

**SANITARY DISTRICT NO. 5 OF MARIN COUNTY
2001 Paradise Drive
Tiburon, California 94920**

AGENDA

**Capital Improvement Program Committee Meeting
Tuesday September 14, 2021, 5:00 p.m.**

CORONA VIRUS (COVID-19) ADVISORY NOTICE

Consistent with Executive Orders No. N-25-20 and No. N-29-20 from the Executive Department of the State of California, the Meeting will not be physically open to the public and all Board Members and Staff will be teleconferencing into the meeting.

How to Submit Public Comments:

Comments submitted prior to the commencement of the meeting will be presented to the Committee and included in the public record for the meeting.

Public Comments are to be submitted via email to rdohrmann@sani5.org.

In addition, members of the public who are calling-in will have the opportunity to provide public comments by following the steps below:

How to Participate in the Meeting:

Join Zoom Meeting by clicking on the following link:

<https://us02web.zoom.us/j/6230620778>

Meeting ID: 623 062 0778

or join by phone:

Call in number: (669) 900-9128

Participant Code: 623 062 0778

I. Roll Call

II. Public Comments

III. New Business

- 1. Review and Discuss Terminix Report regarding Belvedere Pump Station #1 and its effect on upcoming Generator and Roof replacement project**
- 2. Review and Discuss Healthy Building Science Air Quality Report regarding Main Treatment Plant Air Quality Assessment Report and immediate and future projects to remedy items found in report or recommended for improvement**
- 3. Review Sewer Line Segments- scheduled for rehabilitation -via Pipe bursting for inclusion into a request for proposal for a potential winter bid and work to begin in spring of 2022**
- 4. Verbal update regarding status of potential solar projects in SD5 service area- Tiburon Station #7 & Belvedere Station #9**

IV. Adjournment

*This Committee may be attended by Board Members who do not serve on this committee. In the event that a quorum of the entire Board is present, this Committee shall act as a Committee of the Whole. In either case, any item acted upon by the Committee or the Committee of the Whole will require consideration and action by the full Board of Directors as a prerequisite to its legal enactment. **Accessible public meetings:** Any member of the public who needs accommodations should email the Office Manager, at rdohrmann@sani5.org, who will use her best efforts to provide as much accessibility as possible while also maintaining public safety.*

WOOD DESTROYING PESTS AND ORGANISMS INSPECTION REPORT

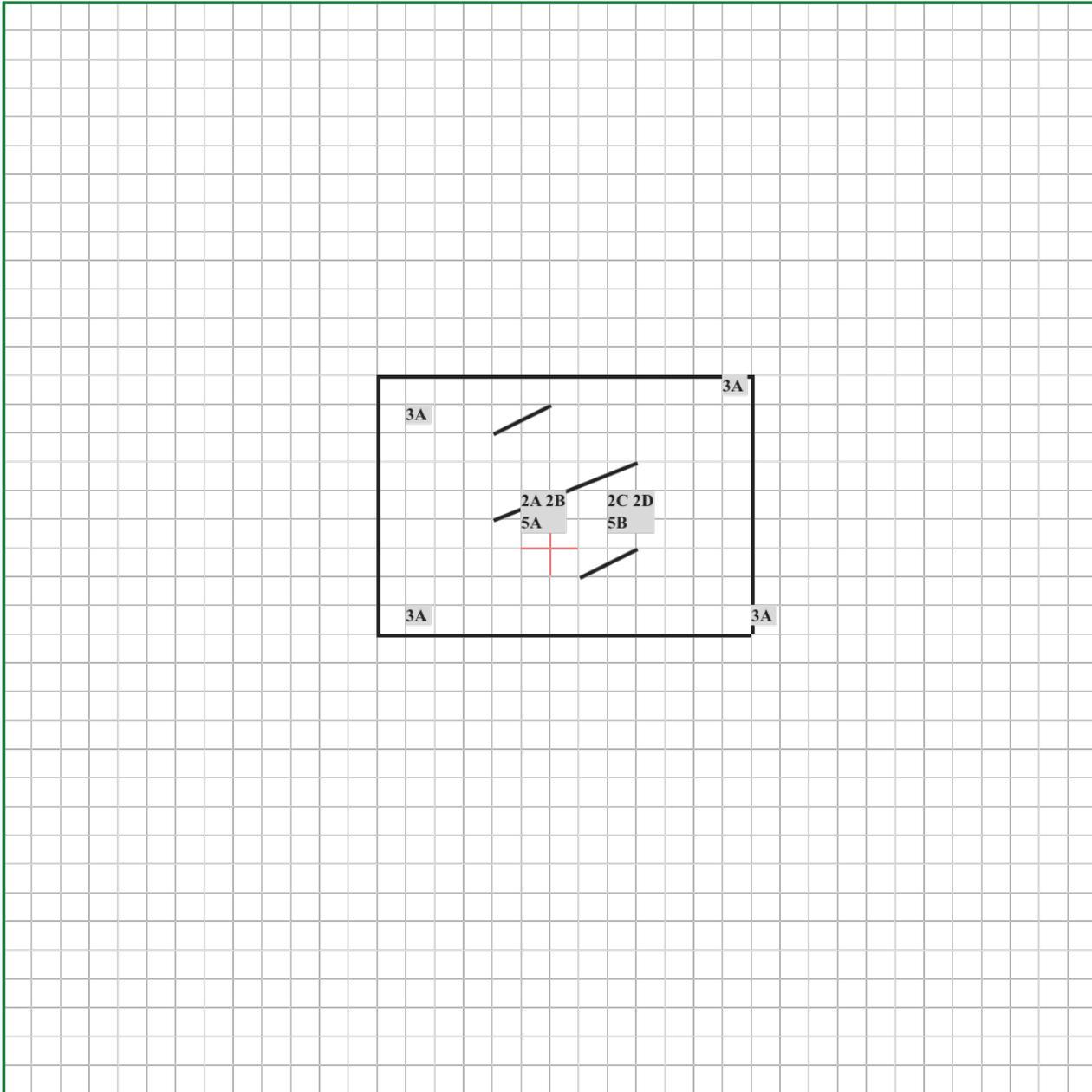
Building No. CORNER OF COVE & BARN RD. PUMP STATION # 1, BELVEDERE, 94920	Street, City, Zip	Date of Inspection 08/23/2021	Number of Pages 6
TERMINIX INTERNATIONAL, BRANCH #2292 1610 CORPORATE CIR PETALUMA, CA 94954-6912 PH: 7075664440		Firm Registration No PR 0801 Report No.: 70756-082321201101-4394	
Ordered by: SANITARY DISTRICT CORNER OF COVE & BARN RD. PUMP STATION # 1 BELVEDERE CA 94920	Property Owner or Party of Interest: SANITARY DISTRICT CORNER OF COVE & BARN RD. PUMP STATION # 1 BELVEDERE CA 94920	Report sent to: SANITARY DISTRICT CORNER OF COVE & BARN RD. PUMP STATION # 1 BELVEDERE CA 94920	
COMPLETE REPORT <input checked="" type="checkbox"/> LIMITED REPORT <input type="checkbox"/> SUPPLEMENTAL REPORT <input type="checkbox"/> REINSPECTION REPORT <input type="checkbox"/>			
General Description: 1 Story(s), Office Building, No Garage, Occupied and Furnished		Inspection Tag Posted: Electrical box Other Tags Posted: N/A	
An inspection has been made of the structure(s) shown on the diagram in accordance with the Structural Pest Control Act. Detached porches, detached steps, detached decks and any other structures not on the diagram were not inspected.			
Subterranean Termites <input type="checkbox"/> Drywood Termites <input checked="" type="checkbox"/> Fungus / Dryrot <input checked="" type="checkbox"/> Other Findings <input type="checkbox"/> Further Inspection <input checked="" type="checkbox"/> If any of the above boxes are checked, it indicates that there were visible problems in accessible areas. Read the report for details on checked items.			

(PLEASE SEE THE GRAPH DIAGRAM ON THE FOLLOWING PAGE)

Inspected by: ALLISON, FRANK State License No. FR 50078 Signature 

You are entitled to obtain copies of all reports and completion notices on this property reported to the Structural Pest Control Board during the preceding two years. To obtain copies contact: Structural Pest Control Board, 2005 Evergreen Street, Suite 1500, Sacramento, CA 95815

NOTE: Questions or problems concerning the above report should be directed to the manager of the company. Unresolved questions or problems with services performed may be directed to the Structural Pest Control Board at (916) 561-8708, (800) 737-8188 or www.pestboard.ca.gov. 43M-41 (REV. 04/2015)



Scale 1:

This graph is a record of a visual, non-destructive inspection by Terminix of certain readily accessible areas of the identified property for visible termite infestation/damage. Terminix is not responsible for repairs to damages disclosed above. In addition, hidden damage may exist in concealed, obstructed or inaccessible areas. No attempt to remove siding, plastic or sheetrock insulation, carpeting, paneling, etc. to search for hidden damage was made. Terminix cannot guarantee that the damage disclosed by visual inspection of the premises shown above represents the entirety of the damage which may exist as of the date of the initial control application. Terminix shall not be responsible for repair of any existing damage including without limitation, any damage which existed in areas or in structural members which were not accessible for visual inspection as of the date of this graph.



PETALUMA
1610 CORPORATE CIR
PETALUMA, CA 94954-6912
7075664440

Contract #: 70756-082321201101-4394
Inspection Date: 08/23/2021
Inspector: ALLISON, FRANK

GENERAL NOTES:

Please see general notes following the findings and recommendations for additional conditions governing this report.

READ THIS DOCUMENT. It explains the scope and limitations of a Structural Pest Control Inspection and Wood Destroying Pest and Organism Inspection Report.

A Wood Destroying Pest and Organism Inspection Report contains findings as to the presence or absence of evidence of wood destroying insects or organisms (fungi/rot) in visible and accessible areas on the date of inspection. It contains our recommendations for correcting any infestations, infections or conditions found. The contents of the Wood Destroying Pest and Organism Inspection Report are governed by the Structural Pest Control Act and the rules and regulations of the Structural Pest Control Board.

NOTE: THE FOLLOWING AREAS, WHEN THEY EXIST, ARE CONSIDERED INACCESSIBLE FOR INSPECTION: THE INTERIORS OF HOLLOW WALLS AND ALL ENCLOSED SPACES BETWEEN A FLOOR OR PORCH DECK AND THE CEILING OR SOFFIT BELOW; AREAS BETWEEN ABUTTING/ATTACHED ROW HOUSES, TOWNHOUSES, CONDOMINIUMS AND SIMILAR STRUCTURES; PORTIONS OF THE ATTIC CONCEALED OR MADE INACCESSIBLE BY INSULATION; PORTIONS OF THE ATTIC CONCEALED OR MADE INACCESSIBLE BY DUCTING, PORTIONS OF THE ATTIC OR ROOF CAVITY CONCEALED DUE TO AN INADEQUATE CRAWL SPACE; THE INTERIORS OF BOXED EAVES; EAVES CONCEALED BY PATIO COVERS OR OTHER ABUTMENTS; PORTIONS OF THE SUBAREA CONCEALED OR MADE INACCESSIBLE BY INSULATION; PORTE COCHERES; ENCLOSED BAY WINDOWS; AREAS BENEATH WOOD FLOORS OVER CONCRETE; AREAS CONCEALED BY BUILT-IN CABINET WORK; AREAS CONCEALED BY FLOOR COVERINGS, SUCH AS WALL-TO-WALL CARPETING, LINOLEUM, CERAMIC TILE, ETC.; AND AREAS CONCEALED BY BUILT-IN APPLIANCES.

NOTE: THE FOLLOWING AREAS, WHEN THEY EXIST, ARE CONSIDERED INACCESSIBLE FOR INSPECTION: AREAS CONCEALED BY INTERIOR FURNISHINGS; AREAS CONCEALED BY FLOOR COVERINGS, SUCH AS AREA RUGS, THROW RUGS, BATH AND KITCHEN MATS, ETC.; AREAS CONCEALED BY FREE STANDING APPLIANCES; AREAS CONCEALED BY STORAGE; AREAS CONCEALED BY HEAVY VEGETATION; AND AREAS WHERE LOCKS PREVENTED ACCESS. THESE AREAS WILL BE INSPECTED FOR A FEE, IF THEY ARE MADE ACCESSIBLE AT THE OWNER'S EXPENSE. A SUPPLEMENTAL REPORT WILL BE ISSUED AND ANY FINDINGS AND RECOMMENDATIONS WILL BE LISTED ALONG WITH ESTIMATES FOR REPAIR AND/OR TREATMENT, IF WITHIN THE SCOPE OF THIS COMPANY'S OPERATIONS. NO OPINION IS RENDERED CONCERNING CONDITIONS IN THE AREAS AT THIS TIME.

NOTE: INSPECTIONS ARE MADE AND REPORTS ARE ISSUED ON THE BASIS OF WHAT WAS VISIBLE AND ACCESSIBLE AT THE TIME OF THE INSPECTION. THE ABSENCE OF VISIBLE EVIDENCE OF WOOD DESTROYING ORGANISMS IN THE VISIBLE AND ACCESSIBLE PORTIONS OF THE STRUCTURE IS NO ASSURANCE THAT WOOD DESTROYING ORGANISMS ARE NOT PRESENT IN INACCESSIBLE AREAS NOR THAT FUTURE INFESTATIONS WILL NOT OCCUR. THEREFORE, WE DO NOT ASSUME ANY RESPONSIBILITY FOR THE PRESENCE OF WOOD DESTROYING ORGANISMS, OR DAMAGE DUE TO SUCH ORGANISMS, IN AREAS THAT WERE NOT VISIBLE AND ACCESSIBLE AT THE TIME OF THE INSPECTION OR THAT MAY OCCUR IN THE FUTURE.

NOTICE: THIS COMPANY WILL REINSPECT REPAIRS DONE BY OTHERS WITHIN FOUR MONTHS OF THE ORIGINAL INSPECTION. A CHARGE, IF ANY, CAN BE NO GREATER THAN THE ORIGINAL INSPECTION FEE FOR EACH INSPECTION. THE REINSPECTION MUST BE DONE WITHIN TEN WORKING DAYS OF REQUEST. THE REINSPECTION IS A VISUAL INSPECTION AND IF INSPECTION OF CONCEALED AREAS IS DESIRED, INSPECTION OF WORK IN PROGRESS WILL BE NECESSARY, ANY GUARANTEES MUST BE RECEIVED FROM PARTIES PERFORMING THE REPAIRS.

NOTE: A VISUAL INSPECTION WAS PERFORMED AND THE INSPECTOR DID NOT DEFACE NOR PROBE INTO FINISHED WINDOW OR DOOR FRAMES, TRIM WORK, FLOOR COVERINGS, WALLS, CEILINGS, OR OTHER FINISHED SURFACES.

NOTE: THE EXTERIOR AREAS OF THIS STRUCTURE WERE VISUALLY INSPECTED FROM THE GROUND LEVEL. AREAS OF THE EXTERIOR THAT EXHIBITED VISIBLE SIGNS OF INFESTATION, INFECTION, OR DAMAGE FROM SAME WILL BE DESCRIBED IN THE BODY OF THIS REPORT.

NOTE: IF ANY INFESTATION, INFECTION, OR DAMAGE IS DISCOVERED IN A CONCEALED AREA DURING THE COURSE OF PERFORMING ANY RECOMMENDATION IN THIS REPORT, THIS COMPANY WILL ISSUE A SUPPLEMENTAL REPORT. THIS COMPANY IS NOT RESPONSIBLE FOR CONTROLLING SUCH INFESTATIONS OR INFECTIONS OR FOR REPAIRING SUCH DAMAGE. IF THE ADDITIONAL WORK REQUIRED IS WITHIN THE SCOPE OF THIS COMPANY'S OPERATIONS, A COST ESTIMATE WILL BE PROVIDED WITH THE SUPPLEMENTAL REPORT.

NOTE: THE OWNER OF THIS PROPERTY HAS CERTAIN RESPONSIBILITIES REGARDING THE NORMAL MAINTENANCE THAT PERTAINS TO THE DETERRENCE OF WOOD DESTROYING ORGANISMS. THESE NORMAL MAINTENANCE PROCEDURES INCLUDE, BUT ARE NOT LIMITED TO: MAINTENANCE OF THE ROOF, GUTTERS, AND DOWNSPOUTS; CAULKING AROUND DOORS, WINDOWS, VENTS, TUB AND SHOWER ENCLOSURES; KEEPING SOIL LEVELS BELOW THE TOP OF THE FOUNDATIONS; KEEPING STORED ITEMS (INCLUDING FIREWOOD) AT LEAST TWELVE (12) INCHES AWAY FROM THE STRUCTURE; ADJUSTING SPRINKLERS SO THAT THEY DO NOT SPRAY ONTO THE STRUCTURE; PROHIBITING SOIL FROM CONTACTING THE WOOD COMPONENTS OF THE STRUCTURE; AND PREVENTING VEGETATION OR OTHER ITEMS FROM BLOCKING VENTS.



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SEE BELOW FOR YOUR FINDINGS AND RECOMMENDATIONS:

Drywood Termites

Item 2A

FINDING: Evidence of drywood termites was noted at/in EXTERIOR EAVES & RAFTER TAILS.

RECOMMENDATION: Remove or cover accessible drywood termite fecal pellets.

RECOMMENDATION: Fumigate the structure with an approved fumigant for the eradication of drywood termites.

Item 2B

FINDING: Drywood termites have damaged EAVES & RAFTER TAILS at/in EXTERIOR EAVES & RAFTER TAILS.

RECOMMENDATION: Remove the damaged wood member(s). Replace the damaged wood with new material. See recommendations in this report for the control of drywood termites.

