

February 5, 2016

Mr. Mark Detterman
Alameda County LOP
1131 Harbor Bay Pkwy.
Alameda, California 94502

Re: Indoor Air Sampling Work Plan (Report #5023)
Four Seasons Cleaners
13778 Doolittle Ave., San Leandro, California

Dear Mr. Detterman:

At the request of Mr. Ernest Lee, WellTest, Inc. (WTI) has prepared this *Indoor Air Sampling Work Plan* for the above-referenced solvent release case (Figures 1 through 3). On January 14, 2016, WTI prepared an initial *Soil Vapor and Indoor Air Investigation Report* for the site. The results of that investigation, in part, identified significant halogenated volatile organic compound (HVOC) contamination in soil, groundwater, and especially soil gas and indoor air resulting from current and/or historical dry cleaning operations at the site. Based upon these results, it appears possible that indoor air in the tenant spaces immediately adjoining the dry cleaner unit have also been impacted by HVOCs. To assess these impacts, and their potential threat to human health (if any), WTI, herein, presents a series of proposed tasks to sample the indoor air in the commercial units immediately adjoining the Four Seasons dry cleaner.

Site Description

The site is located in a mixed commercial and residential area of San Leandro, California. The site parcel is approximately 5.05 acres and is improved with a multi-tenant strip mall and separate restaurant building. The dry cleaning unit is located within the strip mall and is associated with 13778 Doolittle Drive. The site lies at an elevation of approximately 15 feet above sea level and is relatively flat. The property is bounded by Doolittle Drive west, Fairway Drive to the north, Catalina Drive to the east and a commercial property to the south. A Site Vicinity Map is included in Figure 1 and an Aerial Photograph of the site area is included as Figure 2. Additional historical sampling data is provided in Tables 1 through 4.

Proposed Work

WTI, in general, proposes to collect indoor air samples from each of the units immediately adjoining the onsite dry cleaner. The adjoining units include a dentist office, a deli/restaurant, a vacant commercial unit, and a Chinese restaurant. The following proposed tasks will be completed to accomplish the objectives of this Work Plan:

- Task 1** **Project Setup and Management.** Work performed under Task 1 includes all client and agency contact tasks to obtain Work Plan approval, access agreements (if any), and scheduling all field activities.
- Task 2** **Tenant Notifications.** Prior to conducting indoor air sampling activities, WTI will conduct an Indoor Air Building Survey of the tenant spaces. Presampling instructions for the occupants as well as a VOC Fact Sheet will also be distributed to the tenants at this time. Copies of the Air Building Survey and VOC Fact Sheet are included in Attachment A.
- Task 3** **Indoor Air Sampling Procedures.** The indoor air sampling event will be completed in general accordance with the DTSC’s April 2012 *Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air* and the RWQCB’s October 2014 *Interim Framework for Assessment of Vapor Intrusion at TCE-Contaminated Site in the San Francisco Bay Region*. A minimum of five indoor air samples (IND-3 through IND-7) will be collected. If any unit has a HVAC system, a second sample will be collected with the HVAC system on during the duration of the 24-hour sample collection period. The proposed sample locations are shown on Figure 3. Each sample will be collected using an evacuated SUMA[®] canister (6-L) equipped with a 24-hour flow regulator. Each canister will be placed within the breathing zone (approximately 3 to 5 feet above ground surface) and care will be taken to deploy the canisters away from the direct influence of any forced air emanating from air conditioners, furnaces, or heaters. The canister vacuum will be measured using an integrated vacuum gauge immediately prior to and following the 24-hour sampling period. At the end of the sample period the canister valve will be fully closed and the time recorded. Additional data, including: outside and interior temperatures, equipment serial numbers, sampler name, and other comments will also be recorded.
- Task 4** **Laboratory Analyses – Indoor Air Samples.** The air samples will be analyzed at a California State-certified laboratory for VOCs (including PCE) by Test Method TO-15.
- Task 5** **Technical Report.** Following receipt of the laboratory analytical data, WTI will prepare and submit an Indoor Air Sampling Report. The report will contain the appropriate conclusions and recommendations and will be signed by a State of California Professional Geologist.

Timeline

The following is an estimated timeline to complete the tasks outlined within this Work Plan:

- Task 1 – Will be completed within two (1) week of regulatory approval of this Work Plan.
Task 2 – Will take place pending completion of Task 1.
Task 3 – Will be completed within two (1) week of completion of Task 1.
Task 4 – Will be completed by the analytical laboratory within one week of Task 1.
Task 5 – Will be prepared within one week of receipt of the analytical data (Task 4).

Certification, Distribution, and Limitations

To the best of our knowledge, all statements made in this Work Plan are true and correct. This Work Plan is based on data provided by the client and others, site conditions observed, samples collected and analytical data. No warranty whatsoever is made that this Work Plan addresses all contamination found on the site. If you have any questions or comments, please contact WELLTEST at (408) 287-2175.

Sincerely,
WELLTEST, INC.



