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

September 14, 2021

Verneta Simon
U.S. Environmental Protection Agency
Region 5
77 W. Jackson Blvd., SE-5J
Chicago, IL 60604

RE: Thorium Monitoring at Lakeshore East Development Parcels I, J, K, and L
Interim Report June 1, 2021 – August 31, 2021

Dear Ms. Simon:

This report is being submitted by Stan A. Huber Consultants, Inc. (SAHCI) on behalf of IJKL, LLC. SAHCI was hired by Pioneer Engineering and Environmental Services, LLC (Pioneer) to provide radiological monitoring during construction activities at Parcels I, J, K, and L at the Lakeshore East Development in Chicago, Illinois. This report covers monitoring performed by SAHCI from June 1, 2021 – August 31, 2021.

Thorium monitoring was conducted in accordance with the *Work Plan for Investigation and Removal of Radiologically-Impacted Soil Lakeshore East Development*, final revision dated September 30, 2002 (Work Plan), and approved by U.S. EPA on correspondence dated October 15, 2002, and the subsequent *Addendum to the Work Plan for Parcels I, J, K, and L*, final revision dated December 19, 2018 (Addendum), and approved by U.S. EPA on correspondence dated December 19, 2018. Per the Work Plan, monitoring for thorium is only required within the boundaries of the former boat slips at the Lakeshore East properties in addition to surveys required in right of ways outside of the property.

Thorium monitoring was performed for the following construction activities:

440 E. Sub-Lower Wacker Dr. Asphalt and Road Base Removal	7/12/21 – 7/15/21
460 E. Sub-Lower Wacker Dr. Fence Repairs	7/23/21

Both projects were outside of the IJKL property in the Sub-Lower Wacker Drive right of way.

Instrumentation

Surface gamma scans were performed using Ludlum Model 2221 Scaler / Ratemeters (serial no. 126497, 134542, and 127242) with attached Ludlum Model 44-10 2”x2” NaI detectors (w/ 6” lead collimator shields). The instruments were calibrated on May 5, 2021.

The USEPA action level of 7.1 picocuries per gram (pCi/g) total thorium count rate correlation for the instruments are as follows:

- Serial No. 126497 = 6,383 counts per minute (cpm)
- Serial No. 134542 = 7,396 cpm
- Serial No. 127242 = 6,995 cpm

The background count rates on Sub-Lower Wacker Dr. ranged from 1,749 cpm to 1,902 cpm.

440 E. Sub-Lower Wacker Dr. Asphalt and Road Base Removal

On July 12, 2021, through July 15, 2021, excavation was performed to remove and replace the asphalt at 440 E Sub-Lower Wacker Drive, immediately to the north of the IJKL property. The work was performed by Abbey Paving under CDOT permit #1557783.

Gamma surface scans were performed using the Ludlum Model 2221 Scaler / Ratemeters, serial nos. 126497 and 134542. Survey data was collected by performing a surface gamma scan on the asphalt surface and again after removal of approximately 12 inches of road base.

The maximum gamma count rates for each lift were recorded on the attached Radiation Survey Form. See Attachment A – 440 E. Sub-Lower Wacker Dr. Asphalt and Road Base Removal.

On July 16, 2021, I received a call from Ahmad Nur, City of Chicago Department of Public Health (CDPH). Mr. Nur indicated that additional pavement was being removed at this location. I had been working at another project location nearby, so I was able to respond immediately. Although the excavation work was completed at this location, the contractor had to remove some additional asphalt to square off the edges of the work area. I performed additional surveys of this limited work and found no readings above background levels.

The count rates in the excavation ranged from 1,300 cpm to 3,000 cpm. No count rates were observed at any time that exceeded the instrument specific threshold limit of 6,383 cpm.

460 E. Sub-Lower Wacker Dr. Fence Repairs

On July 16, 2021, I received a second call from Ahmad Nur at CDPH. He indicated that Midwest Fence was removing an existing concrete fence post base prior to their planned fence repair work. He was concerned that this was potentially soil invasive work, so I responded to the call immediately and arrived on the site to monitor the piece of concrete that had been removed from the ground. No readings were identified above background levels.

