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OF MIAMI

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1 December 2025

SWAB REPORT # 1136

SWAB DATE: 22 November 2025

Van #625.4.03, #625.4.05, 2914-01, #625.1.01-2

James Happell Digitally signed by James Happell Date: 2025.12.01 19:54:25 -05'00'

James D. Happell

Distribution:
SWAB Committee
Christine Golden

COMMENTS TO SWAB REPORTS 15 December 2021

The LSC is now a Quantulus GCT 6220, with the SWAB counting assay having background cpm of 0.3 & 1.2 for ^{3}H & ^{14}C. This replaces an LSC with background cpm of 1.6 & 5.5 for ^{3}H & ^{14}C.

All samples are counted for 60 minutes, the instrument background is subtracted, and activities are reported in dpm/m^2. Bucket blank activities are not subtracted. Counting errors (2 standard deviations) are also reported in dpm/m^2. An error larger than the activity indicates that the activity is not significantly different from zero. All activities significantly above background will be in **bold**.

Criteria for SWAB Results

Category	^{3}H (dpm/m^2)	^{14}C (dpm m^2)	Recommendations
A	<500	<50	No action
B*	500-10,000	50-10,000	Needs cleaning before any natural tracer work. Decks in radiation vans with activities above 1000 dpm/m^2 should be cleaned.
C**	10,000-100,000	10,000-50,000	Must be cleaned before any use.
D***	>100,000	>50,000	May be a health hazard. Notify local radiation safety official.

Note: ^{14}C and ^{35}S have peak energies of 156 and 167 KeV, respectively; thus ^{35}S will be registered as ^{14}C by our counting techniques. Categories A, B and C are not a health hazard.

Recommended Cleaning Proceedure

Wearing ordinary household rubber gloves:

^{3}H: Wash and scrub with radioactive cleanup detergent such as COUNT-OFF (50 ml COUNT-OFF to 4 liters of water), using sponges to distribute solution and reabsorb it.

^{14}C: Wash with 1% sulfuric or 2% hydrochloric (muriatic) acid with good ventilation (will dissolve carbonates, releasing $^{14}CO_2$). Follow up with wash as if for ^{3}H.

Disposal of Cleaning Materials (gloves, sponges, etc)

Categories A & B dispose as ordinary garbage, C & D contact your institution's radiation safety office.

Note: If category C or D is encountered, we try to notify the insitution promptly by phone or email.

REPORT FOR SWAB # 1136

LOCATION: Newport, OR
VESSEL: *West Coast Van Pool Vans*

DATE: 22 November 2025
TECHNICIAN: Jim Happell

Sample #	Sample Identification	^{3}H dpm/m^{2} activity	±	^{3}H dpm/m^{2} error	^{14}C dpm/m^{2} activity	±	^{14}C dpm/m^{2} error
1	1st Vial Bkgnd	0	±	43	0	±	20
2	Initial bucket blank	-11	±	12	**13**	±	**12**
	Van #625.4.03 (Figure 1)						
3	Sink area	7	±	5	**22**	±	**12**
4	Benchtop adjacent to sink	5	±	6	**12**	±	**11**
5	Benchtop adjacent to fume hood	6	±	6	**12**	±	**11**
6	Inside refrigerator	**15**	±	**11**	6	±	10
7	Inside freezer	**50**	±	**20**	7	±	8
8	Fume hood	5	±	4	**22**	±	**12**
9	Benchtop across from sink	**25**	±	**13**	**17**	±	**11**
10	Benchtop across from hood	6	±	7	6	±	10
11	Deck near fume hood	-13	±	14	10	±	12
12	Deck near entrance	**9**	±	**7**	**22**	±	**12**
	Van #625.4.05 (Figure 5)						
13	Sink area	**18**	±	**9**	**31**	±	**12**
14	Benchtop adjacent to sink	-13	±	15	**14**	±	**12**
15	Benchtop above freezer	**55**	±	**20**	**13**	±	**9**
16	Benchtop across from sink	**6**	±	**5**	**22**	±	**12**
17	Deck in termperature controlled section	**30**	±	**15**	**11**	±	**10**
18	Inside fume hood	**14**	±	**9**	**17**	±	**11**
19	Benchtop adjacent to fume hood	**16**	±	**14**	-4	±	217
20	Deck in entrance vestibule	**20**	±	**13**	7	±	10
	Van #2914-01 (Figure 3)						
21	Sink area	8	±	8	9	±	11
22	Fume hood	-28	±	31	**19**	±	**12**
23	Benchtop adjacent to fume hood	**35**	±	**16**	**11**	±	**10**
24	Benchtop across from sink	**8**	±	**7**	**13**	±	**11**
25	Benchtop across from hood	**17**	±	**10**	**21**	±	**11**
26	Deck near sink	-11	±	277	**24**	±	**12**
27	Deck in center of van	**15**	±	**10**	**16**	±	**11**
28	Deck in entrance vestibule	**12**	±	**9**	**14**	±	**11**