Item 2C

FINDING: Evidence of drywood termites was noted at/in EXTERIOR EAVES & RAFTER TAILS.

RECOMMENDATION: Remove or cover accessible drywood termite fecal pellets.

RECOMMENDATION: Locally treat accessible infested wood members with an approved insecticide for the eradication of drywood termites. This treatment will not control/prevent infestation of drywood termites in non-treated areas. The guarantee is limited to the treated area(s) only.

NOTE: The recommendation immediately above is being made at the request of FUMIGATION and is a secondary recommendation in lieu of the primary recommendation, which appears above the finding associated with the secondary recommendation. This secondary recommendation is considered to be below industry standard.

Item 2D

FINDING: Drywood termites have damaged EAVES & RAFTER TAILS IN SEVERAL AREAS at/in EXTERIOR EAVES & RAFTER TAILS.

RECOMMENDATION: Remove the damaged wood member(s). Replace the damaged wood with new material. See recommendations in this report for the control of drywood termites.

Fungus / Dryrot

Item 3A

FINDING: Fungus infection and damage at/in EXTERIOR EAVES & RAFTER TAILS due to exposure to weather.

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RECOMMENDATIONS: Remove the fungus infected and damaged component(s) and replace with new material. Seal wood components with paint or other moisture sealant that is resistant to weather.

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RECOMMENDATIONS: Remove the fungus infected and damaged component(s) and replace with new material. Seal wood components with paint or other moisture sealant that is resistant to weather.

Further Inspection

Item 5A

FINDING: Evidence of Drywood Termites was noted at/in EXTERIOR EAVES & RAFTER TAILS which appears to extend into inaccessible areas.

RECOMMENDATION: Open inaccessible areas for further inspection. Upon further inspection, a supplemental report will be issued and any findings and recommendations will be listed along with estimates for repair and/or treatment, if within the scope of this company's operations.

Item 5B

FINDING: Evidence of Drywood Termites was noted at/in EXTERIOR EAVES & RAFTER TAILS which appears to extend into inaccessible areas.

RECOMMENDATION: Open inaccessible areas for further inspection. Upon further inspection, a supplemental report will be issued and any findings and recommendations will be listed along with estimates for repair and/or treatment, if within the scope of this company's operations.



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GENERAL NOTES:

NOTE: THE EXTERIOR SURFACE OF THE ROOF HAS NOT BEEN INSPECTED. IF YOU WANT THE WATER TIGHTNESS OF THE ROOF DETERMINED, YOU SHOULD CONTACT A ROOFING CONTRACTOR WHO IS LICENSED BY THE CONTACTORS STATE LICENSE BOARD.

NOTICE: REPORTS ON THIS STRUCTURE PREPARED BY VARIOUS REGISTERED COMPANIES SHOULD LIST THE SAME FINDINGS (I.E. TERMITE INFESTATION, TERMITE DAMAGE, FUNGUS DAMAGE, ETC.). HOWEVER, RECOMMENDATIONS TO CORRECT THESE FINDINGS MAY VARY FROM COMPANY TO COMPANY. YOU HAVE A RIGHT TO SEEK A SECOND OPINION FROM ANOTHER COMPANY.

NOTICE TO OWNER: UNDER THE CALIFORNIA MECHANICS LIEN LAW, ANY STRUCTURAL PEST CONTROL COMPANY WHICH CONTRACTS TO DO WORK FOR YOU, ANY CONTRACTOR, SUBCONTRACTOR, LABORER, SUPPLIER, OR OTHER PERSON WHO HELPS TO IMPROVE YOUR PROPERTY, BUT IS NOT PAID FOR HIS OR HER WORK OR SUPPLIES, HAS A RIGHT TO ENFORCE A CLAIM AGAINST YOUR PROPERTY, THIS MEANS THAT AFTER A COURT HEARING, YOUR PROPERTY COULD BE SOLD BY A COURT OFFICER AND THE PROCEEDS OF THE SALE USED TO SATISFY THE INDEBTEDNESS. THIS CAN HAPPEN EVEN IF YOU HAVE PAID YOUR STRUCTURAL PEST CONTROL COMPANY IN FULL IF THE SUBCONTRACTOR, LABORERS, OR SUPPLIERS REMAIN UNPAID.

TO PRESERVE THEIR RIGHT TO FILE A CLAIM OR LIEN AGAINST YOUR PROPERTY, CERTAIN CLAIMANTS SUCH AS SUBCONTRACTORS OR MATERIAL SUPPLIERS ARE REQUIRED TO PROVIDE YOU WITH A DOCUMENT ENTITLED PRELIMINARY NOTICE. PRIME CONTRACTORS AND LABORERS FOR WAGES DO NOT HAVE TO PROVIDE THIS NOTICE. A PRELIMINARY NOTICE IS NOT A LIEN AGAINST YOUR PROPERTY. ITS PURPOSE IS TO NOTIFY YOU OF PERSONS WHO MAY HAVE A RIGHT TO FILE A LIEN AGAINST YOUR PROPERTY IF THEY ARE NOT PAID.

NOTE: IF DURING THE COURSE OF PERFORMING ANY REPAIRS, ANY FIXTURE OR PLUMBING IS FOUND TO BE UNSERVICEABLE, DAMAGED, OR DEFECTIVE, THERE WILL BE AN ADDITIONAL CHARGE FOR REPAIR AND/OR REPLACEMENT, AS NECESSARY.

NOTE: IT IS RECOMMENDED THAT BUILDING PERMITS BE OBTAINED FOR ALL WORK REQUIRING PERMITS, PRIOR TO BEGINNING THE RECOMMENDED REPAIRS. FOR INFORMATION CONCERNING THE BUILDING DEPARTMENT AND PERMIT REQUIREMENTS, CONTACT THE LOCAL BUILDING DEPARTMENT. WORK PERFORMED AS REQUIRED UNDER PERMIT FROM THE BUILDING DEPARTMENT SHOULD BE APPROVED, ACCEPTED, AND SIGNED OFF BY THE DEPARTMENT PRIOR TO CONSIDERING SUCH WORK TO BE COMPLETED. THE BUILDING DEPARTMENT MAY REQUIRE INSTALLATION OF SMOKE/HEAT DETECTORS AS A CONDITION OF OBTAINING A BUILDING PERMIT.

Some structures may not comply with building code requirements or may have structural, plumbing, electrical, heating and air conditioning, or other defects that do not pertain to wood destroying organisms. A Wood Destroying Pest and Organism Inspection Report does not contain information about such defects as they are not within the scope of the license of the inspector or the company issuing this report. Nor does a Wood Destroying Pest and Organism Inspection Report contain information about asbestos or any other environmental or safety hazard. Should interested parties desire opinions regarding these items, it is recommended that the owner engage the services of a reputable whole house inspection company.

This property was not inspected for the presence or absence of health related molds or fungi. By California law, we are neither qualified, authorized, nor licensed to inspect for health related molds or fungi. If you desire information about the presence or absence of health related molds or fungi, you should contact an industrial hygienist.

The Structural Pest Control Board Mold Policy Statement is as follows:

“Molds, sometimes called mildew, are not wood-destroying organisms. Branch 3 licensees do not have a duty under the Structural Pest Control Act and related regulations to classify molds as harmful to human health or not harmful to human health. This does not modify the Structural Pest Control Act or related regulations.”

This statement is being provided to you for informational purposes.

NOTICE TO OWNER / TENANT

State law requires that you be given the following information:

CAUTION – PESTICIDES ARE TOXIC CHEMICALS. Structural Pest Control Operators are registered and regulated by the Structural Pest Control Board, and apply pesticides which are registered and approved for use by the California Department of Pesticide Regulation and the United States Environmental Protection Agency. Registration is granted when the state finds that based on existing scientific evidence there are no appreciable risks if proper use conditions are followed or that the risks are outweighed by the benefits. The degree of risk depends upon the degree of exposure, so exposure should be minimized.

If within 24 hours following application, you experience headache, dizziness, nausea, tearing, coughing, nose and throat irritation or develop shortness of breath, double vision, unusual drowsiness and weakness, or tremors, contact your physician or poison control center (see below) and your pest control operator immediately. If rodenticide ingestion occurs, you may experience symptoms of mild shock and/or bleeding.

For further information, contact any of the following:

Terminix International	1-800-TERMINIX
Poison Control Center	1-800-876-4766
Regulatory information - Structural Pest Control Board	1-916-561-8700 2005 Evergreen St, Ste. 1500, Sacramento, CA 95815-3831

HEALTH QUESTIONS - CALIFORNIA COUNTY AGRICULTURAL COMMISSIONERS

Alameda	(510) 670-5232	Marin	(415) 499-6700	San Luis Obispo	(805) 781-5910
Alpine	(see El Dorado)	Mariposa	(209) 966-2075	San Mateo	(650) 363-4700
Amador	(209) 223-6487	Mendocino	(707) 463-4208	Santa Barbara	(805) 681-5600
Butte	(530) 538-7381	Merced	(209) 385-7431	Santa Clara	(408) 918-4600
Calaveras	(209) 754-6504	Modoc	(530) 233-6401	Santa Cruz	(831) 763-8080
Colusa	(530) 458-0580	Mono	See Inyo County	Shasta	(530) 224-4949
Contra Costa	(925) 646-5250	Monterey	(831) 759-7325	Sierra	See Plumas County
Del Norte	(707) 464-7235	Napa	(707) 253-4357	Siskiyou	(530) 841-4025
El Dorado	(530) 621-5520	Nevada	(530) 273-2648	Solano	(707) 784-1310
Fresno	(559) 456-7510	Orange	(714) 447-7100	Sonoma	(707) 565-2371
Glenn	(530) 934-6501	Placer	(530) 889-7372	Stanislaus	(209) 525-4730
Humboldt	(707) 445-7223 ext. 0	Plumas	(530) 283-6365	Sutter	(530) 822-7500
Imperial	(760) 482-4314	Riverside	(951) 955-3045	Tehama	(530) 527-4504
Inyo	(760) 873-7860	Sacramento	(916) 875-6603	Trinity	(530) 623-1356
Kern	(661) 868-6300	San Benito	(831) 637-5344	Tulare	(559) 685-3323
Kings	(559) 582-3211 #2831	San Bernardino	(909) 387-2105	Tuolumne	(209) 533-5691
Lake	(707) 263-0217	San Diego	(858) 694-2739	Ventura	(805) 388-4222
Lassen	(530) 251-8110	San Francisco	(415) 252-3830	Yolo	(530) 666-8140
Los Angeles	(626) 575-5466	San Joaquin	(209) 468-3300	Yuba	(530) 749-5400
Madera	(559) 675-7876				

APPLICATION INFORMATION - CALIFORNIA COUNTY HEALTH DEPARTMENTS

Alameda	(510) 267-8000	Madera	(559) 675-7893	San Joaquin	(209) 468-3411
Alpine	(530) 694-2146	Marin	(415) 499-3696	San Luis Obispo	(805) 781-5500
Amador	(209) 223-6407	Mariposa	(209) 966-3689	San Mateo	(650) 573-2346
Berkley City	(510) 981-5310	Mendocino	(707) 472-2600	Santa Barbara	(805) 681-5102
Butte	(530) 538-7581	Merced	(209) 381-1200	Santa Clara	(408) 885-4214
Calaveras	(209) 754-6460	Modoc	(530) 233-6311	Santa Cruz	(831) 454-4000
Colusa	(530) 458-0380	Mono	(760) 932-7485	Shasta	(530) 225-5591
Contra Costa	(925) 957-5400	Monterey	(831) 755-4500	Sierra	(530) 993-6701
Del Norte	(707) 464-3191	Napa	(707) 253-4231	Siskiyou	(530) 841-4040 ext. 0
El Dorado	(530) 621-6100	Nevada	(530) 265-1450	Solano	(707) 784-8600
Fresno	(559) 445-0666	Orange	(714) 834-8180	Sonoma	(707) 565-4567
Glenn	(530) 934-6588	Pasadena	(626) 744-6004	Stanislaus	(209) 558-5670
Humboldt	(707) 445-6200	Placer	(530) 889-7141	Sutter	(530) 822-7215
Imperial	(760) 482-4438	Plumas	(530) 283-6337	Tehama	(530) 527-6824
Inyo	(760) 783-7868	Riverside	(951) 782-2974	Trinity	(530) 623-8209
Kern	(661) 868-0302	Sacramento	(916) 875-5881	Tulare	(559) 737-4660 ext. 0
Kings	(559) 584-1402 - Ask for "Nurse of the Day"	San Benito	(831) 637-5367	Tuolumne	(209) 533-7400
Lake	(707) 263-8929	San Bernardino	(909) 387-6280	Ventura	(805) 677-5200
Lassen	(530) 251-8183	San Diego	(619) 515-6555	Yolo	(530) 666-8645
Long Beach City	(562) 570-4000	San Francisco	(415) 554-2500	Yuba	(530) 741-6366
Los Angeles	(213) 240-8117				

One or more of the following chemicals may be applied to your property:

ADVANCE (Diflubenzuron) BOR-RAM (Disodium Octaborate Tetrahydrate) BORA-CARE (Disodium Octaborate Tetrahydrate) BORATHOR (Disodium Octaborate Tetrahydrate) CIMEXA (Silicon Dioxide) CY-KICK (Cyfluthrin) DRAGNET SFR(Permethrin) DRIONE INSECTICIDE DUST (Amor, Silica Aerogel, Pyrethrins, Piperonyl Butoxide) PHANTOM (Chlorfenapyr) PRELUDE (Permethrin) PREMISE 75 INSECTICIDE (Imidacloprid) PT TRI-DIE DUST (Amor, Silica Aerogel, Pyrethrins, Piperonyl Butoxide) RECRUIT HD (Noviflumuron) TAP INSULATION (Orthoboric Acid) TEMPO WP (Cyfluthrin) TEMPO SC ULTRA (Cyfluthrin) TIM-BOR (Disodium Octaborate Tetrahydrate) TERMIDOR (Fipronil) TTRELONA (Novaluron) VIKANE (Sulfuryl Fluoride) NOTE: Chloropicrin is use as a warning agent on all structural fumigations.

Thank you for calling Terminix. Should you have any questions regarding this report, please call 1-800-TERMINIX.





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 7075664440

Contract #: 70756-082321201101-4394

Inspection Date: 08/23/2021

Inspector: ALLISON, FRANK

Homeowner Name: SANITARY DISTRICT
 Address: CORNER OF COVE & BARN RD. PUMP STATION # 1
 City State Zip: BELVEDERE, CA,94920
 Home Phone: 4154351501
 Work Phone:

Ultimate Protection Home Pest Inspection

Please pay special attention to findings and comments below as these may indicate conditions that can lead to termite and pest problems.

EXTERIOR INSPECTION

PROPERTY DETAILS

Linear Feet:	<u>72</u>	Built Pre 1985:	<input checked="" type="checkbox"/>	Primary Use:	<u>Commercial Structure</u>
# of Stories:	<u>1</u>	Roof Type:	<u>Other</u>	Foundation Type:	<u>Concrete</u>
Construction Type:	<u>Floating Slab</u>	Siding:	<u>Wood</u>	Industry Type:	<u>Other</u>
Square Footage:	<u> </u>	Lot Size:	<u> </u>	# of Gas Meters:	<u>1</u>
Cubic Feet:	<u>24</u>	Eave Height:	<u>9</u>	Peak Height:	<u>12</u>

PROPERTY HAS A:

Cistern:	French Drain:	Well:
Visible Pond, Lake, Stream, or Waterway:	Sprinkler System Present:	
Exterior Slab (False Porch) Over Basement Area:	Gas Meter Have 3' Clearance:	<input checked="" type="checkbox"/>

CONDUCTIVE CONDITIONS

Indications of pests, rodents, termites, wildlife, or other wood-destroying pests?	<input checked="" type="checkbox"/>	Live Subterranean Termites Found?
Damage Found?	<input checked="" type="checkbox"/>	Trees/shrubs on or against home?
Conditions on or around foundation conducive to termite attack?		Foundation slab/wall visible?
Conditions allowing water to collect around structure?		Openings large enough for pest/rodent/wildlife entry?
Gutters and downspouts clear of debris and standing water?		Siding Less Than 6" From Grade:
Styrofoam Insulation or "DRI-VIT" Below Grade?		Wood embedded in concrete?
Breeding Sites:		



PETALUMA
 1610 CORPORATE CIR
 PETALUMA, CA 94954-6912
 7075664440

Contract #: 70756-082321201101-4394

Inspection Date: 08/23/2021

Inspector: ALLISON, FRANK

INTERIOR INSPECTION

PROPERTY DETAILS

Sump Pump:	A/C - Heat Ducts in or Below Slab:
Plenum A/C - Heat System:	Radiant Heat:

CONDUCTIVE CONDITIONS

Indications Of Pests, Rodents, Termites, Wildlife, Or Other Wood-Destroying Pests?	Live Subterranean Termites Found?
Damage Found?	Obvious Signs Of Leaks?
Musky Odors?	Bath Traps Installed Where Applicable?
Wall Separation/Cracks?	Sagging Or Bouncing Floors?

ATTIC

Number Of Attics: _____ Attic Access Location: _____

Indications Of Pests, Rodents, Termites, Wildlife, Or Other Wood-Destroying Pests?

Adequate Ventilation?	Obvious Signs Of Leaks?
Attic Vents Screened?	Asbestos Present?

CRAWL SPACE

Number Of Crawl Spaces: _____ Crawl Space Access Location: _____

Height Of Crawl Space: _____ High Point Of Crawl Space: _____ Low Point Of Crawl Space: _____

Distance Between Joists: _____ Depth Of Joists: _____ # of electrical connections: _____

Indications of pests, rodents, termites, wildlife, fungi, or other wood-destroying pests?

