

Stan A. Huber Consultants, Inc.

Health Physics and Radiation Safety Services

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April 23, 2021

Mike Lanenga SET Environmental 450 Sumac Road Wheeling, Illinois 60090

RE: 2547 S. Dr. Martin Luther King Jr. Drive Radiation Monitoring – City of Chicago

Department of Water Management

Former Carnotite Reduction Company Permit Hold Area

CDOT Permit:1403397

Dear Mr. Lanenga:

Stan A. Huber Consultants, Inc (SAHCI) was hired by your firm to provide radiation monitoring for the City of Chicago Department of Water Management (DWM) during excavation for repair of manhole at 2547 S. Dr. Martin Luther King Jr. Drive in Chicago, Illinois. The potential radiological contaminants in the area surrounding the Former Carnotite Reduction Company site are uranium (U-234+U-235+U-238), thorium (Th-230), and radium (Ra-226). The monitoring was performed by Mark Dewald, SAHCI Health Physicist, on April 15, 2021.

Instrumentation

Surface gamma scans were performed using a Ludlum Model 2221 Scaler / Ratemeter (serial no. 127242) with attached Ludlum Model 44-10 2"x2" Nal detector (w/ 6" collimated lead shield). The instrument was calibrated on July 28, 2020. The Illinois Emergency Management Agency (IEMA) field action level which would trigger additional monitoring and sampling is twice the average background count rate.

The average background count rate for this location was measured as 1,934 counts per minute (cpm). The field action level was calculated as 3,868 cpm.

Soil Gamma Scans

Gamma surface scans were performed using the Ludlum Model 2221 Scaler / Ratemeter described above. Survey data was collected by entering the excavation surrounding the manhole after the single lift and recording the highest count rate for the floors and walls to an excavation depth of 1 foot below ground surface. No soil was stockpiled during the project and all excavated material was loaded directly into the truck after screening.

The maximum gamma count rate for each lift was recorded on the attached Radiation Survey Form. The count rates in the excavation ranged from 1,900 cpm to 2,100 cpm. No count rates were found at any time that exceeded the field action level of 3,868 cpm.

Additional Monitoring

Since no count rates were identified above the field action level, no additional soil sampling, air monitoring, or personnel monitoring were performed.

As required by IEMA, I will submit this report to Abby Mazza at the City of Chicago, Department of Assets, Information and Services (AIS).

Thank you for your assistance with this project. If you have any questions or need additional information, please call me at (815) 485-6161.

Sincerely, Stan A. Huber Consultants, Inc.

Glenn Huber, CHP President Lift Elevation: Surface to -12" BGS



Radiation Survey Form

Location/ Project ID: 2547 S. Martin Luther King Jr. Drive- DWM

Date: 4/15/21 Technician: Mark Dewald

Inst Model: Ludlum 2221 Serial No.: 127242

Probe Type: 1"x1" Nal 2"x2" Nal Shielded Not Shielded

Background 1,934 cpm Action Level: 3,868 cpm

Write grid designations in circles. Record highest counts for grid in cpm. Record 30 second counts at grid intersections (if required). Shade areas of elevated counts and record max cpm.

\bigcirc	\bigcirc	\bigcirc	scale	
MLK Driv	/e	81	curb	
	15'	1		
126	' to 26th Street		91	
120	LO ZOUI SUEEL			

	0-12"	12-30"
Area 1	1900	2100