On July 23, 2021, two 6-inch wide borings were performed for the installation of new fence posts at the eastern edge of Sub-Lower Wacker Drive. The work was performed by Midwest Fence under CDOT permit #1557783.

Gamma surface scans were performed using the Ludlum Model 2221 Scaler / Ratemeter, serial no. 127242. Survey data was collected by monitoring the spoils generated during the boring process to a maximum excavation depth of 3.5 feet below ground surface.

The maximum gamma count rate for each lift was recorded on the attached Radiation Survey Form. See Attachment B – 460 E. Sub-Lower Wacker Dr. Fence Repairs.

The count rates in the excavation ranged from 1,000 cpm to 2,400 cpm. No count rates were observed at any time that exceeded the instrument specific threshold limit of 6,995 cpm.

Asbestos

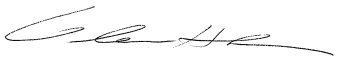
Although no specific asbestos testing was performed, soils were visually screened during excavation for evidence of potentially asbestos containing mantles or mantle strings, per Section 7.8 of the Health and Safety Plan (HASP), revision date December 19, 2018. No potentially asbestos containing materials were identified so no abatement is required at this time.

Upcoming Work Schedule

There are no excavation activities planned for the next couple of months within the former boat slip areas or in the surrounding right of ways. We will continue to send you updates of planned construction activities as they are scheduled.

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

Attachment A

440 E. Sub-Lower Wacker Dr. Asphalt and Road Base Removal

7/12/21 – 7/15/21

Lakeshore East Development – Parcels I, J, K, and L

Performed by:

Stan A. Huber Consultants, Inc.
200 N. Cedar Rd.
New Lenox, IL 60451

sahci
Stan A. Huber Consultants, Inc.

Radiation Survey Form

Location/ Project ID: LEASE LAKESHORE EAST - WAGNER DR. STREET REPLACEMENT - ROW RADIOLOGICAL SOIL SURVEY

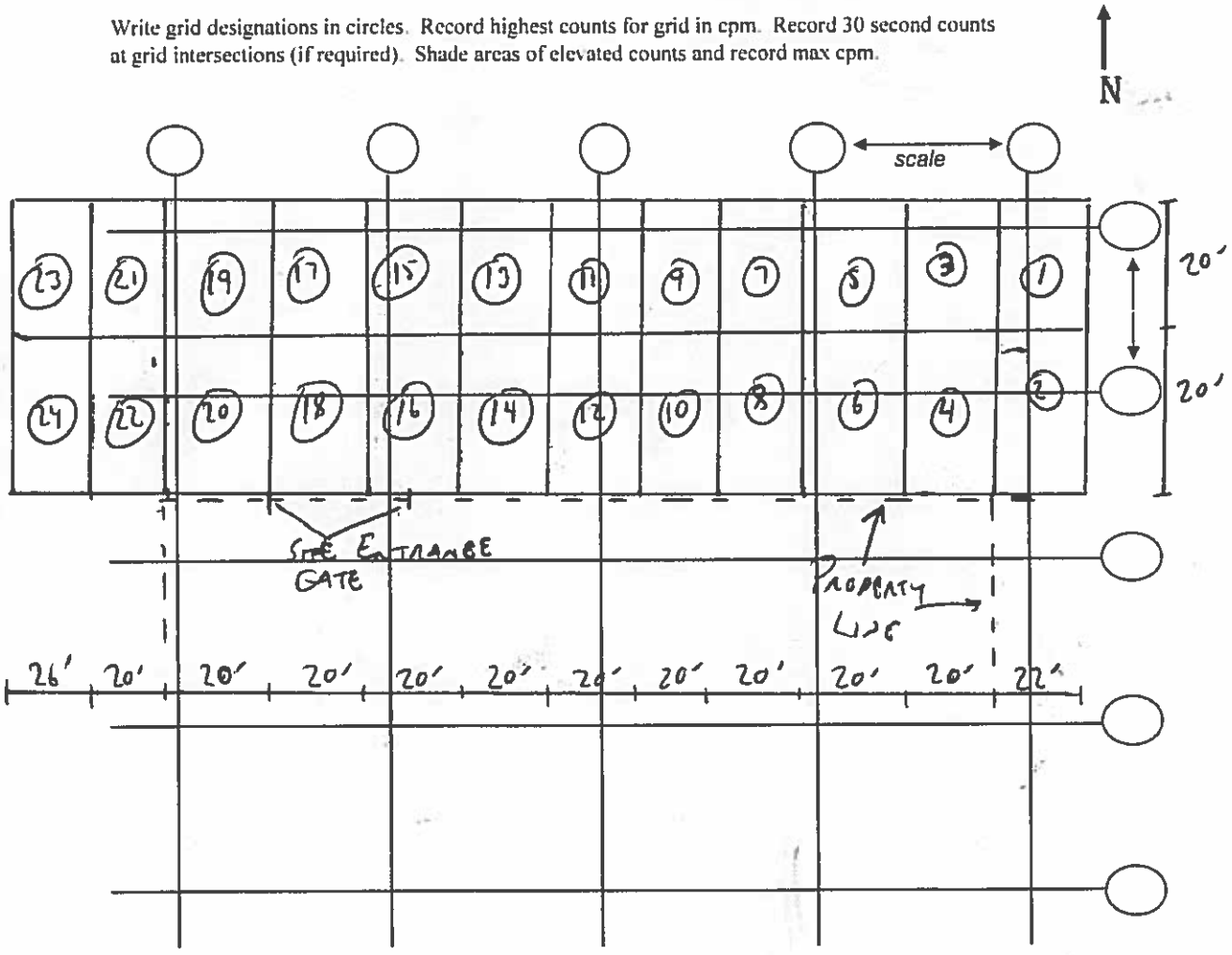
Date: 7/12 - 7/15/2021 **Technician:** BRIAN SENIOR + GLENN HUBER

