

Stan A. Huber Consultants, Inc.

Health Physics and Radiation Safety Services

200 North Cedar Road - New Lenox, Illinois 60451-1751 - (800) 383-0468 or (815) 485-6161 - FAX (815) 485-4433 - Email sahci@sahci.com - Home Page www.sahci.com

August 16, 2012

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

RE: 679 N. Michigan Ave., Chicago, IL. Thorium Monitoring August 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 679 N. Michigan Ave. in Chicago, Illinois. The monitoring was performed on August 7, 2012 – August 14, 2012.

Instrumentation

Surface gamma scans were performed by Joel Ahrweiler and Glenn Huber using a Ludlum Model 2221 Scaler / Ratemeter with attached 2"x2" Nal 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 between 5,800 cpm and 6,900 cpm over the concrete sidewalk and street pavement.

Soil Gamma Scans

Gamma surface scans were performed using the Ludlum Model 2221 Scaler / Ratemeter described above. Data was collected by lowering the detector into the narrow trench after each 18 inch lift and recording the highest count rate for the floors and walls to a maximum excavation depth of 4 feet. The excavated trench was 2 feet (maximum) wide x 220 feet long. A vacuum truck was utilized to perform the excavation.

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 7,400 cpm to 9,400 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

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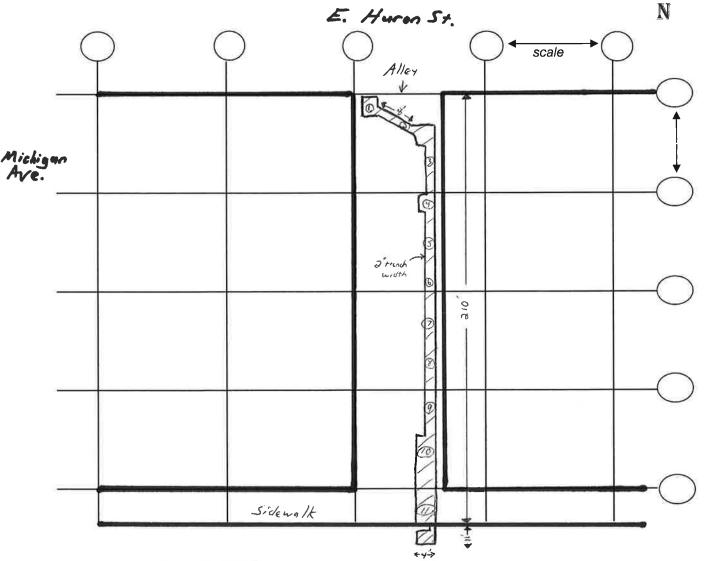


Radiation Survey Form

Location/ Project ID: 679 N. Michigen Ave. - Hydro Exc

Background <u>5.8 - 6.94</u>cpm Action Level: <u>/9,368</u>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.



ZZ = Excaugted
Area

E. Erio St.

679 N. Michigan Ave. - Hydro-Exc. 8/7/12 - 8/10/12

	Counts per
Area 1	minute (CPM)
surface	7500
-1.5'	8700
-3.0'	7400
-4.0'	7700

	Counts per
Area 4	minute (CPM)
surface	9400
-1.5'	8900
-3.0'	8100
-4.0'	8300

	Counts per
Area 7	minute (CPM)
surface	9000
-1.5'	8600
-3.0'	8700
-4.0'	8300

	Counts per
Area 10	minute (CPM)
surface	8300
-1.5'	9000
-3.0'	8900
-4.0'	8400

	Counts per
Area 2	minute (CPM)
surface	7600
-1.5'	8500
-3.0'	7800
-4.0'	7700

	Counts per
Area 5	minute (CPM)
surface	9300
-1.5'	8700
-3.0'	8400
-4.0'	8000

	Counts per
Area 8	minute (CPM)
surface	9400
-1.5'	8900
-3.0'	8600
-4.0'	8600

	Counts per
Area 11	minute (CPM)
surface	7900
-1.5'	8300
-3.0'	8400
-4.0'	8500

	Counts per
Area 3	minute (CPM)
surface	7800
-1.5'	8900
-3.0'	8700
-4.0'	8000

	Counts per
Area 6	minute (CPM)
surface	9100
-1.5'	8400
-3.0'	8700
-4.0'	8500

	Counts per
Area 9	minute (CPM)
surface	9100
-1.5'	8400
-3.0'	7900
-4.0'	8300