

**From:** Ken Ebbott <ken.ebbott@sandcountyenv.com>  
**Sent:** Monday, July 01, 2024 4:34 PM  
**To:** Michalets, Linda M - DNR  
**Cc:** Tom Mckay; Ken Ebbott; Marcie Koziczowski  
**Subject:** RE: Revised Vapor Mitigation Interim Action plus Additional Investigation of Groundwater and Neighboring Vapor Intrusion  
**Attachments:** 2024 07 01 Table A Interim Action and Inv Cost Table.pdf

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Linda and Tom,

I believe the attached cost estimate captures the final agreed-upon scope of work to be done at this time. The changes the WDNR requested are described in the email below, and include verification of the former drycleaner communication testing on two occasions, obtaining another confirmation indoor air sample at the former drycleaner building after the system has been installed, and installation / collection of a subslab vapor sample beneath the crawlspace floor of the residential building to the north.

Upon WDNR and OHM approval via email, I will line up the vapor mitigation contractor and try to make arrangements with the neighboring property to the north for sampling their residence.

Please note we don't anticipate the work being eligible for DERF coverage, based on the insolvency of DERF, but if it becomes viable in the future, the work has been broken out into an Interim Action and Additional Investigation budgets. Also note we have include mileage for the work, which is NOT DERF eligible, but is a necessary cost to the project and will be charged on the invoices.

As shown on the attached cost estimate on Page 3, the total estimate cost is now \$16,787.

Let me know if you have any questions or comments.

Thanks,

Ken

Regards,  
**Ken Ebbott, PG, CGWP**  
**Senior Project Manager/Senior Geologist**  
**Sand County Environmental, Inc. (fka Sand Creek Consultants, Inc.)**

W5877 Pheasant Lane | Plymouth, WI 53073

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**From:** Michalets, Linda M - DNR <[Linda.Michalets@wisconsin.gov](mailto:Linda.Michalets@wisconsin.gov)>

**Sent:** Thursday, June 6, 2024 8:06 AM

**To:** Ken Ebbott <[ken.ebbott@sandcountyenv.com](mailto:ken.ebbott@sandcountyenv.com)>

**Cc:** Tom Mckay <[tmck602@gmail.com](mailto:tmck602@gmail.com)>

**Subject:** RE: Revised Vapor Mitigation Interim Action plus Additional Investigation of Groundwater and Neighboring Vapor Intrusion

Okay. Thanks for letting me know.

Linda

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**Linda Michalets**

Pronouns: she/her

Phone: 414-435-8010

[Linda.Michalets@wisconsin.gov](mailto:Linda.Michalets@wisconsin.gov)

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**From:** Ken Ebbott <[ken.ebbott@sandcountyenv.com](mailto:ken.ebbott@sandcountyenv.com)>

**Sent:** Wednesday, June 05, 2024 6:04 PM

**To:** Michalets, Linda M - DNR <[Linda.Michalets@wisconsin.gov](mailto:Linda.Michalets@wisconsin.gov)>

**Cc:** Tom Mckay <[tmck602@gmail.com](mailto:tmck602@gmail.com)>

**Subject:** RE: Revised Vapor Mitigation Interim Action plus Additional Investigation of Groundwater and Neighboring Vapor Intrusion

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Linda,

I'm off to Georgia for a job tomorrow early AM – but back on Tuesday so I won't get to this until then.