Forrest N. Cook
California Professional Geologist #8201 (exp 9/16)

List of Tables, Figures, and Attachments

- Table 1 Summary of Historical Soil Vapor Analytical Data
- Table 2 Summary of Historical Indoor and Outdoor Air Analytical Data
- Table 3 Summary of Historical Soil Analytical Data
- Table 4 Summary of Historical Groundwater Analytical Data

- Figure 1 Site Vicinity Map
- Figure 2 Extended Site Map Showing Borings DP-1 through DP-8
- Figure 3 Detailed Site Map Showing Proposed and Historical Sampling Locations

- Attachment A Indoor Air Survey and VOC Fact Sheets

Distribution List

Mr. Ernest Lee
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3271 S. Highland Dr., Ste. #704
Las Vegas, NV 89109

Mr. Mark Detterman
Alameda County LOP
1131 Harbor Bay Pkwy.
Alameda, California 94502

Limitations

WELLTEST is a California-licensed Class C specialty contractor (C-57 #843074). Proposed contracting work to be performed by WELLTEST exceeding \$500 in labor and materials as outlined in this work plan, will be limited to the following specialty and limited-specialty contracting services consistent with the scope of our license to contract.

This report is intended only for the use of WELLTEST's client and those listed in the distribution section of the report. WELLTEST does not accept liability for unauthorized reliance or use by any other third party. WELLTEST makes no expressed or implied warranty in regards to the contents of this report.

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List of Acronyms

Bgs	below ground surface
BTEX	Benzene, Toluene, Ethylbenzene, Xylenes
btoc	Below top of casing
1,2-DCA	1,2-Dichloroethane
DHS	State of California Department of Health Services
DO	Dissolved oxygen
DTW	Depth to water
DWR	Department of Water Resources
DIPE	Di-isopropyl ether
ELAP	Environmental Laboratory Accreditation Program
EC	Electrical conductivity
EDB	1,2-dibromoethane
ETBE	Ethyl tert butyl ether
Eth	Ethanol
ft	foot or feet
ft/ft	feet per feet
FTU	Field Turbidity Unit
GW	Groundwater
MCL	Maximum Contaminant Level
Meth	Methanol
MSL	Mean Sea Level
MTBE	Methyl-t-butyl-ether
mg/L	milligram per liter
mV	millivolts
MW	Monitoring Well
NGVD	National Geodetic Vertical Datum of 1929
NA	Not Analyzed
NM	Not Measured
ORP	Oxidation reduction potential
P.G.	Professional Geologist
ppmv	parts per million by volume
QA/QC	Quality Assurance/Quality Control
SCCDEH	Santa Clara County Department of Environmental Health
SCVWD	Santa Clara Valley Water District
TAME	Tert amyl methyl ether
TBA	Tert butyl alcohol
TDS	Total dissolved solids
TOC	Top of casing
TPHg	Gasoline range (C6-C12) Volatile hydrocarbons as gasoline
ug/L	micrograms per liter
uS	micro Siemens
UST	Underground storage tank
VOC	Volatile Organic Compound
WELLTEST	WellTest, Inc.
°F - °C	degrees Fahrenheit - degrees Celsius

TABLES

TABLE 1
SUMMARY OF HISTORICAL SOIL VAPOR ANALYTICAL DATA
13778 DOOLITTLE DRIVE, SAN LEANDRO, CA

Sample ID	Sample Depth (ft)	Sample Date	B ($\mu\text{g}/\text{m}^3$)	T ($\mu\text{g}/\text{m}^3$)	E ($\mu\text{g}/\text{m}^3$)	o-Xyl ($\mu\text{g}/\text{m}^3$)	p&m-Xyl ($\mu\text{g}/\text{m}^3$)	PCE ($\mu\text{g}/\text{m}^3$)	TCE ($\mu\text{g}/\text{m}^3$)	cis-1,2DCE ($\mu\text{g}/\text{m}^3$)	VC ($\mu\text{g}/\text{m}^3$)	IPA ($\mu\text{g}/\text{m}^3$)
S1 Air	0.5	08/10/14	ND	ND	ND	ND	ND	63,000	890	ND<320	ND<210	NA
S2 Air	0.5	08/10/14	ND	ND	ND	ND	ND	240,000	16,000	ND<960	ND<620	NA
S3 Air	0.5	08/10/14	ND	ND	ND	ND	ND	4,500,000	92,000	ND<20,000	ND<13,000	NA
SG-1A	5.0	10/30/15	590	1,800	ND<43	ND<38	ND<94	20,000,000	810,000	170,000	ND<75	3,900
SG-2A	5.0	10/30/15	ND<67	ND<51	ND<45	ND<40	ND<98	1,300,000	180,000	50,000	ND<78	ND<75
VP-1	subslab	10/30/15	ND<69	ND<52	ND<46	ND<41	ND<100	2,900,000	140,000	18,000	ND<80	ND<77
VP-2	subslab	10/30/15	ND<63	ND<48	ND<42	ND<38	ND<92	180,000	12,000	220	ND<74	370,000
VP-3	subslab	10/30/15	ND<63	ND<48	ND<42	ND<38	ND<92	470,000	5,400	ND<58	ND<74	ND<71
VP-4	subslab	10/30/15	ND<56	ND<43	ND<38	ND<34	ND<83	160,000	7,300	200	ND<66	27,000

