

CIMARRON CORPORATION
CIMARRON FACILITY
PHASE II, SUB-AREA "H", AFFECTED SURFACE SAMPLES

DATE: 07/09/98

LN #	GRID NUMBER	3" DETECT C.P.M.	MICRO R' SURF	MICRO R' 1 METER	0-6" Sample	
					Total-U	Th (Nat)
1	325E-445N	8700	10	10	6	2
2	325E-450N	8698	10	9	9	1
3	325E-455N	9020	10	10	9	2
4	325E-460N	8736	10	10	6	1
5	325E-465N	9174	10	9	11	2
6	330E-415N	8106	9	9	11	2
7	330E-420N	8564	8	9	5	2
8	330E-425N	8588	9	9	5	2
9	330E-430N	8688	9	9	9	1
10	330E-435N	9128	10	10	9	2
11	330E-440N	8716	10	10	8	2
12	330E-445N	9136	10	9	6	2
13	330E-450N	8852	10	9	7	1
14	330E-455N	8830	9	9	7	2
15	330E-460N	8270	9	9	10	2
16	330E-465N	8950	9	9	4	2
17	335E-405N	9168	10	10	11	2
18	335E-410N	9072	10	10	7	2
19	335E-415N	8964	10	9	8	2
20	335E-420N	8750	9	9	6	2

INSTRUMENTS:

RESULTS IN: BACKGROUND MDA

LUDLUM MICRO 'R' METER - MODEL 19 S/N 111299

μR/hr 7 2

LUDLUM 2221, UNSHIELDED 3" X 1/2" NaI DETECTOR MODEL 2221 S/N 97264

CPM 7300 N/A

Total U 4 10

CIMMARON SOIL COUNTER 4" X 4" X 16" NaI DETECTOR

pCi/g Th(Nat) 1.5 1

BACKGROUND NOT SUBTRACTED

PAGE 66

FILE: PHIIHASS

W. a. Rogers

DATE: 7-14-98

CIMARRON CORPORATION
CIMARRON FACILITY
PHASE II, SUB-AREA "H", AFFECTED SURFACE SAMPLES

DATE: 07/09/98

LN #	GRID NUMBER	3" DETECT C.P.M.	MICRO R' SURF	MICRO R' 1 METER	0-6" Sample	
					Total-U	Th (Nat)
1	335E-425N	8540	10	9	5	1
2	335E-430N	8518	10	9	7	2
3	335E-435N	9314	9	9	4	2
4	335E-440N	8932	9	8	7	1
5	335E-445N	8814	10	9	6	1
6	335E-450N	9078	10	10	9	2
7	335E-455N	9146	10	10	5	2
8	340E-395N	9184	9	9	5	2
9	340E-400N	9238	9	9	7	2
10	340E-405N	9088	10	10	5	2
11	340E-410N	9318	10	9	8	1
12	340E-415N	8560	9	9	5	2
13	340E-420N	8742	9	9	13	1
14	340E-425N	8350	9	9	4	2
15	340E-430N	9164	10	9	8	2
16	340E-435N	8878	10	10	6	2
17	340E-440N	9444	10	9	7	2
18	345E-395N	9102	9	10	7	2
19	345E-400N	9282	9	9	10	2
20	345E-405N	8790	10	9	6	2

INSTRUMENTS:

RESULTS IN: BACKGROUND MDA

LUDLUM MICRO 'R' METER - MODEL 19 S/N 111299

μR/hr 7 2

LUDLUM 2221, UNSHIELDED 3" X 1/2" NaI DETECTOR MODEL 2221 S/N 97264

CPM 7300 N/A

Total U 4 10

CIMMARON SOIL COUNTER 4" X 4" X 16" NaI DETECTOR

pCi/g Th(Nat) 1.5 1

BACKGROUND NOT SUBTRACTED

PAGE 67

FILE: PHIIHASS

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CIMARRON FACILITY
PHASE II, SUB-AREA "H", AFFECTED SURFACE SAMPLES

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LN #	GRID NUMBER	3" DETECT C.P.M.	MICRO R' SURF	MICRO R' 1 METER	0-6" Sample	
					Total-U	Th (Nat)
1	345E-410N	8824	9	9	8	2
2	345E-415N	8808	9	9	8	2
3	345E-420N	8446	10	9	12	1
4	345E-425N	9144	9	9	6	2
5	345E-430N	8980	9	9	8	1
6	345E-435N	8808	10	10	8	2
7	350E-395N	9062	9	9	5	2
8	350E-400N	9046	10	9	6	2
9	350E-405N	8896	10	9	10	1
10	350E-410N	9444	10	9	9	2
11	350E-415N	8846	10	9	8	2
12	350E-420N	8320	8	8	5	2
13	350E-425N	7884	9	9	5	2
14	355E-395N	8892	9	9	6	1
15	355E-400N	8550	9	9	5	1
16	355E-405N	8638	9	9	7	2
17	355E-410N	8876	9	9	10	2
18	355E-415N	8488	9	9	5	1
19	360E-395N	8524	9	9	5	2
20	360E-400N	8266	9	8	8	1

INSTRUMENTS:

RESULTS IN: BACKGROUND MDA

LUDLUM MICRO 'R' METER - MODEL 19 S/N 111299

μR/hr

7

2

LUDLUM 2221, UNSHIELDED 3" X 1/2" NaI DETECTOR MODEL 2221 S/N 97264

CPM

7300

N/A

Total U 4

10

CIMMARON SOIL COUNTER 4" X 4" X 16" NaI DETECTOR

pCi/g

Th(Nat) 1.5

1

BACKGROUND NOT SUBTRACTED

PAGE 68

FILE: PHIIHASS

W. A. Rogers

DATE: 7-14-98

CIMARRON CORPORATION
CIMARRON FACILITY
PHASE II, SUB-AREA "H", AFFECTED SURFACE SAMPLES

DATE: 07/09/98

LN #	GRID NUMBER	3" DETECT C.P.M.	MICRO R' SURF	MICRO R' 1 METER	0-6" Sample	
					Total-U	Th (Nat)
1	360E-405N	8602	9	9	10	1
2	360E-410N	8532	9	9	4	2
3	365E-395N	8546	10	9	3	2
4	365E-400N	8500	9	10	8	2
5	365E-405N	8596	9	9	5	2
6	365E-410N	8614	9	9	10	1
7	370E-395N	8638	10	9	5	2
8	370E-400N	9000	9	9	6	1
9	370E-405N	8782	10	9	6	1
10	370E-410N	9050	10	9	5	2
11	375E-395N	8850	10	9	10	2
12	375E-400N	9072	10	9	8	2
13	375E-405N	8860	10	9	6	2
14	375E-410N	8840	9	9	9	2
15	380E-400N	8524	9	9	8	2
16	380E-405N	8806	9	9	10	1
17	380E-410N	8434	9	9	11	1
18	380E-415N	8332	9	9	7	1
19	385E-400N	8856	9	9	7	2
20	385E-405N	8542	9	9	8	1

INSTRUMENTS:

RESULTS IN: BACKGROUND MDA

LUDLUM MICRO 'R' METER - MODEL 19 S/N 111299

μR/hr 7 2

LUDLUM 2221, UNSHIELDED 3" X 1/2" NaI DETECTOR MODEL 2221 S/N 97264

CPM 7300 N/A

Total U 4 10

CIMMARON SOIL COUNTER 4" X 4" X 16" NaI DETECTOR

pCi/g Th(Nat) 1.5 1

BACKGROUND NOT SUBTRACTED

PAGE 69

FILE: PHIIHASS

W. A. Rogers

DATE: 7-14-98

CIMARRON CORPORATION
CIMARRON FACILITY
PHASE II, SUB-AREA "H", AFFECTED SURFACE SAMPLES

DATE: 07/09/98

LN #	GRID NUMBER	3" DETECT C.P.M.	MICRO R' SURF	MICRO R' 1 METER	0-6" Sample	
					Total-U	Th (Nat)
1	385E-410N	8000	9	9	3	1
2	385E-415N	7148	8	8	5	1
3	390E-400N	7254	9	8	8	1
4	390E-405N	6976	8	8	8	1
5	390E-410N	7680	8	8	9	1
6	390E-415N	7266	9	8	8	1
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						

INSTRUMENTS:

RESULTS IN: BACKGROUND MDA

LUDLUM MICRO 'R' METER - MODEL 19 S/N 111299

μR/hr 7 2

LUDLUM 2221, UNSHIELDED 3" X 1/2" NaI DETECTOR MODEL 2221 S/N 97264

CPM 7300 N/A

Total U 4 10

CIMMARON SOIL COUNTER 4" X 4" X 16" NaI DETECTOR

pCi/g Th(Nat) 1.5 1

BACKGROUND NOT SUBTRACTED

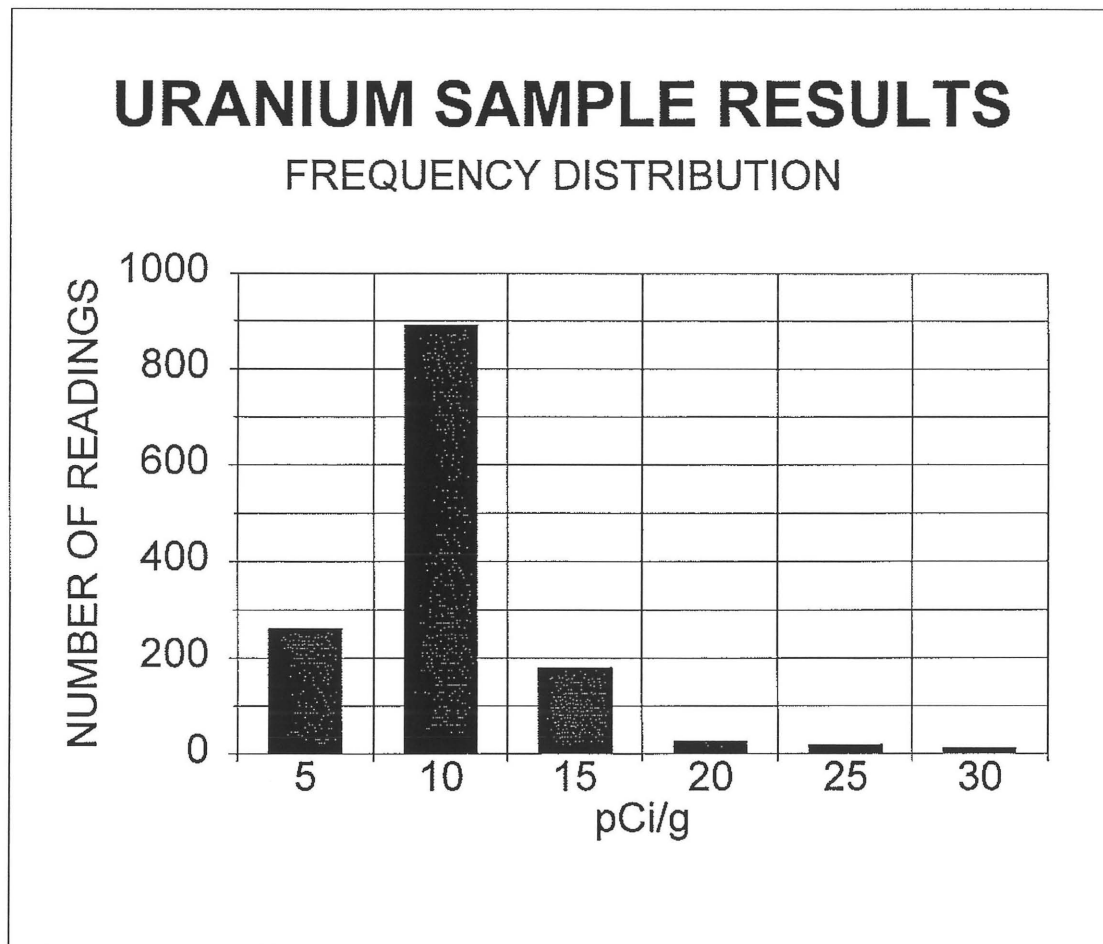
PAGE 70

FILE: PHIIHASS

W. A. Rogers

DATE: 7-14-98

**PHASE II, SUB-AREA "H" -
AFFECTED SURFACE
CIMARRON SOIL COUNTER
TOTAL URANIUM SOIL SAMPLE RESULTS
SITE BACKGROUND OF 4 pCi/g NOT SUBTRACTED
SEPTEMBER 1998**



NUMBER OF READINGS	1392
AVERAGE READING	8
MINIMUM READING	1
MAXIMUM READING	30
STANDARD DEVIATION	4

No. of Samples (x) :	1392
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Sample Mean (N) = Sum(n) ÷ (x)
Sample Mean (N) : 8.27

Standard Deviation (Sd) = $\text{SORT} [(n-N)^2 \div (x - 1)]$

Data listed on Table B-1

(Aμ) =	8.43	pCi/gU	TOTAL U
GUIDELINE VALUE:	30	pCi/gU	TOTAL U
Acceptable Level:	34.0	pCi/gU	TOTAL U

(30 PLUS BACKGROUND)

Factors for Comparison of Survey Data with Guidelines					
(df)	95%	97.5%	(df)	95%	97.5%
1	6.314	12.706	19	1.729	2.093
2	2.92	4.303	20	1.725	2.086
3	2.353	3.182	21	1.721	2.08
4	2.132	2.776	22	1.717	2.074
5	2.015	2.571	23	1.714	2.069
6	1.943	2.447	24	1.711	2.064
7	1.895	2.365	25	1.708	2.06
8	1.86	2.306	26	1.706	2.056
9	1.833	2.262	27	1.703	2.052
10	1.812	2.228	28	1.701	2.048
11	1.796	2.201	29	1.699	2.045
12	1.782	2.179	30	1.697	2.042
13	1.771	2.16	40	1.684	2.021
14	1.761	2.145	60	1.671	2
15	1.753	2.131	120	1.658	1.98
16	1.746	2.12	400	1.649	1.966
17	1.74	2.11	Infinite	1.645	1.96
18	1.734	2.101			

DATE: 10-8-98

DATE: 10-8-98

(df) high value(Z)	is (B)		95%
(df) low value(Y)	is (A)		95%
Desired value(df) (X)	is calculated as follow:		
	$\text{EXP}[(\text{Ln}(\text{B}) - \text{Ln}(\text{A})) \div (\text{Z} - \text{Y})] \times (\text{X} - \text{Y}) + \text{Ln}(\text{A})]$		
The (df) value for (X)	1391	1.645	95%

CIMARRON CORPORATION - CIMARRON FACILITY

TRUE MEAN ACTIVITY VS. GUIDELINE VALUE AT 95% CONFIDENCE

PHASE II SUB - AREA " H " AFFECTED SURFACE SAMPLES

n = pCi/g TOTAL U			
Number	n	(n-N)	(n-N) ²
1	6	-2.27	5.14
2	4	-4.27	18.21
3	8	-0.27	0.07
4	7	-1.27	1.61
5	14	5.73	32.86
6	7	-1.27	1.61
7	13	4.73	22.40
8	14	5.73	32.86
9	7	-1.27	1.61
10	11	2.73	7.47
11	9	0.73	0.54
12	23	14.73	217.05
13	21	12.73	162.12
14	11	2.73	7.47
15	14	5.73	32.86
16	15	6.73	45.33
17	13	4.73	22.40
18	9	0.73	0.54
19	6	-2.27	5.14
20	7	-1.27	1.61
21	8	-0.27	0.07
22	10	1.73	3.00
23	7	-1.27	1.61
24	7	-1.27	1.61
25	7	-1.27	1.61
26	11	2.73	7.47
27	7	-1.27	1.61
28	11	2.73	7.47
29	14	5.73	32.86
30	5	-3.27	10.67
31	10	1.73	3.00
32	14	5.73	32.86
33	9	0.73	0.54
34	10	1.73	3.00
35	8	-0.27	0.07
36	14	5.73	32.86
37	30	21.73	472.31
38	24	15.73	247.52
39	19	10.73	115.19
40	12	3.73	13.93
41	12	3.73	13.93
42	13	4.73	22.40
43	13	4.73	22.40
44	16	7.73	59.80
45	9	0.73	0.54
46	10	1.73	3.00
47	12	3.73	13.93
48	15	6.73	45.33
49	14	5.73	32.86
50	10	1.73	3.00
	580		1825.36
	Sum(n)		Sum(n-N) ²

n = pCi/g TOTAL U			
Number	n	(n-N)	(n-N) ²
51	26	17.73	314.45
52	28	19.73	389.38
53	22	13.73	188.59
54	16	7.73	59.80
55	15	6.73	45.33
56	30	21.73	472.31
57	28	19.73	389.38
58	11	2.73	7.47
59	24	15.73	247.52
60	7	-1.27	1.61
61	27	18.73	350.92
62	12	3.73	13.93
63	16	7.73	59.80
64	7	-1.27	1.61
65	9	0.73	0.54
66	5	-3.27	10.67
67	9	0.73	0.54
68	14	5.73	32.86
69	7	-1.27	1.61
70	6	-2.27	5.14
71	6	-2.27	5.14
72	16	7.73	59.80
73	8	-0.27	0.07
74	15	6.73	45.33
75	6	-2.27	5.14
76	13	4.73	22.40
77	7	-1.27	1.61
78	10	1.73	3.00
79	8	-0.27	0.07
80	9	0.73	0.54
81	7	-1.27	1.61
82	12	3.73	13.93
83	8	-0.27	0.07
84	13	4.73	22.40
85	22	13.73	188.59
86	18	9.73	94.73
87	10	1.73	3.00
88	8	-0.27	0.07
89	5	-3.27	10.67
90	7	-1.27	1.61
91	9	0.73	0.54
92	10	1.73	3.00
93	8	-0.27	0.07
94	6	-2.27	5.14
95	13	4.73	22.40
96	12	3.73	13.93
97	12	3.73	13.93
98	13	4.73	22.40
99	11	2.73	7.47
100	11	2.73	7.47
	632		3169.57
	Sum(n)		Sum(n-N) ²

PHASE II SUB - AREA " H " AFFECTED SURFACE SAMPLES

n = pCl/g TOTAL U			
Number	n	(n-N)	(n-N) ²
151	13	4.73	22.40
152	4	-4.27	18.21
153	10	1.73	3.00
154	10	1.73	3.00
155	4	-4.27	18.21
156	8	-0.27	0.07
157	11	2.73	7.47
158	15	6.73	45.33
159	18	9.73	94.73
160	9	0.73	0.54
161	8	-0.27	0.07
162	7	-1.27	1.61
163	11	2.73	7.47
164	9	0.73	0.54
165	7	-1.27	1.61
166	10	1.73	3.00
167	4	-4.27	18.21
168	11	2.73	7.47
169	9	0.73	0.54
170	11	2.73	7.47
171	5	-3.27	10.67
172	10	1.73	3.00
173	8	-0.27	0.07
174	14	5.73	32.86
175	6	-2.27	5.14
176	7	-1.27	1.61
177	15	6.73	45.33
178	6	-2.27	5.14
179	14	5.73	32.86
180	9	0.73	0.54
181	9	0.73	0.54
182	12	3.73	13.93
183	6	-2.27	5.14
184	6	-2.27	5.14
185	10	1.73	3.00
186	11	2.73	7.47
187	5	-3.27	10.67
188	6	-2.27	5.14
189	6	-2.27	5.14
190	12	3.73	13.93
191	12	3.73	13.93
192	8	-0.27	0.07
193	10	1.73	3.00
194	10	1.73	3.00
195	6	-2.27	5.14
196	6	-2.27	5.14
197	8	-0.27	0.07
198	6	-2.27	5.14
199	9	0.73	0.54
200	3	-5.27	27.74
	444		532.05
	Sum(n)		Sum(n-N) ²

CIMARRON CORPORATION - CIMARRON FACILITY

TRUE MEAN ACTIVITY VS. GUIDELINE VALUE AT 95% CONFIDENCE

PHASE II SUB - AREA " H " AFFECTED SURFACE SAMPLES

n = pCi/g TOTAL U			
Number	n	(n-N)	(n-N) ²
201	5	-3.27	10.67
202	8	-0.27	0.07
203	7	-1.27	1.61
204	9	0.73	0.54
205	7	-1.27	1.61
206	7	-1.27	1.61
207	11	2.73	7.47
208	13	4.73	22.40
209	6	-2.27	5.14
210	5	-3.27	10.67
211	7	-1.27	1.61
212	5	-3.27	10.67
213	7	-1.27	1.61
214	9	0.73	0.54
215	11	2.73	7.47
216	5	-3.27	10.67
217	7	-1.27	1.61
218	8	-0.27	0.07
219	7	-1.27	1.61
220	9	0.73	0.54
221	8	-0.27	0.07
222	8	-0.27	0.07
223	9	0.73	0.54
224	7	-1.27	1.61
225	10	1.73	3.00
226	12	3.73	13.93
227	5	-3.27	10.67
228	7	-1.27	1.61
229	9	0.73	0.54
230	7	-1.27	1.61
231	10	1.73	3.00
232	12	3.73	13.93
233	7	-1.27	1.61
234	10	1.73	3.00
235	10	1.73	3.00
236	6	-2.27	5.14
237	8	-0.27	0.07
238	4	-4.27	18.21
239	12	3.73	13.93
240	6	-2.27	5.14
241	6	-2.27	5.14
242	7	-1.27	1.61
243	8	-0.27	0.07
244	9	0.73	0.54
245	9	0.73	0.54
246	21	12.73	162.12
247	10	1.73	3.00
248	9	0.73	0.54
249	7	-1.27	1.61
250	10	1.73	3.00
	416		377.02
	Sum(n)		Sum(n-N) ²

n = pCi/g TOTAL U			
Number	n	(n-N)	(n-N) ²
251	10	1.73	3.00
252	12	3.73	13.93
253	7	-1.27	1.61
254	5	-3.27	10.67
255	6	-2.27	5.14
256	7	-1.27	1.61
257	9	0.73	0.54
258	6	-2.27	5.14
259	9	0.73	0.54
260	7	-1.27	1.61
261	9	0.73	0.54
262	5	-3.27	10.67
263	11	2.73	7.47
264	10	1.73	3.00
265	10	1.73	3.00
266	5	-3.27	10.67
267	6	-2.27	5.14
268	13	4.73	22.40
269	11	2.73	7.47
270	12	3.73	13.93
271	10	1.73	3.00
272	7	-1.27	1.61
273	7	-1.27	1.61
274	12	3.73	13.93
275	7	-1.27	1.61
276	6	-2.27	5.14
277	11	2.73	7.47
278	6	-2.27	5.14
279	8	-0.27	0.07
280	10	1.73	3.00
281	7	-1.27	1.61
282	5	-3.27	10.67
283	11	2.73	7.47
284	6	-2.27	5.14
285	9	0.73	0.54
286	7	-1.27	1.61
287	9	0.73	0.54
288	11	2.73	7.47
289	6	-2.27	5.14
290	10	1.73	3.00
291	23	14.73	217.05
292	17	8.73	76.26
293	12	3.73	13.93
294	9	0.73	0.54
295	10	1.73	3.00
296	7	-1.27	1.61
297	9	0.73	0.54
298	5	-3.27	10.67
299	6	-2.27	5.14
300	10	1.73	3.00
	443		545.59
	Sum(n)		Sum(n-N) ²

