

Endpoint Solutions

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Mr. Don Scherf
Scherf Properties Trust II
1700 Howlett Lane
Waukesha, WI 53186

April 5, 2017

RECEIVED

Subject: **Remedial Design and Installation Results**
Krystal Kleaners
145 East Sunset Drive, Waukesha, Wisconsin
WDNR BRRTS #: 02-68-576741

MAY 04 2017

BY: 

Dear Mr. Scherf:

In November 2015, Endpoint Solutions Corp. (Endpoint) conducted a Phase I Environmental Site Assessment (ESA) of the property located at 131 East Sunset Drive in the City of Waukesha, Waukesha County, Wisconsin (the Site). The location of the Site is depicted on **Figure 1**. The results of the Phase I ESA indicated a dry-cleaning operation (Krystal Kleaners) has operated at the Site at the tenant address of 145 East Sunset Drive since the Site was developed in 1988. Although the conditions observed at the dry-cleaning operation did not indicate releases of dry cleaning chemicals to the environment were occurring, it was not possible to determine whether releases had historically occurred based solely on visual observations. As such, the historical presence of the dry-cleaning operation at the Site was classified as a recognized environmental condition (REC). The only way to confirm or deny the release of dry cleaning chemicals to the subsurface at the Site was through the collection and analysis of samples.

Therefore, in December 2015, Endpoint performed Phase II Environmental Assessment activities (EA) to evaluate whether the REC identified during the Phase I ESA had caused environmental contamination at the Site. Two (2) soil borings were advanced for the collection of soil and groundwater samples for laboratory analysis and two (2) sample points were installed for the collection of sub-slab vapor samples from within the Krystal Kleaners tenant space for laboratory analysis. The results of the Phase II EA activities indicated the presence of low-concentrations of dry cleaning solvents in the soil and groundwater near the south door of the Krystal Kleaners tenant space and significantly elevated concentrations of dry cleaning solvents in the sub-slab vapors beneath the Krystal Kleaners tenant space. Both of these conditions indicated the release of dry cleaning solvents to the environment and therefore required reporting of the release to the Wisconsin Department of Natural Resources (WDNR). Subsequently, the release was reported to the WDNR. In response, the WDNR issued a responsible party (RP) letter which outlined the requirements to investigate and mitigate any potential exposure scenarios related to the release to the environment. As such, Site Investigation activities were performed which identified elevated concentrations of chlorinated volatile organic compounds (CVOCs) in the soil, groundwater and sub-slab vapors at the Site. Based on the detection of elevated concentrations of CVOCs, a remedial scheme including sub-slab sampling, vapor mitigation system design and installation was developed. This report summarizes the results of the tasks necessary to design and implement a sub-slab vapor mitigation system at the Site.

SCOPE OF WORK

SUB-SLAB SOIL SAMPLING

The WDNR requested that a sub-slab soil investigation be performed to delineate the extent and character of the contamination beneath the building. This information was to be utilized for the soil GIS registry to inform future owners of the Site of the location of the contaminated soils. While it was not anticipated remediation of the contaminated sub-slab soils would be required in order to obtain closure, the closure would include a notation that the building is currently acting as a structural impediment to remediation of the contamination, and at such time if the structure is demolished, the contaminated soils would need to be properly managed. As such, sub-slab soil samples needed to be collected from beneath the 141, 143, 145 and 147 tenant spaces.

VAPOR MITIGATION SYSTEM DESIGN

To properly design the sub-slab vapor mitigation system, a sub-slab continuity test is needed to determine the sub-slab radius of influence of the depressurization system. This data is then used to determine how many vents will be required and the power requirements for the vent blower(s). Based on the zone of influence determination, the sub-slab depressurization and venting systems could then be designed.

RESULTS

SUB-SLAB SOIL SAMPLING

Two (2) shallow sub-slab soil samples were collected from each of the 141, 143 and 145 tenant spaces. Due to the presence of greater than 18 inches of clear stone base course beneath the slab in the southern portion of the 147-tenant space, only one (1) sub-slab soil sample was collected from the north end of the 147-tenant space. The approximate locations of the sub-slab shallow soil samples are depicted on **Figure 2**.

The analytical results of the shallow sub-slab soil sampling are summarized on **Table 1**. None of the samples contained detectable concentrations of any VOC constituents with the exception of the southern sample collected from the 145-tenant space. This sample contained an estimated concentration of tetrachloroethene (PCE) of 0.046 milligrams per kilogram (mg/kg). This result was reported as an estimate because the concentration was between the limit of detection (LOD) and the limit of quantitation (LOQ). Although the result was reported as an estimate, the estimated concentration exceeds the soil-to-groundwater residual contaminant level (RCL) established by the WDNR. However, the results of the sub-slab soil sampling indicate the horizontal extent of the CVOC contamination does not extend beyond the footprint of the 145-tenant space. Copies of the analytical data and chain-of-custody form for the sub-slab soil samples are attached in **Appendix A**.

VAPOR MITIGATION SYSTEM DESIGN

VACUUM TEST RESULTS

Endpoint utilized the services of Soil, Water and Air Technologies (SWAT) Environmental to perform the sub-slab continuity test at the Site. The initial vacuum test point was installed within the boiler room of the 145-tenant space, as this location had the highest concentration of PCE and trichloroethene (TCE) in

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the sub-slab vapors. Based on the low vacuum readings at vapor points to the north in the 145-tenant space as well as to the east and west in the 147 and 143-tenant spaces respectively, it is assumed a foundation wall is present beneath the walls of the boiler room. In addition, the 145-tenant recalls that the 145-tenant space was the historical eastern extent of the development. Therefore, it appears as though a foundation wall also extends beneath the eastern extent of the 145-tenant space.

Due to the low vacuum readings within the northern portion of the 145-tenant space as well as the adjacent 143-tenant space, a secondary vacuum test location was installed along the west wall of the 145-tenant space. Vacuum readings in the 143- and 145-tenant spaces were both 0.015 inches of water, indicating adequate continuity across this area.

The sub-slab continuity test points and results are depicted on **Figure 3**.

COMPETITIVE BIDDING PROCESS

Endpoint conducted meetings with both SWAT Environmental as well as Radon Measurement and Elimination Services (RMES) to discuss the approach and associated costs for the installation of a sub-slab mitigation system. Based on these discussions, we determined that SWAT Environmental represented the best value for the installation of the sub-slab mitigation system.

MITIGATION SYSTEM DESIGN & INSTALLATION

Based on the results of the sub-slab communication test discussed above, it was determined that sufficient extraction could be achieved through the installation of a three-inch (3") main suction point within the boiler room of the 145-tenant space with a secondary three-inch (3") suction point along the west wall of the 145-tenant space. The 3" secondary line would be manifolded to the 3" main line prior to exiting the south wall of the 145-tenant space. To complete the system design, a single high static pressure fan will also be installed on the exterior wall of the 145-tenant space with a 2" vent line extending three-feet (3 ft) above the roof line.

The design of the proposed and final mitigation system is depicted on **Figure 4**.

MITIGATION SYSTEM INSTALLATION

On February 24 and 27, 2017, SWAT Environmental and Endpoint installed the sub-slab vapor mitigation system as designed. Solvent-glued PVC pipe was utilized to construct the mitigation system. Rubberized latex caulk was utilized to seal the suction pipe penetrations. A RadonAway HS Series fan was installed on the south exterior wall of the building. A licensed electrician connected the fan to a dedicated breaker. A manometer was installed on the 3" main suction line. 1.0 inches of water vacuum was measured with the fan operating.

Once the mitigation system was installed and the fan was operating, vacuum readings were collected from the main suction point and four (4) of the five (5) installed sub-slab vapor monitoring points. Access to the 141-tenant space was not provided. The vacuum measured in the sub-slab vapor points ranged between 0 inches of water at VP-147 to -0.21 inches of water in VP-1. The sub-slab vacuum readings are summarized on **Table 2** and depicted on **Figure 5**.

As depicted on **Figure 4**, the mitigation system was installed as designed. Photographs of the installed mitigation system are attached in **Appendix B**. System component documentation and warranty are attached in **Appendix C**.

GROUNDWATER SAMPLING RESULTS

Two (2) groundwater sampling events have been performed in September and December 2016. No VOC constituents were detected in either of the samples collected from monitoring well MW-2 and piezometer PZ-1, and no VOC constituents were detected in the sample collected from monitoring well MW-5 during the December 2016 sampling event. While elevated concentrations of PCE and TCE have been detected in the samples collected from monitoring wells MW-1, MW-3 and MW-4, the concentrations have decreased over time with only preventive action limit (PAL) exceedances detected.

The historical groundwater results are summarized on **Table 3**. The December 2016 groundwater results are also depicted on **Figure 6**.

CLOSING

For your reference, we have made significant progress completing the tasks outlined in our Escrow Estimate. Per our estimate, remaining tasks include completion of an additional four (4) quarters of groundwater sampling along with three (3) additional sub-slab vapor sampling events to confirm the mitigation system is operating as designed prior to being able to prepare and submit a closure request. However, based on the information collected to-date, we are confident with the possibility of obtaining closure within the prescribed schedule and budget. If you have any questions or concerns, please feel free to call me at 414-427-1200.

Sincerely,

Endpoint Solutions



Robert A. Cigale, P.G.
Principal Geologist

ATTACHMENTS

Figures

Tables

Appendices

cc: Melissa Balistreri – US Bank
 Jim Delwiche - WDNR

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FIGURES

FIGURE 1 -LOCATION MAP

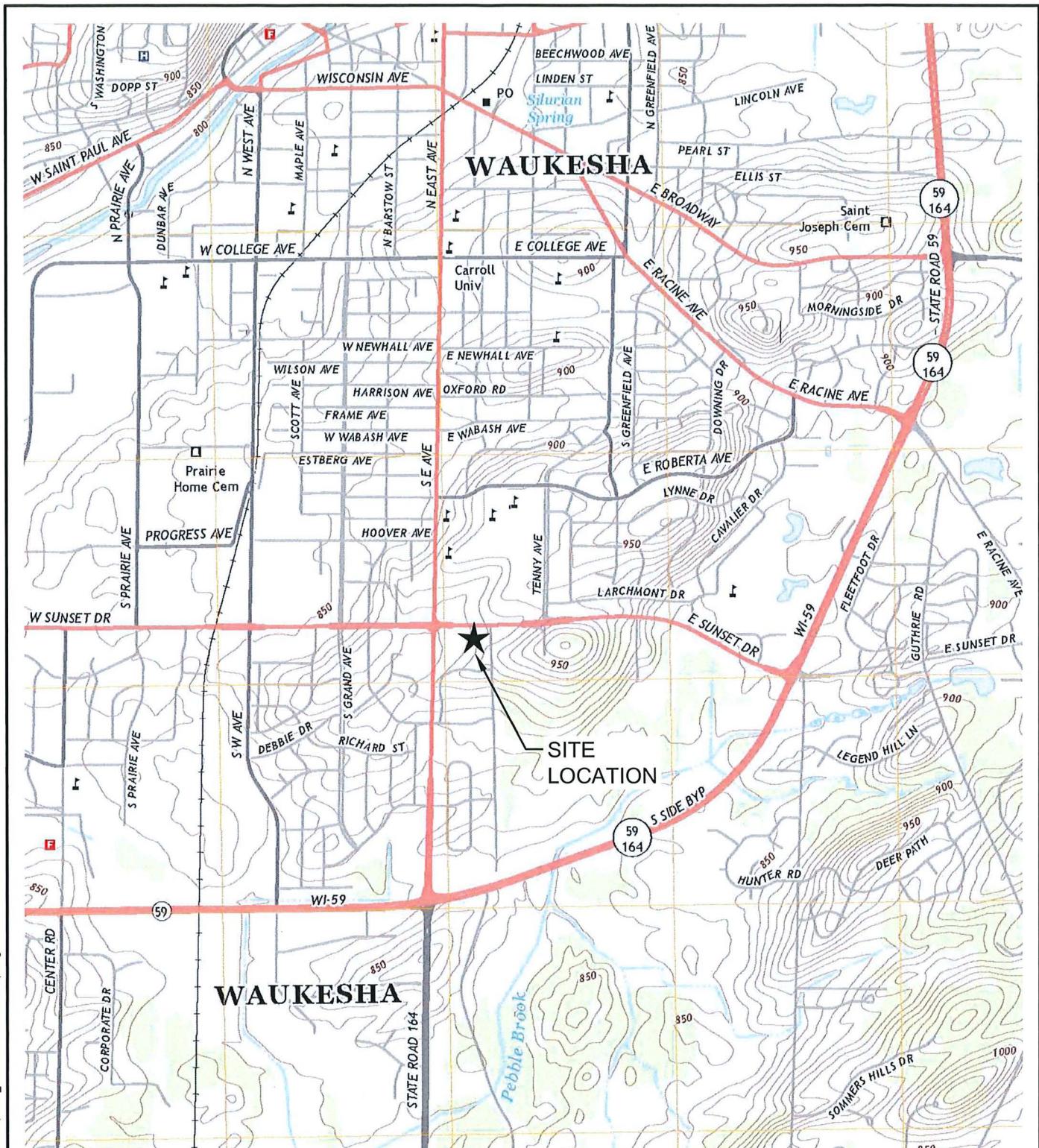
FIGURE 2 – SHALLOW SOIL RESULTS

FIGURE 3 – SUB-SLAB CONTINUITY TEST RESULTS

FIGURE 4 - MITIGATION SYSTEM

FIGURE 5 – SUB-SLAB VACUUM READINGS (2/27/17)

FIGURE 6 – GROUNDWATER RESULTS – DECEMBER 2016



LOCATION MAP

131 E. SUNSET DRIVE
WAUKESHA, WISCONSIN 53186

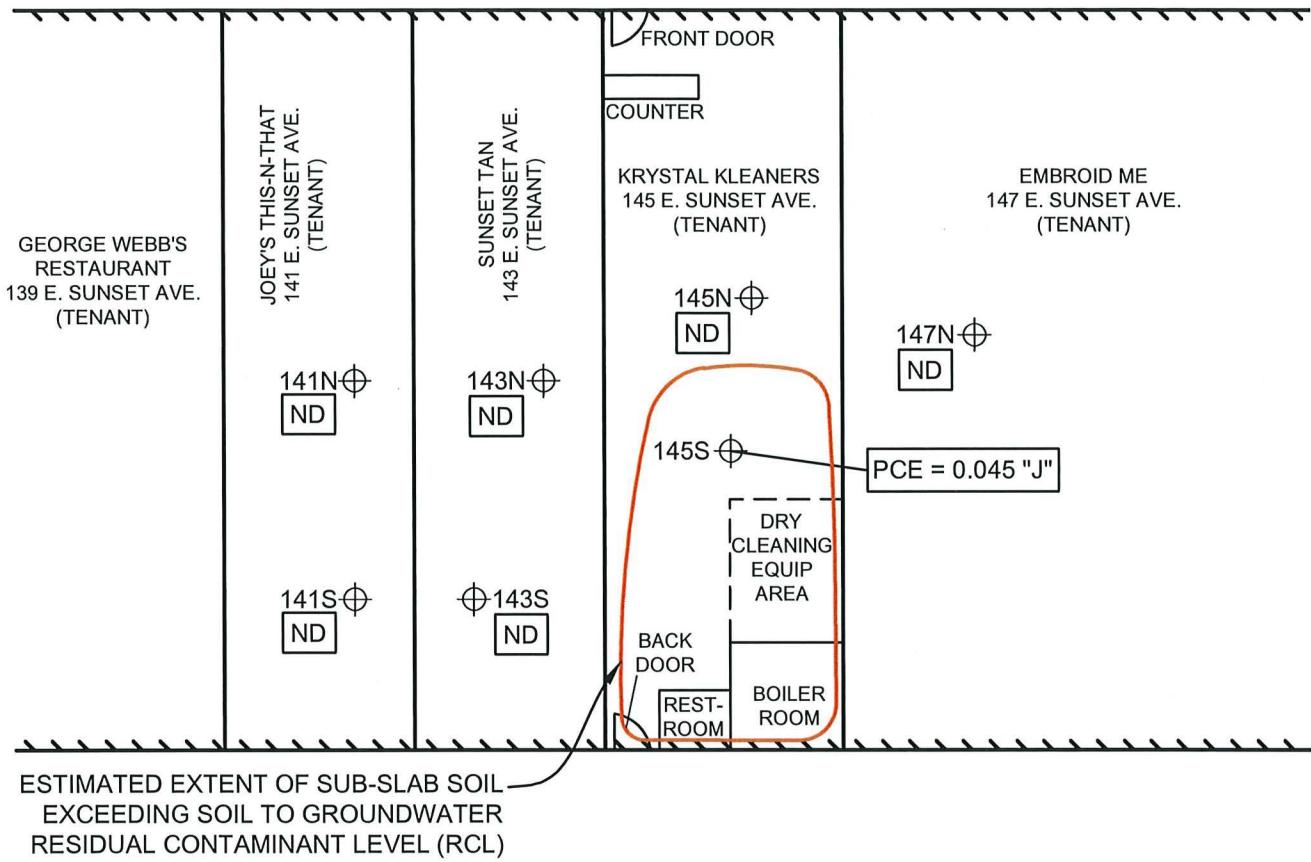
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REVIEWED BY: RAC PROJECT NO: 403-001-006

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FIGURE 1



————— EDGE OF BUILDING
 — X — FENCE
 141N Ⓛ SHALLOW SOIL SAMPLE LOCATION AND IDENTIFIER
 ND = NO VOLATILE ORGANIC COMPOUNDS DETECTED
 PCE = TETRACHLOROETHENE
 "J" = INDICATES RESULT IS AN ESTIMATE BETWEEN THE LIMIT OF DETECTION AND THE LIMIT OF QUANTITATION
 ALL RESULTS ARE SHOWN IN MILLIGRAMS PER KILOGRAM (mg/kg)

0 15' 30'



