



August 23, 2016

Mike Lanenga
SET Environmental
450 Sumac Road
Wheeling, Illinois 60090

RE: 22 W. Illinois St. Thorium Monitoring – Geotechnical Boring

Dear Mr. Lanenga:

Stan A. Huber Consultants, Inc (SAHCI) was hired by your firm to provide radiation monitoring during the collection of a geotechnical soil sample at 22 W. Illinois Street in Chicago, Illinois. The monitoring was performed on August 18, 2016. 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 Scaled / Ratemeter (serial no. 134542) with attached 2"x2" NaI probe (unshielded). The instrument was calibrated on August 8, 2016. The USEPA action level of 7.1 picocuries per gram (pCi/g) total thorium for this instrument is 17,276 counts per minute (cpm).

The background count rate for this location was found to average 7,416 cpm.

Soil Gamma Scans

Surface gamma scans were performed by Glenn Huber, SAHCI Health Physicist, using the Ludlum Model 2221 Scaler / Ratemeter described above. Data was collected by monitoring the soil as it was removed from the 4-inch diameter boring and recording the highest count rate to a maximum excavation depth of 3 feet.

The maximum gamma count rate for each 1.5 foot interval was determined by placing the detector inside of the boring which are recorded on the attached Radiation Survey Form. The geotechnical soil sample was also surveyed after collection. The count rates in the boring ranged from 7,100 cpm to 8,900 cpm. No count rates were found at any time that exceeded the threshold limit of 17,276 cpm.

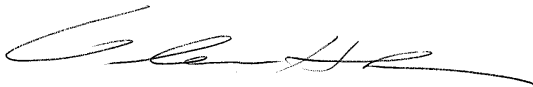
Additional Monitoring

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.

You will need to forward a copy of this report to the City of Chicago Department of Public Health (Attn: Rahmatunsia Begum) with the CDOT Permit Number in the subject line. I will be providing a copy of this report to USEPA, 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 'G. Huber', with a long horizontal flourish extending to the right.

Glenn Huber, CHP
President

Radiation Survey Form

Location/ Project ID: SET Environmental 22 W. Illinois Street - Geotechnical Boring

Date: 8/8/16

Technician: Glenn Huber

Inst Model: Ludlum 2221

Serial No. : 134542

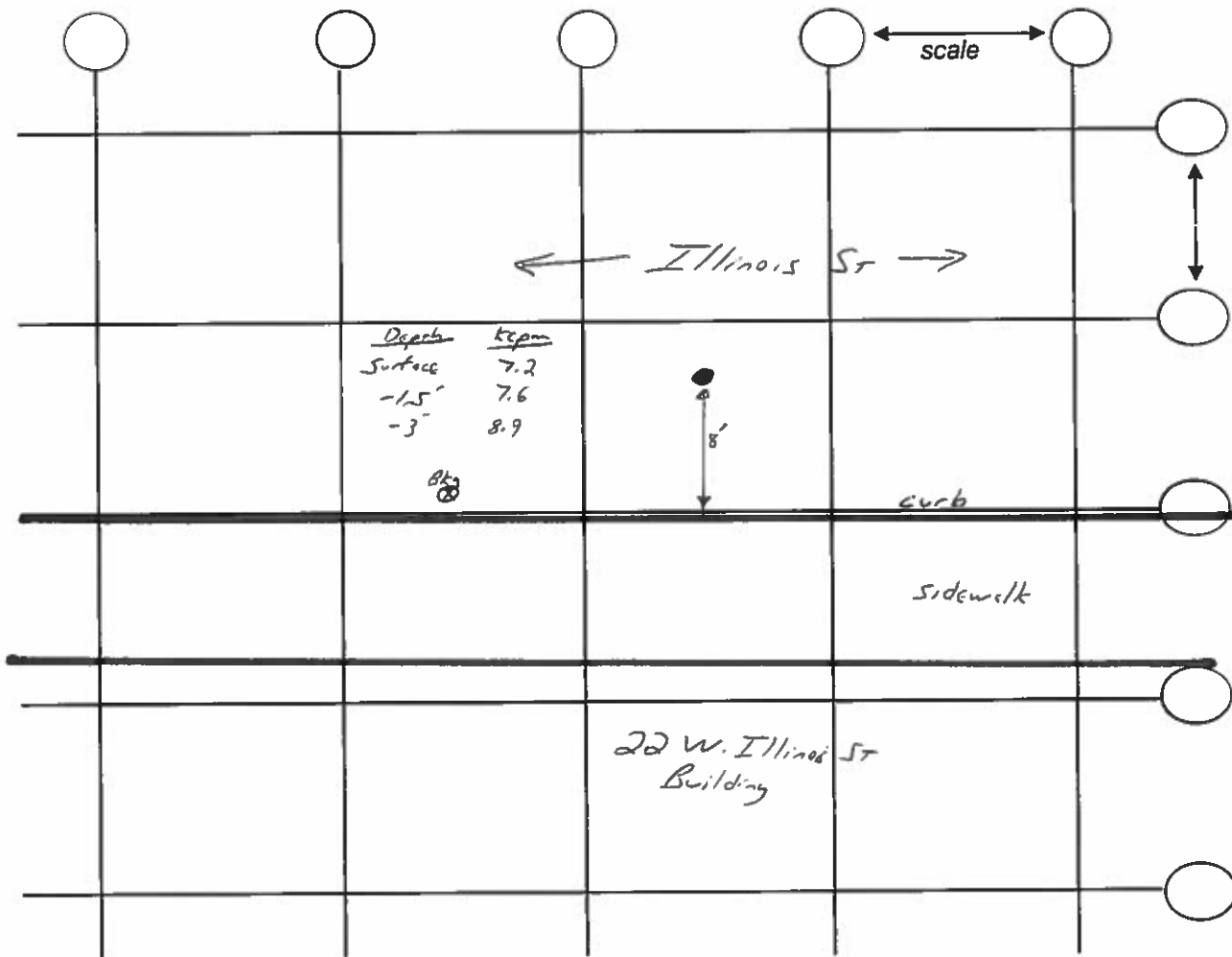
Probe Type: 1"x1" NaI 2"x2" NaI
Shielded Not Shielded

Lift Elevation: surface → -3'

Background 7,416 cpm

Action Level: 17,276 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.



● = boring location. Soil Sample collected = 7.1 kcpm (4" Diameter)