

GUO LAB DODGEN B021/121 WEEKLY SWIPES & SURVEYS

Revised 7/9/2019

Week #	16	Dates:	4/18/2021-4/24/2021	Counted On	4/19/2021
INSTRUMENT USED: Quantasart (Serial# 073396)		CONTROL FACTOR:		1.40E-06	
CHANNEL ENERGY RANGE (keV)		CH A: 4-200	CH B: 200-2000	CH C: 4-2000	
COUNTING TIME: 5 Min.	uCi/swipe = CPM:C * Control Factor		uCi/cm ² = CPM:C * Control Factor / 100		
Limit of quantification (LOQ)=		8.74E-08 uCi/cm ²	QUANTIFICATION BELOW REG GUIDE 8.23 LIMITS OK		

Swipe #	LOCATION: ROOM # & AREA/OBJECT	GROSS CPM CHANNEL C	uCi/swipe	uCi/cm ²	NOTE
1.	BACKGROUND 1	31	*****	*****	
2.	BACKGROUND 2	27	*****	*****	
3.	BACKGROUND 3	25	*****	*****	
4.	BACKGROUND 4	29	*****	*****	
5.	BACKGROUND 5	26	*****	*****	
6.	BACKGROUND 6	26	*****	*****	
7.	B021 ELEVATOR ENTRANCE	27	M	M	
8.	B021 FENCED GATE	24	M	M	
9.	B021 RAM SAFE	20	M	M	
10.	B021 EAST FLOOR	27	M	M	
11.	B021 NORTH BENCH TOP	29	M	M	
12.	B021 WEST LAB FLOOR	28	M	M	
13.	B021 WORK PLATFORM	24	M	M	
14.	B021 CALORIMETER	28	M	M	
15.	B021 COMPUTERS	30	M	M	
16.	B021 DSC/TGA	29	M	M	
17.	B021 SOUTH BENCH TOP	27	M	M	
18.	121 DOORWAY	26	M	M	
19.	121 GLOVE BOX- FLOOR	29	M	M	
20.	121 GLOVE BOX	26	M	M	
21.	121 WEST BENCH TOP	30	M	M	
22.	121 CENTER OF LAB	38	1.49E-05	1.49E-07	
23.	122 EAST BENCH TOP	26	M	M	

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³⁶ Cl SOURCE 09/14/1971	50152	*****	*****	
	101.12%	CALIBRATION CHECK OK?		YES

Notes(s): M = below limit of quantification on the LSC. The limit of quantification is checked against lowest allowable contamination limit of 1 x 10⁻⁶ uCi/cm².

SURVEY PREPARED BY: R. Bergman	REVIEWED BY: M. Heine
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SIGN/DATE:  04/20/2021	SIGN/DATE:  4/20/21
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Protocol# 1 - Reactor Weekly.lsa

User: CSE

Assay Definition-

Assay Description:

Assay Type: CPM

Report Name: Report1

Output Data Path: C:\Packard\Tricarb\Results\CSE\Reactor Weekly\20210419_0844

Raw Results Path: C:\Packard\Tricarb\Results\CSE\Reactor Weekly\20210419_0844\20210419_0844.results

Assay File Name: C:\Packard\TriCarb\Assays\Reactor Weekly.lsa

Count Conditions-

Nuclide: Reactor

Quench Indicator: tSIE/AEC

External Std Terminator (sec): 0.5 2s%

Pre-Count Delay (min): 0.00

Quench Set: n/a

Count Time (min): 5.00

Count Mode: Normal

Assay Count Cycles: 1

Repeat Sample Count: 1

#Vials/Sample: 1

Calculate % Reference: Off

Background Subtract: Off

Low CPM Threshold: Off

2 Sigma % Terminator: Off

Regions	LL	UL
A	4.0	200.0
B	200.0	2000.0
C	4.0	2000.0

Count Corrections-

Static Controller: On

Luminescence Correction: Off

Colored Samples: n/a

Heterogeneity Monitor: n/a

Coincidence Time (nsec): 18

Delay Before Burst (nsec): 75

Half Life-

Half Life Correction: Off

Regions	Half Life	Units	Reference Date	Reference Time
A				
B				
C				

Cycle 1 Results

P#	DATE	TIME	S#	Count	Time	CPMA	CPMB	CPMC	SIS	MESSAGES
1	4/19/2021	8:45:31 AM	1	5.00	26	6	31	221.53		
1	4/19/2021	8:51:57 AM	2	5.00	21	5	27	243.91		
1	4/19/2021	8:58:19 AM	3	5.00	20	5	25	202.80		
1	4/19/2021	9:04:44 AM	4	5.00	24	5	29	224.78		
1	4/19/2021	9:11:07 AM	5	5.00	19	7	26	369.21		
1	4/19/2021	9:17:30 AM	6	5.00	22	5	26	261.28		
1	4/19/2021	9:23:55 AM	7	5.00	23	4	27	210.97		
1	4/19/2021	9:30:18 AM	8	5.00	20	4	24	233.00		
1	4/19/2021	9:36:42 AM	9	5.00	16	4	20	350.38		
1	4/19/2021	9:43:06 AM	10	5.00	23	5	27	289.04		
1	4/19/2021	9:49:20 AM	11	5.00	24	5	29	296.06		
1	4/19/2021	9:55:40 AM	12	5.00	22	6	28	336.61		