SHALLOW SOIL RESULTS

131 E. SUNSET DRIVE
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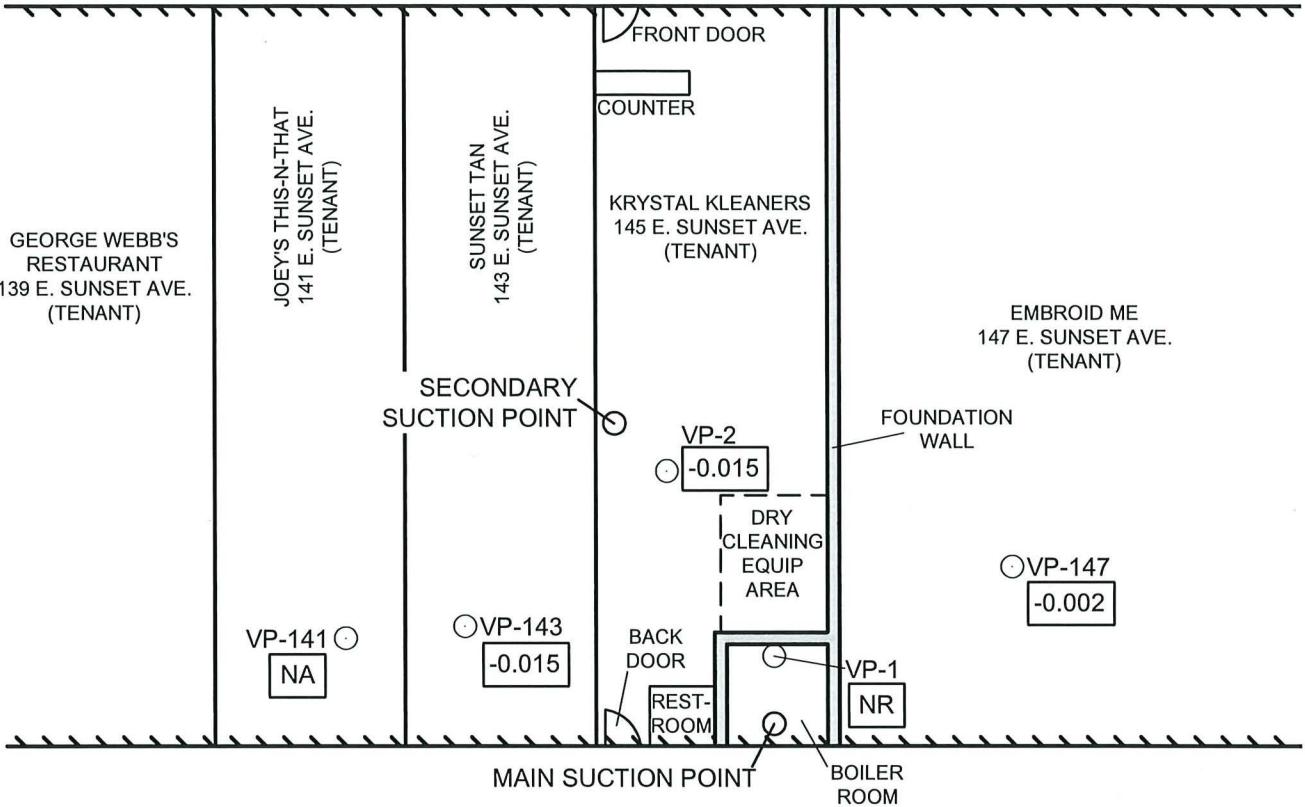
DRAWN BY: NWD

DATE: 03/17/17

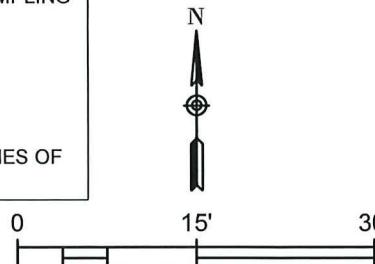
REVIEWED BY: RAC

PROJECT NO: 403-001-006

FIGURE 2



————— EDGE OF BUILDING
 —x— FENCE
 ○ SUBSLAB VAPOR SAMPLING POINT LOCATION
 NA = NO ACCESS
 NR = NO READING
 ALL RESULTS ARE SHOWN IN INCHES OF WATER (IN H₂O)



SUB-SLAB CONTINUITY TEST RESULTS

131 E. SUNSET DRIVE
WAUKESHA, WISCONSIN 53186

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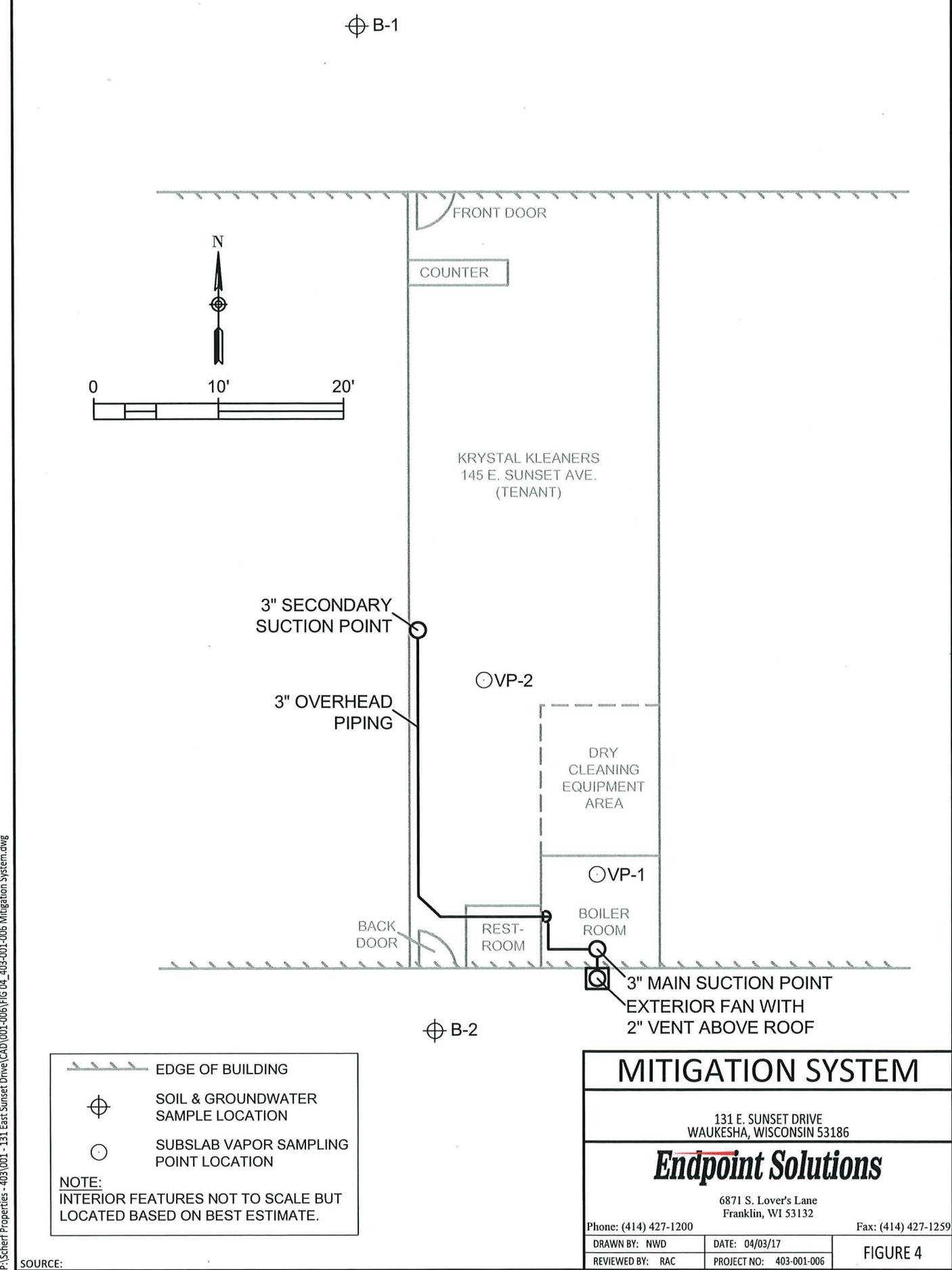
Phone: (414) 427-1200

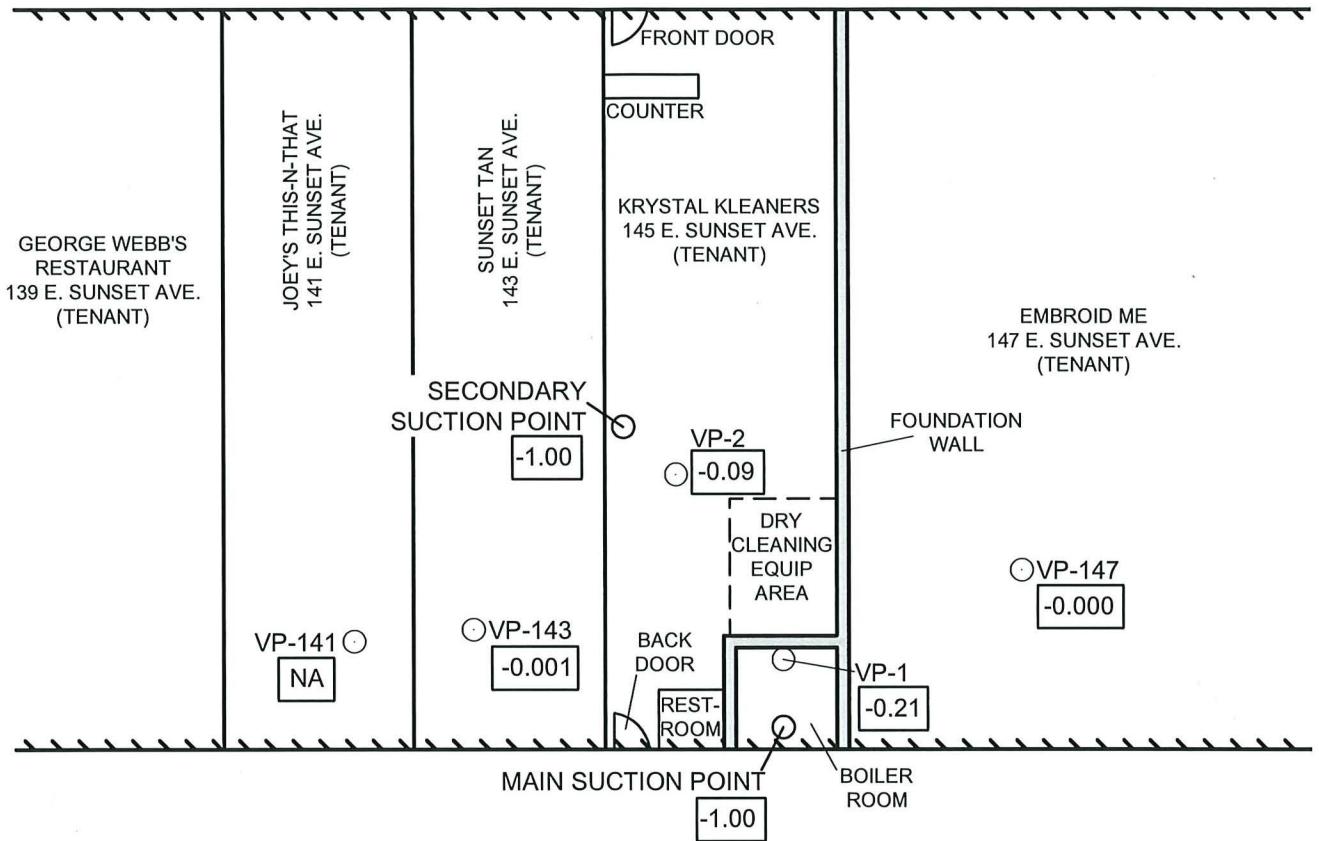
Fax: (414) 427-1259

DRAWN BY: NWD DATE: 03/16/17

REVIEWED BY: RAC PROJECT NO: 403-001-006

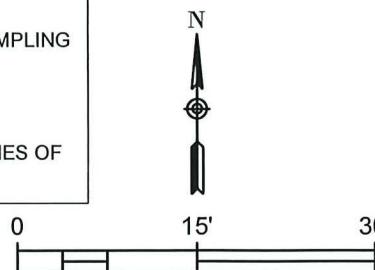
FIGURE 3





P:\Scherf Properties - 403\001 - 131 East Sunset Drive\AutoCAD\001-006\FIG 05_403-001-006 Sub-Slab Vacuum Readings.dwg

————— EDGE OF BUILDING
 —— X — FENCE
 ○ SUBSLAB VAPOR SAMPLING POINT LOCATION
 NA = NO ACCESS
 ALL RESULTS ARE SHOWN IN INCHES OF WATER (IN H₂O)



SUB-SLAB VACUUM READINGS (02/27/17)

131 E. SUNSET DRIVE
WAUKESHA, WISCONSIN 53186

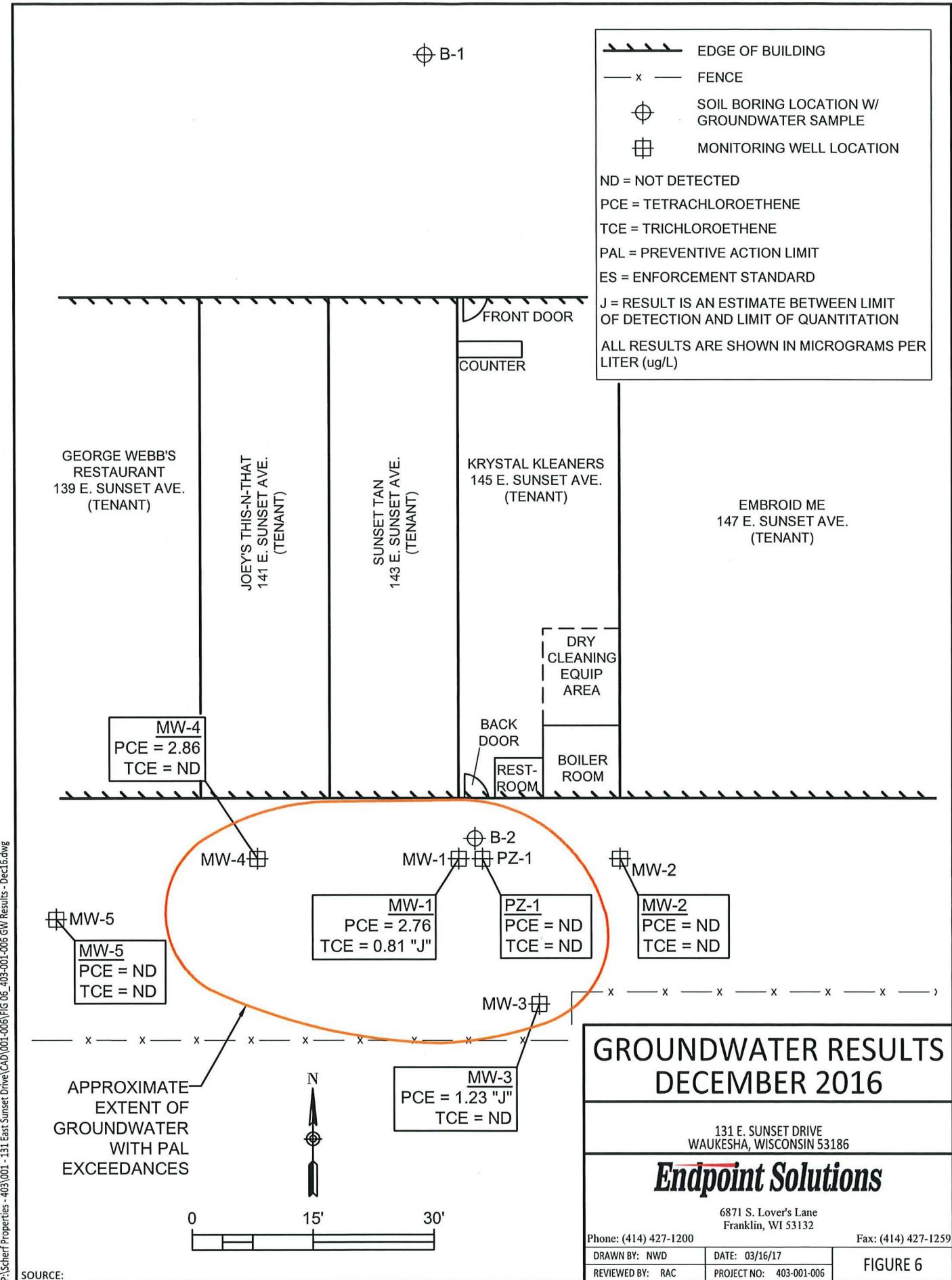
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FIGURE 5

SOURCE:



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TABLES

TABLE 1 – SUB-SLAB SOIL VOC ANALYTICAL RESULTS

TABLE 2 – SUB-SLAB VACUUM READINGS

TABLE 3 – GROUNDWATER ANALYTICAL RESULTS

TABLE 1
Sub-Slab Soil VOC Analytical Results

131 East Sunset Drive
Waukesha, Wisconsin

Parameter	Industrial Direct Contact RCL	Non-Industrial Direct Contact RCL	Soil to Groundwater Pathway RCL	Boring ID, Date of Advancement and Saturated vs. Unsaturated						
				141 N 2/24/17 Unsaturated	141 S 2/24/17 Unsaturated	143 N 2/24/17 Unsaturated	143 S 2/24/17 Unsaturated	145 N 2/24/17 Unsaturated	145 S 2/24/17 Unsaturated	147 N 2/24/17 Unsaturated
VOC (mg/kg)										
Benzene	7.41	1.49	0.0051	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Bromobenzene	679	354	-----	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
Bromodichloromethane	1.96	0.39	0.0003	<0.074	<0.074	<0.074	<0.074	<0.074	<0.074	<0.074
Bromoform	115	23.6	0.0023	<0.029	<0.029	<0.029	<0.029	<0.029	<0.029	<0.029
tert-Butylbenzene	183	183	-----	<0.026	<0.026	<0.026	<0.026	<0.026	<0.026	<0.026
sec-Butylbenzene	145	145	-----	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033
n-Butylbenzene	108	108	-----	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
Carbon Tetrachloride	4.25	0.854	0.0039	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016
Chlorobenzene	761	392	-----	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013
Chloroethane	2,120	-----	0.2266	<0.091	<0.091	<0.091	<0.091	<0.091	<0.091	<0.091
Chloroform	2.13	0.423	0.0033	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035
Chloromethane	720	171	0.0155	<0.076	<0.076	<0.076	<0.076	<0.076	<0.076	<0.076
2-Chlorotoluene	253	907	-----	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015
4-Chlorotoluene	907	253	-----	<0.018	<0.018	<0.018	<0.018	<0.018	<0.018	<0.018
1,2-Dibromo-3-chloropropane	0.099	0.008	0.0002	<0.058	<0.058	<0.058	<0.058	<0.058	<0.058	<0.058
Dibromodichloromethane	34.1	7.6	0.032	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
1,4-Dichlorobenzene	17.5	3.48	0.144	<0.037	<0.037	<0.037	<0.037	<0.037	<0.037	<0.037
1,3-Dichlorobenzene	297	297	1.1528	<0.037	<0.037	<0.037	<0.037	<0.037	<0.037	<0.037
1,2-Dichlorobenzene	376	376	1.168	<0.028	<0.028	<0.028	<0.028	<0.028	<0.028	<0.028
Dichlorodifluoromethane	571	135	3.0863	<0.048	<0.048	<0.048	<0.048	<0.048	<0.048	<0.048
1,2-Dichloroethane	3.03	0.608	0.0028	<0.038	<0.038	<0.038	<0.038	<0.038	<0.038	<0.038
1,1-Dichloroethane	23.7	4.72	0.4828	<0.034	<0.034	<0.034	<0.034	<0.034	<0.034	<0.034
1,1-Dichloroethene	1,190	342	0.005	<0.022	<0.022	<0.022	<0.022	<0.022	<0.022	<0.022
cis-1,2-Dichloroethene	2,040	156	0.0412	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032
trans-1,2-Dichloroethene	1,850	1,560	0.0626	<0.028	<0.028	<0.028	<0.028	<0.028	<0.028	<0.028
1,2-Dichloropropane	6.62	1.33	0.0033	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035
1,3-Dichloropropane	1,490	1,490	0.0003	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
trans-1,3-Dichloropropene	1,210	1,210	-----	<0.022	<0.022	<0.022	<0.022	<0.022	<0.022	<0.022
cis-1,3-Dichloropropene	1,510	1,510	-----	<0.039	<0.039	<0.039	<0.039	<0.039	<0.039	<0.039
Di-isopropyl ether	2,260	2,260	-----	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
1,2-Dibromoethane (EDB)	0.23	0.047	-----	<0.023	<0.023	<0.023	<0.023	<0.023	<0.023	<0.023
Ethylbenzene	37	7.47	1.57	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035
Hexachlorobutadiene	7.45	1.51	-----	<0.085	<0.085	<0.085	<0.085	<0.085	<0.085	<0.085
Isopropylbenzene	268	-----	-----	<0.034	<0.034	<0.034	<0.034	<0.034	<0.034	<0.034
p-Isopropyltoluene	162	162	-----	<0.029	<0.029	<0.029	<0.029	<0.029	<0.029	<0.029
Methylene Chloride	1,070	60.7	0.0026	<0.15	<0.15	<0.15	<0.15	<0.15	<0.15	<0.15
Methyl-tert-butyl-ether (MTBE)	293	59.4	0.027	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Naphthalene	26	5.15	0.6582	<0.094	<0.094	<0.094	<0.094	<0.094	<0.094	<0.094
n-Propylbenzene	264	264	-----	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033
1,1,2,2-Tetrachloroethane	3.69	0.753	0.0002	<0.028	<0.028	<0.028	<0.028	<0.028	<0.028	<0.028
1,1,1,2-Tetrachloroethane	12.9	2.59	0.0534	<0.028	<0.028	<0.028	<0.028	<0.028	<0.028	<0.028
Tetrachloroethene (PCE)	153	30.7	0.0045	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	0.045 "J"
Toluene	818	818	1.1072	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032
1,2,4-Trichlorobenzene	98.7	22	0.408	<0.064	<0.064	<0.064	<0.064	<0.064	<0.064	<0.064
1,2,3-Trichlorobenzene	818	62.6	-----	<0.066	<0.066	<0.066	<0.066	<0.066	<0.066	<0.066
1,1,1-Trichloroethane	640	640	0.1402	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
1,1,2-Trichloroethane	7.34	1.48	0.0032	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033
Trichloroethene (TCE)	8.81	1.26	0.0036	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041
Trichlorofluoromethane	1,230	1,230	-----	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041
1,2,4-Trimethylbenzene	219	89.8	1.3821	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
1,3,5-Trimethylbenzene	182	182	-----	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032
Vinyl Chloride	2.03	0.067	0.0001	<0.019	<0.019	<0.019	<0.019	<0.019	<0.019	<0.019
m&p-Xylene	260	260	3.96	<0.072	<0.072	<0.072	<0.072	<0.072	<0.072	<0.072
o-Xylene	-----	-----	-----	<0.044	<0.044	<0.044	<0.044	<0.044	<0.044	<0.044

1) VOC - Volatile Organic Compound

2) mg/kg - milligrams per kilogram

3) RCL - Residual Contaminant Level (mg/kg)

4) ----- - Standard not established

5) "J" - Indicates estimated result between the limit of detection (LOD) and the limit of quantitation (LOQ)

Table 2
Sub-Slab Vacuum Readings

131 E. Sunset Dr.
 Waukesha, Wisconsin

Vacuum Point	Date	Vacuum Reading "/H ² O
Main Manometer	2/27/2017	-1.00
	3/22/2017	-1.10
	6/1/2017	
	9/1/2017	
	12/1/2017	
Secondary Manometer	2/27/2017	-1.00
	3/22/2017	-1.20
	6/1/2017	
	9/1/2017	
	12/1/2017	
VP-1	2/27/2017	-0.21
	3/22/2017	-0.17
	6/1/2017	
	9/1/2017	
	12/1/2017	
VP-2	2/27/2017	-0.09
	3/22/2017	-0.10
	6/1/2017	
	9/1/2017	
	12/1/2017	
VP-143	2/27/2017	-0.001
	3/22/2017	-0.01
	6/1/2017	
	9/1/2017	
	12/1/2017	
VP-141	2/27/2017	NA
	3/22/2017	NA
	6/1/2017	
	9/1/2017	
	12/1/2017	
VP-147	2/27/2017	-0.00
	3/22/2017	-0.00
	6/1/2017	
	9/1/2017	
	12/1/2017	

Notes:

"/H²O = inches of water column

NA = Not Available

TABLE 3
Groundwater Analytical Results

131 E. Sunset Drive
Waukesha, Wisconsin

PARAMETER	NR 140 Table 1		MW-1										MW-2				
	ES	PAL	B-1 12/4/2015	B-2 12/4/2015	2/16/2016	5/5/2016	9/29/2016	12/12/2016	3/22/2017	DUP 3/17	2/16/2016	5/5/2016	9/29/2016	12/12/2016	DUP 12/16	3/22/2017	
VOC ($\mu\text{g/L}$)																	
Benzene	5	0.5	<2.2	<0.44	<0.454	<0.44	<0.44	<0.44	<0.17	<0.17	<0.454	<0.44	<0.44	<0.44	<0.44	<0.17	
Bromobenzene	---	---	<2.4	<0.48	<0.48	<0.48	<0.48	<0.48	<0.43	<0.43	<0.48	<0.48	<0.48	<0.48	<0.48	<0.43	
Bromodichloromethane	0.6	0.06	<2.3	<0.46	<0.46	<0.46	<0.46	<0.46	<0.31	<0.31	<0.46	<0.46	<0.46	<0.46	<0.46	<0.31	
Bromoform	4.4	0.44	<2.3	<0.46	<0.46	<0.46	<0.46	<0.46	<0.49	<0.49	<0.46	<0.46	<0.46	<0.46	<0.46	<0.49	
tert-Butylbenzene	---	---	<5.5	<1.1	<1.1	<1.1	<1.1	<1.1	<0.39	<0.39	<1.1	<1.1	<1.1	<1.1	<1.1	<0.39	
sec-Butylbenzene	---	---	<6	<1.2	<1.2	<1.2	<1.2	<1.2	<0.24	<0.24	<1.2	<1.2	<1.2	<1.2	<1.2	<0.24	
n-Butylbenzene	---	---	<5	<1	<1	<1	<1	<1	<0.34	<0.34	<1	<1	<1	<1	<1	<0.34	
Carbon Tetrachloride	5	0.5	<2.55	<0.51	<0.51	<0.51	<0.51	<0.51	<0.21	<0.21	<0.51	<0.51	<0.51	<0.51	<0.51	<0.21	
Chlorobenzene	100	20	<2.3	<0.46	<0.46	<0.46	<0.46	<0.46	<0.27	<0.27	<0.46	<0.46	<0.46	<0.46	<0.46	<0.27	
Chloroethane	400	80	<3.25	<0.65	<0.65	<0.65	<0.65	<0.65	<0.5	<0.5	<0.65	<0.65	<0.65	<0.65	<0.65	<0.5	
Chloroform	6	0.6	<2.15	<0.43	<0.43	<0.43	<0.43	<0.43	<0.96	<0.96	<0.43	<0.43	<0.43	<0.43	<0.43	<0.96	
Chloromethane	30	3	<9.5	<1.9	<1.9	<1.9	<1.9	<1.9	<1.3	<1.3	<1.9	<1.9	<1.9	<1.9	<1.9	<1.3	
2-Chlorotoluene	---	---	<2	<0.4	<0.4	<0.4	<0.4	<0.4	<0.36	<0.36	<0.4	<0.4	<0.4	<0.4	<0.4	<0.36	
4-Chlorotoluene	---	---	<3.15	<0.63	<0.63	<0.63	<0.63	<0.63	<0.35	<0.35	<0.63	<0.63	<0.63	<0.63	<0.63	<0.35	
1,2-Dibromo-3-chloropropane	0.2	0.02	<7	<1.4	<1.4	<1.4	<1.4	<1.4	<1.88	<1.88	<1.4	<1.4	<1.4	<1.4	<1.4	<1.88	
Dibromodichloromethane	---	---	<2.25	<0.45	<0.45	<0.45	<0.45	<0.45	<0.45	<0.45	<0.45	<0.45	<0.45	<0.45	<0.45	<0.45	
1,4-Dichlorobenzene	75	15	<2.45	<0.49	<0.49	<0.49	<0.49	<0.49	<0.42	<0.42	<0.49	<0.49	<0.49	<0.49	<0.49	<0.42	
1,3-Dichlorobenzene	600	120	<2.6	<0.52	<0.52	<0.52	<0.52	<0.52	<0.45	<0.45	<0.52	<0.52	<0.52	<0.52	<0.52	<0.45	
1,2-Dichlorobenzene	600	60	<2.3	<0.46	<0.46	<0.46	<0.46	<0.46	<0.34	<0.34	<0.46	<0.46	<0.46	<0.46	<0.46	<0.34	
Dichlorodifluoromethane	1000	200	<4.35	<0.87	<0.87	<0.87	<0.87	<0.87	<0.38	<0.38	<0.87	<0.87	<0.87	<0.87	<0.87	<0.38	
1,2-Dichloroethane	5	0.5	<2.4	<0.48	<0.48	<0.48	<0.48	<0.48	<0.45	<0.45	<0.48	<0.48	<0.48	<0.48	<0.48	<0.45	
1,1-Dichloroethane	850	85	<5.5	<1.1	<1.1	<1.1	<1.1	<1.1	<0.42	<0.42	<1.1	<1.1	<1.1	<1.1	<1.1	<0.42	
1,1-Dichloroethene	7	0.7	<3.25	<0.65	<0.65	<0.65	<0.65	<0.65	<0.46	<0.46	<0.65	<0.65	<0.65	<0.65	<0.65	<0.46	
cis-1,2-Dichloroethene	70	7	<2.25	<0.45	<0.45	<0.45	<0.45	<0.45	<0.41	<0.41	<0.45	<0.45	<0.45	<0.45	<0.45	<0.41	
trans-1,2-Dichloroethene	100	20	<2.7	<0.54	<0.54	<0.54	<0.54	<0.54	<0.35	<0.35	<0.54	<0.54	<0.54	<0.54	<0.54	<0.35	
1,2-Dichloropropane	5	0.5	<2.15	<0.43	<0.43	<0.43	<0.43	<0.43	<0.39	<0.39	<0.43	<0.43	<0.43	<0.43	<0.43	<0.39	
2,2-Dichloropropane	---	---	<15.5	<3.1	<3.1	<3.1	<3.1	<3.1	NA	NA	<3.1	<3.1	<3.1	<3.1	<3.1	NA	
1,3-Dichloropropane	---	---	<2.1	<0.42	<0.42	<0.42	<0.42	<0.42	<0.49	<0.49	<0.42	<0.42	<0.42	<0.42	<0.42	<0.49	
trans-1,3-Dichloropropene	0.4	0.04	NA	NA	NA	NA	NA	NA	<0.42	<0.42	NA	NA	NA	NA	NA	<0.42	
cis-1,3-Dichloropropene	0.4	0.04	NA	NA	NA	NA	NA	NA	<0.21	<0.21	NA	NA	NA	NA	NA	<0.21	
Di-isopropyl ether	---	---	<2.2	<0.44	<0.44	<0.44	<0.44	<0.44	<0.26	<0.26	<0.44	<0.44	<0.44	<0.44	<0.44	<0.26	
1,2-Dibromoethane (EDB)	0.05	0.005	<3.15	<0.63	<0.63	<0.63	<0.63	<0.63	<0.34	<0.34	<0.63	<0.63	<0.63	<0.63	<0.63	<0.34	
Ethylbenzene	700	140	<3.55	<0.71	<0.71	<0.71	<0.71	<0.71	<0.2	<0.2	<0.71	<0.71	<0.71	<0.71	<0.71	<0.2	
Hexachlorobutadiene	---	---	<11	<2.2	<2.2	<2.2	<2.2	<2.2	<1.47	<1.47	<2.2	<2.2	<2.2	<2.2	<2.2	<1.47	
Isopropylbenzene	---	---	<4.1	<0.82	<0.82	<0.82	<0.82	<0.82	<0.29	<0.29	<0.82	<0.82	<0.82	<0.82	<0.82	<0.29	
p-Isopropyltoluene	---	---	<5.5	<1.1	<1.1	<1.1	<1.1	<1.1	<0.28	<0.28	<1.1	<1.1	<1.1	<1.1	<1.1	<0.28	
Methylene Chloride	5	0.5	<6.5	<1.3	<1.3	<1.3	<1.3	<1.3	<0.94	<0.94	<1.3	<1.3	<1.3	<1.3	<1.3	<0.94	
Methyl-tert-butyl-ether (MTBE)	60	12	<5.5	<1.1	<1.1	<1.1	<1.1	<1.1	<0.82	<0.82	<1.1	<1.1					