Sample #	Sample Identification	^{3}H dpm/m^{2} activity		error	^{14}C dpm/m^{2} activity		error
	Van #625.1.01-2 (Figure 6)						
29	Sink area	**107**	±	**28**	**16**	±	**9**
30	Benchtop adjacent to sink	**20**	±	**14**	1	±	6
31	Benchtop adjacent to hood	**49**	±	**18**	**22**	±	**11**
32	Fume hood	**136**	±	**32**	5	±	5
33	Benchtop adjacent to LSC	**27**	±	**16**	-1	±	58
34	Benchtop across from sink	4	±	6	5	±	10
35	Inside refrigerator	**31**	±	**14**	**19**	±	**11**
36	Deck between hood and LSC	**59**	±	**21**	**19**	±	**10**
37	Deck in center of van	4	±	4	**13**	±	**11**
38	Deck near entrance	**8**	±	**5**	**26**	±	**12**
39	Final bucket blank	**19**	±	**10**	**24**	±	**12**

Comments

Please note that the error reported for each isotope is the two-standard deviation counting error. Reports may now contain values less than zero. Decay counting background samples will be distributed about the background vial, which means that negative values are possible. In the past we rounded the negative values to zero. Values are only significantly above background when they are positive and larger than the error. Please note that we are now using a Quantulus 6220 LSC which counts very near natural background. While the cleanup standards have not changed all values above background will now be in bold. All vans tested had no isotope contamination requiring cleaning.