Ken

Regards,

**Ken Ebbott, PG, CGWP**

**Senior Project Manager/Senior Geologist**

**Sand County Environmental, Inc.** (fka Sand Creek Consultants, Inc.)

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**From:** Michalets, Linda M - DNR <[Linda.Michalets@wisconsin.gov](mailto:Linda.Michalets@wisconsin.gov)>

**Sent:** Wednesday, June 5, 2024 11:22 AM

**To:** Ken Ebbott <[ken.ebbott@sandcountyenv.com](mailto:ken.ebbott@sandcountyenv.com)>

**Cc:** Tom Mckay <[tmck602@gmail.com](mailto:tmck602@gmail.com)>

**Subject:** RE: Revised Vapor Mitigation Interim Action plus Additional Investigation of Groundwater and Neighboring Vapor Intrusion

Hello Ken,

As I mentioned in our call, I forgot to indicate that sub-slab sampling is needed along with the indoor air sampling at the residence to the north. The two samples will need to be evaluated together to interpret the results. A sub-slab sample that is more centrally located beneath the building or toward the south, nearer the contaminant source, is preferred, but understand that you may be limited by the confined space. Also, verify that there is no sump present within the residence. Otherwise, sealing and sampling of the sump would be recommended.

For the interim action vapor mitigation system, multiple rounds of pressure field extension testing (hand-held manometer) are needed to verify that the system is operating effectively during the commissioning phase, per the RR-800 vapor guidance. I recommend that you include those costs now rather than waiting until we ask for them later.

As part of the commissioning, indoor air sampling is needed to confirm that there are no vapor standard exceedances after the system is installed. I recommend that you add costs for one indoor air sample round for approval (8-hour sample for commercial use).

Please let me know if you have any questions about these requirements.

Thank you,  
Linda

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**Linda Michalets**

Pronouns: she/her

Phone: 414-435-8010

[Linda.Michalets@wisconsin.gov](mailto:Linda.Michalets@wisconsin.gov)

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**From:** Ken Ebbott <[ken.ebbott@sandcountyenv.com](mailto:ken.ebbott@sandcountyenv.com)>

**Sent:** Monday, May 20, 2024 3:45 PM

**To:** Michalets, Linda M - DNR <[Linda.Michalets@wisconsin.gov](mailto:Linda.Michalets@wisconsin.gov)>

**Cc:** Ken Ebbott <[ken.ebbott@sandcountyenv.com](mailto:ken.ebbott@sandcountyenv.com)>; Tom Mckay <[tmck602@gmail.com](mailto:tmck602@gmail.com)>

**Subject:** Revised Vapor Mitigation Interim Action plus Additional Investigation of Groundwater and Neighboring Vapor Intrusion

**CAUTION: This email originated from outside the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.**

Linda,

Per our recent phone conversations, this email presents a revised scope of work and broken out budget for the following:

1. Interim Remedial Action for Interim Remedial Action for Vapor Mitigation beneath the former Drycleaner Building (Cost on **Table A**)
2. Additional Investigation of Site Groundwater (Two sample rounds from the 8 existing wells) (Cost on **Table B**)
3. Further Assessment of Crawlspace and Indoor Air at the Neighboring Residence to the North (Cost on **Table B**)

The site is in the Drycleaner Environmental Repair Fund (DERF) and while the fund is currently not financially viable, this Work Plan is presented in a manner to maintain DERF coverage in case future funding can be found. The vapor mitigation is presented as part of an Interim Remedial Action for the project; the groundwater sampling and assessment of the northern neighbor indoor air includes further investigative efforts.

The request has been prepared by Sand County Environmental on behalf of Mr. Tom McKay, the former drycleaning owner and DERF participant.

A variance from the requirements of NR 169.13 and NR 169.23 is requested for this proposed work, as the Interim Action is necessary to protect building occupants. In addition, the proposed additional investigation activities are limited in scope, and include reasonable costs that are necessary to keep the project moving forward. A waiver from the bidding requirements for DERF is requested.

#### **NR 712 CERTIFICATION**

This work requires preparation and approval by individuals certified under NR 712 to satisfy qualification standards. The NR 712 certification page, signed by Kendrick Ebbott, Professional Geologist (PG) and Certified Ground Water Professional (CGWP), is attached and meets the requirements of the WDNR for this submitted Work Plan.