TABLE 3
Groundwater Analytical Results

131 E. Sunset Drive
Waukesha, Wisconsin

PARAMETER	NR 140 Table 1		Sample ID / Collection Date																			
			MW-3					MW-4				MW-5				PZ-1						
	ES	PAL	2/16/2016	5/5/2016	9/29/2016	12/12/2016	3/22/2017	5/5/2016	9/29/2016	12/12/2016	3/22/2017	5/5/2016	9/29/2016	12/12/2016	3/22/2017	5/5/2016	9/29/2016	12/12/2016	3/22/2017			
VOC (µg/L)																						
Benzene	5	0.5	<0.454	<0.44	<0.44	<0.44	<0.17	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.17	<0.44	<0.44	<0.44	<0.44	<0.17		
Bromobenzene	---	---	<0.48	<0.48	<0.48	<0.48	<0.43	<0.48	<0.48	<0.48	<0.48	<0.48	<0.48	<0.48	<0.43	<0.48	<0.48	<0.48	<0.48	<0.43		
Bromodichloromethane	0.6	0.06	<0.46	<0.46	<0.46	<0.46	<0.31	<0.46	<0.46	<0.46	<0.46	<0.46	<0.46	<0.46	<0.31	<0.46	<0.46	<0.46	<0.46	<0.31		
Bromoform	4.4	0.44	<0.46	<0.46	<0.46	<0.46	<0.49	<0.46	<0.46	<0.49	<0.46	<0.46	<0.46	<0.46	<0.49	<0.46	<0.46	<0.46	<0.46	<0.49		
tert-Butylbenzene	---	---	<1.1	<1.1	<1.1	<1.1	<0.39	<1.1	<1.1	<1.1	<0.39	<1.1	<1.1	<1.1	<0.39	<1.1	<1.1	<1.1	<1.1	<0.39		
sec-Butylbenzene	---	---	<1.2	<1.2	<1.2	<1.2	<0.24	<1.2	<1.2	<0.24	<1.2	<1.2	<1.2	<0.24	<1.2	<1.2	<1.2	<1.2	<1.2	<0.24		
n-Butylbenzene	---	---	<1	<1	<1	<1	<0.34	<1	<1	<0.34	<1	<1	<1	<0.34	<1	<1	<1	<1	<1	<0.34		
Carbon Tetrachloride	5	0.5	<0.51	<0.51	<0.51	<0.51	<0.21	<0.51	<0.51	<0.21	<0.51	<0.51	<0.51	<0.51	<0.21	<0.51	<0.51	<0.51	<0.51	<0.21		
Chlorobenzene	100	20	<0.46	<0.46	<0.46	<0.46	<0.27	<0.46	<0.46	<0.27	<0.46	<0.46	<0.46	<0.46	<0.27	<0.46	<0.46	<0.46	<0.46	<0.27		
Chloroethane	400	80	<0.65	<0.65	<0.65	<0.65	<0.5	<0.65	<0.65	<0.5	<0.65	<0.65	<0.65	<0.65	<0.5	<0.65	<0.65	<0.65	<0.65	<0.5		
Chloroform	6	0.6	<0.43	<0.43	<0.43	<0.43	<0.96	<0.43	<0.43	<0.96	<0.43	<0.43	<0.43	<0.43	<0.96	<0.43	<0.43	<0.43	<0.43	<0.96		
Chloromethane	30	3	<1.9	<1.9	<1.9	<1.9	<1.3	<1.9	<1.9	<1.3	<1.9	<1.9	<1.9	<1.9	<1.3	<1.9	<1.9	<1.9	<1.9	<1.3		
2-Chlorotoluene	---	---	<0.4	<0.4	<0.4	<0.4	<0.36	<0.4	<0.4	<0.36	<0.4	<0.4	<0.4	<0.4	<0.36	<0.4	<0.4	<0.4	<0.4	<0.36		
4-Chlorotoluene	---	---	<0.63	<0.63	<0.63	<0.63	<0.35	<0.63	<0.63	<0.35	<0.63	<0.63	<0.63	<0.63	<0.35	<0.63	<0.63	<0.63	<0.63	<0.35		
1,2-Dibromo-3-chloropropane	0.2	0.02	<1.4	<1.4	<1.4	<1.4	<1.88	<1.4	<1.4	<1.88	<1.4	<1.4	<1.4	<1.4	<1.88	<1.4	<1.4	<1.4	<1.4	<1.88		
Dibromodichloromethane	---	---	<0.45	<0.45	<0.45	<0.45	<0.45	<0.45	<0.45	<0.45	<0.45	<0.45	<0.45	<0.45	<0.45	<0.45	<0.45	<0.45	<0.45	<0.45		
1,4-Dichlorobenzene	75	15	<0.49	<0.49	<0.49	<0.49	<0.42	<0.49	<0.49	<0.42	<0.49	<0.49	<0.49	<0.49	<0.42	<0.49	<0.49	<0.49	<0.49	<0.42		
1,3-Dichlorobenzene	600	120	<0.52	<0.52	<0.52	<0.52	<0.45	<0.52	<0.52	<0.45	<0.52	<0.52	<0.52	<0.52	<0.45	<0.52	<0.52	<0.52	<0.52	<0.45		
1,2-Dichlorobenzene	600	60	<0.46	<0.46	<0.46	<0.46	<0.34	<0.46	<0.46	<0.34	<0.46	<0.46	<0.46	<0.46	<0.34	<0.46	<0.46	<0.46	<0.46	<0.34		
Dichlorodifluoromethane	1000	200	<0.87	<0.87	<0.87	<0.87	<0.38	<0.87	<0.87	<0.38	<0.87	<0.87	<0.87	<0.87	<0.38	<0.87	<0.87	<0.87	<0.87	<0.38		
1,2-Dichloroethane	5	0.5	<0.48	<0.48	<0.48	<0.48	<0.45	<0.48	<0.48	<0.45	<0.48	<0.48	<0.48	<0.48	<0.45	<0.48	<0.48	<0.48	<0.48	<0.45		
1,1-Dichloroethane	850	85	<1.1	<1.1	<1.1	<1.1	<0.42	<1.1	<1.1	<0.42	<1.1	<1.1	<1.1	<0.42	<1.1	<1.1	<1.1	<1.1	<1.1	<0.42		
1,1-Dichloroethene	7	0.7	<0.65	<0.65	<0.65	<0.65	<0.46	<0.65	<0.65	<0.46	<0.65	<0.65	<0.65	<0.65	<0.46	<0.65	<0.65	<0.65	<0.65	<0.46		
cis-1,2-Dichloroethene	70	7	<0.45	<0.45	<0.45	<0.45	<0.41	<0.45	<0.45	<0.41	<0.45	<0.45	<0.45	<0.45	<0.45	<0.45	<0.45	<0.45	<0.45	<0.41		
trans-1,2-Dichloroethene	100	20	<0.54	<0.54	<0.54	<0.54	<0.35	<0.54	<0.54	<0.35	<0.54	<0.54	<0.54	<0.54	<0.35	<0.54	<0.54	<0.54	<0.54	<0.35		
1,2-Dichloropropane	5	0.5	<0.43	<0.43	<0.43	<0.43	<0.39	<0.43	<0.43	<0.39	<0.43	<0.43	<0.43	<0.43	<0.39	<0.43	<0.43	<0.43	<0.43	<0.39		
2,2-Dichloropropane	---	---	<3.1	<3.1	<3.1	<3.1	<NA	<3.1	<3.1	<NA	<3.1	<3.1	<NA	<3.1	<3.1	<NA	<3.1	<3.1	<NA	<3.1		
1,3-Dichloropropane	---	---	<0.42	<0.42	<0.42	<0.42	<0.49	<0.42	<0.42	<0.49	<0.42	<0.42	<0.42	<0.49	<0.42	<0.42	<0.42	<0.42	<0.42	<0.49</		

Endpoint Solutions

APPENDIX A

SUB-SLAB SOIL ANALYTICAL RESULTS

CHAIN-OF-CUSTODY

Synergy Environmental Lab, INC.

1990 Prospect Ct., Appleton, WI 54914 *P 920-830-2455 * F 920-733-0631

TIM PETRICK
ENDPOINT SOLUTIONS
6871 SOUTH LOVER'S LANE
FRANKLIN, WI 53132

Report Date 09-Mar-17

Project Name SCHERF 131 E SUNSET
Project # 403-001-005

Invoice # E32544

Lab Code 5032544A
Sample ID 141 N
Sample Matrix Soil
Sample Date 2/24/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
General										
General										
Solids Percent	77.2	%			1	5021		2/28/2017	TCC	1
Organic										
VOC's										
Benzene	< 0.03	mg/kg	0.03	0.96	1	8260B		3/7/2017	CJR	1
Bromobenzene	< 0.025	mg/kg	0.025	0.081	1	8260B		3/7/2017	CJR	1
Bromodichloromethane	< 0.074	mg/kg	0.074	0.24	1	8260B		3/7/2017	CJR	1
Bromoform	< 0.029	mg/kg	0.029	0.092	1	8260B		3/7/2017	CJR	1
tert-Butylbenzene	< 0.026	mg/kg	0.026	0.084	1	8260B		3/7/2017	CJR	1
sec-Butylbenzene	< 0.033	mg/kg	0.033	0.1	1	8260B		3/7/2017	CJR	1
n-Butylbenzene	< 0.04	mg/kg	0.04	0.13	1	8260B		3/7/2017	CJR	1
Carbon Tetrachloride	< 0.016	mg/kg	0.016	0.053	1	8260B		3/7/2017	CJR	1
Chlorobenzene	< 0.013	mg/kg	0.013	0.04	1	8260B		3/7/2017	CJR	1
Chloroethane	< 0.091	mg/kg	0.091	0.29	1	8260B		3/7/2017	CJR	1
Chloroform	< 0.035	mg/kg	0.035	0.11	1	8260B		3/7/2017	CJR	1
Chloromethane	< 0.076	mg/kg	0.076	0.24	1	8260B		3/7/2017	CJR	1
2-Chlorotoluene	< 0.015	mg/kg	0.015	0.047	1	8260B		3/7/2017	CJR	1
4-Chlorotoluene	< 0.018	mg/kg	0.018	0.057	1	8260B		3/7/2017	CJR	1
1,2-Dibromo-3-chloropropane	< 0.058	mg/kg	0.058	0.18	1	8260B		3/7/2017	CJR	1
Dibromochloromethane	< 0.025	mg/kg	0.025	0.079	1	8260B		3/7/2017	CJR	1
1,4-Dichlorobenzene	< 0.037	mg/kg	0.037	0.12	1	8260B		3/7/2017	CJR	1
1,3-Dichlorobenzene	< 0.037	mg/kg	0.037	0.12	1	8260B		3/7/2017	CJR	1
1,2-Dichlorobenzene	< 0.028	mg/kg	0.028	0.088	1	8260B		3/7/2017	CJR	1
Dichlorodifluoromethane	< 0.048	mg/kg	0.048	0.15	1	8260B		3/7/2017	CJR	1
1,2-Dichloroethane	< 0.038	mg/kg	0.038	0.12	1	8260B		3/7/2017	CJR	1
1,1-Dichloroethane	< 0.034	mg/kg	0.034	0.11	1	8260B		3/7/2017	CJR	1
1,1-Dichloroethene	< 0.022	mg/kg	0.022	0.069	1	8260B		3/7/2017	CJR	1
cis-1,2-Dichloroethene	< 0.032	mg/kg	0.032	0.1	1	8260B		3/7/2017	CJR	1
trans-1,2-Dichloroethene	< 0.028	mg/kg	0.028	0.09	1	8260B		3/7/2017	CJR	1

Project Name SCHERF 131 E SUNSET

Invoice # E32544

Project # 403-001-005

Lab Code 5032544A

Sample ID 141 N

Sample Matrix Soil

Sample Date 2/24/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
1,2-Dichloropropane	< 0.035	mg/kg	0.035	0.11	1	8260B		3/7/2017	CJR	1
1,3-Dichloropropane	< 0.025	mg/kg	0.025	0.079	1	8260B		3/7/2017	CJR	1
trans-1,3-Dichloropropene	< 0.022	mg/kg	0.022	0.068	1	8260B		3/7/2017	CJR	1
cis-1,3-Dichloropropene	< 0.039	mg/kg	0.039	0.12	1	8260B		3/7/2017	CJR	1
Di-isopropyl ether	< 0.01	mg/kg	0.01	0.032	1	8260B		3/7/2017	CJR	1
EDB (1,2-Dibromoethane)	< 0.023	mg/kg	0.023	0.072	1	8260B		3/7/2017	CJR	1
Ethylbenzene	< 0.035	mg/kg	0.035	0.11	1	8260B		3/7/2017	CJR	1
Hexachlorobutadiene	< 0.085	mg/kg	0.085	0.27	1	8260B		3/7/2017	CJR	1
Isopropylbenzene	< 0.034	mg/kg	0.034	0.11	1	8260B		3/7/2017	CJR	1
p-Isopropyltoluene	< 0.029	mg/kg	0.029	0.093	1	8260B		3/7/2017	CJR	1
Methylene chloride	< 0.15	mg/kg	0.15	0.46	1	8260B		3/7/2017	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.05	mg/kg	0.05	0.16	1	8260B		3/7/2017	CJR	1
Naphthalene	< 0.094	mg/kg	0.094	0.3	1	8260B		3/7/2017	CJR	1
n-Propylbenzene	< 0.033	mg/kg	0.033	0.1	1	8260B		3/7/2017	CJR	1
1,1,2,2-Tetrachloroethane	< 0.028	mg/kg	0.028	0.88	1	8260B		3/7/2017	CJR	1
1,1,1,2-Tetrachloroethane	< 0.028	mg/kg	0.028	0.09	1	8260B		3/7/2017	CJR	1
Tetrachloroethene	< 0.032	mg/kg	0.032	0.1	1	8260B		3/7/2017	CJR	1
Toluene	< 0.032	mg/kg	0.032	0.1	1	8260B		3/7/2017	CJR	1
1,2,4-Trichlorobenzene	< 0.064	mg/kg	0.064	0.2	1	8260B		3/7/2017	CJR	1
1,2,3-Trichlorobenzene	< 0.066	mg/kg	0.066	0.21	1	8260B		3/7/2017	CJR	1
1,1,1-Trichloroethane	< 0.03	mg/kg	0.03	0.96	1	8260B		3/7/2017	CJR	1
1,1,2-Trichloroethane	< 0.033	mg/kg	0.033	0.11	1	8260B		3/7/2017	CJR	1
Trichloroethene (TCE)	< 0.041	mg/kg	0.041	0.13	1	8260B		3/7/2017	CJR	1
Trichlorofluoromethane	< 0.041	mg/kg	0.041	0.13	1	8260B		3/7/2017	CJR	1
1,2,4-Trimethylbenzene	< 0.025	mg/kg	0.025	0.08	1	8260B		3/7/2017	CJR	1
1,3,5-Trimethylbenzene	< 0.032	mg/kg	0.032	0.1	1	8260B		3/7/2017	CJR	1
Vinyl Chloride	< 0.019	mg/kg	0.019	0.062	1	8260B		3/7/2017	CJR	1
m&p-Xylene	< 0.072	mg/kg	0.072	0.23	1	8260B		3/7/2017	CJR	1
o-Xylene	< 0.044	mg/kg	0.044	0.14	1	8260B		3/7/2017	CJR	1
SUR - 1,2-Dichloroethane-d4	99	Rec %			1	8260B		3/7/2017	CJR	1
SUR - 4-Bromofluorobenzene	98	Rec %			1	8260B		3/7/2017	CJR	1
SUR - Dibromofluoromethane	112	Rec %			1	8260B		3/7/2017	CJR	1
SUR - Toluene-d8	97	Rec %			1	8260B		3/7/2017	CJR	1

Project Name SCHERF 131 E SUNSET
Project # 403-001-005

Invoice # E32544

Lab Code 5032544B
Sample ID 141 S
Sample Matrix Soil
Sample Date 2/24/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
General										
General										
Solids Percent	94.4	%			1	5021		2/28/2017	TCC	1
Organic										
VOC's										
Benzene	< 0.03	mg/kg	0.03	0.96	1	8260B		3/7/2017	CJR	1
Bromobenzene	< 0.025	mg/kg	0.025	0.081	1	8260B		3/7/2017	CJR	1
Bromodichloromethane	< 0.074	mg/kg	0.074	0.24	1	8260B		3/7/2017	CJR	1
Bromoform	< 0.029	mg/kg	0.029	0.092	1	8260B		3/7/2017	CJR	1
tert-Butylbenzene	< 0.026	mg/kg	0.026	0.084	1	8260B		3/7/2017	CJR	1
sec-Butylbenzene	< 0.033	mg/kg	0.033	0.1	1	8260B		3/7/2017	CJR	1
n-Butylbenzene	< 0.04	mg/kg	0.04	0.13	1	8260B		3/7/2017	CJR	1
Carbon Tetrachloride	< 0.016	mg/kg	0.016	0.053	1	8260B		3/7/2017	CJR	1
Chlorobenzene	< 0.013	mg/kg	0.013	0.04	1	8260B		3/7/2017	CJR	1
Chloroethane	< 0.091	mg/kg	0.091	0.29	1	8260B		3/7/2017	CJR	1
Chloroform	< 0.035	mg/kg	0.035	0.11	1	8260B		3/7/2017	CJR	1
Chloromethane	< 0.076	mg/kg	0.076	0.24	1	8260B		3/7/2017	CJR	1
2-Chlorotoluene	< 0.015	mg/kg	0.015	0.047	1	8260B		3/7/2017	CJR	1
4-Chlorotoluene	< 0.018	mg/kg	0.018	0.057	1	8260B		3/7/2017	CJR	1
1,2-Dibromo-3-chloropropane	< 0.058	mg/kg	0.058	0.18	1	8260B		3/7/2017	CJR	1
Dibromochloromethane	< 0.025	mg/kg	0.025	0.079	1	8260B		3/7/2017	CJR	1
1,4-Dichlorobenzene	< 0.037	mg/kg	0.037	0.12	1	8260B		3/7/2017	CJR	1
1,3-Dichlorobenzene	< 0.037	mg/kg	0.037	0.12	1	8260B		3/7/2017	CJR	1
1,2-Dichlorobenzene	< 0.028	mg/kg	0.028	0.088	1	8260B		3/7/2017	CJR	1
Dichlorodifluoromethane	< 0.048	mg/kg	0.048	0.15	1	8260B		3/7/2017	CJR	1
1,2-Dichloroethane	< 0.038	mg/kg	0.038	0.12	1	8260B		3/7/2017	CJR	1
1,1-Dichloroethane	< 0.034	mg/kg	0.034	0.11	1	8260B		3/7/2017	CJR	1
1,1-Dichloroethene	< 0.022	mg/kg	0.022	0.069	1	8260B		3/7/2017	CJR	1
cis-1,2-Dichloroethene	< 0.032	mg/kg	0.032	0.1	1	8260B		3/7/2017	CJR	1
trans-1,2-Dichloroethene	< 0.028	mg/kg	0.028	0.09	1	8260B		3/7/2017	CJR	1
1,2-Dichloropropane	< 0.035	mg/kg	0.035	0.11	1	8260B		3/7/2017	CJR	1
1,3-Dichloropropane	< 0.025	mg/kg	0.025	0.079	1	8260B		3/7/2017	CJR	1
trans-1,3-Dichloropropene	< 0.022	mg/kg	0.022	0.068	1	8260B		3/7/2017	CJR	1
cis-1,3-Dichloropropene	< 0.039	mg/kg	0.039	0.12	1	8260B		3/7/2017	CJR	1
Di-isopropyl ether	< 0.01	mg/kg	0.01	0.032	1	8260B		3/7/2017	CJR	1
EDB (1,2-Dibromoethane)	< 0.023	mg/kg	0.023	0.072	1	8260B		3/7/2017	CJR	1
Ethylbenzene	< 0.035	mg/kg	0.035	0.11	1	8260B		3/7/2017	CJR	1
Hexachlorobutadiene	< 0.085	mg/kg	0.085	0.27	1	8260B		3/7/2017	CJR	1
Isopropylbenzene	< 0.034	mg/kg	0.034	0.11	1	8260B		3/7/2017	CJR	1
p-Isopropyltoluene	< 0.029	mg/kg	0.029	0.093	1	8260B		3/7/2017	CJR	1
Methylene chloride	< 0.15	mg/kg	0.15	0.46	1	8260B		3/7/2017	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.05	mg/kg	0.05	0.16	1	8260B		3/7/2017	CJR	1
Naphthalene	< 0.094	mg/kg	0.094	0.3	1	8260B		3/7/2017	CJR	1
n-Propylbenzene	< 0.033	mg/kg	0.033	0.1	1	8260B		3/7/2017	CJR	1
1,1,2,2-Tetrachloroethane	< 0.028	mg/kg	0.028	0.88	1	8260B		3/7/2017	CJR	1
1,1,1,2-Tetrachloroethane	< 0.028	mg/kg	0.028	0.09	1	8260B		3/7/2017	CJR	1
Tetrachloroethene	< 0.032	mg/kg	0.032	0.1	1	8260B		3/7/2017	CJR	1
Toluene	< 0.032	mg/kg	0.032	0.1	1	8260B		3/7/2017	CJR	1
1,2,4-Trichlorobenzene	< 0.064	mg/kg	0.064	0.2	1	8260B		3/7/2017	CJR	1
1,2,3-Trichlorobenzene	< 0.066	mg/kg	0.066	0.21	1	8260B		3/7/2017	CJR	1
1,1,1-Trichloroethane	< 0.03	mg/kg	0.03	0.96	1	8260B		3/7/2017	CJR	1