Protocol# 1 - Reactor Weekly.lsa

User: CSE

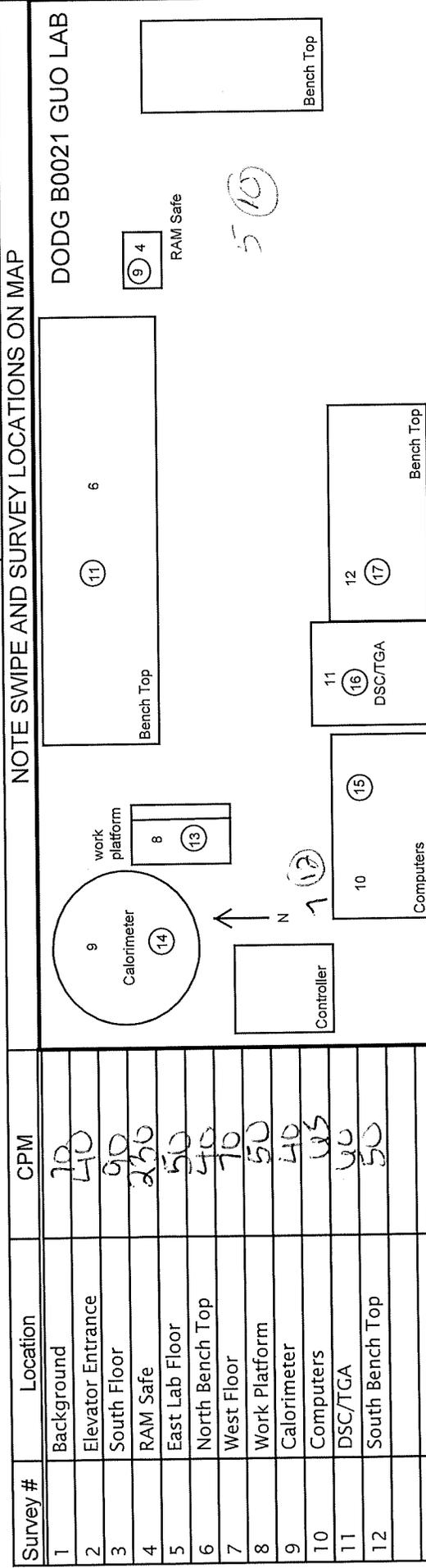
1	4/19/2021	10:02:01 AM	13	5.00	22	2	24	170.67
1	4/19/2021	10:08:25 AM	14	5.00	23	5	28	217.86
1	4/19/2021	10:14:52 AM	15	5.00	25	4	30	181.38
1	4/19/2021	10:21:16 AM	16	5.00	24	6	29	262.17
1	4/19/2021	10:27:42 AM	17	5.00	20	6	27	265.32
1	4/19/2021	10:34:07 AM	18	5.00	22	4	26	322.92
1	4/19/2021	10:40:31 AM	19	5.00	21	8	29	409.25
1	4/19/2021	10:46:55 AM	20	5.00	21	5	26	319.44
1	4/19/2021	10:53:20 AM	21	5.00	25	5	30	227.01
1	4/19/2021	10:59:41 AM	22	5.00	33	5	38	135.12
1	4/19/2021	11:06:03 AM	23	5.00	22	5	26	249.79
1	4/19/2021	11:11:45 AM	24	5.00	14571	35581	50152	1010.58

LABORATORY SURVEY

Radiation Safety Office
 Washington State University
 Pullman, WA 99164-1302
 (509) 335 8916

Building Dodgen Research Facility	Room B0021 - GUO	Lab Class D	Survey Instrument GM Detector Model 3	Serial No. 58680	Radiation Detected Gamma
Authorized User Xiaofeng Guo	Date 04/19/2021	Time 0819	Swipe Instrument Quantasart	Serial No. 073396	Radiation Detected Beta/Gamma
Reactor Status (Check One) <input type="checkbox"/> ON <input checked="" type="checkbox"/> OFF <input checked="" type="checkbox"/> 238		LSC Printout Date 4/19/2021			

NOTE SWIPE AND SURVEY LOCATIONS ON MAP



Survey #	Location	CPM
1	Background	70
2	Elevator Entrance	40
3	South Floor	90
4	RAM Safe	230
5	East Lab Floor	50
6	North Bench Top	40
7	West Floor	70
8	Work Platform	50
9	Calorimeter	40
10	Computers	85
11	DSC/TGA	60
12	South Bench Top	50

Swipe # and Locations	Surveyed By:	Date:	Notes
1-6 Background 16 DSC/TGA	RB	04/19/2021	
7 Elevator Entrance 17 South Bench Top	RB	04/19/2021	
8 South Floor			
9 RAM Safe			
10 East Lab Floor			
11 North Bench Top			
12 West Lab Floor			
13 Work Platform			
14 Calorimeter			
15 Computers			

Reviewed By: *[Signature]* Date: 4/26/2021
 m-Heine

Circled numbers on map indicate a swipe area of 100 square cm. Numbers not circled indicate a survey location.

