


Radiological Survey Sheet

Job Location Phar Central Research Grafton Ct 118/W224 Page 1 of 22

Survey Purpose Decommissioning LAB W224 Date 5/29/02

Performed by DAVID J. DURKIN (Print)  (Sign)

Inst. (1) Beckman LS 6000 (Model/SN) #7060743	Inst. (2) Beckman LS 6500 (Model/SN) #7069448	Inst. (3) Ludlum 2241-2 (Model/SN) # 163603
Det. Internal (Model/SN)	Det. Internal (Model/SN)	Det. Ludlum 43-68 (Model/SN) # PR149613
Eff. See LSC Printout	Eff. See LSC Printout	Eff. \approx 8% C14
Type Rad. β	Type Rad. β	Type Rad. β
Bkgd. See LSC Printout	Bkgd. See LSC Printout	Bkgd. 300 cpm
Cal. Due: 4/26/03	Cal. Due: 4/26/03	Cal. Due: 4/5/03

No.	Time	Locations	Inst. Used	Total Activity (dpm/100cm ²)
1.	7:45	flr	1	See attached LSC Printout
2.		"	1	
3.		"	1	
4.		"	1	
5.		"	1	
6.		" under counter	1	
7.		"	1	
8.		" under counter (cubbie)	1	
9.		flr	1	
10.		"	1	
11.		"	1	
12.		Drying Rack	1	
13.		" "	1	
14.		shelf	1	
15.		wire shelf	1	
16.		metal screen	1	
17.		glass sheet	1	
18.		" "	1	

Radiological Survey Continuation Sheet

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Date 5/29/02

No.	Time	Location	Inst. Used	Total Activity (dpm/100 cm ²)
19	800	Glass sheet		
20		" "	1	See attached LSC Printout
21		Drying Rack	1	
22		Lower wall	1	
23		upper "	1	
24		Lower "	1	
25		upper "	1	
26		Lower "	1	
27		upper "	1	
28		Lower "	1	
29		upper "	1	
30		Lower "	1	
31		upper "	1	
32		Lower "	1	
33		upper "	1	
34		Lower	1	
35		upper	1	
36		Glass	1	
37		Glass	1	
38		Glass	1	
39		Lower shelf	1	
40		"	1	
41		"	1	
42		TOP "	1	
43		Lower shelf	1	
44		"	1	
45		TOP "	1	
46		Lower "	1	

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Date 5/29/02

No.	Time	Location	Inst. Used	Total Activity (dpm/100 cm ²)
47		shelf		
48		shelf	1	See attached LSC Printout
49		Top shelf	1	
50		counter	1	
51		"	1	
52		"	1	
53		wall Behind Counter	1	
54		counter	1	
55		Basin	1	
56		counter	1	
57		counter	1	
58		Basin	1	
59		counter	1	
60		"	1	
61		"	1	
62		"	1	
63		"	1	
64		"	1	
65		Pipes	1	
66		Black shelf	1	
67		Lower " wire	1	
68		" "	1	
69		Top. " "	1	
70		Drawer front	1	
71		Drawer - Top Left	1	
72		" "	1	
73		" "	1	
74		" Lower	1	

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Date 5/29/02

No.	Time	Location	Inst. Used	Total Activity (dpm/100 cm ²)
75		Top Right Drawer		
76		" "	1	See attached LSC Printout
77		Lower Right "	1	
78		Drawer front	1	
79		Top Left Drawer	1	
80		" "	1	
81		Drawer	1	
82		Lower Drawer	1	
83		Top Right Drawer	1	
84		" "	1	
85		cubbie	1	
86		Drawer front	1	
87		Top Drawer	1	
88		"	1	
89		Top self-cabinet	1	
90		" "	1	
91		counter side Panel Panel	1	
92		Drawer front	1	
93		Top Right Drawer	1	
94		" "	1	
95		" "	1	
96		Lower "	1	
97		Top Left Drawer	1	
98		" Drawer	1	
99		" ~ Drawer	1	
100		Drawer front	1	
101		Right Top Drawer	1	
102		" "	1	

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Date 5/12/02

No.	Time	Location	Inst. Used	Total Activity (dpm/100 cm ²)
103		Drawer		
104		Lower Drawer	1	See attached LSC Printout
105		Left Top Drawer	1	
106		" Drawer	1	
107		" Drawer	1	
108		Drawer fronts	1	
109		Right Top Drawer	1	
110		Cubby	1	
111		Left Top Drawer	1	
112		" "	1	
113		Top Cabinet Shelf	1	
114		Lower " "	1	
115		Cubby	1	
116		flr.	1	
117		Lower wall	1	
118		flr.	1	
119		flr.	1	
120		flr.	1	
121	10:12	flr.	1	
122		UPPER WALL	1	
123		Lower shelf	1	
124		"	1	
125		"	1	
126		Top shelf	1	
127		Lower shelf	1	
128		"	1	
129		upper "	1	
130		Counter top	1	

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Date 5/21/02

No.	Time	Location	Inst. Used	Total Activity (dpm/100 cm ²)
131		Desk Top		
132		Desk shelf	1	See attached LSC Printout
133		Drawer front	1	
134		Right Top Drawer	1	
135		" "	1	
136		" Lower "	1	
137		Left Drawer	1	
138		Cubby	1	
139		counter	1	
140		Basin	1	
141		counter	1	
142		Basin	1	
143		Black shelf	1	
144		Lower wire shelf	1	
145		upper " "	1	
146		Drawer front	1	
147		Top Right Drawer	1	
148		" "	1	
149		upper shelf Cabinet	1	
150		Lower " "	1	
151		Top Left Drawer	1	
152		Cubby	1	
153		Drawer front	1	
154		Left Top Drawer	1	
155		" "	1	
156		Drawer	1	
157		Lower Drawer	1	
158		Top Right Drawer	1	