Project Name SCHERF 131 E SUNSET

Invoice # E32544

Project # 403-001-005

Lab Code 5032544B

Sample ID 141 S

Sample Matrix Soil

Sample Date 2/24/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
1,1,2-Trichloroethane	< 0.033	mg/kg	0.033	0.11	1	8260B		3/7/2017	CJR	1
Trichloroethene (TCE)	< 0.041	mg/kg	0.041	0.13	1	8260B		3/7/2017	CJR	1
Trichlorofluoromethane	< 0.041	mg/kg	0.041	0.13	1	8260B		3/7/2017	CJR	1
1,2,4-Trimethylbenzene	< 0.025	mg/kg	0.025	0.08	1	8260B		3/7/2017	CJR	1
1,3,5-Trimethylbenzene	< 0.032	mg/kg	0.032	0.1	1	8260B		3/7/2017	CJR	1
Vinyl Chloride	< 0.019	mg/kg	0.019	0.062	1	8260B		3/7/2017	CJR	1
m&p-Xylene	< 0.072	mg/kg	0.072	0.23	1	8260B		3/7/2017	CJR	1
o-Xylene	< 0.044	mg/kg	0.044	0.14	1	8260B		3/7/2017	CJR	1
SUR - 1,2-Dichloroethane-d4	106	Rec %			1	8260B		3/7/2017	CJR	1
SUR - Toluene-d8	98	Rec %			1	8260B		3/7/2017	CJR	1
SUR - 4-Bromofluorobenzene	97	Rec %			1	8260B		3/7/2017	CJR	1
SUR - Dibromofluoromethane	108	Rec %			1	8260B		3/7/2017	CJR	1

Project Name SCHERF 131 E SUNSET
 Project # 403-001-005

Invoice # E32544

Lab Code 5032544C
 Sample ID 143 N
 Sample Matrix Soil
 Sample Date 2/24/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
General										
General										
Solids Percent	93.8	%			1	5021		2/28/2017	TCC	1
Organic										
VOC's										
Benzene	< 0.03	mg/kg	0.03	0.96	1	8260B		3/7/2017	CJR	1
Bromobenzene	< 0.025	mg/kg	0.025	0.081	1	8260B		3/7/2017	CJR	1
Bromodichloromethane	< 0.074	mg/kg	0.074	0.24	1	8260B		3/7/2017	CJR	1
Bromoform	< 0.029	mg/kg	0.029	0.092	1	8260B		3/7/2017	CJR	1
tert-Butylbenzene	< 0.026	mg/kg	0.026	0.084	1	8260B		3/7/2017	CJR	1
sec-Butylbenzene	< 0.033	mg/kg	0.033	0.1	1	8260B		3/7/2017	CJR	1
n-Butylbenzene	< 0.04	mg/kg	0.04	0.13	1	8260B		3/7/2017	CJR	1
Carbon Tetrachloride	< 0.016	mg/kg	0.016	0.053	1	8260B		3/7/2017	CJR	1
Chlorobenzene	< 0.013	mg/kg	0.013	0.04	1	8260B		3/7/2017	CJR	1
Chloroethane	< 0.091	mg/kg	0.091	0.29	1	8260B		3/7/2017	CJR	1
Chloroforn	< 0.035	mg/kg	0.035	0.11	1	8260B		3/7/2017	CJR	1
Chloromethane	< 0.076	mg/kg	0.076	0.24	1	8260B		3/7/2017	CJR	1
2-Chlorotoluene	< 0.015	mg/kg	0.015	0.047	1	8260B		3/7/2017	CJR	1
4-Chlorotoluene	< 0.018	mg/kg	0.018	0.057	1	8260B		3/7/2017	CJR	1
1,2-Dibromo-3-chloropropane	< 0.058	mg/kg	0.058	0.18	1	8260B		3/7/2017	CJR	1
Dibromochloromethane	< 0.025	mg/kg	0.025	0.079	1	8260B		3/7/2017	CJR	1
1,4-Dichlorobenzene	< 0.037	mg/kg	0.037	0.12	1	8260B		3/7/2017	CJR	1
1,3-Dichlorobenzene	< 0.037	mg/kg	0.037	0.12	1	8260B		3/7/2017	CJR	1
1,2-Dichlorobenzene	< 0.028	mg/kg	0.028	0.088	1	8260B		3/7/2017	CJR	1
Dichlorodifluoromethane	< 0.048	mg/kg	0.048	0.15	1	8260B		3/7/2017	CJR	1
1,2-Dichloroethane	< 0.038	mg/kg	0.038	0.12	1	8260B		3/7/2017	CJR	1
1,1-Dichloroethane	< 0.034	mg/kg	0.034	0.11	1	8260B		3/7/2017	CJR	1
1,1-Dichloroethene	< 0.022	mg/kg	0.022	0.069	1	8260B		3/7/2017	CJR	1
cis-1,2-Dichloroethene	< 0.032	mg/kg	0.032	0.1	1	8260B		3/7/2017	CJR	1
trans-1,2-Dichloroethene	< 0.028	mg/kg	0.028	0.09	1	8260B		3/7/2017	CJR	1
1,2-Dichloropropane	< 0.035	mg/kg	0.035	0.11	1	8260B		3/7/2017	CJR	1
1,3-Dichloropropane	< 0.025	mg/kg	0.025	0.079	1	8260B		3/7/2017	CJR	1
trans-1,3-Dichloropropene	< 0.022	mg/kg	0.022	0.068	1	8260B		3/7/2017	CJR	1
cis-1,3-Dichloropropene	< 0.039	mg/kg	0.039	0.12	1	8260B		3/7/2017	CJR	1
Di-isopropyl ether	< 0.01	mg/kg	0.01	0.032	1	8260B		3/7/2017	CJR	1
EDB (1,2-Dibromoethane)	< 0.023	mg/kg	0.023	0.072	1	8260B		3/7/2017	CJR	1
Ethylbenzene	< 0.035	mg/kg	0.035	0.11	1	8260B		3/7/2017	CJR	1
Hexachlorobutadiene	< 0.085	mg/kg	0.085	0.27	1	8260B		3/7/2017	CJR	1
Isopropylbenzene	< 0.034	mg/kg	0.034	0.11	1	8260B		3/7/2017	CJR	1
p-Isopropyltoluene	< 0.029	mg/kg	0.029	0.093	1	8260B		3/7/2017	CJR	1
Methylene chloride	< 0.15	mg/kg	0.15	0.46	1	8260B		3/7/2017	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.05	mg/kg	0.05	0.16	1	8260B		3/7/2017	CJR	1
Naphthalene	< 0.094	mg/kg	0.094	0.3	1	8260B		3/7/2017	CJR	1
n-Propylbenzene	< 0.033	mg/kg	0.033	0.1	1	8260B		3/7/2017	CJR	1
1,1,2,2-Tetrachloroethane	< 0.028	mg/kg	0.028	0.88	1	8260B		3/7/2017	CJR	1
1,1,1,2-Tetrachloroethane	< 0.028	mg/kg	0.028	0.09	1	8260B		3/7/2017	CJR	1
Tetrachloroethene	< 0.032	mg/kg	0.032	0.1	1	8260B		3/7/2017	CJR	1
Toluene	< 0.032	mg/kg	0.032	0.1	1	8260B		3/7/2017	CJR	1
1,2,4-Trichlorobenzene	< 0.064	mg/kg	0.064	0.2	1	8260B		3/7/2017	CJR	1
1,2,3-Trichlorobenzene	< 0.066	mg/kg	0.066	0.21	1	8260B		3/7/2017	CJR	1
1,1,1-Trichloroethane	< 0.03	mg/kg	0.03	0.96	1	8260B		3/7/2017	CJR	1

Project Name SCHERF 131 E SUNSET

Invoice # E32544

Project # 403-001-005

Lab Code 5032544C

Sample ID 143 N

Sample Matrix Soil

Sample Date 2/24/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
1,1,2-Trichloroethane	< 0.033	mg/kg	0.033	0.11	1	8260B		3/7/2017	CJR	1
Trichloroethene (TCE)	< 0.041	mg/kg	0.041	0.13	1	8260B		3/7/2017	CJR	1
Trichlorofluoromethane	< 0.041	mg/kg	0.041	0.13	1	8260B		3/7/2017	CJR	1
1,2,4-Trimethylbenzene	< 0.025	mg/kg	0.025	0.08	1	8260B		3/7/2017	CJR	1
1,3,5-Trimethylbenzene	< 0.032	mg/kg	0.032	0.1	1	8260B		3/7/2017	CJR	1
Vinyl Chloride	< 0.019	mg/kg	0.019	0.062	1	8260B		3/7/2017	CJR	1
m&p-Xylene	< 0.072	mg/kg	0.072	0.23	1	8260B		3/7/2017	CJR	1
o-Xylene	< 0.044	mg/kg	0.044	0.14	1	8260B		3/7/2017	CJR	1
SUR - 1,2-Dichloroethane-d4	104	Rec %			1	8260B		3/7/2017	CJR	1
SUR - 4-Bromofluorobenzene	98	Rec %			1	8260B		3/7/2017	CJR	1
SUR - Dibromofluoromethane	100	Rec %			1	8260B		3/7/2017	CJR	1
SUR - Toluene-d8	98	Rec %			1	8260B		3/7/2017	CJR	1

Project Name SCHERF 131 E SUNSET
 Project # 403-001-005

Invoice # E32544

Lab Code 5032544D
 Sample ID 143 S
 Sample Matrix Soil
 Sample Date 2/24/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
General										
General										
Solids Percent	71.0	%			1	5021		2/28/2017	TCC	1
Organic										
VOC's										
Benzene	< 0.03	mg/kg	0.03	0.96	1	8260B		3/7/2017	CJR	1
Bromobenzene	< 0.025	mg/kg	0.025	0.081	1	8260B		3/7/2017	CJR	1
Bromodichloromethane	< 0.074	mg/kg	0.074	0.24	1	8260B		3/7/2017	CJR	1
Bromoform	< 0.029	mg/kg	0.029	0.092	1	8260B		3/7/2017	CJR	1
tert-Butylbenzene	< 0.026	mg/kg	0.026	0.084	1	8260B		3/7/2017	CJR	1
sec-Butylbenzene	< 0.033	mg/kg	0.033	0.1	1	8260B		3/7/2017	CJR	1
n-Butylbenzene	< 0.04	mg/kg	0.04	0.13	1	8260B		3/7/2017	CJR	1
Carbon Tetrachloride	< 0.016	mg/kg	0.016	0.053	1	8260B		3/7/2017	CJR	1
Chlorobenzene	< 0.013	mg/kg	0.013	0.04	1	8260B		3/7/2017	CJR	1
Chloroethane	< 0.091	mg/kg	0.091	0.29	1	8260B		3/7/2017	CJR	1
Chloroform	< 0.035	mg/kg	0.035	0.11	1	8260B		3/7/2017	CJR	1
Chloromethane	< 0.076	mg/kg	0.076	0.24	1	8260B		3/7/2017	CJR	1
2-Chlorotoluene	< 0.015	mg/kg	0.015	0.047	1	8260B		3/7/2017	CJR	1
4-Chlorotoluene	< 0.018	mg/kg	0.018	0.057	1	8260B		3/7/2017	CJR	1
1,2-Dibromo-3-chloropropane	< 0.058	mg/kg	0.058	0.18	1	8260B		3/7/2017	CJR	1
Dibromochloromethane	< 0.025	mg/kg	0.025	0.079	1	8260B		3/7/2017	CJR	1
1,4-Dichlorobenzene	< 0.037	mg/kg	0.037	0.12	1	8260B		3/7/2017	CJR	1
1,3-Dichlorobenzene	< 0.037	mg/kg	0.037	0.12	1	8260B		3/7/2017	CJR	1
1,2-Dichlorobenzene	< 0.028	mg/kg	0.028	0.088	1	8260B		3/7/2017	CJR	1
Dichlorodifluoromethane	< 0.048	mg/kg	0.048	0.15	1	8260B		3/7/2017	CJR	1
1,2-Dichloroethane	< 0.038	mg/kg	0.038	0.12	1	8260B		3/7/2017	CJR	1
1,1-Dichloroethane	< 0.034	mg/kg	0.034	0.11	1	8260B		3/7/2017	CJR	1
1,1-Dichloroethene	< 0.022	mg/kg	0.022	0.069	1	8260B		3/7/2017	CJR	1
cis-1,2-Dichloroethene	< 0.032	mg/kg	0.032	0.1	1	8260B		3/7/2017	CJR	1
trans-1,2-Dichloroethene	< 0.028	mg/kg	0.028	0.09	1	8260B		3/7/2017	CJR	1
1,2-Dichloropropane	< 0.035	mg/kg	0.035	0.11	1	8260B		3/7/2017	CJR	1
1,3-Dichloropropane	< 0.025	mg/kg	0.025	0.079	1	8260B		3/7/2017	CJR	1
trans-1,3-Dichloropropene	< 0.022	mg/kg	0.022	0.068	1	8260B		3/7/2017	CJR	1
cis-1,3-Dichloropropene	< 0.039	mg/kg	0.039	0.12	1	8260B		3/7/2017	CJR	1
Di-isopropyl ether	< 0.01	mg/kg	0.01	0.032	1	8260B		3/7/2017	CJR	1
EDB (1,2-Dibromoethane)	< 0.023	mg/kg	0.023	0.072	1	8260B		3/7/2017	CJR	1
Ethylbenzene	< 0.035	mg/kg	0.035	0.11	1	8260B		3/7/2017	CJR	1
Hexachlorobutadiene	< 0.085	mg/kg	0.085	0.27	1	8260B		3/7/2017	CJR	1
Isopropylbenzene	< 0.034	mg/kg	0.034	0.11	1	8260B		3/7/2017	CJR	1
p-Isopropyltoluene	< 0.029	mg/kg	0.029	0.093	1	8260B		3/7/2017	CJR	1
Methylene chloride	< 0.15	mg/kg	0.15	0.46	1	8260B		3/7/2017	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.05	mg/kg	0.05	0.16	1	8260B		3/7/2017	CJR	1
Naphthalene	< 0.094	mg/kg	0.094	0.3	1	8260B		3/7/2017	CJR	1
n-Propylbenzene	< 0.033	mg/kg	0.033	0.1	1	8260B		3/7/2017	CJR	1
1,1,2,2-Tetrachloroethane	< 0.028	mg/kg	0.028	0.88	1	8260B		3/7/2017	CJR	1
1,1,1,2-Tetrachloroethane	< 0.028	mg/kg	0.028	0.09	1	8260B		3/7/2017	CJR	1
Tetrachloroethene	< 0.032	mg/kg	0.032	0.1	1	8260B		3/7/2017	CJR	1
Toluene	< 0.032	mg/kg	0.032	0.1	1	8260B		3/7/2017	CJR	1
1,2,4-Trichlorobenzene	< 0.064	mg/kg	0.064	0.2	1	8260B		3/7/2017	CJR	1
1,2,3-Trichlorobenzene	< 0.066	mg/kg	0.066	0.21	1	8260B		3/7/2017	CJR	1
1,1,1-Trichloroethane	< 0.03	mg/kg	0.03	0.96	1	8260B		3/7/2017	CJR	1

Project Name SCHERF 131 E SUNSET
Project # 403-001-005

Invoice # E32544

Lab Code 5032544D
Sample ID 143 S
Sample Matrix Soil
Sample Date 2/24/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
1,1,2-Trichloroethane	< 0.033	mg/kg	0.033	0.11	1	8260B			CJR	1
Trichloroethene (TCE)	< 0.041	mg/kg	0.041	0.13	1	8260B			CJR	1
Trichlorofluoromethane	< 0.041	mg/kg	0.041	0.13	1	8260B			CJR	1
1,2,4-Trimethylbenzene	< 0.025	mg/kg	0.025	0.08	1	8260B			CJR	1
1,3,5-Trimethylbenzene	< 0.032	mg/kg	0.032	0.1	1	8260B			CJR	1
Vinyl Chloride	< 0.019	mg/kg	0.019	0.062	1	8260B			CJR	1
m&p-Xylene	< 0.072	mg/kg	0.072	0.23	1	8260B			CJR	1
o-Xylene	< 0.044	mg/kg	0.044	0.14	1	8260B			CJR	1
SUR - 1,2-Dichloroethane-d4	100	Rec %			1	8260B			CJR	1
SUR - 4-Bromofluorobenzene	97	Rec %			1	8260B			CJR	1
SUR - Dibromofluoromethane	113	Rec %			1	8260B			CJR	1
SUR - Toluene-d8	96	Rec %			1	8260B			CJR	1

