Hanson, David L - DNR

From: John Osborne <John.Osborne@gza.com>
Sent: Saturday, June 24, 2023 4:35 PM
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Cc: Heidi Woelfel; Bernard Fenelon; john.ausburn@cypressequities.com; Kevin Hedinger
Subject: RE: Daily Update 8 - The Lydell Building 3
Attachments: DRAFT Update 9 - Micromanometer readings building 3.xlsx (002).pdf; Preliminary Mobile GC Results 06 24 2023 Building 3 Lydell.pdf

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Good afternoon – This is a brief interim update from today's field activities that were conducted at Building 3 at The Lydell in Glendale.

Pressure Extension readings were recorded and the attached table updated to include today's data. The results across all points including the vapor pin installed in Unit 114 (SS-10) show relatively uniform values that reflect good depressurization beneath the slab.

GZA and VaporSafe continued to analyze samples using the SRI 8610C gas chromatograph calibrated 3x per day. The attached table summarizes the locations and results of the diagnostic testing conducted. Some of the highlights include:

- North blower (7.5 hp) exhaust: 200 ug/m3 (note: complete late 06/23 after Update was issued)
- South blower (10 hp) exhaust: 1600 ug/m3 (note: complete late 06/23 after Update was issued)
- The subslab points were also each tested as follows from south to north:
    - SS-1: 9.4 ug/m3
    - SS-2: 340 ug/m3
    - SS-3: 3500 ug/m3
    - SS-4: 18 ug/m3
    - SS-5: 11 ug/m3
    - SS-6: 24 ug/m3
    - SS-7: 3.2 ug/m3
    - SS-8: 8.0 ug/m3
    - SS-9: 4.0 ug/m3
    - SS-10: 130 ug/m3

The above data indicates the predominant area of sub-slab impact occurs in the central to southern portion of the slab. Additional interpretation of this data is forthcoming.

We also continued to focus on understanding elevated impacts at Unit 114 and a second unoccupied unit 206 that contained elevated readings based on the most recent round of indoor testing as described below.

Unit 206

We analyzed samples in Unit 206 from in the wall space behind the sink, in the stairwell next to 206, and in the wall space behind the power outlet in the kitchen above the sink (this outlet is in a different space between wall studs and the sink drain.

Wall Space Behind Kitchen Sink Drain- 24ug/m^3
Stairwell Next to Unit 206- 3.2 ug/m^3
Wall Space Behind Power Outlet- 1.2 ug/m^3

We also analyzed sample in Unit 206 from within the kitchen sink drain past the p-trap, in the furnace condensate drain just above the water level in the pipe, and in the bathroom sink drain past the p-trap. For the kitchen and bathroom sink I disconnected the p-trap to collect the sample in the drain to get past the p-trap.

Kitchen Drain Past p-Trap- 20 ug/m3
Furnace Condensate above Water- 20 ug/m3
Bathroom Sink Past p-Trap- 18 ug/m3

Unit 114

We analyzed samples in Unit 114 from the bedroom with the door in a closed position since yesterday (Friday), from the kitchen sink before the p-trap, and from the kitchen sink through the p-trap. For the sample through the p-trap in Unit 114 we placed a tube through the p-trap without removing the p-trap.

Bedroom With Closed Door- 123 ug/m3
Kitchen Sink Before -p-Trap- 110 ug/m3
Kitchen Sink through p-Trap- 300 ug/m3; peak exceeded calibration range so is likely a low estimate.

The findings of elevated TCE within the sewer beyond the p-trap is significant to us and as a result we also began evaluating unoccupied unit 116 to further understand the impact of sewer gases. This will lead us to not only evaluate the plumbing penetrations but also sewer line connections, routing and construction when meeting with the plumbing contractor tentatively on Monday.

We hope this Update is useful to you and indicative of the ongoing efforts being applied to assess, understand and ameliorate the vapor conditions at 5805 N Lydell. We will connect on Monday. Have a great weekend.

Thank you.