Radiological Survey Continuation Sheet

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Date 5/29/02

No.	Time	Location	Inst. Used	Total Activity (dpm/100 cm ²)
159	159	Right Drawer		
160		sid of counter	1	See attached LSC Printout
161		counter around sink	1	
162		sink Basin	1	
163		Drawer front	1	
164		Drawer	1	
165		flr.	1	
166		"	1	
167		"	1	
168		"	1	
169		"	1	
171		"	1	
172		"	1	
173		"	1	
174		flr	1	
175		flr	1	
176		"	1	
177		"	1	
178		"	1	
179		flr	1	
180		under Desk	1	
181		under Desk	1	
182		flr	1	
183		flr	1	
184		flr	1	
185		flr	1	
186		flr	1	
187		flr mat	1	

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No.	Time	Location	Inst. Used	Total Activity (dpm/100 cm ²)
188	12:10	cabinet side panel	1	See attached LSC Printout
189		Drawd front	1	
190		Top Drawer-Right	1	
191		"	1	
192		Lower "	1	
193		counter top	1	
194		counter top	1	
195		Drawer front	1	
196		Right Drawer	1	
197		cabbie	1	
198		Left Top Drawer	1	
199		" "	1	
200		Left cabinet Top Shelf	1	
201		" " Lower "	1	
202		Top Drawer Left	1	
203		Drawer Left	1	
204		Desk top	1	
205		Right Lower shelf	1	
206		" "	1	
207		" Top "	1	
208		Left shelf	1	
209		upper wall	1	
210		Lower shelf	1	
211		"	1	
212		"	1	
213		upper shelf	1	
214		Desk Right Drawer front	1	
215		Top Right "	1	

No.	Time	Location	Inst. Used	Total Activity (dpm/100 cm ²)
216		Cubby		
217		Top Left Drawer	1	See attached LSC Printout
218		" "	1	
219		Bottom " "	1	
220		Lower wall	1	
221		upper wall	1	
222		Door upper	1	
223		" Lower	1	
224		Wall Lower	1	
225		" upper	1	
226		shelf Lower	1	
227		" mid	1	
228		" Top	1	
229		upper wall	1	
230		window	1	
231		window	1	
232		upper wall	1	
233		Lower shelf	1	
234		"	1	
235		Top "	1	
236		Desk top	1	
237		Drawer front	1	
238		Top Left Drawer	1	
239		" "	1	
240		Lower " "	1	
241		Right Drawer	1	
242		Desk Top	1	
243	✓	Draw fronts	1	

Radiological Survey Continuation Sheet

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Date 5/29/06

No.	Time	Location	Inst. Used	Total Activity (dpm/100 cm ²)
244		Left Drawer		
245		Right Drawer	1	See attached LSC Printout
246		Desk Top	1	
247		Drawer fronts	1	
248		Left Drawer	1	
249		Center Drawer	1	
250		Right Top Drawer	1	
251		" "	1	
252		" Lower "	1	
253		Lower window wall	1	
254		upper " "	1	
255		Lower wall	1	
256		Upper "	1	
257		Lower "	1	
258		Upper "	1	
259		Lower "	1	
260		Upper "	1	
261		Lower "	1	
262		Upper "	1	
263		Lower "	1	
264		Upper "	1	
265		Lower "	1	
266		Upper "	1	
267		Lower "	1	
268		Upper "	1	
269		Glass Door Lower Inside	1	
270		" " Upper "	1	
271		Glass Door Lower Outer side	1	