Wood debris, stored material or structure/ground contact?

Excessive Moisture?	Visible Plumbing Leaks?	Cracked foundation walls/supports?
Sagging Or Cracked Floor Joists?	Wood-Earth Contact?	Wood Debris In Crawl Space?
Inadequate Ventilation In Crawl Space?	Wood Embedded In Concrete?	Entire Crawl Space Accessible?

INSPECTOR'S STATEMENT OF VISIBLE DAMAGE

DRYWOOD TERMITE & FUNGUS DAMAGE AS NOTED	Date:	08/23/2021
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TECHNICIAN'S STATEMENT OF VISIBLE DAMAGE

	Date:	
--	-------	--

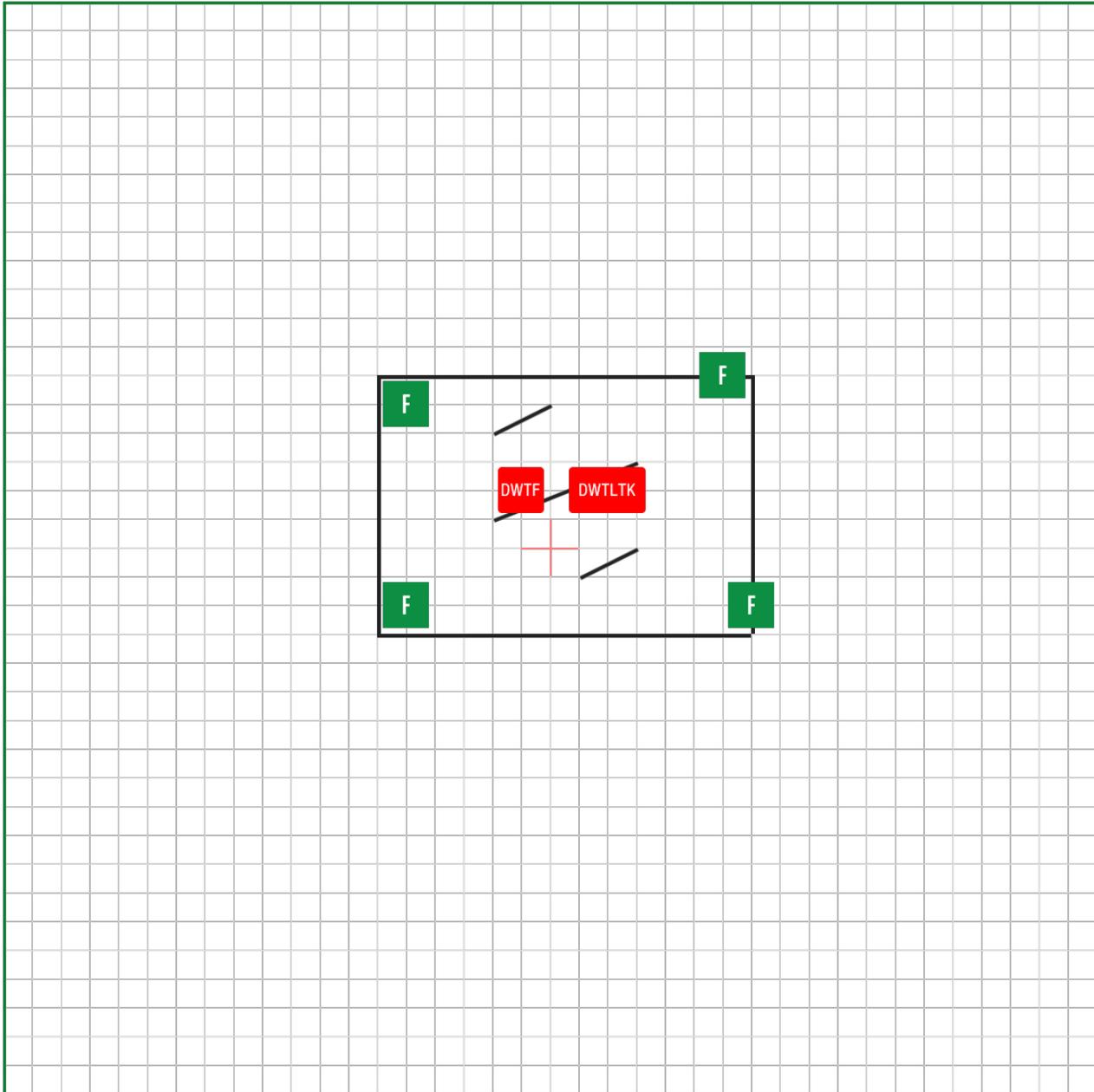


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Scale 1:

This graph is a record of a visual, non-destructive inspection by Terminix of certain readily accessible areas of the identified property for visible termite infestation/damage. Terminix is not responsible for repairs to damages disclosed above. In addition, hidden damage may exist in concealed, obstructed or inaccessible areas. No attempt to remove siding, plastic or sheetrock insulation, carpeting, paneling, etc. to search for hidden damage was made. Terminix cannot guarantee that the damage disclosed by visual inspection of the premises shown above represents the entirety of the damage which may exist as of the date of the initial control application. Terminix shall not be responsible for repair of any existing damage including without limitation, any damage which existed in areas or in structural members which were not accessible for visual inspection as of the date of this graph.

FLOOR PLAN LEGEND

PROPERTY ELEMENTS

	Exterior Gas Grill		Water Shut-Off		Sprinkler Shut-Off		Gas Meter
	Air Conditioner		Exterior New Paint		Exterior Weather Door		Foam Board Insulation
	French Drain		Finished Garage Wall		Interior New Paint		Stall Shower
	Stump		Sump Pump		Visible Waterway		Zero Property Line

KEY TO EVIDENCE

	Access Holes Allowing Pest Entry		Ant Activity		Bed Bug Activity		Bird Activity
	Carpenter Ants Fume		Carpenter Ants Local Treatment		Carpenter Bee Local Treatment		Cellulose Debris
	Cistern		Cracks In Foundation Wall		Cracks In Stucco		Dampwood Termites
	Drywood Termites Local Treatment		Drywood Termites (Existing Customer)		Drywood Termites Preventative Treatment		Drywood Termites Fumigation
	Earth Contact		Excessive Moisture		Excessive Moisture In Subarea		Exterior Slab Over Basement Area
	Faulty Grade		Faulty Grade At Vent		Faulty Grade Flash Wall		Firewood At Foundation
	Flaking Peeling Wall		Flies		Fungus		Gnaw Marks/Debris (Rodent)
	Heavy Vegetation		Inaccessible Area(s) Attic: Duct Work		Inaccessible Area(s) Attic: Insulation		Inaccessible Area(s) Attic: No Clearance
	Inaccessible Area(s) Attic: No Opening		Inaccessible Area(s) Attic: Storage		Inaccessible Area(s) Attic: Closet Storage		Inaccessible Area(s) Attic: High Temp
	Inaccessible Area(s) Deck: No Clearance		Inaccessible Area(s) Deck: No Clearance		Inaccessible Area(s) Garage: Storage		Inaccessible Area(s)
	Inaccessible Subarea		Inadequate Ventilation		Large Gaps		Mice
	Mosquitoes		Missing Screens/Vent Covers		Plumbing Leak		Powder Post Beetles Fume
	Roaches		Rodents		Rodent Droppings		Rodent Tunneling In Insulation
	Rodent Tunneling Under Slab Or Concrete Pad		Rodent Waste (Droppings)		Rub Marks (Rodent)		Siding Less Than 6" From Grade
	Spiders		Standing Water in Subarea		Stucco Below Grade		Styrofoam Insulation Or DRI-Vit Below Grade
	Subterranean Termites (Existing Customer)		Subterranean Termites Preventative Treatment		Subterranean Termites Liquid Treatment		Subterranean Termites Local Treatment
	Subterranean Termites Curative Bait		Vent Below Grade		Water Stains		Water Stains: Deck Stucco
	Water Stains: Garage Ceiling		Water Stains: Attic		Wildlife		Wood Embedded In Concrete



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FLOOR PLAN LEGEND

GENERAL TREATMENT SPECIFICATIONS

117	Trench or trench/rod soil adjacent to exterior foundation walls	117A	Vertically drill exterior attached slabs and treat soil beneath along point of attachment
118	Excavate soil beneath dirt-filled porch slab at point(s) of attachment to the structure and treat soil beneath	120	Vertically drill the dirt-filled porch slab and treat the soil beneath the slab along the point(s) of attachment to the structure
121A	Drill the exterior foundation wall of a crawl space or basement from the inside and treat the soil immediately beneath the dirt-filled porch slab by short-rodming along the point(s) of attachment to the structure		
121B	Drill through each side of the dirt-filled porch foundation wall per product label specifications and treat the soil immediately beneath the dirt-filled porch slab by short-rodming along the entire inside perimeter of the DFP		
121C	Drill foundation walls of the dirt-filled porch and treat the soil immediately beneath the slab by long-rodming adjacent to the entire inside perimeter of the DFP		
128	Trench, remove, and treat soil by the Backfill Method (see label)	129	Drill and treat voids of a double brick foundation wall per product label specifications
130	Drill and treat voids of a stone foundation wall per product label specifications	131	Drill and treat voids of a triple brick foundation wall per product label specifications
132	Drill and treat voids of a hollow block foundation wall per product label specifications	133	Drill and treat voids of a brick veneer foundation wall per product label specifications
134	Drill and treat all voids of a chimney per product label specifications	138	Drill and treat a subterranean termite infested wooden sill or plate
140	Drill and treat a subterranean termite infested wooden joist/s	145	Drill into voids of termite infested wood and inject product into inaccessible voids ,termite galleries and nests
146	Make small openings into termite shelter tubes and inject product inside	147	Make multiple openings into carton nests in building voids or in trees and make multiple injections of products to varying depths
160	Trench, trench and rod, or rod soil of planter box adjacent to the exterior foundation wall according to state specific treatment standards or to label directions, whichever apply		
501	Install In-ground Monitoring Station		

NON-CHEMICAL TREATMENT SPECIFICATIONS

101	Provide at least 14" clearance between wood and soil in the crawl space	102	Install access to ceiling of basement for inspection and/or treatment
104	Install door/s to provide access for treating soil adjacent to plumbing	105	Install crawl space access door
106	Install Automatic Vents	109	Remove cellulose debris and/or any other debris that would interfere with inspection or treatment in the crawl space
109A	Remove form boards	110	Scrape off termite tunnels
111	Set wooden supports on concrete pads to properly insulate wood to soil contact	135	Cut off stucco at least 3" above grade and remove stucco below grade
149	Remove wood to ground contacts	152	Break ground contact on step stringers
161	Prepare floor surface for drilling	205	Install a vapor barrier over the soil of a crawl space
206	Install floor supports to provide additional support		



FLOOR PLAN LEGEND

BASEMENT TREATMENT SPECIFICATIONS

122	Vertically drill basement concrete slab floor and treat the soil beneath	144	Drill and treat basement door frames
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CRAWL SPACE TREATMENT SPECIFICATIONS

114	Trench or trench/rod soil adjacent to the inside of the foundation walls of a crawl space	115	Trench or trench and rod soil adjacent to the piers of a crawl space
116	Trench or trench and rod soil adjacent to soil pipes of a crawl space	119	Trench or trench and rod soil adjacent to a chimney of a crawl space

EXCLUSION/WILDLIFE TREATMENT SPECIFICATIONS

900	Trap - Wildlife	901	Install Mushroom/Turbine Vent Cage - Roof
902	Seal Mushroom/Termite Vent - In Attic	903	Install Plumbing Vent Cap - Roof
904	Screen Gable Vent	905	Screen Foundation Vent
906	Screen Soffit Vent	907	Repair Roof Return
908	Seal Pipe Penetration	909	Seal Hole In Wall/Foundation, Floor, Etc.
910	Install One-Way Door Exclusion Cage	911	Install Garage Door Seal
912	Install Dryer Vent Cover - Wall	913	Install Oven Vent Cover - Wall
914	Install Oven Vent Cage - Roof	915	Install Chimney Cap

PRE-CONSTRUCTION TREATMENT SPECIFICATIONS

171	Vertical treatment zone - trench or trench and rod soil adjacent to pillars and other interior foundation elements such as chimneys and soil pipes	172	Vertical treatment zone - trench or trench/rod soil adjacent to utility pipes, plumbing lines, and conduits that will penetrate through the slab (1 gallon/sqft)
173	Horizontal treatment zone - make a horizontal treatment to the entire surface area of soil or substrate to be covered beneath the concrete slab	174	Vertical treatment zone - upon completion of grading along the outside of the exterior foundation wall, treat the backfill by trenching or trenching/rodding the soil adjacent to the exterior foundation wall

SLAB TREATMENT SPECIFICATIONS

122A	Drill the slab per product label specifications along the expansion joint where two slabs meet and treat soil underneath	123	Treat soil adjacent to plumbing penetrations
123A	Drill the slab along one side of the partition wall per product label specifications and treat the soil beneath	123AA	Drill the slab along both sides of a load-bearing wall per product label specifications and treat the soil beneath
124	Drill through the exterior foundation wall immediately below the slab per product label specifications and treat the soil beneath by short-rodding from the outside	126	Vertically drill the slab along the inside perimeter of the foundation walls and treat the soil beneath the slab



Summary of Charges

	Product	Renewals	Amount	Tax	Discount	Total Amount
Special Charges	Local Treatment - Drywood		\$1685.00	\$0.00	\$0.00	\$1685.00
Grand Total:						\$1685

Product	Merchandise	Quantity
---------	-------------	----------

Purchaser Payments

By signing below, I, the cardholder, have authorized Terminix to process this one-time payment without further signature or authorization from me.

\$

Authorization

Purchaser Name: SANITARY DISTRICT **Purchaser (Signature):** _____ **Date:** _____

AUTOPAY: Purchaser authorizes Terminix and affiliates including SMAC to automatically debit Purchaser's checking account or credit card, as indicated below, in an amount equal to any recurring service charges due to Terminix under this Agreement within five (5) days of the date such charge becomes due. This authorization will remain in effect until the fifth business day following Terminix's receipt from Purchaser of a written notice to cancel such authorization. Purchaser understands that cancellation of this authorization does not cancel Purchaser's obligations under this Agreement.

Terminix Authorization

Purchaser Name: SANITARY DISTRICT **Purchaser (Signature):** _____ **Date:** _____

SMAC Authorization

Purchaser Name: SANITARY DISTRICT **Purchaser (Signature):** _____ **Date:** _____

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Air Quality Assessment Report

Prepared for Marin Sanitary District No. 5 by Healthy Building Science



Subject Property Address 2001 Paradise Drive , Tiburon, CA 94920

Dates of Sampling August 4, 2021

Client Contact Chad Bilsborough

Onsite Sampling and Report by
Laurel Cain of healthy Building Science
Industrial Hygienist, CMI, FSRT, CDPH Lead Inspector/Risk Assessor
laurel@healthybuildingscience.com

Table of Contents

- Executive Summary
- Sampling Protocols, Instrumentation & Methods
- Sampling Results
- Discussion & Observations
- Recommendations
- References
- Appendices
 - A: Qualifications & Limitations
 - B: Floor Plan of Sampling Locations
 - C: Photos of Sampling Equipment & Locations
 - D: Lab Reports and Chains of Custody Forms

Executive Summary

Healthy Building Science was engaged by Chad Bilsborough to perform an air quality assessment at the Marin Sanitary District Plant Number 5 sewage treatment facility to collect air samples for contaminants and to assess processes and systems in order to identify areas where modifications could improve air quality within the plant for the personnel.

Sampling was conducted on August 4, 2021 during normal working conditions over an 8-hour period. While normal work shifts are longer than 8 hours, influent was reported to be fairly consistent throughout the course of the day, so sampling for a longer period of time would not have provided additional information since results are reported as a time weighted average. A total of 5 locations were sampled for organic and inorganic contaminants associated with influent and processes at the plant. Locations were selected based upon where employees spent the most time and areas that would be considered worst-case scenarios.

Sampling included hydrogen sulfide, methane, carbon monoxide, carbon dioxide, sodium and iron (as indicators for sodium hypochlorite, ferrous chloride, and sodium bisulfite) and Total Petroleum Hydrocarbons (as an indicator for Praestol flocculant).

The analysis performed are not intended to be an exhaustive accounting of potential contaminants. The testing is intended to identify problem areas where improved controls could improve the working environment and reduce potential health risks. It is assumed that if tested compounds were found elevated that other potentially offending compounds are also present.

One area exceeded regulatory limits. This was an excess of carbon monoxide in the Boiler Room. Methane was also found above background levels in the Boiler Room, but no regulatory limits specifically apply. Hydrogen sulfide was identified in four of the five samples but found below regulatory limits.

Numerous opportunities for improvement were identified during the site walk. Recommendations include controlling aerosolization in the headworks, correcting combustion exhaust venting in the Boiler Room, increasing ventilation and low oxygen monitoring in the Boiler Room. Increasing fresh air intake in the Lab and the Reception Office and the Break Room. Also, additional testing for chlorine gas in the chemical storage areas is recommended.

Sampling Protocols, Instrumentation & Methods

Sampling was conducted on August 4, 2021 during normal working conditions over an 8-hour period. While normal working shifts are normally longer than 8 hours, influent was reported to be fairly consistent throughout the course of the day, so sampling for a longer period of time was not anticipated to provide additional information.

Air sample collection methods were consistent with the corresponding analytical method. Air samples were collected between 3 and 6 feet (36"-72") from the floor to represent the breathing zone of the building personnel.

Samples were collected during business hours with ventilation conditions typical for occupancy throughout the sampling. A total of 5 locations were sampled for organic and inorganic contaminants associated with influent and processes at the plant. Locations were selected based upon where employees spent the most time and in areas that would be considered worst-case scenarios.