John C. Osborne, P.G.
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DRAFT TABLE 1
PRESSURE FIELD TESTING RESULTS
The Lydell Apartments - Building 3
5805 Lydell Avenue
Glendale, Wisconsin

Sub-slab Port ID	5/22/2023	6/14/2023	6/15/2023	6-15-23 - Fans Turned Off	6-15-213 - 4 Fans Operating	6/16/2023 (0900)	6/16/2023 (1430)	6/19/2023	6/20/2023	6/21/2023	6/22/2023 10 & 7.5 hp Blowers Running	6/23/2023 10 & 7.5 hp Blowers Running/ Middle Vent Running	6/24/2023 10 & 7.5 hp Blowers Running/ Middle Vent Running
SS-01	-0.014	-0.009	-0.016	-0.002 to 0.00	-0.019	-0.01	-0.016	-0.015	-0.025	-0.018	-0.045	-0.064	-0.048
SS-02	-0.004	-0.003	-0.005	0.001	-0.006	-0.004	-0.008	-0.006	-0.012	-0.004	-0.017	-0.04	-0.029
SS-03	-0.002	-.001 to .002	0.003	0.005	-0.014	-0.001	-0.001	-0.002	-0.001	-0.003	-0.009	-0.065	-0.055
SS-04	-0.003	-.001 to .001	0.002	0.005	-0.02	-0.001	-0.001	-0.002	-0.002	-0.002	-0.009	-0.05	-0.044
SS-05	-0.009	-0.005	-0.005	0.005	-0.026	-0.01	-0.008	-0.011	-0.011	-0.011	-0.03	-0.051	-0.051
SS-06	-0.013	-0.011	-0.009	0.008	-0.012	-0.014	-0.013	-0.016	-0.017	-0.015	-0.039	-0.054	-0.059
SS-07	-0.008	-0.007	-0.012	0.009	-0.034	-0.01	-0.01	-0.01	-0.012	-0.012	-0.033	-0.045	-0.042
SS-08	-0.086	-0.086	-0.088	0.004	-0.103	-0.098	-0.097	-0.099	-0.100	-0.099	-0.280	-0.219	-0.285
SS-09	-0.033	-0.027	-0.033	0.014	-0.053	-0.38	-0.034	-0.038	-0.041	-0.041	-0.096	-0.104	-0.108
SS-10	Installed in Unit 114 on 6/22/2023											-0.041	-0.042

Notes:

* Readings were collected utilizing a micromanometer and results are in inches of water
*Between May 19, 2023 and June 15, 2023 morning, the system operated with 2 RP Pro 265 fans, one on each exhaust pipe
*Four fans (RP Pro 265) have been operating (one fan pair per exhaust pipe) since afternoon of June 15, 2023
*Readings on June 16, 2023 were conducted in the morning and afternoon

DRAFT TABLE 1
PRESSURE FIELD TESTING RESULTS
The Lydell Apartments - Building 3
5805 Lydell Avenue
Glendale, Wisconsin

Sub-slab Port ID	6/25/2023 10 & 7.5 hp Blowers Running	6/26/2023 10 & 7.5 hp Blowers Running
SS-01		
SS-02		
SS-03		
SS-04		
SS-05		
SS-06		
SS-07		
SS-08		
SS-09		
SS-10		

HARTMAN ENVIRONMENTAL GEOSCIENCE

DRAFT - PRELIMINARY DATA - TO BE REVIEWED

Note: Preliminary Data

Client: GZA
Site: Building 3
On-site EPA Method TO-14 Data from Air Samples
Instrument: SRI 8610 Gas Chromatograph with ECD
Operator: Clint Hartman
Date: 6/24/23

Sample ID	Sample Time	TCE (ug/m3)	PCE (ug/m3)	Comments
SS-1	9:00	9.4	ND	
SS-2	9:15	340	32	X100 Dilution (Value after multiplication factor)
SS-3	9:26	3500	330	X1000 Dilution (Value after multiplication factor)
SS-4	9:39	18	ND	
SS-5	9:51	11	ND	
SS-6	10:03	24	ND	
SS-7	10:15	3.2	ND	
SS-8	10:27	8.0	ND	
SS-9	10:38	4.0	ND	
SS-10	10:51	130	ND	
206-624-KT	11:05	12	ND	KT = Kitchen
206-624-UT	11:15	12	ND	UT = Utility
Stairwell South	11:42	3.2	ND	
206-624-KT-Power	11:54	1.2	ND	Wall Power Outlet
206-624-KT-Sink	12:07	24	ND	Underneath Sink into wall
206-624-Condensate	13:31	20	ND	
206-624-KT-Ptrap	13:43	20	ND	Disconnected Ptrap
206-624-BR-Ptrap	13:55	18	ND	BR = Bathroom
114-624-BD	14:25	120	ND	BD = Bedroom
114-624-KT-Ptrap	14:38	110	ND	Before Trap
114-624-KT-Ptrap	14:49	270	2.1	Past Trap (Outside Cal range, Value Bias Low)
116-624-BD	15:27	20	ND	
116-624-Ptrap	15:39	24	ND	Before Trap