

February 28, 2020

Paul Muszynski
Electric Conduit Construction
816 Hicks Drive
Elburn, IL 60119

RE: Thorium Monitoring 420-515 N. Dearborn St. / 30-65 W. Illinois St.
CDOT Permit #1195143

Dear Mr. Muszynski:

Stan A. Huber Consultants, Inc (SAHCI) was hired by your firm to provide radiation monitoring during the excavation and installation of a fiber optic and power conduit at 420-515 N. Dearborn St. and 30-65 W. Illinois St. in Chicago, Illinois. The monitoring was performed by Brian Schmidt, SAHCI Health Physics Technician, on February 17 – February 24, 2020.

Instrumentation

Surface gamma scans were performed using a Ludlum Model 2221 Scaler / Ratemeter (serial no. 132844) with attached Ludlum Model 44-10 2"x2" NaI Detector (w/ 6" collimated lead shield). The instrument was last calibrated on August 6, 2019. The US Environmental Protection Agency (USEPA) action level of 7.1 picocuries per gram (pCi/g) total thorium for this instrument is 7,299 counts per minute (cpm).

The background count rate for this location was measured as 1,946 cpm (average).

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 trench and recording the highest count rate for the floor and walls to a maximum excavation depth of 4.5 feet below ground surface. All excavated material was loaded directly into a truck for offsite disposal.

The maximum gamma count rate for each lift was recorded on the attached Radiation Survey Form. The count rates in the excavation ranged from 1,800 cpm to 4,100 cpm. No count rates were found at any time that exceeded the threshold limit of 7,299 cpm.

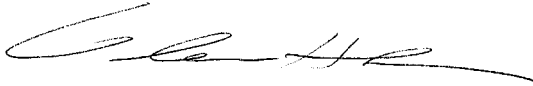
Additional Monitoring

Since no count rates were identified above the 7.1 pCi/gram 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.

A handwritten signature in black ink, appearing to read 'Glenn Huber', with a long horizontal flourish extending to the right.

Glenn Huber, CHP
President



Radiation Survey Form

Location/ Project ID: ECC - ILLINOIS ST & DEARBORN ST - FIBER INSTALLATION - ROW RADIOLOGICAL
Soil Survey