CIMARRON CORPORATION - CIMARRON FACILITY

TRUE MEAN ACTIVITY VS. GUIDELINE VALUE AT 95% CONFIDENCE

PHASE II SUB - AREA " H " AFFECTED SURFACE SAMPLES

n = pCi/g TOTAL U			
Number	n	(n-N)	(n-N) ²
301	7	-1.27	1.61
302	6	-2.27	5.14
303	8	-0.27	0.07
304	8	-0.27	0.07
305	14	5.73	32.86
306	7	-1.27	1.61
307	11	2.73	7.47
308	6	-2.27	5.14
309	4	-4.27	18.21
310	8	-0.27	0.07
311	12	3.73	13.93
312	12	3.73	13.93
313	8	-0.27	0.07
314	7	-1.27	1.61
315	6	-2.27	5.14
316	6	-2.27	5.14
317	11	2.73	7.47
318	6	-2.27	5.14
319	8	-0.27	0.07
320	4	-4.27	18.21
321	6	-2.27	5.14
322	4	-4.27	18.21
323	7	-1.27	1.61
324	8	-0.27	0.07
325	5	-3.27	10.67
326	6	-2.27	5.14
327	18	9.73	94.73
328	6	-2.27	5.14
329	7	-1.27	1.61
330	6	-2.27	5.14
331	6	-2.27	5.14
332	9	0.73	0.54
333	11	2.73	7.47
334	14	5.73	32.86
335	26	17.73	314.45
336	8	-0.27	0.07
337	6	-2.27	5.14
338	9	0.73	0.54
339	6	-2.27	5.14
340	10	1.73	3.00
341	8	-0.27	0.07
342	6	-2.27	5.14
343	9	0.73	0.54
344	7	-1.27	1.61
345	9	0.73	0.54
346	3	-5.27	27.74
347	5	-3.27	10.67
348	6	-2.27	5.14
349	5	-3.27	10.67
350	14	5.73	32.86
	409		759.76
	Sum(n)		Sum(n-N) ²

n = pCi/g TOTAL U			
Number	n	(n-N)	(n-N) ²
351	7	-1.27	1.61
352	6	-2.27	5.14
353	7	-1.27	1.61
354	5	-3.27	10.67
355	5	-3.27	10.67
356	13	4.73	22.40
357	7	-1.27	1.61
358	6	-2.27	5.14
359	8	-0.27	0.07
360	9	0.73	0.54
361	10	1.73	3.00
362	10	1.73	3.00
363	9	0.73	0.54
364	5	-3.27	10.67
365	6	-2.27	5.14
366	4	-4.27	18.21
367	6	-2.27	5.14
368	7	-1.27	1.61
369	9	0.73	0.54
370	6	-2.27	5.14
371	8	-0.27	0.07
372	6	-2.27	5.14
373	5	-3.27	10.67
374	8	-0.27	0.07
375	5	-3.27	10.67
376	7	-1.27	1.61
377	6	-2.27	5.14
378	5	-3.27	10.67
379	9	0.73	0.54
380	7	-1.27	1.61
381	10	1.73	3.00
382	5	-3.27	10.67
383	9	0.73	0.54
384	7	-1.27	1.61
385	10	1.73	3.00
386	5	-3.27	10.67
387	6	-2.27	5.14
388	5	-3.27	10.67
389	6	-2.27	5.14
390	5	-3.27	10.67
391	12	3.73	13.93
392	5	-3.27	10.67
393	5	-3.27	10.67
394	4	-4.27	18.21
395	9	0.73	0.54
396	6	-2.27	5.14
397	5	-3.27	10.67
398	8	-0.27	0.07
399	9	0.73	0.54
400	9	0.73	0.54
	351		290.76
	Sum(n)		Sum(n-N) ²

CIMARRON CORPORATION - CIMARRON FACILITY

TRUE MEAN ACTIVITY VS. GUIDELINE VALUE AT 95% CONFIDENCE

PHASE II SUB - AREA " H " AFFECTED SURFACE SAMPLES

n = pCi/g TOTAL U			
Number	n	(n-N)	(n-N) ²
401	14	5.73	32.86
402	7	-1.27	1.61
403	8	-0.27	0.07
404	5	-3.27	10.67
405	5	-3.27	10.67
406	9	0.73	0.54
407	9	0.73	0.54
408	6	-2.27	5.14
409	8	-0.27	0.07
410	6	-2.27	5.14
411	9	0.73	0.54
412	5	-3.27	10.67
413	4	-4.27	18.21
414	5	-3.27	10.67
415	9	0.73	0.54
416	8	-0.27	0.07
417	4	-4.27	18.21
418	8	-0.27	0.07
419	9	0.73	0.54
420	10	1.73	3.00
421	8	-0.27	0.07
422	8	-0.27	0.07
423	7	-1.27	1.61
424	11	2.73	7.47
425	7	-1.27	1.61
426	8	-0.27	0.07
427	7	-1.27	1.61
428	2	-6.27	39.28
429	6	-2.27	5.14
430	8	-0.27	0.07
431	7	-1.27	1.61
432	9	0.73	0.54
433	7	-1.27	1.61
434	6	-2.27	5.14
435	10	1.73	3.00
436	6	-2.27	5.14
437	7	-1.27	1.61
438	8	-0.27	0.07
439	6	-2.27	5.14
440	6	-2.27	5.14
441	7	-1.27	1.61
442	10	1.73	3.00
443	6	-2.27	5.14
444	5	-3.27	10.67
445	12	3.73	13.93
446	7	-1.27	1.61
447	7	-1.27	1.61
448	5	-3.27	10.67
449	11	2.73	7.47
450	8	-0.27	0.07
	370		271.61
	Sum(n)		Sum(n-N) ²

n = pCi/g TOTAL U			
Number	n	(n-N)	(n-N) ²
451	10	1.73	3.00
452	9	0.73	0.54
453	9	0.73	0.54
454	4	-4.27	18.21
455	6	-2.27	5.14
456	8	-0.27	0.07
457	11	2.73	7.47
458	6	-2.27	5.14
459	9	0.73	0.54
460	6	-2.27	5.14
461	6	-2.27	5.14
462	7	-1.27	1.61
463	10	1.73	3.00
464	10	1.73	3.00
465	11	2.73	7.47
466	7	-1.27	1.61
467	5	-3.27	10.67
468	5	-3.27	10.67
469	8	-0.27	0.07
470	10	1.73	3.00
471	5	-3.27	10.67
472	8	-0.27	0.07
473	7	-1.27	1.61
474	11	2.73	7.47
475	9	0.73	0.54
476	18	9.73	94.73
477	4	-4.27	18.21
478	7	-1.27	1.61
479	8	-0.27	0.07
480	17	8.73	76.26
481	11	2.73	7.47
482	8	-0.27	0.07
483	8	-0.27	0.07
484	8	-0.27	0.07
485	8	-0.27	0.07
486	7	-1.27	1.61
487	6	-2.27	5.14
488	6	-2.27	5.14
489	5	-3.27	10.67
490	8	-0.27	0.07
491	6	-2.27	5.14
492	8	-0.27	0.07
493	7	-1.27	1.61
494	8	-0.27	0.07
495	10	1.73	3.00
496	8	-0.27	0.07
497	5	-3.27	10.67
498	7	-1.27	1.61
499	10	1.73	3.00
500	5	-3.27	10.67
	400		369.57
	Sum(n)		Sum(n-N) ²

CIMARRON CORPORATION - CIMARRON FACILITY

TRUE MEAN ACTIVITY VS. GUIDELINE VALUE AT 95% CONFIDENCE

PHASE II SUB - AREA " H " AFFECTED SURFACE SAMPLES

n = pCi/g TOTAL U			
Number	n	(n-N)	(n-N) ²
501	4	-4.27	18.21
502	8	-0.27	0.07
503	8	-0.27	0.07
504	9	0.73	0.54
505	4	-4.27	18.21
506	10	1.73	3.00
507	5	-3.27	10.67
508	8	-0.27	0.07
509	7	-1.27	1.61
510	7	-1.27	1.61
511	5	-3.27	10.67
512	7	-1.27	1.61
513	7	-1.27	1.61
514	8	-0.27	0.07
515	8	-0.27	0.07
516	6	-2.27	5.14
517	4	-4.27	18.21
518	5	-3.27	10.67
519	6	-2.27	5.14
520	6	-2.27	5.14
521	5	-3.27	10.67
522	8	-0.27	0.07
523	6	-2.27	5.14
524	6	-2.27	5.14
525	6	-2.27	5.14
526	10	1.73	3.00
527	8	-0.27	0.07
528	7	-1.27	1.61
529	9	0.73	0.54
530	6	-2.27	5.14
531	5	-3.27	10.67
532	6	-2.27	5.14
533	6	-2.27	5.14
534	6	-2.27	5.14
535	5	-3.27	10.67
536	9	0.73	0.54
537	4	-4.27	18.21
538	8	-0.27	0.07
539	12	3.73	13.93
540	9	0.73	0.54
541	14	5.73	32.86
542	9	0.73	0.54
543	5	-3.27	10.67
544	9	0.73	0.54
545	5	-3.27	10.67
546	7	-1.27	1.61
547	5	-3.27	10.67
548	5	-3.27	10.67
549	4	-4.27	18.21
550	6	-2.27	5.14
	342		320.57
	Sum(n)		Sum(n-N) ²

n = pCi/g TOTAL U			
Number	n	(n-N)	(n-N) ²
551	6	-2.27	5.14
552	8	-0.27	0.07
553	8	-0.27	0.07
554	10	1.73	3.00
555	4	-4.27	18.21
556	9	0.73	0.54
557	9	0.73	0.54
558	6	-2.27	5.14
559	4	-4.27	18.21
560	6	-2.27	5.14
561	9	0.73	0.54
562	7	-1.27	1.61
563	4	-4.27	18.21
564	9	0.73	0.54
565	7	-1.27	1.61
566	6	-2.27	5.14
567	6	-2.27	5.14
568	13	4.73	22.40
569	9	0.73	0.54
570	9	0.73	0.54
571	6	-2.27	5.14
572	10	1.73	3.00
573	7	-1.27	1.61
574	4	-4.27	18.21
575	6	-2.27	5.14
576	9	0.73	0.54
577	10	1.73	3.00
578	4	-4.27	18.21
579	8	-0.27	0.07
580	8	-0.27	0.07
581	11	2.73	7.47
582	6	-2.27	5.14
583	10	1.73	3.00
584	7	-1.27	1.61
585	10	1.73	3.00
586	5	-3.27	10.67
587	7	-1.27	1.61
588	11	2.73	7.47
589	7	-1.27	1.61
590	7	-1.27	1.61
591	8	-0.27	0.07
592	9	0.73	0.54
593	8	-0.27	0.07
594	5	-3.27	10.67
595	8	-0.27	0.07
596	8	-0.27	0.07
597	20	11.73	137.66
598	8	-0.27	0.07
599	9	0.73	0.54
600	5	-3.27	10.67
	390		370.92
	Sum(n)		Sum(n-N) ²

PHASE II SUB - AREA " H " AFFECTED SURFACE SAMPLES

n = pCi/g TOTAL U			
Number	n	(n-N)	(n-N) ²
651	9	0.73	0.54
652	11	2.73	7.47
653	8	-0.27	0.07
654	24	15.73	247.52
655	6	-2.27	5.14
656	12	3.73	13.93
657	7	-1.27	1.61
658	10	1.73	3.00
659	10	1.73	3.00
660	8	-0.27	0.07
661	10	1.73	3.00
662	5	-3.27	10.67
663	6	-2.27	5.14
664	5	-3.27	10.67
665	6	-2.27	5.14
666	9	0.73	0.54
667	5	-3.27	10.67
668	5	-3.27	10.67
669	9	0.73	0.54
670	7	-1.27	1.61
671	8	-0.27	0.07
672	9	0.73	0.54
673	10	1.73	3.00
674	14	5.73	32.86
675	11	2.73	7.47
676	11	2.73	7.47
677	9	0.73	0.54
678	12	3.73	13.93
679	9	0.73	0.54
680	10	1.73	3.00
681	7	-1.27	1.61
682	5	-3.27	10.67
683	7	-1.27	1.61
684	8	-0.27	0.07
685	9	0.73	0.54
686	6	-2.27	5.14
687	7	-1.27	1.61
688	7	-1.27	1.61
689	11	2.73	7.47
690	8	-0.27	0.07
691	8	-0.27	0.07
692	6	-2.27	5.14
693	9	0.73	0.54
694	9	0.73	0.54
695	5	-3.27	10.67
696	4	-4.27	18.21
697	6	-2.27	5.14
698	5	-3.27	10.67
699	6	-2.27	5.14
700	7	-1.27	1.61
	415		498.55
	Sum(n)		Sum(n-N) ²

CIMARRON CORPORATION - CIMARRON FACILITY

TRUE MEAN ACTIVITY VS. GUIDELINE VALUE AT 95% CONFIDENCE

PHASE II SUB - AREA " H " AFFECTED SURFACE SAMPLES

n = pCi/g TOTAL U			
Number	n	(n-N)	(n-N) ²
701	7	-1.27	1.61
702	10	1.73	3.00
703	10	1.73	3.00
704	12	3.73	13.93
705	6	-2.27	5.14
706	12	3.73	13.93
707	5	-3.27	10.67
708	11	2.73	7.47
709	9	0.73	0.54
710	7	-1.27	1.61
711	9	0.73	0.54
712	10	1.73	3.00
713	7	-1.27	1.61
714	7	-1.27	1.61
715	12	3.73	13.93
716	4	-4.27	18.21
717	6	-2.27	5.14
718	9	0.73	0.54
719	7	-1.27	1.61
720	9	0.73	0.54
721	8	-0.27	0.07
722	6	-2.27	5.14
723	10	1.73	3.00
724	6	-2.27	5.14
725	6	-2.27	5.14
726	9	0.73	0.54
727	4	-4.27	18.21
728	6	-2.27	5.14
729	11	2.73	7.47
730	13	4.73	22.40
731	10	1.73	3.00
732	7	-1.27	1.61
733	11	2.73	7.47
734	7	-1.27	1.61
735	11	2.73	7.47
736	7	-1.27	1.61
737	4	-4.27	18.21
738	12	3.73	13.93
739	7	-1.27	1.61
740	13	4.73	22.40
741	6	-2.27	5.14
742	9	0.73	0.54
743	12	3.73	13.93
744	4	-4.27	18.21
745	6	-2.27	5.14
746	8	-0.27	0.07
747	8	-0.27	0.07
748	8	-0.27	0.07
749	8	-0.27	0.07
750	10	1.73	3.00
	416		305.02
	Sum(n)		Sum(n-N) ²

n = pCi/g TOTAL U			
Number	n	(n-N)	(n-N) ²
751	11	2.73	7.47
752	7	-1.27	1.61
753	7	-1.27	1.61
754	7	-1.27	1.61
755	5	-3.27	10.67
756	7	-1.27	1.61
757	14	5.73	32.86
758	15	6.73	45.33
759	8	-0.27	0.07
760	6	-2.27	5.14
761	7	-1.27	1.61
762	9	0.73	0.54
763	8	-0.27	0.07
764	11	2.73	7.47
765	6	-2.27	5.14
766	8	-0.27	0.07
767	8	-0.27	0.07
768	10	1.73	3.00
769	6	-2.27	5.14
770	5	-3.27	10.67
771	7	-1.27	1.61
772	10	1.73	3.00
773	8	-0.27	0.07
774	6	-2.27	5.14
775	9	0.73	0.54
776	9	0.73	0.54
777	4	-4.27	18.21
778	7	-1.27	1.61
779	7	-1.27	1.61
780	6	-2.27	5.14
781	9	0.73	0.54
782	7	-1.27	1.61
783	7	-1.27	1.61
784	5	-3.27	10.67
785	10	1.73	3.00
786	7	-1.27	1.61
787	5	-3.27	10.67
788	10	1.73	3.00
789	11	2.73	7.47
790	6	-2.27	5.14
791	6	-2.27	5.14
792	12	3.73	13.93
793	4	-4.27	18.21
794	4	-4.27	18.21
795	6	-2.27	5.14
796	6	-2.27	5.14
797	5	-3.27	10.67
798	6	-2.27	5.14
799	6	-2.27	5.14
800	7	-1.27	1.61
	377		312.86
	Sum(n)		Sum(n-N) ²

CIMARRON CORPORATION - CIMARRON FACILITY

TRUE MEAN ACTIVITY VS. GUIDELINE VALUE AT 95% CONFIDENCE

PHASE II SUB - AREA " H " AFFECTED SURFACE SAMPLES

n = pCi/g TOTAL U			
Number	n	(n-N)	(n-N) ²
801	7	-1.27	1.61
802	4	-4.27	18.21
803	7	-1.27	1.61
804	5	-3.27	10.67
805	4	-4.27	18.21
806	5	-3.27	10.67
807	6	-2.27	5.14
808	7	-1.27	1.61
809	6	-2.27	5.14
810	8	-0.27	0.07
811	16	7.73	59.80
812	10	1.73	3.00
813	10	1.73	3.00
814	9	0.73	0.54
815	9	0.73	0.54
816	3	-5.27	27.74
817	6	-2.27	5.14
818	11	2.73	7.47
819	11	2.73	7.47
820	8	-0.27	0.07
821	10	1.73	3.00
822	8	-0.27	0.07
823	11	2.73	7.47
824	6	-2.27	5.14
825	8	-0.27	0.07
826	5	-3.27	10.67
827	5	-3.27	10.67
828	6	-2.27	5.14
829	5	-3.27	10.67
830	7	-1.27	1.61
831	9	0.73	0.54
832	12	3.73	13.93
833	12	3.73	13.93
834	9	0.73	0.54
835	13	4.73	22.40
836	6	-2.27	5.14
837	11	2.73	7.47
838	15	6.73	45.33
839	8	-0.27	0.07
840	5	-3.27	10.67
841	7	-1.27	1.61
842	8	-0.27	0.07
843	8	-0.27	0.07
844	9	0.73	0.54
845	8	-0.27	0.07
846	4	-4.27	18.21
847	7	-1.27	1.61
848	6	-2.27	5.14
849	5	-3.27	10.67
850	5	-3.27	10.67
	390		410.92
	Sum(n)		Sum(n-N) ²

n = pCi/g TOTAL U			
Number	n	(n-N)	(n-N) ²
851	10	1.73	3.00
852	7	-1.27	1.61
853	13	4.73	22.40
854	6	-2.27	5.14
855	10	1.73	3.00
856	5	-3.27	10.67
857	8	-0.27	0.07
858	9	0.73	0.54
859	12	3.73	13.93
860	9	0.73	0.54
861	5	-3.27	10.67
862	6	-2.27	5.14
863	7	-1.27	1.61
864	5	-3.27	10.67
865	2	-6.27	39.28
866	5	-3.27	10.67
867	5	-3.27	10.67
868	6	-2.27	5.14
869	5	-3.27	10.67
870	5	-3.27	10.67
871	9	0.73	0.54
872	5	-3.27	10.67
873	7	-1.27	1.61
874	4	-4.27	18.21
875	13	4.73	22.40
876	9	0.73	0.54
877	4	-4.27	18.21
878	4	-4.27	18.21
879	8	-0.27	0.07
880	8	-0.27	0.07
881	6	-2.27	5.14
882	11	2.73	7.47
883	6	-2.27	5.14
884	5	-3.27	10.67
885	7	-1.27	1.61
886	10	1.73	3.00
887	5	-3.27	10.67
888	9	0.73	0.54
889	8	-0.27	0.07
890	5	-3.27	10.67
891	9	0.73	0.54
892	7	-1.27	1.61
893	10	1.73	3.00
894	4	-4.27	18.21
895	7	-1.27	1.61
896	12	3.73	13.93
897	11	2.73	7.47
898	10	1.73	3.00
899	5	-3.27	10.67
900	10	1.73	3.00
	368		384.67
	Sum(n)		Sum(n-N) ²