--- = Parameter not analyzed

<0.5 / ND = Not present at or above reporting detection limit

$\mu\text{g}/\text{m}^3$ = micrograms per cubic meter = ppmv

ESLs = Environmental Screening Levels, May 2013

CHHSL Comm/Ind. = California Human Health Screening Level, January 2005

B = Benzene

T = Toluene

E = Ethylbenzene

Xyl = Xylenes

MtBE = Methyl-t-butyl ether

PCE = Tetrachloroethene

TCE = Trichloroethene

VC = Vinyl Chloride

cis-1,2DCE = cis-1,2-Dichloroethene

IPA = Isopropyl Alcohol

TABLE 2
SUMMARY OF HISTORICAL INDOOR & OUTDOOR AIR ANALYTICAL DATA
13778 DOOLITTLE DRIVE, SAN LEANDRO, CA

Sample ID	Sample Date	B ($\mu\text{g}/\text{m}^3$)	T ($\mu\text{g}/\text{m}^3$)	E ($\mu\text{g}/\text{m}^3$)	o-Xyl ($\mu\text{g}/\text{m}^3$)	p&m-Xyl ($\mu\text{g}/\text{m}^3$)	PCE ($\mu\text{g}/\text{m}^3$)	TCE ($\mu\text{g}/\text{m}^3$)	cis-1,2DCE ($\mu\text{g}/\text{m}^3$)	VC ($\mu\text{g}/\text{m}^3$)	IPA ($\mu\text{g}/\text{m}^3$)
OUT-1	10/30/15	ND<11	ND<8.6	ND<7.6	ND<6.7	ND<17	1,500	32	ND<10	ND<13	ND<13
IND-1	10/30/15	ND<13	ND<10	ND<6.9	ND<7.9	ND<19	220	ND<22	ND<12	ND<15	ND<15
IND-2	10/30/15	ND<12	ND<9.2	ND<8.1	ND<7.2	ND<18	18,000	240	49	ND<14	ND<14
ESLs Comm/Ind.		0.42	1,300	4.9	440		2.1	3.0	NA	0.16	NA

--- = Parameter not analyzed
 <0.5 / ND = Not present at or above reporting detection limit
 $\mu\text{g}/\text{m}^3$ = micrograms per cubic meter = ppmv
 ESLs = Environmental Screening Levels, May 2013

B = Benzene
 T = Toluene
 E = Ethylbenzene
 Xyl = Xylenes
 MtBE = Methyl-t-butyl ether

PCE = Tetrachloroethene
 TCE = Trichloroethene
 VC = Vinyl Chloride
 cis-1,2DCE = cis-1,2-Dichloroethene
 IPA = Isopropyl Alcohol

TABLE 3
SUMMARY OF HISTORICAL SOIL ANALYTICAL DATA
13778 DOOLITTLE DRIVE, SAN LEANDRO, CA

Sample ID	Sample Depth (ft)	Sample Date	TPHd (mg/Kg)	B (mg/Kg)	T (mg/Kg)	E (mg/Kg)	o-Xyl (mg/Kg)	p&m-Xyl (mg/Kg)	PCE (mg/Kg)	TCE (mg/Kg)	cis-1,2DCE (mg/Kg)	VC (mg/Kg)	Other VOCs (mg/Kg)
S1 d 0.5'	0.5	08/10/14	3.2	ND	ND	ND	ND	ND	0.056	ND	ND	ND	All ND
S2 d 0.5'	0.5	08/10/14	2.6	ND	ND	ND	ND	ND	0.045	ND	ND	ND	All ND
S3 d 0.5'	0.5	08/10/14	2.1	ND	ND	ND	ND	ND	0.1	ND	ND	ND	All ND
S3 d 2'	2.0	08/10/14	ND<1.0	ND	ND	ND	ND	ND	20	ND	ND	ND	All ND
S3 d 5'	5.0	08/10/14	ND<1.0	ND	ND	ND	ND	ND	2.4	ND	ND	ND	All ND
DP-1d15.0	15.0	02/18/15	---	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	All ND
DP-2d14.5	14.5	02/18/15	---	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	All ND
DP-3d14.0	14.0	02/18/15	---	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	All ND
DP-4d14.5	14.5	02/18/15	---	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	All ND
DP-5d8.0	8.0	02/18/15	---	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	All ND
DP-6d15.0	15.0	02/18/15	---	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	All ND
DP-7d15.0	15.0	02/18/15	---	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	All ND
DP-8d15.0	15.0	02/18/15	---	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	All ND
SG-1Ad2.0	2.0	10/13/15	---	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	65	0.32	0.13	ND<0.005	All ND
SG-1Ad5.0	5.0	10/13/15	---	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	18	0.24	0.13	ND<0.005	All ND
SG-2Ad2.0	2.0	10/13/15	---	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	1.9	0.07	0.0021	ND<0.005	All ND
SG-2Ad5.0	5.0	10/13/15	---	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	0.37	0.046	0.02	ND<0.005	All ND
SG-1Bd2.0	2.0	10/13/15	---	ND<0.005	0.0015	ND<0.005	ND<0.005	ND<0.005	160	1.2	0.14	ND<0.005	All ND
SG-1Bd5.0	5.0	10/13/15	---	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	40	0.26	0.11	ND<0.005	All ND
SG-1Bd7.0	7.0	10/13/15	---	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	2.2	0.2	0.15	ND<0.005	All ND
SG-2Bd2.0	2.0	10/13/15	---	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	0.77	0.029	ND<0.005	ND<0.005	All ND
SG-2Bd5.0	5.0	10/13/15	---	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	0.25	0.014	0.0045	ND<0.005	All ND
SG-2Bd8.5	8.5	10/13/15	---	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	0.16	0.024	0.018	ND<0.005	All ND
ESLs Comm/Ind.			500	0.044	2.9	3.3	2.3	0.7	0.46	0.19	0.032	varies	

