

# Survey Test Project Planning



## Project Planning

Test Number	Test Type	Sample Type	Air Sample Rate (L/min)
3	Survey	Filter	2.5

No. of OP	No. of SP	Tag Series	Sprayer	Survey Date
8	12	B	eSprayer 65 psi	2-18-26

Comments
Start Time: 1200

OPName	Tag	Lot Number
OP-001	B1	20250725
OP-002	B2	20250725
OP-003	B3	20250725
OP-004	B4	20250725
OP-005	B5	20250725
OP-006	B6	20250725
OP-007	B7	20250725
OP-008	B8	20250725

# Origin and Sample Point Placement

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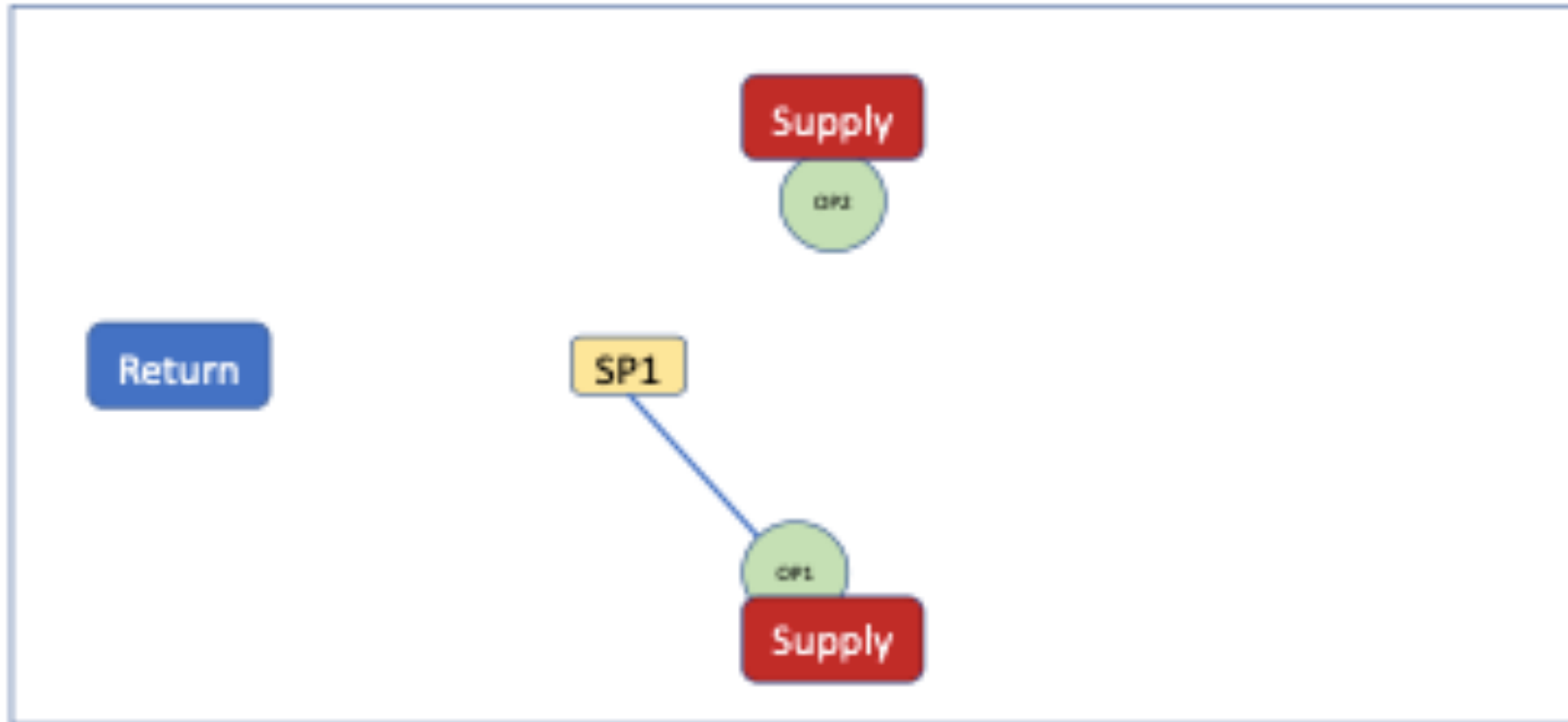
- **Origin Point Placement**

