



October 22, 2021

Matt Welton
Western Utility Contractors
2565 Palmer Ave.
University Park, IL 60484

RE: 150-175 N. Columbus Dr. Thorium Monitoring (N. Columbus Dr. and E. Randolph St. Intersection)
CDOT Permit: 1412154

Dear Mr. Welton:

Stan A. Huber Consultants, Inc (SAHCI) was hired by your firm to provide radiation monitoring during the excavation of a trench for installation of conduit at 150-175 N. Columbus Drive in Chicago, Illinois. The monitoring was performed by Mark Dewald and Glenn Huber, SAHCI Health Physicists, on October 11 through October 14, 2021.

Instrumentation

Surface gamma scans were performed using Ludlum Model 2221 Scaler / Ratemeters (serial no. 127242 and 134542) with attached Ludlum Model 44-10 2"x2" NaI Detectors (w/ 6" collimated lead shields). The instruments were calibrated on May 5, 2021. The US Environmental Protection Agency (USEPA) action level of 7.1 picocuries per gram (pCi/g) total thorium for instrument 127242 is 6,995 counts per minute (cpm), and 7,396 cpm for instrument 134542.

The average background count rate for this location ranged from 1,253 cpm to 1,532 cpm.

Soil Gamma Scans

Gamma surface scans were performed using the Ludlum Model 2221 Scaler / Ratemeters described above. Survey data was collected by entering the excavation recording the highest count rate for the floor and walls to a maximum depth of 50 inches below ground surface. All asphalt, concrete, and soil were loaded directly into a truck for disposal.

The maximum gamma count rate for each lift was recorded on the attached Radiation Survey Form. The count rates in the excavations ranged from 1,000 cpm to 3,100 cpm. No count rates were found at any time that exceeded the threshold limits of 6,995 cpm and 7,396 cpm, respectively.

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.

I will be providing a copy of this report to both the City of Chicago Department of Public Health and US Environmental Protection Agency, 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: Columbus/Randolph Conduit Trench - Western Utility

Date: 10/11-14/21

Technician: Mark Dewald, Glenn Huber

Inst Model: Ludlum 2221

Serial No.: 127242 (#1-21)/ 134542 (#22-23)

