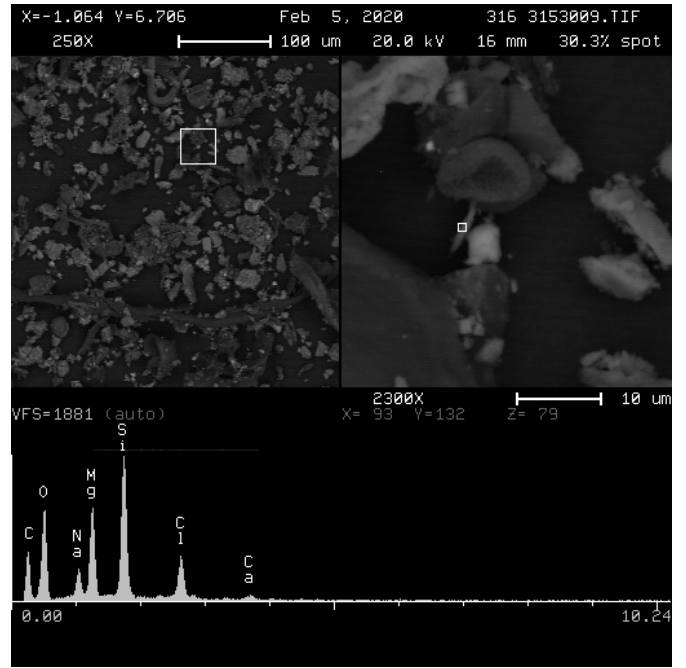
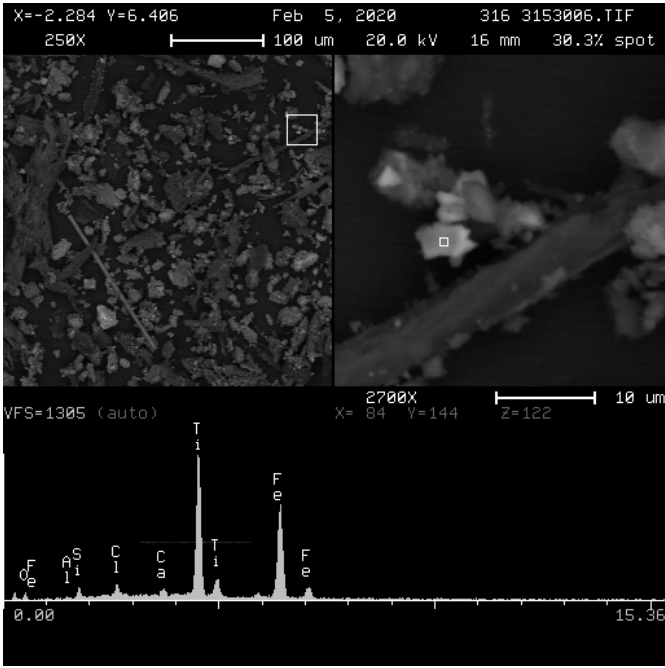