- Origin Point locations for (placement of the eSprayer) should be under or close to a HVAC Supply, if one is present in the test location
- eSprayer should be placed on the floor and not on desks, chairs, etc...
- **Caution:** If eSprayer is placed under a HVAC Return the DNA Tag will most likely be “sucked up” and result in a “invalid” test result

- **Sample Point Placement**

- Sample Point locations (placement of the Air-Sampler) should be under or close to a HVAC Return if one is present in the test location
- Air Samplers should be placed at least four-feet from the ground

## Positioning of eSprayer and Air Sampler



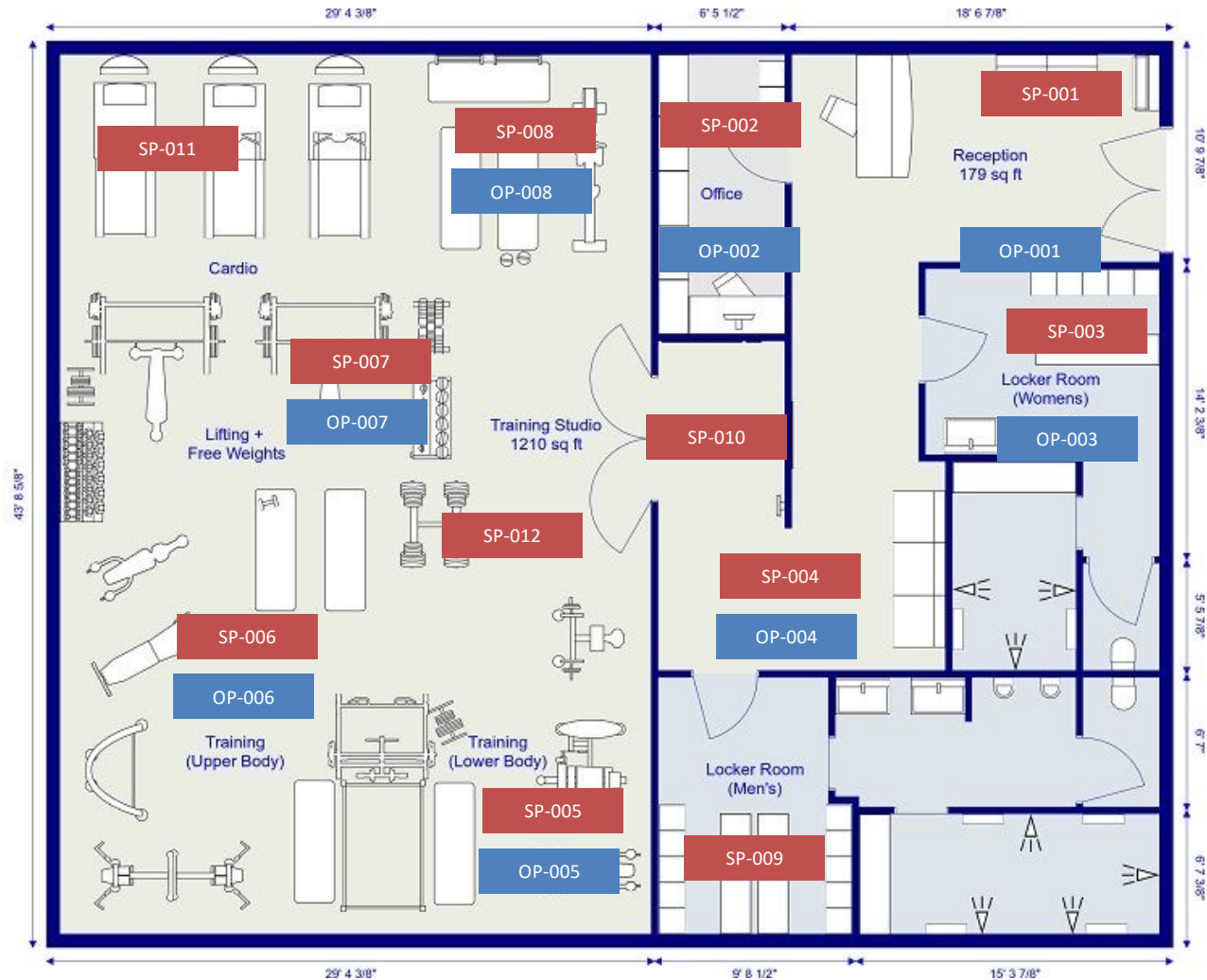
# Manage Origin Points (OPs) and Sample Points (SPs)

