



July 16, 2018

Mike Lanenga
SET Environmental
450 Sumac Road
Wheeling, Illinois 60090

RE: 130 – 226 E. Riverwalk Thorium Monitoring 7/9/18 – 7/10/18
ECS Midwest

Dear Mr. Lanenga:

Stan A. Huber Consultants, Inc (SAHCI) was hired by your firm to provide radiation monitoring during the drilling of 2 geotechnical borings at 130-226 E. Riverwalk in Chicago, Illinois. The monitoring was performed by Brian Schmidt, SAHCI Health Physics Technician, on July 9 – July 10, 2018. All activities were conducted under the guidance of document *SET General Procedure for Thorium Monitoring*.

Instrumentation

Surface gamma scans were performed using a Ludlum Model 2221 Scaler / 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 1,797 cpm.

Soil Gamma Scans

Gamma surface scans were performed using the Ludlum Model 2221 Scaler / Ratemeter described above. Surface gamma scans were performed on all core samples collected as well as spoils generated throughout the boring process.

The maximum gamma count rate for each 2.5-foot sampling interval was recorded on the attached Radiation Survey Form. The count rates in the excavations ranged from 1,300 cpm to 2,100 cpm. No count rates were found at any time that exceeded the instrument specific threshold limits of 7,366 cpm.

Additional Monitoring

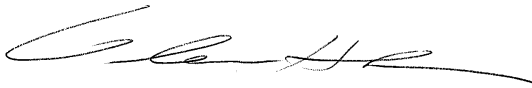
Since no count rates were identified above the 7.1 pCi/gram threshold limit, no additional soil sampling, air monitoring, or personnel monitoring were performed.

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.

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

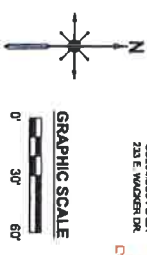
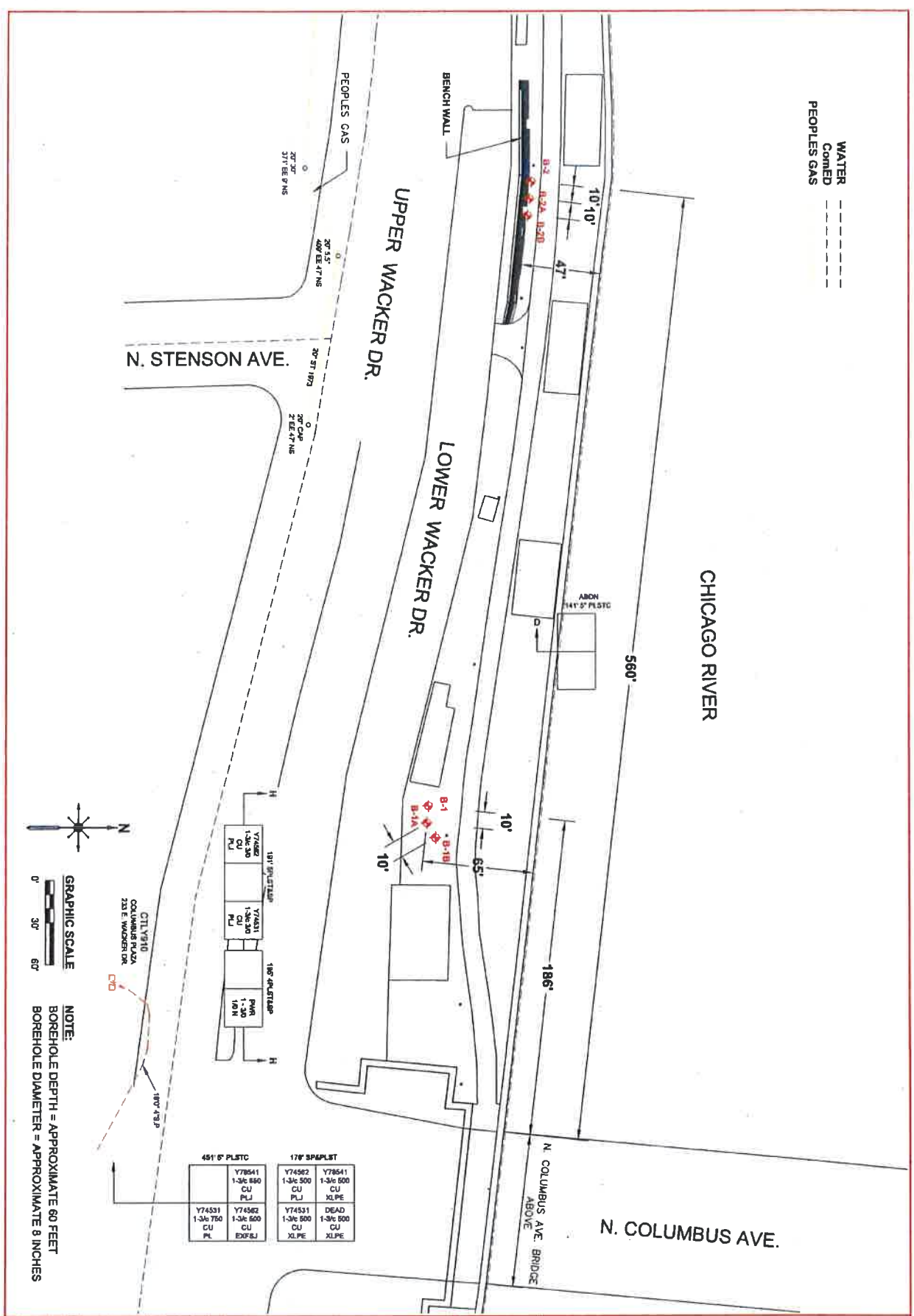
Stan A. Huber Consultants, Inc.

Project ID: 130-226 E. Riverwalk
 HP Technician: Brian Schmidt
 Date: 7/9/18, 7/10/18
 Instrument ID: Ludlum 2221 w/ 44-10 NaI (#126496)
 7.1 pCi/g Cutoff: 7,366 cpm
 Background: 1,829 cpm

	Depth	0'-2.5' (bgs)	2.5'-5' (bgs)	5'-7.5' (bgs)	7.5'-10' (bgs)	10'-12.5' (bgs)	12.5'-15' (bgs)	15'-17.5' (bgs)	17.5'-20' (bgs)	20'-22.5' (bgs)
Date	Boring ID	Survey Results (counts per minute)								
7/9/2018	B-1	2000	2100	1900	2100	1600	2000	1600	1700	1900
7/10/2018	B-2	1300	1500	1000	1300	1500	1000	1400	1200	NS

NS = Depth Interval Not Surveyed

WATER
 CONCRETE
 PEOPLES GAS



NOTE:
 BOREHOLE DEPTH = APPROXIMATE 60 FEET
 BOREHOLE DIAMETER = APPROXIMATE 8 INCHES

451' 6" PLSTC		176' SP6PLSTC	
Y78541	1-3/4" 500	Y74982	1-3/4" 500
CU	PL	CU	PL
Y74531	1-3/4" 500	Y74531	1-3/4" 500
CU	PL	CU	PL

BORING LOCATION DIAGRAM
Chicago Riverwalk



112 E. Upper Wacker Drive
 Chicago, IL
 Chicago's First Lady

ENGINEER	DATE
AEK	16:12:375
LSM	
SCALE	
Approx. 1"=60'	
PROJECT NO.	
16:12:375	
SHEET	
1	
DATE	
5/20/18	