

# Phase II

## Limited Subsurface Investigation

Powered by  
**CREtelligent**

Project Number:  
20J27-58963A

Date Engaged:  
November 6, 2020

Report Date:  
December 4, 2020

### Engaged by:

Edgar Monroy

### Subject Site:

Commercial Property  
2286 Sunrise Blvd.  
Gold River, CA 95670

Date: December 4, 2020

Dear Edgar Monroy,

CREtelligent was contracted by you (herein referred to as "Client") to conduct a Phase II Limited Subsurface Investigation (herein referred to as "LSI") on a Commercial Property located at 2286 Sunrise Blvd., Gold River, CA 95670 (herein referred to as "subject site" or "subject site property"). CREtelligent received written authorization from Client on November 6, 2020 to perform the LSI Report. This LSI Report was performed in general accordance with established Environmental Protection Agency (EPA)/ASTM standards and the Engagement Agreement for Services Proposal 20J27-58963A executed by the Client. Exceptions to or deletions from this protocol are discussed in this report.

We appreciate your business. If you have any questions regarding the attached report, or if we can be of any further service to you, please do not hesitate to contact us at (866) 901-7201.

Sincerely,



Kara Kessler, Senior Client Success Manager  
Direct Line: (916) 836-5761  
k.kessler@CREtelligent.com

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## 1.0 PURPOSE

The purpose of this LSI was to identify the possible presence of Volatile Organic Compounds (VOCs) also referred to as chemicals of concern (COCs) related to historical dry cleaning operations with documented halogenated solvent use identified at the subject site. The information provided in this report describes the scope of work performed on the subject site and the interpretation of the data obtained during the investigation.

This LSI is not intended to define or delineate any contamination plume but rather intended to identify the possible presence of COCs and the magnitude of the potential risk to human health and the environment. This LSI is limited in scope and is not intended to satisfy the level of assessment necessary to provide remedial solutions, determine migration pathways related to a release of COCs, investigate other areas or contaminants other than those specified in the scope of work, provide complete site characterization, and/or other reporting requirements necessary meet any specific state program.

## 2.0 BACKGROUND INFORMATION

A previous Phase I Environmental Site Assessment (ESA), Project #20J27-58963 was conducted for the subject site by eScreenLogic on November 4, 2020. According to the ESA, the subject site consists of an irregular-shaped tract of land with an area totaling approximately +/- 0.65 acres. The subject site structure is a single-story, multi-tenant commercial building consisting of approximately 4,913 square feet in size with associated paved parking lots and driveways. The subject site structure was reportedly constructed in 1989 and was occupied by V-Cleaners, Lifted Smoke Shop, and Massage Angels at the time of the ESA.

The eSL ESA report concluded and cited the following environmental concerns as a Recognized Environmental Condition (REC):

***"From Section 3.3.2, Subject Site Regulatory Database Review:***

**SITE NAME:** RIVER CLEANERS, V CLEANERS, V MAX CLEANERS, VMAX CLEANERS, KIM'S PHOTO, KIM'S 1 HR PHOTO, CALIFORNIA BACK & NECK PAIN SPEC, MAX PRATICE CLINIC MGMT INC. DBA CBNPS

**ADDRESS:** 2286 Sunrise Boulevard, Suites 1, 2, and 3

**FINDINGS:** The regulatory database identified this site with the following information (the following information are summarized excerpts from the regulatory data:

The subject site was identified with a multi-tenant retail building with a dry-cleaning facility (Suite 1), 1-hour photo printing facility (Suite 2), and a chiropractor (Suite 3).

According to the available historical resources, outlined in Section 3.2.1 Historical Use of Subject Site, a dry-cleaning facility has operated on the subject site since at least 1990, the 1-hour photo lab operated from at least 1995 to 2009, and the chiropractic office operated from at least 1995 to 2009.