## Origin Points

- OP-001: Reception
- OP-002: Office
- OP-003: Women's Locker
- OP-004: Corridor
- OP-005: Lower Body
- OP-006: Upper Body
- OP-007: Free Weights
- OP-008: Upper R-Corner

## Sample Points

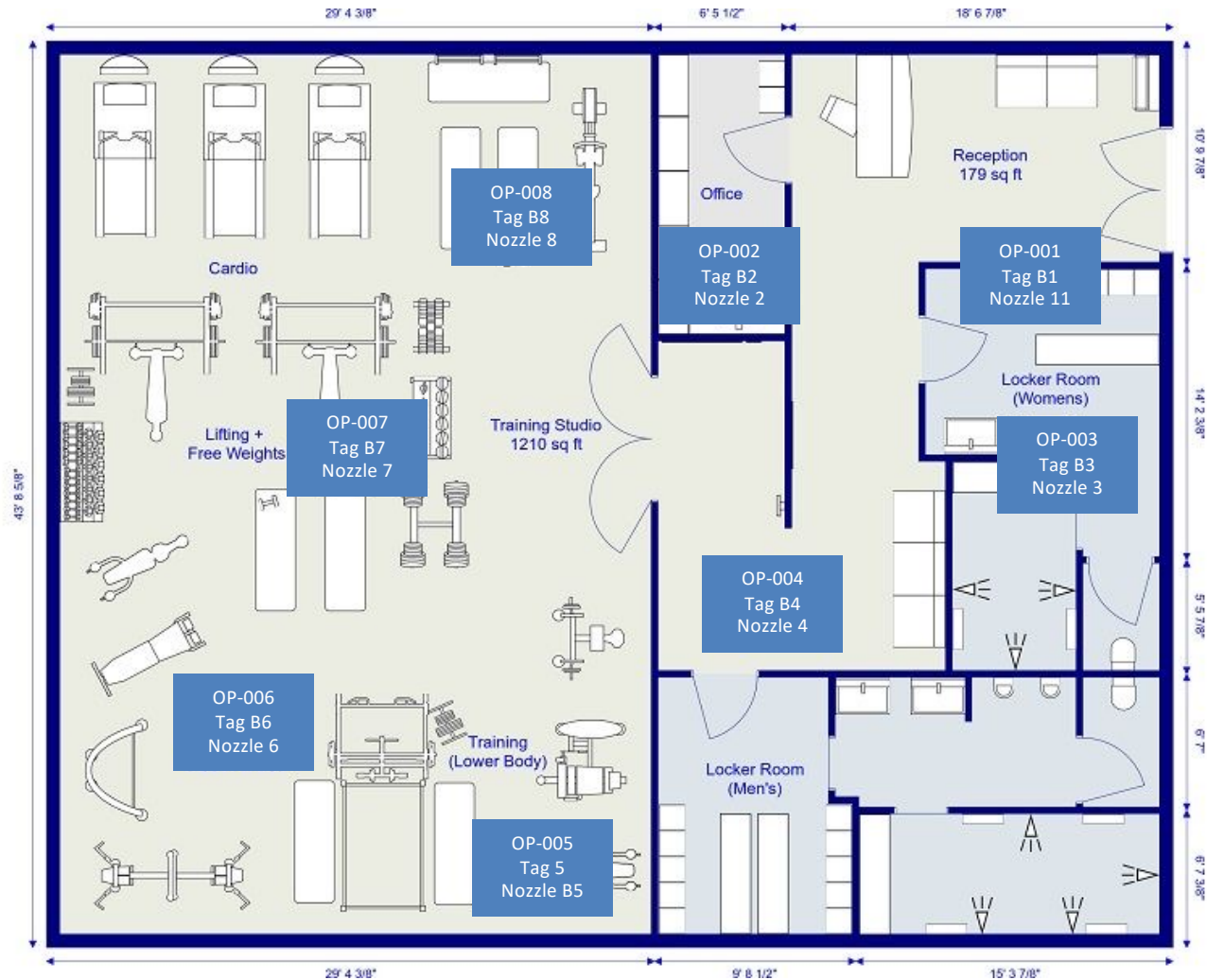
- SP-001: Reception
- SP-002: Office
- SP-003: Women's Locker
- SP-004: Corridor
- SP-005: Lower Body
- SP-006: Upper Body
- SP-007: Free Weights
- SP-008: Upper R-Corner
- SP-009: Men's Locker
- SP-010: Entrance TS
- SP-011: Upper L-Corner
- SP-012: Inside TS Door