All laboratory sample analysis was performed by EMSL Analytical Inc, in Cinnaminson, NJ (AIHA-LAP, LLC IHLAP accreditation #100194) in conformance with ISO/IEC 17025:2017 standard for accreditation for the test methods employed. All raw data lab reports are included in Appendix D of this report.

Hydrogen sulfide (H_2S) was collected via six (6) liter summa canisters with lab issued flow controller which collected the samples over an eight-hour period. The samples were shipped overnight to the lab and analyzed within the 24-hour hold time as required by method ASTM D5504-12: Standard Test Method for Determination of Sulfur Compounds in Natural Gas and Gaseous Fuels by Gas Chromatography and Chemiluminescence.

Methane (CH_4) was collected via six (6) liter summa canisters with lab issued flow controller which collected the samples over an eight-hour period. Sample analysis was performed via USEPA TO-3 Modified, Method for the Determination of Volatile Organic Compounds in Ambient Air using Gas Chromatography with Flame Ionization Detector, Rev 1.0, April 1984.

Carbon monoxide (CO) and carbon dioxide (CO_2) were collected via six (6) liter summa canisters with a lab issued flow controller which collected the samples over an eight-hour period. Sample analysis was performed via Fixed Gas Analysis by Using The Draeger CMS (Chip Measurement System).

Total petroleum hydrocarbons (as Diesel / #2 Fuel Oil for petroleum compounds in the C12-C15 range) were collected via passive sampling badges over an eight-hour period. The samples were intended to identify airborne hydrocarbons from the process chemical Praestolin. Sample analysis was via Total Petroleum Hydrocarbons (as VM+P Naphtha) by GC/FID of Passive Assay Samplers via Modified NIOSH 1550, Issue 2, 8/15/94.

Total sodium (Na) and total iron (Fe) were collected via 37 mm 0.8 MCE cassette with a low flow pump. Samples were collected over an 8-hour period with a flow rate of 2 liters per minute for 960 liter sample sizes with the flow rate verified on site before and after sampling. The sodium was intended to be an indicator for sodium hypochlorite and sodium bisulfite, and the iron an indicator for ferrous chloride. Sample analysis was via method NIOSH 7300 Modified with inductively coupled argon plasma, atomic emission spectroscopy (ICP-AES). One field blank was submitted with the samples as indicated by NIOSH 7300.

Sampling Results

Summary of Results with Available Regulatory Limits and Industry Recommendations.

All results are presented as a time weighted average (TWA) over an 8-hour period. Available regulatory limits or hazard guidelines are presented in grey cells. Non-compliant results are highlighted yellow.

Analyte	Locations				
	1 - Chemical Room	2 - Shop	3 - Lab	4 - Boiler Room	5 - Reception - Office
Sodium (Na)*	<0.052 mg/m ³	<0.052 mg/m ³	<0.052 mg/m ³	<0.052 mg/m ³	<0.052 mg/m ³
Iron (Fe)*	<0.0052 mg/m ³	<0.0052 mg/m ³	<0.0052 mg/m ³	<0.0052 mg/m ³	<0.0052 mg/m ³
Hydrogen sulfide (H ₂ S)	ND	0.012 mg/m ³	0.022 mg/m ³	0.067 mg/m ³	0.023 mg/m ³
H ₂ S regulatory limits	OSHA PEL (ceiling) = 28 mg/m ³ NIOSH REL (ceiling) = 15 mg/m ³ ACGIH TLV (Time Weighted Average) = 1.4 mg/m ³				
Total petroleum hydrocarbons	ND	ND	ND	ND	ND
Total petroleum hydrocarbon regulatory limits	NIOSH REL TWA = 350 mg/m ³ NIOSH (ceiling) = 1800 mg/m ³ (15 minute) OSHA PEL TWA = 2000 mg/m ³				
Methane (CH ₄)	3.4 ppmv	ND	ND	7.5 ppmv	ND
CH ₄ limits	No regulations exist, however IPCS INCHEM considers methane an Inhalation risk from suffocation by lowering the oxygen content of the air in confined areas. Physical dangers = Extremely flammable. Gas/air mixtures are explosive. https://inchem.org/documents/icsc/icsc/eics0291.htm Per lab, typical indoor background levels = 2-5 ppm				
Carbon dioxide (CO ₂)	470 ppmV	420 ppmv	490 ppmv	720 ppmv	550 ppmv
CO ₂ regulatory limits	NIOSH REL, OSHA PEL, ACGIH TLV: 5,000 ppm (9,000 mg/m ³) TWA 30,000 ppm (54,000 mg/m ³) STEL				
Carbon monoxide (CO)	<5.2 ppmv	<5.7 ppmv	<6.0 ppmv	61 ppmv	<5.2 ppmv
CO regulatory limits	NIOSH REL TWA 35 ppm (40 mg/m ³) w/ceiling of 200 ppm (229 mg/m ³) OSHA PEL TWA 50 ppm (55 mg/m ³)				

Key:

* = no regulatory limits available. Analyte was sampled to serve as an indicator of target compound with no available or feasible sampling methods.

ACGIH = American Conference of Governmental Industrial Hygienists

IPCS INCHEM = International Programme on Chemical Safety, International Peer Reviewed Chemical Safety Information

ND = Analyte not detected above the reporting limit of the instruments

NIOSH = National Institute for Occupational Safety and Health

OSHA = Occupational Safety and Health Administration

PEL = Permissible Exposure Limit

ppmv = parts per million by volume

REL = Recommended Exposure Limit

TLV = Threshold Limit Value

TWA = Time Weighted Average

Discussion & Observations

The analysis conducted were all reported as time weighted averages (TWAs) in order to identify problem areas where improved engineering controls could improve the working environment and reduce potential health risks. Regulations typically are in place to protect workers from extreme dangers and are not guidelines for achieving an environment without risk. Regulations also typically provide a “ceiling” for real-time or 15-minute exposures. The sampling conducted on August 4, 2021 was exclusively 8-hour averages and cannot verify if ceilings were surpassed. Real-time monitoring would be necessary to capture this data. With the baseline data collected during sampling, targeted monitoring can be employed to obtain more data in areas of concern.

Areas measured as part of the scope of this project are not intended to be an exhaustive accounting of potential contaminants. The testing is intended to identify problem areas where improved engineering controls could improve the working environment and reduce potential health risks. It is assumed that if tested compounds were found elevated that other potentially offending compounds are also present. Improvements to ventilation systems or work processes will typically reduce exposure to identified and unidentified contaminants.

One area exceeded regulatory guidelines which was an excess of carbon monoxide in the Boiler Room. The Boiler Room appears to be problematic for a variety of reasons. Digester gas can be complex and variable mixtures of gases and aerosols, so the airborne contaminants identified should serve as indicators of contamination and the need for improved controls.

The boiler has been retrofitted with a pressure relief valve in the exhaust flue that appears to routinely cough up contaminants upon startup of the boiler. Horizontal surfaces near the valve are coated in a yellow powdery substance. This substance has not been tested but indicates that combustion byproducts are routinely vented into the Boiler Room. The retrofit may have resolved one issue, but it appears to introduce potentially hazardous airborne contaminants and could easily include carbon monoxide. Working with a mechanical engineer to improve this setup will help to reduce contaminants in the area. Ideally, all combustion exhaust is vented to the exterior.

Elevated carbon monoxide (CO) concentrations in the Boiler Room pose a health risk because CO . . .” combines with hemoglobin in the blood to form carboxyhemoglobin (COHb). Excessive accumulations of COHb cause hypoxic stress in healthy individuals as a result of the reduced oxygen-carrying capacity of the blood.” OSHA established the regulatory limits “to ensure that employee COHb levels are maintained at or below 5 percent, in order to protect those workers at greater risk because of cardiovascular or pulmonary impairment. . . . Each molecule of CO combining with hemoglobin reduces the oxygen carrying capacity of the blood and exerts a finite stress on man. Thus, it may be reasoned that there is no dose of CO that is not without an effect on the body. Whether that effect is physiologic or harmful depends upon the dose of CO and the state of health of the exposed individual. . . .OSHA concludes that the hypoxic stress associated with overexposures to carbon monoxide clearly constitutes a material impairment of health and functional capacity.” [1]

Methane was also measured above background levels in the Boiler Room. Methane poses inhalation risks through the displacement of air, reducing the available oxygen. It is also extremely flammable posing a risk of explosion. Time weighted averages do not reveal what concentrations occurred throughout the course of the day. It would be prudent to install a low oxygen alarm in the boiler room to alert personnel of unsafe conditions.

The hydrogen sulfide present in four of the five samples is also a concern for the health of personnel. A medical study found that “occupational exposure of the sewage workers to harmful dust, fumes, gases and bio-aerosols contributed to oxidative stress among them. This oxidative stress was one of the mechanisms which led to the development of obstructive impairment of lung functions in these sewage workers.” [2]

The main point source for the hydrogen sulfide appears to be the influent entering the facility in the headworks where it then spreads throughout the facility. Low oxygen sensors in the headworks are installed to prevent personnel from entering when the contaminants have displaced too much oxygen, but the ventilation installed to dilute the gas is not adequate in preventing the hydrogen sulfide from escaping the headworks and spreading throughout the facility.

The Reception Office reportedly gets a strong buildup of sewer gases overnight. This could pose hazards when personnel first enter the room as well as result in low level exposure throughout the day. The Office and the Break Room both have designated package HVAC units serving the rooms. Both units are equipped with economizers that allow for fresh air intake to be adjusted. Both economizers were set about a 30% open with the capacity to open them further. Maximizing the fresh air intake combined with setting the units to turn on prior to staff arrival could help to dilute contaminants that built up overnight in these areas. The filters for both package units can also be upgraded to high efficiency particulate air (HEPA) filters to reduce particulates and some aerosols.

One sampling detail of note is that the Reception Office had the exterior door open to exhaust the space before the air sampling commenced, so whatever buildup occurred overnight was not captured in the samples.

The results for sodium and iron were all non-detect, however the analysis selected may have missed the offending compounds. The rooms where the process chemicals are stored have strong chemical odors and analytical measurements should not be used in favor of sensory observations. Chloride (present in Sodium Hypochlorite and Ferrous Chloride) is challenging to collect for analysis. Further research could be conducted into feasible sampling methods for chloride. Qualitative indicator testing with litmus paper could be an option for ongoing monitoring conducted by the personnel. Alternately, increasing the ventilation with outside air to these areas will help to dilute the contaminants.

Generally speaking, regarding ventilation, most areas have designated exhaust systems which is excellent, in theory, for preventing cross-contamination. The tricky aspect is balancing increased exhaust with increased fresh air inputs so that rooms don't become negatively pressurized and overpower exhaust systems in adjacent rooms or positively pressurized and result in spilling contaminants out of one room into the next. Modifications to mechanical ventilation should be accomplished with the assistance of a mechanical engineer with the whole facility in mind as to how one change impacts another area.

The ventilation for the Lab, where plant operators spend significant amounts of time, appears to be set up with only negative exhaust which pulls air from the room and exhausts it to the hallway immediately outside the room. The negative pressure created by this type of ventilation will replace the air through the door from the hallway air which is close to the exhaust for the boiler room and the exhaust from the Lab itself. Installation of a designated fresh air input into this room is recommended.

In terms of controlling occupational hazards, traditionally a “hierarchy of controls” is used as a means of determining how to implement feasible and effective control solutions. The most effective solution is to eliminate the hazard, then substitute with a less hazardous chemical or process, then engineering controls, administrative controls, and the last resort should be personal Protective Equipment.

NIOSH leads a national initiative called Prevention through Design (PtD) to prevent or reduce occupational injuries, illnesses, and fatalities through the inclusion of prevention considerations in all designs that impact workers. Hierarchy of controls is a PtD strategy. [3] We recommend using this strategy to control the aerosolization of influent and boiler combustion exhaust.

Recommendations

- Work with a mechanical engineer to improve the boiler exhaust system so that it doesn't exhaust into the occupied area. Ideally, all combustion exhaust is directed to the exterior away from any other air intake vents.
- Install a low oxygen alarm in the boiler room to alert personnel of hazards from elevated methane.
- Increase ventilation rates in the Boiler Room.
- Assess the feasibility of covering the influent grates in the headworks to reduce aerosolization of the raw sewage. Sampling ports could be incorporated into the design. Additionally, increase ventilation in the headworks to prevent hydrogen sulfide from spilling out into the rest of the facility.
- Adjust the economizers/fresh air intakes on the HVAC package units serving the Reception office and the Break Room so that they are pulling the maximum fresh air and program the units to turn on prior to staff arriving in the morning.
- Install (well fitting) high efficiency particulate air (HEPA) filters on the two package units to reduce particulates and some aerosols from the plant processes in these areas.
- Research feasible methods for measuring the chloride gas that may be present in the chemical storage areas. Colorimetric (qualitative) tests collected by plant operators may be the simplest method and could be done at any time.
- Install designated fresh air input into the Lab. Slightly positively pressurizing the room with fresh air would prevent contaminants from adjacent areas from entering the room.

References

[1] Center for Disease Control and Prevention. The National Institute for Occupational Safety and Health (NIOSH). OSHA comments from the January 19, 1989 Final Rule on Air Contaminants Project extracted from 54FR2332 et. seq. <https://www.cdc.gov/niosh/pel88/630-08.html>

[2] Shadab, M. Agrawal, D.K., Aslam, M. Islam, N. Ahmad, Z. (2014). *Occupational Health Hazards among Sewage Workers: Oxidative Stress and Deranged Lung Functions*, 8(4), BC11-BC13. <https://doi.org/10.7860/JCDR/2014/5925.4291>

[3] Center for Disease Control and Prevention. The National Institute for Occupational Safety and Health (NIOSH). Hierarchy of Controls. <https://www.cdc.gov/niosh/topics/hierarchy/default.html>

Appendix A: Qualifications & Limitations

Limited Warranty - In performing work on behalf of a Client, Healthy Building Science Inc, (HBS) relies on its Client to provide instructions on the scope of its retainer and, on that basis; HBS determines the precise nature of the work to be performed. HBS undertakes all work in accordance with applicable accepted industry practices and standards. Unless expressly stated herein, no other warranties or conditions, either expressed or implied, are made regarding the services, work or reports provided.

Reliance on Materials and Information - The findings and results presented in reports prepared by HBS are based on the materials and information provided by the Client to HBS and on the facts, conditions and circumstances encountered by HBS during the performance of the work requested by the Client. In formulating its findings and results into a report, HBS assumes that the information and materials provided by the Client or obtained by HBS from the Client or otherwise are factual, accurate and represent a true depiction of the circumstances that exist. HBS relies on its Client to inform HBS if there are changes to any such information and materials. HBS does not review, analyze or attempt to verify the accuracy or completeness of the information or materials provided, or circumstances encountered, other than in accordance with applicable accepted industry practice. HBS will not be responsible for matters arising from incomplete, incorrect or misleading information or from facts or circumstances that are not fully disclosed or that are concealed from HBS during the provision of services, work or reports.

Facts, conditions, information and circumstances may vary with time and location and HBS's work is based on a review of such matters as they existed at the particular time and location indicated in its reports. No assurance is made by HBS that the facts, conditions, information, circumstances or any underlying assumptions made by HBS in connection with the work performed will remain unchanged after the work is completed and a report is submitted. If any such changes occur or additional information is obtained, HBS should be advised and requested to consider whether or not the changes or additional information affect its findings or results.

When preparing reports, HBS considers applicable legislation, regulations, governmental guidelines and policies to the extent to which they are within its knowledge, but HBS is not qualified to advise with respect to legal matters. The presentation of information regarding applicable legislation, regulations, governmental guidelines and policies is for information only and is not intended to and should not be interpreted as constituting a legal opinion concerning the work completed or conditions outlined in a report. All legal matters should be reviewed and considered by an appropriately qualified legal practitioner.

Site Assessments - A site assessment is created using data and information collected during the investigation of a site and based on conditions encountered at the time and particular location at which fieldwork is conducted. The information, sample results and data collected are representative of their condition only at the specific times at which they were obtained and at those specific locations from which they were obtained. Information, sample results and data may vary at other locations and times. To the extent that HBS's work or report considers any locations or times other than those from which information, sample results and data were specifically received, the work or report is based on a reasonable extrapolation from such information, sample results and data, but the actual conditions encountered may vary from those extrapolations.

Only conditions at the site and locations chosen for study by the Client are evaluated; no adjacent or other properties are evaluated unless specifically requested by the Client. HBS commits to covering in its reports all matters, which have been investigated or addressed. Any matters not specifically addressed in a report prepared by HBS (including any other aspects of the site chosen for study by the Client), are beyond the scope of the work performed by HBS.

