Comprehensive Mold & Moisture Assessment Report (9-Section S530)

ANSI/IICRC S530-2024 Standard • 16 TAC Ch. 78 Regulated Assessment • Infrared + Psychrometrics + ASTM Lab Suite

COND. 3 • 82 SQ FT REGULATED

ECOLOGY STATUS	IMPACTED FOOTPRINT	EXAM WALL CAVITY	PLENUM DEW / RH
Condition 3	**82 Sq Ft**	**24.8% MC**	**89% RH**
Active hydrophilic Stachybotrys	≥25 sq ft TDLR Protocol Required	Pin saturation vs 9.4% dry wing	Condensate overflow detected

CLIENT & COMMERCIAL FACILITY (FICTITIOUS SPECIMEN)

Facility Account	**Sovereign Palms Clinic Group**
Contact	facilities@example.com • (555) 017-9045
Subject Facility	**2915 Gulf Fwy Frontage Rd, Bldg C, Webster, TX 77598**
Assessment Date	2026-04-10 • 09:00–11:45 CDT

ASSESSMENT TEAM & ANALYTICAL CREDENTIALS

Assessment Firm	**Envirogyn (SPECIMEN-MAC-0000)**
Lead Assessor	**Elena Vance, LMAC (SPECIMEN-MAC-0000)**
Lab Director	**C. Lehnhoff, MLS(ASCP)CM #246841**
Ambient Envelope	73.4°F • 64.2% RH • 60.5°F Dew Pt

01 Executive Summary & Statutory Scope

EXECUTIVE DETERMINATION: Envirogyn completed an ANSI/IICRC S530 limited fungal and moisture assessment at Building C (Nurse Exam Wing & Mechanical Closet). Field thermography, calibrated pin moisture profiling, 4 Air-O-Cell cassettes, and 3 direct bio-tape lifts confirmed **82 contiguous square feet of Condition 3 fungal colonization** behind Exam Room 2 sink wall (**24.8% MC**; *Stachybotrys* 1,120 spores/m^3 + 4+ heavy hyphae) and secondary Condition 3 growth on HVAC Return Plenum liner. Under Tex. Occ. Code Ch. 1958, a formal **TDLR Mold Remediation Protocol** by an independent LMAC and work execution by a Texas-licensed MRC are legally mandated.

02 Property Envelope & Visual Inspection Findings

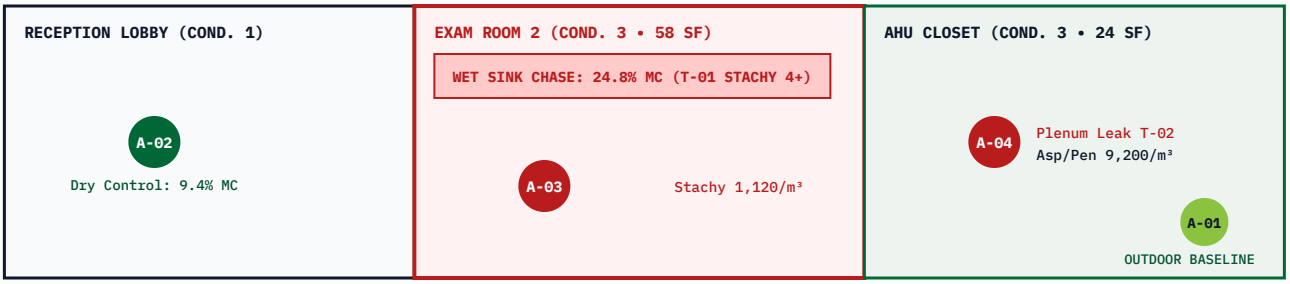
Building C is a 4,200 sq ft single-story medical office slab-on-grade structure. Primary source anomaly traces to an obstructed AHU #2 primary condensate drain trap discharging into the Exam Wing return plenum deck and seeping laterally behind the Exam 2 sink chase. Reception & West Hallway remained dry (9.4%–10.8% MC).