CIMARRON CORPORATION - CIMARRON FACILITY

TRUE MEAN ACTIVITY VS. GUIDELINE VALUE AT 95% CONFIDENCE

PHASE II SUB - AREA " H " AFFECTED SURFACE SAMPLES

n = pCi/g TOTAL U			
Number	n	(n-N)	(n-N) ²
901	11	2.73	7.47
902	9	0.73	0.54
903	10	1.73	3.00
904	8	-0.27	0.07
905	12	3.73	13.93
906	10	1.73	3.00
907	6	-2.27	5.14
908	12	3.73	13.93
909	8	-0.27	0.07
910	8	-0.27	0.07
911	6	-2.27	5.14
912	6	-2.27	5.14
913	6	-2.27	5.14
914	8	-0.27	0.07
915	5	-3.27	10.67
916	9	0.73	0.54
917	4	-4.27	18.21
918	5	-3.27	10.67
919	4	-4.27	18.21
920	7	-1.27	1.61
921	6	-2.27	5.14
922	12	3.73	13.93
923	8	-0.27	0.07
924	6	-2.27	5.14
925	10	1.73	3.00
926	15	6.73	45.33
927	7	-1.27	1.61
928	7	-1.27	1.61
929	8	-0.27	0.07
930	5	-3.27	10.67
931	6	-2.27	5.14
932	8	-0.27	0.07
933	5	-3.27	10.67
934	7	-1.27	1.61
935	6	-2.27	5.14
936	9	0.73	0.54
937	8	-0.27	0.07
938	9	0.73	0.54
939	9	0.73	0.54
940	6	-2.27	5.14
941	5	-3.27	10.67
942	7	-1.27	1.61
943	8	-0.27	0.07
944	7	-1.27	1.61
945	9	0.73	0.54
946	10	1.73	3.00
947	9	0.73	0.54
948	6	-2.27	5.14
949	4	-4.27	18.21
950	6	-2.27	5.14
	382		285.19
	Sum(n)		Sum(n-N) ²

n = pCi/g TOTAL U			
Number	n	(n-N)	(n-N) ²
951	4	-4.27	18.21
952	5	-3.27	10.67
953	8	-0.27	0.07
954	8	-0.27	0.07
955	6	-2.27	5.14
956	5	-3.27	10.67
957	6	-2.27	5.14
958	11	2.73	7.47
959	5	-3.27	10.67
960	6	-2.27	5.14
961	7	-1.27	1.61
962	6	-2.27	5.14
963	5	-3.27	10.67
964	11	2.73	7.47
965	9	0.73	0.54
966	8	-0.27	0.07
967	6	-2.27	5.14
968	7	-1.27	1.61
969	6	-2.27	5.14
970	4	-4.27	18.21
971	11	2.73	7.47
972	6	-2.27	5.14
973	1	-7.27	52.81
974	7	-1.27	1.61
975	5	-3.27	10.67
976	7	-1.27	1.61
977	7	-1.27	1.61
978	6	-2.27	5.14
979	4	-4.27	18.21
980	7	-1.27	1.61
981	5	-3.27	10.67
982	6	-2.27	5.14
983	4	-4.27	18.21
984	5	-3.27	10.67
985	10	1.73	3.00
986	4	-4.27	18.21
987	7	-1.27	1.61
988	5	-3.27	10.67
989	7	-1.27	1.61
990	6	-2.27	5.14
991	3	-5.27	27.74
992	10	1.73	3.00
993	8	-0.27	0.07
994	6	-2.27	5.14
995	6	-2.27	5.14
996	9	0.73	0.54
997	5	-3.27	10.67
998	4	-4.27	18.21
999	6	-2.27	5.14
1000	7	-1.27	1.61
	317		396.93
	Sum(n)		Sum(n-N) ²

CIMARRON CORPORATION - CIMARRON FACILITY

TRUE MEAN ACTIVITY VS. GUIDELINE VALUE AT 95% CONFIDENCE

PHASE II SUB - AREA " H " AFFECTED SURFACE SAMPLES

n = pCi/g TOTAL U			
Number	n	(n-N)	(n-N) ²
1001	6	-2.27	5.14
1002	6	-2.27	5.14
1003	9	0.73	0.54
1004	8	-0.27	0.07
1005	13	4.73	22.40
1006	9	0.73	0.54
1007	9	0.73	0.54
1008	9	0.73	0.54
1009	9	0.73	0.54
1010	5	-3.27	10.67
1011	7	-1.27	1.61
1012	9	0.73	0.54
1013	9	0.73	0.54
1014	9	0.73	0.54
1015	6	-2.27	5.14
1016	11	2.73	7.47
1017	9	0.73	0.54
1018	4	-4.27	18.21
1019	7	-1.27	1.61
1020	6	-2.27	5.14
1021	6	-2.27	5.14
1022	9	0.73	0.54
1023	6	-2.27	5.14
1024	7	-1.27	1.61
1025	8	-0.27	0.07
1026	7	-1.27	1.61
1027	13	4.73	22.40
1028	9	0.73	0.54
1029	6	-2.27	5.14
1030	6	-2.27	5.14
1031	3	-5.27	27.74
1032	6	-2.27	5.14
1033	4	-4.27	18.21
1034	7	-1.27	1.61
1035	5	-3.27	10.67
1036	9	0.73	0.54
1037	8	-0.27	0.07
1038	6	-2.27	5.14
1039	9	0.73	0.54
1040	5	-3.27	10.67
1041	13	4.73	22.40
1042	7	-1.27	1.61
1043	9	0.73	0.54
1044	8	-0.27	0.07
1045	7	-1.27	1.61
1046	5	-3.27	10.67
1047	5	-3.27	10.67
1048	7	-1.27	1.61
1049	7	-1.27	1.61
1050	6	-2.27	5.14
	373		271.00
	Sum(n)		Sum(n-N) ²

n = pCi/g TOTAL U			
Number	n	(n-N)	(n-N) ²
1051	5	-3.27	10.67
1052	6	-2.27	5.14
1053	8	-0.27	0.07
1054	8	-0.27	0.07
1055	5	-3.27	10.67
1056	5	-3.27	10.67
1057	6	-2.27	5.14
1058	4	-4.27	18.21
1059	6	-2.27	5.14
1060	8	-0.27	0.07
1061	8	-0.27	0.07
1062	6	-2.27	5.14
1063	7	-1.27	1.61
1064	5	-3.27	10.67
1065	8	-0.27	0.07
1066	8	-0.27	0.07
1067	4	-4.27	18.21
1068	7	-1.27	1.61
1069	5	-3.27	10.67
1070	5	-3.27	10.67
1071	14	5.73	32.86
1072	7	-1.27	1.61
1073	6	-2.27	5.14
1074	6	-2.27	5.14
1075	9	0.73	0.54
1076	11	2.73	7.47
1077	7	-1.27	1.61
1078	7	-1.27	1.61
1079	7	-1.27	1.61
1080	5	-3.27	10.67
1081	9	0.73	0.54
1082	12	3.73	13.93
1083	7	-1.27	1.61
1084	6	-2.27	5.14
1085	8	-0.27	0.07
1086	5	-3.27	10.67
1087	9	0.73	0.54
1088	10	1.73	3.00
1089	10	1.73	3.00
1090	10	1.73	3.00
1091	8	-0.27	0.07
1092	7	-1.27	1.61
1093	7	-1.27	1.61
1094	6	-2.27	5.14
1095	8	-0.27	0.07
1096	7	-1.27	1.61
1097	4	-4.27	18.21
1098	9	0.73	0.54
1099	6	-2.27	5.14
1100	6	-2.27	5.14
	357		273.55
	Sum(n)		Sum(n-N) ²

CIMARRON CORPORATION - CIMARRON FACILITY

TRUE MEAN ACTIVITY VS. GUIDELINE VALUE AT 95% CONFIDENCE

PHASE II SUB - AREA " H " AFFECTED SURFACE SAMPLES

n = pCi/g TOTAL U			
Number	n	(n-N)	(n-N) ²
1101	11	2.73	7.47
1102	8	-0.27	0.07
1103	6	-2.27	5.14
1104	10	1.73	3.00
1105	6	-2.27	5.14
1106	6	-2.27	5.14
1107	9	0.73	0.54
1108	8	-0.27	0.07
1109	8	-0.27	0.07
1110	20	11.73	137.66
1111	9	0.73	0.54
1112	6	-2.27	5.14
1113	7	-1.27	1.61
1114	4	-4.27	18.21
1115	8	-0.27	0.07
1116	7	-1.27	1.61
1117	8	-0.27	0.07
1118	5	-3.27	10.67
1119	7	-1.27	1.61
1120	5	-3.27	10.67
1121	6	-2.27	5.14
1122	9	0.73	0.54
1123	5	-3.27	10.67
1124	5	-3.27	10.67
1125	6	-2.27	5.14
1126	5	-3.27	10.67
1127	4	-4.27	18.21
1128	8	-0.27	0.07
1129	12	3.73	13.93
1130	4	-4.27	18.21
1131	6	-2.27	5.14
1132	7	-1.27	1.61
1133	6	-2.27	5.14
1134	11	2.73	7.47
1135	9	0.73	0.54
1136	9	0.73	0.54
1137	10	1.73	3.00
1138	9	0.73	0.54
1139	10	1.73	3.00
1140	7	-1.27	1.61
1141	5	-3.27	10.67
1142	6	-2.27	5.14
1143	6	-2.27	5.14
1144	7	-1.27	1.61
1145	10	1.73	3.00
1146	7	-1.27	1.61
1147	5	-3.27	10.67
1148	20	11.73	137.66
1149	28	19.73	389.38
1150	5	-3.27	10.67
	405		911.90
	Sum(n)		Sum(n-N) ²

n = pCi/g TOTAL U			
Number	n	(n-N)	(n-N) ²
1151	7	-1.27	1.61
1152	11	2.73	7.47
1153	5	-3.27	10.67
1154	7	-1.27	1.61
1155	10	1.73	3.00
1156	7	-1.27	1.61
1157	11	2.73	7.47
1158	6	-2.27	5.14
1159	9	0.73	0.54
1160	4	-4.27	18.21
1161	10	1.73	3.00
1162	5	-3.27	10.67
1163	19	10.73	115.19
1164	6	-2.27	5.14
1165	6	-2.27	5.14
1166	8	-0.27	0.07
1167	8	-0.27	0.07
1168	6	-2.27	5.14
1169	8	-0.27	0.07
1170	9	0.73	0.54
1171	4	-4.27	18.21
1172	10	1.73	3.00
1173	6	-2.27	5.14
1174	6	-2.27	5.14
1175	13	4.73	22.40
1176	5	-3.27	10.67
1177	7	-1.27	1.61
1178	7	-1.27	1.61
1179	7	-1.27	1.61
1180	9	0.73	0.54
1181	5	-3.27	10.67
1182	12	3.73	13.93
1183	14	5.73	32.86
1184	19	10.73	115.19
1185	18	9.73	94.73
1186	18	9.73	94.73
1187	6	-2.27	5.14
1188	7	-1.27	1.61
1189	3	-5.27	27.74
1190	11	2.73	7.47
1191	8	-0.27	0.07
1192	6	-2.27	5.14
1193	9	0.73	0.54
1194	10	1.73	3.00
1195	6	-2.27	5.14
1196	6	-2.27	5.14
1197	21	12.73	162.12
1198	2	-6.27	39.28
1199	11	2.73	7.47
1200	6	-2.27	5.14
	434		909.40
	Sum(n)		Sum(n-N) ²

CIMARRON CORPORATION - CIMARRON FACILITY

TRUE MEAN ACTIVITY VS. GUIDELINE VALUE AT 95% CONFIDENCE

PHASE II SUB - AREA " H " AFFECTED SURFACE SAMPLES

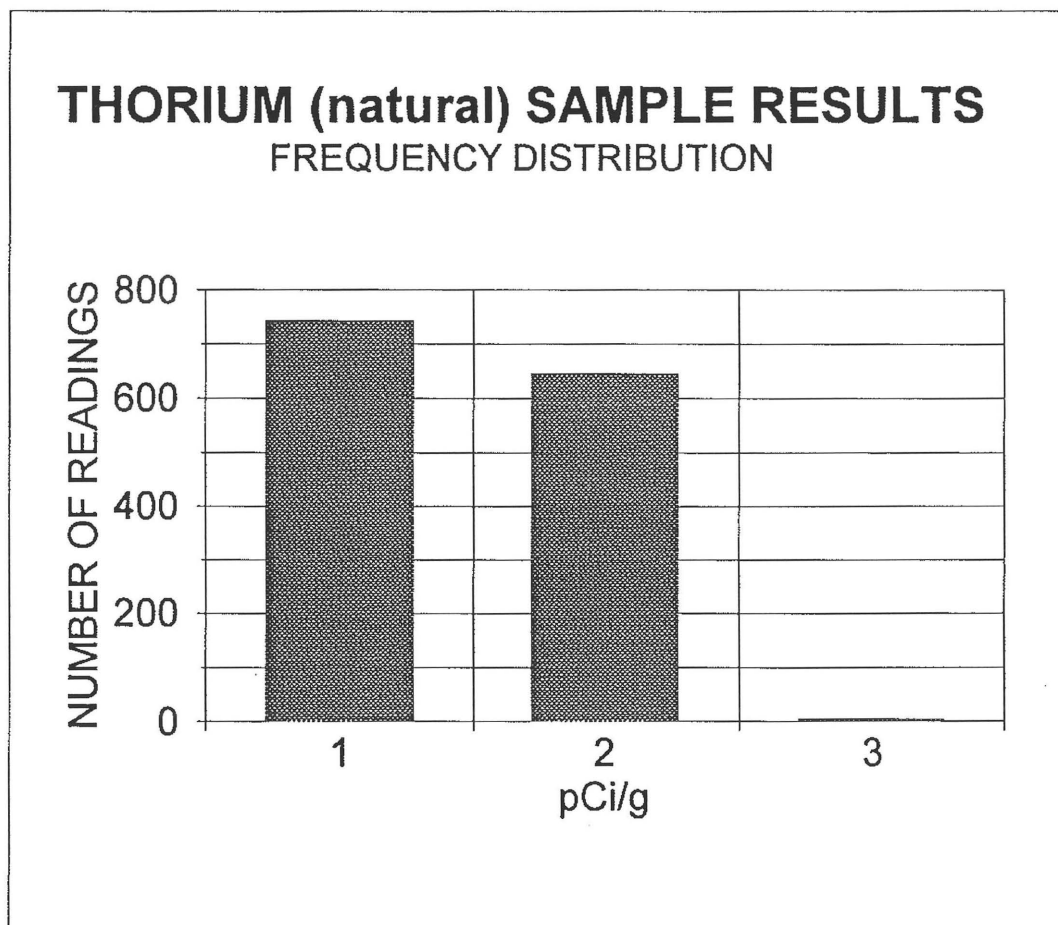
n = pCi/g TOTAL U			
Number	n	(n-N)	(n-N) ²
1201	7	-1.27	1.61
1202	9	0.73	0.54
1203	8	-0.27	0.07
1204	8	-0.27	0.07
1205	9	0.73	0.54
1206	4	-4.27	18.21
1207	6	-2.27	5.14
1208	6	-2.27	5.14
1209	7	-1.27	1.61
1210	5	-3.27	10.67
1211	5	-3.27	10.67
1212	12	3.73	13.93
1213	10	1.73	3.00
1214	7	-1.27	1.61
1215	6	-2.27	5.14
1216	8	-0.27	0.07
1217	5	-3.27	10.67
1218	8	-0.27	0.07
1219	9	0.73	0.54
1220	6	-2.27	5.14
1221	4	-4.27	18.21
1222	8	-0.27	0.07
1223	5	-3.27	10.67
1224	8	-0.27	0.07
1225	4	-4.27	18.21
1226	5	-3.27	10.67
1227	7	-1.27	1.61
1228	7	-1.27	1.61
1229	8	-0.27	0.07
1230	7	-1.27	1.61
1231	9	0.73	0.54
1232	4	-4.27	18.21
1233	11	2.73	7.47
1234	7	-1.27	1.61
1235	5	-3.27	10.67
1236	8	-0.27	0.07
1237	17	8.73	76.26
1238	4	-4.27	18.21
1239	7	-1.27	1.61
1240	17	8.73	76.26
1241	3	-5.27	27.74
1242	5	-3.27	10.67
1243	5	-3.27	10.67
1244	14	5.73	32.86
1245	10	1.73	3.00
1246	9	0.73	0.54
1247	6	-2.27	5.14
1248	7	-1.27	1.61
1249	12	3.73	13.93
1250	5	-3.27	10.67
	373		485.00
	Sum(n)		Sum(n-N) ²

n = pCi/g TOTAL U			
Number	n	(n-N)	(n-N) ²
1251	8	-0.27	0.07
1252	7	-1.27	1.61
1253	7	-1.27	1.61
1254	6	-2.27	5.14
1255	4	-4.27	18.21
1256	9	0.73	0.54
1257	6	-2.27	5.14
1258	13	4.73	22.40
1259	5	-3.27	10.67
1260	4	-4.27	18.21
1261	6	-2.27	5.14
1262	7	-1.27	1.61
1263	9	0.73	0.54
1264	5	-3.27	10.67
1265	6	-2.27	5.14
1266	7	-1.27	1.61
1267	8	-0.27	0.07
1268	11	2.73	7.47
1269	19	10.73	115.19
1270	8	-0.27	0.07
1271	7	-1.27	1.61
1272	21	12.73	162.12
1273	5	-3.27	10.67
1274	5	-3.27	10.67
1275	8	-0.27	0.07
1276	6	-2.27	5.14
1277	9	0.73	0.54
1278	4	-4.27	18.21
1279	10	1.73	3.00
1280	4	-4.27	18.21
1281	4	-4.27	18.21
1282	7	-1.27	1.61
1283	13	4.73	22.40
1284	6	-2.27	5.14
1285	10	1.73	3.00
1286	6	-2.27	5.14
1287	4	-4.27	18.21
1288	9	0.73	0.54
1289	5	-3.27	10.67
1290	15	6.73	45.33
1291	7	-1.27	1.61
1292	7	-1.27	1.61
1293	8	-0.27	0.07
1294	3	-5.27	27.74
1295	5	-3.27	10.67
1296	9	0.73	0.54
1297	7	-1.27	1.61
1298	4	-4.27	18.21
1299	5	-3.27	10.67
1300	4	-4.27	18.21
	372		682.54
	Sum(n)		Sum(n-N) ²

PHASE II SUB - AREA " H " AFFECTED SURFACE SAMPLES

[illegible]

**PHASE II, SUB-AREA "H" -
 AFFECTED SURFACE
 CIMARRON SOIL COUNTER
 THORIUM (NATURAL) SOIL SAMPLE RESULTS
 SITE BACKGROUND OF 1.5 pCi/g NOT SUBTRACTED
 SEPTEMBER 1998**



NUMBER OF READINGS	1392
AVERAGE READING	1
MINIMUM READING	1
MAXIMUM READING	3
STANDARD DEVIATION	0.5

CIMARRON CORPORATION - CIMARRON FACILITY

TRUE MEAN ACTIVITY VS. GUIDELINE VALUE AT 95% CONFIDENCE

(PHASE II , SUB - AREA " H ")

AFFECTED SURFACE SAMPLES

THORIUM (NAT)

No. of Samples (x) : 1392

COUNT TIME: 5 MINUTES

Sample Mean (N) = Sum(n) ÷ (x)

Sample Mean (N) : 1.47

Number	Sum(n)	Sum(n-N) ²
1 - 50	66	11.99
51 - 100	55	11.31
101 - 150	55	11.31
151 - 200	83	13.04
201 - 250	84	15.10
251 - 300	90	17.47
301 - 350	88	15.35
351 - 400	86	13.23
401 - 450	83	13.04
451 - 500	82	12.98
501 - 550	80	12.86
551 - 600	73	12.42
601 - 650	75	12.55
651 - 700	75	12.55
701 - 750	80	12.86
751 - 800	75	12.55
801 - 850	61	11.68
851 - 900	63	11.81
901 - 950	73	12.42
951 - 1000	68	12.12
1001 - 1050	65	11.93
1051 - 1100	75	12.55
1101 - 1150	66	11.99
1151 - 1200	59	11.56
1201 - 1250	65	11.93
1251 - 1300	67	12.05
1301 - 1350	89	13.41
1351 - 1400	64	10.60
	2045.00	354.67
TOTAL	Sum(n)	Sum(n-N) ²

Standard Deviation (Sd) = SQRT [(n-N)² ÷ (x - 1)]

Standard Deviation: 0.5

2 Std Deviations: 1.0

Degree of Freedom(df) = (x) - 1

(df) = 1.645

Data listed on Table B-1

Area's Average Level (Aμ) = (N) + (df) x [(Sd)/Sqrt(x)]

(Aμ) = 1.49

pCi/gTh (NAT)

GUIDELINE VALUE: 10

pCi/gTh (NAT)

Acceptable Level: 4.0

pCi/gTh (NAT)

(25% OF GUIDELINE PLUS BACKGROUND)

TABLE B - 1

Factors for Comparison of Survey Data with Guidelines					
(df)	95%	97.5%	(df)	95%	97.5%
1	6.314	12.706	19	1.729	2.093
2	2.92	4.303	20	1.725	2.086
3	2.353	3.182	21	1.721	2.08
4	2.132	2.776	22	1.717	2.074
5	2.015	2.571	23	1.714	2.069
6	1.943	2.447	24	1.711	2.064
7	1.895	2.365	25	1.708	2.06
8	1.86	2.306	26	1.706	2.056
9	1.833	2.262	27	1.703	2.052
10	1.812	2.228	28	1.701	2.048
11	1.796	2.201	29	1.699	2.045
12	1.782	2.179	30	1.697	2.042
13	1.771	2.16	40	1.684	2.021
14	1.761	2.145	60	1.671	2
15	1.753	2.131	120	1.658	1.98
16	1.746	2.12	400	1.649	1.966
17	1.74	2.11	Infinite	1.645	1.96
18	1.734	2.101			

PERFORMED BY:

D. Powell

DATE:

10-8-98

REVIEWED BY:

W. A. Rogers

DATE:

10-8-98

For values of Degrees of Freedom not listed:

Interpolate between the listed values.