### Suite 1

- The regulatory database report identified the subject site as being occupied by a dry-cleaning facility from 1990 to present in Suite 1, the northernmost unit. See Figure 1.
- Additionally, dry-cleaning facilities, such as this, have been known to use hazardous materials in their daily operations (i.e. underground storage tanks, solvents for cleaning clothes, etc.).
- Solvents are carcinogenic, permeate easily through hard surfaces, and readily migrate in groundwater media.
- An active Sacramento County Hazardous Waste permit was identified for this facility.
- Additionally, HAZNET registrations from 1992 to present (no end date) for hazardous waste manifests of "solids or sludges with halogenated organic compounds  $\geq 1,000$  Mg./L" (0.28 tons in 2012; 0.08 tons in 2013; 0.20 tons in 2014).
- Dry-cleaning facilities have been known to use hazardous materials in their daily operations (i.e. aboveground or underground storage tanks, solvents for cleaning clothes, etc.). Halogenated dry cleaning agents including but not limited to PCE/TCE/Carbon Tetrachloride are persistent in the environment, do not readily degrade under aerobic conditions, and are carcinogenic – and thus a risk to human health and the environment.
- According to the attendant, who was interviewed at the time of the on-site inspection, perchloroethylene (PERC) is not presently used in V Cleaners, and has not been used since they've been the tenant (for the last 7 years, based on city directories).

At the time of the on-site inspection, Suite 1 is still being occupied by a dry-cleaning facility; however, Suites 2 and 3 are now being occupied by a Lifted Smoke & Vape Shop and Massage Angel, respectively.

Therefore, based on the above information, it is the EP's opinion that the previous use of halogenated solvents at the dry cleaner (Suite 1) represents a potential vapor intrusion concern and is considered a **REC** to the subject site at this time."

The findings of the ESA described above led to the following recommendations:

"A limited subsurface investigation (LSI) in the form of a sub-slab soil vapor sampling event is recommended to determine whether historic PERC use at the on-site dry cleaner (Suite 1) has impacted the subject site."

The recommendations identified in the ESA Report resulted in the completion of this LSI by CREtelligent. The scope of this LSI was specifically devised around the RECs identified in the ESA report related to the dry cleaners and thus limited to Suite 1. The ESA report additionally recommended the empty naphtha drums be removed from the site or clearly labeled as "EMPTY". This was not included in the scope of work of this LSI. The owner/operator is responsible for implementing these recommendations.

### 3.0 GEOLOGY AND GROUNDWATER

The subject site lies in Sacramento County within the The Greater Sacramento area. According to the ESA (eScreenLogic, 2020), geology beneath the site consists of "Quaternary alluvium and marine deposits, dating from the Pliocene to Holocene: alluvium, lake, playa, and terrace deposits; unconsolidated and semiconsolidated. Mostly nonmarine, but includes marine deposits near the coast" mapped as "Q". The subject site reportedly lies approximately 99-feet above mean sea level with regional topography sloping toward the north-northwest. The closest water body is identified as Buffalo Creek which reportedly lies approximately 615 feet east of the subject site at its closest point. Site-specific groundwater depth and gradient were not determined during this investigation; however, a review of a Q2, 1999 monitoring event during the previous ESA for the east adjacent property identified groundwater about 60-feet below ground surface (BGS). According to a Case Closure Summary for 2295 Sunrise Blvd. groundwater flow was identified to the west.

### 4.0 PRE-FIELD WORK

Since this LSI involved sub-slab soil vapor sampling with no additional depth needed below the existing concrete slab, no utility clearance or Underground Service Alert (USA North) were required as part of this investigation.

### 5.0 HEALTH AND SAFETY PLAN

A site-specific Health and Safety Plan was not required as part of this LSI; however, CREtelligent utilizes Occupational Health and Safety protocol under Hazardous Waste Operations & Emergency Response 29 CFR 1910.120 when performing LSIs. This protocol is designed to reduce the risk of physical or chemical exposures that may affect on-site workers within the work area. The Health and Safety protocols include information about anticipated COCs on the subject property, health and safety procedures for working on-site, and emergency response procedures.