Radiological Survey Continuation Sheet

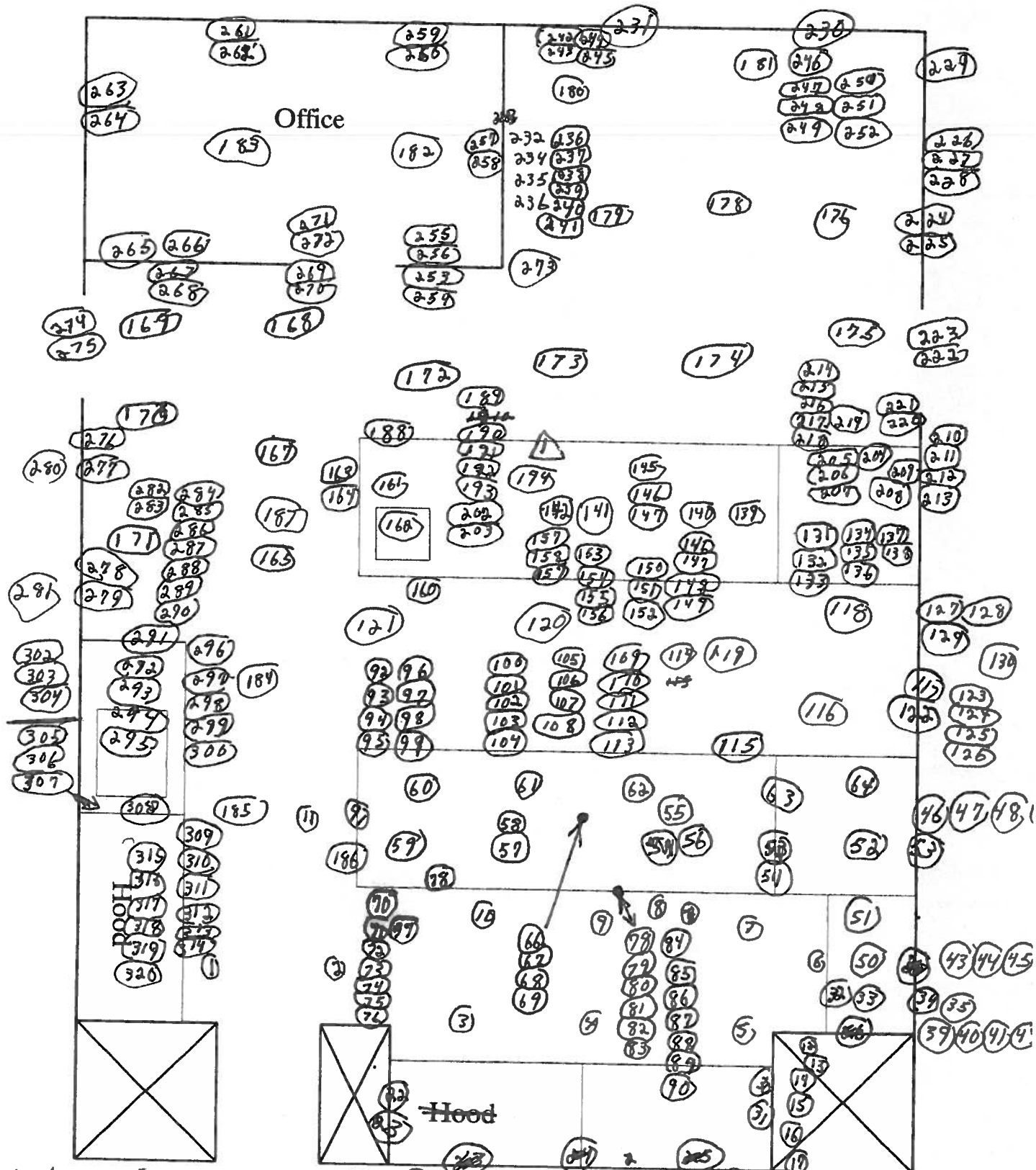
No.	Time	Location	Inst. Used	Total A (dpm/100 cm ²)
272		Glass Door Upper outer side.	1	See attached LSC Printout
273		side of Desk	1	
274		Door Lower	1	
275		" Upper	1	
276		wall Lower	1	
277		wall Upper	1	
278		wall Lower	1	
279		wall Upper	1	
280		shelf Right	1	
281		shelf Left	1	
282		Drawer front	1	
283		Drawer inner	1	
284		Glass Plate	1	
285		" "	1	
286		" "	1	
287		" "	1	
288		" "	1	
289		" "	1	
290		shelf	1	
291		side of cupboard	1	
292		shelving unit	1	
293		counter top	1	
294		sink Basin	1	
295		Back wall	1	
296		Drawer front	1	
297		Right top Drawer	1	
298		" "	1	
299		" "	1	

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No.	Time	Location	Inst. Used	Total Activity (dpm/100 cm ²)
300		Lower Right Drawer	1	See attached LSC Printout
301	2:48	UNDER sink	1	
302		shelf - Right Low	1	
303		" " mid	1	
304		" " Top	1	
305		" Left Low	1	
306		" " mid	1	
307		" " Top	1	
308		side of Hood	1	
309		Cabinet Doors under Hood	1	
310		Left side interior cabinet	1	
311		Right " " "	1	
312		Ledge of Hood	1	
313		Exterior of shield	1	
314		Interior of shield	1	
315		Hood Counter	1	
316		Hood - Basin	1	
317		Left Interior wall	1	
318		Right " "	1	
319		Lower Back wall	1	
320		Lower Vent at Base of Back Wall	1	
321		mid " " mid " " "	1	
322		Upper Back Wall	1	
323		Top Vent Back Wall	1	
324		Hood Ceiling	1	
325	0955	Post Room # 141	1	
			1	
			1	



Surveyed 100% of lower surfaces using INST. #3
 1 SURFACES surveyed were noted to be at normal background levels WITH THE EXCEPTION of the following hotspots: Δ room of counter contaminated to a level of 1,200 cpm
 normal background

29 MAY 2002 10:46

ID = 1

USER: 1

COMMENT: EQUIPMENT SURVEY

PRESET TIME : 1.00

DATA CALC :	DL DPM	H# :	YES	SAMPLE REPEATS :	1	PRINTER :	EDIT
COUNT BLANK :	YES	IC# :	NO	REPLICATES :	1	RS232 :	EDIT
TWO PHASE :	NO	ARC :	YES	CYCLE REPEATS :	1		
SCINTILLATOR :	LIQUID	LUMEX :	YES	LOW SAMPLE REJ :	0		
LOW LEVEL :	NO	HALF LIFE CORRECTION DATE :				none	

ISOTOPE 1 :	3H	%ERROR :	2.00	FACTOR :	1.0000	BKG. SUB :	0
ISOTOPE 2 :	14C	%ERROR :	2.00	FACTOR :	1.0000	BKG. SUB :	0
WIDE OPEN WINDOW		%ERROR :	0.00	FACTOR :	1.0000	BKG. SUB :	0