(df) high value(Z)

is (B)

95%

(df) low value(Y)

is (A)

95%

Desired value(df) (X)

1391

is calculated as follow:

EXP[(Ln(B) - Ln(A)) ÷ (Z - Y) (X - Y) + Ln(A)]

The (df) value for (X)

1391

1.645

95%

CIMARRON CORPORATION - CIMARRON FACILITY

TRUE MEAN ACTIVITY VS. GUIDELINE VALUE AT 95% CONFIDENCE

PHASE II SUB - AREA " H " AFFECTED SURFACE SAMPLES

n = pCi/g Th (NAT)			
Number	n	(n-N)	(n-N) ²
1	1	-0.47	0.22
2	2	0.53	0.28
3	2	0.53	0.28
4	1	-0.47	0.22
5	1	-0.47	0.22
6	2	0.53	0.28
7	1	-0.47	0.22
8	1	-0.47	0.22
9	1	-0.47	0.22
10	1	-0.47	0.22
11	2	0.53	0.28
12	1	-0.47	0.22
13	1	-0.47	0.22
14	1	-0.47	0.22
15	1	-0.47	0.22
16	2	0.53	0.28
17	1	-0.47	0.22
18	1	-0.47	0.22
19	1	-0.47	0.22
20	2	0.53	0.28
21	1	-0.47	0.22
22	1	-0.47	0.22
23	1	-0.47	0.22
24	1	-0.47	0.22
25	1	-0.47	0.22
26	1	-0.47	0.22
27	1	-0.47	0.22
28	1	-0.47	0.22
29	1	-0.47	0.22
30	2	0.53	0.28
31	1	-0.47	0.22
32	1	-0.47	0.22
33	1	-0.47	0.22
34	2	0.53	0.28
35	2	0.53	0.28
36	2	0.53	0.28
37	2	0.53	0.28
38	1	-0.47	0.22
39	2	0.53	0.28
40	1	-0.47	0.22
41	1	-0.47	0.22
42	2	0.53	0.28
43	1	-0.47	0.22
44	2	0.53	0.28
45	1	-0.47	0.22
46	1	-0.47	0.22
47	2	0.53	0.28
48	1	-0.47	0.22
49	2	0.53	0.28
50	1	-0.47	0.22
	66		11.99
	Sum(n)		Sum(n-N) ²

n = pCi/g Th (NAT)			
Number	n	(n-N)	(n-N) ²
51	2	0.53	0.28
52	2	0.53	0.28
53	2	0.53	0.28
54	1	-0.47	0.22
55	1	-0.47	0.22
56	2	0.53	0.28
57	1	-0.47	0.22
58	1	-0.47	0.22
59	2	0.53	0.28
60	1	-0.47	0.22
61	1	-0.47	0.22
62	1	-0.47	0.22
63	1	-0.47	0.22
64	1	-0.47	0.22
65	1	-0.47	0.22
66	1	-0.47	0.22
67	1	-0.47	0.22
68	1	-0.47	0.22
69	1	-0.47	0.22
70	1	-0.47	0.22
71	1	-0.47	0.22
72	1	-0.47	0.22
73	1	-0.47	0.22
74	1	-0.47	0.22
75	1	-0.47	0.22
76	1	-0.47	0.22
77	1	-0.47	0.22
78	1	-0.47	0.22
79	1	-0.47	0.22
80	1	-0.47	0.22
81	1	-0.47	0.22
82	1	-0.47	0.22
83	1	-0.47	0.22
84	1	-0.47	0.22
85	1	-0.47	0.22
86	1	-0.47	0.22
87	1	-0.47	0.22
88	1	-0.47	0.22
89	1	-0.47	0.22
90	1	-0.47	0.22
91	1	-0.47	0.22
92	1	-0.47	0.22
93	1	-0.47	0.22
94	1	-0.47	0.22
95	1	-0.47	0.22
96	1	-0.47	0.22
97	1	-0.47	0.22
98	1	-0.47	0.22
99	1	-0.47	0.22
100	1	-0.47	0.22
	55		11.31
	Sum(n)		Sum(n-N) ²

CIMARRON CORPORATION - CIMARRON FACILITY

TRUE MEAN ACTIVITY VS. GUIDELINE VALUE AT 95% CONFIDENCE

PHASE II SUB - AREA " H " AFFECTED SURFACE SAMPLES

n = pCi/g Th (NAT)			
Number	n	(n-N)	(n-N) ²
101	1	-0.47	0.22
102	1	-0.47	0.22
103	1	-0.47	0.22
104	1	-0.47	0.22
105	2	0.53	0.28
106	1	-0.47	0.22
107	1	-0.47	0.22
108	1	-0.47	0.22
109	1	-0.47	0.22
110	1	-0.47	0.22
111	1	-0.47	0.22
112	1	-0.47	0.22
113	1	-0.47	0.22
114	1	-0.47	0.22
115	1	-0.47	0.22
116	1	-0.47	0.22
117	2	0.53	0.28
118	2	0.53	0.28
119	1	-0.47	0.22
120	1	-0.47	0.22
121	1	-0.47	0.22
122	1	-0.47	0.22
123	1	-0.47	0.22
124	1	-0.47	0.22
125	1	-0.47	0.22
126	1	-0.47	0.22
127	1	-0.47	0.22
128	1	-0.47	0.22
129	1	-0.47	0.22
130	1	-0.47	0.22
131	1	-0.47	0.22
132	1	-0.47	0.22
133	1	-0.47	0.22
134	1	-0.47	0.22
135	1	-0.47	0.22
136	1	-0.47	0.22
137	2	0.53	0.28
138	1	-0.47	0.22
139	1	-0.47	0.22
140	1	-0.47	0.22
141	1	-0.47	0.22
142	1	-0.47	0.22
143	1	-0.47	0.22
144	1	-0.47	0.22
145	1	-0.47	0.22
146	2	0.53	0.28
147	1	-0.47	0.22
148	1	-0.47	0.22
149	1	-0.47	0.22
150	1	-0.47	0.22
	55		11.31
	Sum(n)		Sum(n-N) ²

n = pCi/g Th (NAT)			
Number	n	(n-N)	(n-N) ²
151	1	-0.47	0.22
152	1	-0.47	0.22
153	1	-0.47	0.22
154	1	-0.47	0.22
155	1	-0.47	0.22
156	1	-0.47	0.22
157	2	0.53	0.28
158	2	0.53	0.28
159	2	0.53	0.28
160	1	-0.47	0.22
161	2	0.53	0.28
162	2	0.53	0.28
163	2	0.53	0.28
164	2	0.53	0.28
165	2	0.53	0.28
166	2	0.53	0.28
167	1	-0.47	0.22
168	2	0.53	0.28
169	2	0.53	0.28
170	2	0.53	0.28
171	2	0.53	0.28
172	2	0.53	0.28
173	2	0.53	0.28
174	2	0.53	0.28
175	2	0.53	0.28
176	1	-0.47	0.22
177	1	-0.47	0.22
178	2	0.53	0.28
179	2	0.53	0.28
180	2	0.53	0.28
181	1	-0.47	0.22
182	1	-0.47	0.22
183	2	0.53	0.28
184	2	0.53	0.28
185	2	0.53	0.28
186	1	-0.47	0.22
187	2	0.53	0.28
188	2	0.53	0.28
189	2	0.53	0.28
190	2	0.53	0.28
191	1	-0.47	0.22
192	1	-0.47	0.22
193	2	0.53	0.28
194	2	0.53	0.28
195	2	0.53	0.28
196	1	-0.47	0.22
197	2	0.53	0.28
198	2	0.53	0.28
199	2	0.53	0.28
200	1	-0.47	0.22
	83		13.04
	Sum(n)		Sum(n-N) ²

CIMARRON CORPORATION - CIMARRON FACILITY

TRUE MEAN ACTIVITY VS. GUIDELINE VALUE AT 95% CONFIDENCE

PHASE II SUB - AREA " H " AFFECTED SURFACE SAMPLES

n = pCi/g Th (NAT)			
Number	n	(n-N)	(n-N) ²
201	1	-0.47	0.22
202	1	-0.47	0.22
203	2	0.53	0.28
204	1	-0.47	0.22
205	1	-0.47	0.22
206	2	0.53	0.28
207	2	0.53	0.28
208	2	0.53	0.28
209	2	0.53	0.28
210	2	0.53	0.28
211	1	-0.47	0.22
212	2	0.53	0.28
213	1	-0.47	0.22
214	1	-0.47	0.22
215	1	-0.47	0.22
216	2	0.53	0.28
217	2	0.53	0.28
218	2	0.53	0.28
219	2	0.53	0.28
220	2	0.53	0.28
221	1	-0.47	0.22
222	2	0.53	0.28
223	1	-0.47	0.22
224	2	0.53	0.28
225	2	0.53	0.28
226	2	0.53	0.28
227	3	1.53	2.34
228	2	0.53	0.28
229	2	0.53	0.28
230	2	0.53	0.28
231	1	-0.47	0.22
232	2	0.53	0.28
233	2	0.53	0.28
234	1	-0.47	0.22
235	1	-0.47	0.22
236	1	-0.47	0.22
237	2	0.53	0.28
238	2	0.53	0.28
239	2	0.53	0.28
240	2	0.53	0.28
241	2	0.53	0.28
242	1	-0.47	0.22
243	2	0.53	0.28
244	1	-0.47	0.22
245	2	0.53	0.28
246	2	0.53	0.28
247	1	-0.47	0.22
248	2	0.53	0.28
249	2	0.53	0.28
250	2	0.53	0.28
	84		15.10
	Sum(n)		Sum(n-N) ²

n = pCi/g Th (NAT)			
Number	n	(n-N)	(n-N) ²
251	2	0.53	0.28
252	2	0.53	0.28
253	2	0.53	0.28
254	2	0.53	0.28
255	2	0.53	0.28
256	2	0.53	0.28
257	1	-0.47	0.22
258	2	0.53	0.28
259	2	0.53	0.28
260	2	0.53	0.28
261	1	-0.47	0.22
262	2	0.53	0.28
263	2	0.53	0.28
264	2	0.53	0.28
265	1	-0.47	0.22
266	2	0.53	0.28
267	2	0.53	0.28
268	1	-0.47	0.22
269	2	0.53	0.28
270	1	-0.47	0.22
271	2	0.53	0.28
272	2	0.53	0.28
273	2	0.53	0.28
274	2	0.53	0.28
275	2	0.53	0.28
276	1	-0.47	0.22
277	2	0.53	0.28
278	3	1.53	2.34
279	2	0.53	0.28
280	2	0.53	0.28
281	2	0.53	0.28
282	2	0.53	0.28
283	2	0.53	0.28
284	2	0.53	0.28
285	2	0.53	0.28
286	2	0.53	0.28
287	1	-0.47	0.22
288	1	-0.47	0.22
289	2	0.53	0.28
290	2	0.53	0.28
291	3	1.53	2.34
292	2	0.53	0.28
293	1	-0.47	0.22
294	2	0.53	0.28
295	1	-0.47	0.22
296	2	0.53	0.28
297	1	-0.47	0.22
298	1	-0.47	0.22
299	2	0.53	0.28
300	2	0.53	0.28
	90		17.47
	Sum(n)		Sum(n-N) ²

CIMARRON CORPORATION - CIMARRON FACILITY

TRUE MEAN ACTIVITY VS. GUIDELINE VALUE AT 95% CONFIDENCE

PHASE II SUB - AREA " H " AFFECTED SURFACE SAMPLES

n = pCi/g Th (NAT)			
Number	n	(n-N)	(n-N) ²
301	2	0.53	0.28
302	2	0.53	0.28
303	2	0.53	0.28
304	2	0.53	0.28
305	2	0.53	0.28
306	2	0.53	0.28
307	1	-0.47	0.22
308	2	0.53	0.28
309	2	0.53	0.28
310	2	0.53	0.28
311	2	0.53	0.28
312	2	0.53	0.28
313	1	-0.47	0.22
314	2	0.53	0.28
315	1	-0.47	0.22
316	2	0.53	0.28
317	1	-0.47	0.22
318	2	0.53	0.28
319	2	0.53	0.28
320	1	-0.47	0.22
321	1	-0.47	0.22
322	2	0.53	0.28
323	2	0.53	0.28
324	2	0.53	0.28
325	2	0.53	0.28
326	2	0.53	0.28
327	2	0.53	0.28
328	2	0.53	0.28
329	1	-0.47	0.22
330	2	0.53	0.28
331	2	0.53	0.28
332	2	0.53	0.28
333	2	0.53	0.28
334	2	0.53	0.28
335	3	1.53	2.34
336	1	-0.47	0.22
337	1	-0.47	0.22
338	2	0.53	0.28
339	1	-0.47	0.22
340	2	0.53	0.28
341	2	0.53	0.28
342	2	0.53	0.28
343	1	-0.47	0.22
344	2	0.53	0.28
345	2	0.53	0.28
346	2	0.53	0.28
347	2	0.53	0.28
348	1	-0.47	0.22
349	2	0.53	0.28
350	1	-0.47	0.22
	88		15.35
	Sum(n)		Sum(n-N) ²

n = pCi/g Th (NAT)			
Number	n	(n-N)	(n-N) ²
351	2	0.53	0.28
352	2	0.53	0.28
353	2	0.53	0.28
354	1	-0.47	0.22
355	2	0.53	0.28
356	2	0.53	0.28
357	2	0.53	0.28
358	1	-0.47	0.22
359	1	-0.47	0.22
360	2	0.53	0.28
361	2	0.53	0.28
362	1	-0.47	0.22
363	1	-0.47	0.22
364	2	0.53	0.28
365	2	0.53	0.28
366	2	0.53	0.28
367	1	-0.47	0.22
368	2	0.53	0.28
369	1	-0.47	0.22
370	2	0.53	0.28
371	2	0.53	0.28
372	2	0.53	0.28
373	2	0.53	0.28
374	2	0.53	0.28
375	1	-0.47	0.22
376	2	0.53	0.28
377	2	0.53	0.28
378	2	0.53	0.28
379	2	0.53	0.28
380	2	0.53	0.28
381	2	0.53	0.28
382	2	0.53	0.28
383	1	-0.47	0.22
384	1	-0.47	0.22
385	2	0.53	0.28
386	1	-0.47	0.22
387	2	0.53	0.28
388	2	0.53	0.28
389	2	0.53	0.28
390	2	0.53	0.28
391	1	-0.47	0.22
392	1	-0.47	0.22
393	2	0.53	0.28
394	2	0.53	0.28
395	2	0.53	0.28
396	1	-0.47	0.22
397	2	0.53	0.28
398	2	0.53	0.28
399	2	0.53	0.28
400	2	0.53	0.28
	86		13.23
	Sum(n)		Sum(n-N) ²

CIMARRON CORPORATION - CIMARRON FACILITY

TRUE MEAN ACTIVITY VS. GUIDELINE VALUE AT 95% CONFIDENCE

PHASE II SUB - AREA " H " AFFECTED SURFACE SAMPLES

n = pCi/g Th (NAT)			
Number	n	(n-N)	(n-N) ²
401	2	0.53	0.28
402	2	0.53	0.28
403	2	0.53	0.28
404	1	-0.47	0.22
405	1	-0.47	0.22
406	1	-0.47	0.22
407	1	-0.47	0.22
408	2	0.53	0.28
409	2	0.53	0.28
410	1	-0.47	0.22
411	2	0.53	0.28
412	1	-0.47	0.22
413	2	0.53	0.28
414	2	0.53	0.28
415	2	0.53	0.28
416	2	0.53	0.28
417	2	0.53	0.28
418	1	-0.47	0.22
419	2	0.53	0.28
420	1	-0.47	0.22
421	2	0.53	0.28
422	2	0.53	0.28
423	2	0.53	0.28
424	2	0.53	0.28
425	2	0.53	0.28
426	2	0.53	0.28
427	2	0.53	0.28
428	1	-0.47	0.22
429	1	-0.47	0.22
430	1	-0.47	0.22
431	1	-0.47	0.22
432	2	0.53	0.28
433	1	-0.47	0.22
434	1	-0.47	0.22
435	2	0.53	0.28
436	2	0.53	0.28
437	2	0.53	0.28
438	2	0.53	0.28
439	2	0.53	0.28
440	2	0.53	0.28
441	2	0.53	0.28
442	1	-0.47	0.22
443	1	-0.47	0.22
444	1	-0.47	0.22
445	2	0.53	0.28
446	2	0.53	0.28
447	2	0.53	0.28
448	2	0.53	0.28
449	2	0.53	0.28
450	2	0.53	0.28
	83		13.04
	Sum(n)		Sum(n-N) ²

n = pCi/g Th (NAT)			
Number	n	(n-N)	(n-N) ²
451	2	0.53	0.28
452	2	0.53	0.28
453	1	-0.47	0.22
454	1	-0.47	0.22
455	2	0.53	0.28
456	2	0.53	0.28
457	2	0.53	0.28
458	2	0.53	0.28
459	1	-0.47	0.22
460	1	-0.47	0.22
461	2	0.53	0.28
462	2	0.53	0.28
463	2	0.53	0.28
464	2	0.53	0.28
465	2	0.53	0.28
466	1	-0.47	0.22
467	1	-0.47	0.22
468	1	-0.47	0.22
469	2	0.53	0.28
470	2	0.53	0.28
471	2	0.53	0.28
472	1	-0.47	0.22
473	2	0.53	0.28
474	2	0.53	0.28
475	2	0.53	0.28
476	2	0.53	0.28
477	1	-0.47	0.22
478	1	-0.47	0.22
479	2	0.53	0.28
480	1	-0.47	0.22
481	2	0.53	0.28
482	2	0.53	0.28
483	2	0.53	0.28
484	2	0.53	0.28
485	2	0.53	0.28
486	1	-0.47	0.22
487	1	-0.47	0.22
488	2	0.53	0.28
489	1	-0.47	0.22
490	2	0.53	0.28
491	2	0.53	0.28
492	1	-0.47	0.22
493	2	0.53	0.28
494	2	0.53	0.28
495	2	0.53	0.28
496	1	-0.47	0.22
497	1	-0.47	0.22
498	2	0.53	0.28
499	1	-0.47	0.22
500	2	0.53	0.28
	82		12.98
	Sum(n)		Sum(n-N) ²

CIMARRON CORPORATION - CIMARRON FACILITY

TRUE MEAN ACTIVITY VS. GUIDELINE VALUE AT 95% CONFIDENCE

PHASE II SUB - AREA " H " AFFECTED SURFACE SAMPLES

n = pCi/g Th (NAT)			
Number	n	(n-N)	(n-N) ²
501	2	0.53	0.28
502	1	-0.47	0.22
503	1	-0.47	0.22
504	1	-0.47	0.22
505	2	0.53	0.28
506	2	0.53	0.28
507	2	0.53	0.28
508	2	0.53	0.28
509	2	0.53	0.28
510	1	-0.47	0.22
511	2	0.53	0.28
512	2	0.53	0.28
513	2	0.53	0.28
514	2	0.53	0.28
515	1	-0.47	0.22
516	2	0.53	0.28
517	2	0.53	0.28
518	2	0.53	0.28
519	2	0.53	0.28
520	1	-0.47	0.22
521	2	0.53	0.28
522	2	0.53	0.28
523	2	0.53	0.28
524	2	0.53	0.28
525	1	-0.47	0.22
526	1	-0.47	0.22
527	2	0.53	0.28
528	2	0.53	0.28
529	2	0.53	0.28
530	2	0.53	0.28
531	2	0.53	0.28
532	2	0.53	0.28
533	1	-0.47	0.22
534	2	0.53	0.28
535	1	-0.47	0.22
536	2	0.53	0.28
537	1	-0.47	0.22
538	1	-0.47	0.22
539	2	0.53	0.28
540	1	-0.47	0.22
541	2	0.53	0.28
542	1	-0.47	0.22
543	1	-0.47	0.22
544	1	-0.47	0.22
545	1	-0.47	0.22
546	2	0.53	0.28
547	1	-0.47	0.22
548	1	-0.47	0.22
549	1	-0.47	0.22
550	2	0.53	0.28
	80		12.86
	Sum(n)		Sum(n-N) ²

n = pCi/g Th (NAT)			
Number	n	(n-N)	(n-N) ²
551	2	0.53	0.28
552	2	0.53	0.28
553	1	-0.47	0.22
554	1	-0.47	0.22
555	1	-0.47	0.22
556	1	-0.47	0.22
557	1	-0.47	0.22
558	1	-0.47	0.22
559	1	-0.47	0.22
560	2	0.53	0.28
561	2	0.53	0.28
562	1	-0.47	0.22
563	2	0.53	0.28
564	2	0.53	0.28
565	2	0.53	0.28
566	2	0.53	0.28
567	1	-0.47	0.22
568	1	-0.47	0.22
569	1	-0.47	0.22
570	2	0.53	0.28
571	1	-0.47	0.22
572	1	-0.47	0.22
573	1	-0.47	0.22
574	1	-0.47	0.22
575	1	-0.47	0.22
576	2	0.53	0.28
577	2	0.53	0.28
578	1	-0.47	0.22
579	1	-0.47	0.22
580	2	0.53	0.28
581	2	0.53	0.28
582	2	0.53	0.28
583	2	0.53	0.28
584	2	0.53	0.28
585	2	0.53	0.28
586	2	0.53	0.28
587	1	-0.47	0.22
588	2	0.53	0.28
589	2	0.53	0.28
590	1	-0.47	0.22
591	1	-0.47	0.22
592	1	-0.47	0.22
593	1	-0.47	0.22
594	1	-0.47	0.22
595	2	0.53	0.28
596	2	0.53	0.28
597	2	0.53	0.28
598	1	-0.47	0.22
599	1	-0.47	0.22
600	1	-0.47	0.22
	73		12.42
	Sum(n)		Sum(n-N) ²

CIMARRON CORPORATION - CIMARRON FACILITY

TRUE MEAN ACTIVITY VS. GUIDELINE VALUE AT 95% CONFIDENCE

PHASE II SUB - AREA " H " AFFECTED SURFACE SAMPLES

n = pCi/g Th (NAT)			
Number	n	(n-N)	(n-N) ²
601	1	-0.47	0.22
602	1	-0.47	0.22
603	1	-0.47	0.22
604	2	0.53	0.28
605	2	0.53	0.28
606	1	-0.47	0.22
607	2	0.53	0.28
608	2	0.53	0.28
609	2	0.53	0.28
610	2	0.53	0.28
611	1	-0.47	0.22
612	2	0.53	0.28
613	2	0.53	0.28
614	1	-0.47	0.22
615	2	0.53	0.28
616	1	-0.47	0.22
617	1	-0.47	0.22
618	2	0.53	0.28
619	1	-0.47	0.22
620	2	0.53	0.28
621	1	-0.47	0.22
622	2	0.53	0.28
623	1	-0.47	0.22
624	1	-0.47	0.22
625	2	0.53	0.28
626	2	0.53	0.28
627	2	0.53	0.28
628	2	0.53	0.28
629	2	0.53	0.28
630	2	0.53	0.28
631	1	-0.47	0.22
632	2	0.53	0.28
633	1	-0.47	0.22
634	1	-0.47	0.22
635	2	0.53	0.28
636	2	0.53	0.28
637	1	-0.47	0.22
638	1	-0.47	0.22
639	1	-0.47	0.22
640	1	-0.47	0.22
641	2	0.53	0.28
642	1	-0.47	0.22
643	2	0.53	0.28
644	1	-0.47	0.22
645	2	0.53	0.28
646	1	-0.47	0.22
647	1	-0.47	0.22
648	1	-0.47	0.22
649	2	0.53	0.28
650	1	-0.47	0.22
	75		12.55
	Sum(n)		Sum(n-N) ²

n = pCi/g Th (NAT)			
Number	n	(n-N)	(n-N) ²
651	2	0.53	0.28
652	1	-0.47	0.22
653	2	0.53	0.28
654	2	0.53	0.28
655	2	0.53	0.28
656	1	-0.47	0.22
657	1	-0.47	0.22
658	1	-0.47	0.22
659	2	0.53	0.28
660	2	0.53	0.28
661	1	-0.47	0.22
662	2	0.53	0.28
663	1	-0.47	0.22
664	2	0.53	0.28
665	2	0.53	0.28
666	1	-0.47	0.22
667	2	0.53	0.28
668	2	0.53	0.28
669	2	0.53	0.28
670	2	0.53	0.28
671	2	0.53	0.28
672	1	-0.47	0.22
673	1	-0.47	0.22
674	1	-0.47	0.22
675	1	-0.47	0.22
676	2	0.53	0.28
677	2	0.53	0.28
678	1	-0.47	0.22
679	1	-0.47	0.22
680	1	-0.47	0.22
681	1	-0.47	0.22
682	2	0.53	0.28
683	1	-0.47	0.22
684	1	-0.47	0.22
685	2	0.53	0.28
686	1	-0.47	0.22
687	2	0.53	0.28
688	1	-0.47	0.22
689	1	-0.47	0.22
690	1	-0.47	0.22
691	2	0.53	0.28
692	2	0.53	0.28
693	1	-0.47	0.22
694	2	0.53	0.28
695	1	-0.47	0.22
696	2	0.53	0.28
697	1	-0.47	0.22
698	1	-0.47	0.22
699	2	0.53	0.28
700	2	0.53	0.28
	75		12.55
	Sum(n)		Sum(n-N) ²