UNOLS General Purpose Van 625.4.03

Figure 1
SWAB #1135
21 November 2025

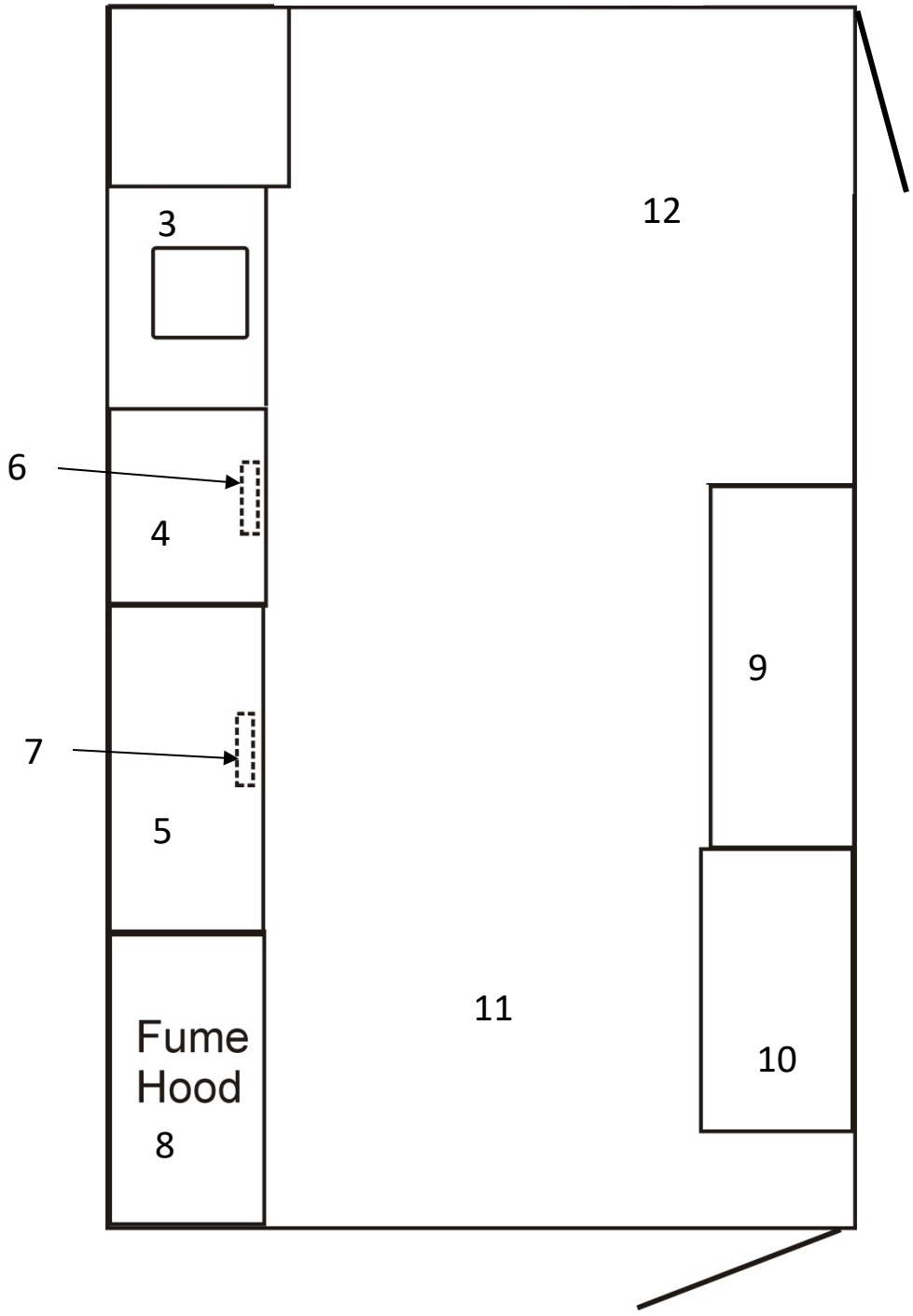
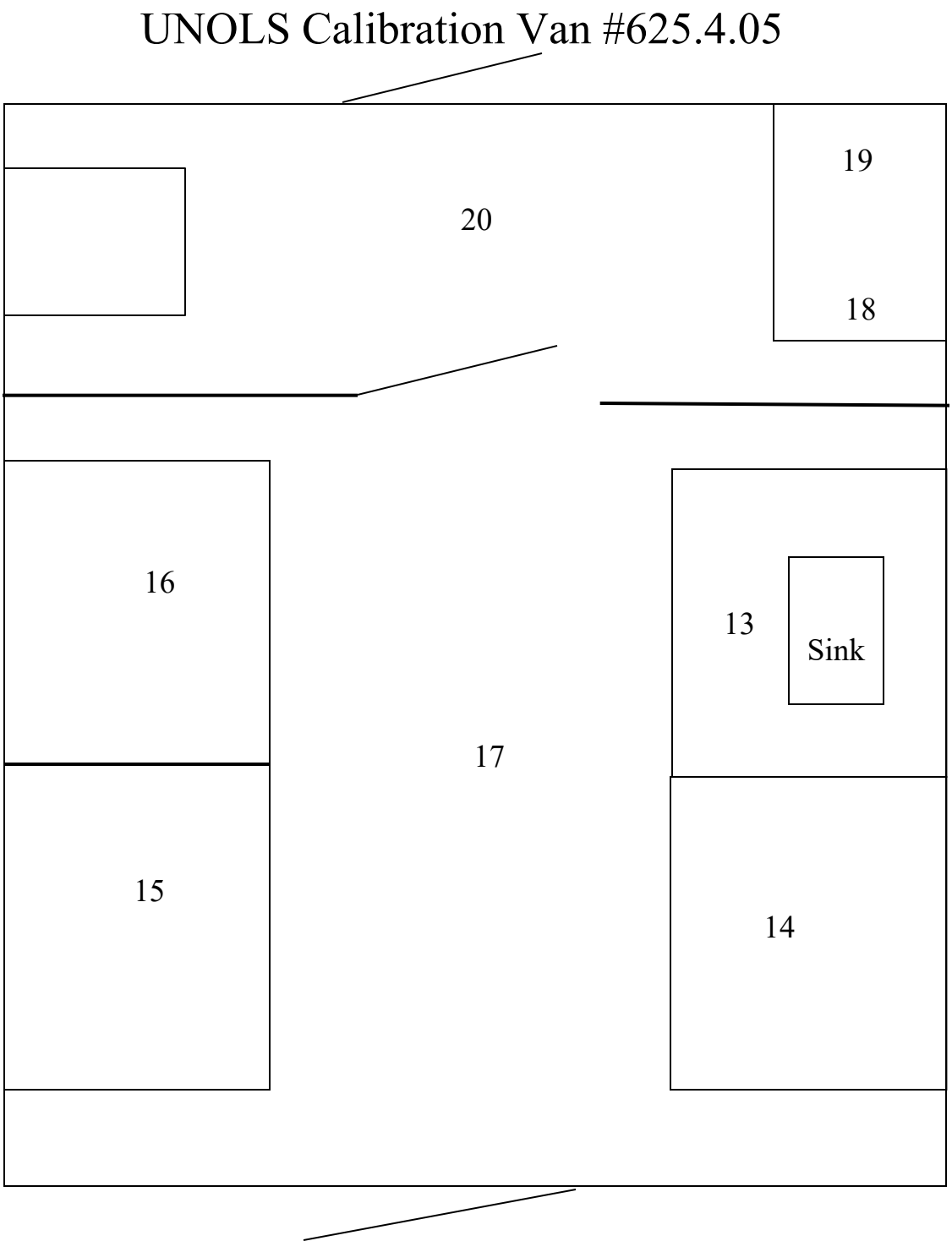