BACKGROUND QUENCH CURVE: Off COLOR QUENCH CORRECTION: Off

Quench Limits Low:13.688 High:306.34

SAM NO	H#	3H CPM	14C CPM	WIDE CPM	3H DPM	14C DPM	LUMEX %
B	104.1	17.00	11.00	38.00	34.98	14.61	2.90
		Blank Average	DPM	for	3H :	34.98	COEF. OF VAR: 0.000
		Blank Average	DPM	for	14C :	14.61	COEF. OF VAR: 0.000
1	89.3	16.00	6.00	31.00	-2.19	-6.81	3.92
2	90.9	13.00	13.00	33.00	-12.63	2.68	4.37
3	107.3	10.00	14.00	27.00	-18.64	4.25	10.27
4	96.7	20.00	9.00	34.00	6.79	-2.81	7.72
5	96.3	20.00	12.00	44.00	4.97	1.25	4.25
6	98.0	17.00	15.00	40.00	-3.48	5.38	2.89
7	91.5	15.00	12.00	31.00	-7.44	1.30	7.17
8	94.2	12.00	5.00	27.00	-10.03	-8.08	5.39
9	89.2	18.00	13.00	45.00	-1.54	2.58	2.56
10	93.4	15.00	9.00	30.00	-5.48	-2.73	7.26
11	89.5	14.00	14.00	36.00	-11.07	4.00	3.14
12	93.8	12.00	15.00	40.00	-15.72	5.43	4.80
13	92.3	16.00	11.00	35.00	-4.48	-0.06	3.80
14	97.1	17.00	4.00	26.00	2.70	-9.52	7.33
15	99.6	17.00	11.00	37.00	-0.87	-0.03	4.61
16	94.2	20.00	8.00	35.00	6.78	-4.17	4.40
17	98.8	6.00	13.00	32.00	-28.30	2.88	1.63
18	93.6	14.00	12.00	37.00	-9.45	1.34	3.46
19	96.1	15.00	14.00	34.00	-7.90	4.04	3.75
20	97.6	21.00	10.00	40.00	8.77	-1.47	2.87
21	90.2	11.00	15.00	36.00	-18.34	5.41	4.93
22	85.9	19.00	15.00	40.00	-0.97	5.23	3.35
23	81.3	17.00	8.00	32.00	-2.39	-4.17	2.48
24	87.6	13.00	15.00	37.00	-14.08	5.35	4.04
25	90.6	14.00	16.00	39.00	-12.05	6.71	5.10
26	90.5	22.00	10.00	42.00	9.41	-1.52	3.71
27	89.0	16.00	8.00	30.00	-3.34	-4.12	3.76
28	96.4	10.00	16.00	37.00	-20.72	6.84	3.05

31	88.4	16.00	5.00	33.00	-1.80	-8.16	3.91
32	94.2	10.00	12.00	30.00	-18.62	1.42	4.44
33	88.8	13.00	10.00	33.00	-11.22	-1.37	11.39
34	92.7	19.00	13.00	37.00	1.35	2.59	2.19
35	90.3	15.00	6.00	30.00	-4.29	-6.79	2.52
36	89.5	10.00	12.00	30.00	-19.01	1.36	3.48

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SAM NO	H#	3H CPM	14C CPM	WIDE CPM	3H DPM	14C DPM	LUMEX %
37	83.9	16.00	5.00	35.00	-2.56	-8.17	2.22
38	89.6	15.00	8.00	33.00	-5.50	-4.10	2.58
39	89.6	12.00	7.00	32.00	-11.74	-5.39	2.29
40	89.2	19.00	13.00	43.00	0.70	2.56	1.92
41	88.6	10.00	12.00	33.00	-19.08	1.37	3.93
42	86.2	13.00	13.00	30.00	-13.15	2.65	4.55
43	89.7	7.00	9.00	23.00	-24.11	-2.61	6.02
44	89.5	15.00	18.00	45.00	-11.03	9.37	3.55
45	89.4	13.00	9.00	34.00	-10.60	-2.72	3.12
46	99.0	17.00	12.00	37.00	-1.57	1.32	4.30
47	99.5	18.00	6.00	27.00	4.43	-6.82	6.06
48	98.9	8.00	5.00	21.00	-18.88	-7.99	4.20
49	105.8	16.00	7.00	36.00	0.32	-5.41	7.40
50	93.8	15.00	9.00	38.00	-5.42	-2.73	3.32
51	90.7	13.00	10.00	30.00	-10.99	-1.36	3.99
52	95.6	11.00	12.00	33.00	-16.17	1.41	4.18
53	89.7	11.00	10.00	26.00	-15.63	-1.33	4.08
54	91.1	18.00	9.00	35.00	1.00	-2.80	4.10
55	105.6	18.00	12.00	36.00	2.17	1.35	4.16
56	91.9	12.00	15.00	35.00	-15.91	5.41	4.60
57	88.6	13.00	16.00	38.00	-14.53	6.70	1.94
58	92.9	17.00	12.00	40.00	-2.64	1.28	1.65
59	88.1	18.00	12.00	38.00	-1.19	1.23	1.60
60	104.5	13.00	11.00	34.00	-9.72	0.08	3.95
61	83.5	17.00	15.00	45.00	-5.74	5.24	1.70
62	81.0	9.00	13.00	31.00	-22.33	2.67	2.98
63	105.9	15.00	14.00	40.00	-6.40	4.13	4.47
64	108.7	21.00	9.00	36.00	12.26	-2.78	6.79
65	86.2	12.00	9.00	35.00	-13.20	-2.72	3.40
66	94.9	14.00	9.00	40.00	-7.56	-2.71	3.42
67	87.0	16.00	12.00	36.00	-5.84	1.25	2.55
68	97.2	18.00	10.00	36.00	1.62	-1.42	3.07
69	94.5	11.00	8.00	28.00	-14.01	-4.00	2.69
70	87.5	15.00	8.00	36.00	-5.82	-4.11	2.36
71	85.9	24.00	6.00	41.00	14.94	-6.96	1.66
72	88.6	18.00	4.00	30.00	3.26	-9.54	2.68
73	91.1	13.00	17.00	44.00	-14.83	8.08	2.99
74	92.4	17.00	11.00	40.00	-2.17	-0.07	2.27
75	86.7	15.00	10.00	31.00	-7.03	-1.42	3.90
76	85.4	16.00	11.00	40.00	-5.53	-0.10	1.63
77	86.8	16.00	10.00	34.00	-4.79	-1.44	2.37
78	90.8	11.00	10.00	27.00	-15.52	-1.33	4.78
79	113.0	17.00	8.00	38.00	3.79	-4.04	2.88
80	85.3	15.00	9.00	30.00	-6.68	-2.77	1.99
81	90.9	18.00	6.00	29.00	2.63	-6.84	3.15
82	102.6	14.00	17.00	42.00	-11.15	8.19	2.77
83	84.5	16.00	10.00	44.00	-5.13	-1.45	1.75
84	87.0	13.00	11.00	30.00	-11.97	-0.04	2.54
85	94.1	13.00	10.00	34.00	-10.56	-1.34	3.27
86	83.9	15.00	10.00	32.00	-7.42	-1.44	2.33