Project Name SCHERF 131 E SUNSET
 Project # 403-001-005

Invoice # E32544

Lab Code 5032544E
 Sample ID 145 N
 Sample Matrix Soil
 Sample Date 2/24/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
General										
General										
Solids Percent	94.7	%			1	5021		2/28/2017	TCC	1
Organic										
VOC's										
Benzene	< 0.03	mg/kg	0.03	0.96	1	8260B		3/7/2017	CJR	1
Bromobenzene	< 0.025	mg/kg	0.025	0.081	1	8260B		3/7/2017	CJR	1
Bromodichloromethane	< 0.074	mg/kg	0.074	0.24	1	8260B		3/7/2017	CJR	1
Bromoform	< 0.029	mg/kg	0.029	0.092	1	8260B		3/7/2017	CJR	1
tert-Butylbenzene	< 0.026	mg/kg	0.026	0.084	1	8260B		3/7/2017	CJR	1
sec-Butylbenzene	< 0.033	mg/kg	0.033	0.1	1	8260B		3/7/2017	CJR	1
n-Butylbenzene	< 0.04	mg/kg	0.04	0.13	1	8260B		3/7/2017	CJR	1
Carbon Tetrachloride	< 0.016	mg/kg	0.016	0.053	1	8260B		3/7/2017	CJR	1
Chlorobenzene	< 0.013	mg/kg	0.013	0.04	1	8260B		3/7/2017	CJR	1
Chloroethane	< 0.091	mg/kg	0.091	0.29	1	8260B		3/7/2017	CJR	1
Chloroform	< 0.035	mg/kg	0.035	0.11	1	8260B		3/7/2017	CJR	1
Chloromethane	< 0.076	mg/kg	0.076	0.24	1	8260B		3/7/2017	CJR	1
2-Chlorotoluene	< 0.015	mg/kg	0.015	0.047	1	8260B		3/7/2017	CJR	1
4-Chlorotoluene	< 0.018	mg/kg	0.018	0.057	1	8260B		3/7/2017	CJR	1
1,2-Dibromo-3-chloropropane	< 0.058	mg/kg	0.058	0.18	1	8260B		3/7/2017	CJR	1
Dibromochloromethane	< 0.025	mg/kg	0.025	0.079	1	8260B		3/7/2017	CJR	1
1,4-Dichlorobenzene	< 0.037	mg/kg	0.037	0.12	1	8260B		3/7/2017	CJR	1
1,3-Dichlorobenzene	< 0.037	mg/kg	0.037	0.12	1	8260B		3/7/2017	CJR	1
1,2-Dichlorobenzene	< 0.028	mg/kg	0.028	0.088	1	8260B		3/7/2017	CJR	1
Dichlorodifluoromethane	< 0.048	mg/kg	0.048	0.15	1	8260B		3/7/2017	CJR	1
1,2-Dichloroethane	< 0.038	mg/kg	0.038	0.12	1	8260B		3/7/2017	CJR	1
1,1-Dichloroethane	< 0.034	mg/kg	0.034	0.11	1	8260B		3/7/2017	CJR	1
1,1-Dichloroethene	< 0.022	mg/kg	0.022	0.069	1	8260B		3/7/2017	CJR	1
cis-1,2-Dichloroethene	< 0.032	mg/kg	0.032	0.1	1	8260B		3/7/2017	CJR	1
trans-1,2-Dichloroethene	< 0.028	mg/kg	0.028	0.09	1	8260B		3/7/2017	CJR	1
1,2-Dichloropropane	< 0.035	mg/kg	0.035	0.11	1	8260B		3/7/2017	CJR	1
1,3-Dichloropropane	< 0.025	mg/kg	0.025	0.079	1	8260B		3/7/2017	CJR	1
trans-1,3-Dichloropropene	< 0.022	mg/kg	0.022	0.068	1	8260B		3/7/2017	CJR	1
cis-1,3-Dichloropropene	< 0.039	mg/kg	0.039	0.12	1	8260B		3/7/2017	CJR	1
Di-isopropyl ether	< 0.01	mg/kg	0.01	0.032	1	8260B		3/7/2017	CJR	1
EDB (1,2-Dibromoethane)	< 0.023	mg/kg	0.023	0.072	1	8260B		3/7/2017	CJR	1
Ethylbenzene	< 0.035	mg/kg	0.035	0.11	1	8260B		3/7/2017	CJR	1
Hexachlorobutadiene	< 0.085	mg/kg	0.085	0.27	1	8260B		3/7/2017	CJR	1
Isopropylbenzene	< 0.034	mg/kg	0.034	0.11	1	8260B		3/7/2017	CJR	1
p-Isopropyltoluene	< 0.029	mg/kg	0.029	0.093	1	8260B		3/7/2017	CJR	1
Methylene chloride	< 0.15	mg/kg	0.15	0.46	1	8260B		3/7/2017	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.05	mg/kg	0.05	0.16	1	8260B		3/7/2017	CJR	1
Naphthalene	< 0.094	mg/kg	0.094	0.3	1	8260B		3/7/2017	CJR	1
n-Propylbenzene	< 0.033	mg/kg	0.033	0.1	1	8260B		3/7/2017	CJR	1
1,1,2,2-Tetrachloroethane	< 0.028	mg/kg	0.028	0.88	1	8260B		3/7/2017	CJR	1
1,1,1,2-Tetrachloroethane	< 0.028	mg/kg	0.028	0.09	1	8260B		3/7/2017	CJR	1
Tetrachloroethene	< 0.032	mg/kg	0.032	0.1	1	8260B		3/7/2017	CJR	1
Toluene	< 0.032	mg/kg	0.032	0.1	1	8260B		3/7/2017	CJR	1
1,2,4-Trichlorobenzene	< 0.064	mg/kg	0.064	0.2	1	8260B		3/7/2017	CJR	1
1,2,3-Trichlorobenzene	< 0.066	mg/kg	0.066	0.21	1	8260B		3/7/2017	CJR	1
1,1,1-Trichloroethane	< 0.03	mg/kg	0.03	0.96	1	8260B		3/7/2017	CJR	1

Project Name SCHERF 131 E SUNSET

Invoice # E32544

Project # 403-001-005

Lab Code 5032544E

Sample ID 145 N

Sample Matrix Soil

Sample Date 2/24/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
1,1,2-Trichloroethane	< 0.033	mg/kg	0.033	0.11	1	8260B		3/7/2017	CJR	1
Trichloroethene (TCE)	< 0.041	mg/kg	0.041	0.13	1	8260B		3/7/2017	CJR	1
Trichlorofluoromethane	< 0.041	mg/kg	0.041	0.13	1	8260B		3/7/2017	CJR	1
1,2,4-Trimethylbenzene	< 0.025	mg/kg	0.025	0.08	1	8260B		3/7/2017	CJR	1
1,3,5-Trimethylbenzene	< 0.032	mg/kg	0.032	0.1	1	8260B		3/7/2017	CJR	1
Vinyl Chloride	< 0.019	mg/kg	0.019	0.062	1	8260B		3/7/2017	CJR	1
m&p-Xylene	< 0.072	mg/kg	0.072	0.23	1	8260B		3/7/2017	CJR	1
o-Xylene	< 0.044	mg/kg	0.044	0.14	1	8260B		3/7/2017	CJR	1
SUR - 1,2-Dichloroethane-d4	105	Rec %			1	8260B		3/7/2017	CJR	1
SUR - 4-Bromofluorobenzene	99	Rec %			1	8260B		3/7/2017	CJR	1
SUR - Dibromofluoromethane	99	Rec %			1	8260B		3/7/2017	CJR	1
SUR - Toluene-d8	100	Rec %			1	8260B		3/7/2017	CJR	1

Project Name SCHERF 131 E SUNSET
 Project # 403-001-005

Invoice # E32544

Lab Code 5032544F
 Sample ID 145 S
 Sample Matrix Soil
 Sample Date 2/24/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
General										
General										
Solids Percent	62.8	%			1	5021		2/28/2017	TCC	1
Organic										
VOC's										
Benzene	< 0.03	mg/kg	0.03	0.96	1	8260B		3/7/2017	CJR	1
Bromobenzene	< 0.025	mg/kg	0.025	0.081	1	8260B		3/7/2017	CJR	1
Bromodichloromethane	< 0.074	mg/kg	0.074	0.24	1	8260B		3/7/2017	CJR	1
Bromoform	< 0.029	mg/kg	0.029	0.092	1	8260B		3/7/2017	CJR	1
tert-Butylbenzene	< 0.026	mg/kg	0.026	0.084	1	8260B		3/7/2017	CJR	1
sec-Butylbenzene	< 0.033	mg/kg	0.033	0.1	1	8260B		3/7/2017	CJR	1
n-Butylbenzene	< 0.04	mg/kg	0.04	0.13	1	8260B		3/7/2017	CJR	1
Carbon Tetrachloride	< 0.016	mg/kg	0.016	0.053	1	8260B		3/7/2017	CJR	1
Chlorobenzene	< 0.013	mg/kg	0.013	0.04	1	8260B		3/7/2017	CJR	1
Chloroethane	< 0.091	mg/kg	0.091	0.29	1	8260B		3/7/2017	CJR	1
Chloroform	< 0.035	mg/kg	0.035	0.11	1	8260B		3/7/2017	CJR	1
Chloromethane	< 0.076	mg/kg	0.076	0.24	1	8260B		3/7/2017	CJR	1
2-Chlorotoluene	< 0.015	mg/kg	0.015	0.047	1	8260B		3/7/2017	CJR	1
4-Chlorotoluene	< 0.018	mg/kg	0.018	0.057	1	8260B		3/7/2017	CJR	1
1,2-Dibromo-3-chloropropane	< 0.058	mg/kg	0.058	0.18	1	8260B		3/7/2017	CJR	1
Dibromochloromethane	< 0.025	mg/kg	0.025	0.079	1	8260B		3/7/2017	CJR	1
1,4-Dichlorobenzene	< 0.037	mg/kg	0.037	0.12	1	8260B		3/7/2017	CJR	1
1,3-Dichlorobenzene	< 0.037	mg/kg	0.037	0.12	1	8260B		3/7/2017	CJR	1
1,2-Dichlorobenzene	< 0.028	mg/kg	0.028	0.088	1	8260B		3/7/2017	CJR	1
Dichlorodifluoromethane	< 0.048	mg/kg	0.048	0.15	1	8260B		3/7/2017	CJR	1
1,2-Dichloroethane	< 0.038	mg/kg	0.038	0.12	1	8260B		3/7/2017	CJR	1
1,1-Dichloroethane	< 0.034	mg/kg	0.034	0.11	1	8260B		3/7/2017	CJR	1
1,1-Dichloroethene	< 0.022	mg/kg	0.022	0.069	1	8260B		3/7/2017	CJR	1
cis-1,2-Dichloroethene	< 0.032	mg/kg	0.032	0.1	1	8260B		3/7/2017	CJR	1
trans-1,2-Dichloroethene	< 0.028	mg/kg	0.028	0.09	1	8260B		3/7/2017	CJR	1
1,2-Dichloropropane	< 0.035	mg/kg	0.035	0.11	1	8260B		3/7/2017	CJR	1
1,3-Dichloropropane	< 0.025	mg/kg	0.025	0.079	1	8260B		3/7/2017	CJR	1
trans-1,3-Dichloropropene	< 0.022	mg/kg	0.022	0.068	1	8260B		3/7/2017	CJR	1
cis-1,3-Dichloropropene	< 0.039	mg/kg	0.039	0.12	1	8260B		3/7/2017	CJR	1
Di-isopropyl ether	< 0.01	mg/kg	0.01	0.032	1	8260B		3/7/2017	CJR	1
EDB (1,2-Dibromoethane)	< 0.023	mg/kg	0.023	0.072	1	8260B		3/7/2017	CJR	1
Ethylbenzene	< 0.035	mg/kg	0.035	0.11	1	8260B		3/7/2017	CJR	1
Hexachlorobutadiene	< 0.085	mg/kg	0.085	0.27	1	8260B		3/7/2017	CJR	1
Isopropylbenzene	< 0.034	mg/kg	0.034	0.11	1	8260B		3/7/2017	CJR	1
p-Isopropyltoluene	< 0.029	mg/kg	0.029	0.093	1	8260B		3/7/2017	CJR	1
Methylene chloride	< 0.15	mg/kg	0.15	0.46	1	8260B		3/7/2017	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.05	mg/kg	0.05	0.16	1	8260B		3/7/2017	CJR	1
Naphthalene	< 0.094	mg/kg	0.094	0.3	1	8260B		3/7/2017	CJR	1
n-Propylbenzene	< 0.033	mg/kg	0.033	0.1	1	8260B		3/7/2017	CJR	1
1,1,2,2-Tetrachloroethane	< 0.028	mg/kg	0.028	0.88	1	8260B		3/7/2017	CJR	1
1,1,1,2-Tetrachloroethane	< 0.028	mg/kg	0.028	0.09	1	8260B		3/7/2017	CJR	1
Tetrachloroethene	0.045 "J"	mg/kg	0.032	0.1	1	8260B		3/7/2017	CJR	1
Toluene	< 0.032	mg/kg	0.032	0.1	1	8260B		3/7/2017	CJR	1
1,2,4-Trichlorobenzene	< 0.064	mg/kg	0.064	0.2	1	8260B		3/7/2017	CJR	1
1,2,3-Trichlorobenzene	< 0.066	mg/kg	0.066	0.21	1	8260B		3/7/2017	CJR	1
1,1,1-Trichloroethane	< 0.03	mg/kg	0.03	0.96	1	8260B		3/7/2017	CJR	1

Project Name SCHERF 131 E SUNSET
Project # 403-001-005

Invoice # E32544

Lab Code 5032544F
Sample ID 145 S
Sample Matrix Soil
Sample Date 2/24/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
1,1,2-Trichloroethane	< 0.033	mg/kg	0.033	0.11	1	8260B		3/7/2017	CJR	1
Trichloroethene (TCE)	< 0.041	mg/kg	0.041	0.13	1	8260B		3/7/2017	CJR	1
Trichlorofluoromethane	< 0.041	mg/kg	0.041	0.13	1	8260B		3/7/2017	CJR	1
1,2,4-Trimethylbenzene	< 0.025	mg/kg	0.025	0.08	1	8260B		3/7/2017	CJR	1
1,3,5-Trimethylbenzene	< 0.032	mg/kg	0.032	0.1	1	8260B		3/7/2017	CJR	1
Vinyl Chloride	< 0.019	mg/kg	0.019	0.062	1	8260B		3/7/2017	CJR	1
m&p-Xylene	< 0.072	mg/kg	0.072	0.23	1	8260B		3/7/2017	CJR	1
o-Xylene	< 0.044	mg/kg	0.044	0.14	1	8260B		3/7/2017	CJR	1
SUR - 1,2-Dichloroethane-d4	74	Rec %			1	8260B		3/7/2017	CJR	1
SUR - 4-Bromofluorobenzene	92	Rec %			1	8260B		3/7/2017	CJR	1
SUR - Dibromofluoromethane	104	Rec %			1	8260B		3/7/2017	CJR	1
SUR - Toluene-d8	97	Rec %			1	8260B		3/7/2017	CJR	1

Project Name SCHERF 131 E SUNSET
Project # 403-001-005

Invoice # E32544

Lab Code 5032544G
Sample ID 147 N
Sample Matrix Soil
Sample Date 2/24/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
General										
General										
Solids Percent	93.6	%			1	5021		2/28/2017	TCC	1
Organic										
VOC's										
Benzene	< 0.03	mg/kg	0.03	0.96	1	8260B		3/7/2017	CJR	1
Bromobenzene	< 0.025	mg/kg	0.025	0.081	1	8260B		3/7/2017	CJR	1
Bromodichloromethane	< 0.074	mg/kg	0.074	0.24	1	8260B		3/7/2017	CJR	1
Bromoform	< 0.029	mg/kg	0.029	0.092	1	8260B		3/7/2017	CJR	1
tert-Butylbenzene	< 0.026	mg/kg	0.026	0.084	1	8260B		3/7/2017	CJR	1
sec-Butylbenzene	< 0.033	mg/kg	0.033	0.1	1	8260B		3/7/2017	CJR	1
n-Butylbenzene	< 0.04	mg/kg	0.04	0.13	1	8260B		3/7/2017	CJR	1
Carbon Tetrachloride	< 0.016	mg/kg	0.016	0.053	1	8260B		3/7/2017	CJR	1
Chlorobenzene	< 0.013	mg/kg	0.013	0.04	1	8260B		3/7/2017	CJR	1
Chloroethane	< 0.091	mg/kg	0.091	0.29	1	8260B		3/7/2017	CJR	1
Chloroform	< 0.035	mg/kg	0.035	0.11	1	8260B		3/7/2017	CJR	1
Chloromethane	< 0.076	mg/kg	0.076	0.24	1	8260B		3/7/2017	CJR	1
2-Chlorotoluene	< 0.015	mg/kg	0.015	0.047	1	8260B		3/7/2017	CJR	1
4-Chlorotoluene	< 0.018	mg/kg	0.018	0.057	1	8260B		3/7/2017	CJR	1
1,2-Dibromo-3-chloropropane	< 0.058	mg/kg	0.058	0.18	1	8260B		3/7/2017	CJR	1
Dibromochloromethane	< 0.025	mg/kg	0.025	0.079	1	8260B		3/7/2017	CJR	1
1,4-Dichlorobenzene	< 0.037	mg/kg	0.037	0.12	1	8260B		3/7/2017	CJR	1
1,3-Dichlorobenzene	< 0.037	mg/kg	0.037	0.12	1	8260B		3/7/2017	CJR	1
1,2-Dichlorobenzene	< 0.028	mg/kg	0.028	0.088	1	8260B		3/7/2017	CJR	1
Dichlorodifluoromethane	< 0.048	mg/kg	0.048	0.15	1	8260B		3/7/2017	CJR	1
1,2-Dichloroethane	< 0.038	mg/kg	0.038	0.12	1	8260B		3/7/2017	CJR	1
1,1-Dichloroethane	< 0.034	mg/kg	0.034	0.11	1	8260B		3/7/2017	CJR	1
1,1-Dichloroethene	< 0.022	mg/kg	0.022	0.069	1	8260B		3/7/2017	CJR	1
cis-1,2-Dichloroethene	< 0.032	mg/kg	0.032	0.1	1	8260B		3/7/2017	CJR	1
trans-1,2-Dichloroethene	< 0.028	mg/kg	0.028	0.09	1	8260B		3/7/2017	CJR	1
1,2-Dichloropropane	< 0.035	mg/kg	0.035	0.11	1	8260B		3/7/2017	CJR	1
1,3-Dichloropropane	< 0.025	mg/kg	0.025	0.079	1	8260B		3/7/2017	CJR	1
trans-1,3-Dichloropropene	< 0.022	mg/kg	0.022	0.068	1	8260B		3/7/2017	CJR	1
cis-1,3-Dichloropropene	< 0.039	mg/kg	0.039	0.12	1	8260B		3/7/2017	CJR	1
Di-isopropyl ether	< 0.01	mg/kg	0.01	0.032	1	8260B		3/7/2017	CJR	1
EDB (1,2-Dibromoethane)	< 0.023	mg/kg	0.023	0.072	1	8260B		3/7/2017	CJR	1
Ethylbenzene	< 0.035	mg/kg	0.035	0.11	1	8260B		3/7/2017	CJR	1
Hexachlorobutadiene	< 0.085	mg/kg	0.085	0.27	1	8260B		3/7/2017	CJR	1
Isopropylbenzene	< 0.034	mg/kg	0.034	0.11	1	8260B		3/7/2017	CJR	1
p-Isopropyltoluene	< 0.029	mg/kg	0.029	0.093	1	8260B		3/7/2017	CJR	1
Methylene chloride	< 0.15	mg/kg	0.15	0.46	1	8260B		3/7/2017	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.05	mg/kg	0.05	0.16	1	8260B		3/7/2017	CJR	1
Naphthalene	< 0.094	mg/kg	0.094	0.3	1	8260B		3/7/2017	CJR	1
n-Propylbenzene	< 0.033	mg/kg	0.033	0.1	1	8260B		3/7/2017	CJR	1
1,1,2,2-Tetrachloroethane	< 0.028	mg/kg	0.028	0.88	1	8260B		3/7/2017	CJR	1
1,1,1,2-Tetrachloroethane	< 0.028	mg/kg	0.028	0.09	1	8260B		3/7/2017	CJR	1
Tetrachloroethene	< 0.032	mg/kg	0.032	0.1	1	8260B		3/7/2017	CJR	1
Toluene	< 0.032	mg/kg	0.032	0.1	1	8260B		3/7/2017	CJR	1
1,2,4-Trichlorobenzene	< 0.064	mg/kg	0.064	0.2	1	8260B		3/7/2017	CJR	1
1,2,3-Trichlorobenzene	< 0.066	mg/kg	0.066	0.21	1	8260B		3/7/2017	CJR	1
1,1,1-Trichloroethane	< 0.03	mg/kg	0.03	0.96	1	8260B		3/7/2017	CJR	1

Project Name SCHERF 131 E SUNSET
Project # 403-001-005

Invoice # E32544

Lab Code 5032544G
Sample ID 147 N
Sample Matrix Soil
Sample Date 2/24/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
1,1,2-Trichloroethane	< 0.033	mg/kg	0.033	0.11	1	8260B		3/7/2017	CJR	1
Trichloroethene (TCE)	< 0.041	mg/kg	0.041	0.13	1	8260B		3/7/2017	CJR	1
Trichlorofluoromethane	< 0.041	mg/kg	0.041	0.13	1	8260B		3/7/2017	CJR	1
1,2,4-Trimethylbenzene	< 0.025	mg/kg	0.025	0.08	1	8260B		3/7/2017	CJR	1
1,3,5-Trimethylbenzene	< 0.032	mg/kg	0.032	0.1	1	8260B		3/7/2017	CJR	1
Vinyl Chloride	< 0.019	mg/kg	0.019	0.062	1	8260B		3/7/2017	CJR	1
m&p-Xylene	< 0.072	mg/kg	0.072	0.23	1	8260B		3/7/2017	CJR	1
o-Xylene	< 0.044	mg/kg	0.044	0.14	1	8260B		3/7/2017	CJR	1
SUR - Toluene-d8	99	Rec %			1	8260B		3/7/2017	CJR	1
SUR - 1,2-Dichloroethane-d4	107	Rec %			1	8260B		3/7/2017	CJR	1
SUR - 4-Bromofluorobenzene	97	Rec %			1	8260B		3/7/2017	CJR	1
SUR - Dibromofluoromethane	103	Rec %			1	8260B		3/7/2017	CJR	1

"J" Flag: Analyte detected between LOD and LOQ

LOD Limit of Detection

LOQ Limit of Quantitation

Code **Comment**

1 Laboratory QC within limits.

All solid sample results reported on a dry weight basis unless otherwise indicated. All LOD's and LOQ's are adjusted for dilutions but not dry weight. Subcontracted results are denoted by SUB in the analyst field.