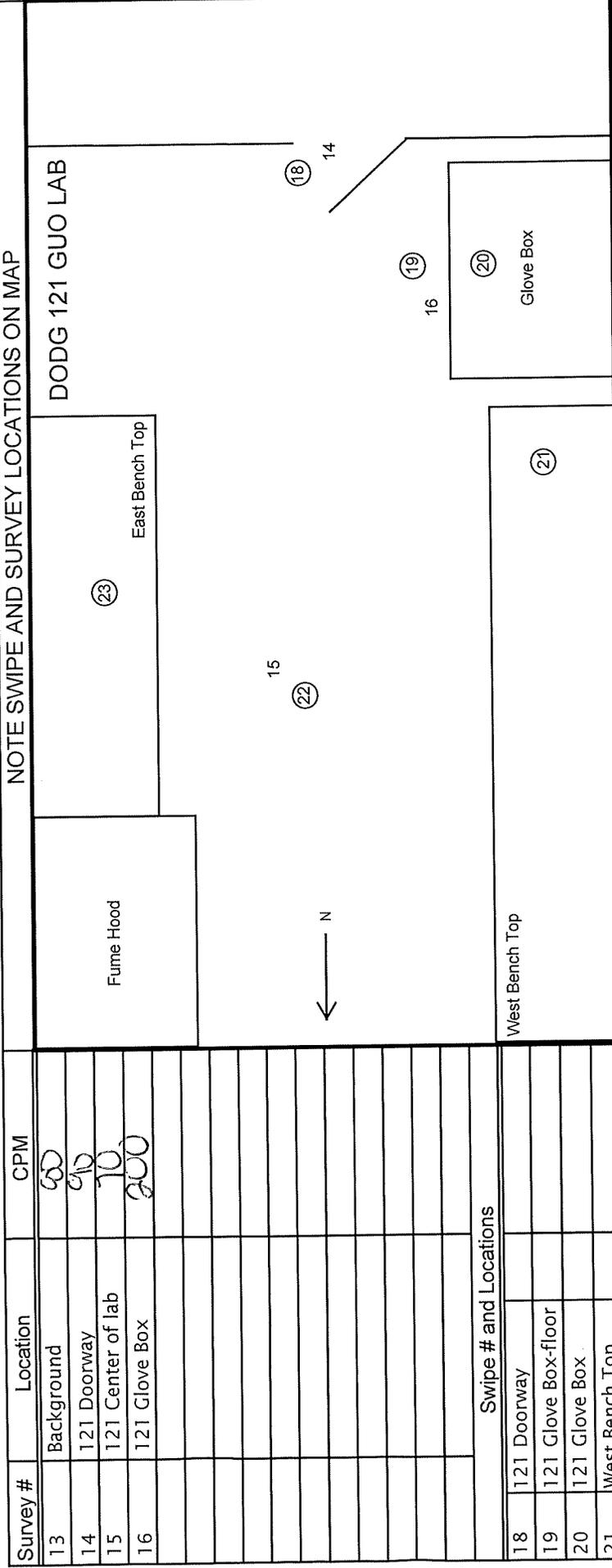
LABORATORY SURVEY

Radiation Safety Office
 Washington State University
 Pullman, WA 99164-1302
 (509) 335 8916

Building Dodgen Research Facility	Room 121- GUO	Lab Class D	Survey Instrument GM Detector Model 3	Serial No. 58680	Radiation Detected Gamma
Authorized User Xiaofeng Guo	Date 04/19/2021	Time 0833	Swipe Instrument Quantasmat	Serial No. 073396	Radiation Detected Beta/Gamma

Reactor Status (Check One)
 ON OFF

LSC Printout Date 4/19/2021



Survey #	Location	CPM	Notes
13	Background	600	
14	121 Doorway	90	
15	121 Center of lab	70	
16	121 Glove Box	200	
18	121 Doorway		
19	121 Glove Box-floor		
20	121 Glove Box		
21	West Bench Top		
22	121 Center of lab		
23	East Bench Top		
Surveyed By: RB			Date: 04/19/2021
Swiped By: RB			Date: 04/19/2021
Reviewed By: <i>[Signature]</i>			Date: 4/20/21

Circled numbers on map indicate a swipe area of 100 square cm. Numbers not circled indicate a survey location.