CIMARRON CORPORATION - CIMARRON FACILITY

TRUE MEAN ACTIVITY VS. GUIDELINE VALUE AT 95% CONFIDENCE

PHASE II SUB - AREA " H " AFFECTED SURFACE SAMPLES

n = pCi/g Th (NAT)			
Number	n	(n-N)	(n-N) ²
701	2	0.53	0.28
702	2	0.53	0.28
703	1	-0.47	0.22
704	1	-0.47	0.22
705	2	0.53	0.28
706	2	0.53	0.28
707	2	0.53	0.28
708	1	-0.47	0.22
709	1	-0.47	0.22
710	2	0.53	0.28
711	2	0.53	0.28
712	1	-0.47	0.22
713	2	0.53	0.28
714	2	0.53	0.28
715	1	-0.47	0.22
716	2	0.53	0.28
717	1	-0.47	0.22
718	1	-0.47	0.22
719	2	0.53	0.28
720	2	0.53	0.28
721	2	0.53	0.28
722	1	-0.47	0.22
723	2	0.53	0.28
724	2	0.53	0.28
725	1	-0.47	0.22
726	1	-0.47	0.22
727	1	-0.47	0.22
728	2	0.53	0.28
729	2	0.53	0.28
730	1	-0.47	0.22
731	2	0.53	0.28
732	2	0.53	0.28
733	1	-0.47	0.22
734	2	0.53	0.28
735	1	-0.47	0.22
736	2	0.53	0.28
737	2	0.53	0.28
738	1	-0.47	0.22
739	1	-0.47	0.22
740	2	0.53	0.28
741	2	0.53	0.28
742	2	0.53	0.28
743	2	0.53	0.28
744	1	-0.47	0.22
745	1	-0.47	0.22
746	2	0.53	0.28
747	2	0.53	0.28
748	2	0.53	0.28
749	2	0.53	0.28
750	1	-0.47	0.22
	80		12.86
	Sum(n)		Sum(n-N) ²

n = pCi/g Th (NAT)			
Number	n	(n-N)	(n-N) ²
751	2	0.53	0.28
752	2	0.53	0.28
753	1	-0.47	0.22
754	1	-0.47	0.22
755	1	-0.47	0.22
756	2	0.53	0.28
757	2	0.53	0.28
758	2	0.53	0.28
759	2	0.53	0.28
760	2	0.53	0.28
761	2	0.53	0.28
762	1	-0.47	0.22
763	1	-0.47	0.22
764	2	0.53	0.28
765	2	0.53	0.28
766	2	0.53	0.28
767	1	-0.47	0.22
768	2	0.53	0.28
769	2	0.53	0.28
770	2	0.53	0.28
771	1	-0.47	0.22
772	1	-0.47	0.22
773	2	0.53	0.28
774	2	0.53	0.28
775	1	-0.47	0.22
776	2	0.53	0.28
777	1	-0.47	0.22
778	1	-0.47	0.22
779	1	-0.47	0.22
780	1	-0.47	0.22
781	1	-0.47	0.22
782	2	0.53	0.28
783	2	0.53	0.28
784	1	-0.47	0.22
785	1	-0.47	0.22
786	2	0.53	0.28
787	2	0.53	0.28
788	2	0.53	0.28
789	1	-0.47	0.22
790	1	-0.47	0.22
791	2	0.53	0.28
792	1	-0.47	0.22
793	1	-0.47	0.22
794	1	-0.47	0.22
795	2	0.53	0.28
796	1	-0.47	0.22
797	1	-0.47	0.22
798	1	-0.47	0.22
799	2	0.53	0.28
800	1	-0.47	0.22
	75		12.55
	Sum(n)		Sum(n-N) ²

CIMARRON CORPORATION - CIMARRON FACILITY

TRUE MEAN ACTIVITY VS. GUIDELINE VALUE AT 95% CONFIDENCE

PHASE II SUB - AREA " H " AFFECTED SURFACE SAMPLES

n = pCi/g Th (NAT)			
Number	n	(n-N)	(n-N) ²
801	1	-0.47	0.22
802	1	-0.47	0.22
803	1	-0.47	0.22
804	1	-0.47	0.22
805	1	-0.47	0.22
806	1	-0.47	0.22
807	2	0.53	0.28
808	2	0.53	0.28
809	1	-0.47	0.22
810	1	-0.47	0.22
811	2	0.53	0.28
812	2	0.53	0.28
813	1	-0.47	0.22
814	1	-0.47	0.22
815	1	-0.47	0.22
816	1	-0.47	0.22
817	1	-0.47	0.22
818	2	0.53	0.28
819	1	-0.47	0.22
820	1	-0.47	0.22
821	1	-0.47	0.22
822	1	-0.47	0.22
823	1	-0.47	0.22
824	2	0.53	0.28
825	2	0.53	0.28
826	1	-0.47	0.22
827	1	-0.47	0.22
828	1	-0.47	0.22
829	2	0.53	0.28
830	2	0.53	0.28
831	1	-0.47	0.22
832	1	-0.47	0.22
833	1	-0.47	0.22
834	1	-0.47	0.22
835	2	0.53	0.28
836	1	-0.47	0.22
837	1	-0.47	0.22
838	1	-0.47	0.22
839	1	-0.47	0.22
840	1	-0.47	0.22
841	1	-0.47	0.22
842	1	-0.47	0.22
843	1	-0.47	0.22
844	1	-0.47	0.22
845	2	0.53	0.28
846	1	-0.47	0.22
847	1	-0.47	0.22
848	1	-0.47	0.22
849	1	-0.47	0.22
850	1	-0.47	0.22
	61		11.68
	Sum(n)		Sum(n-N) ²

n = pCi/g Th (NAT)			
Number	n	(n-N)	(n-N) ²
851	2	0.53	0.28
852	2	0.53	0.28
853	1	-0.47	0.22
854	1	-0.47	0.22
855	1	-0.47	0.22
856	1	-0.47	0.22
857	2	0.53	0.28
858	1	-0.47	0.22
859	1	-0.47	0.22
860	1	-0.47	0.22
861	1	-0.47	0.22
862	1	-0.47	0.22
863	1	-0.47	0.22
864	1	-0.47	0.22
865	2	0.53	0.28
866	1	-0.47	0.22
867	2	0.53	0.28
868	2	0.53	0.28
869	1	-0.47	0.22
870	1	-0.47	0.22
871	1	-0.47	0.22
872	1	-0.47	0.22
873	1	-0.47	0.22
874	2	0.53	0.28
875	1	-0.47	0.22
876	1	-0.47	0.22
877	1	-0.47	0.22
878	1	-0.47	0.22
879	1	-0.47	0.22
880	2	0.53	0.28
881	1	-0.47	0.22
882	1	-0.47	0.22
883	1	-0.47	0.22
884	1	-0.47	0.22
885	1	-0.47	0.22
886	1	-0.47	0.22
887	2	0.53	0.28
888	1	-0.47	0.22
889	1	-0.47	0.22
890	1	-0.47	0.22
891	1	-0.47	0.22
892	1	-0.47	0.22
893	1	-0.47	0.22
894	1	-0.47	0.22
895	2	0.53	0.28
896	1	-0.47	0.22
897	2	0.53	0.28
898	1	-0.47	0.22
899	2	0.53	0.28
900	2	0.53	0.28
	63		11.81
	Sum(n)		Sum(n-N) ²

CIMARRON CORPORATION - CIMARRON FACILITY

TRUE MEAN ACTIVITY VS. GUIDELINE VALUE AT 95% CONFIDENCE

PHASE II SUB - AREA " H " AFFECTED SURFACE SAMPLES

n = pCi/g Th (NAT)			
Number	n	(n-N)	(n-N) ²
901	2	0.53	0.28
902	2	0.53	0.28
903	2	0.53	0.28
904	2	0.53	0.28
905	2	0.53	0.28
906	2	0.53	0.28
907	2	0.53	0.28
908	2	0.53	0.28
909	1	-0.47	0.22
910	2	0.53	0.28
911	2	0.53	0.28
912	2	0.53	0.28
913	1	-0.47	0.22
914	2	0.53	0.28
915	2	0.53	0.28
916	1	-0.47	0.22
917	2	0.53	0.28
918	1	-0.47	0.22
919	1	-0.47	0.22
920	1	-0.47	0.22
921	1	-0.47	0.22
922	1	-0.47	0.22
923	1	-0.47	0.22
924	2	0.53	0.28
925	1	-0.47	0.22
926	1	-0.47	0.22
927	1	-0.47	0.22
928	1	-0.47	0.22
929	1	-0.47	0.22
930	1	-0.47	0.22
931	1	-0.47	0.22
932	1	-0.47	0.22
933	1	-0.47	0.22
934	1	-0.47	0.22
935	1	-0.47	0.22
936	1	-0.47	0.22
937	1	-0.47	0.22
938	1	-0.47	0.22
939	2	0.53	0.28
940	1	-0.47	0.22
941	2	0.53	0.28
942	1	-0.47	0.22
943	2	0.53	0.28
944	1	-0.47	0.22
945	2	0.53	0.28
946	2	0.53	0.28
947	2	0.53	0.28
948	2	0.53	0.28
949	2	0.53	0.28
950	1	-0.47	0.22
	73		12.42
	Sum(n)		Sum(n-N) ²

n = pCi/g Th (NAT)			
Number	n	(n-N)	(n-N) ²
951	2	0.53	0.28
952	2	0.53	0.28
953	2	0.53	0.28
954	2	0.53	0.28
955	2	0.53	0.28
956	1	-0.47	0.22
957	1	-0.47	0.22
958	1	-0.47	0.22
959	1	-0.47	0.22
960	1	-0.47	0.22
961	1	-0.47	0.22
962	1	-0.47	0.22
963	2	0.53	0.28
964	1	-0.47	0.22
965	1	-0.47	0.22
966	2	0.53	0.28
967	1	-0.47	0.22
968	1	-0.47	0.22
969	1	-0.47	0.22
970	1	-0.47	0.22
971	1	-0.47	0.22
972	1	-0.47	0.22
973	1	-0.47	0.22
974	1	-0.47	0.22
975	1	-0.47	0.22
976	1	-0.47	0.22
977	1	-0.47	0.22
978	1	-0.47	0.22
979	1	-0.47	0.22
980	1	-0.47	0.22
981	1	-0.47	0.22
982	1	-0.47	0.22
983	1	-0.47	0.22
984	1	-0.47	0.22
985	2	0.53	0.28
986	2	0.53	0.28
987	2	0.53	0.28
988	2	0.53	0.28
989	2	0.53	0.28
990	2	0.53	0.28
991	2	0.53	0.28
992	2	0.53	0.28
993	2	0.53	0.28
994	2	0.53	0.28
995	2	0.53	0.28
996	1	-0.47	0.22
997	1	-0.47	0.22
998	1	-0.47	0.22
999	1	-0.47	0.22
1000	1	-0.47	0.22
	68		12.12
	Sum(n)		Sum(n-N) ²

CIMARRON CORPORATION - CIMARRON FACILITY

TRUE MEAN ACTIVITY VS. GUIDELINE VALUE AT 95% CONFIDENCE

PHASE II SUB - AREA " H " AFFECTED SURFACE SAMPLES

n = pCi/g Th (NAT)			
Number	n	(n-N)	(n-N) ²
1001	1	-0.47	0.22
1002	1	-0.47	0.22
1003	1	-0.47	0.22
1004	1	-0.47	0.22
1005	1	-0.47	0.22
1006	1	-0.47	0.22
1007	1	-0.47	0.22
1008	1	-0.47	0.22
1009	1	-0.47	0.22
1010	1	-0.47	0.22
1011	1	-0.47	0.22
1012	1	-0.47	0.22
1013	1	-0.47	0.22
1014	1	-0.47	0.22
1015	1	-0.47	0.22
1016	1	-0.47	0.22
1017	1	-0.47	0.22
1018	1	-0.47	0.22
1019	1	-0.47	0.22
1020	1	-0.47	0.22
1021	2	0.53	0.28
1022	2	0.53	0.28
1023	2	0.53	0.28
1024	2	0.53	0.28
1025	2	0.53	0.28
1026	2	0.53	0.28
1027	1	-0.47	0.22
1028	1	-0.47	0.22
1029	2	0.53	0.28
1030	2	0.53	0.28
1031	2	0.53	0.28
1032	1	-0.47	0.22
1033	1	-0.47	0.22
1034	1	-0.47	0.22
1035	2	0.53	0.28
1036	2	0.53	0.28
1037	1	-0.47	0.22
1038	1	-0.47	0.22
1039	2	0.53	0.28
1040	2	0.53	0.28
1041	1	-0.47	0.22
1042	2	0.53	0.28
1043	1	-0.47	0.22
1044	2	0.53	0.28
1045	1	-0.47	0.22
1046	1	-0.47	0.22
1047	1	-0.47	0.22
1048	1	-0.47	0.22
1049	1	-0.47	0.22
1050	1	-0.47	0.22
	65		11.93
	Sum(n)		Sum(n-N) ²

n = pCi/g Th (NAT)			
Number	n	(n-N)	(n-N) ²
1051	2	0.53	0.28
1052	2	0.53	0.28
1053	2	0.53	0.28
1054	2	0.53	0.28
1055	2	0.53	0.28
1056	2	0.53	0.28
1057	2	0.53	0.28
1058	2	0.53	0.28
1059	2	0.53	0.28
1060	2	0.53	0.28
1061	2	0.53	0.28
1062	2	0.53	0.28
1063	1	-0.47	0.22
1064	1	-0.47	0.22
1065	2	0.53	0.28
1066	2	0.53	0.28
1067	2	0.53	0.28
1068	1	-0.47	0.22
1069	1	-0.47	0.22
1070	1	-0.47	0.22
1071	1	-0.47	0.22
1072	1	-0.47	0.22
1073	2	0.53	0.28
1074	1	-0.47	0.22
1075	1	-0.47	0.22
1076	1	-0.47	0.22
1077	2	0.53	0.28
1078	2	0.53	0.28
1079	1	-0.47	0.22
1080	1	-0.47	0.22
1081	2	0.53	0.28
1082	1	-0.47	0.22
1083	1	-0.47	0.22
1084	1	-0.47	0.22
1085	1	-0.47	0.22
1086	1	-0.47	0.22
1087	1	-0.47	0.22
1088	2	0.53	0.28
1089	2	0.53	0.28
1090	1	-0.47	0.22
1091	2	0.53	0.28
1092	2	0.53	0.28
1093	2	0.53	0.28
1094	1	-0.47	0.22
1095	1	-0.47	0.22
1096	2	0.53	0.28
1097	1	-0.47	0.22
1098	1	-0.47	0.22
1099	1	-0.47	0.22
1100	1	-0.47	0.22
	75		12.55
	Sum(n)		Sum(n-N) ²

CIMARRON CORPORATION - CIMARRON FACILITY

TRUE MEAN ACTIVITY VS. GUIDELINE VALUE AT 95% CONFIDENCE

PHASE II SUB - AREA " H " AFFECTED SURFACE SAMPLES

n = pCi/g Th (NAT)			
Number	n	(n-N)	(n-N) ²
1101	1	-0.47	0.22
1102	2	0.53	0.28
1103	1	-0.47	0.22
1104	2	0.53	0.28
1105	2	0.53	0.28
1106	1	-0.47	0.22
1107	1	-0.47	0.22
1108	2	0.53	0.28
1109	1	-0.47	0.22
1110	1	-0.47	0.22
1111	1	-0.47	0.22
1112	1	-0.47	0.22
1113	1	-0.47	0.22
1114	1	-0.47	0.22
1115	2	0.53	0.28
1116	2	0.53	0.28
1117	1	-0.47	0.22
1118	1	-0.47	0.22
1119	1	-0.47	0.22
1120	1	-0.47	0.22
1121	1	-0.47	0.22
1122	1	-0.47	0.22
1123	2	0.53	0.28
1124	1	-0.47	0.22
1125	2	0.53	0.28
1126	1	-0.47	0.22
1127	2	0.53	0.28
1128	1	-0.47	0.22
1129	1	-0.47	0.22
1130	1	-0.47	0.22
1131	2	0.53	0.28
1132	2	0.53	0.28
1133	1	-0.47	0.22
1134	1	-0.47	0.22
1135	1	-0.47	0.22
1136	1	-0.47	0.22
1137	2	0.53	0.28
1138	1	-0.47	0.22
1139	1	-0.47	0.22
1140	1	-0.47	0.22
1141	1	-0.47	0.22
1142	2	0.53	0.28
1143	2	0.53	0.28
1144	2	0.53	0.28
1145	1	-0.47	0.22
1146	2	0.53	0.28
1147	1	-0.47	0.22
1148	1	-0.47	0.22
1149	1	-0.47	0.22
1150	1	-0.47	0.22
	66		11.99
	Sum(n)		Sum(n-N) ²

n = pCi/g Th (NAT)			
Number	n	(n-N)	(n-N) ²
1151	1	-0.47	0.22
1152	1	-0.47	0.22
1153	1	-0.47	0.22
1154	1	-0.47	0.22
1155	1	-0.47	0.22
1156	1	-0.47	0.22
1157	1	-0.47	0.22
1158	2	0.53	0.28
1159	2	0.53	0.28
1160	1	-0.47	0.22
1161	2	0.53	0.28
1162	1	-0.47	0.22
1163	1	-0.47	0.22
1164	1	-0.47	0.22
1165	1	-0.47	0.22
1166	1	-0.47	0.22
1167	1	-0.47	0.22
1168	1	-0.47	0.22
1169	1	-0.47	0.22
1170	1	-0.47	0.22
1171	1	-0.47	0.22
1172	1	-0.47	0.22
1173	1	-0.47	0.22
1174	1	-0.47	0.22
1175	1	-0.47	0.22
1176	2	0.53	0.28
1177	1	-0.47	0.22
1178	2	0.53	0.28
1179	1	-0.47	0.22
1180	1	-0.47	0.22
1181	1	-0.47	0.22
1182	1	-0.47	0.22
1183	1	-0.47	0.22
1184	1	-0.47	0.22
1185	1	-0.47	0.22
1186	1	-0.47	0.22
1187	1	-0.47	0.22
1188	2	0.53	0.28
1189	1	-0.47	0.22
1190	1	-0.47	0.22
1191	2	0.53	0.28
1192	2	0.53	0.28
1193	1	-0.47	0.22
1194	1	-0.47	0.22
1195	1	-0.47	0.22
1196	1	-0.47	0.22
1197	1	-0.47	0.22
1198	1	-0.47	0.22
1199	1	-0.47	0.22
1200	2	0.53	0.28
	59		11.56
	Sum(n)		Sum(n-N) ²

CIMARRON CORPORATION - CIMARRON FACILITY

TRUE MEAN ACTIVITY VS. GUIDELINE VALUE AT 95% CONFIDENCE

PHASE II SUB - AREA " H " AFFECTED SURFACE SAMPLES

n = pCi/g Th (NAT)			
Number	n	(n-N)	(n-N) ²
1201	1	-0.47	0.22
1202	1	-0.47	0.22
1203	1	-0.47	0.22
1204	1	-0.47	0.22
1205	1	-0.47	0.22
1206	1	-0.47	0.22
1207	2	0.53	0.28
1208	2	0.53	0.28
1209	1	-0.47	0.22
1210	2	0.53	0.28
1211	2	0.53	0.28
1212	2	0.53	0.28
1213	1	-0.47	0.22
1214	1	-0.47	0.22
1215	1	-0.47	0.22
1216	1	-0.47	0.22
1217	1	-0.47	0.22
1218	2	0.53	0.28
1219	2	0.53	0.28
1220	2	0.53	0.28
1221	2	0.53	0.28
1222	1	-0.47	0.22
1223	1	-0.47	0.22
1224	2	0.53	0.28
1225	1	-0.47	0.22
1226	1	-0.47	0.22
1227	1	-0.47	0.22
1228	2	0.53	0.28
1229	1	-0.47	0.22
1230	1	-0.47	0.22
1231	1	-0.47	0.22
1232	1	-0.47	0.22
1233	1	-0.47	0.22
1234	1	-0.47	0.22
1235	1	-0.47	0.22
1236	1	-0.47	0.22
1237	2	0.53	0.28
1238	1	-0.47	0.22
1239	1	-0.47	0.22
1240	1	-0.47	0.22
1241	1	-0.47	0.22
1242	1	-0.47	0.22
1243	1	-0.47	0.22
1244	2	0.53	0.28
1245	1	-0.47	0.22
1246	2	0.53	0.28
1247	1	-0.47	0.22
1248	2	0.53	0.28
1249	1	-0.47	0.22
1250	1	-0.47	0.22
	65		11.93
	Sum(n)		Sum(n-N) ²

