



October 8, 2012

Greg Preisch  
Hydro-Exc. Inc.  
8248 Wright St.  
Merrillville, IN 46410

RE: 633 N. St. Clair St., Chicago, IL. Thorium Monitoring October 2012

Dear Mr. Preisch:

Stan A. Huber Consultants, Inc (SAHCI) was hired by your firm to provide radiation monitoring during excavation of a utility trench at 633 N. St. Clair St. in Chicago, Illinois. The monitoring was performed on October 1, 2012 – October 3, 2012.

#### Instrumentation

Surface gamma scans were performed by Joel Ahrweiler using a Ludlum Model 2221 Scaler / Ratemeter with attached 2"x2" NaI probe (unshielded). The instrument was calibrated on November 8, 2011. The USEPA action level of 7.1 picocuries per gram (pCi/g) total thorium for this instrument is 19,368 counts per minute (cpm).

The average background count rate for this location was found to be 7,800 cpm over street pavement.

#### Soil Gamma Scans

Gamma surface scans were performed using the Ludlum Model 2221 Scaler / Ratemeter described above. Data was collected by surveying the excavation after each 18 inch lift and recording the highest count rate for the floors and walls to a maximum excavation depth of 3 feet. The excavated trench was 2 feet wide x 33 feet long. Soil was loaded directly into a truck after screening and no soil was stockpiled onsite.

The maximum gamma count rate for each 1.5 foot lift was recorded on the attached Radiation Survey Form. The count rates in the excavation ranged from 7,000 cpm to 8,200 cpm. No count rates were found at any time that exceeded the threshold limit of 19,368 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.

Glenn Huber, CHP  
President

**Radiation Survey Form**

Location/ Project ID: 633 N. St. Clair Street - Hydro Exc.

Date: Oct 1-3, 2012

Technician: Joel Ahweiler

Inst Model: 2200<sup>JMA</sup> 2221

Serial No.: 126497

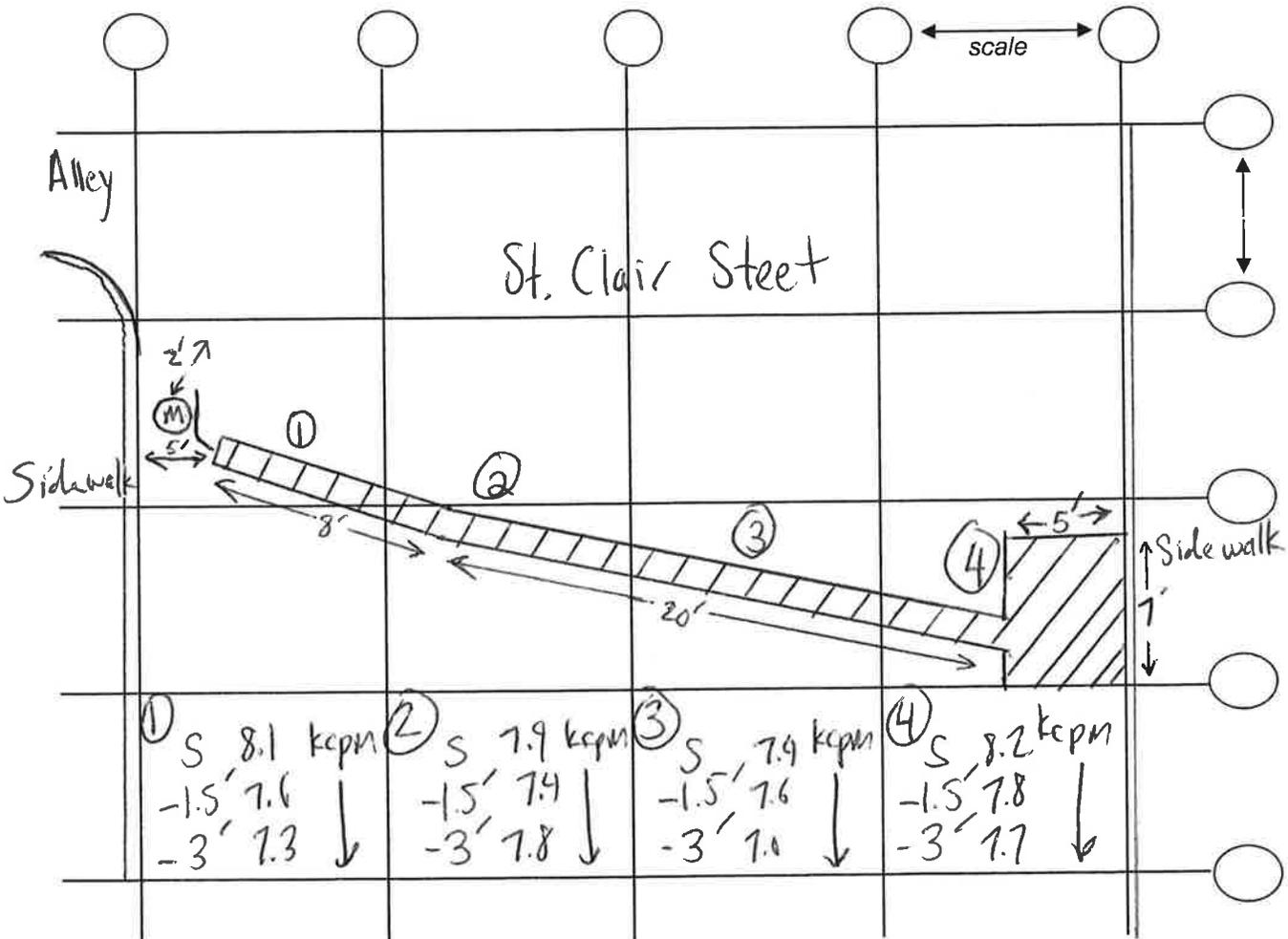
Probe Type:  1"x1" NaI Shielded /  2"x2" NaI Not Shielded

Lift Elevation: Max Depth 3 feet

Background 7800 cpm

Action Level: 19,368 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.



Ⓜ = Manhole      = Excavated Area