--- = Parameter not analyzed

<0.5 / ND = Not present at or above reporting detection limit

mg/Kg = milligrams per kilogram = ppm

ESLs = Environmental Screening Levels, May 2013

B = Benzene

MtBE = Methyl-t-butyl ether

T = Toluene

E = Ethylbenzene

Xyl = Xylenes

PCE = Tetrachloroethene

TCE = Trichloroethene

VC = Vinyl Chloride

cis-1,2DCE = cis-1,2-Dichloroethene

**TABLE 4
SUMMARY OF HISTORICAL GROUNDWATER ANALYTICAL DATA
13778 DOOLITTLE DRIVE, SAN LEANDRO, CA**

Sample ID	Sample Date	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MtBE (µg/L)	PCE (µg/L)	TCE (µg/L)	cis- 1,2DCE (µg/L)	trans- 1,2DCE (µg/L)	VC (µg/L)	Other VOCs (µg/L)
S-3*	08/10/14	---	---	---	---	---	750	51	7.6	ND<7.1	ND<7.1	All ND
DP-1	02/18/15	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	All ND
DP-2	02/18/15	ND<0.50	ND<0.50	ND<0.50	ND<1.0	0.55	ND<0.50	0.69	ND<0.50	ND<0.50	ND<0.50	All ND
DP-3	02/18/15	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<0.50	160	35	6.6	ND<0.50	ND<0.50	All ND
DP-4	02/18/15	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<0.50	12,000	2,100	610	11	ND<0.50	All ND
DP-5	02/18/15	ND<0.50	ND<0.50	ND<0.50	ND<1.0	0.61	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	All ND
DP-6	02/18/15	ND<0.50	ND<0.50	ND<0.50	ND<1.0	1.6	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	All ND
DP-7	02/18/15	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<0.50	ND<0.50	0.77	ND<0.50	ND<0.50	ND<0.50	All ND
DP-8	02/18/15	ND<0.50	ND<0.50	ND<0.50	ND<1.0	0.84	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	All ND
SG-1B	10/13/15	0.18	0.38	ND<0.50	ND<1.0	ND<0.50	2,200	130	88	4.3	ND<0.50	All ND ¹
SG-2B	10/13/15	0.43	0.15	ND<0.50	ND<1.0	ND<0.50	1,500	480	280	22	0.34	All ND ²
ESLs Comm/Ind.		1.0	40.0	30.0	20.0	5.0	5.0	5.0	6.0	10.0	0.5	varies

--- = Parameter not analyzed

<0.5 / ND = Not present at or above reporting detection limit

mg/Kg = milligrams per kilogram = ppm

ESLs = Environmental Screening Levels, May 2013

B = Benzene MtBE = Methyl-t-butyl ether PCE = Tetrachloroethene

T = Toluene TCE = Trichloroethene

E = Ethylbenzene VC = Vinyl Chloride

Xyl = Xylenes (total) cis-1,2DCE = cis-1,2-Dichloroethene

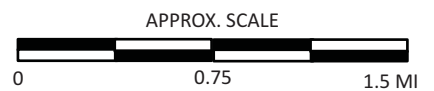
1 = chlorobenzene @ 0.25 ug/L and chloroform @ 1.2 ug/L

2 = chlorobenzene @ 0.51 ug/L and chloroform @ 0.19 ug/L

FIGURES



SOURCE: USGS 1:24,000 SCALE SERIES, SAN LEANDRO QUAD



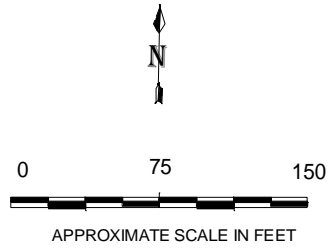
WellTest, Inc.
Contractor License No. 843074