#### **WORK PLAN SCOPE AND METHODS**

**INTERIM ACTION : VAPOR MITIGATION SYSTEM at 4704 W. Burleigh (Former Fabricare Building)**

A vapor mitigation system will be installed at the former drycleaner building. The building is a slab on grade structure measuring roughly 28 feet north / south by 66 feet east / west. The former drycleaning machine sat on the far western edge of the building in an area currently separated from the rest of the building interior space by a north / south trending wall of tall refrigeration units located approximately 15 feet east of the western wall.

The vapor mitigation system will be installed with one or two floor penetrations located near the western wall (**Figure 1**). The exhaust piping will be run outside the western wall and extend above the roof line, with connection to an exterior-mounted exhaust fan. The fan discharge will be located at least 10 feet from any doors, windows, or air intake areas of the building.

A licensed radon mitigation contractor, Wisconsin Radon of Milwaukee, will be hired to design and install the system. The design elements, such as the number of floor penetrations and location of the piping, will depend in part on the field observations during installation. A pressure field extension testing will be performed by the radon mitigation contractor during installation, and a report will be prepared that documents the installed system elements and pressure extension results.

Previous testing of the indoor air at the former Fabricare building indicated very low levels of PCE were present and no TCE was detected. The observed PCE was far below standards for both residential and small commercial indoor air. However, subslab vapor had elevated levels of PCE, and following the installation of the vapor mitigation system, the building occupants will be better protected from potential vapor intrusion.

No post-system installation chemical testing of indoor air at the former drycleaner building is planned. The cost for the mitigation system as an interim action is shown on **Table A**.

#### **ADDITIONAL INVESTIGATION: TWO ROUNDS OF GROUNDWATER SAMPLING**

Testing of groundwater from the eight site monitoring wells will be completed twice over a period of approximately four months (**Figure 1**). The wells have not been sampled since 2013, and current results should be obtained. The wells may be in relatively poor condition, and notes will be provided on the well total depth and any observed deficiencies in their current construction or condition.

The wells will be purged per DNR groundwater sampling requirements to obtain representative groundwater, and will be sampled using new, dedicated bailers, with field measurement of temperature, conductivity, and dissolved oxygen prior to testing.

Samples will be obtained for laboratory analysis of VOC's, with analysis performed by either Synergy Laboratory or Pace Analytical Laboratory.

Upon receipt of the data, the chemistry results will be tabulated and an updated table sent via email to the client and WDNR, along with a copy of the laboratory analytical report, and a map showing the sample locations.

The second round of groundwater samples from the eight monitoring wells will be completed approximately three months after the initial round of samples has been obtained. The need for a second round of samples will be evaluated upon receipt of the first round; if the results are highly

elevated there may not be a need to conduct further assessment on a quarterly basis. This decision will be made with the input of the WDNR project manager.

### **ADDITIONAL INVESTIGATION VAPOR SAMPLING AT ADJACENT NORTHERN RESIDENCE**

The adjacent house at 3119 N 47<sup>th</sup> Street was previously sampled for subsurface vapors and indoor air within the crawl space of the home in June 2020. The results indicate the subsurface vapors were not elevated, but the crawl space air had levels of naphthalene and tetrachloroethene (PCE) above levels of concern. Additional vapor sampling will be completed using passive samplers deployed for a 10-day duration.

#### Sample Locations

Further testing will be completed at three locations as follows (**Figure 1**):

- Ambient air on a telephone or light pole in the alley south of the home.
- Within the crawl space air.
- Within the living space of the home.

The house is one story and has a main building that measures roughly 26 feet north / south by 45 feet east / west. This part of the building is underlain by a 3' high crawlspace with a thin cement floor. Just to the west and attached to the main building is an approximately 18 foot north / south by 12 foot east / west slab on grade bedroom that extends to the west and connects to the slab on grade garage.

The crawlspace access is via an opening in a closet door in the far northwest corner of the main house, which is at the northwest corner of the crawlspace. The crawlspace cement block walls have been sprayed with a foam insulation along the interior perimeter in most places, and the material might be a source for observed chemicals in the air in a previous sampling effort.

