

July 6, 2020

958947

David Russian
GEI Consultants, Inc.
400 N. Lakeview Parkway, Suite 140
Vernon Hills, IL 60061

RE: Thorium Monitoring at 258 E. Erie St.
CDOT Permit #1255254

Stan A. Huber Consultants, Inc (SAHCI) was hired by your firm to provide radiation monitoring during the excavation for replacement of a sewer line underneath the sidewalk at 258 E. Erie Street in Chicago, Illinois. The monitoring was performed by Mark Dewald, SAHCI Health Physicist, on June 24 to July 2, 2020.

Instrumentation

Surface gamma scans were performed using a Ludlum Model 2221 Scaler / Ratemeter (serial no. 126496) with attached Ludlum Model 44-10 2"x2" NaI Detector (w/ 6" collimated lead shield). The instrument was last calibrated on October 18, 2019. The US Environmental Protection Agency (USEPA) action level of 7.1 picocuries per gram (pCi/g) total thorium for this instrument is 7,102 counts per minute (cpm).

The background count rate for this location was measured as 1,746 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 9 feet below ground surface. Any material excavated below 3 feet in depth was surveyed in the excavator bucket, rather than in the excavation.

The maximum gamma count rate for each lift was recorded on the attached Radiation Survey Form. The count rates in the excavation ranged from 1,400 cpm to 3,500 cpm. No count rates were found at any time that exceeded the threshold limit of 6,179 cpm.

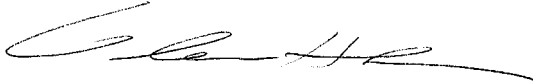
Additional Monitoring

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

258 E. Erie St. Survey Data (GEI)

Date: 6/24/20 - 7/1/20
 Technician: Mark Dewald
 Instrument ID: Ludlum Model 2221 (sn 126496)
 w/ Ludlum Model 44-10 Shielded NaI
 Background: 1746 cpm
 7.1 pCi/g: 7102 cpm

Area	Surface Max CPM	-1.5' Max CPM	-3' Max CPM	-4.5' Max CPM	-6' Max CPM	-7.5' Max CPM	-9' Max CPM
Area 1	1800	2100	1600	2300	2700	2100	1900
Area 2	1600	1900	1500	1900	1600	1800	2200
Area 3	1600	1800	2100	2300	1700	1600	1800
Area 4	1500	1900	1800	2200	2100	2200	2000
Area 5	1900	1800	1800	1700	2000	2200	2300
Area 6	1400	1800	1600	1900	2200	1900	2100
Area 7	2900	2700	2200	2600	2500	1900	2000
Area 8	2100	2800	2200	1800	1600	2100	2300
Area 9	1500	1600	1800	1900	3100	2200	1800
Area 10	1600	1900	1900	2300	1500	2300	3500
Area 11	1800	2200	1900	2300	3500	2100	1800
Area 12	2200	1500	2000	2000	1600	1800	2200
Area 13	1900	1700	2300	2500	3100	2200	2400
Area 14	1800	2100	2000	2700	1800	2000	2700

Radiation Survey Form

Location/ Project ID: 258 E. Erie St

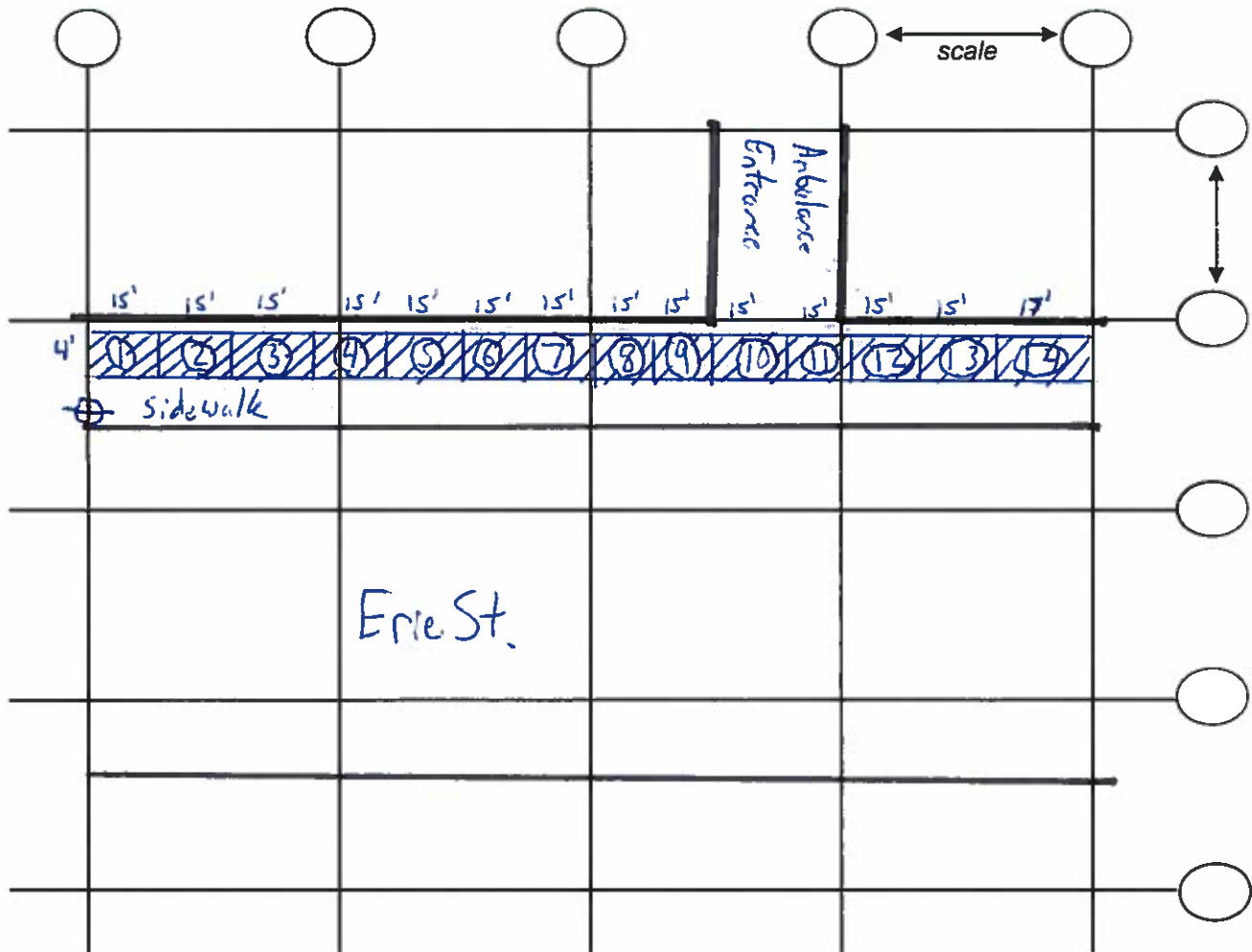
Date: 6/24/2020-7/1/2020 Technician: Mark Dewald

Inst Model: Luclun 2221 Serial No. : 126496

Probe Type: 1"x1" NaI / 2"x2" NaI
 Shielded / Not Shielded
 Lift Elevation: 0-9'

Background 1746 cpm Action Level: 7102 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.



→ Excavated Area

→ Background Location