**13778 DOOLITTLE AVE.
SAN LEANDRO, CALIFORNIA**




SITE VICINITY MAP

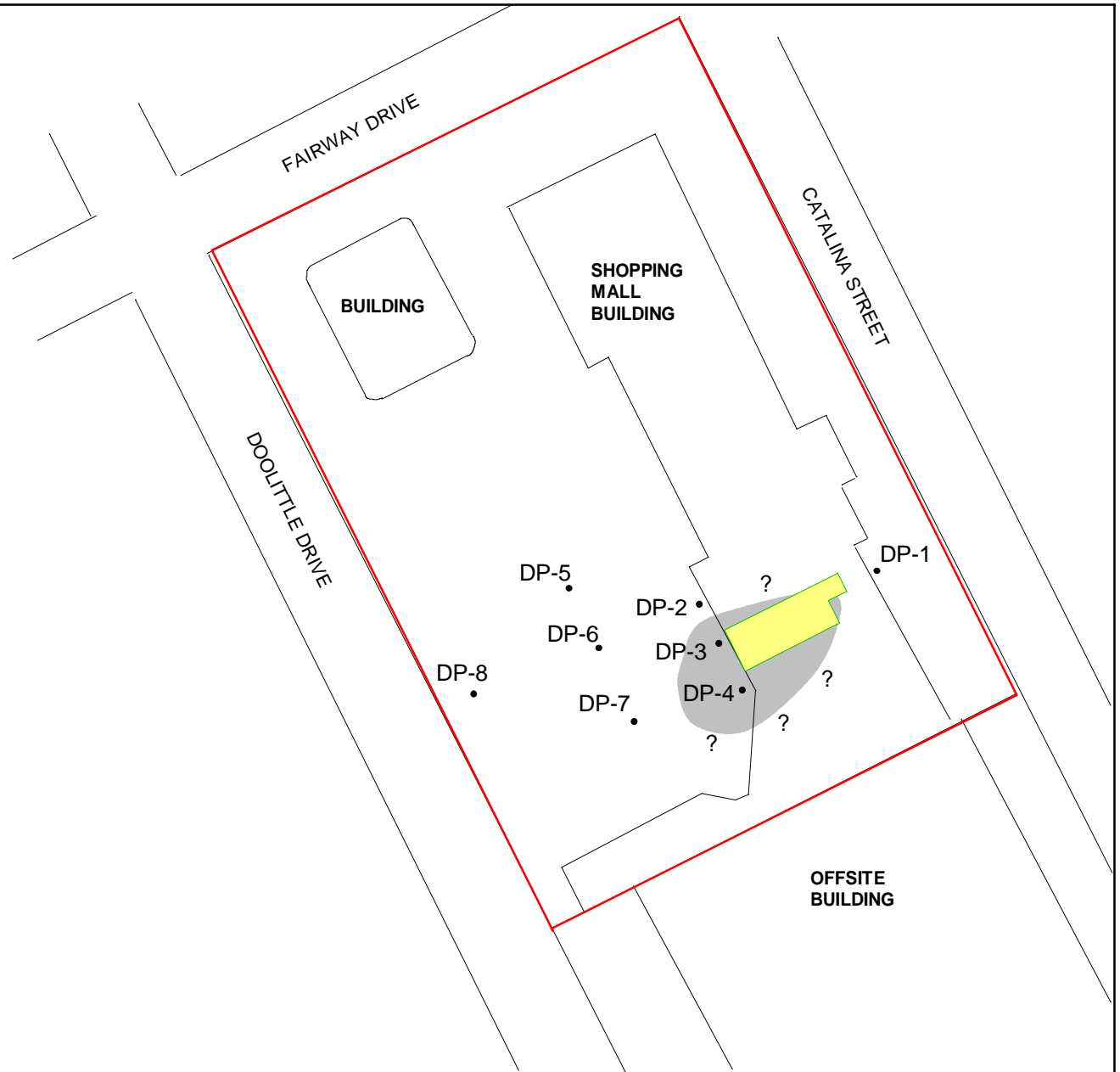
FIGURE

1



LEGEND

- DP-8 • EXPLORATORY BORING (02/18/15)
-  FOUR SEASONS CLEANERS
-  PARCEL 80G-931-1-5
-  PRELIMINARY ESTIMATE OF LATERAL EXTENT OF SHALLOW GROUNDWATER IMPACTED BY VOLATILE ORGANIC COMPOUNDS



ALL LOCATIONS ARE APPROXIMATE

WellTest, Inc.

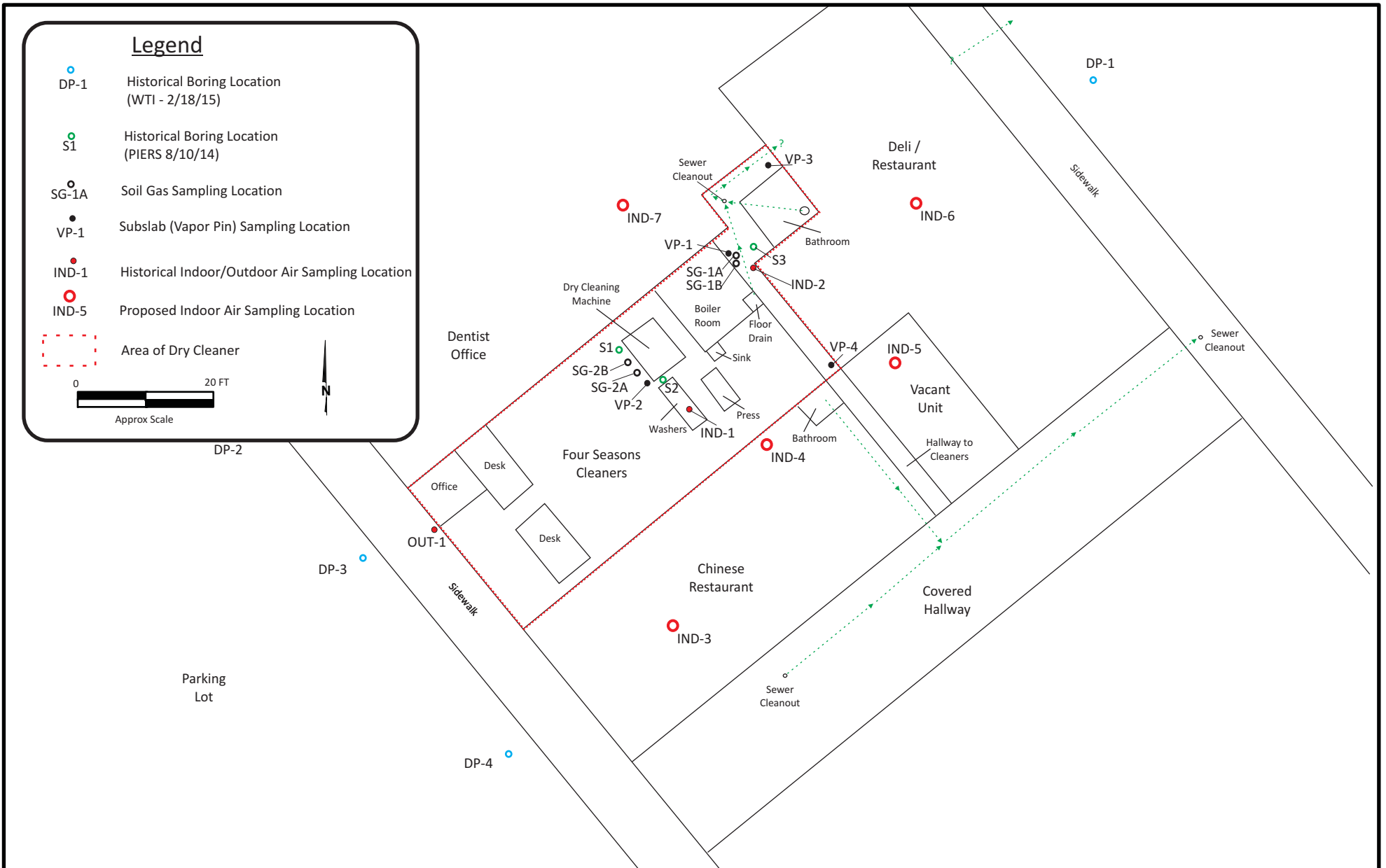
License No. 843074
 P.O. Box 8548
 San Jose, CA 95155
 Phone (408) 287-2175