Authorized Signature



CHAIN OF CUSTODY RECORD

Synergy

Lab I.D. #	
Account No.:	Quote No.:
Project #: <i>403-001-005</i>	
Comments: <i>T/F P/B</i>	

Project (Name / Location): Scherf 131 E sunset

Reports To: Tim Petty | Invoice To:

Company Endpoint Solutions

Address 6871 Shubert's Lane

City State Zip Franklin, WI

Phone 414-858-1210

FAX

10. The following table summarizes the results of the study:

Environmental Lab, Inc.

1990 Prospect Ct. • Appleton, WI 54914

920-830-2455 • FAX 920-733-0631

Chain # 310 273

Page 1 of

Sample Handling Request

Rush Analysis Date Required

(Buses accepted only with prior authorization)

Normal Turn Around

Comments/Special Instructions (*Specify groundwater "GW", Drinking Water "DW", Waste Water "WW", Soil "S", Air "A", Oil, Sludge etc.)

Sample Integrity - To be completed by receiving lab.	Relinquished By: (sign) <i>Jmfch</i>	Time 8:00 AM	Date 2/21/17	Received By: (sign) <i>TJL</i>	Time 9:53	Date 2/21/17	
Method of Shipment:							
Temp. of Temp. Blank _____ °C On Ice: <input checked="" type="checkbox"/>							
Cooler seal intact upon receipt: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No							
Received in Laboratory By: <i>Ch</i>						Time: <i>8:00</i>	Date: <i>2/20/17</i>

Endpoint Solutions

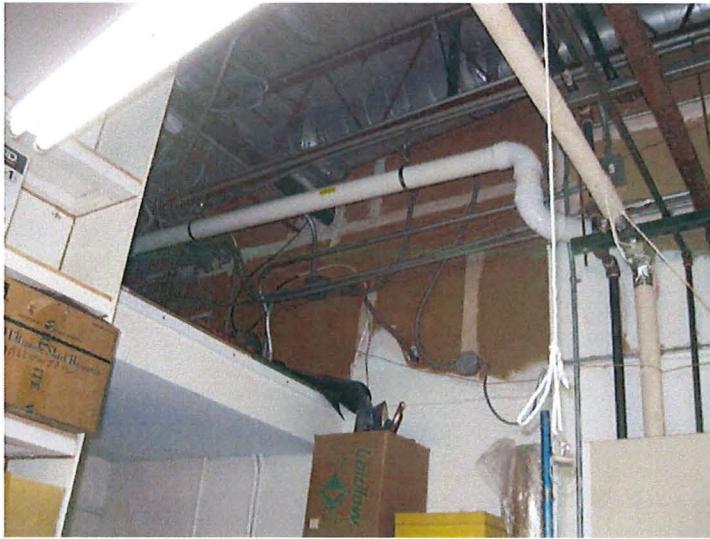
APPENDIX B

SYSTEM PHOTOGRAPHS



1. 3" secondary suction pipe penetration.

2. 3" secondary suction pipe routing.



3. 3" secondary suction pipe overhead routing.

SITE PHOTOGRAPHS

ADDRESS

CITY, STATE

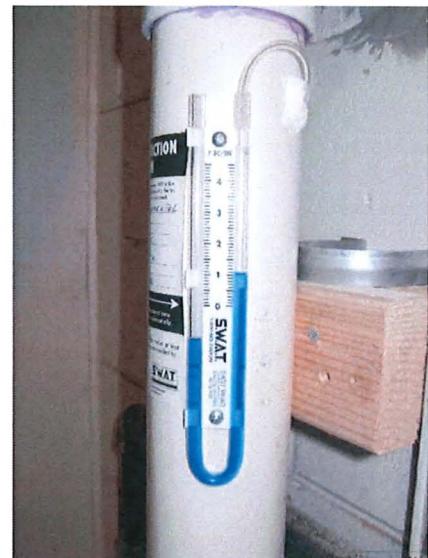
PROJECT No:
403-001-006

Endpoint



4. 3" secondary suction pipe
overhead routing.

5. Manometer on 3" main suction
pipe after fan install.



6. Exterior fan installation.

SITE PHOTOGRAPHS

145 EAST SUNSET DRIVE
WAUKESHA, WISCONSIN

PROJECT No:
403-001-006

Endpoint



7. Vent from exterior fan extending 3-feet above the roof.

8. Exterior piping and fan installation.



9. Manometer on 3" secondary suction pipe.

SITE PHOTOGRAPHS

145 EAST SUNSET DRIVE
WAUKESHA, WISCONSIN

PROJECT No:
403-001-006

Endpoint

Endpoint Solutions

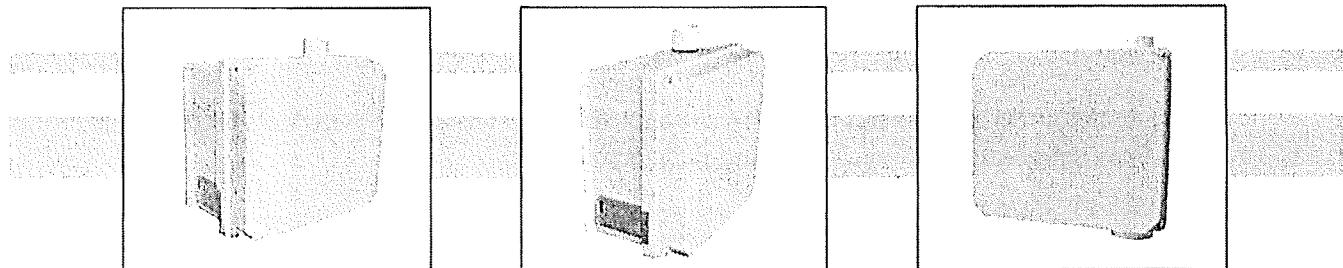
APPENDIX C

SYSTEM COMPONENT DOCUMENTATION

SYSTEM WARRANTY



The World's Leading
Radon Fan Manufacturer



HS Series

Installation & Operating Instructions

RadonAway

3 Saber Way | Ward Hill, MA 01835

www.radonaway.com



RadonAway Ward Hill, MA.

HS Series Fan Installation & Operating Instructions

Please Read and Save These Instructions.

DO NOT CONNECT POWER SUPPLY UNTIL FAN IS COMPLETELY INSTALLED. MAKE SURE ELECTRICAL SERVICE TO FAN IS LOCKED IN "OFF" POSITION. DISCONNECT POWER BEFORE SERVICING FAN.

1. **WARNING!** Do not use fan in hazardous environments where fan electrical system could provide ignition to combustible or flammable materials.
2. **WARNING!** Do not use fan to pump explosive or corrosive gases.
See Vapor Intrusion Application Note #AN001 for important information on VI applications. RadonAway.com/vapor-intrusion
3. **WARNING!** Check voltage at the fan to insure it corresponds with nameplate.
4. **WARNING!** Normal operation of this device may affect the combustion airflow needed for safe operation of fuel burning equipment. Check for possible backdraft conditions on all combustion devices after installation.
5. **NOTICE!** There are no user serviceable parts located inside the fan unit.
Do NOT attempt to open. Return unit to the factory for service.
6. All wiring must be performed in accordance with the National Fire Protection Association's (NFPA) "National Electrical Code, Standard #70"-current edition for all commercial and industrial work, and state and local building codes. All wiring must be performed by a qualified and licensed electrician.
7. **WARNING!** In the event that the fan is immersed in water, return unit to factory for service before operating.
8. **WARNING!** Do not twist or torque fan inlet or outlet piping as Leakage may result.
9. **WARNING!** Do not leave fan unit installed on system piping without electrical power for more than 48 hours. Fan failure could result from this non-operational storage.
10. **WARNING! TO REDUCE THE RISK OF FIRE, ELECTRIC SHOCK, OR INJURY TO PERSONS, OBSERVE THE FOLLOWING:**
 - a) Use this unit only in the manner intended by the manufacturer. If you have questions, contact the manufacturer.
 - b) Before servicing or cleaning unit, switch power off at service panel and lock the service disconnecting means to prevent power from being switched on accidentally. When the service disconnecting means cannot be locked, securely fasten a prominent warning device, such as a tag, to the service panel.



INSTALLATION & OPERATING INSTRUCTIONS (Rev K)

for High Suction Series

HS2000 p/n 23004-1

HS3000 p/n 23004-2

HS5000 p/n 23004-3

1.0 SYSTEM DESIGN CONSIDERATIONS

1.1 INTRODUCTION

The HS Series Fan is intended for use by trained, certified/licensed, professional Radon mitigators. The purpose of this instruction is to provide additional guidance for the most effective use of the HS Series Fan. This instruction should be considered as a supplement to EPA/Radon Industry standard practices, state and local building codes and state regulations. In the event of a conflict, those codes, practices and regulations take precedence over this instruction.

1.2 ENVIRONMENTALS

The HS Series Fan is designed to perform year-round in all but the harshest climates without additional concern for temperature or weather. For installations in an area of severe cold weather, please contact RadonAway for assistance. When not in operation, the HS Series Fan should be stored in an area where the temperature is never less than 32 degrees F. or more than 100 degrees F. The HS Series Fan is thermally protected such that it will shut off when the internal temperature is above 104 degrees F. Thus if the HS Series Fan is idle in an area where the ambient temperature exceeds this shut off, it will not restart until the internal temperature falls below 104 degrees F.

1.3 ACOUSTICS

The HS Series Fan, when installed properly, operates with little or no noticeable noise to the building occupants. There are, however, some considerations to be taken into account in the system design and installation. When installing the HS Series Fan above sleeping areas, select a location for mounting which is as far away as possible from those areas. Avoid mounting near doors, fold-down stairs or other uninsulated structures which may transmit sound. Insure a solid mounting for the HS Series Fan to avoid structure-borne vibration or noise.

The velocity of the outgoing air must also be considered in the overall system design. With small diameter piping, the "rushing" sound of the outlet air can be disturbing. The system design should incorporate a means to slow and quiet the outlet air. The use of the RadonAway Exhaust Muffler, p/n 24002, is strongly recommended.

1.4 GROUND WATER

Under no circumstances should water be allowed to be drawn into the inlet of the HS Series Fan as this may result in damage to the unit. The HS Series Fan should be mounted at least 5 feet above the slab penetration to minimize the risk of filling the HS Series Fan with water in installations with occasional high water tables.

In the event that a temporary high water table results in water at or above slab level, water will be drawn into the riser pipes thus blocking air flow to the HS Series Fan. The lack of cooling air will result in the HS Series Fan cycling on and off as the internal temperature rises above the thermal cutoff and falls upon shutoff. Should this condition arise, it is recommended that the HS Series Fan be disconnected until the water recedes allowing for return to normal operation.

1.5 CONDENSATION & DRAINAGE

(WARNING!: Failure to provide adequate drainage for condensation can result in system failure and damage the HS Series Fan).

Condensation is formed in the piping of a mitigation system when the air in the piping is chilled below its dew point. This can occur at points where the system piping goes through unheated space such as an attic, garage or outside. The system design must provide a means for water to drain back to a slab hole to remove the condensation.

The use of small diameter piping in a system increases the speed at which the air moves. The speed of the air can pull water uphill and at sufficient velocity it can actually move water vertically up the side walls of the pipe. This has the potential of creating a problem in the negative pressure (inlet) side piping. For HS Series Fan inlet piping, the following table provides the minimum recommended pipe diameters as well as minimum pitch under several system conditions. Use this chart to size piping for a system.

Pipe Diam.	Minimum Rise per Foot of Run*		
	@ 25 CFM	@ 50 CFM	@ 100 CFM
4"	1/32 "	3/32 "	3/8 "
3"	1/8 "	3/8 "	1 1/2 "

Rise

Run

*Typical operational flow rates:

HS3000, or HS5000	20 - 40 CFM
HS2000	50 - 90 CFM

All exhaust piping should be 2" PVC.

1.6 SYSTEM MONITOR AND LABEL

A properly designed system should incorporate a "System On" Indicator for affirmation of system operation. A Magnehelic pressure gauge is recommended for this purpose. The indicator should be mounted at least 5 feet above the slab penetration to minimize the risk of filling the gauge with water in installations with occasional high water tables. A System Label (P/N 15022) with instructions for contacting the installing contractor for service and also identifying the necessity for regular radon tests to be conducted by the building occupants, must be conspicuously placed where the occupants frequent and can see the label.

1.7 SLAB COVERAGE

The HS Series Fan can provide coverage of well over 1000 sq. ft. per slab penetration. This will, of course, depend on the sub-slab aggregate in any particular installation and the diagnostic results. In general, sand and gravel are much looser aggregates than dirt and clay. Additional suction points can be added as required. It is recommended that a small pit (2 to 10 gallons in size) be created below the slab at each suction hole.

1.8 ELECTRICAL WIRING

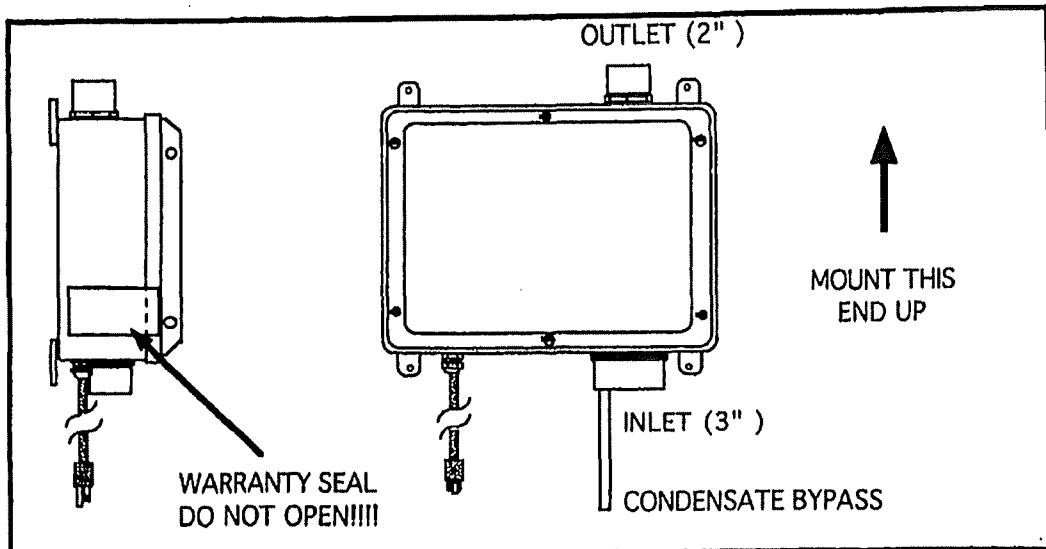
The HS Series Fan plugs into a standard 120V outlet. All wiring must be performed in accordance with the National Fire Protection Association's (NFPA)"National Electrical Code, Standard #70"-current edition for all commercial and industrial work, and state and local building codes. All wiring must be performed by a qualified and licensed electrician. Outdoor installations require the use of a U.L. listed watertight conduit. Ensure that all exterior electrical boxes are outdoor rated and properly caulked to prevent water penetration into the box. A means, such as a weep hole, is recommended to drain the box.

1.8a ELECTRICAL BOX (optional)

The optional Electrical Box (p/n 20003) provides a weather tight box with switch for outdoor hardwire connection. All wiring must be performed in accordance with the National Fire Protection Association's (NFPA)"National Electrical Code, Standard #70"-current edition for all commercial and industrial work, and state and local building codes. All wiring must be performed by a qualified and licensed electrician. Outdoor installations require the use of a U.L. listed watertight conduit. Ensure that all exterior electrical boxes are outdoor rated and properly caulked to prevent water penetration into the box. A means, such as a weep hole, is recommended to drain the box.