03 Baseline Indoor Psychrometrics vs Recommended Target Zone

Zone Measured	Dry Bulb	Relative Humidity	Dew Point	Grain Ratio	Psychrometric Risk
Exam Room 2 / Plenum	72.1°F	**68.8%**	61.4°F	81.2 gr/lb	CONDENSATION RISK
Reception Lobby (West)	73.4°F	51.2%	54.3°F	62.8 gr/lb	WITHIN ASHRAE 55
Exterior Weather Station	79.0°F	72.0%	69.3°F	107.6 gr/lb	COASTAL REFERENCE

04 Facility Schematic & Quantitative Moisture Pin Distribution

Sec 04 • Nurse Exam Wing Floorplan, Moisture Pins (% MC) & Sample Matrix (Not to Scale)



05 Infrared Thermography & HVAC Mechanical Anomaly Evidence



MAR-IR1 FLIR E6-XT thermal anomaly (62.8°F ΔT vs 73.1°F ambient) marking latent moisture plume along Exam 2 baseplate.



MAR-HV1 Opened AHU #2 return plenum showing standing water tide mark and dark *Cladosporium/Penicillium* liner fouling.



MAR-SC1 Supply register ceiling finish blistering & moisture condensation halo inside Exam 2 mechanical corridor.

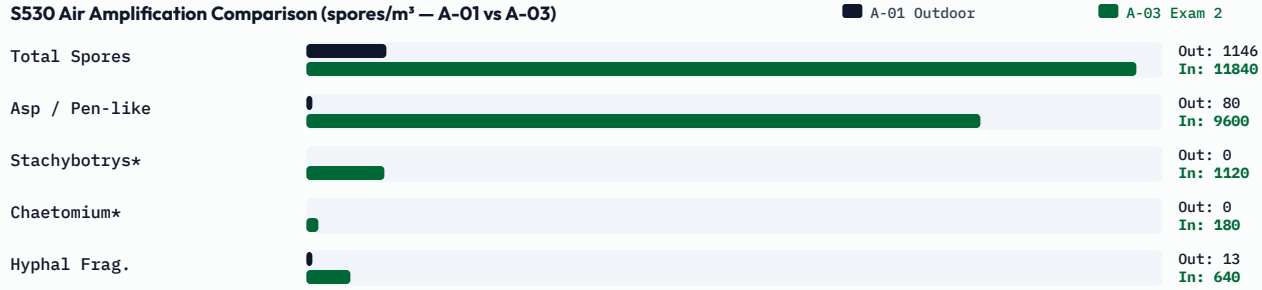


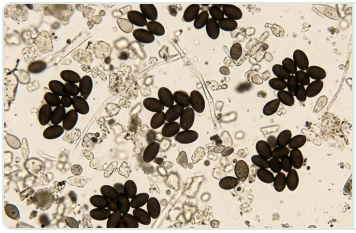
MAR-MM2 Adjacent Reception perimeter framing verified dry (**9.4% MC**), establishing clean containment boundary termination.

06 Analytical Air & Direct Surface Results Matrix (ASTM D7391 & D7658)

Sample ID & Matrix	Location	Total Spores / Density	Primary Indicator Taxa	Condition
A-01 (Air 75L)	Exterior South Courtyard Control	1,146 spores/m³	Cladosporium 760 • Basidio 240	BASELINE
A-02 (Air 75L)	Reception Lobby Desk	627 spores/m³	Cladosporium 427 • Asp/Pen 93	COND. 1
A-03 (Air 75L)	Exam Room 2 Sink Chase	**11,840 spores/m³**	**Stachybotrys 1,120 • Asp/Pen 9,600**	COND. 3
A-04 (Air 75L)	Mechanical AHU Closet	**10,420 spores/m³**	**Asp/Pen 9,200 • Chaetomium 240**	COND. 3
T-01 (Tape Lift)	Exam 2 Back Drywall Paper	**4+ Heavy Hyphae**	Intact Stachybotrys Conidiophores	COND. 3
T-02 (Tape Lift)	AHU #2 Fiberglass Plenum	**3+ Moderate**	Cladosporium & Penicillium Chains	COND. 3
T-03 (Tape Lift)	Reception Millwork Sill Control	1+ Rare Settled	Occasional Cladosporium / Skin	COND. 1

S530 Air Amplification Comparison (spores/m³ — A-01 vs A-03)





BIO-T01
Dense clusters of dark brown *Stachybotrys chartarum* phialides and spores on wet gypsum paper (A-03 / T-01).



MACRO-01
Typical slimy black water-loss growth habit behind vinyl wall base after chronic drain seepage.

