



July 16, 2018 (revised 7/17/18 GAH)

Mike Murphy
Red Roof Inn c/o Daccord Group
162 E. Ontario St.
Chicago, IL 60611

RE: 162 E. Ontario St. Thorium Monitoring 4/27/18 – 7/9/18
Private Property Buidling Permit # 100688159

Dear Mr. Murphy:

Stan A. Huber Consultants, Inc (SAHCI) was hired by your firm to provide radiation monitoring during excavation of 2 plumbing utility trenches in the basement of the Red Roof Inn property at 162 E. Ontario St. in Chicago, Illinois. The monitoring was performed by Brian Schmidt, SAHCI Health Physics Technician, on April 27, May 22 - May 23, and July 9, 2018.

Instrumentation

Surface gamma scans were performed using a Ludlum Model 2221 Scaled / Ratemeter (serial no. 126496) with attached Ludlum Model 44-10 2"x2" NaI probe (w/ 6" collimated lead shield). The instrument was calibrated on October 11, 2017. The US Environmental Protection Agency (USEPA) action level of 7.1 picocuries per gram (pCi/g) total thorium for this instrument is 7,366 counts per minute (cpm).

The average background count rate for this location was determined to be 1,829 cpm.

Soil Gamma Scans

Gamma surface scans were performed using the Ludlum Model 2221 Scaler / Ratemeter described above.

An initial gamma surface scan of the planned excavations was performed on April 27, 2018 prior to any saw cutting or excavation work. The count rate on the surface of the basement concrete floor ranged from 1,900 – 2,600 cpm.

The monitoring of Excavation #1 was performed on May 22 and May 23, 2018. Survey data was collected by entering the excavation after each 18-inch lift and recording the highest count rate for the floors and walls to an excavation depth of 48 inches below ground surface.

The monitoring of Excavation #2 was performed on July 9, 2018. Survey data was collected by entering the excavation and recording the highest count rate for the floors and walls to an excavation depth of 12 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 1,500 cpm to 3,300 cpm. No count rates were found at any time that exceeded the instrument specific threshold limits of 7,366 cpm.

Additional Monitoring

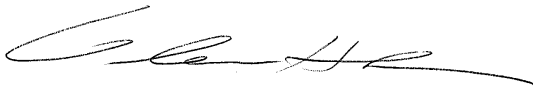
Since no count rates were identified above the 7.1 pCi/gram threshold limit, no additional soil sampling, air monitoring, or personnel monitoring were performed.

Regulatory Notification of Survey Completion

I will be providing a copy of this report to both the City of Chicago Department of Public Health and 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

Stan A. Huber Consultants, Inc.

Project ID: 162 E. Ontario St. (Red Roof Inn)
HP Technician: Brian Schmidt
Date: 4/27/18, 5/23/18, 7/9/18
Instrument ID: Ludlum 2221 w/ 44-10 NaI (#126496)
7.1 pCi/g Cutoff: 7,366 cpm
Background: 1,829 cpm

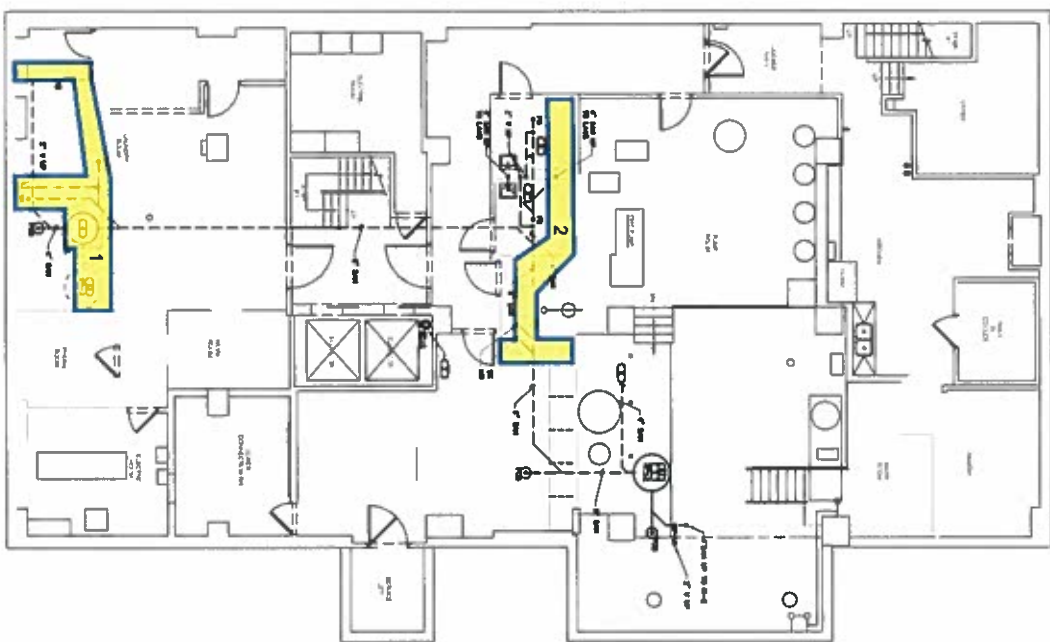
	Depth	Sawcut Spoil	4"-22" (bgs)	12"-30" (bgs)	18"-36" (bgs)	36"-54" (bgs)	48"-66" (bgs)
Date	Excavation ID	Range (cpm)	Range (cpm)	Range (cpm)	Range (cpm)	Range (cpm)	Range (cpm)
5/23/2018	1	1700-2500	1500-2200	NS	1800-2300	1900-2200	1500-2200
7/9/2018	2	2300-3300	2300-2700	2100-2600			

- NS - Depth Interval Not Surveyed

SEE ATTACHED DRAWING FOR TRENCH LOCATIONS

Max Depth Trench 1 = 48"

Max Depth Trench 2 = 12"



1 UNDERGROUND BASEMENT PLUMBING PLAN

GENERAL NOTES

1. ALL WORK SHALL BE IN ACCORDANCE WITH THE CITY OF CHICAGO PLUMBING CODE AND THE ILLINOIS PLUMBING CODE.
2. ALL WORK SHALL BE IN ACCORDANCE WITH THE CITY OF CHICAGO ELECTRICAL CODE AND THE ILLINOIS ELECTRICAL CODE.
3. ALL WORK SHALL BE IN ACCORDANCE WITH THE CITY OF CHICAGO MECHANICAL CODE AND THE ILLINOIS MECHANICAL CODE.
4. ALL WORK SHALL BE IN ACCORDANCE WITH THE CITY OF CHICAGO FIRE CODE AND THE ILLINOIS FIRE CODE.
5. ALL WORK SHALL BE IN ACCORDANCE WITH THE CITY OF CHICAGO BUILDING CODE AND THE ILLINOIS BUILDING CODE.

ALTERNATE (A) CD

1. ALL WORK SHALL BE IN ACCORDANCE WITH THE CITY OF CHICAGO PLUMBING CODE AND THE ILLINOIS PLUMBING CODE.
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ALTERNATE (B) CD

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ALTERNATE (C) PLUMBING MATERIAL LIST

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DIMEG
 162 E. ONTARIO ST.
 CHICAGO, IL 60611
 (773) 462-1111

UNDERGROUND BASEMENT PLUMBING PLAN
 P0.01

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RED ROOF INN
 INTERIOR RENOVATION