# Survey Test Set-Up: Origin Points (OPs) and Nozzles

## Origin Points

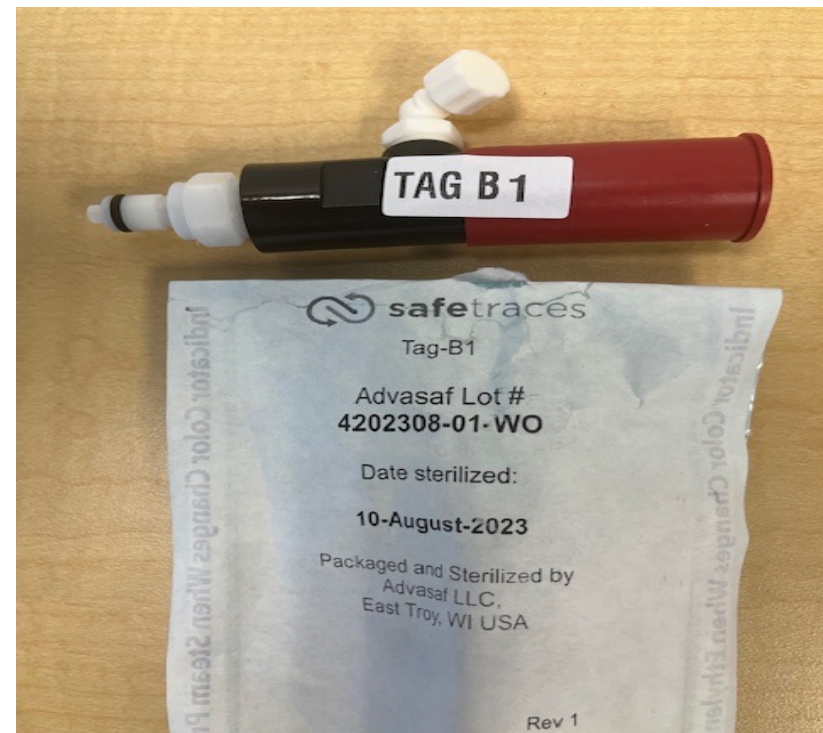
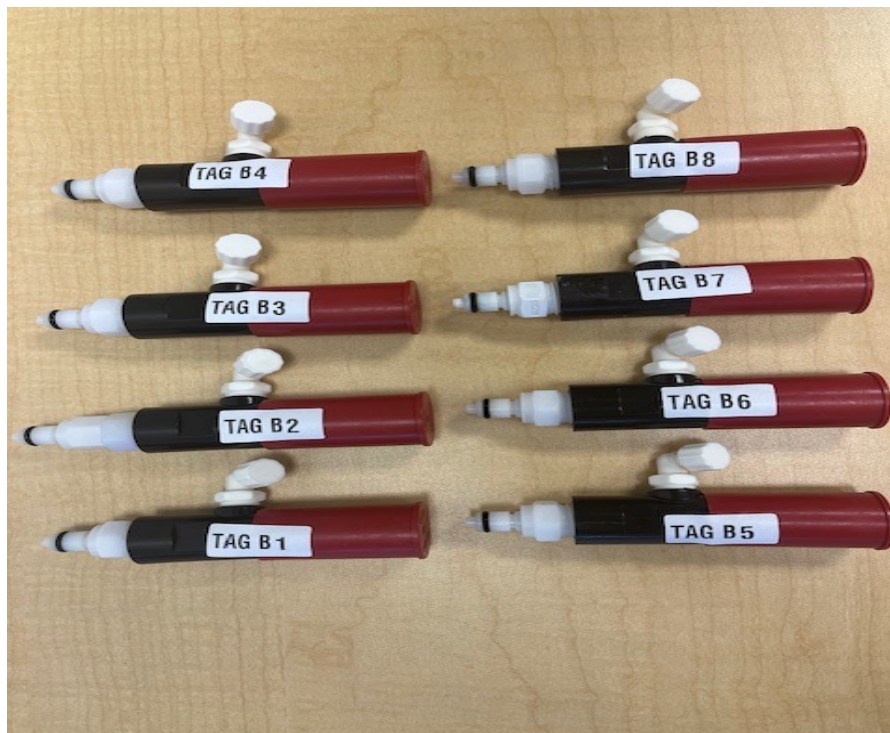
- OP-001: Reception
  - Tag B1, Nozzle 1
- OP-002: Office
  - Tag B2, Nozzle 2
- OP-003: Women's Locker
  - Tag B3, Nozzle 3
- OP-004: Corridor
  - Tag B4, Nozzle 4
- OP-005: Lower Body
  - Tag B5, Nozzle 5
- OP-006: Upper Body
  - Tag B6, Nozzle 6
- OP-007: Free Weights
  - Tag B7, Nozzle 7
- OP-008: Upper R-Corner
  - Tag B8, Nozzle 8