### 6.0 WORK PLAN

A work plan was not prepared for this LSI; however, a scope was prepared pursuant to CREtelligent's Proposal #20J27-58963A. The scope of work for this LSI included the following:

- Advancement of four sub-slab soil vapor probes for the collection of subsurface vapor targeted for laboratory analysis;
- Analysis of samples by a certified laboratory for the potential presence of chemicals of concern using EPA Method TO-15;
- Preparation of a written report authored and signed by a California-licensed engineer citing the findings of the investigation and recommendations (if applicable).

### 7.0 INVESTIGATION

November 16, 2020

- CREtelligent mobilized to the subject site to strategically install four sub-slab soil vapor points within the subject site to address the REC identified in the previous ESA (see Figure 2);
- Specific sub-slab soil vapor sample locations were determined by targeting areas most likely to have been potentially impacted while providing sufficient spatial distribution for representative conditions throughout the Suite;
- The first sub-slab soil vapor sample (SSV1) was collected behind a dry cleaning machine in the vicinity of the waste storage area;
- A second sub-slab soil vapor sample (SSV2) was collected between previous exhaust vents;
- Due to limited accessibility within the boiler room, the third sub-slab soil vapor sample (SSV3) was collected beneath a competent concrete walk from on the exterior of the eastern facing wall of the building immediately adjacent to the boiler room.
- The fourth sub-slab soil vapor sample (SSV4) was collected from the northwest portion of the building, in order to gather data representing conditions in non-working areas.
- At each sub-slab soil vapor sample location, a roto-hammer drill was used to drill through the concrete slab. The drill bit was advanced slightly into the aggregate layer, just beneath the slab. The slab was observed to range from approximately four to six-inches thick at each sample location.
- A screened soil vapor port was installed into the aggregate base and bedded with a clean sand. Hydrated bentonite was used at the surface to provide an air-tight seal with the slab;
- The sample points were allowed to equilibrate for approximately 30-minutes or greater prior to sample collection;
- Based on the minimal length of tubing, samples were collected without purging;
- All four samples (SSV1 through SSV4) were collected within a leak-check shroud using isopropyl alcohol (2-propanol) as the leak check chemical;
- The samples were collected within 1-L evacuated summa canisters equipped with flow restrictors to allow for approximate 5-minute sampling events;
- Upon completion of the sample collection, the probe locations were backfilled with a quick setting concrete patch.
- Samples were logged onto the chain of custody until they could be relinquished to the custody of the analytical laboratory.

## 8.0 SAMPLING AND ANALYTICAL METHODS

Four sub-slab soil vapor samples were strategically collected from areas on the subject site (within the building) to investigate the potential presence of COCs. The sub-slab soil vapor samples were collected within evacuated, pre-cleaned, batch-certified 1-Liter summa canisters provided by the analytical laboratory Pace Analytical of Minneapolis, Minnesota. Flow controllers were used to restrict the flow into each evacuated canister and prevent stripping of COCs from the sub-slab media and collect the samples over an approximate 5-minute sample interval. Isopropyl alcohol (2-propanol) was used as the leak-check chemical.

Upon sample collection, the samples were logged onto chain of custody and shipped to the laboratory for analysis using EPA Method TO-15 for VOCs. The samples were collected according to standard industry practices and in compliance with established State of California, Environmental Protection Agency (EPA) and/or ASTM standards using a methodology based on the Department of Toxic Substances Control (DTSC) Advisory for Active Soil Gas investigations (DTSC, 2012, updated and finalized July 2015).

## 9.0 FINDINGS

The following findings are based on the results of the LSI performed at the subject site in accordance with CREtelligent's Proposal #20J27-58963A. This investigation was conducted to evaluate the possible presence of COCs and was performed in general conformance with ASTM and DTSC standards. It is not intended to satisfy the level of assessment necessary to propose remedial solutions, assess migration pathways related to a release of COCs and/or to investigate other areas or contaminants other than those specified in the scope of work. Sampling procedures and analytical methods are based on State of California standard practices and regulatory guidelines; however, are not meant to provide site characterization and/or other reporting requirements necessary to meet any specific state program. Testing results and professional evaluation of this LSI are for the use of the client only.