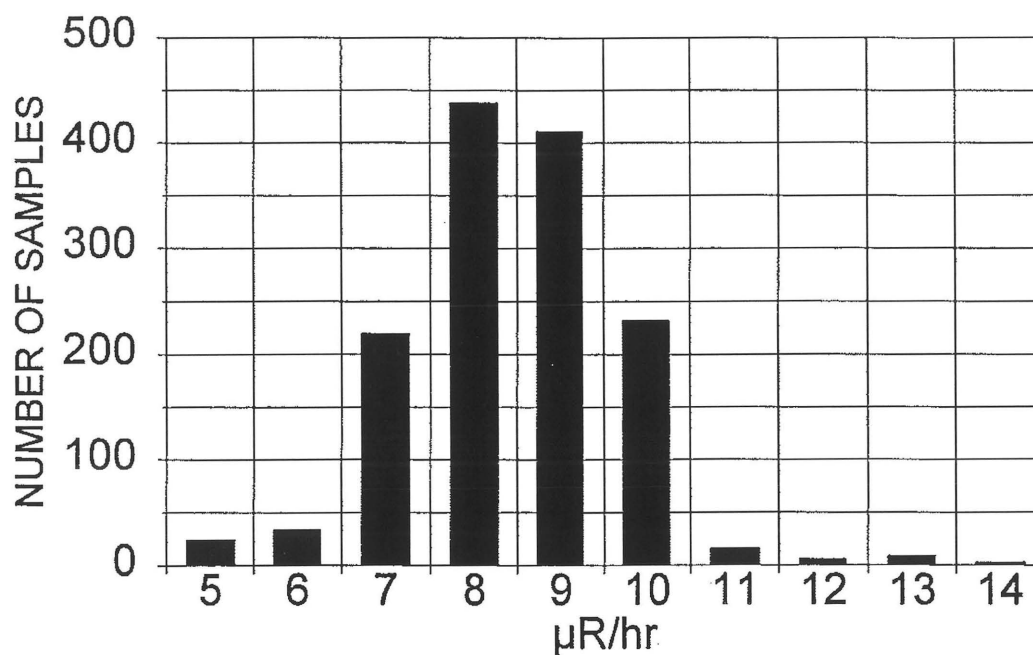
n = pCi/g Th (NAT)			
Number	n	(n-N)	(n-N) ²
1251	2	0.53	0.28
1252	1	-0.47	0.22
1253	2	0.53	0.28
1254	1	-0.47	0.22
1255	2	0.53	0.28
1256	1	-0.47	0.22
1257	1	-0.47	0.22
1258	1	-0.47	0.22
1259	1	-0.47	0.22
1260	1	-0.47	0.22
1261	1	-0.47	0.22
1262	1	-0.47	0.22
1263	1	-0.47	0.22
1264	1	-0.47	0.22
1265	1	-0.47	0.22
1266	2	0.53	0.28
1267	2	0.53	0.28
1268	1	-0.47	0.22
1269	1	-0.47	0.22
1270	1	-0.47	0.22
1271	2	0.53	0.28
1272	1	-0.47	0.22
1273	1	-0.47	0.22
1274	1	-0.47	0.22
1275	1	-0.47	0.22
1276	1	-0.47	0.22
1277	2	0.53	0.28
1278	1	-0.47	0.22
1279	1	-0.47	0.22
1280	1	-0.47	0.22
1281	1	-0.47	0.22
1282	1	-0.47	0.22
1283	1	-0.47	0.22
1284	1	-0.47	0.22
1285	1	-0.47	0.22
1286	2	0.53	0.28
1287	1	-0.47	0.22
1288	2	0.53	0.28
1289	1	-0.47	0.22
1290	2	0.53	0.28
1291	2	0.53	0.28
1292	1	-0.47	0.22
1293	2	0.53	0.28
1294	2	0.53	0.28
1295	1	-0.47	0.22
1296	1	-0.47	0.22
1297	2	0.53	0.28
1298	2	0.53	0.28
1299	2	0.53	0.28
1300	2	0.53	0.28
	67		12.05
	Sum(n)		Sum(n-N) ²

TRUE MEAN ACTIVITY VS. GUIDELINE VALUE AT 95% CONFIDENCE
PHASE II SUB - AREA " H " AFFECTED SURFACE SAMPLES

[illegible]

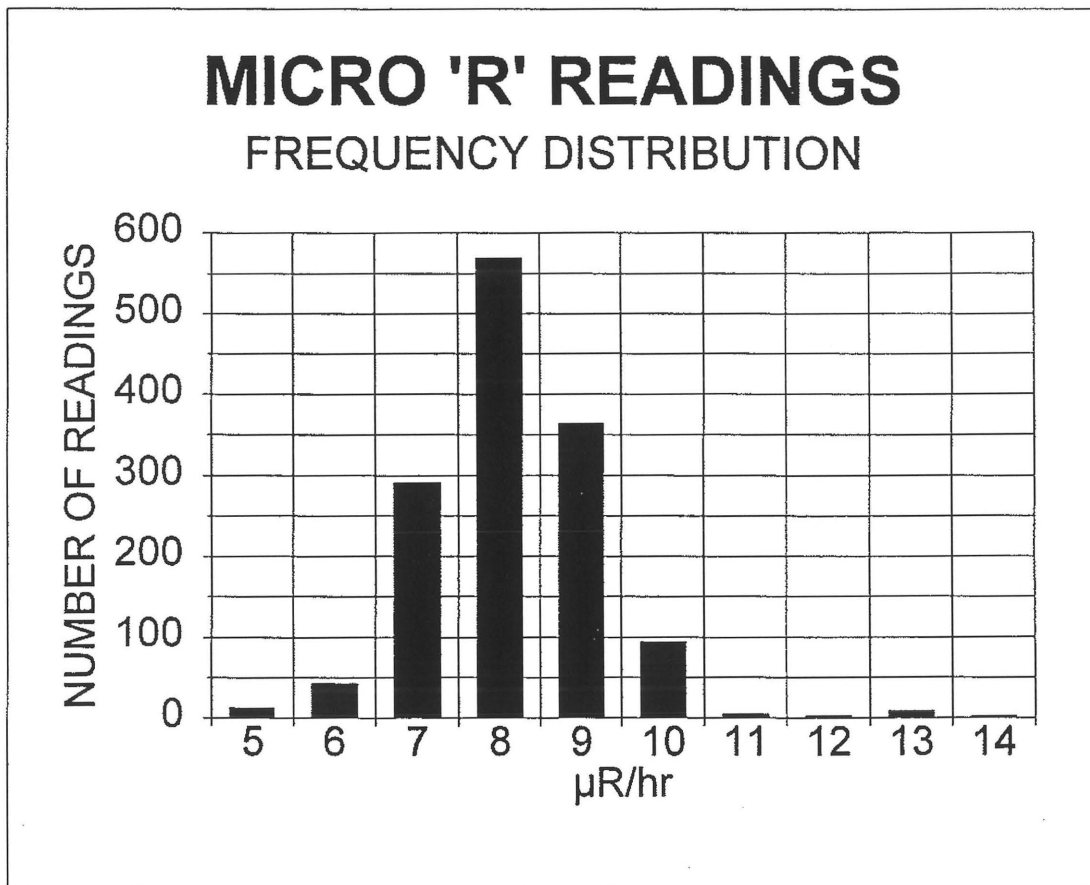
PHASE II, SUB-AREA "H"
AFFECTED SURFACE
MICRO 'R' READINGS AT SURFACE
LUDLUM MODEL 19, S/N111299
RESULTS IN $\mu\text{R/hr}$
SEPTEMBER 1998

MICRO 'R' READINGS
FREQUENCY DISTRIBUTION



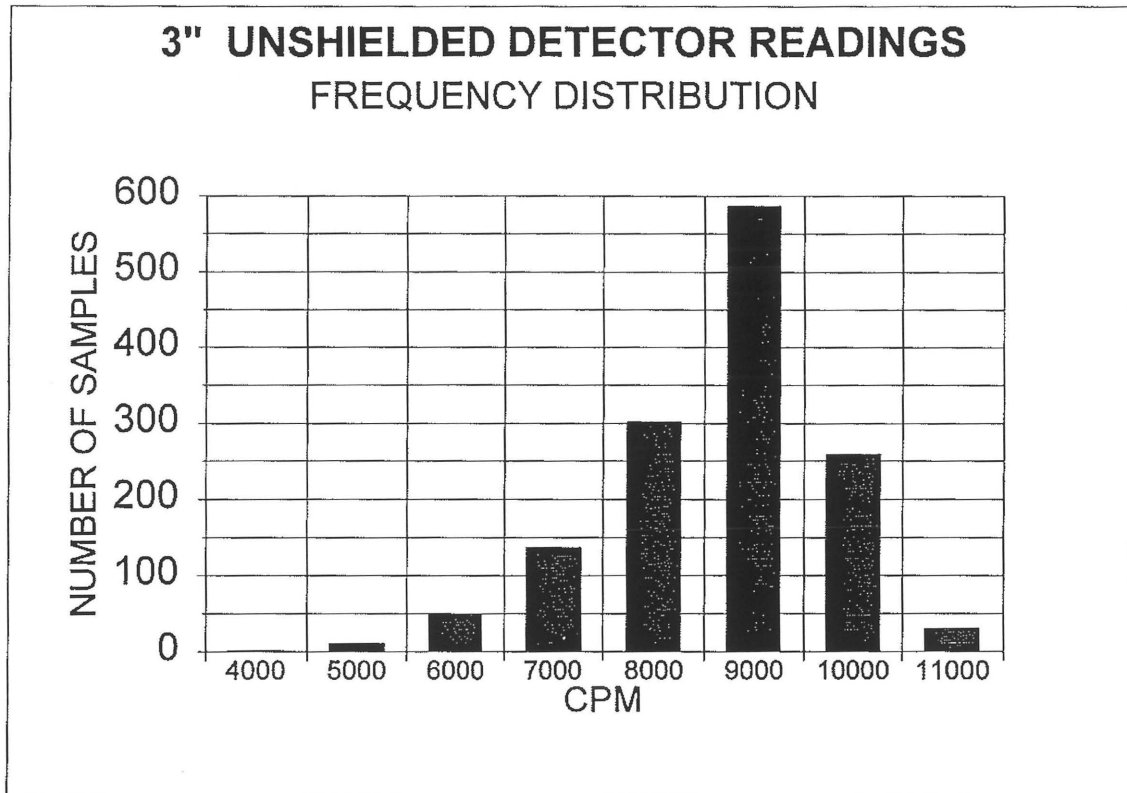
NUMBER OF SAMPLES	1393
AVERAGE READINGS	8
MINIMUM READING	5
MAXIMUM READING	14
STANDARD DEVIATION	1

PHASE II, SUB-AREA "H"
'AFFECTED SURFACE
MICRO 'R' READINGS AT 1 METER ABOVE SURFACE
LUDLUM MODEL 19, S/N111299
RESULTS IN $\mu\text{R/hr}$
SEPTEMBER 1998



TOTAL NUMBER OF READING	1393
AVERAGE READING	8
MINIMUM READING	5
MAXIMUM READING	14
STANDARD DEVIATION	1

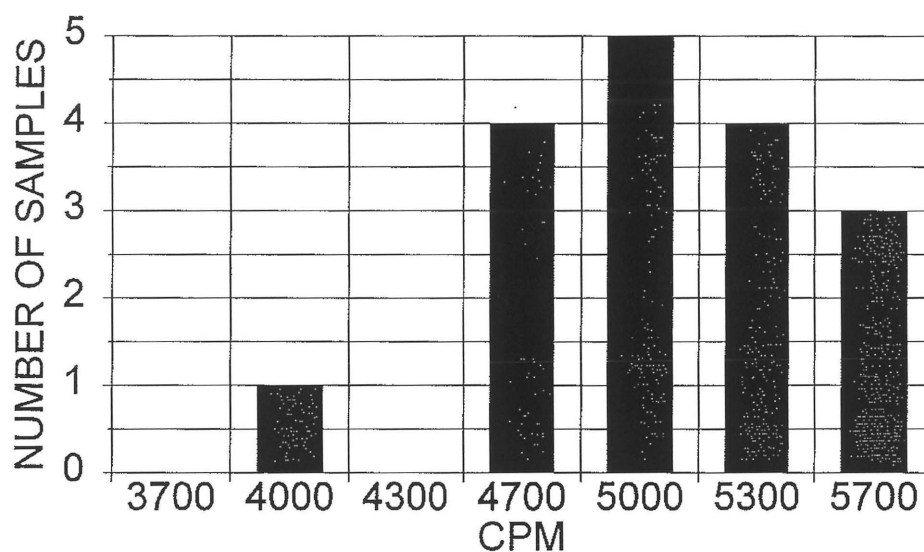
**PHASE II, SUB-AREA "H" -
AFFECTED SURFACE
LUDLUM MODEL 2220, S/N 97264
BACKGROUND AVERAGE: 7300
SEPTEMBER 1998**



NUMBER OF READINGS	1376
AVERAGE READING	8162
MINIMUM READING	3758
MAXIMUM READING	10990
STANDARD DEVIATION	1090

**PHASE II, SUB-AREA "H" -
AFFECTED SURFACE
LUDLUM MODEL 2220, S/N 48395
SEPTEMBER 1998**

**3" SHIELDED DETECTOR READING
FREQUENCY DISTRIBUTION**



NUMBER OF READINGS	17
AVERAGE READING	4889
MINIMUM READING	3730
MAXIMUM READING	5440
STANDARD DEVIATION	412

**CIMARRON CORPORATION
CIMARRON FACILITY
SUB-AREA "H" - AFFECTED AREA DEPTH SAMPLES**

DATE: 07/08/98

LN #	GRID NUMBER	3" DETECT C.P.M.	MICRO R' SURF	MICRO R' 1 METER	pCi/g									
					0 - 6"		6" - 1'		1' - 2'		2' - 3'		3' - 4'	
					Total U	Th (Nat)	Total U	Th (Nat)	Total U	Th (Nat)	Total U	Th (Nat)	Total U	Th (Nat)
1	65E - 335N	6734	9	8	8	2	10	2	9	2	11	2	8	2
2	80E - 342N	7714	8	7	12	1	ROCK	ROCK	ROCK	ROCK	ROCK	ROCK	ROCK	ROCK
3	80E - 368N	8178	8	9	12	1	7	1	9	1	7	1	ROCK	ROCK
4	80E - 392N	8646	9	8	8	1	7	2	7	2	11	1	ROCK	ROCK
5	80E - 418N	8266	9	8	23	2	25	1	8	1	10	1	7	1
6	*95E - 431N	4230	13	13	22	1	23	1	16	1	13	1	9	1
7	100E - 371N	6016	9	8	12	1	12	1	4	1	ROCK	ROCK	ROCK	ROCK
8	110E - 352N	8870	10	9	8	1	7	1	9	1	7	1	11	1
9	115E - 260N	7664	8	9	11	1	18	2	8	1	6	1	ROCK	ROCK
10	119E - 318N	8224	8	8	15	2	12	1	8	2	13	1	16	1
11	120E - 292N	9056	8	8	12	2	10	2	8	2	5	2	12	1
12	120E - 317N	8042	8	7	17	2	17	1	13	2	8	1	12	2
13	120E - 318N	8882	10	8	16	1	15	2	33	2	12	1	7	2
14	120E - 319N	8280	8	8	10	1	10	2	9	2	1	2	12	2
15	121E - 318N	7934	8	8	9	2	12	2	10	1	10	1	12	1
16	140E - 292N	8798	10	9	14	2	11	2	7	2	6	1	ROCK	ROCK
17	140E - 318N	9440	10	10	18	1	10	1	7	1	9	2	6	2
18	*146E - 310N	4810	9	9	7	2	8	2	10	1	ROCK	ROCK	ROCK	ROCK
19	*147E - 316N	4120	9	9	9	2	12	1	5	1	ROCK	ROCK	ROCK	ROCK
20														

INSTRUMENTS:

LUDLUM MICRO 'R' METER MODEL 19 S/N 111299

LUDLUM 2221, UNSHIELDED 3" X 1/2" NaI DETECTOR S/N 97264

*LUDLUM 2220, LEAD SHIELDED 3" X 1/2" NaI DETECTOR S/N 48395

CIMARRON SOIL COUNTER 4" X 4" X 16" NaI DETECTOR

BACKGROUND NOT SUBTRACTED

PAGE 1

FILE: HADEPTH

REVIEWED BY: W. A. Byers

DATE: 7-8-98

RESULTS IN

μr/hr

CPM

CPM

pCi/G

BACKGROUND

7

7670

4460

Total U 4

Th (Nat) 1.5

MDA

2

N/A

N/A

10

1

CIMARRON CORPORATION
CIMARRON FACILITY
SUB-AREA "H" - AFFECTED AREA DEPTH SAMPLES

DATE: 07/08/98

LN #	GRID NUMBER	3" DETECT C.P.M.	MICRO R' SURF	MICRO R' 1 METER	pCi/g									
					0 - 6"		6" - 1'		1' - 2'		2' - 3'		3' - 4'	
					Total U	Th (Nat)	Total U	Th (Nat)	Total U	Th (Nat)	Total U	Th (Nat)	Total U	Th (Nat)
1	160E - 292N	8994	9	9	9	1	7	2	8	2	7	1	6	1
2	160E - 318N	9360	10	9	7	1	13	1	8	1	ROCK	ROCK	ROCK	ROCK
3	180E - 292N	7950	8	8	9	2	13	2	11	1	10	2	9	1
4	180E - 318N	6080	7	7	7	1	6	1	6	1	4	1	ROCK	ROCK
5	200E - 292N	8370	9	8	9	1	8	1	11	1	4	1	ROCK	ROCK
6	200E - 318N	8258	9	8	8	2	9	2	5	2	12	2	11	2
7	210E - 268N	8668	9	8	11	1	6	2	7	1	12	1	ROCK	ROCK
8	220E - 292N	9040	9	9	7	2	10	1	8	2	4	1	ROCK	ROCK
9	220E - 318N	6884	8	8	15	1	ROCK	ROCK	ROCK	ROCK	ROCK	ROCK	ROCK	ROCK
10	230E - 268N	7682	9	8	8	1	8	1	7	1	ROCK	ROCK	ROCK	ROCK
11	240E - 292N	8922	8	8	5	1	5	2	6	2	7	1	ROCK	ROCK
12	240E - 318N	7538	7	7	11	1	6	1	7	1	10	1	13	1
13	250E - 242N	7374	7	7	4	1	7	2	7	1	8	1	5	1
14	250E - 268N	8642	8	8	7	2	ROCK	ROCK	ROCK	ROCK	ROCK	ROCK	ROCK	ROCK
15	*250E - 460N	4590	13	13	7	1	8	1	8	2	7	2	7	1
16	260E - 292N	6914	7	7	9	1	9	1	8	1	ROCK	ROCK	ROCK	ROCK
17	260E - 318N	4694	6	7	ROCK	ROCK	ROCK	ROCK	ROCK	ROCK	ROCK	ROCK	ROCK	ROCK
18	260E - 342N	6480	7	7	5	1	ROCK	ROCK	ROCK	ROCK	ROCK	ROCK	ROCK	ROCK
19	260E - 368N	9298	8	8	5	2	7	2	7	2	5	1	ROCK	ROCK
20	260E - 392N	9690	9	10	8	2	12	1	11	2	13	2	9	2
21	*260E - 470N	4850	13	14	6	2	8	1	8	2	9	1	7	1

INSTRUMENTS:

LUDLUM MICRO 'R' METER MODEL 19 S/N 111299

*LUDLUM 2220, SHIELDED 3" X 1/2" NaI DETECTOR S/N 34895

LUDLUM 2220, UNSHIELDED 3" X 1/2" NaI DETECTOR S/N 97264

CIMARRON SOIL COUNTER 4" X 4" X 16" NaI DETECTOR

BACKGROUND NOT SUBTRACTED

PAGE 2

FILE: HADEPTH

RESULTS IN

µr/hr

CPM

CPM

pCi/G

BACKGROUND

7

4460

7670

Total U 4

Th (Nat) 1.5

MDA

2

N/A

N/A

10

1

REVIEWED BY:

W.A. Rogers

DATE:

7-8-98

**CIMARRON CORPORATION
CIMARRON FACILITY
SUB-AREA "H" - AFFECTED AREA DEPTH SAMPLES**

DATE: 07/08/98

LN #	GRID NUMBER	3" DETECT C.P.M.	MICRO R' SURF	MICRO R' 1 METER	pCi/g									
					0 - 6"		6" - 1'		1' - 2'		2' - 3'		3' - 4'	
					Total U	Th (Nat)	Total U	Th (Nat)	Total U	Th (Nat)	Total U	Th (Nat)	Total U	Th (Nat)
1	270E - 242N	9404	9	9	9	1	11	2	8	1	ROCK	ROCK	ROCK	ROCK
2	270E - 268N	9002	8	8	7	2	11	1	16	2	ROCK	ROCK	ROCK	ROCK
3	*270E - 470N	4570	12	12	7	1	10	1	11	1	9	2	7	1
4	280E - 292N	8854	8	8	10	2	9	1	6	1	5	1	7	1
5	*280E - 480N	5440	14	13	4	2	10	1	10	1	10	2	7	1
6	290E - 242N	8468	7	7	14	1	ROCK	ROCK	ROCK	ROCK	ROCK	ROCK	ROCK	ROCK
7	290E - 268N	8780	9	7	7	2	5	1	6	2	11	1	7	1
8	*290E - 480N	4830	14	11	6	1	11	2	7	2	8	1	6	1
9	300E - 168N	7214	7	7	5	1	6	1	7	2	5	2	6	1
10	300E - 192N	7992	7	7	11	1	7	1	4	1	ROCK	ROCK	ROCK	ROCK
11	300E - 475N	7018	9	8	8	2	7	1	6	1	8	2	9	2
12	300E - 480N	7076	10	9	6	2	6	1	4	1	7	2	10	2
13	304E - 465N	7216	9	9	12	1	4	2	7	2	11	1	8	1
14	305E - 464N	8002	10	9	8	2	6	2	8	2	12	1	6	2
15	305E - 465N	8050	9	9	11	1	8	1	8	2	8	2	7	2
16	305E - 470N	7124	9	7	8	1	10	1	9	2	6	2	11	2
17	305E - 475N	7208	8	8	11	1	7	2	8	2	9	2	9	2
18	305E - 480N	7526	8	8	9	1	7	2	6	2	9	2	5	2
19	306E - 460N	7560	9	8	7	2	13	1	8	2	10	2	10	1
20	310E - 460N	7696	7	8	9	2	8	2	5	2	5	2	9	2
21	310E - 465N	7870	8	8	10	1	16	2	23	2	24	2	10	1
22	310E - 470N	7324	9	8	9	2	10	2	12	2	8	2	9	2
23	310E - 475N	6984	7	7	12	2	7	2	11	1	9	2	10	2
24	310E - 480N	7846	8	9	9	2	11	2	7	2	9	2	13	1

INSTRUMENTS:

LUDLUM MICRO 'R' METER MODEL 19 S/N 111299

*LUDLUM 2220, SHIELDED 3" X 1/2" NaI DETECTOR S/N 34895

LUDLUM 2221, UNSHIELDED 3" X 1/2" NaI DETECTOR S/N 97264

CIMARRON SOIL COUNTER 4" X 4" X 16" NaI DETECTOR

BACKGROUND NOT SUBTRACTED

PAGE 3

FILE: HADEPTH

RESULTS IN

μr/hr

CPM

CPM

pCi/G

BACKGROUND

7

4460

7670

Total U 4

Th (Nat) 1.5

MDA

2

N/A

N/A

10

1

REVIEWED BY:

W. A. Rogers

DATE:

7-8-98

CIMARRON CORPORATION
CIMARRON FACILITY
SUB-AREA "H" - AFFECTED AREA DEPTH SAMPLES

DATE: 07/08/98

LN #	GRID NUMBER	3" DETECT C.P.M.	MICRO R' SURF	MICRO R' 1 METER	pCi/g									
					0 - 6"		6" - 1'		1' - 2'		2' - 3'		3' - 4'	
					Total U	Th (Nat)	Total U	Th (Nat)	Total U	Th (Nat)	Total U	Th (Nat)	Total U	Th (Nat)
1	315E - 460N	8174	8	9	10	2	9	2	9	2	6	2	8	1
2	315E - 465N	7702	9	9	7	2	9	2	11	2	3	1	5	1
3	315E - 470N	8030	10	9	7	2	8	2	8	2	7	1	6	1
4	315E - 475N	7714	9	8	7	2	12	2	13	1	13	2	10	1
5	320E - 452N	9438	9	8	12	2	12	1	11	1	13	2	11	1
6	340E - 412N	9504	10	9	4	2	8	1	5	2	6	2	5	1
7	360E - 402N	9134	9	8	10	2	9	2	7	1	9	1	8	1
8	380E - 412N	8984	9	8	11	1	10	1	6	1	3	1	4	1
9														
10														
11														
12														
13														
14														
15														
16														
17														
18														
19														
20														

INSTRUMENTS:

LUDLUM MICRO 'R' METER MODEL 19 S/N 111299

LUDLUM 2221, UNSHIELDED 3" X 1/2" NaI DETECTOR S/N 97264

*LUDLUM 2220, SHIELDED 3" X 1/2" NaI DETECTOR S/N 34895

CIMARRON SOIL COUNTER 4" X 4" X 16" NaI DETECTOR

BACKGROUND NOT SUBTRACTED

PAGE 4

FILE: HADEPTH

RESULTS IN

µr/hr

CPM

CPM

pCi/G

BACKGROUND

7

7670

4460

Th (Nat) 1.5

MDA

2

N/A

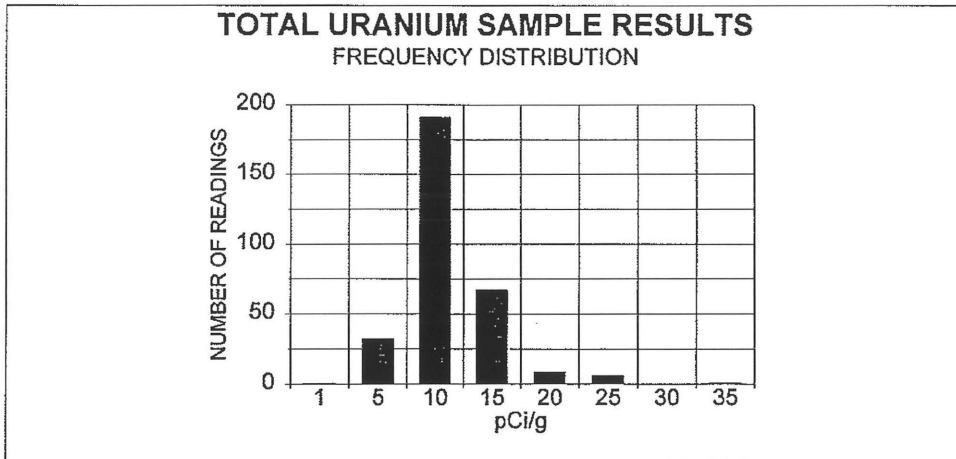
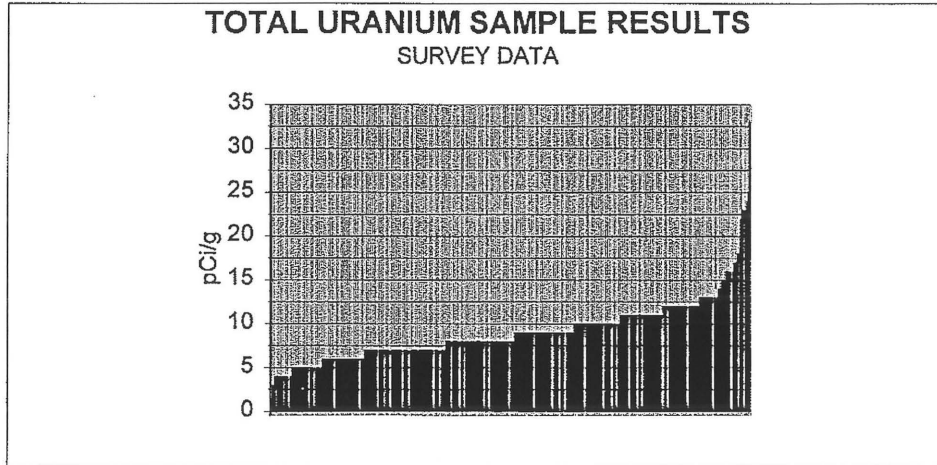
N/A

1

REVIEWED BY: W.A. Rogers

DATE: 7-8-98

**PHASE II, SUB-AREA "H" - DEPTH
AFFECTED
CIMARRON SOIL COUNTER
TOTAL URANIUM SAMPLE RESULTS
SITE BACKGROUND OF 4 pCi/g NOT SUBTRACTED
SEPTEMBER 1998**



NUMBER OF READINGS	307
AVERAG SAMPLE	9
MINIMUM READING	1
MAXIMUM READING	33
STANDARD DEVIATION	4

CIMARRON CORPORATION - CIMARRON FACILITY
TRUE MEAN ACTIVITY VS. GUIDELINE VALUE AT 95% CONFIDENCE

n = pCi/g TOTAL U

Number	n	(n-N)	(n-N) ²
1	8	-1.08	1.17
2	12	2.92	8.52
3	12	2.92	8.52
4	8	-1.08	1.17
5	23	13.92	193.73
6	22	12.92	166.89
7	12	2.92	8.52
8	8	-1.08	1.17
9	11	1.92	3.68
10	15	5.92	35.03
11	12	2.92	8.52
12	17	7.92	62.70
13	16	6.92	47.87
14	10	0.92	0.84
15	9	-0.08	0.01
16	14	4.92	24.19
17	18	8.92	79.54
18	7	-2.08	4.33
19	9	-0.08	0.01
20	10	0.92	0.84
21	7	-2.08	4.33
22	7	-2.08	4.33
23	25	15.92	253.40
24	23	13.92	193.73
25	12	2.92	8.52
26	7	-2.08	4.33
27	18	8.92	79.54
28	12	2.92	8.52
29	10	0.92	0.84
30	17	7.92	62.70
31	15	5.92	35.03
32	10	0.92	0.84
33	12	2.92	8.52
34	11	1.92	3.68
35	10	0.92	0.84
36	8	-1.08	1.17
37	12	2.92	8.52
38	9	-0.08	0.01
39	9	-0.08	0.01
40	7	-2.08	4.33
41	8	-1.08	1.17
42	16	6.92	47.87
43	4	-5.08	25.82
44	9	-0.08	0.01
45	8	-1.08	1.17
46	8	-1.08	1.17
47	8	-1.08	1.17
48	13	3.92	15.36
49	33	23.92	572.10
50	9	-0.08	0.01
	431		434.43
	399		339.64
	426		300.24
	445		766.15
	428		333.91
	49		74.33
	0		0.00
	0		0.00
	2788		4254.96
	Sum(n)		Sum(n-N) ²

No. of Samples (x) : **307**

COUNT TIME: 5 MINUTES

Sample Mean (N) = Sum(n) ÷ (x)

Sample Mean (N) : **9.08**

Standard Deviation (Sd) = SQRT [(n-N)² ÷ (x - 1)]

Standard Deviation: **3.7**

2 Std Deviations: **7.5**

Degree of Freedom(df) = (x) - 1 Data listed on Table B-1

(df) = **1.652**

Area's Average Level (Aμ) = (N) + (df) x [(Sd)/sqrt(x)]

(Aμ) = **9.43** pCi/gU TOTAL U

GUIDELINE VALUE: **30** pCi/gU TOTAL U

Acceptable Level: **34.0** pCi/gU TOTAL U

(30 PLUS BACKGROUND)

TABLE B - 1

Factors for Comparison of Survey Data with Guidelines					
(df)	95%	97.5%	(df)	95%	97.5%
1	6.314	12.706	19	1.729	2.093
2	2.92	4.303	20	1.725	2.086
3	2.353	3.182	21	1.721	2.08
4	2.132	2.776	22	1.717	2.074
5	2.015	2.571	23	1.714	2.069
6	1.943	2.447	24	1.711	2.064
7	1.895	2.365	25	1.708	2.06
8	1.86	2.306	26	1.706	2.056
9	1.833	2.262	27	1.703	2.052
10	1.812	2.228	28	1.701	2.048
11	1.796	2.201	29	1.699	2.045
12	1.782	2.179	30	1.697	2.042
13	1.771	2.16	40	1.684	2.021
14	1.761	2.145	60	1.671	2
15	1.753	2.131	120	1.658	1.98
16	1.746	2.12	400	1.649	1.966
17	1.74	2.11	Infinite	1.645	1.96
18	1.734	2.101			

For values of Degrees of Freedom not listed:

Interpolate between the listed values.

(df) high value(Z) **400** is (B) **1.649** 95%

(df) low value(Y) **120** is (A) **1.658** 95%

Desired value(df) (X) **306** is calculated as follow:

EXP[(Ln(B) - Ln(A)) ÷ (Z - Y) (X - Y) + Ln(A)]

The (df) value for (X) **306** **1.652** **95%**

PERFORMED BY: L. Smith

DATE: 10-13-98

REVIEWED BY: W. G. Rozen

DATE: 10-13-98

CIMARRON CORPORATION - CIMARRON FACILITY

TRUE MEAN ACTIVITY VS. GUIDELINE VALUE AT 95% CONFIDENCE

n = pCi/g TOTAL U

Number	n	(n-N)	(n-N) ²
51	10	0.92	0.84
52	7	-2.08	4.33
53	7	-2.08	4.33
54	10	0.92	0.84
55	5	-4.08	16.66
56	11	1.92	3.68
57	7	-2.08	4.33
58	11	1.92	3.68
59	10	0.92	0.84
60	13	3.92	15.36
61	7	-2.08	4.33
62	6	-3.08	9.50
63	13	3.92	15.36
64	5	-4.08	16.66
65	8	-1.08	1.17
66	12	2.92	8.52
67	1	-8.08	65.31
68	10	0.92	0.84
69	6	-3.08	9.50
70	9	-0.08	0.01
71	8	-1.08	1.17
72	7	-2.08	4.33
73	9	-0.08	0.01
74	11	1.92	3.68
75	16	6.92	47.87
76	12	2.92	8.52
77	12	2.92	8.52
78	7	-2.08	4.33
79	12	2.92	8.52
80	12	2.92	8.52
81	6	-3.08	9.50
82	9	-0.08	0.01
83	7	-2.08	4.33
84	9	-0.08	0.01
85	7	-2.08	4.33
86	9	-0.08	0.01
87	8	-1.08	1.17
88	11	1.92	3.68
89	7	-2.08	4.33
90	15	5.92	35.03
91	8	-1.08	1.17
92	5	-4.08	16.66
93	11	1.92	3.68
94	4	-5.08	25.82
95	7	-2.08	4.33
96	7	-2.08	4.33
97	9	-0.08	0.01
98	5	-4.08	16.66
99	5	-4.08	16.66
100	8	-1.08	1.17
	431		434.43
	Sum(n)		Sum(n-N) ²

n = pCi/g TOTAL U

Number	n	(n-N)	(n-N) ²
101	6	-3.08	9.50
102	7	-2.08	4.33
103	13	3.92	15.36
104	13	3.92	15.36
105	6	-3.08	9.50
106	8	-1.08	1.17
107	9	-0.08	0.01
108	6	-3.08	9.50
109	10	0.92	0.84
110	8	-1.08	1.17
111	5	-4.08	16.66
112	6	-3.08	9.50
113	7	-2.08	4.33
114	8	-1.08	1.17
115	9	-0.08	0.01
116	7	-2.08	4.33
117	12	2.92	8.52
118	8	-1.08	1.17
119	8	-1.08	1.17
120	8	-1.08	1.17
121	11	1.92	3.68
122	6	-3.08	9.50
123	11	1.92	3.68
124	5	-4.08	16.66
125	7	-2.08	4.33
126	8	-1.08	1.17
127	7	-2.08	4.33
128	6	-3.08	9.50
129	7	-2.08	4.33
130	7	-2.08	4.33
131	8	-1.08	1.17
132	8	-1.08	1.17
133	7	-2.08	4.33
134	11	1.92	3.68
135	8	-1.08	1.17
136	7	-2.08	4.33
137	10	0.92	0.84
138	4	-5.08	25.82
139	4	-5.08	25.82
140	12	2.92	8.52
141	12	2.92	8.52
142	4	-5.08	25.82
143	7	-2.08	4.33
144	10	0.92	0.84
145	8	-1.08	1.17
146	7	-2.08	4.33
147	5	-4.08	16.66
148	13	3.92	15.36
149	9	-0.08	0.01
150	6	-3.08	9.50
	399		339.64
	Sum(n)		Sum(n-N) ²

CIMARRON CORPORATION - CIMARRON FACILITY

TRUE MEAN ACTIVITY VS. GUIDELINE VALUE AT 95% CONFIDENCE

n = pCi/g TOTAL U

Number	n	(n-N)	(n-N) ²
151	9	-0.08	0.01
152	11	1.92	3.68
153	13	3.92	15.36
154	5	-4.08	16.66
155	7	-2.08	4.33
156	9	-0.08	0.01
157	7	-2.08	4.33
158	9	-0.08	0.01
159	7	-2.08	4.33
160	7	-2.08	4.33
161	10	0.92	0.84
162	4	-5.08	25.82
163	14	4.92	24.19
164	7	-2.08	4.33
165	6	-3.08	9.50
166	5	-4.08	16.66
167	11	1.92	3.68
168	8	-1.08	1.17
169	6	-3.08	9.50
170	12	2.92	8.52
171	8	-1.08	1.17
172	11	1.92	3.68
173	8	-1.08	1.17
174	11	1.92	3.68
175	9	-0.08	0.01
176	7	-2.08	4.33
177	9	-0.08	0.01
178	10	0.92	0.84
179	9	-0.08	0.01
180	12	2.92	8.52
181	9	-0.08	0.01
182	11	1.92	3.68
183	11	1.92	3.68
184	10	0.92	0.84
185	9	-0.08	0.01
186	10	0.92	0.84
187	5	-4.08	16.66
188	11	1.92	3.68
189	6	-3.08	9.50
190	7	-2.08	4.33
191	7	-2.08	4.33
192	6	-3.08	9.50
193	4	-5.08	25.82
194	6	-3.08	9.50
195	8	-1.08	1.17
196	10	0.92	0.84
197	7	-2.08	4.33
198	7	-2.08	4.33
199	13	3.92	15.36
200	8	-1.08	1.17
	426		300.24
	Sum(n)		Sum(n-N) ²

n = pCi/g TOTAL U

Number	n	(n-N)	(n-N) ²
201	16	6.92	47.87
202	10	0.92	0.84
203	7	-2.08	4.33
204	11	1.92	3.68
205	8	-1.08	1.17
206	16	6.92	47.87
207	11	1.92	3.68
208	6	-3.08	9.50
209	10	0.92	0.84
210	6	-3.08	9.50
211	7	-2.08	4.33
212	7	-2.08	4.33
213	4	-5.08	25.82
214	6	-3.08	9.50
215	4	-5.08	25.82
216	7	-2.08	4.33
217	8	-1.08	1.17
218	8	-1.08	1.17
219	9	-0.08	0.01
220	8	-1.08	1.17
221	6	-3.08	9.50
222	8	-1.08	1.17
223	5	-4.08	16.66
224	23	13.92	193.73
225	12	2.92	8.52
226	11	1.92	3.68
227	7	-2.08	4.33
228	9	-0.08	0.01
229	5	-4.08	16.66
230	10	0.92	0.84
231	11	1.92	3.68
232	8	-1.08	1.17
233	5	-4.08	16.66
234	8	-1.08	1.17
235	7	-2.08	4.33
236	11	1.92	3.68
237	12	2.92	8.52
238	8	-1.08	1.17
239	6	-3.08	9.50
240	9	-0.08	0.01
241	9	-0.08	0.01
242	10	0.92	0.84
243	5	-4.08	16.66
244	24	14.92	222.56
245	8	-1.08	1.17
246	9	-0.08	0.01
247	9	-0.08	0.01
248	7	-2.08	4.33
249	7	-2.08	4.33
250	7	-2.08	4.33
	445		766.15
	Sum(n)		Sum(n-N) ²

CIMARRON CORPORATION - CIMARRON FACILITY

TRUE MEAN ACTIVITY VS. GUIDELINE VALUE AT 95% CONFIDENCE

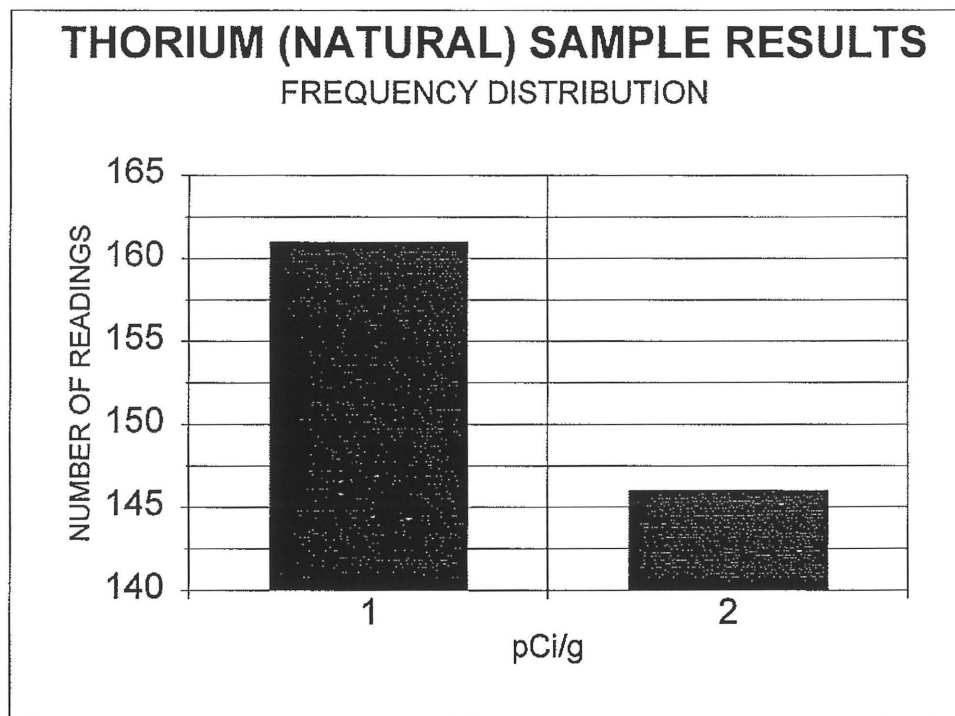
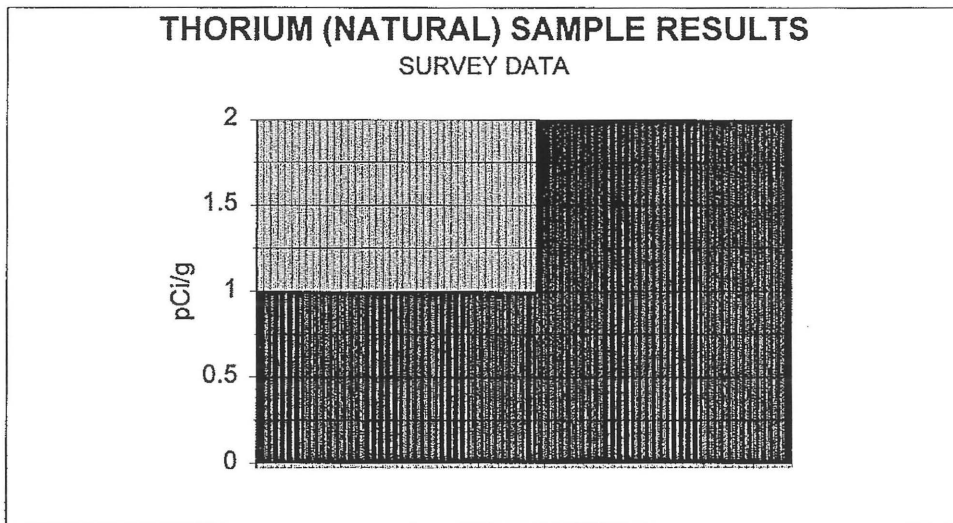
n = pCi/g TOTAL U

n = pCi/g TOTAL U

Number	n	(n-N)	(n-N) ²
251	7	-2.08	4.33
252	6	-3.08	9.50
253	6	-3.08	9.50
254	9	-0.08	0.01
255	10	0.92	0.84
256	8	-1.08	1.17
257	6	-3.08	9.50
258	7	-2.08	4.33
259	11	1.92	3.68
260	9	-0.08	0.01
261	5	-4.08	16.66
262	10	0.92	0.84
263	9	-0.08	0.01
264	10	0.92	0.84
265	9	-0.08	0.01
266	10	0.92	0.84
267	13	3.92	15.36
268	10	0.92	0.84
269	7	-2.08	4.33
270	7	-2.08	4.33
271	7	-2.08	4.33
272	12	2.92	8.52
273	4	-5.08	25.82
274	10	0.92	0.84
275	11	1.92	3.68
276	9	-0.08	0.01
277	9	-0.08	0.01
278	8	-1.08	1.17
279	12	2.92	8.52
280	12	2.92	8.52
281	8	-1.08	1.17
282	9	-0.08	0.01
283	10	0.92	0.84
284	9	-0.08	0.01
285	11	1.92	3.68
286	8	-1.08	1.17
287	13	3.92	15.36
288	11	1.92	3.68
289	5	-4.08	16.66
290	7	-2.08	4.33
291	6	-3.08	9.50
292	6	-3.08	9.50
293	3	-6.08	36.98
294	7	-2.08	4.33
295	13	3.92	15.36
296	13	3.92	15.36
297	6	-3.08	9.50
298	9	-0.08	0.01
299	3	-6.08	36.98
300	8	-1.08	1.17
	428		333.91
	Sum(n)		Sum(n-N) ²

