

200 North Cedar Road - New Lenox, Illinois 60451-1751 - (800) 383-0468 or (815) 485-6161 - FAX (815) 485-4433 - Email sahci@sahci.com - Home Page www.sahci.com

November 9, 2021

Nicole Espinoza Electric Conduit Construction 3333 S. Iron St. Chicago, IL 60608

RE: Thorium Monitoring – Concrete Sidewalk Removal 500-659 N. St. Clair St. CDOT Permit: 1402241

Dear Ms. Espinoza:

Stan A. Huber Consultants, Inc (SAHCI) was hired by your firm to provide radiation monitoring during the removal for replacement of portions of existing sidewalks at 500-659 N. St. Clair St. in Chicago, Illinois. This sidewalk repair work is part of the RCN line installation that was completed in June 2021. The monitoring was performed by Brian Schmidt and Glenn Huber on November 2 through November 4, 2021.

Instrumentation

Surface gamma scans were performed using a Ludlum Model 2221 Scaler / Ratemeters (serial no. 126497 and 134542) with attached Ludlum Model 44-10 2"x2" Nal Detectors (w/ 6" collimated lead shields). The instruments were calibrated on May 5, 2021. The US Environmental Protection Agency (USEPA) action level of 7.1 picocuries per gram (pCi/g) total thorium instrument 126497 is 6,383 counts per minute (cpm) and 7,396 cpm for instrument 134542.

The average background count rate for this location ranged from 1,819 cpm to 1,830 cpm.

Soil Gamma Scans

Gamma surface scans were performed using the Ludlum Model 2221 Scaler / Ratemeter detailed above. Survey data was collected by surveying the ground surface both before and after the existing concrete sidewalk (maximum 6" depth) was removed and recording the highest count rate for each section. All concrete was loaded directly into a truck for disposal.

The maximum gamma count rates for the single lifts were recorded on the attached Radiation Survey Forms. The count rates ranged from 1,400 cpm to 5,100 cpm. No count rates were found at any time that exceeded the threshold action level of 6,383 cpm and 7,396 cpm, respectively.

Additional Monitoring

Since no count rates were identified above the 7.1 pCi/g threshold limit, no additional soil sampling, air monitoring, or personnel monitoring were performed.

I will be providing a copy of this report to both the City of Chicago Department of Public Health and US Environmental Protection Agency, as required.

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

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Stan A. Hu	ber Consultants, la	RC.			
		Rad	iatio	n Survey Form	AL
Locat	tion/ Proje	et ID: Scs - St.	CLAIR .	ST SIDEWALLY REPLACEMENT - ROW RADIOLOGIC Sou Soury	
Date:	11/2-1	4/2021		Technician: Brith Schmidt	
Inst N	10del: <u>(</u>	10Wm - 7721	2	Serial No. : 126497	
Prob		"x1" Nat / 2"x2" Na ielded / Not Shield		Lift Elevation: 0.6"	
Backg	round <u>181</u>	9cpm		Action Level: 6383 cpm	
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Ran A. Huber Consultants, Inc.							
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Location/ Project I Date: $1/2-4/2$	011	1	Technician: 🧏	RIAN S	CYMIPT	_	
nst Model:	10m-2221	\$	Serial No. :	121497			
Probe Type: 1"x1	Nal / 2 x2" Na	L	Lift Elevation: _	0-6"			
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Background <u>81</u>	/cpm	P	Action Level:	ct	en e		
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Location/	Project ID: SCS - S.DEWAL	4 REPLACEMENT - ST. CLARE St ROW RADIOGIC
Date:	11/2-4/2021	HEREAT - ST. CLAIR ST ROW RADIOLOGIC SURVE Technician: BALAN SEVAIST
	1: LUDING - 2221	Serial No. : 126497
Probe Typ	Shielded / Not Shielded	Lift Elevation: 0-6"
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	8' 13'	6-27 " 2800
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Stan A. Huber Consultants, Inc. Radiatio	Page 4 of 6 On Survey Form ILL REPLACEMENT - ST. CLAIN ST ROW RADIOLOGICAL SOIL SURVEY
Location/ Project ID: 5^{10} 5^{10} 2^{10} Date: $1/2 \cdot 4/2 \cdot 21$ Inst Model: 2^{10} 2^{10} 2^{11} Probe Type: 1^{11} Nal 2^{10} 2^{10} Nal Background 1819 cpm Write grid designations in circles. Record highest co at grid intersections (if required). Shade areas of elem	Technician: B_{IAN} $SetA_{IAT}$ Serial No. : 126497 Lift Elevation: $O - 6^{11}$ Action Level: 6383 cpm punts for grid in cpm. Record 30 second counts f
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Radiation Survey Form

Location/ Pro	bject ID: 500-659 N. S	t. Clair St.	ECC CD01#1402241
Date:11/4	/21	Technician:	Glenn Huber
Inst Model:	Ludlum 2221	Serial No. :	134542
Probe Type:	1"x1" Nal / 2"x2" Nal Shielded / Not Shielded	Lift Elevation:	Surface to 6"
Background	1,830 cpm	Action Level:	7,396cpm

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.





Radiation Survey Form

Location/ P	roject ID: 500-659 N.	St. Clair St.	ECC CDOT#1402241
Date: <u>11</u> ,	/4/21	Technician: _	Glenn Huber
Inst Model:	Ludlum 2221	Serial No. : _	134542
Probe Type	: 1"x1" Nal /(2"x2" Nal) Shielded / Not Shielded	Lift Elevation:	Surface to -6"
Background _	1,830 cpm	Action Level:7	,396cpm

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.