The identified chemicals presented in the laboratory analysis (Appendix - [Accredited Laboratory Results](#).) were compared against Environmental Screening Levels (ESLs) established by the San Francisco Bay Regional Water Quality Control Board (SFBRWQCB, 2019) specific to commercial/industrial land use. These ESLs are not intended to constitute clean up levels but rather provide conservative estimates of the potential risk to human health as recommended by the State of California. Summaries of the reported detections of COCs in sub-slab soil vapor in comparison to the ESLs are provided in Table 1 of Appendix [Tables](#).

The analytical results of the sub-slab soil vapor samples identified low-level to trace detections of petroleum-related, oxygenated, and some halogenated VOCs (refer to Table 1 in Appendix - [Tables](#).). Tetrachloroethene (PCE), a halogenated VOC solvent historically used in dry cleaners is the predominant chemical of concern, and was detected in all four of sub-slab soil vapor samples. The highest PCE concentration reported is 57.9  $\mu\text{g}/\text{m}^3$  detected in SSV1; collected behind a dry cleaning machine in the vicinity of the waste storage area. This detection came close to but did not exceed the PCE ESL of 67  $\mu\text{g}/\text{m}^3$ . Additional PCE degradation products including cis-1,2-Dichloroethene, trans-1,2-Dichloroethene and trichloroethene (TCE) were also detected at concentrations below their respective ESLs. Chloroform was not expected to be present in the soil vapor; however, it was detected in two samples, SSV3 and SSV4. The Chloroform concentration reported in the SSV3 sample; collected beneath a competent concrete walk from on the exterior of the eastern facing wall of the building immediately adjacent to the boiler room, is 74.7  $\mu\text{g}/\text{m}^3$ . This exceeds the ESL of 18  $\mu\text{g}/\text{m}^3$ . None of the other detected COCs exceeded their respective ESLs for commercial use.

The leak check chemical, 2-propanol, was reported in all four soil vapor samples. The leak check is performed to evaluate if there are leaks within the sample train of the sampling apparatus during the vapor collection process. Due to the sensitivity of air and soil vapor sampling and analysis, it is not unexpected to see detections of the leak check compound in vapor samples. In a worst-case scenario, if the concentration of the leak check exceeds 0.005 % volume (50 parts per million) the sample integrity is considered compromised and sample results should not be used. 50 PPMV of 2-propanol equates to a vapor concentration of 122,883  $\mu\text{g}/\text{m}^3$  which is above the greatest concentration detected (211  $\mu\text{g}/\text{m}^3$ ) in SSV4. Based on the minimal detections of 2-propanol reported, the sample integrity of the sub-slab soil vapor samples is considered “excellent” and representative of vapor conditions immediately beneath the slab at the locations tested.

## 10.0 CONCLUSIONS & RECOMMENDATIONS

### Conclusions

As is evidenced by the reportable concentrations of COCs in the sub-slab soil vapor samples collected from beneath the subject site, the subsurface has been impacted as a result of the historic on-site dry cleaning activities. The reported PCE concentrations in the sub-slab vapor samples are not indicative of a "gross" or "blatant" release, rather are likely attributed to small spills and leaks over time. PCE and its degradation products were all detected at concentrations below their respective ESLs. Chloroform is also a halogenated solvent and was detected above its ESL in one of the four samples analyzed. Chloroform has historically been used as a "spotting agent" in the dry cleaner industry and commonly associated with the chlorination of water. Based on the elevated chloroform concentration being detected in the exterior sample and not being observed at comparable concentrations in the other samples indicating it's not widespread concern; it's CREtelligent's Environmental Professional's opinion the documented impacts are thus considered De Minimis to the current land use.