87	87.5	17.00	17.00	42.00	-1.78	7.93	1.93
90	89.7	12.00	15.00	33.00	-16.13	5.39	2.47
91	84.2	19.00	15.00	44.00	-1.25	5.21	1.27
92	89.0	20.00	13.00	43.00	2.91	2.54	2.07
93	85.7	19.00	7.00	36.00	3.30	-5.53	1.23
94	88.9	12.00	13.00	35.00	-15.10	2.69	2.62

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SAM NO	H#	3H CPM	14C CPM	WIDE CPM	3H DPM	14C DPM	LUMEX %
95	75.8	17.00	5.00	37.00	-1.70	-8.20	1.35
96	95.4	9.00	11.00	26.00	-20.28	0.09	3.75
97	80.2	21.00	12.00	44.00	3.97	1.12	0.85
98	89.8	12.00	17.00	38.00	-17.22	8.08	1.33
99	85.2	20.00	10.00	41.00	3.81	-1.52	2.05

PAGE: 39

29 MAY 2002 14:19

ID: 1

USER: 1 COMMENT: EQUIPMENT SURVEY

PRESET TIME : 1.00
 DATA CALC : DL DPM H# : YES SAMPLE REPEATS: 1 PRINTER : EDIT
 COUNT BLANK : YES IC# : NO REPLICATES : 1 RS232 : EDIT
 TWO PHASE : NO AQC : YES CYCLE REPEATS : 1
 SCINTILLATOR: LIQUID LUMEX: YES LOW SAMPLE REJ: 0
 LOW LEVEL : NO HALF LIFE CORRECTION DATE: none

ISOTOPE 1: 3H %ERROR: 2.00 FACTOR: 1.0000 BKG. SUB: 0
 ISOTOPE 2: 14C %ERROR: 2.00 FACTOR: 1.0000 BKG. SUB: 0
 WIDE OPEN WINDOW %ERROR: 0.00 FACTOR: 1.0000 BKG. SUB: 0

BACKGROUND QUENCH CURVE: Off COLOR QUENCH CORRECTION: Off

Quench Limits Low: 13.688 High: 306.34

SAM NO	H#	3H CPM	14C CPM	WIDE CPM	3H DPM	14C DPM	LUMEX %
3	80.6	14.00	11.00	36.00	24.45	14.51	13.04
		Blank Average DPM for		3H :	24.45	COEF. OF VAR: 0.000	
		Blank Average DPM for		14C :	14.51	COEF. OF VAR: 0.000	

10	76.6	15.00	10.00	36.00	2.16	-1.38	2.29
11	75.8	21.00	8.00	42.00	15.73	-4.16	2.13
12	76.8	12.00	17.00	37.00	-7.73	8.04	1.81
13	75.9	11.00	7.00	29.00	-4.83	-5.33	2.23
14	78.8	21.00	9.00	39.00	15.79	-2.81	1.99
15	78.9	20.00	5.00	32.00	15.74	-8.15	1.70
16	76.1	19.00	9.00	41.00	11.05	-2.79	1.63
17	74.4	20.00	9.00	40.00	12.86	-2.81	2.08
18	78.5	21.00	11.00	43.00	14.70	-0.13	1.61
19	81.5	20.00	14.00	47.00	11.53	3.93	1.45
20	78.2	20.00	12.00	43.00	11.99	1.22	1.39
21	77.2	22.00	8.00	38.00	18.11	-4.17	1.92
22	80.1	17.00	11.00	37.00	6.39	-0.05	1.42
23	76.5	14.00	6.00	30.00	2.08	-6.72	1.98
24	78.0	13.00	11.00	33.00	-2.43	-0.00	1.81
25	76.4	13.00	4.00	26.00	0.97	-9.37	2.02
26	85.4	19.00	9.00	37.00	12.70	-2.74	1.28
27	77.0	13.00	6.00	32.00	0.03	-6.70	2.03
28	82.9	16.00	16.00	40.00	2.00	6.69	1.53
29	82.6	14.00	8.00	37.00	1.82	-4.01	15.06
30	83.5	11.00	6.00	30.00	-3.56	-6.64	5.62
31	76.7	23.00	9.00	40.00	19.61	-2.85	1.43
32	90.0	14.00	8.00	33.00	2.81	-3.98	2.58
33	81.2	11.00	13.00	32.00	-7.47	2.74	2.74
34	80.7	15.00	8.00	35.00	3.73	-4.04	1.92
35	81.4	14.00	10.00	32.00	0.62	-1.34	1.64
36	77.6	18.00	12.00	43.00	7.63	1.25	1.20
37	75.8	23.00	0.00	31.00	24.00	-14.89	1.77

32	82.4	12.00	9.00	33.00	-3.09	-2.64	1.49
33	79.7	12.00	13.00	31.00	-5.44	2.71	5.31
34	83.6	21.00	7.00	34.00	17.80	-5.47	2.05
35	80.8	25.00	6.00	43.00	26.37	-6.89	1.75
36	77.8	17.00	9.00	33.00	7.09	-2.75	1.49
369	77.7	19.00	8.00	33.00	11.83	-4.12	1.92