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

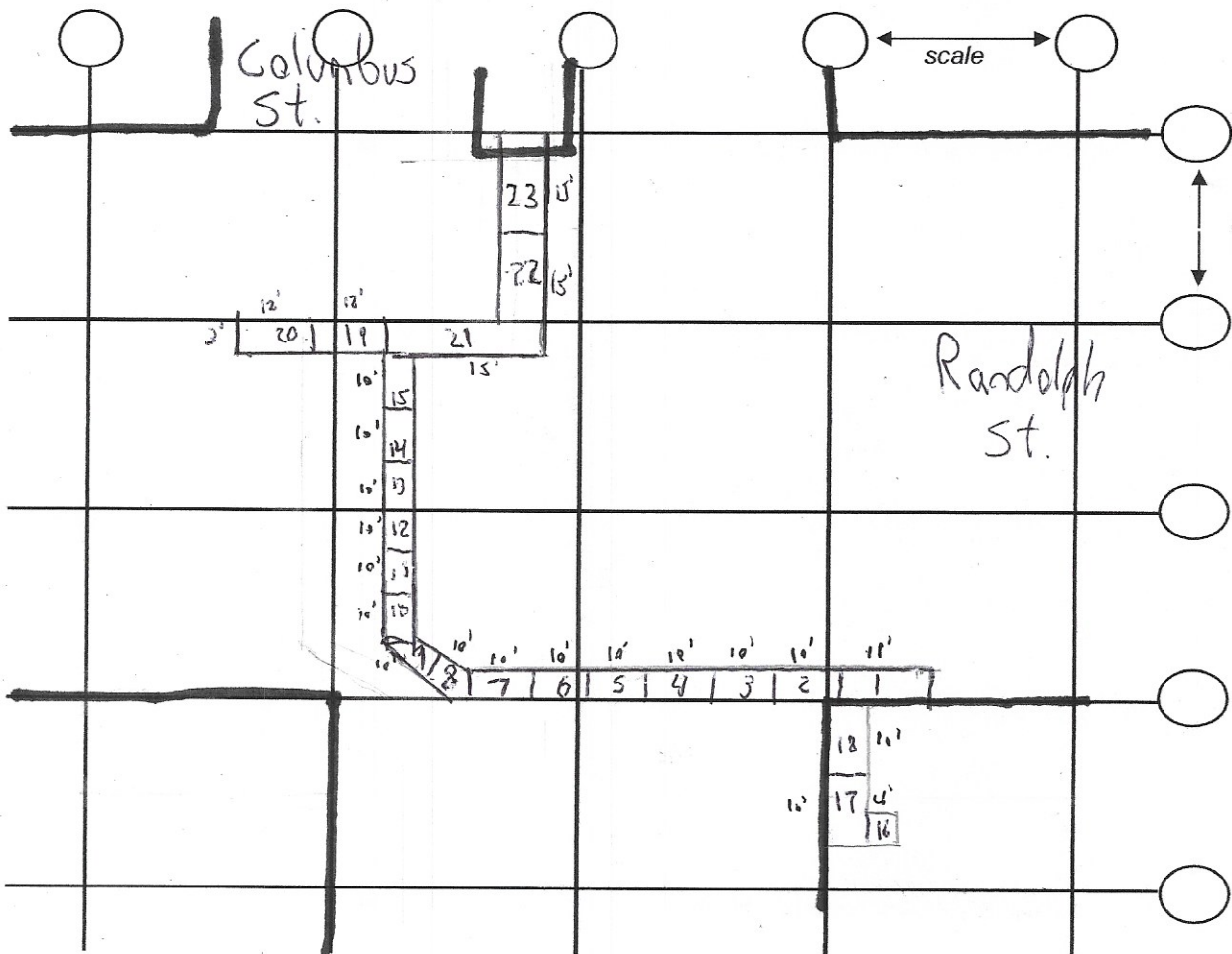
Lift Elevation: Surface to -50" BGS

6,995 cpm = 127242
7,396 cpm = 134542

Background 1253-1532 cpm

Action Level: _____ 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.



Radiation Survey Form

Stan A. Huber Consultants, Inc.

Location:	Western Utility - Randolph and Columbus	Instrument ID:	Ludlum Model 2221 Scaler/Ratemeter w/ Model 44-10 NaI Detector (w/ 6" Lead Shield)
Name:	Mark Dewald (1-21) and Glenn Huber (22-23)	7.1 pCi/g CPM:	6,995 CPM (serial no. 127242) 10/11/21 -10/13/21 7,396 CPM (serial no. 134542) 10/14/21
Date:	10/11/21 - 10/14/21		

	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	Area 7	Area 8	Area 9	Area 10
0-14"	1400	1300	1600	1100	1300	1400	1400	1600	1500	1400
14-32"	1700	1600	1700	1400	1300	1700	1200	1100	1100	1100
32-50"	2900	2500	2100	2200	2700	2400	1500	1400	1200	1800
50-68"	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

	Area 11	Area 12	Area 13	Area 14	Area 15	Area 16	Area 17	Area 18	Area 19	Area 20
0-14"	1000	1100	1200	1200	1300	1300	1200	1100	1200	1100
14-32"	1000	1000	1200	1200	1200	1500	1400	1400	1100	1200
32-50"	1300	1500	2100	2300	1500	1600	2600	3100	1600	2100
50-68"	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2500

	Area 21	Area 22	Area 23
0-14"	1100	1300	1400
14-32"	1300	1800	2000
32-50"	1300	2400	2200
50-68"	N/A	N/A	N/A