### Recommendations

Based on the above conclusions from our field investigation, the following recommendations are provided:

- No additional assessment is recommended at this time.
- California Proposition 65 signage should be posted at the entrances of the suite to warn tenants and/or customers of the potential health risks.
- In the event of subject site redevelopment, subsurface activities/excavation, changes to the building foundation/slab integrity and/or land-use changes to a more restrictive use (i.e. residential, childcare, etc.) then additional assessment may be required at that time

## 11.0 STANDARD OF CARE AND LIMITATIONS

This LSI investigation was performed in general accordance with CREtelligent's Proposal #20J27-58963A. No other warranties, either expressed or implied, apply to the services herein.

To accurately represent the services performed, CREtelligent notes that it does not and cannot represent that the subject site contains no hazardous material, products, underground storage tanks (USTs), and/or other latent conditions beyond the Scope of Work for this LSI.

CREtelligent cannot warrant the accuracy of prior reports and/or services performed by other firms at the subject site. Findings and Conclusions conveyed herein are based upon the limited and included data obtained on a specific date; such conditions are subject to change.

**CREtelligent's liability, if any, for any claim, costs, loss or damage resulting from CREtelligent's negligence, if any, relating to this agreement or the work performed pursuant hereto shall not exceed the amount of the payment(s) actually received by CREtelligent hereunder; provided, however, CREtelligent's liability, if any, for claims involving "professional liability", "general liability" or "pollution liability" shall not exceed the amount of insurance maintained by CREtelligent. CREtelligent currently maintains (i) professional liability insurance, general liability insurance, and pollution liability insurance in the amount of \$1,000,000 and an umbrella liability policy in the amount of \$2,000,000.**

CREtelligent and Edgar Monroy agree to make good-faith efforts to settle any dispute or claim that arises under this Agreement or the work performed under its conditions through discussion and negotiation. The dispute resolution process will be initiated by either party giving the other party written notice that a dispute exists ("Notice of Dispute"), setting forth the facts and circumstances surrounding the dispute. Within 15 days of the delivery of the Notice of Dispute, the Parties shall meet at a mutually acceptable date, time, and place, attempting to informally resolve the dispute. If the dispute has not been resolved through these negotiations, the Parties agree that any claim or action relating in any way to this Agreement or the work performed pursuant hereto, shall be resolved through binding arbitration pursuant to the rules of the American Arbitration Association. The site of any arbitration proceedings shall be at CREtelligent, 11344 Coloma Road #850, Gold River, CA 95670 unless otherwise agreed to by the Parties.

Our Client Services Agreement embodies the entire agreement and understanding between CREtelligent and Edgar Monroy, and supersedes any prior agreements and understandings relating to its subject matter. This agreement shall be governed by and construed in accordance with the laws of Sacramento County, California (without regard to its conflict of laws provisions). The parties hereto hereby agree that the venue of any action under this agreement shall be exclusively in Sacramento County, California and that this agreement is performable in part in California.

## 12.0 RELIANCE

This LSI report has been prepared for the exclusive use and reliance of the Client. Use or reliance by any other party is prohibited without the written authorization of CREtelligent. Reliance on the LSI by the Client shall be subject to the engagement agreement/scope of work executed by the Client.

If you have any questions about the report, or if we can be of any further service to you please do not hesitate to contact us at (866) 901-7201 or [www.cretelligent.com](http://www.cretelligent.com).



Abraham Serrato

Project Manager



Tim Musson

Project Manager/Environmental Professional



Robert S. Fagerness, PE (Lic #C053220)