For the proposed testing, we plan to test the approximate center of the main building in both the crawlspace and the indoor living space. The sampler in the crawlspace will be hung at a height of 1 to 3 feet off the cement floor at a location approximately 15 feet south and 20 feet east of the northwest access door.

The indoor air sampler for the building will be placed in the approximate center of the main building. The crawlspace is present under the entire eastern portion of the residence, but is not present further west, beneath the bedroom or attached garage. The sampler will be hung at approximate head height in an area between the kitchen and the main living room, although final placement will be discussed with the owners to accommodate a location that is convenient.

To the extent possible, a brief inventory of household products will be performed and products that contain PCE, TCE, or naphthalene will be identified and removed to the adjacent garage for storage during the testing. The materials will be placed in a sealed Ziploc bag during removal. These products may include glues, paint and spot removers, rug cleaning fluids, paint, metal and automotive cleaning products, recently dry cleaned clothes, insecticides, scented candles, incense, and moth balls. Because naphthalene can be present related to combustion, we will ask the building occupants if they smoke

cigarettes, and observe the indoor space for ashtrays and other indicators of tobacco use. For the 10-day duration of the sampling, we will request the residents refrain from use of these products in the house.

The outside ambient air sample will be deployed on a telephone or light pole near the home, likely along the alley just south of the residence. Prevailing winds tend to be from the west or southwest, and W. Burleigh Avenue is a relatively busy street with potentially detectable chemical emissions from automobile exhaust. The sampler will be protected from rain and the elements with a temporary shelter provided by the laboratory. The shelter has a roof and two walls and has been designed to optimize air flow while still providing protection from the elements.

### Sample Method and Analysis

Upon collection, the samples will be shipped to Eurofins, Folsom, California for analysis using the Radiello 130 sampling and test method. Eurofins is working with the WDNR on several projects that utilize this high uptake passive vapor sampling method. A 10-day sample time is proposed with laboratory analysis for a short list of analytes that were previously identified, which include the following:

- Benzene
- Ethylbenzene
- Toluene
- Xylenes
- Naphthalene
- Tetrachloroethene (PCE)
- Trichloroethene (TCE)
- Cis – dichloroethene (DCE)

As the WDNR is aware, vinyl chloride can NOT be tested using this sampling and analytical method, but based on previous findings, vinyl chloride is not expected to be present at significant concentrations for this project.

All three samples will be tested for these analytes, with the ambient sample mounted on a nearby light post deployed to check background levels of compounds in this relatively high traffic area.

### Results and Communication of Findings

Within 10 days of receipt of the results from the laboratory, the findings will be shared with the property owner, client, and WDNR. The results will be tabulated and compared to the WDNR Quick Look-up Values for residential air.

The information will include a brief discussion of the findings and need for additional work, if any.

### **DRYCLEANER ENVIRONMENTAL REPAIR FUND (DERF) ELIGIBILITY**

The project is eligible for coverage under DERF, although the fund is currently not able to reimburse claims in a timely manner. To maintain potential coverage if DERF becomes more viable, we request the

WDNR review and approve the budget for the proposed charges for this work, as shown on the attached cost estimate tables.

**Table A** summarizes the interim action charges and totals \$1,415 in consultant charges and \$3,000 in contractor charges, for a total of \$4,415.

**Table B** summarizes the additional investigation charges and totals \$7,675.50 in consultant charges and \$2,109.50 in contractor charges for a total of \$9,785.

The total additional DERF budget authorization being sought is \$9,090.50 in consultant charges and \$5,109.50 in contractor charges, for a total of \$14,200.

## **SCHEDULE**

Upon review and approval of this Work Plan, we can begin the sampling of vapors and authorize the vapor mitigation contractor to install the system at the former drycleaner building.

The work should require two to three months for completion once approval has been provided.

I look forward to hearing from you with any questions or comments.