Date: 2/17-24/2020

Technician: BRIAN SCHMIDT

Inst Model: LVOLUN-2221

Serial No.: 132844

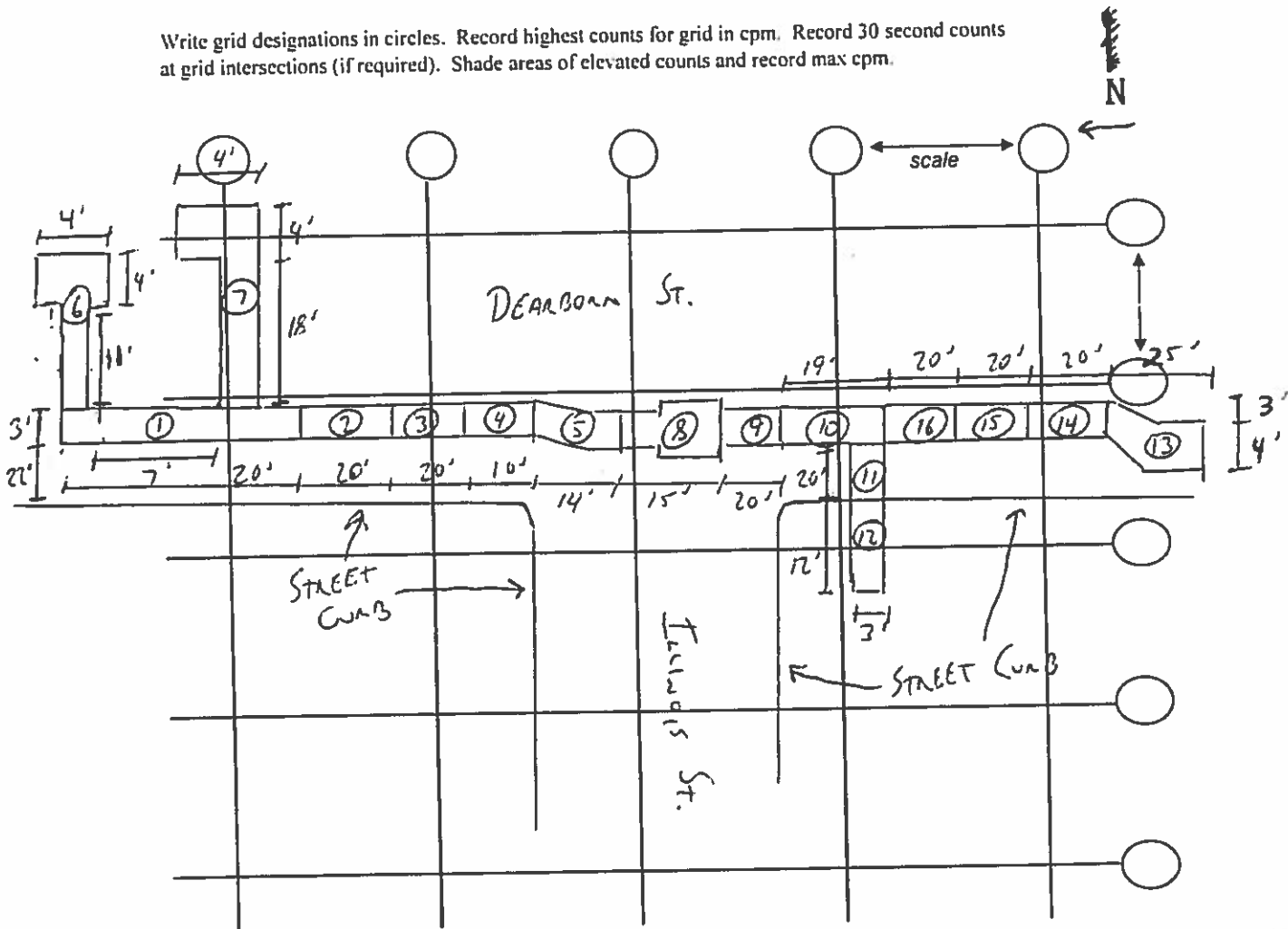
Probe Type: 1"x1" NaI / 1"x2" NaI
 Shielded / Not Shielded

Lift Elevation: 0" - 54"

Background 1946 cpm

Action Level: 7299 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.





Radiation Survey Form

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SOIL SURVEY

Date: 2/17-24/2020 Technician: BRIAN SCUMIAT

Inst Model: LVOLUM-2221 Serial No.: 132844

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Excavation ID	DEPTH	CPM	Excavation ID	DEPTH	CPM	Excavation ID	DEPTH	CPM	
①	0-12"	2500	⑥	0-12"	2300	⑫	0-12"	2100	
	12-30"	3400		12-30"	2700		12-30"	2600	
	30-48"	3100		30-48"	3100		30-48"	2700	
	48-66"	3500		48-66"	3500		36-54"	2800	
	36-54"	3500		54-72"	2900		⑬	0-12"	2700
②	0-12"	2300	⑦	0-12"	2200	⑭	12-30"	3500	
	12-30"	3500		12-30"	2600		30-48"	3100	
	30-48"	3400		30-48"	2600		48-66"	3000	
	36-54"	3400		48-66"	2900		12-30"	2800	
③	0-12"	2400	⑧	0-12"	2600	⑮	30-48"	3000	
	12-30"	2800		12-30"	3500		36-54"	3100	
	30-48"	3700		30-48"	3100		⑰	0-12"	2200
	36-54"	4100		48-66"	2700		12-30"	2400	
				54-72"	2900				
④	0-12"	2200	⑨	0-12"	2500	⑯	30-48"	2400	
	12-30"	2500		12-30"	2500		36-54"	2700	
	30-48"	3700		30-48"	2600		⑰	0-12"	2300
	36-54"	4100		36-54"	3500		12-30"	2600	
⑤	0-12"	2600	⑩	0-12"	2100	⑰	30-48"	2600	
	12-30"	3500		12-30"	2700		36-54"	2800	
	30-48"	3400		30-48"	2900				
	36-54"	3700		36-54"	3300				
				⑪	0-12"		2400		
			12-30"	3500					
			30-48"	2500					
			36-54"	2900					