### Residues from Overhead Piping and Light Fixture in 'C' Corridor

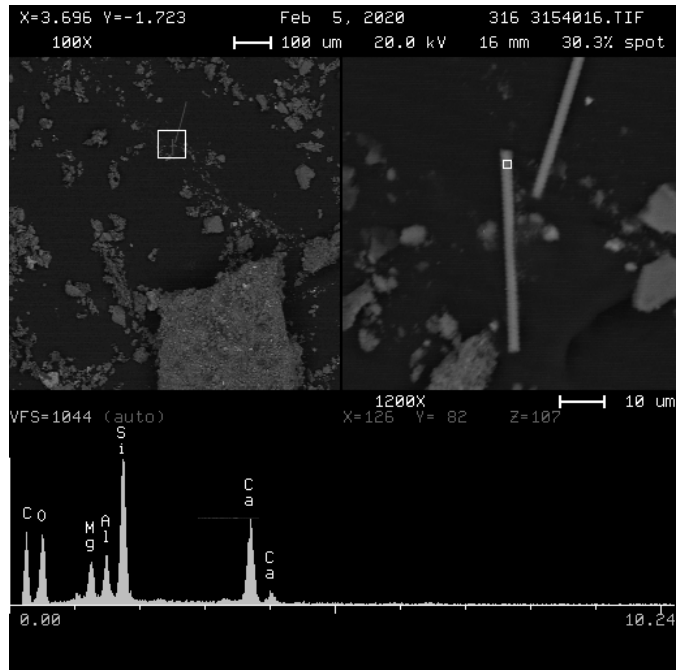
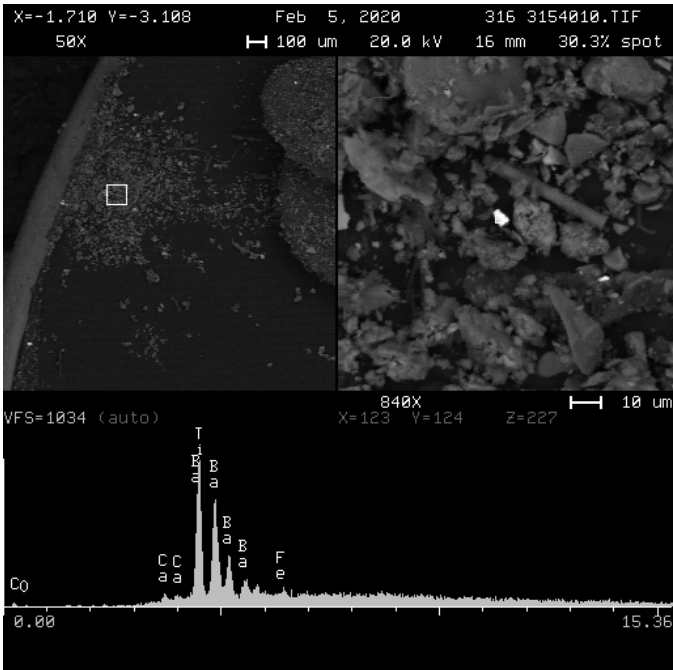
To facilitate physicochemical profiling, dust residues were analyzed using a Scanning Electron Microscope. Thereafter, the results generated by this particle-by-particle characterization were compared against the known signature of World Trade Center dusts. Herein is a paradigm detailing the physicochemical profile of WTC Dusts including physical, mineralogical and chemical constituents shown to be present within WTC dust residues.

To provide additional detail to this process, SEM images were collected for each sample and the resultant particulate profiles described, revealing the physicochemical and mineralogical properties for each particle analyzed.

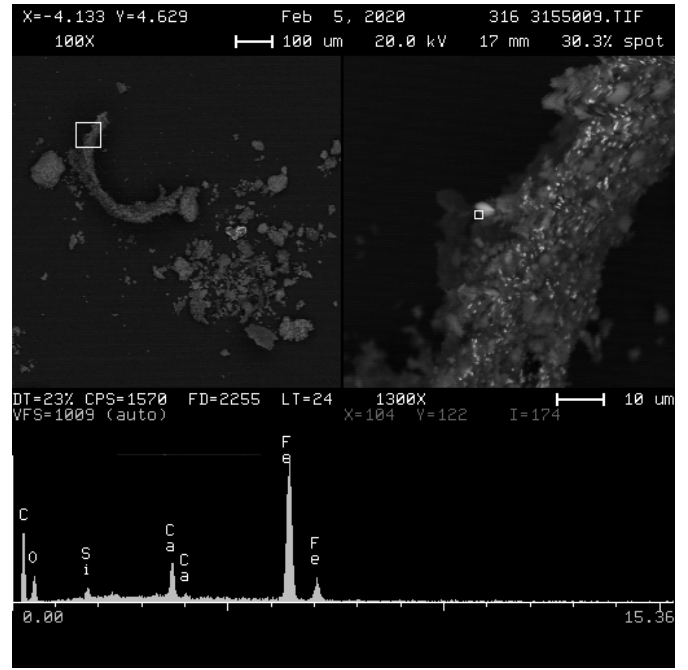
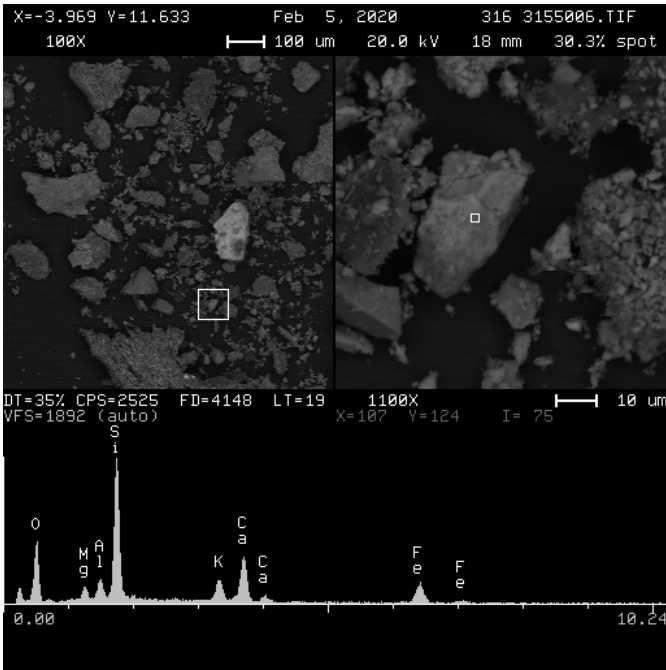




