

Stan A. Huber Consultants, Inc.

Health Physics and Radiation Safety Services

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April 6, 2016

Dave Cozzi SET Environmental 450 Sumac Road Wheeling, IL 60090

RE: 426 E. Ohio St. Thorium Monitoring - City of Chicago Department of Water

Management

Dear Mr. Cozzi:

Stan A. Huber Consultants, Inc. (SAHCI) was hired by your firm to provide radiation monitoring during the excavation and repair of a storm water catch basin at 426 E. Ohio St. in Chicago, Illinois. The monitoring was performed on April 5, 2016. All activities were conducted under the guidance of document *SET General Guidance for Thorium Monitoring*.

<u>Instrumentation</u>

Surface gamma scans were performed by Brian Schmidt using a Ludlum Model 2221 Scaled / Ratemeter (serial no. 126496) with attached 2"x2" Nal probe with 6" lead shield. The instrument was calibrated on October 15, 2015. The USEPA action level of 7.1 picocuries per gram (pCi/g) total thorium for this instrument is 7,054 counts per minute (cpm).

The average background count rate for this location was found to be 1,449 cpm.

Soil Gamma Scans

Gamma surface scans were performed using the Ludlum Model 2221 Scaler / Ratemeter described above. 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 3 feet. Soil and debris removed from the excavation was loaded directly into a truck and was not stockpiled onsite.

The maximum gamma count rate for each 1.5 foot lift was recorded on the attached Radiation Survey Forms. The count rates in the excavation ranged from 1,800 cpm to 2,400 cpm. No count rates were found at any time that exceeded the threshold limit of 7,054 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. Additionally, a copy of this report should be submitted 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.

Calledon .

Glenn Huber, CHP

President



Radiation Survey Form							
Location/ Project ID: 426 E. DHIO ST MANGOLE GLEAN OUT/REPLACEMENT							
Date: 4/5/15				Technician: BRIAN SCHMINT			
Inst Model: LUDLUM - 2221				Serial No.: 126496			
Probe	Э Тур	e: 1"x1" Nal	/ 2"x2" Nal / Not Shielded	Lift Elevation: 0-36"			
Background / / / Communication				Action Level: 7074 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.							
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