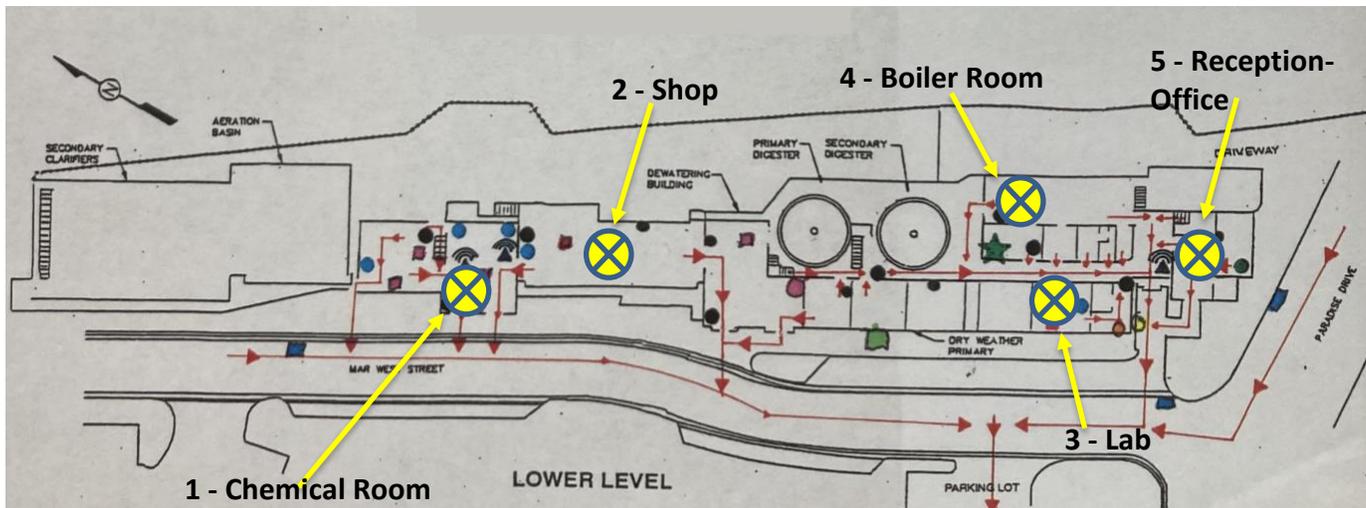
No Reliance - HBS's services, work and reports are provided for the exclusive use of the Client who has retained the services of HBS and to whom its reports are addressed. HBS is not responsible for the use of its work or reports by any other party, or for the reliance on, or for any decision, which is made by any party, using the services or work performed by HBS, without HBS's express written consent. Any party that relies on services or work performed by HBS or a report prepared by HBS without HBS's express written consent, does so at its own risk. No report produced by HBS may be disclosed or referred to in any public document without HBS's express prior written consent. HBS specifically disclaims any liability or responsibility for any such party for any loss, damage, expense, fine, penalty or other such thing which may result from the use of

any information, recommendation or other matter derived from the services, work or reports provided by HBS.

Limitations of Liability - HBS is not responsible for any lost revenues, lost profits, cost of capital, or any special, indirect, consequential or punitive damages suffered by the Client or any other party in reliance on any HBS work or report. HBS's total liability and responsibility to the Client or any other person for any and all losses, cost, expenses, damage, claims, causes of action or other liability whatsoever which may arise from or be connected to HBS's services, work (or failure to perform services or work) or reports shall be limited to the invoiced charges for the work performed by HBS.

Appendix B: Sampling Locations

Samples were all collected on the lower level of the facility in the locations indicated on the floor plan with yellow circles.



Appendix C: Sampling Equipment & Locations



Chemical room sampling location



Shop sampling location



Boiler room sampling location.



Lab sampling location.



Reception office sampling location.



Representative sampling configuration.

Appendix D: Lab Reports and Chain of Custody Forms



EMSL ANALYTICAL, INC.
 200 Route 130 North
 Cinnaminson, NJ 08077
 Telephone: (856)858-4800 FAX: (856)858-4571
to15lab@EMSL.com | <http://www.EMSL.com>

EMSL ORDER ID: 492100460
 EMSL CUSTOMER ID: HBLD25

Attention: Laurel Cain
 Healthy Building Science
 369-B 3rd Street
 # 521
 San Rafael, CA 94901

Customer PO:
EMSL Project ID:
Project Name: 2021-08-04 Marin Sanitary

Phone: 800-528-6101
Email: laurel@healthybuildingscience.com

Collected: 08/04/2021 07:52
Received: 08/05/2021 13:20
Analyzed: See Results
Reported: 8/11/2021

ASTM D5504-12- Sample Summary

EMSL Sample ID.	Client Sample ID.	Start Sampling Date	Start Sampling Time
492100460-0001	C4 - Boiler Room	8/4/2021	7:52 AM
492100460-0002	C1 - Chemical Room	8/4/2021	7:05 AM
492100460-0003	C3 - Lab	8/4/2021	7:36 AM
492100460-0004	C2 - Shop	8/4/2021	7:22 AM
492100460-0005	C5 - Reception	8/4/2021	8:03 AM

If "Preliminary Report" is displayed in the signature box; this indicates that there are samples that have not yet been analyzed, that are in a preliminary state, or that analysis is in progress but not completed at the time of report issue.

Report Date	Report Revision	Revision Comments
8/11/2021	R0	Initial Report

Owen McKenna, National Organics Manager
 or other approved signatory

EMSL maintains liability limited to cost of analysis. Interpretation and use of test results are the responsibility of the client. This report relates only to the samples reported above, and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. The report reflects the samples as received. Results are generated from the field sampling data (sampling volumes and areas, locations, etc.) provided by the client on the Chain of Custody. Samples are within quality control criteria and met method specifications unless otherwise noted.



EMSL ANALYTICAL, INC.
200 Route 130 North
Cinnaminson, NJ 08077
Telephone: (856)858-4800 FAX: (856)858-4571
to15lab@EMSL.com | <http://www.EMSL.com>

EMSL ORDER ID: 492100460
EMSL CUSTOMER ID: HBLD25

Attention: Laurel Cain
Healthy Building Science
369-B 3rd Street
521
San Rafael, CA 94901

Customer PO:
EMSL Project ID:
Project Name: 2021-08-04 Marin Sanitary

Phone: 800-528-6101
Email: laurel@healthybuildingscience.com

Collected: 08/04/2021 07:52
Received: 08/05/2021 13:20
Analyzed: See Results
Reported: 8/11/2021

Case Narrative

Method Reference

ASTM D5504-12: Standard Test Method for Determination of Sulfur Compounds in Natural Gas and Gaseous Fuels by Gas Chromatography and Chemiluminescence, ASTM International, West Conshohocken, PA, 2012,

Column

Varian CP-Sil 5 CB, 50m x 0.53mm ID x 5um

Concentrator Traps:

2.0 cc Loop

Gas Standards:

Certified Gas standards were used for all analyses.

Sample Volumes:

Sample volume aliquots for this procedure is 2.0 cc by loop injection. Other volumes for sample dilutions are reflected on each result page.

Holding Times:

Standard holding times of 1 day were met for all samples.

Sampling Pressures:

All samples (Summa Canister) were received at acceptable pressure/vacuum unless listed below.

Sample Dilutions:

Dilutions reported are designated by the sample # with a "DL" suffix resulting from initial analysis having compounds exceeding calibration as reported with an "E" qualifier.

QA/QC criteria outside method specifications are listed below (if applicable).

Initial Calibration

All Initial Calibration criteria met method specification.

Initial Calibration Verification Standard (ICVS)- Second Source

ICVS met method specification with 70-130% recovery for 100% of compounds.

Laboratory Control Sample (LCS)

LCS met method specification with 70-130% recovery for 100% of compounds. *(If the LCS does not meet criteria but any compounds which have recoveries >130% are not found in the samples, samples may be reported)*

Continuing Calibration Verification Standard (CCVS)

CCVS met method specification with all compounds within 30% deviation.

Ending Calibration Verification Standard (ECVS)

ECVS met method specification with all compounds within 30% deviation.



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EMSL ORDER ID: 492100460
 EMSL CUSTOMER ID: HBLD25

Attention: Laurel Cain
 Healthy Building Science
 369-B 3rd Street
 # 521
 San Rafael, CA 94901

Customer PO:
EMSL Project ID:
Project Name: 2021-08-04 Marin Sanitary

Phone: 800-528-6101
Email: laurel@healthybuildingscience.com

Collected: 08/04/2021 07:52
Received: 08/05/2021 13:20
Analyzed: See Results
Reported: 8/11/2021

Method Blanks (MB)

Method Blank met method specification.

Sample Duplicate (DUP)

Sample Duplicate met method specification with all hits within 25% Relative Standard Deviation (RPD).

Manual Integration : -Listed below if applicable. Before and after documentation provided in extended deliverable packages.

The following data qualifiers that may have been reported with the data,

- ND-** Non Detect. This notation would be used in the results column in lieu of a "U" qualifier.
- U-** Compound was analyzed for but not detected at a listed and appropriately adjusted reporting level.
- J-** Estimated value reported below adjusted reporting limit for target compounds or estimating a concentration for TICs where a 1:1 response is assumed.
- B-** Compound found in associated method blank as well as in the sample.
- E-** Estimated value exceeding upper calibration range of instrument. Ethanol and isopropyl alcohol are not specifically targeted to dilute within calibration range.
- D-** Compound reported from additional diluted analysis.
- N-** indicates presumptive evidence of a compound based on library search match.

EMSL Analytical, Inc. certifies that this data package is in compliance with the terms and conditions of this contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer –readable data submitted on diskette has been authorized by the laboratory manager or his/her designee, as verified by the following signature.

If "Preliminary Report" is displayed in the signature box; this indicates that there are samples that have not yet been analyzed, that are in a preliminary state, or that analysis is in progress but not completed at the time of report issue.

Report Date	Report Revision	Revision Comments
8/11/2021	R0	Initial Report

Owen McKenna, National Organics Manager
 or other approved signatory

EMSL maintains liability limited to cost of analysis. Interpretation and use of test results are the responsibility of the client. This report relates only to the samples reported above, and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. The report reflects the samples as received. When the information supplied by the customer can affect the validity of the results, it will be noted on the report.



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to15lab@EMSL.com | <http://www.EMSL.com>

EMSL ORDER ID: 492100460
 EMSL CUSTOMER ID: HBLD25
 EMSL SAMPLE ID: 492100460-0001
CUSTOMER SAMPLE ID: C4 - Boiler Room

Attention: Laurel Cain
 Healthy Building Science
 369-B 3rd Street
 # 521
 San Rafael, CA 94901

Customer PO:
EMSL Project ID:
Project Name: 2021-08-04 Marin Sanitary

Phone: 800-528-6101
Email: laurel@healthybuildingscience.com

Collected: 08/04/2021 07:52
Received: 08/05/2021 13:20
Analyzed: See Results
Reported: 8/11/2021

Analysis	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
Initial	08/05/2021	KW	S2751.D	E0303	2 cc	1.13

Target Compound Results Summary

Target Compounds	CAS#	MW	Result ppbv	RL ppbv	Q	Result ug/m3	RL ug/m3	Comments
Hydrogen Sulfide	7783-06-4	34.08	48	4.5		67	6.3	

Qualifier Definitions

B = Compound also found in method blank.
 E= Estimated concentration exceeding upper calibration range.
 D= Result reported from diluted analysis.

ND = Non Detect

Threshold References

Analyte	Odor Characteristic ²	Lowest Validated Odor Threshold ²	OSHA PEL (gen. industry-ceiling) ¹	NIOSH REL (ceiling) ¹	ACGIH TLV (TWA) ¹
Hydrogen Sulfide	Rotten eggs, flatus	1ppb	20ppm	10ppm	1ppm

Reference

¹ www.osha.gov
² "Odor Thresholds for Chemicals with Established Occupational Health Standards", AIHA, Fairfax VA, 1989
³ MSDS sheet, www.arkema-inc.com

Agency Definitions

OSHA= Occupational Safety and Health Administration
 NIOSH=National Institute for Occupational Safety and Health
 ACGIH=American Conference of Governmental Industrial Hygienists

Method Reference

ASTM D5504-12: Standard Test Method for Determination of Sulfur Compounds in Natural Gas and Gaseous Fuels by Gas Chromatography and Chemiluminescence

Exposure Limit Definitions

PEL= Permissible Exposure Limit
 REL=Recommended Exposure Limit
 TWA=Time Weighted Average
 NE= Not established
 TLV=Threshold Limit Value



EMSL ANALYTICAL, INC.
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 Cinnaminson, NJ 08077
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to15lab@EMSL.com | <http://www.EMSL.com>

EMSL ORDER ID: 492100460
 EMSL CUSTOMER ID: HBLD25
 EMSL SAMPLE ID: 492100460-0002
CUSTOMER SAMPLE ID: C1 - Chemical Room

Attention: Laurel Cain
 Healthy Building Science
 369-B 3rd Street
 # 521
 San Rafael, CA 94901

Customer PO:
EMSL Project ID:
Project Name: 2021-08-04 Marin Sanitary

Phone: 800-528-6101
Email: laurel@healthybuildingscience.com

Collected: 08/04/2021 07:05
Received: 08/05/2021 13:20
Analyzed: See Results
Reported: 8/11/2021

Analysis	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
Initial	08/05/2021	KW	S2752.D	E31278	2 cc	1.04

Target Compound Results Summary

Target Compounds	CAS#	MW	Result ppbv	RL ppbv	Q	Result ug/m3	RL ug/m3	Comments
Hydrogen Sulfide	7783-06-4	34.08	ND	4.2		ND	5.8	

Qualifier Definitions

B = Compound also found in method blank.
 E = Estimated concentration exceeding upper calibration range.
 D = Result reported from diluted analysis.

ND = Non Detect

Threshold References

Analyte	Odor Characteristic ²	Lowest Validated Odor Threshold ²	OSHA PEL (gen. industry-ceiling) ¹	NIOSH REL (ceiling) ¹	ACGIH TLV (TWA) ¹
Hydrogen Sulfide	Rotten eggs, flatus	1ppb	20ppm	10ppm	1ppm

Reference

- ¹ www.osha.gov
² "Odor Thresholds for Chemicals with Established Occupational Health Standards", AIHA, Fairfax VA, 1989
³ MSDS sheet, www.arkema-inc.com

Agency Definitions

OSHA= Occupational Safety and Health Administration
 NIOSH=National Institute for Occupational Safety and Health
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Method Reference

ASTM D5504-12: Standard Test Method for Determination of Sulfur Compounds in Natural Gas and Gaseous Fuels by Gas Chromatography and Chemiluminescence

Exposure Limit Definitions

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 REL=Recommended Exposure Limit
 TWA=Time Weighted Average
 NE= Not established
 TLV=Threshold Limit Value



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 Cinnaminson, NJ 08077
 Telephone: (856)858-4800 FAX: (856)858-4571
to15lab@EMSL.com | <http://www.EMSL.com>

EMSL ORDER ID: 492100460
 EMSL CUSTOMER ID: HBLD25
 EMSL SAMPLE ID: 492100460-0003
CUSTOMER SAMPLE ID: C3 - Lab

Attention: Laurel Cain
 Healthy Building Science
 369-B 3rd Street
 # 521
 San Rafael, CA 94901

Customer PO:
EMSL Project ID:
Project Name: 2021-08-04 Marin Sanitary

Phone: 800-528-6101
Email: laurel@healthybuildingscience.com

Collected: 08/04/2021 07:36
Received: 08/05/2021 13:20
Analyzed: See Results
Reported: 8/11/2021

Analysis	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
Initial	08/05/2021	KW	S2753.D	E31283	2 cc	1.19

Target Compound Results Summary

Target Compounds	CAS#	MW	Result ppbv	RL ppbv	Q	Result ug/m3	RL ug/m3	Comments
Hydrogen Sulfide	7783-06-4	34.08	16	4.8		22	6.6	

Qualifier Definitions

B = Compound also found in method blank.
 E= Estimated concentration exceeding upper calibration range.
 D= Result reported from diluted analysis.

ND = Non Detect

Threshold References

Analyte	Odor Characteristic ²	Lowest Validated Odor Threshold ²	OSHA PEL (gen. industry-ceiling) ¹	NIOSH REL (ceiling) ¹	ACGIH TLV (TWA) ¹
Hydrogen Sulfide	Rotten eggs, flatus	1ppb	20ppm	10ppm	1ppm

Reference

¹ www.osha.gov
² "Odor Thresholds for Chemicals with Established Occupational Health Standards", AIHA, Fairfax VA, 1989
³ MSDS sheet, www.arkema-inc.com

Agency Definitions

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Method Reference

ASTM D5504-12: Standard Test Method for Determination of Sulfur Compounds in Natural Gas and Gaseous Fuels by Gas Chromatography and Chemiluminescence

Exposure Limit Definitions

PEL= Permissible Exposure Limit
 REL=Recommended Exposure Limit
 TWA=Time Weighted Average
 NE= Not established
 TLV=Threshold Limit Value



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 Cinnaminson, NJ 08077
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to15lab@EMSL.com | <http://www.EMSL.com>

EMSL ORDER ID: 492100460
 EMSL CUSTOMER ID: HBLD25
 EMSL SAMPLE ID: 492100460-0004
CUSTOMER SAMPLE ID: C2 - Shop

Attention: Laurel Cain
 Healthy Building Science
 369-B 3rd Street
 # 521
 San Rafael, CA 94901

Customer PO:
EMSL Project ID:
Project Name: 2021-08-04 Marin Sanitary

Phone: 800-528-6101
Email: laurel@healthybuildingscience.com

Collected: 08/04/2021 07:22
Received: 08/05/2021 13:20
Analyzed: See Results
Reported: 8/11/2021

Analysis	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
Initial	08/05/2021	KW	S2754.D	E31288	2 cc	1.13

Target Compound Results Summary

Target Compounds	CAS#	MW	Result ppbv	RL ppbv	Q	Result ug/m3	RL ug/m3	Comments
Hydrogen Sulfide	7783-06-4	34.08	8.4	4.5		12	6.3	

Qualifier Definitions

B = Compound also found in method blank.
 E= Estimated concentration exceeding upper calibration range.
 D= Result reported from diluted analysis.