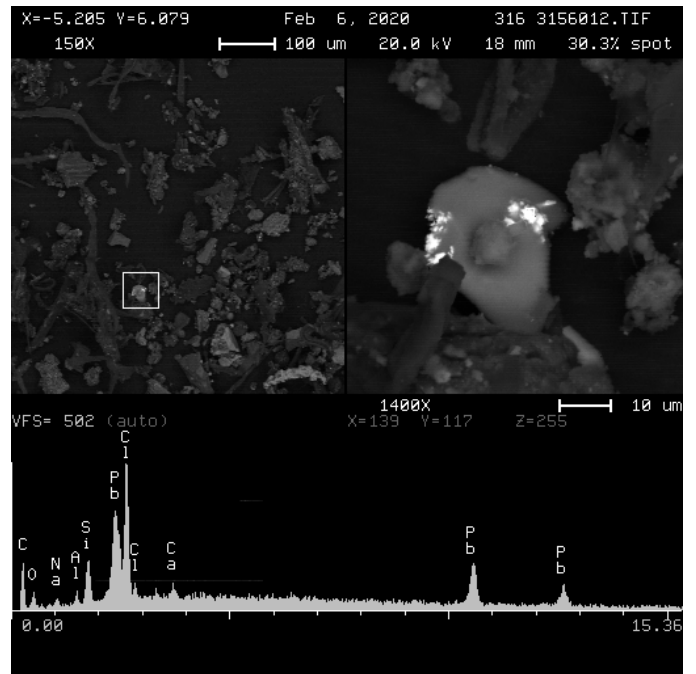
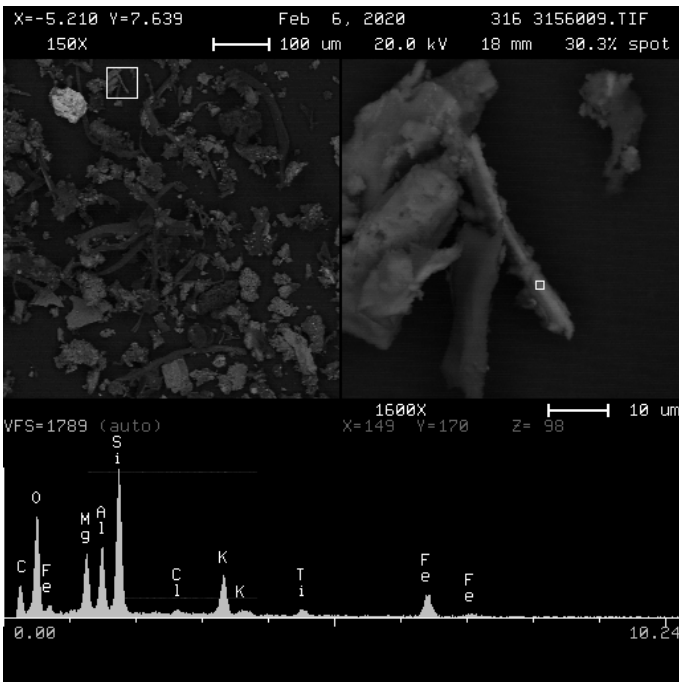
### Residues from Window Frame Across from Arts & Crafts I