1.9 SPEED CONTROLS

Electronic speed controls can NOT be used on HS Series units.



2.0 INSTALLATION

2.1 MOUNTING

Mount the HS Series Fan to the wall studs, or similar structure, in the selected location with (4) 1/4" x 1 1/2" lag screws (not provided). Insure the HS Series Fan is both plumb and level.

2.2 DUCTING CONNECTIONS

Make final ducting connection to HS Series Fan with flexible couplings. Insure all connections are tight. Do not twist or torque inlet and outlet piping on HS Series Fan or leaks may result.

2.3 VENT MUFFLER INSTALLATION

Install the muffler assembly in the selected location in the outlet ducting. Solvent weld all connections. The muffler is normally installed above the roofline at the end of the vent pipe.

2.5 OPERATION CHECKS & ANNUAL SYSTEM MAINTENANCE

- Make final operation checks by verifying all connections are tight and leak-free.
- Insure the HS Series Fan and all ducting is secure and vibration-free.
- Verify system vacuum pressure with Magnehelic. Insure vacuum pressure is within normal operating range and less than the maximum recommended as shown below:

HS2000	14" WC
HS3000	21" WC
HS5000	40" WC

(Above are based on sea-level operation, at higher altitudes reduce above by about 4% per 1000 Feet.) If these are exceeded, increase number of suction points.

- Verify Radon levels by testing to EPA protocol.

Addendum

PRODUCT SPECIFICATIONS

Model	Maximum Static Suction	Typical CFM vs Static Suction WC (Recommended Operating Range)						Power* Watts @ 115 VAC
		0"	10"	15"	20"	25"	35"	
HS2000	18"	110	72	40	-	-	-	150-270
HS3000	27"	40	33	30	23	18	-	105-195
HS5000	50"	53	47	42	38	34	24	180-320

*Power consumption varies with actual load conditions

Inlet: 3.0" PVC

Outlet: 2.0" PVC

Mounting: Brackets for vertical mount

Weight: Approximately 18 lbs.

Size: Approximately 15"W x 13"H x 8"D

Minimum recommended inlet ducting (greater diameter may always be used):

HS3000, HS5000 --- 2.0" PVC Pipe

HS2000 --- Main feeder line of 3.0" or greater PVC Pipe

Branch lines (if 3 or more) may be 2.0" PVC Pipe

Outlet ducting: 2.0" PVC

Storage temperature range: 32 - 100 degrees F.

Thermally protected

Locked rotor protection

Internal Condensate Bypass

IMPORTANT INSTRUCTIONS TO INSTALLER

Inspect the HS Series Fan for shipping damage within 15 days of receipt. Notify RadonAway® of any damages immediately. RadonAway® is not responsible for damages incurred during shipping. However, for your benefit, RadonAway® does insure shipments.

There are no user serviceable parts inside the fan. Do not attempt to open. Return unit to factory for service.

Install the HS Series Fan in accordance with all EPA standard practices, and state and local building codes and state regulations.

Provide a copy of this instruction or comparable radon system and testing information to the building occupants after completing system installation.

WARRANTY

RadonAway® warrants that the HS Series Fan (the "Fan") will be free from defects in materials and workmanship for a period of 90 days from the date of purchase (the "Warranty Term").

RadonAway® will replace any Fan which fails due to defects in materials or workmanship during the Warranty Term. The Fan must be returned (at Owner's cost) to the RadonAway® factory. Any Fan returned to the factory will be discarded unless the Owner provides specific instructions along with the Fan when it is returned regardless of whether or not the Fan is actually replaced under this warranty. Proof of purchase must be supplied upon request for service under this Warranty.

This Warranty is contingent on installation of the Fan in accordance with the instructions provided. This Warranty does not apply where any repairs or alterations have been made or attempted by others, or if the unit has been abused or misused. Warranty does not cover damage in shipment unless the damage is due to the negligence of RadonAway®.

1 YEAR EXTENDED WARRANTY WITH PROFESSIONAL INSTALLATION.

RadonAway® will extend the Warranty Term of the fan to one (1) year from date of purchase or fifteen (15) months from the date of manufacture, whichever is sooner, if the Fan is installed in a professionally designed and professionally installed active soil depressurization system or installed as a replacement fan in a professionally designed and professionally installed active soil depressurization system by a qualified installer. Proof of purchase and/or proof of professional installation may be required for service under this warranty. Outside the Continental United States and Canada the extended Warranty Term is limited to one (1) year from the date of manufacture.

RadonAway® is not responsible for installation, removal or delivery costs associated with this Warranty.

LIMITATION OF WARRANTY

EXCEPT AS STATED ABOVE, THE HS SERIES FANS ARE PROVIDED WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING, WITHOUT LIMITATION, IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

IN NO EVENT SHALL RADONAWAY BE LIABLE FOR ANY DIRECT, INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES ARISING OUT OF, OR RELATING TO, THE FAN OR THE PERFORMANCE THEREOF. RADONAWAY'S AGGREGATE LIABILITY HEREUNDER SHALL NOT IN ANY EVENT EXCEED THE AMOUNT OF THE PURCHASE PRICE OF SAID PRODUCT. THE SOLE AND EXCLUSIVE REMEDY UNDER THIS WARRANTY SHALL BE THE REPAIR OR REPLACEMENT OF THE PRODUCT, TO THE EXTENT THE SAME DOES NOT MEET WITH RADONAWAY'S WARRANTY AS PROVIDED ABOVE.

For service under this Warranty, contact RadonAway for a Return Material Authorization (RMA) number and shipping information. No returns can be accepted without an RMA. If factory return is required, the customer assumes all shipping costs, including insurance, to and from factory.

RadonAway® 3 Saber Way
Ward Hill, MA 01835 USA TEL (978) 521-3703
FAX (978) 521-3964
Email to: Returns@RadonAway.com

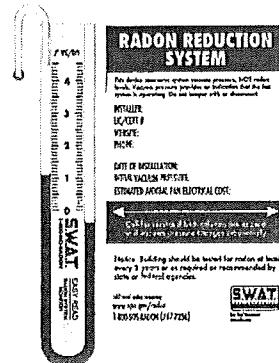
Record the following information for your records:

Serial No. _____ Purchase Date _____



Easy Read Manometer Vacuum Gauge Installation Instructions

1. Select location on the vertical suction pipe where the vacuum gauge is to be mounted. Fix the gauge vertically to the pipe using the screws provided.
2. Remove end caps from both tube ends.
Warning: Do not ingest gauge fluid.
Caution: Gauge fluid will stain if spilled.
3. Allow fluid to settle in gauge for several minutes and then zero the gauge by sliding the tube until the tops of both columns align with the zero mark on the pressure scale.
4. Drill a 3/16" hole in piping 2 inches below the top of the gauge.
Positioning the hole below the top of the gauge will prevent condensation from potentially collecting in the u-tube gauge.
5. Insert vinyl tubing into either opening in gauge tube and push firmly.
6. Install end of the tubing into drilled hole. Apply caulk for airtight connection.
7. Fill in label using an indelible marker.
8. Remove backing and position label next to vacuum gauge ensuring the arrow is lined up with the gauge zero.



Manufactured for SWAT by RadonAway®

WARRANTY

Subject to any applicable consumer protection legislation, RadonAway warrants that the Easy Read Vacuum Gauge (the "Gauge") will be free from defects in materials and workmanship for a period of five (5) years from the date of manufacture (the "Warranty Term"). Outside the Continental United States and Canada the Warranty Term is one (1) year from the date of manufacture.

RadonAway will replace any Gauge which fails due to defects in materials or workmanship. The Gauge must be returned [at owner's cost] to the RadonAway factory. Proof of purchase must be supplied upon request for service under this Warranty.

This Warranty is contingent on installation of the Gauge in accordance with the instructions provided. This Warranty does not apply where any repairs or alterations have been made or attempted by others, or if the unit has been abused or misused. Warranty does not include damage in shipment unless the damage is due to the negligence of RadonAway.

RadonAway is not responsible for installation, removal or delivery costs associated with this Warranty.

EXCEPT AS STATED ABOVE, THE GAUGE IS PROVIDED WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING, WITHOUT LIMITATION, IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

IN NO EVENT SHALL RADONAWAY BE LIABLE FOR ANY DIRECT, INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES ARISING OUT OF, OR RELATING TO, THE GAUGE OR THE PERFORMANCE THEREOF. RADONAWAY'S AGGREGATE LIABILITY HEREUNDER SHALL NOT IN ANY EVENT EXCEED THE AMOUNT OF THE PURCHASE PRICE OF SAID PRODUCT. THE SOLE AND EXCLUSIVE REMEDY UNDER THIS WARRANTY SHALL BE THE REPAIR OR REPLACEMENT OF THE PRODUCT, TO THE EXTENT THE SAME DOES NOT MEET WITH RADONAWAY'S WARRANTY AS PROVIDED ABOVE.

For service under this Warranty, contact RadonAway for a Return Material Authorization (RMA) number and shipping information. No returns can be accepted without an RMA. If factory return is required, the customer assumes all shipping cost to and from factory.

RadonAway
3 Sober Way
Ward Hill, MA 01835
TEL (978) 521-3703
FAX (978) 521-3964

Record the following information for your records:

Purchase Date

Installation Date

2/21/2017

(103 Rev.B)



Midwest Headquarters | 2631 Eaton Rapids Road | Lansing, MI 48911
RADON REDUCTION SPECIALIST 1-800-NO-RADON
(800) 667-2366 / Fax: (800) 207-5685

JOB NUMBER: 510836 ADDRESS: 145 E Sunset Dr, Waukesha, WI 53189

LIMITED COMPONENT/PERFORMANCE WARRANTY

MATERIALS

All materials are guaranteed to be as specified, and all work is to be completed in a professional manner according to the standard practices of the ASTM and applicable state requirements.

SYSTEM COMPONENTS

Fan and assisted installation are warranted by the manufacturer for five years from the date of completion to function as intended and is covered by the following limitations and conditions:

1. Warranty does not cover any system component or performance specification that has been damaged or whose performance has been compromised by natural hazards or any modifications, alterations, additions or mistreatment.
2. Repair and/or replacement of defective components will be performed to maintain system operation and integrity in order to maintain limited performance warranty specifications during the specified component warranted period. Fan is covered by the manufacturer five-year warranty only. A labor charge for removal and reinstallation of the warranted fan applies.
3. If a sump pump was replaced, it was an at-cost convenience for the homeowner and is covered ONLY by the sump pump manufacturer's warranty and is NOT part of the radon reduction system.

PERFORMANCE

A standard radon mitigation system is designed to achieve radon levels "As Low as Reasonably Achievable" (the ALARA principle) using a single suction point and standard radon fan. In some cases, upgrades to the system can improve performance and further reduce radon levels within the home. The current US EPA Action Level for radon is 4.0 pCi/l. The World Health Organization recommends taking action at 2.7 pCi/l. The homeowner can choose which guideline to accept but should keep in mind that there may be additional costs and compromises associated with installing a system that achieves extraordinary results. If the homeowner, at any point after the installation of the radon mitigation system, is unsatisfied with the radon levels and desires to have the radon levels further reduced, SWAT Environmental will make modifications to the system under the following conditions:

1. Defects in workmanship related to the installation of the radon mitigation system will be repaired by SWAT Environmental - at no cost to the homeowner. This is a LIFETIME guarantee, transferable upon sale of the home.
2. Adequate post-mitigation radon testing must be performed by the homeowner to confirm the actual post-mitigation (long-term) radon levels before any service/repair work will be performed.
 - A. If it is determined that radon levels are elevated after installation of the radon mitigation system, SWAT Environmental will supply, at its discretion, radon test kit(s) for the homeowner to perform in proper intervals to verify the long-term (annual) average radon levels in the home with the radon mitigation system operating. Warranty is null and void if homeowner refuses to conduct the verification testing that SWAT Environmental prescribes as necessary to confirm that a problem with the system exists.
 - B. All radon test results, warranty, and paid receipt shall be supplied to SWAT Environmental by the homeowner upon requesting service/maintenance of radon mitigation system.
3. In some cases, larger/stronger suction fan(s) are necessary to achieve desired radon reduction. Homeowner agrees to accept any compromise in audibility (noise) that may be associated with the system. This includes, but is not limited to the sound of air discharge from the system and humming/buzzing sounds generated by the fan motor.
4. In some cases, additional suction point(s) (pipe penetration(s) into slab) are necessary to achieve desired radon reduction. Homeowner agrees to accept any compromise in aesthetic (appearance) of the system and its effect on the home.
 - A. Homeowner agrees to fix, patch, or replace finished areas of the home that are affected by the installation of suction pipes for the radon mitigation system. This includes, but is not limited to carpet, drywall, paneling, siding, brick, roofing, doors, windows, tile, or any other flooring or building materials.
 - B. Homeowner is responsible for the cost of enclosing and/or insulating the piping and components of the radon mitigation system for the purposes of aesthetics, noise reduction, or to prevent condensation or freeze-up issues.
5. If system fails to perform properly due to a defect in workmanship or improper installation, SWAT Environmental will make necessary repairs at its expense to correct the problem. If the system fails to meet and/or maintain the level of radon reduction desired by the homeowner for reasons outside of our control, homeowner is responsible for material and labor costs that are necessary to achieve the objective. In all situations where homeowner requests modifications to the system above and beyond the standard (original) radon mitigation system, a SWAT Environmental technician will determine whether or not the system malfunction was caused by faulty workmanship or improper installation. In most cases, when elevated radon levels occur in a home and a properly-installed, standard radon mitigation system is inadequate, an additional suction point and upgraded fan achieves the desired result. These upgrades can be done at the homeowner's expense at any time during or after installation of the standard radon system (subject to conditions of the "Performance" portion of this agreement.)
6. The homeowner is responsible for the cost of diagnosing and repairing cracks or other faults, sub-slab openings or floor drains that did not exist or were hidden from view prior to or during the radon reduction system installation.
7. Maintenance of the radon reduction system is the responsibility of the homeowner and future homeowner beyond the five year limited component warranty. If sealant/caulk fails at any time after the installation of the radon system, homeowner is responsible for re-sealing, caulking, or touch ups on the affected area(s). Homeowner is also responsible for the cost of re-sealing/reconstructing sump seal if affected during maintenance or replacement of sump pump.

LIQUIDATED DAMAGES

If at any point after installation of the radon mitigation system, SWAT Environmental finds that they are unable to mitigate the home to radon levels that are 1) acceptable to the homeowner and 2) as low as reasonably achievable based on the conditions of the home and site, homeowner agrees to accept a refund of the full purchase price less SWAT Environmental material and labor investment (which on average is forty to sixty percent of the price paid for the system.) Homeowner agrees to accept said refund and release SWAT Environmental from any further obligation/liability related to the installation of the system in the event that SWAT Environmental finds it necessary to liquidate damages for the project.

EXCLUSIONS

Homeowner agrees to accept all compromises that exist as a result of installation of the radon mitigation system. This includes, but is not limited to: audibility (noise), aesthetics (appearance of the system and its components,) condensation accumulation on or around piping, system location, and impact on energy efficiency. ANY MODIFICATIONS TO THE SYSTEM THAT ARE REQUESTED BY THE HOMEOWNER TO ALLEVIATE ANY OF THESE CONDITIONS WILL BE SUBJECT TO MATERIAL AND LABOR CHARGES. All mitigation systems and components, once installed, are permanent fixtures of the home. Relocation, under any circumstance listed here in the warranty or otherwise, will be at the homeowner's expense.

PAYMENT TERMS

All payments for work performed are to be made upon immediate completion of said work. Late fees and 1.5% interest apply 30 days after the invoice due date. Any and all discounts that may have been given at the time of scheduling the installation of the radon mitigation system will be rescinded shall payment not be made upon the immediate completion of said work. Homeowner agrees to pay all costs of collection, attorney, and lien fees that are incurred by SWAT Environmental for collection of unpaid balances. Homeowner also understands and agrees that a mechanic and/or contractor lien may be placed against the home's title for any unpaid balances for work completed. Both parties agree that any mediation or litigation that results from any dispute related to this transaction will be handled within and subject to contractual laws of the state in which the contractor resides. Homeowner agrees if additional services are conducted and payment is not received immediately upon completion, SWAT Environmental reserves the right to charge a previous credit card on file if no other form of payment is given by the due date. A fee of \$25.00 per returned check will be added to the amount due for work conducted by SWAT Environmental technicians and/or contractors.

LIABILITY

No level of radon concentration (other than zero) can be considered "safe". SWAT Environmental has a responsibility and liability under this warranty limited to modification and/or replacement of the abatement system subject to the terms and conditions of this agreement. SWAT Environmental and its employees and sub-contractors shall not be held liable for incidental or consequential damages resulting from or in any way connected with any failure of said system to meet the component and/or performance warranted specifications. Homeowner agrees that under no circumstances shall SWAT Environmental liability exceed the amount paid by the homeowner for the services less SWAT Environmental cost of materials & labor.

FLOODING/WATER DAMAGE/SUMP PUMP

Homeowner agrees to release SWAT Environmental from any and all liability related to flooding, water damage, or moisture problems that occur at any point after the installation of the radon mitigation system. If there is a sump basin and/or a sump pump in the home, it is up to the homeowner to make sure that the sump pump is functioning properly at all times. Furthermore, the homeowner agrees to accept all responsibility and liability for any flooding, water damage, and/or moisture issues that occur at any point after the installation of our system regardless of the cause. This includes, but is not limited to damages caused by malfunction of the sump pump, failure of sump pump to activate, or water leakage within the plumbing system. _____ (Initial).

SWAT ENVIRONMENTAL MAKES NO WARRANTIES, EXPRESSED OR IMPLIED, OTHER THAN THOSE LISTED ABOVE. This limited warranty is automatically transferred with title to the property.
ALL WARRANTIES & GUARANTEES ARE VOID UNTIL RADON MITIGATION SERVICES ARE PAID IN FULL.

Scher Properties
SIGNATURE OF HOMEOWNER

02/28/2017
DATE

George Booth
AUTHORIZED SIGNATURE

02/27/2017
DATE

I HAVE READ AND UNDERSTAND THE PROVISIONS OF THIS WARRANTY. I RECOGNIZE THAT THE CHARGE FOR THE INSTALLATION IS BASED, IN PART, ON MY ACCEPTANCE OF THE TERMS OF THIS LIMITED WARRANTY.