ND = Non Detect

Threshold References

Analyte	Odor Characteristic ²	Lowest Validated Odor Threshold ²	OSHA PEL (gen. industry-ceiling) ¹	NIOSH REL (ceiling) ¹	ACGIH TLV (TWA) ¹
Hydrogen Sulfide	Rotten eggs, flatus	1ppb	20ppm	10ppm	1ppm

Reference

- ¹ www.osha.gov
² "Odor Thresholds for Chemicals with Established Occupational Health Standards", AIHA, Fairfax VA, 1989
³ MSDS sheet, www.arkema-inc.com

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ASTM D5504-12: Standard Test Method for Determination of Sulfur Compounds in Natural Gas and Gaseous Fuels by Gas Chromatography and Chemiluminescence

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PEL= Permissible Exposure Limit
 REL=Recommended Exposure Limit
 TWA=Time Weighted Average
 NE= Not established
 TLV=Threshold Limit Value



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EMSL ORDER ID: 492100460
 EMSL CUSTOMER ID: HBLD25
 EMSL SAMPLE ID: 492100460-0005
CUSTOMER SAMPLE ID: C5 - Reception

Attention: Laurel Cain
 Healthy Building Science
 369-B 3rd Street
 # 521
 San Rafael, CA 94901

Customer PO:
EMSL Project ID:
Project Name: 2021-08-04 Marin Sanitary

Phone: 800-528-6101
Email: laurel@healthybuildingscience.com

Collected: 08/04/2021 08:03
Received: 08/05/2021 13:20
Analyzed: See Results
Reported: 8/11/2021

Analysis	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
Initial	08/05/2021	KW	S2755.D	E31296	2 cc	1.04

Target Compound Results Summary

Target Compounds	CAS#	MW	Result ppbv	RL ppbv	Q	Result ug/m3	RL ug/m3	Comments
Hydrogen Sulfide	7783-06-4	34.08	16	4.2		23	5.8	

Qualifier Definitions

B = Compound also found in method blank.
 E = Estimated concentration exceeding upper calibration range.
 D = Result reported from diluted analysis.

ND = Non Detect

Threshold References

Analyte	Odor Characteristic ²	Lowest Validated Odor Threshold ²	OSHA PEL (gen. industry-ceiling) ¹	NIOSH REL (ceiling) ¹	ACGIH TLV (TWA) ¹
Hydrogen Sulfide	Rotten eggs, flatus	1ppb	20ppm	10ppm	1ppm

Reference

- ¹ www.osha.gov
² "Odor Thresholds for Chemicals with Established Occupational Health Standards", AIHA, Fairfax VA, 1989
³ MSDS sheet, www.arkema-inc.com

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 ACGIH=American Conference of Governmental Industrial Hygienists

Method Reference

ASTM D5504-12: Standard Test Method for Determination of Sulfur Compounds in Natural Gas and Gaseous Fuels by Gas Chromatography and Chemiluminescence

Exposure Limit Definitions

PEL= Permissible Exposure Limit
 REL=Recommended Exposure Limit
 TWA=Time Weighted Average
 NE= Not established
 TLV=Threshold Limit Value

492100460

TO-15 Sample Information

Please fill out this worksheet in addition to the Chain of Custody form. This information helps us to best analyze your samples, achieve requested TAT, and provide you with helpful interpretation information.

Company: Healthy Building Science

Contact Person:

Name: Laurel Cain

E-mail: Laurel@healthybuildingscience.com

Additional E-mails:

Telephone #: 510-898-8116

Library Search requested: YES NO
A library search (aka Tentatively Identified Compounds) will identify up to 20 of the largest, non-target peaks that are not part of the standard TO-15 list of 74 compounds. If you are performing an Indoor Air Quality or odor investigation, the library search is recommended to provide you with all available information for your sample.

Sample Type:

- Indoor Air Quality (Home/Office) Soil Gas/Sub Slab
- IAQ (Industrial)
- Other:

Sample Description: Sewage treatment plant work areas

PLEASE NOTE: The result forms we provide will not indicate whether your results have exceeded any Exposure Limit criteria established by any regulatory agency. If you would like that information, please check off below which regulatory comparison forms you would like to receive.

- | | | |
|--|-----------------------------|--|
| <input checked="" type="checkbox"/> OSHA PELs/NIOSH RELS | combined form | <input type="checkbox"/> Potential Sources of Compounds found in your IAQ sample |
| <input type="checkbox"/> EPA RSLs - 11/2018, default is THQ 0.1 | Residential Industrial | <input type="checkbox"/> TVOC (Library Search Required for this format) |
| <input type="checkbox"/> EPA VISLs - 3/2012 | IA/SG | <input type="checkbox"/> NH DES_WMD - 2/2013 Indoor Air Soil Gas |
| <input type="checkbox"/> NJ DEP - 1/2018 - Circle one: | VI-Indoor AQ VI-Soil Gas | <input type="checkbox"/> Ohio - 5/2016 - Circle one: Residential Commercial |
| <input type="checkbox"/> NC DENR - 2/2018 - Circle one: | Residential Non-residential | <input type="checkbox"/> Indiana Dept Env Mgmt Screening Levels - 3/2018 |
| <input type="checkbox"/> PA DEP - 11/2016 | Indoor Air | <input type="checkbox"/> Vermont DEC IROCP - 7/2017 (soil gas only) |
| <input type="checkbox"/> PA DEP - 11/2016: Sub Slab Soil Gas OR Near Source Soil Gas | | <input checked="" type="checkbox"/> California DEHHA - 2/2012 |
| <input type="checkbox"/> CA HHSL - 9/2010 - Circle one: | Indoor Air Soil Gas | <input type="checkbox"/> Other; these are the compounds I want reported: |

Please note: There is an additional charge for any of the tests below. USEPA TO-3 AND ASTM 5504 analyses can be performed from your canister at the Cinnaminson NJ Laboratory.

***Very Important Information for Clients!** Hold time for sulfur gases is 1 day from collection. Please schedule your sample collection so samples are received in the lab prior to noon on Friday. Analysis performed out of hold time will have a notation in the report.

- US EPA TO-3 via GC/FID: C₁-C₆ hydrocarbons Methane only
- NIOSH 3900
- ASTM-D5504 via GC/SCD: * Sulfur Scan (H₂S, COS, MeSH, EtSH, DMS) H₂S only

We can provide the following CMS tests from your canisters at the Cinnaminson and Huntington Beach laboratories. Please note these tests are to be used for IAQ/Screening purposes ONLY. EMSL recommends alternate field sampling techniques for these parameters (with the exception of water vapor); please contact your sales rep for the proper media. Please note: There is an additional charge for any of the tests below.

- Draeger CMS Analyzer: CO CO₂ NH₃ O₂ Water Vapor

Sample Retention Policy: All canisters are guaranteed to be retained for one day after results are reported. Please review your results promptly to ensure your project scope is fully addressed. Cans may be retained for a longer period of time, but arrangements to hold your cans must be made through your customer account representative quickly. Thank you.



EMSL ANALYTICAL, INC.
 200 Route 130 North
 Cinnaminson, NJ 08077
 Telephone: (856)858-4800 FAX: (856)858-4571
to15lab@EMSL.com | <http://www.EMSL.com>

EMSL ORDER ID: 492100460
 EMSL CUSTOMER ID: HBLD25

Attention: Laurel Cain
 Healthy Building Science
 369-B 3rd Street
 # 521
 San Rafael, CA 94901

Customer PO:
EMSL Project ID:
Project Name: 2021-08-04 Marin Sanitary

Phone: 800-528-6101
Email: laurel@healthybuildingscience.com

Collected: 08/04/2021 07:52
Received: 08/05/2021 13:20
Analyzed: See Results
Reported: 8/10/2021

USEPA TO-3 Modified- Sample Summary

EMSL Sample ID.	Client Sample ID.	Start Sampling Date	Start Sampling Time
492100460-0001	C4 - Boiler Room	8/4/2021	7:52 AM
492100460-0002	C1 - Chemical Room	8/4/2021	7:05 AM
492100460-0003	C3 - Lab	8/4/2021	7:36 AM
492100460-0004	C2 - Shop	8/4/2021	7:22 AM
492100460-0005	C5 - Reception	8/4/2021	8:03 AM

If "Preliminary Report" is displayed in the signature box; this indicates that there are samples that have not yet been analyzed, that are in a preliminary state, or that analysis is in progress but not completed at the time of report issue.

Report Date	Report Revision	Revision Comments
8/10/2021	R0	Initial Report

Owen McKenna, National Organics Manager
 or other approved signatory

EMSL maintains liability limited to cost of analysis. Interpretation and use of test results are the responsibility of the client. This report relates only to the samples reported above, and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. The report reflects the samples as received. When the information supplied by the customer can affect the validity of the results, it will be noted on the report.



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EMSL ORDER ID: 492100460
EMSL CUSTOMER ID: HBLD25

Attention: Laurel Cain
Healthy Building Science
369-B 3rd Street
521
San Rafael, CA 94901

Customer PO:
EMSL Project ID:
Project Name: 2021-08-04 Marin Sanitary

Phone: 800-528-6101
Email: laurel@healthybuildingscience.com

Collected: 08/04/2021 07:52
Received: 08/05/2021 13:20
Analyzed: See Results
Reported: 8/10/2021

USEPA TO-3 Modified- Case Narrative

Method Reference

USEPA TO-3 Modified, Method for the Determination of Volatile Organic Compounds in Ambient Air using Gas Chromatography with Flame Ionization Detector. Rev 1.0, April 1984

Column

Varian CP-Sil 5 CB, 50m x 0.53mm ID x 5um

Concentrator Traps:

0.1cc Loop

Gas Standards:

Certified Gas standards were used for all analyses.

Sample Volumes:

Sample volume aliquots for this procedure is 0.1cc by loop injection. Other volumes for sample dilutions are reflected on each result page.

Holding Times:

Standard holding times of 30 days (Summa Canister) and 72 hours (Tedlar Bag) were met for all samples.

Sampling Pressures:

All samples (Summa Canister) were received at acceptable pressure/vacuum unless listed below.

Sample Dilutions:

Dilutions reported are designated by the sample # with a "DL" suffix resulting from initial analysis having compounds exceeding calibration as reported with an "E" qualifier.

QA/QC criteria outside method specifications are listed below (if applicable).

Initial Calibration

All Initial Calibration criteria met method specification.

Initial Calibration Verification Standard (ICVS)- Second Source

ICVS met method specification with 70-130% recovery for 100% of compounds.

Laboratory Control Sample (LCS)

LCS met method specification with 70-130% recovery for 100% of compounds. *(If the LCS does not meet criteria but any compounds which have recoveries >130% are not found in the samples, samples may be reported)*

Continuing Calibration Verification Standard (CCVS)

CCVS met method specification with all compounds within 30% deviation.

Ending Calibration Verification Standard (ECVS)

ECVS met method specification with all compounds within 30% deviation.



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EMSL ORDER ID: 492100460
 EMSL CUSTOMER ID: HBLD25

Attention: Laurel Cain
 Healthy Building Science
 369-B 3rd Street
 # 521
 San Rafael, CA 94901

Customer PO:
EMSL Project ID:
Project Name: 2021-08-04 Marin Sanitary

Phone: 800-528-6101
Email: laurel@healthybuildingscience.com

Collected: 08/04/2021 07:52
Received: 08/05/2021 13:20
Analyzed: See Results
Reported: 8/10/2021

Method Blanks (MB)

Method Blank met method specification.

Sample Duplicate (DUP)

Sample Duplicate met method specification with all hits within 25% Relative Standard Deviation (RPD).

Manual Integration : -Listed below if applicable. Before and after documentation provided in extended deliverable packages.

The following data qualifiers that may have been reported with the data,

- ND-** Non Detect. This notation would be used in the results column in lieu of a "U" qualifier.
- U-** Compound was analyzed for but not detected at a listed and appropriately adjusted reporting level.
- J-** Estimated value reported below adjusted reporting limit for target compounds or estimating a concentration for TICs where a 1:1 response is assumed.
- B-** Compound found in associated method blank as well as in the sample.
- E-** Estimated value exceeding upper calibration range of instrument. Ethanol and isopropyl alcohol are not specifically targeted to dilute within calibration range.
- D-** Compound reported from additional diluted analysis.
- N-** indicates presumptive evidence of a compound based on library search match.

EMSL Analytical, Inc. certifies that this data package is in compliance with the terms and conditions of this contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer –readable data submitted on diskette has been authorized by the laboratory manager or his/her designee, as verified by the following signature.

If "Preliminary Report" is displayed in the signature box; this indicates that there are samples that have not yet been analyzed, that are in a preliminary state, or that analysis is in progress but not completed at the time of report issue.

Report Date	Report Revision	Revision Comments
8/10/2021	R0	Initial Report

Owen McKenna, National Organics Manager
 or other approved signatory

EMSL maintains liability limited to cost of analysis. Interpretation and use of test results are the responsibility of the client. This report relates only to the samples reported above, and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. The report reflects the samples as received. When the information supplied by the customer can affect the validity of the results, it will be noted on the report.

NJDEP Certification #: 03036



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 Cinnaminson, NJ 08077
 Telephone: (856)858-4800 FAX: (856)858-4571
to15lab@EMSL.com | <http://www.EMSL.com>

EMSL ORDER ID: 492100460
 EMSL CUSTOMER ID: HBLD25
 EMSL SAMPLE ID: 492100460-0001
 CUSTOMER SAMPLE ID: C4 - Boiler Room

Attention: Laurel Cain
 Healthy Building Science
 369-B 3rd Street
 # 521
 San Rafael, CA 94901

Customer PO:
EMSL Project ID:
Project Name: 2021-08-04 Marin Sanitary

Phone: 800-528-6101
Email: laurel@healthybuildingscience.com

Collected: 08/04/2021 07:52
Received: 08/05/2021 13:20
Analyzed: See Results
Reported: 8/10/2021

Analysis Initial	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
	08/09/2021	CP	F0779.D	E0303	1 cc	1.13

USEPA TO-3 Modified- Target Compound Results Summary

Target Compounds	CAS#	MW	Result ppmv	RL ppmv	Q	Result mg/m3	RL mg/m3	Comments
Methane	74-82-8	16.04	7.5	3.4		4.9	2.2	

Qualifier Definitions

B = Compound also found in method blank.
 E= Estimated concentration exceeding upper calibration range.
 D= Result reported from diluted analysis.

ND = Non Detect

Threshold References

Analyte	Typical Atmospheric Background Levels	Typical Indoor Air Background Levels	OSHA PEL	Hazard
Methane	1.8 ppm	2-5 ppm	n/a	Simple asphyxiant, flammable

Agency Definitions

OSHA= Occupational Safety and Health Administration

Exposure Limit Definitions

PEL= Permissible Exposure Limit

Method Reference

USEPA TO-3 Modified, Method for the Determination of Volatile Organic Compounds in Ambient Air using Gas Chromatography with Flame Ionization Detector. Rev 1.0, April 1984

NJDEP Certification #: 03036



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EMSL ORDER ID: 492100460
 EMSL CUSTOMER ID: HBLD25
 EMSL SAMPLE ID: 492100460-0002
 CUSTOMER SAMPLE ID: C1 - Chemical Room

Attention: Laurel Cain
 Healthy Building Science
 369-B 3rd Street
 # 521
 San Rafael, CA 94901

Customer PO:
EMSL Project ID:
Project Name: 2021-08-04 Marin Sanitary

Phone: 800-528-6101
Email: laurel@healthybuildingscience.com

Collected: 08/04/2021 07:05
Received: 08/05/2021 13:20
Analyzed: See Results
Reported: 8/10/2021

Analysis Initial	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
	08/09/2021	CP	F0780.D	E31278	1 cc	1.04

USEPA TO-3 Modified- Target Compound Results Summary

Target Compounds	CAS#	MW	Result ppmv	RL ppmv	Q	Result mg/m3	RL mg/m3	Comments
Methane	74-82-8	16.04	3.4	3.1		2.2	2.0	

Qualifier Definitions

B = Compound also found in method blank.
 E= Estimated concentration exceeding upper calibration range.
 D= Result reported from diluted analysis.

ND = Non Detect

Threshold References

Analyte	Typical Atmospheric Background Levels	Typical Indoor Air Background Levels	OSHA PEL	Hazard
Methane	1.8 ppm	2-5 ppm	n/a	Simple asphyxiant, flammable

Agency Definitions

OSHA= Occupational Safety and Health Administration

Exposure Limit Definitions

PEL= Permissible Exposure Limit

Method Reference

USEPA TO-3 Modified, Method for the Determination of Volatile Organic Compounds in Ambient Air using Gas Chromatography with Flame Ionization Detector. Rev 1.0, April 1984

NJDEP Certification #: 03036



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EMSL ORDER ID: 492100460
 EMSL CUSTOMER ID: HBLD25
 EMSL SAMPLE ID: 492100460-0003
 CUSTOMER SAMPLE ID: C3 - Lab

Attention: Laurel Cain
 Healthy Building Science
 369-B 3rd Street
 # 521
 San Rafael, CA 94901

Customer PO:
EMSL Project ID:
Project Name: 2021-08-04 Marin Sanitary

Phone: 800-528-6101
Email: laurel@healthybuildingscience.com

Collected: 08/04/2021 07:36
Received: 08/05/2021 13:20
Analyzed: See Results
Reported: 8/10/2021

Analysis Initial	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
	08/09/2021	CP	F0781.D	E31283	1 cc	1.19

USEPA TO-3 Modified- Target Compound Results Summary

Target Compounds	CAS#	MW	Result ppmv	RL ppmv	Q	Result mg/m3	RL mg/m3	Comments
Methane	74-82-8	16.04	ND	3.6		ND	2.3	

Qualifier Definitions

B = Compound also found in method blank.
 E= Estimated concentration exceeding upper calibration range.
 D= Result reported from diluted analysis.

