



May 14, 2021

Mike Lanenga
SET Environmental
450 Sumac Road
Wheeling, Illinois 60090

RE: Thorium Monitoring – City of Chicago Department of Transportation
CDOT Permit: 1424691 – E. South Water St. and Stetson/Beaubien

Dear Mr. Lanenga:

Stan A. Huber Consultants, Inc (SAHCI) was hired by your firm to provide radiation monitoring during the removal and replacement of ADA sidewalk ramps at the corners of Lower E. South Water St. & N. Stetson Ave. and Lower E. South Water St. & Beaubien Ct. in Chicago, Illinois. The monitoring was performed by Mark Dewald and Glenn Huber, SAHCI Health Physicists, on April 21 – April 26, 2021. All activities were conducted under the guidance of document *SET General Procedure for Thorium Monitoring*.

Instrumentation

Surface gamma scans were performed using a Ludlum Model 2221 Scaler / Ratemeter (serial no. 127242) with attached Ludlum Model 44-10 2"x2" NaI Detector (w/ 6" collimated lead shield). The instrument was calibrated on July 28, 2020. The US Environmental Protection Agency (USEPA) action level of 7.1 picocuries per gram (pCi/g) total thorium for this instrument is 7,013 counts per minute (cpm).

The average background count rate for these locations was measured at 1,377 cpm.

Surface Gamma Scans

Gamma surface scans were performed using the Ludlum Model 2221 Scaler / Ratemeter described above. Survey data was collected by surveying the surface of the sidewalks prior to removal and then again after the concrete had been removed to 8 inches below ground surface.

The maximum gamma count rate for each lift was recorded on the attached Radiation Survey Form. The count rates in the excavations ranged from 1,200 cpm to 2,400 cpm. No count rates were found at any time that exceeded the threshold limit of 7,013 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.

Glenn Huber, CHP
President

Radiation Survey Form

Location/ Project ID: Water St ADA - Beaubein Ct & Stetson Ave

Date: 4/21-23/21, 4/26/21

Technician: Mark Dewald (4/21-23) & Glenn Huber (4/26)

Inst Model: Ludlum 2221

Serial No. : 127242

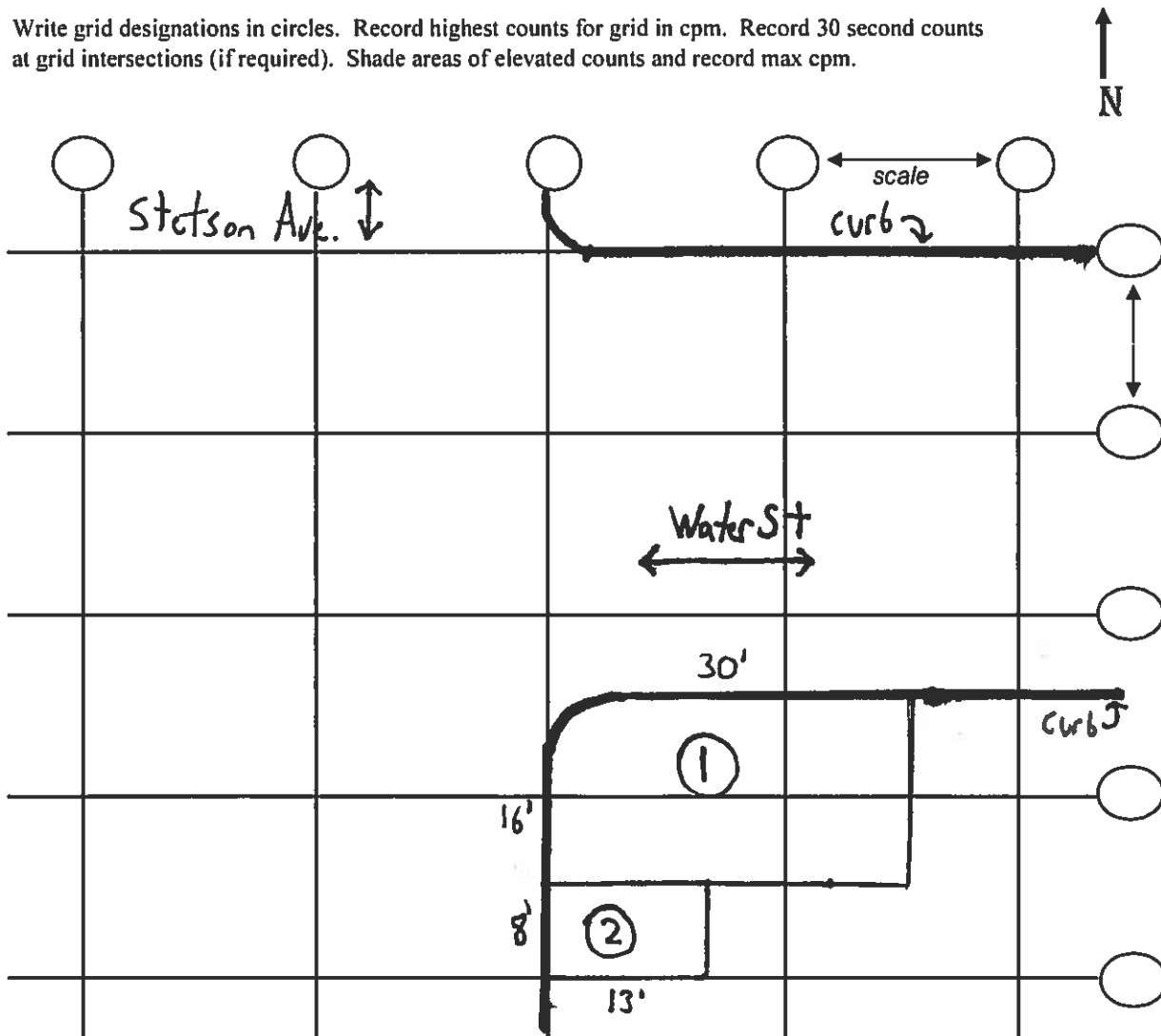
Probe Type: 1"x1" NaI 2"x2" NaI
 Shielded Not Shielded