EXTENDED SITE MAP SHOWING BORING DP-1 THROUGH DP-8 (02/18/15)

FOUR SEASONS CLEANERS
 13778 DOOLITTLE DRIVE
 SAN LEANDRO, CALIFORNIA

FIGURE

2



WellTest, Inc.

Lic. No. 843074

PO Box 8548

San Jose, CA 95115

Phone: (408) 287-2175

13778 DOOLITTLE DRIVE
SAN LEANDRO, CALIFORNIA

DETAILED SITE MAP SHOWING
PROPOSED AND HISTORICAL SAMPLING LOCATIONS

FIGURE

3

ATTACHMENT A

Building Survey Form and VOC Fact Sheet

INDOOR AIR BUILDING SURVEY and SAMPLING FORM

Preparer's name: _____ Date: _____

Preparer's affiliation: _____ Phone #: _____

Site Name: _____ Case #: _____

Part I - Occupants

Building Address: _____

Property Contact: _____ Owner / Renter / other: _____

Contact's Phone: home () _____ work () _____ cell () _____

of Building occupants: Children under age 13 _____ Children age 13-18 _____ Adults _____

Part II – Building Characteristics

Building type: residential / multi-family residential / office / strip mall / commercial / industrial

Describe building: _____ Year constructed: _____

Sensitive population: day care / nursing home / hospital / school / other (specify): _____

Number of floors below grade: _____ (full basement / crawl space / slab on grade)

Number of floors at or above grade: _____

Depth of basement below grade surface: _____ ft. Basement size: _____ ft²

Basement floor construction: concrete / dirt / floating / stone / other (specify): _____

Foundation walls: poured concrete / cinder blocks / stone / other (specify) _____

Basement sump present? *Yes / No* Sump pump? *Yes / No* Water in sump? *Yes / No*

Type of heating system (circle all that apply):

hot air circulation	hot air radiation	wood	steam radiation
heat pump	hot water radiation	kerosene heater	electric baseboard
other (specify): _____			

Type of ventilation system (circle all that apply):

central air conditioning	mechanical fans	bathroom ventilation fans	individual air
conditioning units	kitchen range hood fan	outside air intake	
other (specify): _____			

Type of fuel utilized (circle all that apply):

Natural gas / electric / fuel oil / wood / coal / solar / kerosene

Are the basement walls or floor sealed with waterproof paint or epoxy coatings? *Yes / No*

Is there a whole house fan? *Yes / No*

Septic system? *Yes / Yes (but not used) / No*

Irrigation/private well? *Yes / Yes (but not used) / No*

Type of ground cover outside of building: grass / concrete / asphalt / other (specify) _____

Existing subsurface depressurization (radon) system in place? *Yes / No* *active / passive*

Sub-slab vapor/moisture barrier in place? *Yes / No*
 Type of barrier: _____

Part III - Outside Contaminant Sources

Vicinity contaminated site (1000-ft. radius): _____

Other stationary sources nearby (gas stations, emission stacks, etc.): _____

Heavy vehicular traffic nearby (or other mobile sources): _____

Part IV – Indoor Contaminant Sources

Identify all potential indoor sources found in the building (including attached garages), the location of the source (floor and room), and whether the item was removed from the building 48 hours prior to indoor air sampling event. Any ventilation implemented after removal of the items should be completed at least 24 hours prior to the commencement of the indoor air sampling event.

Potential Sources	Location(s)	Removed (Yes / No / NA)
Gasoline storage cans		
Gas-powered equipment		
Kerosene storage cans		
Paints / thinners / strippers		
Cleaning solvents		
Oven cleaners		
Carpet / upholstery cleaners		
Other house cleaning products		
Moth balls		
Polishes / waxes		
Insecticides		
Furniture / floor polish		
Nail polish / polish remover		
Hairspray		
Cologne / perfume		
Air fresheners		
Fuel tank (inside building)		NA
Wood stove or fireplace		NA
New furniture / upholstery		
New carpeting / flooring		NA
Hobbies - glues, paints, etc.		