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SAM NO	H#	3H CPM	14C CPM	WIDE CPM	3H DPM	14C DPM	LUMEX %
37	82.2	15.00	10.00	29.00	2.89	-1.35	2.90
38	78.1	10.00	7.00	22.00	-6.75	-5.31	2.57
39	77.7	16.00	10.00	40.00	4.43	-1.39	1.89
40	83.3	23.00	6.00	37.00	22.64	-6.85	1.92
41	108.3	14.00	16.00	34.00	0.78	7.00	2.55
42	87.8	41.00	27.00	78.00	52.57	21.11	1.15
43	88.5	23.00	14.00	46.00	19.54	3.93	2.28
44	89.9	17.00	10.00	41.00	8.48	-1.34	1.58
45	82.4	26.00	12.00	47.00	25.79	1.15	1.70
46	88.1	9.00	11.00	29.00	-10.28	0.14	2.35
47	79.2	13.00	11.00	32.00	-2.31	0.01	2.41
48	77.0	13.00	6.00	30.00	0.02	-6.70	2.28
49	75.3	13.00	13.00	33.00	-3.71	2.65	1.97
50	78.9	12.00	8.00	27.00	-2.92	-4.00	2.49
51	78.7	20.00	4.00	30.00	16.22	-9.49	1.76
52	80.4	15.00	6.00	29.00	4.73	-6.72	1.94
53	83.6	10.00	8.00	25.00	-6.81	-3.94	2.85
54	80.6	20.00	11.00	42.00	12.95	-0.10	1.23
55	79.4	19.00	8.00	35.00	12.13	-4.11	3.02
56	82.7	10.00	9.00	29.00	-7.41	-2.60	2.24
57	81.3	11.00	5.00	33.00	-3.27	-7.99	1.81
58	83.2	18.00	18.00	46.00	5.33	9.35	1.20
59	79.5	17.00	9.00	35.00	7.34	-2.74	3.07
60	77.9	12.00	6.00	25.00	-2.00	-6.68	2.36
61	74.2	9.00	8.00	24.00	-9.66	-3.97	0.93
62	82.5	15.00	10.00	30.00	2.93	-1.35	1.77
63	94.2	16.00	16.00	40.00	3.53	6.81	4.14
64	78.9	20.00	8.00	43.00	14.18	-4.13	1.52
65	84.0	15.00	9.00	29.00	3.66	-2.68	2.26
66	85.2	17.00	18.00	42.00	3.42	9.39	3.34
67	80.9	13.00	10.00	33.00	-1.60	-1.32	2.58
68	81.5	26.00	11.00	46.00	26.09	-0.20	1.30
69	88.1	15.00	15.00	38.00	0.98	5.42	2.56
70	85.6	14.00	15.00	36.00	-1.55	5.41	4.60
71	85.0	18.00	11.00	41.00	9.35	-0.04	2.33
72	88.2	15.00	11.00	34.00	3.16	0.03	2.83
73	85.6	14.00	8.00	29.00	2.22	-4.00	4.98
74	81.5	11.00	7.00	26.00	-4.29	-5.31	2.53
75	82.5	21.00	9.00	39.00	16.53	-2.79	1.55
76	84.0	13.00	13.00	31.00	-2.86	2.73	2.80
77	89.4	20.00	9.00	45.00	15.71	-2.74	1.30
78	86.1	20.00	14.00	38.00	12.34	3.97	1.70
79	105.4	12.00	11.00	25.00	-1.53	0.21	3.17
80	85.9	6.00	13.00	27.00	-18.16	2.86	2.36
81	76.0	12.00	8.00	29.00	-3.21	-4.01	0.69
82	94.0	18.00	13.00	39.00	9.83	2.72	1.39
83	81.7	14.00	11.00	32.00	0.12	0.01	2.08
84	81.6	24.00	4.00	36.00	25.47	-9.55	2.68
85	80.1	21.00	12.00	43.00	14.47	1.22	2.27
86	85.9	19.00	14.00	38.00	10.10	3.98	2.07

887	86.4	12.00	10.00	31.00	-3.20	-1.27	3.70
890	90.2	14.00	9.00	27.00	2.29	-2.63	4.67
891	86.1	20.00	8.00	41.00	15.58	-4.10	3.35
892	86.6	17.00	12.00	37.00	6.85	1.33	3.61
893	82.3	15.00	10.00	33.00	2.90	-1.35	2.53
894	79.8	19.00	10.00	38.00	11.17	-1.43	1.71

