



June 2, 2015

Walter Lane  
Trice Construction  
438 W. 43<sup>rd</sup> St.  
Chicago, Illinois 60609

RE: 322 E. Illinois St. – Thorium Monitoring During ComEd Vault Repair

Dear Mr. Lane:

Stan A. Huber Consultants, Inc (SAHCI) was hired by your firm to provide radiation monitoring during the excavation and repair of a ComEd utility vault at 322 E. Illinois St. in Chicago, Illinois. The monitoring was performed on June 1, 2015.

#### Instrumentation

Surface gamma scans were performed by Glenn Huber using a Ludlum Model 2221 Scaled / Ratemeter (serial no. 134542) with attached 2"x2" NaI probe. The instrument was calibrated on October 17, 2014. The USEPA action level of 7.1 picocuries per gram (pCi/g) total thorium for this instrument is 18,309 counts per minute (cpm).

The average background count rate for this location was found to be between 4,200 and 5,100 cpm.

#### Soil Gamma Scans

Gamma surface scans were performed using the Ludlum Model 2221 Scaler / Ratemeter described above. Data was collected by recording the highest count rate at the surface prior to removal of the surface asphalt and concrete and again at the maximum excavation depth of 2 feet. In addition to the material excavated on top of the vault, sludge was vacuumed out of the vault so that workers could access it. The sludge was then surveyed inside of the vacuum truck tank.

The maximum gamma count rate for each lift was recorded on the attached Radiation Survey Form. The count rates in the excavation ranged from 5200 cpm to 8300 cpm. The maximum count rate in the sludge tank was 5000 cpm. No count rates were found at any time that exceeded the threshold limit of 18,309 cpm.

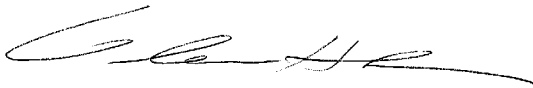
#### Additional Monitoring

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 'Glenn Huber', with a long horizontal flourish extending to the right.

Glenn Huber, CHP  
President

## Radiation Survey Form

Location/ Project ID: 322 E. Illinois St - Trice Construction

Date: 6/1/15

Technician: Glenn Huber

Inst Model: Ludex 2221

Serial No.: 134542

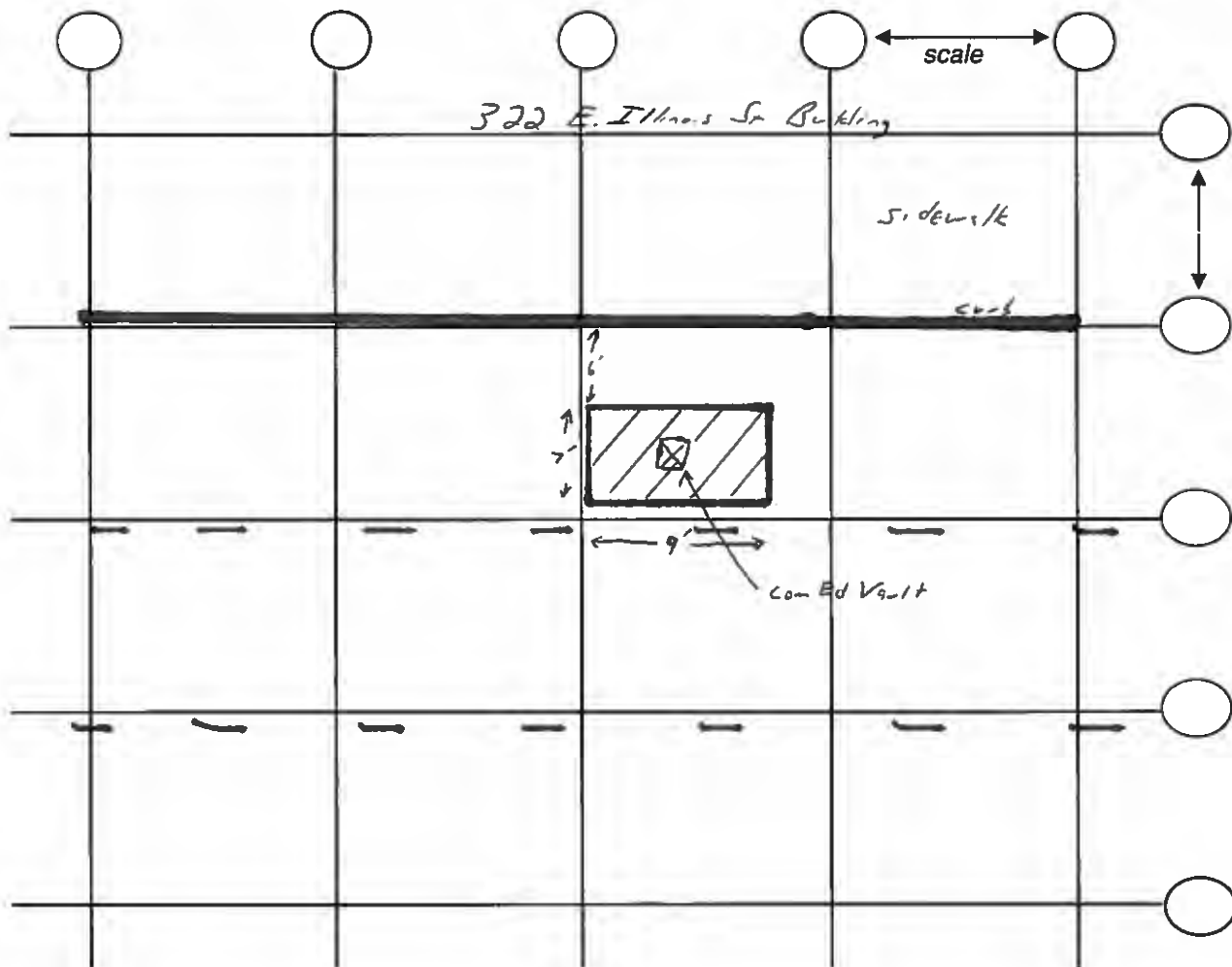
Probe Type: 1"x1" NaI / 2"x2" NaI  
Shielded / Not Shielded

Lift Elevation: Surface → -2'

Background 4200 - 5100 cpm

Action Level: 18,309 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

Depth	cpm
Surface	5200
-15'	7100
-2'	8300