Part V – Miscellaneous Items

Do any occupants of the building smoke? *Yes / No* How often? _____

 Last time someone smoked in the building? _____ hours /days ago

Does the building have an attached garage directly connected to living space? *Yes / No*

 If so, is a car usually parked in the garage? *Yes / No*

 Are gas-powered equipment or cans of gasoline/fuels stored in the garage? *Yes / No*

Do the occupants of the building have their clothes dry cleaned? *Yes / No*

 If yes, how often? weekly / monthly / 3-4 times a year

Do any of the occupants use solvents in work? *Yes / No*

 If yes, what types of solvents are used? _____

 If yes, are their clothes washed at work? *Yes / No*

Have any pesticides/herbicides been applied around the building or in the yard? *Yes / No*

 If so, when and which chemicals? _____

Has there ever been a fire in the building? *Yes / No* If yes, when? _____

Has painting or staining been done in the building in the last 6 months? *Yes / No*

 If yes, when _____ and where? _____

Part VI – Sampling Information

Sample Technician: _____ Phone number: () _____ - _____

Sample Source: Indoor Air / Sub-Slab / Near Slab Soil Gas / Exterior Soil Gas

Sampler Type: Tedlar bag / Sorbent / Stainless Steel Canister / Other (specify): _____

Analytical Method: TO-15 / TO-17 / other: _____ Cert. Laboratory: _____

Sample locations (floor, room):

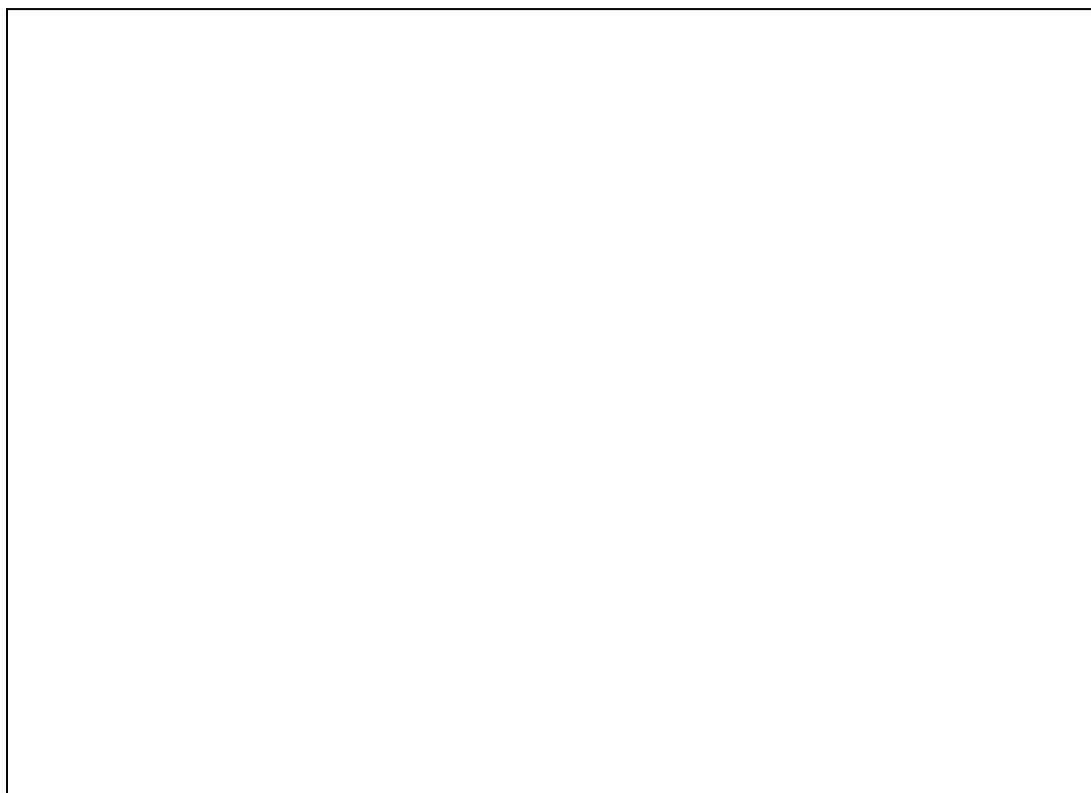
Field ID # _____ - _____ Field ID # _____ - _____

Field ID # _____ - _____ Field ID # _____ - _____

Were “Instructions for Occupants” followed? *Yes / No*

If not, describe modifications: _____

Provide Drawing of Sample Location(s) in Building



Part VII - Meteorological Conditions

Was there significant precipitation within 12 hours prior to (or during) the sampling event? *Yes / No*

Describe the general weather conditions: _____

Part VIII – General Observations

Provide any information that may be pertinent to the sampling event and may assist in the data interpretation process.

(NJDEP 1997; NHDES 1998; VDOH 1993; MassDEP 2002; NYSDOH 2005; CalEPA 2005)

VOLATILE ORGANIC COMPOUNDS (VOCs) IN COMMONLY USED PRODUCTS

Many of the products that we use in our businesses and households contain certain kinds of chemical that enter the air as gases very easily. Known as volatile organic compounds or VOCs, they are ingredients in commonly used products. Because of their widespread use, VOCs can be found in the air in just about any indoor setting.