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SAM NO	H#	3H CPM	14C CPM	WIDE CPM	3H DPM	14C DPM	LUMEX %	
95	83.8	21.00	13.00	40.00	14.65	2.59	3.22	
96	82.8	15.00	12.00	37.00	1.91	1.34	3.19	
97	INVALID SAMPLE COUNT: H# ABORT: COUNT RATE TOO LOW							
98	87.1	16.00	7.00	28.00	7.41	-5.37	3.58	
99	81.2	24.00	5.00	37.00	24.84	-8.21	2.71	
100	89.8	15.00	9.00	35.00	4.49	-2.65	3.97	
101	89.1	10.00	9.00	33.00	-6.86	-2.57	2.76	
102	89.1	19.00	7.00	40.00	14.51	-5.42	2.50	
103	80.7	14.00	12.00	31.00	-0.51	1.34	3.16	
104	83.8	17.00	8.00	32.00	8.55	-4.06	3.17	
105	88.1	8.00	8.00	23.00	-10.89	-3.88	4.07	
106	83.0	14.00	15.00	37.00	-1.84	5.38	2.16	
107	83.0	14.00	5.00	23.00	3.46	-8.04	3.76	
108	88.1	12.00	6.00	31.00	-0.84	-6.65	2.80	
109	124.8	8.00	15.00	32.00	-12.55	5.95	5.49	
110	88.9	14.00	11.00	38.00	1.02	0.06	3.03	
111	83.0	8.00	8.00	27.00	-11.22	-3.91	3.24	
112	84.5	21.00	9.00	42.00	16.93	-2.78	1.40	
113	93.0	12.00	4.00	32.00	0.90	-9.33	3.44	
114	89.7	15.00	5.00	31.00	6.68	-8.04	3.01	
115	83.7	13.00	13.00	36.00	-2.89	2.72	2.80	
116	91.2	12.00	12.00	33.00	-3.79	1.45	2.58	
117	82.5	24.00	12.00	44.00	21.46	1.18	1.92	
118	83.0	21.00	7.00	45.00	17.67	-5.47	2.78	
119	83.0	17.00	9.00	37.00	7.88	-2.72	4.86	
120	84.9	15.00	12.00	35.00	2.19	1.36	2.86	
121	87.6	12.00	5.00	30.00	-0.36	-7.99	2.33	
122	86.2	20.00	15.00	46.00	11.82	5.31	1.93	
123	89.1	16.00	8.00	31.00	7.19	-4.02	4.52	
124	87.4	12.00	10.00	34.00	-3.09	-1.27	7.35	
125	88.4	20.00	9.00	39.00	15.52	-2.75	2.92	
126	84.6	21.00	7.00	38.00	18.01	-5.47	3.06	
127	83.2	14.00	8.00	40.00	1.90	-4.01	1.91	
128	89.7	17.00	13.00	38.00	6.80	2.70	6.92	
129	88.8	13.00	8.00	26.00	0.41	-3.97	6.56	
130	83.8	12.00	11.00	34.00	-4.01	0.06	3.33	
131	81.6	15.00	9.00	37.00	3.34	-2.69	4.03	
132	85.2	19.00	12.00	35.00	11.04	1.29	6.91	
133	90.1	19.00	8.00	33.00	14.15	-4.07	4.03	
134	91.1	13.00	18.00	39.00	-4.86	9.53	4.04	
135	78.5	20.00	10.00	40.00	13.09	-1.45	0.57	
136	88.8	21.00	9.00	47.00	17.84	-2.76	2.95	
137	84.5	22.00	9.00	42.00	19.13	-2.80	3.20	
138	86.4	18.00	12.00	41.00	9.04	1.31	2.58	
139	82.2	11.00	5.00	24.00	-3.17	-7.99	5.05	
140	86.5	16.00	12.00	36.00	4.62	1.35	3.58	
141	86.3	16.00	9.00	35.00	6.21	-2.69	3.59	
142	82.3	17.00	8.00	40.00	8.30	-4.07	2.81	
143	85.5	14.00	6.00	29.00	3.28	-6.69	3.31	
144	87.0	13.00	16.00	38.00	-4.16	6.79	2.41	

Return

147	71.5	13.00	9.00	30.00	0.17	-2.61	5.07
148	86.5	17.00	10.00	37.00	7.92	-1.36	3.00
149	88.2	16.00	8.00	32.00	7.05	-4.02	5.45
150	90.0	14.00	8.00	30.00	2.82	-3.98	3.27
151	84.3	15.00	10.00	34.00	3.17	-1.34	3.10
152	83.3	21.00	12.00	39.00	15.09	1.24	1.99

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SAM NO	H#	3H CPM	14C CPM	WIDE CPM	3H DPM	14C DPM	LUMEX %
153	84.6	16.00	8.00	30.00	6.48	-4.04	3.68
154	86.6	12.00	10.00	31.00	-3.18	-1.27	4.70
155	92.6	8.00	8.00	23.00	-10.58	-3.86	4.59
156	85.3	16.00	11.00	39.00	4.98	-0.00	2.75
157	86.2	13.00	11.00	29.00	-1.55	0.05	2.03
158	87.6	13.00	17.00	36.00	-4.64	8.14	3.40
159	87.5	14.00	18.00	42.00	-2.96	9.47	3.98
160	91.8	11.00	14.00	35.00	-7.12	4.18	2.92
161	94.6	15.00	8.00	29.00	5.81	-3.98	4.75
162	93.5	20.00	21.00	54.00	9.83	13.48	3.71
163	83.6	12.00	11.00	34.00	-4.03	0.05	2.19
164	88.8	11.00	7.00	31.00	-3.55	-5.28	4.06
165	88.4	17.00	8.00	39.00	9.32	-4.04	4.10
166	87.5	12.00	4.00	19.00	0.17	-9.34	4.52
167	87.6	11.00	14.00	32.00	-7.49	4.14	5.63
168	87.6	22.00	11.00	44.00	18.73	-0.09	1.80
169	86.1	25.00	15.00	49.00	22.89	5.22	2.48
170	85.4	16.00	10.00	35.00	5.53	-1.35	2.64
171	90.0	17.00	10.00	42.00	8.50	-1.34	3.46
172	85.2	18.00	11.00	36.00	9.38	-0.04	2.70
173	86.9	20.00	8.00	37.00	15.76	-4.10	3.30
174	90.6	26.00	7.00	47.00	30.70	-5.54	4.27
175	85.7	14.00	10.00	35.00	1.15	-1.31	2.51
176	84.3	22.00	3.00	35.00	22.28	-10.86	2.57
177	91.8	14.00	9.00	37.00	2.52	-2.62	3.69
178	95.9	26.00	5.00	37.00	33.45	-8.23	5.96
179	91.9	19.00	17.00	46.00	9.50	8.08	2.95
180	91.6	14.00	7.00	28.00	3.60	-5.32	4.26
181	105.3	18.00	12.00	41.00	12.63	1.45	5.61
182	102.1	16.00	15.00	40.00	5.34	5.53	4.08
183	88.4	18.00	10.00	34.00	10.48	-1.36	3.11
184	92.3	20.00	9.00	37.00	16.33	-2.73	1.86
185	96.7	13.00	10.00	33.00	0.32	-1.23	4.39
186	94.6	11.00	9.00	30.00	-4.03	-2.55	4.44
187	94.8	16.00	16.00	42.00	3.62	6.81	4.00
188	90.5	13.00	9.00	35.00	0.07	-2.61	6.32
189	88.4	16.00	8.00	35.00	7.08	-4.02	2.31
190	89.1	14.00	7.00	30.00	3.24	-5.33	5.88
191	102.2	25.00	13.00	50.00	28.32	2.65	4.77
192	85.2	24.00	7.00	38.00	24.76	-5.52	2.15
193	87.2	14.00	9.00	34.00	1.89	-2.65	2.23
194	97.2	18.00	9.00	34.00	12.71	-2.67	3.95
195	88.2	19.00	8.00	34.00	13.78	-4.08	4.28
196	88.7	16.00	6.00	33.00	8.22	-6.71	3.27
197	92.2	17.00	8.00	34.00	10.00	-4.02	2.85
198	88.5	9.00	6.00	25.00	-7.53	-6.59	3.51
199	87.6	9.00	10.00	28.00	-9.78	-1.21	2.71