07 HVAC Hygiene & Field Collection Documentation



FLD-01 Zefon Bio-Pump positioned at breathing height (15.0 L/min × 5 min) inside Exam Room 2 prior to intrusive probing.



FLD-02 Sterile Bio-Tape impression collection on AHU #2 return plenum fiberglass insulation (Sample T-02).

08 ANSI/IICRC S530 Formal Zone Condition Matrix

Zone Classification	Area	Condition Level	Required Remediation Action
Exam Room 2 Wet Chase & Framing	58 sf	CONDITION 3	Full containment, negative air, flood-cut +24", HEPA abrasion
Mechanical Closet & AHU Return Plenum	24 sf	CONDITION 3	Isolate AHU, remove fouled porous liner, sanitize pan & coil
Reception Lobby & West Hallway	1,800 sf	CONDITION 1	Maintain barrier separation; HEPA damp-wipe cleaning optional

09 Engineered Action Plan & Statutory Protocol Referral

1. **Mechanical Fix First:** Clear obstructed AHU #2 condensate trap, pitch drain line 1/4" per ft, and replace Exam 2 sink angle-stop assembly.
2. **Mandated Remediation Protocol:** Because impacted fungal contamination totals **82 sq ft (≥25 sq ft)**, retain an independent Texas-licensed MRC following a written TDLR Mold Remediation Protocol with full 6-mil containment (-0.02 in. wc) and third-party PRV clearance.
3. **HVAC Cleaning:** Engage a NADCA-certified contractor to replace compromised internal fiberglass plenum insulation with foil-faced closed-cell foam.

APP A Texas Consumer Mold Information Sheet (CMIS) Statutory Notice

TEXAS DEPARTMENT OF LICENSING & REGULATION CMIS DISCLOSURE: Under Tex. Occ. Code Ch. 1958 and 16 TAC Ch. 78, Envirogyn provides the official TDLR Consumer Mold Information Sheet (Form MLD-INF-100) with every Texas mold assessment report. A person is not required to be licensed to remediate a total area affecting less than 25 contiguous square feet; however, commercial/medical projects ≥25 contiguous square feet (82 sq ft documented herein) legally require a licensed MAC Protocol, licensed MRC contractor, 5-day TDLR notification, independent PRV clearance, and signed TDI Form MDR-1.

APP B Instrument Calibration, Conflict-of-Interest & Quality Audit

FIELD & OPTICAL INSTRUMENT TRACEABILITY

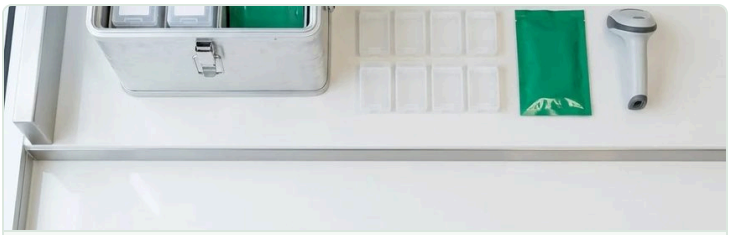
Thermal Imager	FLIR E6-XT (Emissivity 0.95 Cal OK)
Psychrometer	Vaisala HM40 (RH ±1.5% Cert OK)
Pin Moisture Meter	Delmhorst J-2000 (Species Grp 1)
Air Pump Flowmeter	Zefon Rotameter @ 15.0 L/min

STATUTORY SEPARATION-OF-DUTIES AFFIRMATION

Envirogyn Role	**Assessment & Lab Testing ONLY**
Remediation Interest	**ZERO Financial Affiliation with Any MRC**
CoC Verification	Batch ENV-MAR-2915 Intact
Data Notice	**100% Fictitious Specimen Record**



QA-01 Direct microscopic identification reviewed by MLS(ASCP)CM laboratory director for spore morphology & hyphal integrity.



QA-02 Tamper-sealed cassette & slide chain-of-custody accessioning logged prior to Exam Wing remediation bidding.

Elena Vance, LMAC

Lead Mold Assessment Consultant
Spec ID: SPECIMEN-MAC-0000 • Date: 2026-04-12

C. A. Lehnhoff, MLS

Laboratory Director & Senior Mycologist
Board-Certified ASCP MLS(ASCP)CM #246841 • SPECIMEN-LAB-0000