Lift Elevation: Surface to -8" BGS

Background 1,377 cpm

Action Level: 7,013 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.



	0-8"	8-26"
Area 1	1400	1900
Area 2	1200	1800

Radiation Survey Form

Location/ Project ID: Water St ADA - Beaubain Ct & Stetson Ave

Date: 4/21-23/21, 4/26/21

Technician: Mark Dewald (4/21-23) & Glenn Huber (4/26)

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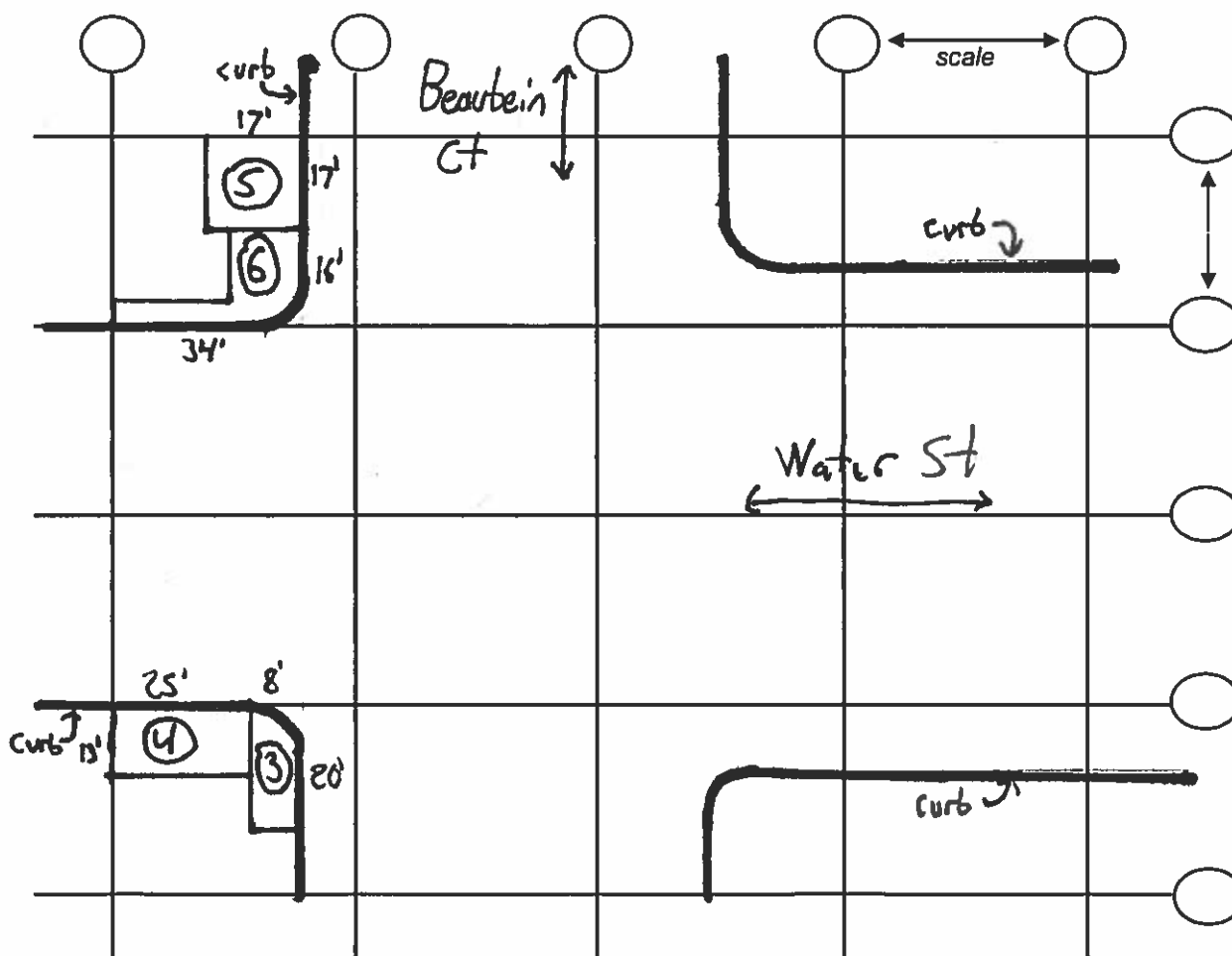
Probe Type: 1"x1" NaI 2"x2" NaI
Shielded / Not Shielded

Lift Elevation: Surface to -8" BGS

Background 1,377 cpm

Action Level: 7,013 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.



	0-8"	8-26"
Area 3	1300	2200
Area 4	1200	2100
Area 5	1500	2400
Area 6	1900	2400 GAH