BASET 46p

200	INVALID SAMPLE COUNT;	H#	ABORT;	COUNT RATE	TOO LOW		
201	INVALID SAMPLE COUNT;	H#	ABORT;	COUNT RATE	TOO LOW		
202	89.4	11.00	8.00	29.00	-4.03	-3.93	14.56

- Refuse
- Refuse

204	93.5	14.00	8.00	30.00	3.63	-3.76	4.59
206	88.4	12.00	7.00	30.00	-1.35	-5.30	2.00
207	97.0	25.00	14.00	46.00	26.26	3.96	4.15
208	96.4	12.00	5.00	28.00	0.79	-7.97	3.90
209	88.5	13.00	11.00	32.00	-1.28	0.07	3.34
210	92.5	25.00	6.00	38.00	29.53	-6.87	4.01

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SAM NO	H#	3H CPM	14C CPM	WIDE CPM	3H DPM	14C DPM	LUMEX %
211	92.9	21.00	10.00	39.00	18.19	-1.39	6.64
212	97.1	24.00	8.00	49.00	27.37	-4.14	8.03
213	93.5	15.00	8.00	32.00	5.64	-3.98	3.61
214	87.2	23.00	10.00	47.00	21.40	-1.46	2.29
215	94.1	15.00	10.00	37.00	4.59	-1.28	4.21
216	113.5	19.00	10.00	42.00	18.35	-1.25	6.39
217	99.8	16.00	9.00	30.00	8.48	-2.62	3.21
218	91.3	13.00	5.00	27.00	2.39	-8.00	4.41
219	93.1	14.00	12.00	37.00	1.02	1.43	3.56
220	92.1	20.00	10.00	42.00	15.72	-1.38	2.85
221	101.1	26.00	11.00	42.00	31.58	-0.09	4.03
222	96.0	13.00	8.00	27.00	1.36	-3.94	4.57
223	89.7	17.00	9.00	33.00	9.00	-2.69	4.21
224	94.1	18.00	8.00	39.00	12.67	-4.04	2.30
225	90.3	20.00	14.00	41.00	13.14	4.00	2.09
226	86.8	21.00	13.00	44.00	15.24	2.61	0.98

ID: EQUIPMENT SURVY 5 JUN 2002 09:48
 USER: 3 COMMENT: EQUIPMENT SURVEY
 PRESET TIME : 1.00
 CALC : DL DPM H# : YES SAMPLE REPEATS: 1 PRINTER : EDIT
 COUNT BLANK : YES IC# : NO REPLICATES : 1 RS232 : EDIT
 TWO PHASE : NO ADC : YES CYCLE REPEATS : 1
 SCINTILLATOR: LIQUID LUMEX: YES LOW SAMPLE REJ: 0
 LOW LEVEL : NO HALF LIFE CORRECTION DATE: none

ISOTOPE 1: 3H %ERROR: 2.00 FACTOR: 1.0000 BKG. SUB: 0
 ISOTOPE 2: 14C %ERROR: 2.00 FACTOR: 1.0000 BKG. SUB: 0
 WIDE OPEN WINDOW %ERROR: 0.00 FACTOR: 1.0000 BKG. SUB: 0

BACKGROUND QUENCH CURVE: Off COLOR QUENCH CORRECTION: Off

Quench Limits Low: 13.688 High: 306.34

SAM NO	H#	3H CPM	14C CPM	WIDE CPM	3H DPM	14C DPM	LUMEX %
81	124.1	17.00	6.00	30.00	42.99	7.86	8.39
		Blank Average DPM for		3H :	42.99	COEF. OF VAR: 0.000	
		Blank Average DPM for		14C :	7.86	COEF. OF VAR: 0.000	

01	122.3	23.00	11.00	45.00	12.53	6.73	3.65	242 222
02	124.9	12.00	10.00	27.00	-16.48	5.63	5.43	
03	126.8	13.00	13.00	38.00	-15.43	9.75	7.83	244 224
04	124.7	17.00	13.00	33.00	-4.66	9.64	7.41	
05	136.5	37.00	85.00	137.00	4.85	109.17	5.20	
06	127.8	16.00	20.00	51.00	-11.66	19.55	5.38	
07	135.4	235.00	351.00	615.00	399.14	472.90	0.53	
08	129.9	9.00	8.00	28.00	-22.79	2.97	11.88	
09	150.1	15.00	9.00	36.00	-0.37	4.31	17.38	
MISSING SAMPLE								
11	125.7	15.00	17.00	47.00	-12.79	15.21	5.70	
12	125.9	9.00	10.00	24.00	-24.71	5.70	10.54	
13	128.8	8.00	10.00	29.00	-27.22	5.75	14.88	
14	152.3	10.00	6.00	19.00	-14.08	0.26	28.70	