Thanks,

Ken

Regards,

**Ken Ebbott, PG, CGWP**

**Senior Project Manager/Senior Geologist**

**Sand County Environmental, Inc.** (fka Sand Creek Consultants, Inc.)

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TABLE A: Interim Action Cost Estimate Vapor Sample  
 July 1, 2024  
 Install Subslab Vapor System and Verify Function at Drycleaner Building Twice  
 One Hour Fabricare (Former), 4704 W Burleigh Ave, Milwaukee WI

ITEM DESCRIPTION	Unit Price	Quantity	Units	Total Cost
<b>CONSULTING SERVICES</b>				
<b>Task 1 Scope, Plan and Project Management</b>				
Plan, DNR Email Correspondence, Scope, Budget				
Project Manager (PG)	\$130.00	3	hour	\$390.00
Drafting	\$100.00	1	hour	\$100.00
Administrative	\$100.00	2	hour	\$200.00
<b>Subtotal Task</b>				<b>\$690.00</b>
<b>Task 2: Installation of Subslab Vapor Mitigation System at Former Drycleaner</b>				
Vapor system two floor penetrations with fan, communication test on installation, follow up commun test in fall. One 8-hour indoor vapor sample after system install, return to collect it				
Branch Manager	\$171.00	0	hour	\$0.00
Project Manager (PG)	\$130.00	2	hour	\$260.00
Field Technician	\$100.00	6	hour	\$600.00
Field Technician	\$100.00	8	hour	\$800.00
PID	\$100.00	2	day	\$200.00
Mileage (not DERF Eligible)	\$0.66	400	mile	\$264.00
Field Supplies	\$50.00	2	day	\$100.00
<b>Subtotal Task</b>				<b>\$2,224.00</b>
<b>TOTAL CONSULTANT</b>				<b>\$2,914.00</b>
<b>CONTRACTOR SERVICES</b>				
<b>Task 5: Vapor Sampling/Mitigation System Install</b>				
VAPOR MITIGATION CONTRACTOR				
Vapor System Installation				
Electrician / Permit	\$700.00	1	each	\$700.00
Floor Penetrations	\$250.00	2	each	\$500.00
Piping and Fan	\$300.00	2	lump	\$600.00
Sealing, Manometer	\$100.00	1	lump	\$100.00
Labor	\$800.00	1	lump	\$800.00
Communication Test	\$150.00	1	lump	\$150.00
Documentation Report	\$150.00	1	lump	\$150.00
<b>Subtotal Task</b>				<b>\$3,000.00</b>
LABORATORY VAPOR TESTING				
Summa Canister w 8 hour Regulator	\$90.00	1	each	\$90.00
Analysis TO-15 CVOC short list	\$210.00	1	each	\$210.00
Env Impact Fee, Disp Fee	\$37.00	1	each	\$37.00
<b>Subtotal Task</b>				<b>\$337.00</b>
<b>TOTAL CONTRACTOR</b>				<b>\$3,337.00</b>
<b>TOTAL ESTIMATED COST</b>				<b>\$6,251.00</b>

**TABLE B: Additional Investigation Cost Estimate**

July 1, 2024

Sample Groundwater at 8 Wells Two Events, Test Vapor at Neighbor N Subslab, Indoor, Crawlspace  
One Hour Fabricare (Former), 4704 W Burleigh Ave, Milwaukee WI

**CONSULTING SERVICES**

**Task 1 Work Plan and Project Management**

Plan, DNR Email Correspondence, Scope, Budget

Project Manager (PG)	\$130.00	2	hour	\$260.00
Drafting	\$100.00	1	hour	\$100.00
Administrative	\$100.00	2	hour	\$200.00
<b>Subtotal Task</b>				<b>\$560.00</b>

**Task 2: Revisit Access Agreement**

Access with one neighbor

Branch Manager	\$171.00	0	hour	\$0.00
Project Manager (PG)	\$130.00	2	hour	\$260.00
Field Technician	\$100.00	2	hour	\$200.00
<b>Subtotal Task</b>				<b>\$460.00</b>