Senior Project Manager/Senior Engineer

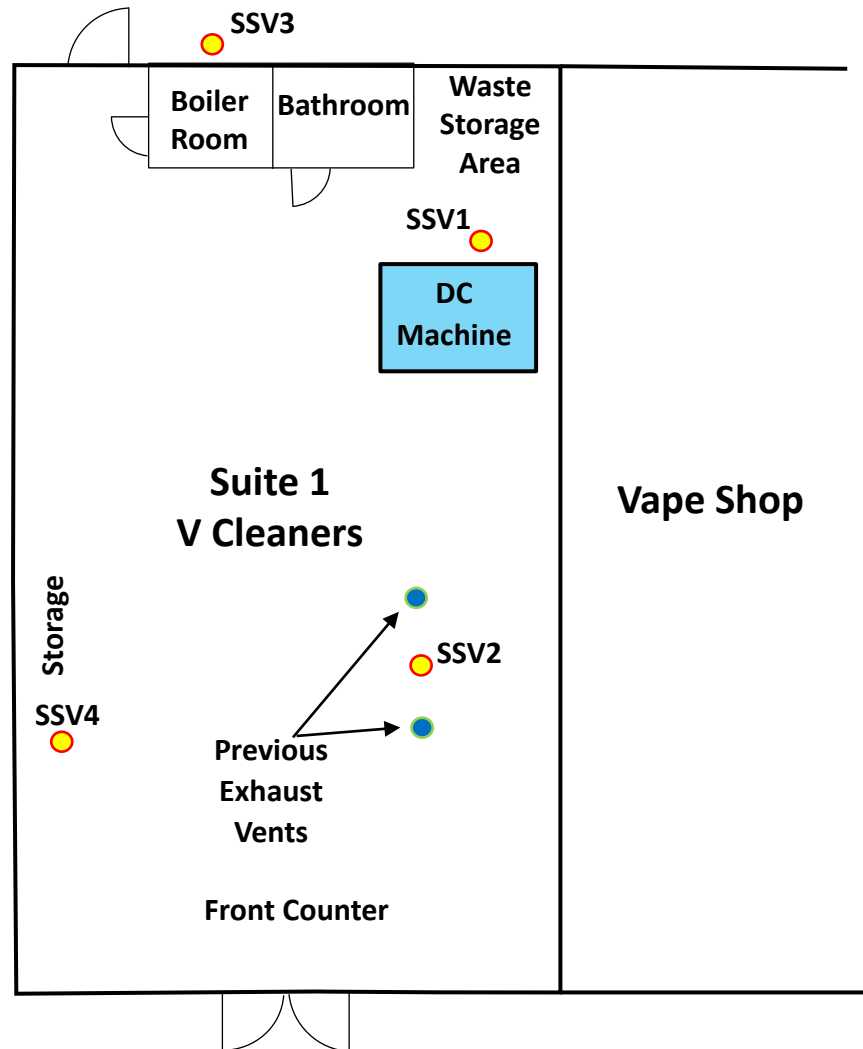
# Maps



**FIGURE 1: Site Map**  
**2286 Sunrise Blvd.,**  
**Gold River, CA 95670**

*Adapted from Google Earth 2018*

Parking



# Tables

**Table 1: Sub-Slab Soil Vapor Results**

Soil Vapor ( $\mu\text{g}/\text{m}^3$ )					
ANALYTE	SFBRWQCB ESL	SSV1	SSV2	SSV3	SSV4
	Soil Vapor				
Acetone	4,500,000	<b>61.4</b>	<b>36.6</b>	<b>96.7</b>	<b>22.3</b>
2-Butanone (MEK)	730,000	<b>10.0</b>	<b>19.5</b>	<b>7.4</b>	<b>11.2</b>
Carbon disulfide	NE	<b>8.9</b>	<b>1.8</b>	<b>5.0</b>	<b>2.3</b>
Chloroform	18	<0.94	<0.94	<b>74.7</b>	<b>1.9</b>
Chloromethane	13,000	<0.80	<b>2.0</b>	<0.73	<0.81
Dichlorodifluoromethane	NE	<1.9	<b>2.8</b>	<b>2.5</b>	<b>2.5</b>
cis-1,2-Dichloroethene	1,200	<1.5	<1.5	<b>12.7</b>	<1.6
trans-1,2-Dichloroethene	12,000	<1.5	<1.5	<b>1.5</b>	<1.6
Ethanol	NE	<b>14.7</b>	<b>18.5</b>	<b>39.5</b>	<b>17.5</b>
Ethylbenzene	160	<1.7	<1.7	<b>4.1</b>	<b>22.4</b>
n-Hexane	NE	<1.4	<1.4	<b>5.2</b>	<1.4
Methylene Chloride	410	<6.7	<6.7	<b>7.3</b>	<6.8
2-Propanol (isopropyl alcohol)*	NE	<b>77.9</b>	<b>8.3</b>	<b>12.3</b>	<b>211</b>
Tetrachloroethene (PCE)	67	<b>57.9</b>	<b>24.3</b>	<b>21.7</b>	<b>6.3</b>
Tetrahydrofuran	NE	<b>1.4</b> C8	<1.1	<1.0	<1.2
Toluene	44,000	<b>2.4</b>	<1.5	<b>22.3</b>	<1.5
Trichloroethene (TCE)	100	<b>1.5</b>	<1.0	<b>9.2</b>	<b>1.2</b>
1,2,4-Trimethylbenzene	NE	<1.9	<1.9	<b>3.0</b>	<1.9
m&p-Xylene	15,000	<3.4	<b>3.7</b>	<b>18.1</b>	<b>17.2</b>
o-Xylene	15,000	<1.7	<b>2.2</b>	<b>5.2</b>	<b>12.5</b>