Examples of Products	Possible VOC Ingredients
Personal care products such as nail polish, nail polish remover, perfumes, hair spray	Acetone, ethyl alcohol, isopropyl alcohol, methacrylates, ethyl acetate
Dry cleaned clothes, spot removers, fabric cleaners, leather cleaners	Tetrachloroethene (perchloroethene (PERC)) Trichloroethene (TCE)
Aerosol spray products	Heptane, butane, pentane
Deodorizers, air fresheners	Naphthalene, 1,4-dichlorobenzene
Upholstered furniture, carpets, plywood, pressed wood products	Formaldehyde
Refrigerant from air conditioners, freezers, refrigerators, dehumidifiers	Freons (trichlorofluoromethane, dichlorofluoromethane)
Moth balls, moth flakes	Naphthalene, 1,4-dichlorobenzene
Fuels and products containing fuel and petroleum distillates. Examples include kerosene, gasoline, furniture polish, oilbased paints, paint thinner, insect pest products	Benzene, toluene, ethylbenzene, xylene, hexane, cyclohexane, 1,2,4-trimethylbenzene
Paint stripper and adhesive removers	Methylene chloride, toluene, carbon tetrachloride
PVC cement and primer, adhesives, contact cement, model cement	Tetrahydrofuran, cyclohexane, methyl ethyl ketone, toluene, acetone, hexane, 1,1,1-trichloroethane, methyl-iso-butyl ketone
Degreasers, brake cleaner, carburetor cleaner, gun cleaner, electronics cleaners, spray lubricants, commercial solvents	Methylene chloride, PERC, TCE, toluene, xylenes, methyl ethyl ketone, 1,1,1-trichloroethane

How can I reduce the levels of VOCs indoors?

- Find out which products used or stored in your home contain VOCs.
- Store products containing VOCs in tightly sealed, original containers in secure, well-ventilated areas.
- Store the products in an area where people do not spend much time, such as the garage or an outdoor shed.
- Buy these products in amounts that are used quickly.
- Safely dispose of unneeded products containing VOCs, such as through a special household hazardous waste collection program in your area.
- Use products containing VOCs in well ventilated areas or outdoors.
- Increase ventilation by opening windows and doors or using an exhaust fan.
- Carefully read labels and follow direction for use.

Where can I find out more?

- DTSC's website for information about the household hazardous waste program
<http://www.dtsc.ca.gov/HazardousWaste/UniversalWaste/HHW.cfm>
- The Inside Story: A Guide to Indoor Air Quality
<http://www.epa.gov/iaq/pubs/insidest.html>
- National Institute of Health's website for information about chemicals found in many household products.
<http://hpd.nlm.nih.gov/products.htm>



SAMPLE COLLECTION INSTRUCTIONS - INDOOR AIR SAMPLING EVENTS

Shortly, representatives from the WellTest, Inc. (WTI) will be collecting indoor air samples from your business. In order to make sure that we have the best possible data quality, we ask you to follow these instructions.

Before Sampling

We ask you to remove sources of Volatile Organic Compounds (VOCs) from within the business before the indoor air sampling. Sources of VOCs can be identified based on experience and also by use of special instruments. The following household items may contribute VOCs and should be checked, and if necessary removed, prior to indoor air sampling:

- Cleaning products
- Glues and solvents
- Lighter fluid
- Pesticides
- Paints and varnishes
- Fuel or gasoline
- Items with a pressurized spray bottle
- Freshly dry-cleaned clothes
- Products with fragrance or an odor

In general, any of these named products should be removed prior to sampling. Also, with your approval, we can use a special instrument to check for other products that are contributing VOCs. It should be noted that many common items found in the home or business contribute VOCs to the air and most of them are not harmful in any way.

Items removed from the business should be safely stored until indoor air sampling is completed. Often, you can temporarily store items in a detached storage area during indoor air sampling. An alternative, less preferred option, is to store removed items in a large container with tight-fitting lid.

During Sampling

On the day of the sampling, we will arrive to drop off the indoor air sampling canister at a pre-arranged time. The indoor air sampling canister will be calibrated to take a continuous air sample over the course of several hours (commonly 24 hours). The canister does not require any power or batteries. WTI staff will recommend a suitable location for the canister. Once the canister has been located and sampling begins, it is important not to touch or to interfere with it. WTI recommends that you try to forget that it is in your business. You should explain what the device is to all employees and convey these instructions to them. The goal of the indoor air sampling is to measure the concentration of VOCs in your business under normal conditions. Therefore, during sampling, you should continue with your regular routine. However, it is important to understand that certain activities will have an impact on the concentration of VOCs in the air. For example, opening windows and external doors for an extended period will generally decrease the

February 5, 2016

Mr. Mark Detterman
Alameda County LOP
1131 Harbor Bay Pkwy.
Alameda, California 94502

Re: Indoor Air Sampling Work Plan (Report #5023)
Four Seasons Cleaners; Cleanup Program # RO0003155
13778 Doolittle Ave., San Leandro, California

Dear Mr. Detterman:

Attached for your review is a technical report (Indoor Air Sampling Work Plan) for the above-referenced case. The report was prepared by WellTest, Inc. at my request.

I declare under the penalty of perjury that information and/or recommendations contained in the attached report are true and correct, to the best of my knowledge.

If you should have any questions or comments, please do not hesitate to contact me, or the WellTest project manager, Bill Dugan at (408) 287-2175.

Sincerely,



Mr. Ernest Lee
Marina Faire Shopping Center
3271 S. Highland Dr., Ste. #704
Las Vegas, NV 89109