**Task 4: Groundwater Monitoring Two Events**

Groundwater Sample wells MW1 to MW8, Analysis VOCs, Two Rounds 3 months apart

Branch Manager	\$171.00	0	hour	\$0.00
Project Manager (PG)	\$130.00	4	hour	\$520.00
Field Technician	\$100.00	22	hour	\$2,200.00
YSI Multi Meter	\$100.00	2	day	\$200.00
Mileage (not DERF Eligible)	\$0.66	200	mile	\$132.00
WL Probe	\$50.00	2	day	\$100.00
Bailers, Rope	\$20.00	16	each	\$320.00
Field Supplies	\$25.00	2	day	\$50.00
<b>Subtotal Task</b>				<b>\$3,522.00</b>

**Task 5: Residential Vapor Sampling at Neighbor to North**

Vapor Samples Four vapor samples. Three 10-day indoor passive samples from North Neighbor crawlspace, indoor air, and ambient outside. One 30 minute subslab vapor pin center of crawlspace.

Branch Manager	\$171.00	0	hour	\$0.00
Project Manager (PG)	\$130.00	1	hour	\$130.00
Field Technician	\$100.00	8	hour	\$800.00
Mileage (not DERF Eligible)	\$0.66	200	mile	\$132.00
PID	\$100.00	1	day	\$100.00
Hammer Drill	\$100.00	1	day	\$100.00
Field Supplies	\$75.00	1	day	\$75.00
<b>Subtotal Task</b>				<b>\$1,337.00</b>

**Task 6: Data Evaluation and Interpretation Two Events, Letter to Neighbor**

Tabulate Data. Letter to Off Site Owner to North. Email report to DNR with copy of off site letters

Branch Manager	\$171.00	0.5	hour	\$85.50
Project Manager (PG)	\$130.00	4	hour	\$520.00
Field Technician	\$100.00	9	hour	\$900.00
CAD	\$75.00	5	hour	\$375.00
Admin Assistant	\$55.00	6	hour	\$330.00
<b>Subtotal Task</b>				<b>\$2,210.50</b>

**CONSULTING SERVICES TOTAL**

**\$8,089.50**

<b>CONTRACTOR SERVICES</b>				
<b>Task 4: Groundwater Sampling Two Events</b>				
GW Samples, 8 wells for VOCs, Two Events				
VOCs	\$87.00	16	each	\$1,392.00
<b>Subtotal Task</b>				<b>\$1,392.00</b>
<b>Task 5: Vapor Sampling</b>				
Vapor Samples 3 Total Charcoal Sorption Method; One Subslab Residential Summa 30 minute				
LABORATORY VAPOR TESTING				
Summa Canister w 30 Minute Regulator	\$90.00	1	each	\$90.00
Analysis TO-15 CVOC short list	\$210.00	1	each	\$210.00
Env Impact Fee, Disp Fee	\$37.00	1	each	\$37.00
<b>Subtotal Task</b>				<b>\$337.00</b>
EUROFINS LABORATORY				
Sampler Radiello 130 w SERWM Fee	\$57.50	3	each	\$172.50
Analytical TO-17 for PCE, TCE, DCE, B,E,T,X,N	\$150.00	3	each	\$450.00
Shelter Rental Outside Sampler	\$55.00	1	feet	\$55.00
Shipping Charges	\$20.00	2	each	\$40.00
<b>Subtotal Task</b>				<b>\$717.50</b>
<b>CONTRACTOR SERVICES TOTAL</b>				<b>\$2,446.50</b>
<b>TOTAL ESTIMATED COST</b>				<b>\$10,536.00</b>

<b>JULY 1, 2024 REVISED PROJECT TOTAL</b>	
<b>Interim Action</b>	<b>\$6,251.00</b>
<b>Addl Investigation</b>	<b>\$10,536.00</b>
<b>TOTAL</b>	<b>\$ 16,787.00</b>