ND = Non Detect

Threshold References

Analyte	Typical Atmospheric Background Levels	Typical Indoor Air Background Levels	OSHA PEL	Hazard
Methane	1.8 ppm	2-5 ppm	n/a	Simple asphyxiant, flammable

Agency Definitions

OSHA= Occupational Safety and Health Administration

Exposure Limit Definitions

PEL= Permissible Exposure Limit

Method Reference

USEPA TO-3 Modified, Method for the Determination of Volatile Organic Compounds in Ambient Air using Gas Chromatography with Flame Ionization Detector. Rev 1.0, April 1984

NJDEP Certification #: 03036



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to15lab@EMSL.com | <http://www.EMSL.com>

EMSL ORDER ID: 492100460
 EMSL CUSTOMER ID: HBLD25
 EMSL SAMPLE ID: 492100460-0004
 CUSTOMER SAMPLE ID: C2 - Shop

Attention: Laurel Cain
 Healthy Building Science
 369-B 3rd Street
 # 521
 San Rafael, CA 94901

Customer PO:
EMSL Project ID:
Project Name: 2021-08-04 Marin Sanitary

Phone: 800-528-6101
Email: laurel@healthybuildingscience.com

Collected: 08/04/2021 07:22
Received: 08/05/2021 13:20
Analyzed: See Results
Reported: 8/10/2021

Analysis Initial	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
	08/09/2021	CP	F0782.D	E31288	1 cc	1.13

USEPA TO-3 Modified- Target Compound Results Summary

Target Compounds	CAS#	MW	Result ppmv	RL ppmv	Q	Result mg/m3	RL mg/m3	Comments
Methane	74-82-8	16.04	ND	3.4		ND	2.2	

Qualifier Definitions

B = Compound also found in method blank.
 E= Estimated concentration exceeding upper calibration range.
 D= Result reported from diluted analysis.

ND = Non Detect

Threshold References

Analyte	Typical Atmospheric Background Levels	Typical Indoor Air Background Levels	OSHA PEL	Hazard
Methane	1.8 ppm	2-5 ppm	n/a	Simple asphyxiant, flammable

Agency Definitions

OSHA= Occupational Safety and Health Administration

Exposure Limit Definitions

PEL= Permissible Exposure Limit

Method Reference

USEPA TO-3 Modified, Method for the Determination of Volatile Organic Compounds in Ambient Air using Gas Chromatography with Flame Ionization Detector. Rev 1.0, April 1984

NJDEP Certification #: 03036



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 200 Route 130 North
 Cinnaminson, NJ 08077
 Telephone: (856)858-4800 FAX: (856)858-4571
to15lab@EMSL.com | <http://www.EMSL.com>

EMSL ORDER ID: 492100460
 EMSL CUSTOMER ID: HBLD25
 EMSL SAMPLE ID: 492100460-0005
 CUSTOMER SAMPLE ID: C5 - Reception

Attention: Laurel Cain
 Healthy Building Science
 369-B 3rd Street
 # 521
 San Rafael, CA 94901

Customer PO:
EMSL Project ID:
Project Name: 2021-08-04 Marin Sanitary

Phone: 800-528-6101
Email: laurel@healthybuildingscience.com

Collected: 08/04/2021 08:03
Received: 08/05/2021 13:20
Analyzed: See Results
Reported: 8/10/2021

Analysis Initial	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
	08/09/2021	CP	F0783.D	E31296	1 cc	1.04

USEPA TO-3 Modified- Target Compound Results Summary

Target Compounds	CAS#	MW	Result ppmv	RL ppmv	Q	Result mg/m3	RL mg/m3	Comments
Methane	74-82-8	16.04	ND	3.1		ND	2.0	

Qualifier Definitions

B = Compound also found in method blank.
 E= Estimated concentration exceeding upper calibration range.
 D= Result reported from diluted analysis.

ND = Non Detect

Threshold References

Analyte	Typical Atmospheric Background Levels	Typical Indoor Air Background Levels	OSHA PEL	Hazard
Methane	1.8 ppm	2-5 ppm	n/a	Simple asphyxiant, flammable

Agency Definitions

OSHA= Occupational Safety and Health Administration

Exposure Limit Definitions

PEL= Permissible Exposure Limit

Method Reference

USEPA TO-3 Modified, Method for the Determination of Volatile Organic Compounds in Ambient Air using Gas Chromatography with Flame Ionization Detector. Rev 1.0, April 1984

NJDEP Certification #: 03036

492100460

TO-15 Sample Information

Please fill out this worksheet in addition to the Chain of Custody form. This information helps us to best analyze your samples, achieve requested TAT, and provide you with helpful interpretation information.

Company: Healthy Building Science

Contact Person: Laurel Cain

Name: Laurel Cain

E-mail: Laurel@healthybuildingscience.com

Additional E-mails:

Telephone #: 510-898-8116

Library Search requested: YES NO
A library search (aka Tentatively Identified Compounds) will identify up to 20 of the largest, non-target peaks that are not part of the standard TO-15 list of 74 compounds. If you are performing an Indoor Air Quality or odor investigation, the library search is recommended to provide you with all available information for your sample.

Sample Type:

- Indoor Air Quality (Home/Office) Soil Gas/Sub Slab
- IAQ (Industrial)
- Other:

Sample Description: Sewage treatment plant work areas

PLEASE NOTE: The result forms we provide will not indicate whether your results have exceeded any Exposure Limit criteria established by any regulatory agency. If you would like that information, please check off below which regulatory comparison forms you would like to receive.

- | | | |
|--|-----------------------------|--|
| <input checked="" type="checkbox"/> OSHA PELs/NIOSH RELS | combined form | <input type="checkbox"/> Potential Sources of Compounds found in your IAQ sample |
| <input type="checkbox"/> EPA RSLs - 11/2018, default is THQ 0.1 | Residential Industrial | <input type="checkbox"/> TVOC (Library Search Required for this format) |
| <input type="checkbox"/> EPA VISLs - 3/2012 | IA/SG | <input type="checkbox"/> NH DES_WMD - 2/2013 Indoor Air Soil Gas |
| <input type="checkbox"/> NJ DEP - 1/2018 - Circle one: | VI-Indoor AQ VI-Soil Gas | <input type="checkbox"/> Ohio - 5/2016 - Circle one: Residential Commercial |
| <input type="checkbox"/> NC DENR - 2/2018 - Circle one: | Residential Non-residential | <input type="checkbox"/> Indiana Dept Env Mgmt Screening Levels - 3/2018 |
| <input type="checkbox"/> PA DEP - 11/2016 | Indoor Air | <input type="checkbox"/> Vermont DEC IROCP - 7/2017 (soil gas only) |
| <input type="checkbox"/> PA DEP - 11/2016: Sub Slab Soil Gas OR Near Source Soil Gas | | <input checked="" type="checkbox"/> California DEHHA - 2/2012 |
| <input type="checkbox"/> CA HHSL - 9/2010 - Circle one: | Indoor Air Soil Gas | <input type="checkbox"/> Other; these are the compounds I want reported: |

Please note: There is an additional charge for any of the tests below. USEPA TO-3 AND ASTM 5504 analyses can be performed from your canister at the Cinnaminson NJ Laboratory.

***Very Important Information for Clients!** Hold time for sulfur gases is 1 day from collection. Please schedule your sample collection so samples are received in the lab prior to noon on Friday. Analysis performed out of hold time will have a notation in the report.

- US EPA TO-3 via GC/FID: C₁-C₆ hydrocarbons Methane only
- NIOSH 3900
- ASTM-D5504 via GC/SCD: * Sulfur Scan (H₂S, COS, MeSH, EtSH, DMS) H₂S only

We can provide the following CMS tests from your canisters at the Cinnaminson and Huntington Beach laboratories. Please note these tests are to be used for IAQ/Screening purposes ONLY. EMSL recommends alternate field sampling techniques for these parameters (with the exception of water vapor); please contact your sales rep for the proper media. Please note: There is an additional charge for any of the tests below.

- Draeger CMS Analyzer: CO CO₂ NH₃ O₂ Water Vapor

Sample Retention Policy: All canisters are guaranteed to be retained for one day after results are reported. Please review your results promptly to ensure your project scope is fully addressed. Cans may be retained for a longer period of time, but arrangements to hold your cans must be made through your customer account representative quickly. Thank you.



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to15lab@EMSL.com | <http://www.EMSL.com>

EMSL ORDER ID: 492100460
 EMSL CUSTOMER ID: HBLD25

Attention: Laurel Cain
 Healthy Building Science
 369-B 3rd Street
 # 521
 San Rafael, CA 94901

Customer PO:
EMSL Project ID:
Project Name: 2021-08-04 Marin Sanitary

Phone: 800-528-6101
Email: laurel@healthybuildingscienc.com

Collected: 8/4/2021 7:52
Received: 08/05/2021 13:20
Analyzed: 8/12/2021
Reported: 8/12/2021
Analyst: Tracy Peters

**Fixed Gas Analysis by Using The Draeger CMS (Chip Measurement System)
 Laboratory Report- Sample Summary**

Client Sample ID.	Client Sample ID.	Compound	Detection Limit (ppmV)	Sample Result (ppmV)
492100460-0001	C4 - Boiler Room	Carbon monoxide	5.7	61
		Carbon dioxide	230	720
492100460-0002	C1 - Chemical Room	Carbon monoxide	5.2	<5.2
		Carbon dioxide	210	470
492100460-0003	C3 - Lab	Carbon monoxide	6.0	<6.0
		Carbon dioxide	240	490
492100460-0004	C2 - Shop	Carbon monoxide	5.7	<5.7
		Carbon dioxide	230	420
492100460-0005	C5 - Reception	Carbon monoxide	5.2	<5.2
		Carbon dioxide	210	550

If "Preliminary Report" is displayed in the signature box; this indicates that there are samples that have not yet been analyzed, that are in a preliminary state, or that analysis is in progress but not completed at the time of report issue.

Report	Report Revision	Revision Comments
8/12/2021	R0	Initial Report

Owen McKenna, National Organics
 or other approved signatory

Test results meet all NELAP requirements unless otherwise specified.

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USEPA TO-15

EMSL Analytical, inc.
 200 Route 130 North
 Cinnaminson, NJ 08077
 Ph. (800) 220-3675
 Fax (856) 786-0327

External Chain of Custody/ Field Test Data Sheet

EMSL ANALYTICAL, INC.
 LABORATORY • PRODUCTS • TRAINING

EMSL Order Number (Lab Use Only):

492100460

Report To Contact Name: <u>Laurel Cain</u>	Bill To Company:	Sampled By (Sign): <u>[Signature]</u>
Company Name: <u>Healthy Building Science</u>	Attention To: <u>Accounts Payable</u>	Sampled By (Name): <u>Laurel Cain</u>
Address 1: <u>369-13 3rd St #521</u>	Address 1: <u>Same</u>	Total # of Samples: <u>5</u>
Address 2: <u>San Rafael CA 94901</u>	Address 2:	Date Shipped: <u>8/4/2021</u>
Phone No.: <u>510-898-8116</u> Fax:	Phone No.: <u>415-785-7986</u> Fax:	Sample Collection Zip Code: <u>94920</u>
Email Results To: <u>Laurel@healthybuildingscience.com</u>	Project Name: <u>2021-08-04_Marin Sanitary</u>	Purchase Order: <u>None</u>

Turnaround Time (in Business Days):	Reporting Format:
<input type="checkbox"/> 10 Day Standard <input checked="" type="checkbox"/> 5 Day <input type="checkbox"/> 4 Day <input type="checkbox"/> 3 Day <input type="checkbox"/> 2 Day <input type="checkbox"/> 1 Day <input type="checkbox"/> Other	<input type="checkbox"/> Results Only (Standard Lab Report) <input type="checkbox"/> Full Deliverables (Surcharge may apply) <input type="checkbox"/> Other <u>8hr. TWA</u>

Field Use - All Information Required!

Lab Use Only

Client Field Sample Identification	Sampling Start Information				Sampling Stop Information				Canister Information				Flow Controller		USEPA TO-15	NUDEP LLTO-15	LIBRARY SEARCH	ASTM-550-4H2S / S PANEL	TO-3: METHANE / C1-C6	NIOSH 3900	Other: CO, CO2	Indoor/ Ambient Air	Soil Gas/Sub Slab	Other*
	Barometric Pres. ("Hg): <u>29.92</u>		Barometric Pres. ("Hg):		Canister Information				Flow Controller															
	Start Date	Time (24 hr clock)	Canister Pressure ("Hg)	Interior Temp. (F)	Stop Date	Time (24 hr clock)	Canister Pressure ("Hg)	Interior Temp. (F)	Canister ID	Size (L)	Can Cert Batch ID	Outgoing Pressure ("Hg)	Incoming Pressure ("Hg)	Reg. ID										
C-4 boiler room	8/4/21	07:52	-29.5	74F	8/4/21	15:52	-3.6	73F	60303	6	C3930	-29.6	-3.2	12589	10.6			X	X	X	X			
C-1 Chemical room		07:05	-29.6	64F		15:04	-1.5	71F	31278		C3929		0.4	12587										
C-3 Lab		07:36	-29.5	67F		15:36	-5.5	72F	31283				-5.0	12591										
C-2 shop		07:22	-30.5	65F		15:22	-3.9	70F	31288		C3927		-3.2	4244										
C-5 reception		0803	-31.0	71F		16:05	-1.1	75F	31296				-0.8	12592										

Comments:

Lab Canister Certification
 Analyst Signature (TO-15): [Signature]

Relinquished by:	Date/ Time	Received by:	Date/ Time	Seal #/Intact	Reason for Exchange (circle appropriate)
<u>Conny Peters</u>	7/26/21 14:15	<u>[Signature]</u>	7/27/21 15:25	205-206	Shipping Courier Receiving <u>Sampling</u> Other:
<u>[Signature]</u>	8/4/21 16:05	<u>[Signature]</u>	8/4/21 16:05	207-208	Shipping <u>Courier</u> Receiving Sampling Other:
<u>[Signature]</u>	8/4/21 17:00	<u>[Signature]</u>	8/5/21 1:20		Shipping Courier Receiving Sampling Other:
<u>OS Px</u>	8/5/21 1:20	<u>[Signature]</u>	8/5/21/1339		Shipping Courier Receiving Sampling <u>Other</u> An
					Shipping Courier Receiving Sampling Other:

Fax 7961-7909-3432

492100460

TO-15 Sample Information

Please fill out this worksheet in addition to the Chain of Custody form. This information helps us to best analyze your samples, achieve requested TAT, and provide you with helpful interpretation information.

Company: Healthy Building Science

Contact Person: Laurel Cain

Name: Laurel Cain

E-mail: Laurel@healthybuildingscience.com

Additional E-mails:

Telephone #: 510-898-8116

Library Search requested: YES NO
 A library search (aka Tentatively Identified Compounds) will identify up to 20 of the largest, non-target peaks that are not part of the standard TO-15 list of 74 compounds. If you are performing an Indoor Air Quality or odor investigation, the library search is recommended to provide you with all available information for your sample.

Sample Type:

- Indoor Air Quality (Home/Office) Soil Gas/Sub Slab
- IAQ (Industrial)
- Other:

Sample Description: Sewage treatment plant work areas

PLEASE NOTE: The result forms we provide will not indicate whether your results have exceeded any Exposure Limit criteria established by any regulatory agency. If you would like that information, please check off below which regulatory comparison forms you would like to receive.

- | | | |
|--|-----------------------------|--|
| <input checked="" type="checkbox"/> OSHA PELs/NIOSH RELS | combined form | <input type="checkbox"/> Potential Sources of Compounds found in your IAQ sample |
| <input type="checkbox"/> EPA RSLs - 11/2018, default is THQ 0.1 | Residential Industrial | <input type="checkbox"/> TVOC (Library Search Required for this format) |
| <input type="checkbox"/> EPA VISLs - 3/2012 | IA/SG | <input type="checkbox"/> NH DES_WMD - 2/2013 Indoor Air Soil Gas |
| <input type="checkbox"/> NJ DEP - 1/2018 - Circle one: | VI-Indoor AQ VI-Soil Gas | <input type="checkbox"/> Ohio - 5/2016 - Circle one: Residential Commercial |
| <input type="checkbox"/> NC DENR - 2/2018 - Circle one: | Residential Non-residential | <input type="checkbox"/> Indiana Dept Env Mgmt Screening Levels - 3/2018 |
| <input type="checkbox"/> PA DEP - 11/2016 | Indoor Air | <input type="checkbox"/> Vermont DEC IROCP - 7/2017 (soil gas only) |
| <input type="checkbox"/> PA DEP - 11/2016: Sub Slab Soil Gas OR Near Source Soil Gas | | <input checked="" type="checkbox"/> California DEHHA - 2/2012 |
| <input type="checkbox"/> CA HHSL - 9/2010 - Circle one: | Indoor Air Soil Gas | <input type="checkbox"/> Other; these are the compounds I want reported: |

Please note: There is an additional charge for any of the tests below. USEPA TO-3 AND ASTM 5504 analyses can be performed from your canister at the Cinnaminson NJ Laboratory.

***Very Important Information for Clients!** Hold time for sulfur gases is 1 day from collection. Please schedule your sample collection so samples are received in the lab prior to noon on Friday. Analysis performed out of hold time will have a notation in the report.

- US EPA TO-3 via GC/FID: C₁-C₆ hydrocarbons Methane only
- NIOSH 3900
- ASTM-D5504 via GC/SCD: * Sulfur Scan (H₂S, COS, MeSH, EtSH, DMS) H₂S only

We can provide the following CMS tests from your canisters at the Cinnaminson and Huntington Beach laboratories. Please note these tests are to be used for IAQ/Screening purposes ONLY. EMSL recommends alternate field sampling techniques for these parameters (with the exception of water vapor); please contact your sales rep for the proper media. Please note: There is an additional charge for any of the tests below.