## Survey Test Set-Up, eSprayer Nozzles and Tags

When using the eSprayer to release the Tags during execution it will require you to use a “clean” sprayer nozzle for each release. The use of a “clean” sprayer nozzle will prevent any residual Tag that may remain in the sprayer nozzle to be released and potentially resulting in a “false-positive” result at any of the Sample Points. Each “Sprayer Nozzle” must be labeled to help prevent reuse during the Survey Test. You must use the “correct” Sprayer Nozzle with the “correct” tag.

Each Origin Point will use a different Tag and labeled Nozzle



## Equipment Used for Survey Test

- eSprayer
- Yellow Cable Cord
- Wireless Module
- Battery
- Battery Cable
- Nozzle
- Syringe
- Power Cord
- Air Compressor
- 1-Channel Air Sampler



# Survey Test Execution and Completion

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- Try to release all tags within five to ten minutes. If you are unable to release all tags within five to ten minutes you may need to extend the test time
- Go to the OP with the pressurized eSprayer and air compressor and release the first tag using the battery/module
- After the tag is released, remove your gloves, and place them next to the syringe. This will be an indicator that the tag has been released. Repeat for the remaining releases
- Take the eSprayer and air compressor to the next OP location, pressurize the eSprayer, attach the new tag (syringe) and release the tag
- Move and continue with the remaining six OPs
- Once all tags have been released periodically return to each sample location to ensure the air-samplers are still operational and functional
- Manually, turn off air sampler(s) after 30 minutes (test-time)

# Best Practices

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- Get a cart to help carry the equipment
- Start the air-samplers at the time of set-up
- Verify the locations of HVAC supply and returns for equipment positioning
- Do not pre-label the sample cassettes
- Make sure the sample cassettes are snugly attached to the air sampler
- Listen for the “click” sound of the “nozzle” when attaching to the eSprayer

# Best Practices

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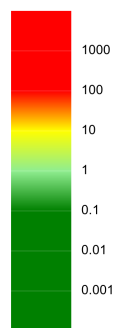
- Wear gloves when handling Tags
- Make sure the “plunger” is removed from the syringe
- Remove pelican, unused equipment, supplies, etc. before starting the test
- If a Tag spills or misfires you can not “redo” the Origin Point, consider these results lost
- After the test manually turn off the air-samplers
- Verify the sample number label on each sample cassette are in the correct order before removing from the air sampler
- Document all changes on the “Project Configuration” form

# Survey Test Results Visualization



OP	Sample Location	Pass (<1 DNA Copies per million emitted)
OP-1	Corridor W	10 of 12

DNA Copies per million emitted



OP	Sample Location	Pass (<1 DNA Copies per million emitted)
OP-2	Corridor S	9 of 12