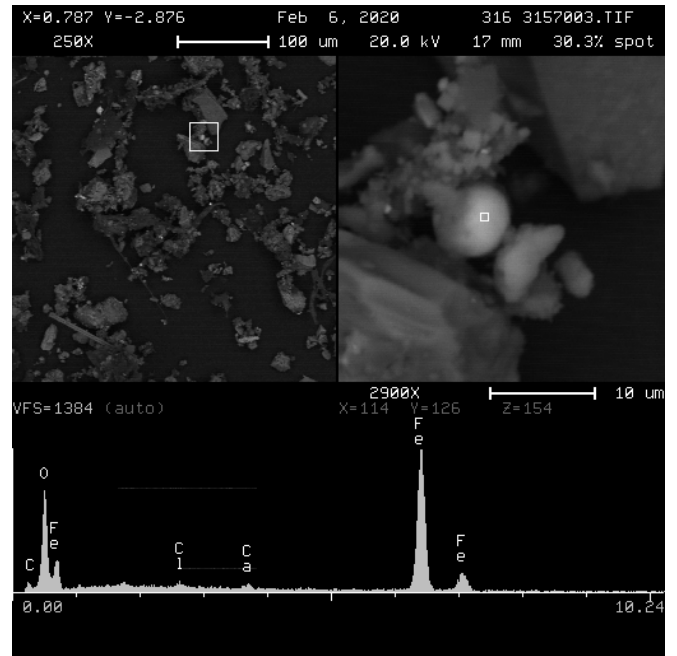
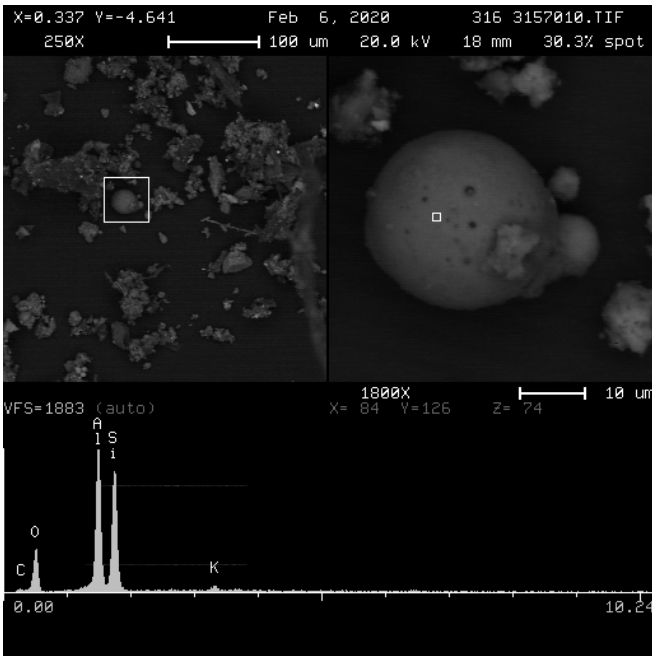
### Residues from Electrical Junction Boxes @ Roof Access Stair Landing



**Residues from Sprinkler System Riser Surfaces in 9th Floor Stairwell**



**Residues from Window Frame in Unit 11F**



### Residues from Overhead Piping and Light Fixture in 'C' Corridor

Based on our investigation, data indicate that World Trade Center dust residues are likely to be present within the Chung Pak building and that particulate collected from this site possess markers indicative of known WTC dusts. This survey was limited in scope and only represents a cursory examination of the buildings and/or structures affected. It is strongly recommended that additional sampling and testing be conducted to further validate these outcomes and to determine the extent of the potential for deleterious health effects and outcomes as a result of construction.

Based on SEM analysis, we found the following marker alignments between collected dust residues and the physicochemical properties of known WTC dusts:

Analytical Outcome & Comparative Assessment		Both Required		One or More of These Particle Markers				WTC Dust Markers
Residue Description	Sample ID	Mineral Wool	Gypsum / Anhydrite	Spherical FeO	Spherical Al/Si	V.C.P.	Chrysotile	
Window Frame Across From A&C I	3163153	✓	✓	✓	--	--	--	Yes
Junction Boxes @ Roof Access Stair Landing	3163154	✓	✓	--	✓	--	--	Yes
Sprinkler System Riser in 9th Floor Stairwell	3163155	--	✓	✓	--	--	--	No
Window Frame in Unit 11F	3163156	--	✓	--	--	--	--	No
Overhead Piping and Light in 'C' Corridor	3163157	✓	✓	✓	✓	--	--	Yes

With our appreciation for the opportunity to have been of service, we look forward to any questions or comments you may have relative to these outcomes and the analytical detail provided herein.

Authorized Signature: \_\_\_\_\_

Donald H. Ewert, Occupational Health Services

Date: 02/10/20

*This laboratory operates in accord with ISO 17025:2005 guidelines and holds a limited scope of accreditations under differing agencies; refer to <http://www.rjlg.com/about-us/accreditations/> for more information and status.*