Inst Model: LUDLUM - 2221 **Serial No. :** 126497 & 134542 (GAH)

Probe Type: 1"x1" NaI / (2"x2" NaI) (Shielded) / Not Shielded **Lift Elevation:** 0-12"

Background 1749 cpm **Action Level:** 6383 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: Abbey Paving - Pavement Replacement
Name: Brian Schmidt and Glenn Huber
Date: 7/12/21 - 7/15/21

Instrument ID: Ludlum Model 2221 Scaler/Ratemeter w/ Model 44-10 NaI Detector (w/ 6" Lead Shield)
7.1 pCi/g CPM: 6,383 CPM (serial no. 126497) - 7/12/21 and 7/14/21
7,396 CPM (serial no. 134542) - 7/15/21

	Depth	0"-12" (bgs)	12"-30" (bgs)
Date	Location ID	Survey Results (cpm)	
7/15/2021	1	1400	1500
7/15/2021	2	1300	1400
7/12/2021	3	1700	2400
7/12/2021	4	1900	2200
7/12/2021	5	1500	2100
7/12/2021	6	1500	2600
7/12/2021	7	2000	2900
7/12/2021	8	1800	2500
7/12/2021	9	2000	2400
7/12/2021	10	2100	2800
7/12/2021	11	1700	2600
7/12/2021	12	1800	2600
7/14/2021	13	1800	2200
7/14/2021	14	1900	2400
7/14/2021	15	2400	3000
7/14/2021	16	1500	2100
7/14/2021	17	1900	2500
7/14/2021	18	1600	2600
7/15/2021	19	2000	2400
7/14/2021	20	1800	2100
7/15/2021	21	2300	2100
7/14/2021	22	1600	1900
7/14/2021	23	2100	2200
7/14/2021	24	1500	2300

Attachment B

460 E. Sub-Lower Wacker Dr. Fence Repairs

7/23/21

Lakeshore East Development – Parcels I, J, K, and L

Performed by:

Stan A. Huber Consultants, Inc.
200 N. Cedar Rd.
New Lenox, IL 60451

sahci
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Radiation Survey Form

Location/ Project ID: Pioneer- Fence Posts Lower Wacker St.