Sample Date		11/17/2020	11/17/2020	11/17/2020	11/17/2020
SFBRWQCB = San Francisco Bay Regional Water Quality Control Board					
ESL = Environmental Screening Level (Commercial/Industrial Human Health Risk Levels for Subslab/Soil Gas Vapor Intrusion to Indoor Air); Revised January 2019 (more stringent cancer risk level depicted if available)					
C8 = Result may be biased high due to carryover from previously analyzed sample.					
<b>Bolded = Analyte detected above reporting limits.</b>					
<b>Highlighted = analyte concentration exceeds established ESL.</b>					
Analytes excluded from the table were not detected above method detection limits in any of the samples.					
*Note: Leak check isopropanol (2-propanol) detected. If 2-propanol concentrations exceed $122,883 \mu\text{g}/\text{m}^3$ , the sample result should be considered qualitative in nature and used with caution.					

# **Field Notes and Supporting Documentation**



November 6<sup>th</sup>, 2020

**PROPERTY OWNER/AUTHORIZED REPRESENTATIVE  
AUTHORIZATION FOR SERVICES**

Re: Commercial Property  
2286 Sunrise Blvd.,  
Gold River, CA 95670

Project #20J27-58963A

I hereby authorize and attest by my signature below, that I have the authority to authorize eScreenLogic and/or its designated affiliates to perform the following services on the property located at 2286 Sunrise Blvd., Gold River, CA 95670.

Phase II/Limited Subsurface Investigation (LSI) including but not limited to the following:

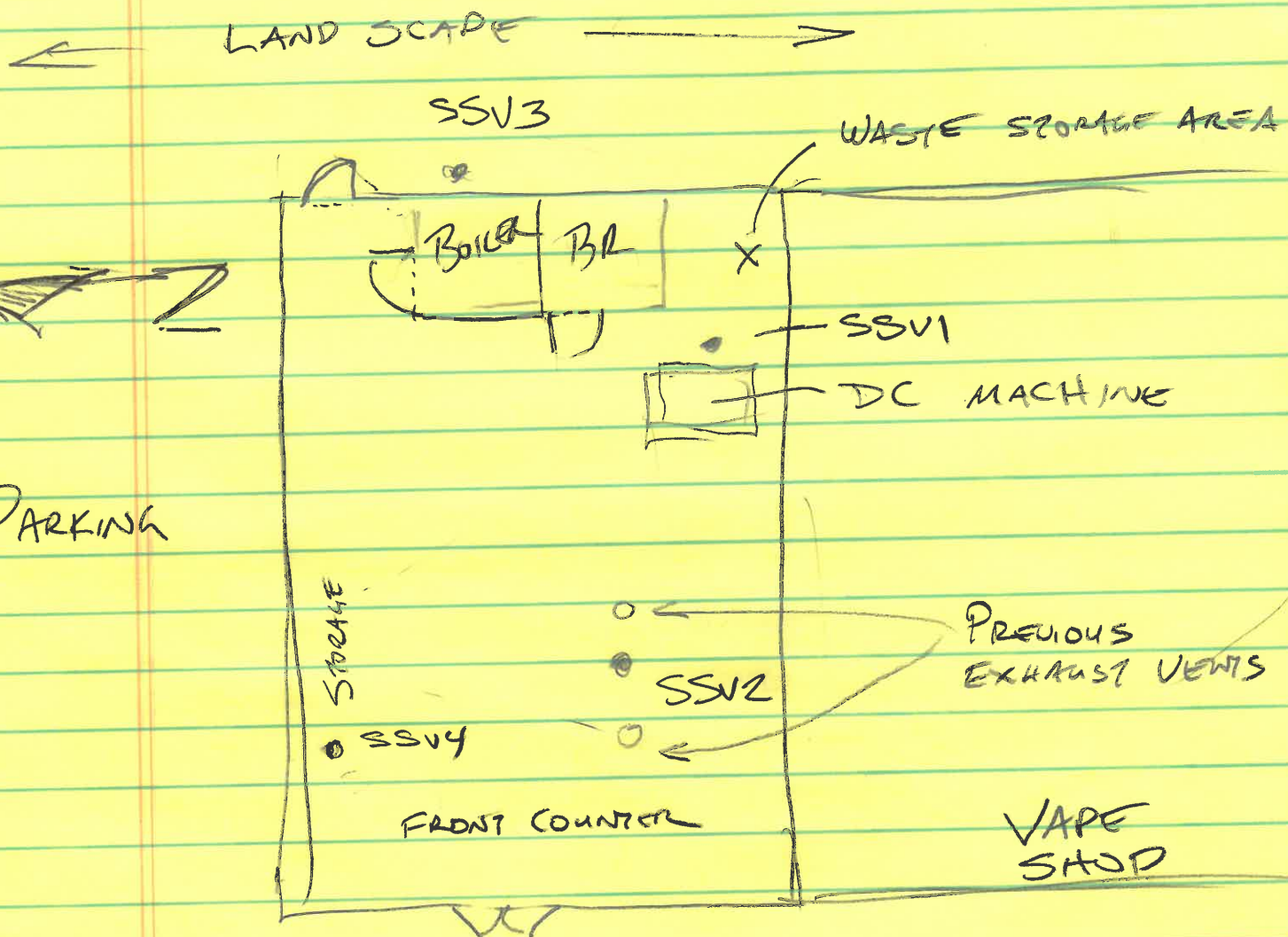
- Drilling to obtain subsurface media for laboratory analysis
- Collection of up to four sub-slab soil vapor samples

This letter serves as authorization to allow eScreenLogic and/or its designated affiliates to proceed with this engagement in an expeditious manner, procure any permits necessary to complete this transaction, proceed without fear of prosecution of trespass onto said property and remain free from any form of harassment while on the said property and within the scope of the engagement.

In the absence and/or unavailability of the Property Owner, I certify I have been authorized by the Property Owner to sign off on this letter in their behalf in order to proceed with this transaction.

DocuSigned by:  Signature / Print Name	Property Owner	11/10/2020 Date
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Signature / Print Name (authorized party if property owner is not able to sign)	Title	Date
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<u>SAMP #</u>	<u>DESC</u>
SSV1	BEHIND DC MACHINE
SSV2	SITUATED BETWEEN VENTS/EXHAUST
SSV3	EXTERIOR SLAB ADS. BOILER ROOM
SSV4	REP. OF NON-WORK AREA

PROJECT # 20527-58963A LSI  
 2286 SUNRISE BLVD  
 GOLD RIVER, CA 95670

SAMPLE PLAT PLAN / LOCATION MAP

11/17/2020  
 RSE

# **Accredited Laboratory Results**