Figure 2
SWAB #1136
21 November 2025

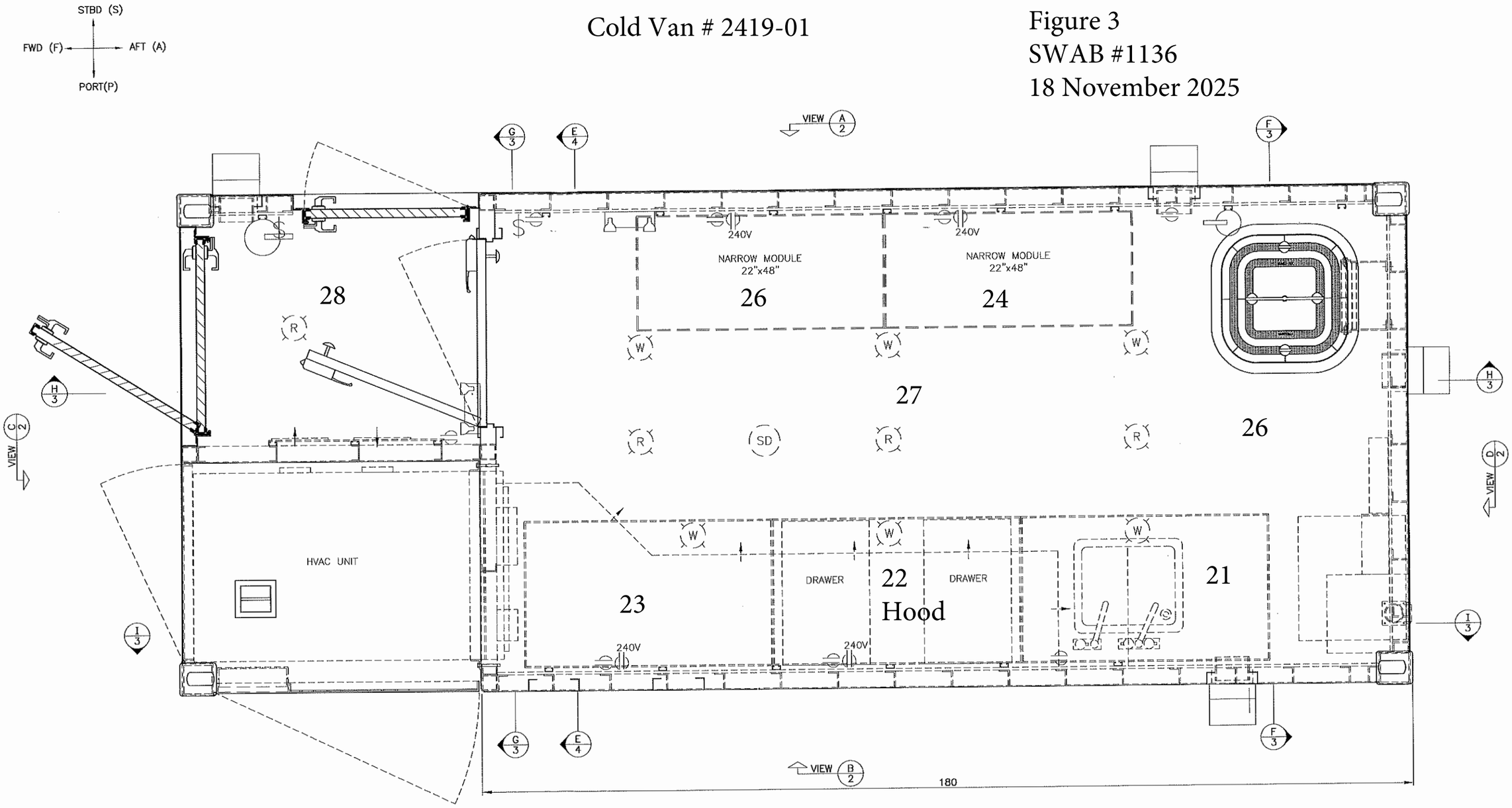


REV	DESCRIPTION	REV BY	REV DATE
A	SUBMITTED FOR APPROVAL	D.DSC	5.AUG.19
B	AS BUILT	GP	04.MAY.10

ITEM	DESCRIPTION	QTY	UOM

Cold Van # 2419-01

Figure 3
SWAB #1136
18 November 2025



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PROJECT MANAGER: DAVE DSC		PROJECT No: 2419-01	SECTION: 01 / REV: B / SHEET No: 1 of 4
DRAWN BY: DAVE DSC	DATE: 6.JUNE.19	DWG TITLE: GENERAL ARRANGEMENT PLAN VIEW	
DRAWING SCALE: 1:20	DRAWING SIZE: B	JOB NAME: 20' ALUMINUM COLD LAB	
PLOTT STAMP		CLIENT: UNOLS WEST COAST POOL	

Figure 4
SWAB #1136
18 November 2025

UNOLS Rad Van #625.1.01-2