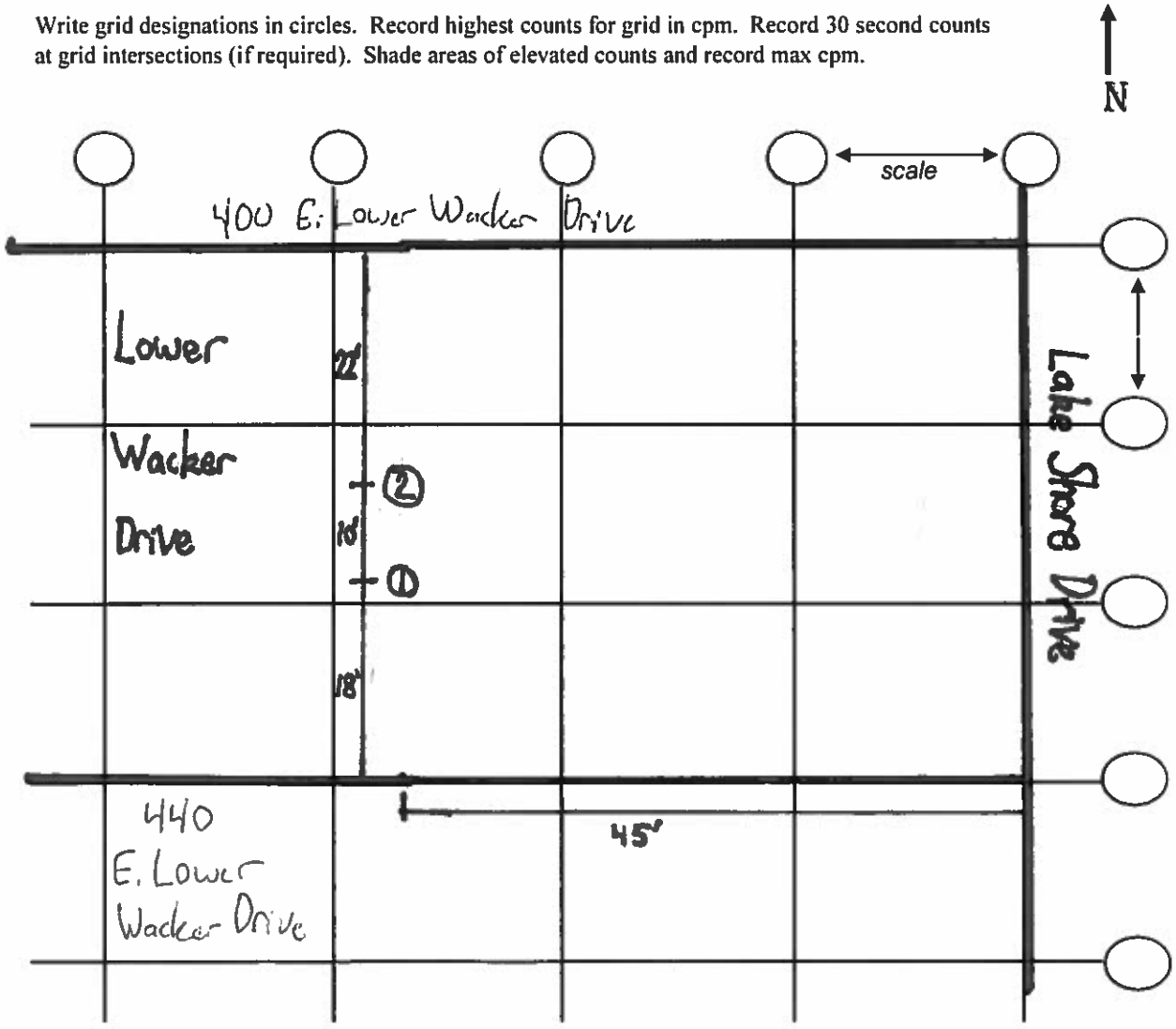
Date: 7/23/21 **Technician:** Mark Dewald

Inst Model: Ludlum 2221 **Serial No. :** 127242

Probe Type: 1"x1" NaI (2"x2" NaI) (Shielded) / Not Shielded **Lift Elevation:** Surface to -42" BGS

Background 1,902 **cpm** **Action Level:** 6,995 **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.



Areas approx. 6" in diameter

	0-6"	6-24"	24-42"	42-60"
Area 1	1100	1100	1300	1400
Area 2	1000	1400	2300	2400