- Draeger CMS Analyzer: CO CO₂ NH₃ O₂ Water Vapor

Sample Retention Policy: All canisters are guaranteed to be retained for one day after results are reported. Please review your results promptly to ensure your project scope is fully addressed. Cans may be retained for a longer period of time, but arrangements to hold your cans must be made through your customer account representative quickly. Thank you.



EMSL Analytical, Inc.

200 Route 130 North, Cinnaminson, NJ 08077

Phone: (856) 303-2500 Fax: (856) 858-4571 Email: EnvChemistry2@emsl.com

Attn: **Laurel Cain**
Healthy Building Science
369-B 3rd Street
521
San Rafael, CA 94901

8/19/2021

Phone: (800) 528-6101
Fax:

The following analytical report covers the analysis performed on samples submitted to EMSL Analytical, Inc. on 8/5/2021. The results are tabulated on the attached data pages for the following client designated project:

2021-08-04_Marin Sanitary

The reference number for these samples is EMSL Order #012108822. Please use this reference when calling about these samples. If you have any questions, please do not hesitate to contact me at (856) 303-2500.

Approved By:

Phillip Worby, Environmental Chemistry Laboratory
Director



AIHA-LAP, LLC-IHLAP Lab # 100194
NELAP Certification: NJ 03036; NY 10872

The samples associated with this report were received in good condition unless otherwise noted. This report relates only to those items tested as received by the laboratory. The QC data associated with the sample results meet the recovery and precision requirements unless specifically indicated. The final results are not blank corrected unless specifically indicated. The laboratory is not responsible for final results calculated using air volumes that have been provided by non-laboratory personnel. This report may not be reproduced except in full and without written approval by EMSL Analytical, Inc.

**EMSL Analytical, Inc.**

200 Route 130 North, Cinnaminson, NJ 08077

Phone/Fax: (856) 303-2500 / (856) 858-4571

<http://www.EMSL.com>EnvChemistry2@emsl.com

EMSL Order: 012108822

CustomerID: HBLD25

CustomerPO:

ProjectID:

Attn: **Laurel Cain**
Healthy Building Science
369-B 3rd Street
521
San Rafael, CA 94901

Phone: (800) 528-6101
 Fax:
 Received: 8/5/2021 01:30 PM

Project: 2021-08-04_Marin Sanitary

Analytical Results

Client Sample Description M-1
Chemical room
Collected: 8/4/2021
Lab ID: 012108822-0001

Method	Parameter	Result	RL	Units	Prep Date & Analyst	Analysis Date & Analyst
METALS						
7300 Modified	Iron	ND	0.0052	mg/m ³	8/10/2021 JD	8/12/2021 KB
8 Hours TWA <0.0052mg/m3, 480 minutes						
7300 Modified	Sodium	ND	0.052	mg/m ³	8/10/2021 JD	8/12/2021 KB
8 Hours TWA <0.052mg/m3, 480 minutes						

Client Sample Description M-2
Shop
Collected: 8/4/2021
Lab ID: 012108822-0002

Method	Parameter	Result	RL	Units	Prep Date & Analyst	Analysis Date & Analyst
METALS						
7300 Modified	Iron	ND	0.0052	mg/m ³	8/10/2021 JD	8/12/2021 KB
8 Hours TWA <0.0052mg/m3, 480 minutes						
7300 Modified	Sodium	ND	0.052	mg/m ³	8/10/2021 JD	8/12/2021 KB
8 Hours TWA <0.052mg/m3, 480 minutes						

Client Sample Description M-3
Lab
Collected: 8/4/2021
Lab ID: 012108822-0003

Method	Parameter	Result	RL	Units	Prep Date & Analyst	Analysis Date & Analyst
METALS						
7300 Modified	Iron	ND	0.0052	mg/m ³	8/10/2021 JD	8/12/2021 KB
8 Hours TWA <0.0052mg/m3, 480 minutes						
7300 Modified	Sodium	ND	0.052	mg/m ³	8/10/2021 JD	8/12/2021 KB
8 Hours TWA <0.052mg/m3, 480 minutes						

Client Sample Description M-4
Boiler Room
Collected: 8/4/2021
Lab ID: 012108822-0004

Method	Parameter	Result	RL	Units	Prep Date & Analyst	Analysis Date & Analyst
METALS						
7300 Modified	Iron	ND	0.0052	mg/m ³	8/10/2021 JD	8/12/2021 KB
8 Hours TWA <0.0052mg/m3, 480 minutes						
7300 Modified	Sodium	ND	0.052	mg/m ³	8/10/2021 JD	8/12/2021 KB
8 Hours TWA <0.052mg/m3, 480 minutes						

**EMSL Analytical, Inc.**

200 Route 130 North, Cinnaminson, NJ 08077

Phone/Fax: (856) 303-2500 / (856) 858-4571

<http://www.EMSL.com>EnvChemistry2@emsl.com

EMSL Order:	012108822
CustomerID:	HBLD25
CustomerPO:	
ProjectID:	

Attn: **Laurel Cain**
Healthy Building Science
369-B 3rd Street
521
San Rafael, CA 94901

Phone: (800) 528-6101
 Fax:
 Received: 8/5/2021 01:30 PM

Project: 2021-08-04_Marin Sanitary

Analytical Results

Client Sample Description M-5
Reception **Collected:** 8/4/2021 **Lab ID:** 012108822-0005

Method	Parameter	Result	RL	Units	Prep Date & Analyst	Analysis Date & Analyst
METALS						
7300 Modified	Iron	ND	0.0052	mg/m ³	8/10/2021 JD	8/12/2021 KB
8 Hours TWA <0.0052mg/m3, 480 minutes						
7300 Modified	Sodium	ND	0.052	mg/m ³	8/10/2021 JD	8/12/2021 KB
8 Hours TWA <0.052mg/m3, 480 minutes						

Client Sample Description M-6
Field Blank **Collected:** 8/4/2021 **Lab ID:** 012108822-0006

Method	Parameter	Result	RL	Units	Prep Date & Analyst	Analysis Date & Analyst
METALS						
7300 Modified	Iron	ND	0.0050	mg/filter	8/10/2021 JD	8/12/2021 KB
7300 Modified	Sodium	ND	0.050	mg/filter	8/10/2021 JD	8/12/2021 KB

Definitions:

- MDL - method detection limit
- J - Result was below the reporting limit, but at or above the MDL
- ND - indicates that the analyte was not detected at the reporting limit
- RL - Reporting Limit (Analytical)
- D - Dilution Sample required a dilution which was used to calculate final results

Industrial Hygiene - Chain of Custody

200 Route 130 North

EMSL Order Number / Lab Use Only

Cinnaminson, NJ 08077

PHONE: 1-800-220-3675

EMAIL: c@emsl.com



EMSL ANALYTICAL, INC.
LABORATORY PRODUCTS TRAINING

012108822

If Bill-To is the same as Report-To leave this section blank. Third-party billing requires written authorization.

Customer Information	Customer ID:		Billing ID:	
	Company Name:	Healthy Building Science	Company Name:	Healthy Building Science
	Contact Name:	Laurel Cain	Billing Contact:	Accounts Payable
	Street Address:	369B 3rd St. #521	Street Address:	369B 3rd St. #521
	City, State, Zip:	San Rafael CA 94901 Country: US	City, State, Zip:	San Rafael CA 94901 Country: USA
Phone:	5108988116	Phone:	415-785-7986	
Email(s) for Report:	laurel@healthybuildingscience.com	Email(s) for Invoice:	ap@healthybuildingscience.com	

Project Name/No: 2021-08-04_Marin Sanitary Purchase Order: none

EMSL LIMS Project ID: (If applicable, EMSL will provide) US State where samples collected: CA State of Connecticut (CT) must select project location: Commercial (Taxable) Residential (Non-Taxable)

Media Type: Badge, Cassette Media Manufacturer/Part Number: Assay Tech 566, MCE 37mm 0.8µm H21, unknow lot for MCE Media Lot Number:

Sampled By Name: Laurel Cain Sampled By Signature: [Signature] No Samples in Shipment: 11

Turnaround Time (TAT) Options - Please check: (If no selection made, Standard 2 Week (EOD) TAT will apply) 2 Week 1 Week 4 Day 3 Day 2 Day 1 Day Other (Call Lab)

Client Sample ID	Location/Description	Analyte/Method	Media	Flow (lpm)	Sample Time		Sample Type	Sample Date	Comments
					On	Off			
M-1	chemical room	7300/Fe, Na	MCE Cassette	2 LPM	06:55	14:55	Area Personal	8/4/21	LP053462, Iron + Sodium only
P-1	"	1550M	badge	NA	07:02	15:02	Area Personal		6H21 PH5781
M-2	shop	7300/Fe, Na	MCE Cassette	2 LPM	07:16	15:16	Area Personal		LP054198 Iron + Sodium only
P-2	"	1550M	badge	NA	07:20	15:20	Area Personal		6H21 PH7132
M-3	Lab	7300 Fe, Na	MCE Cassette	2 LPM	07:32	15:32	Area Personal		LP 053903 Iron + Sodium only
P-3	"	1550M	badge	NA	07:36	15:36	Area Personal		6H21 PH5907
M-4	Boiler room	7300 Fe, Na	MCE Cassette	2 LPM	07:49	15:49	Area Personal		LP 053406 Iron + Sodium only
P-4	"	1550M	badge	NA	07:51	15:51	Area Personal		6H21 PH7137
M-5	Reception	7300 Fe, Na	MCE Cassette	2 LPM	08:00	16:00	Area Personal		LP 054199 Iron + Sodium only
P-5	"	1550M	badge	NA	08:02	16:02	Area Personal		6H21 PH6110

Special Instructions and/or Regulatory Requirements (Sample Specifications, Processing Methods, Limits of Detection, etc.) sodium bisulfite, Ferrous chloride, Please report results with an 8 hr. TWA. See attached SDS for 1550M analysis. 7300/7303 for sodium hypochlorite

Method of Shipment: FedEx Sample Condition Upon Receipt: Barlow 8/5/21 1:30pm 16.1°C

Relinquished by: [Signature] Date/Time: 8/4/2021 14:10 Received by: [Signature] Date/Time: 8/4/21 14:10

Relinquished by: Modin Corbin [Signature] Date/Time: 8/4/21 17:00 Received by: [Signature] Date/Time: 8-5-21 1:20

Controlled Document - COC-21 Industrial Hygiene R3 03/19/2021 AGREE TO ELECTRONIC SIGNATURE (By checking, I consent to signing this Chain of Custody document by electronic signature.)

EMSL Analytical, Inc.'s Laboratory Terms and Conditions are incorporated into this Chain of Custody by reference in their entirety. Submission of samples to EMSL Analytical, Inc. constitutes acceptance and acknowledgment of all terms and conditions by Customer.

email for TAT 8/5/21

17.5C over → 5 → 6

Page 1 of 3 Order ID: 012108822



Order ID: 282101835

Attn: Laurel Cain
Healthy Building Science
369-B 3rd Street
521
San Rafael, CA 94901

Customer ID: HBLD25
Customer PO:
Date Received: 08/05/2021

Project: **2021-08 04 Marin Sanitary**
Report Date: 08/06/2021

EMSL Project ID:
Date Analyzed: 08/06/2021

Test Report – Total Petroleum Hydrocarbons (as VM+P Naphtha) by GC/FID of Passive Assay Samplers via Modified NIOSH 1550, Issue 2, 8/15/94

Sample ID	Client Sample ID / Location	Compound	Sampling Time (min)	Reporting Limit (µg)	Reporting Limit (ppm)	Sample Amount (µg)	Sample Amount (ppm)
282101835-0001	P-1	VM+P Naphtha (N566)	480	7.4	0.39	ND	ND
282101835-0002	P-2	VM+P Naphtha (N566)	480	7.4	0.39	ND	ND
282101835-0003	P-3	VM+P Naphtha (N566)	480	7.4	0.39	ND	ND
282101835-0004	P-4	VM+P Naphtha (N566)	480	7.4	0.39	ND	ND
282101835-0005	P-5	VM+P Naphtha (N566)	480	7.4	0.39	ND	ND
Desorption Blank	-	VM+P Naphtha (N566)	0	7.4	NA	ND	NA

* EMSL maintains liability limited to cost of analysis. Interpretation and use of test results are the responsibility of the client. This report relates only to the samples reported above, and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. The report reflects the samples as received. Results are generated from the field sampling data (sampling volumes and areas, locations, etc.) provided by the client on the Chain of Custody. Samples are within quality control criteria and met method specifications unless otherwise noted.

Notes:

1. Samples were received in acceptable condition unless otherwise noted.
2. These results relate only to the samples tested.
3. Sample results are not blank corrected unless otherwise noted.
4. A discrete field blank was submitted if listed above.
5. Samples were analyzed for Diesel Range Organics (DRO) Hydrocarbons and calibrated with VM&P Naphtha.
6. ND denotes not detected.

NK/BJ
Analyst

Scott VanEttan, CIH- Lab Manager
Or other approved signatory



Industrial Hygiene - Chain of Custody

EMSL Order Number / Lab Use Only

282101835

Cinnaminson, NJ 08077

PHONE 1-800-220-3675

EMAIL emsl@emsl.com

EMSL ANALYTICAL, INC. LABORATORY PRODUCTS TRAINING

If Bill-To is the same as Report-To leave this section blank. Third-party billing requires written authorization.

21 AUG -5 PM 1:32

Customer Information	Company Name: Healthy Building Science			Billing Information	Billing ID:			
	Contact Name: Laurel Cain				Company Name: Healthy Building Science			
	Street Address: 369B 3rd St. #521				Billing Contact: Accounts Payable			
	City, State, Zip: San Rafael CA 94901 Country: US				Street Address: 369B 3rd St. #521			
	Phone: 5108988116				City, State, Zip: San Rafael CA 94901 Country: USA			
Email(s) for Report: laurel@healthybuildingscience.com			Phone: 415-785-7986			Email(s) for Invoice: ap@healthybuildingscience.com		

Project Name/No: **2021-08-04_Marin Sanitary** Purchase Order: **none**

EMSL LIMS Project ID: (If applicable EMSL will provide) US State where samples collected: **CA** State of Connecticut (CT) must select project location: Commercial (Taxable) Residential (Non-Taxable)

Media Type: **Badge, Cassette** Media Manufacturer/Part Number: **Assay Tech 506, MCE 37mm 0.8mm H21, unknow lot for MCE** Media Lot Number:

Sampled By Name: **Laurel Cain** Sampled By Signature: *[Signature]* No Samples in Shipment: **11**

Turnaround Time (TAT) Options - Please check: 2 Week 1 Week 4 Day 3 Day 2 Day 1 Day Other (Call Lab)

Client Sample ID	Location/Description	Analyte/Method	Media	Flow (lpm)	Sample Time		Sample Type	Sample Date	Comments
					On	Off			
M-1	chemical room	7300/Fe, Na	MCE Cassette	2 LPM	06:55	14:55	Area Personal	8/4/21	LP053462, Iron + Sodium only
P-1	"	1550M	badge	NA	07:02	15:02	Area Personal		6H21 PH5781
M-2	shop	7300/Fe, Na	MCE Cassette	2 LPM	07:16	15:16	Area Personal		LP054198 Iron + Sodium only
P-2	"	1550M	badge	NA	07:20	15:20	Area Personal		6H21 PH7132
M-3	Lab	7300 Fe, Na	MCE Cassette	2 LPM	07:32	15:32	Area Personal		LP 053903 Iron + Sodium only
P-3	"	1550M	badge	NA	07:36	15:36	Area Personal		6H21 PH5907
M-4	Boiler room	7300 Fe, Na	MCE Cassette	2 LPM	07:49	15:49	Area Personal		LP 053406 Iron + Sodium only
P-4	"	1550M	badge	NA	07:51	15:51	Area Personal		6H21 PH 7137
M-5	Reception	7300 Fe, Na	MCE Cassette	2 LPM	08:00	16:00	Area Personal		LP 054199 Iron + Sodium only
P-5	"	1550M	badge	NA	08:02	16:02	Area Personal		6H21 PH6110

Special Instructions and/or Regulatory Requirements (Sample Specifications, Processing Methods, Limits of Detection, etc) **sodium bisulfite, Ferrous chloride**
 Please report results with an 8 hr. TWA. See attached SDS for 1550M analysis. 7300/7303 for sodium hypochlorite

Method of Shipment: **FedEx** Sample Condition Upon Receipt:

Relinquished by: *[Signature]* Date/Time: **8/4/2021 14:10** Received by: *[Signature]* Date/Time: **8/4/21 14:10**

Relinquished by: *[Signature]* Date/Time: **8/4/21 17:00** Received by: **OS RX** Date/Time: **8-5-21 1:20**

Controlled Document - CCC-21 Industrial Hygiene R3 03/18/2021 AGREE TO ELECTRONIC SIGNATURE (By checking, I consent to signing this Chain of Custody document by electronic signature)

EMSL Analytical, Inc.'s Laboratory Terms and Conditions are incorporated into this Chain of Custody by reference in their entirety. Submission of samples to EMSL Analytical, Inc. constitutes acceptance and acknowledgment of all terms and conditions by Customer.

over →

DECISION/ACTION ITEM LOG
CIP Committee: September 14, 2021
 Sanitary District No. 5 of Marin County
ACTIVE ITEMS SHEET

No.	Item	Submission Date	Responsible Party	DECISION ONLY		ACTION REQUIRED		Comment/Reference Document
				Due	Completed	Due	Completed	
31	FY2020-2021 Sewer Rehab Project		CIP/TR					Small project for Paradise Cove; Engineering to begin in Dec 2020, as of 7.14.2020; Jan 2021, as of 12.8.2020; Will begin once SD5 Collection System Master Plan is in