Number	n	(n-N)	(n-N) ²
301	5	-4.08	16.66
302	6	-3.08	9.50
303	10	0.92	0.84
304	11	1.92	3.68
305	5	-4.08	16.66
306	8	-1.08	1.17
307	4	-5.08	25.82
308		0.00	0.00
309		0.00	0.00
310		0.00	0.00
311		0.00	0.00
312		0.00	0.00
313		0.00	0.00
314		0.00	0.00
315		0.00	0.00
316		0.00	0.00
317		0.00	0.00
318		0.00	0.00
319		0.00	0.00
320		0.00	0.00
321		0.00	0.00
322		0.00	0.00
323		0.00	0.00
324		0.00	0.00
325		0.00	0.00
326		0.00	0.00
327		0.00	0.00
328		0.00	0.00
329		0.00	0.00
330		0.00	0.00
331		0.00	0.00
332		0.00	0.00
333		0.00	0.00
334		0.00	0.00
335		0.00	0.00
336		0.00	0.00
337		0.00	0.00
338		0.00	0.00
339		0.00	0.00
340		0.00	0.00
341		0.00	0.00
342		0.00	0.00
343		0.00	0.00
344		0.00	0.00
345		0.00	0.00
346		0.00	0.00
347		0.00	0.00
348		0.00	0.00
349		0.00	0.00
350		0.00	0.00
	49		74.33
	Sum(n)		Sum(n-N) ²

**PHASE II, SUB-AREA "H" - DEPTH
 AFFECTED
 CIMARRON SOIL COUNTER
 THORIUM (NAT) SAMPLE RESULTS
 SITE BACKGROUND OF 1.5 pCi/g NOT SUBTRACTED**



NUMBER OF READINGS	307
AVERAGE READING	1
MINIMUM READING	1
MAXIMUM READING	2
STANDARD DEVIATION	0.5

CIMARRON CORPORATION - CIMARRON FACILITY
TRUE MEAN ACTIVITY VS. GUIDELINE VALUE AT 95% CONFIDENCE

$n = \text{pCi/g Th (NAT)}$

Number	n	(n-N)	(n-N) ²
1	2	0.52	0.28
2	1	-0.48	0.23
3	1	-0.48	0.23
4	1	-0.48	0.23
5	2	0.52	0.28
6	1	-0.48	0.23
7	1	-0.48	0.23
8	1	-0.48	0.23
9	1	-0.48	0.23
10	2	0.52	0.28
11	2	0.52	0.28
12	2	0.52	0.28
13	1	-0.48	0.23
14	1	-0.48	0.23
15	2	0.52	0.28
16	2	0.52	0.28
17	1	-0.48	0.23
18	2	0.52	0.28
19	2	0.52	0.28
20	2	0.52	0.28
21	1	-0.48	0.23
22	2	0.52	0.28
23	1	-0.48	0.23
24	1	-0.48	0.23
25	1	-0.48	0.23
26	1	-0.48	0.23
27	2	0.52	0.28
28	1	-0.48	0.23
29	2	0.52	0.28
30	1	-0.48	0.23
31	2	0.52	0.28
32	2	0.52	0.28
33	2	0.52	0.28
34	2	0.52	0.28
35	1	-0.48	0.23
36	2	0.52	0.28
37	1	-0.48	0.23
38	2	0.52	0.28
39	1	-0.48	0.23
40	2	0.52	0.28
41	1	-0.48	0.23
42	1	-0.48	0.23
43	1	-0.48	0.23
44	1	-0.48	0.23
45	1	-0.48	0.23
46	2	0.52	0.28
47	2	0.52	0.28
48	2	0.52	0.28
49	2	0.52	0.28
50	2	0.52	0.28
66			12.090
70			12.286
71			12.334
84			12.970
80			12.774
7			1.583
0			0.000
0			0.000
453			76.567
Sum(n)			Sum(n-N) ²

No. of Samples (x) : 307

COUNT TIME: 5 MINUTES

Sample Mean (N) = Sum(n) ÷ (x)

Sample Mean (N) : 1.48

Standard Deviation (Sd) = SQRT [(n-N)² ÷ (x - 1)]

Standard Deviation: 0.50

2 Std Deviations: 1.00

Degree of Freedom(df) = (x) - 1 Data listed on Table B-1

(df) = 1.652

Area's Average Level (Aμ) = (N) + (df) x [(Sd)/sqrt(x)]

(Aμ) = 1.52 pCi/gTh (NAT)

GUIDELINE VALUE: 10 pCi/gTh (NAT)

Acceptable Level: 4.0 pCi/gTh (NAT)

(25% OF GUIDELINE PLUS BACKGROUND)

TABLE B - 1

Factors for Comparison of Survey Data with Guidelines					
(df)	95%	97.5%	(df)	95%	97.5%
1	6.314	12.706	19	1.729	2.093
2	2.92	4.303	20	1.725	2.086
3	2.353	3.182	21	1.721	2.08
4	2.132	2.776	22	1.717	2.074
5	2.015	2.571	23	1.714	2.069
6	1.943	2.447	24	1.711	2.064
7	1.895	2.365	25	1.708	2.06
8	1.86	2.306	26	1.706	2.056
9	1.833	2.262	27	1.703	2.052
10	1.812	2.228	28	1.701	2.048
11	1.796	2.201	29	1.699	2.045
12	1.782	2.179	30	1.697	2.042
13	1.771	2.16	40	1.684	2.021
14	1.761	2.145	60	1.671	2
15	1.753	2.131	120	1.658	1.98
16	1.746	2.12	400	1.649	1.966
17	1.74	2.11	Infinite	1.645	1.96
18	1.734	2.101			

For values of Degrees of Freedom not listed:

Interpolate between the listed values.

(df) high value(Z) 400 is (B) 1.649 95%

(df) low value(Y) 120 is (A) 1.658 95%

Desired value(df) (X) 306 is calculated as follow:

$\text{EXP}[(\text{Ln}(\text{B}) - \text{Ln}(\text{A})) \div (\text{Z} - \text{Y})] (\text{X} - \text{Y}) + \text{Ln}(\text{A})$

The (df) value for (X) 306 1.652 95%

PERFORMED BY: L. Smith

DATE: 10-13-98

REVIEWED BY: W. A. Rogers

DATE: 10-13-98

CIMARRON CORPORATION - CIMARRON FACILITY

TRUE MEAN ACTIVITY VS. GUIDELINE VALUE AT 95% CONFIDENCE

n = pCi/g Th (NAT)

Number	n	(n-N)	(n-N) ²
51	1	-0.48	0.23
52	2	0.52	0.28
53	1	-0.48	0.23
54	1	-0.48	0.23
55	1	-0.48	0.23
56	2	0.52	0.28
57	1	-0.48	0.23
58	1	-0.48	0.23
59	1	-0.48	0.23
60	1	-0.48	0.23
61	1	-0.48	0.23
62	1	-0.48	0.23
63	1	-0.48	0.23
64	2	0.52	0.28
65	1	-0.48	0.23
66	1	-0.48	0.23
67	2	0.52	0.28
68	1	-0.48	0.23
69	1	-0.48	0.23
70	2	0.52	0.28
71	2	0.52	0.28
72	1	-0.48	0.23
73	1	-0.48	0.23
74	1	-0.48	0.23
75	1	-0.48	0.23
76	1	-0.48	0.23
77	2	0.52	0.28
78	2	0.52	0.28
79	2	0.52	0.28
80	1	-0.48	0.23
81	2	0.52	0.28
82	1	-0.48	0.23
83	1	-0.48	0.23
84	2	0.52	0.28
85	1	-0.48	0.23
86	1	-0.48	0.23
87	2	0.52	0.28
88	1	-0.48	0.23
89	2	0.52	0.28
90	1	-0.48	0.23
91	1	-0.48	0.23
92	1	-0.48	0.23
93	1	-0.48	0.23
94	1	-0.48	0.23
95	2	0.52	0.28
96	1	-0.48	0.23
97	1	-0.48	0.23
98	1	-0.48	0.23
99	2	0.52	0.28
100	2	0.52	0.28
	66		12.090
	Sum(n)		Sum(n-N) ²

n = pCi/g Th (NAT)

Number	n	(n-N)	(n-N) ²
101	2	0.52	0.28
102	2	0.52	0.28
103	1	-0.48	0.23
104	2	0.52	0.28
105	1	-0.48	0.23
106	1	-0.48	0.23
107	2	0.52	0.28
108	2	0.52	0.28
109	1	-0.48	0.23
110	1	-0.48	0.23
111	2	0.52	0.28
112	1	-0.48	0.23
113	2	0.52	0.28
114	1	-0.48	0.23
115	1	-0.48	0.23
116	2	0.52	0.28
117	1	-0.48	0.23
118	1	-0.48	0.23
119	2	0.52	0.28
120	1	-0.48	0.23
121	1	-0.48	0.23
122	1	-0.48	0.23
123	1	-0.48	0.23
124	2	0.52	0.28
125	1	-0.48	0.23
126	2	0.52	0.28
127	1	-0.48	0.23
128	2	0.52	0.28
129	1	-0.48	0.23
130	1	-0.48	0.23
131	2	0.52	0.28
132	1	-0.48	0.23
133	2	0.52	0.28
134	2	0.52	0.28
135	2	0.52	0.28
136	1	-0.48	0.23
137	2	0.52	0.28
138	1	-0.48	0.23
139	1	-0.48	0.23
140	2	0.52	0.28
141	1	-0.48	0.23
142	1	-0.48	0.23
143	1	-0.48	0.23
144	1	-0.48	0.23
145	1	-0.48	0.23
146	2	0.52	0.28
147	1	-0.48	0.23
148	2	0.52	0.28
149	1	-0.48	0.23
150	1	-0.48	0.23
	70		12.286
	Sum(n)		Sum(n-N) ²

CIMARRON CORPORATION - CIMARRON FACILITY

TRUE MEAN ACTIVITY VS. GUIDELINE VALUE AT 95% CONFIDENCE

n = pCi/g Th (NAT)			
Number	n	(n-N)	(n-N) ²
151	1	-0.48	0.23
152	2	0.52	0.28
153	1	-0.48	0.23
154	1	-0.48	0.23
155	1	-0.48	0.23
156	2	0.52	0.28
157	1	-0.48	0.23
158	1	-0.48	0.23
159	2	0.52	0.28
160	1	-0.48	0.23
161	2	0.52	0.28
162	2	0.52	0.28
163	1	-0.48	0.23
164	2	0.52	0.28
165	1	-0.48	0.23
166	1	-0.48	0.23
167	1	-0.48	0.23
168	2	0.52	0.28
169	2	0.52	0.28
170	1	-0.48	0.23
171	2	0.52	0.28
172	1	-0.48	0.23
173	1	-0.48	0.23
174	1	-0.48	0.23
175	1	-0.48	0.23
176	2	0.52	0.28
177	2	0.52	0.28
178	1	-0.48	0.23
179	2	0.52	0.28
180	2	0.52	0.28
181	2	0.52	0.28
182	2	0.52	0.28
183	1	-0.48	0.23
184	1	-0.48	0.23
185	1	-0.48	0.23
186	1	-0.48	0.23
187	1	-0.48	0.23
188	2	0.52	0.28
189	1	-0.48	0.23
190	1	-0.48	0.23
191	1	-0.48	0.23
192	1	-0.48	0.23
193	2	0.52	0.28
194	2	0.52	0.28
195	1	-0.48	0.23
196	1	-0.48	0.23
197	2	0.52	0.28
198	2	0.52	0.28
199	1	-0.48	0.23
200	2	0.52	0.28
	71		12.334
	Sum(n)		Sum(n-N) ²

n = pCi/g Th (NAT)			
Number	n	(n-N)	(n-N) ²
201	2	0.52	0.28
202	2	0.52	0.28
203	2	0.52	0.28
204	2	0.52	0.28
205	1	-0.48	0.23
206	2	0.52	0.28
207	1	-0.48	0.23
208	1	-0.48	0.23
209	1	-0.48	0.23
210	2	0.52	0.28
211	2	0.52	0.28
212	2	0.52	0.28
213	1	-0.48	0.23
214	1	-0.48	0.23
215	1	-0.48	0.23
216	2	0.52	0.28
217	2	0.52	0.28
218	2	0.52	0.28
219	2	0.52	0.28
220	2	0.52	0.28
221	2	0.52	0.28
222	2	0.52	0.28
223	2	0.52	0.28
224	2	0.52	0.28
225	2	0.52	0.28
226	1	-0.48	0.23
227	2	0.52	0.28
228	2	0.52	0.28
229	1	-0.48	0.23
230	2	0.52	0.28
231	1	-0.48	0.23
232	1	-0.48	0.23
233	2	0.52	0.28
234	2	0.52	0.28
235	2	0.52	0.28
236	1	-0.48	0.23
237	1	-0.48	0.23
238	2	0.52	0.28
239	2	0.52	0.28
240	2	0.52	0.28
241	2	0.52	0.28
242	2	0.52	0.28
243	2	0.52	0.28
244	2	0.52	0.28
245	2	0.52	0.28
246	2	0.52	0.28
247	2	0.52	0.28
248	1	-0.48	0.23
249	1	-0.48	0.23
250	1	-0.48	0.23
	84		12.970
	Sum(n)		Sum(n-N) ²

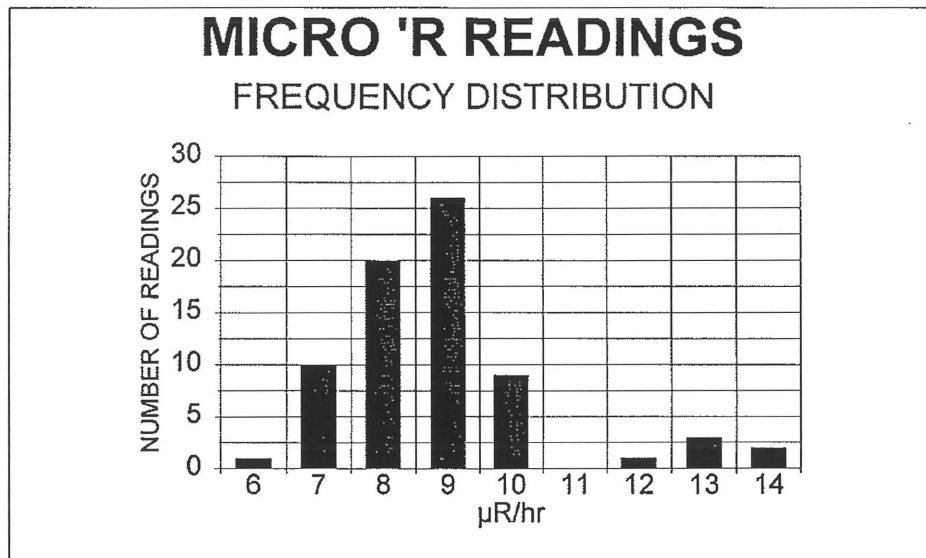
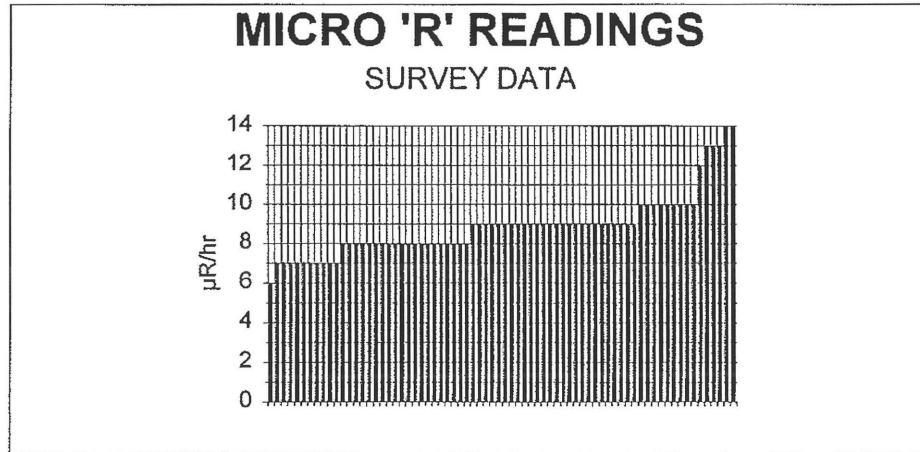
CIMARRON CORPORATION - CIMARRON FACILITY

TRUE MEAN ACTIVITY VS. GUIDELINE VALUE AT 95% CONFIDENCE

n = pCi/g Th (NAT)			
Number	n	(n-N)	(n-N) ²
251	1	-0.48	0.23
252	1	-0.48	0.23
253	1	-0.48	0.23
254	2	0.52	0.28
255	2	0.52	0.28
256	1	-0.48	0.23
257	2	0.52	0.28
258	2	0.52	0.28
259	2	0.52	0.28
260	2	0.52	0.28
261	2	0.52	0.28
262	1	-0.48	0.23
263	2	0.52	0.28
264	1	-0.48	0.23
265	2	0.52	0.28
266	2	0.52	0.28
267	1	-0.48	0.23
268	2	0.52	0.28
269	2	0.52	0.28
270	2	0.52	0.28
271	2	0.52	0.28
272	2	0.52	0.28
273	2	0.52	0.28
274	2	0.52	0.28
275	1	-0.48	0.23
276	2	0.52	0.28
277	2	0.52	0.28
278	2	0.52	0.28
279	2	0.52	0.28
280	1	-0.48	0.23
281	1	-0.48	0.23
282	2	0.52	0.28
283	1	-0.48	0.23
284	2	0.52	0.28
285	2	0.52	0.28
286	2	0.52	0.28
287	1	-0.48	0.23
288	1	-0.48	0.23
289	2	0.52	0.28
290	1	-0.48	0.23
291	1	-0.48	0.23
292	2	0.52	0.28
293	1	-0.48	0.23
294	1	-0.48	0.23
295	2	0.52	0.28
296	2	0.52	0.28
297	2	0.52	0.28
298	1	-0.48	0.23
299	1	-0.48	0.23
300	1	-0.48	0.23
	80		12.774
	Sum(n)		Sum(n-N) ²

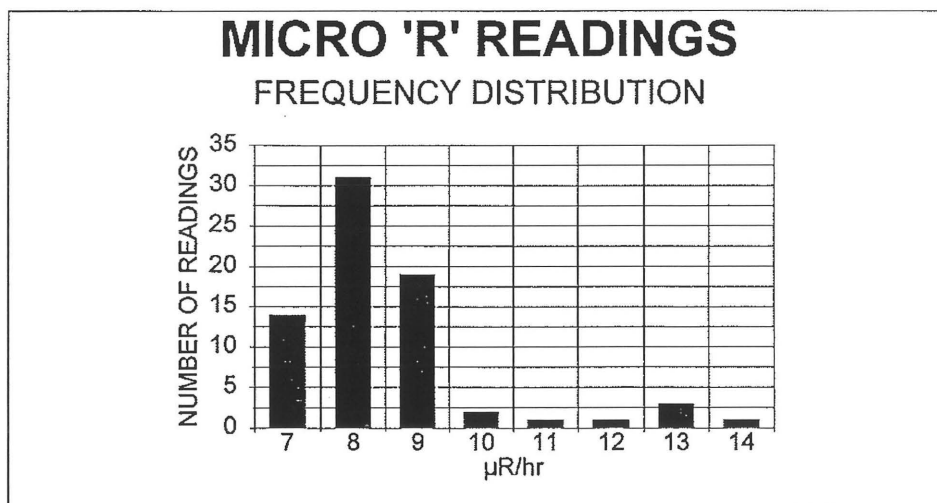
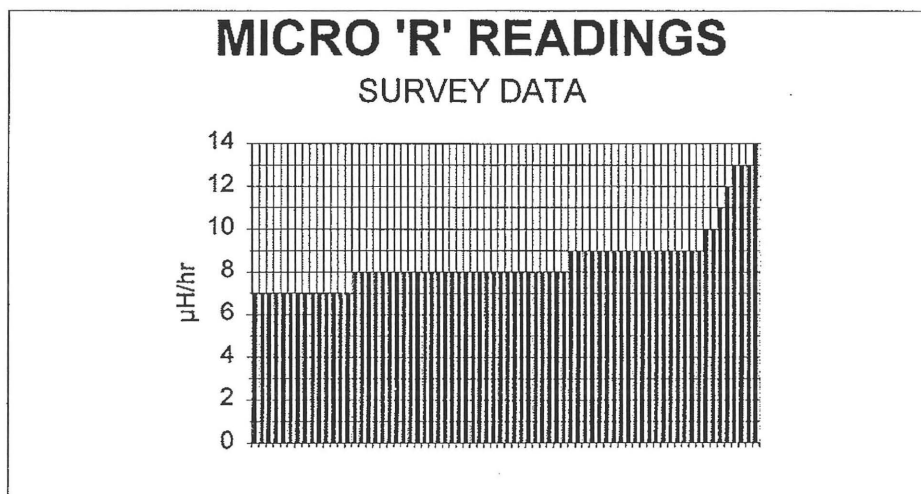
n = pCi/g Th (NAT)			
Number	n	(n-N)	(n-N) ²
301	1	-0.48	0.23
302	1	-0.48	0.23
303	1	-0.48	0.23
304	1	-0.48	0.23
305	1	-0.48	0.23
306	1	-0.48	0.23
307	1	-0.48	0.23
308		0.00	0.00
309		0.00	0.00
310		0.00	0.00
311		0.00	0.00
312		0.00	0.00
313		0.00	0.00
314		0.00	0.00
315		0.00	0.00
316		0.00	0.00
317		0.00	0.00
318		0.00	0.00
319		0.00	0.00
320		0.00	0.00
321		0.00	0.00
322		0.00	0.00
323		0.00	0.00
324		0.00	0.00
325		0.00	0.00
326		0.00	0.00
327		0.00	0.00
328		0.00	0.00
329		0.00	0.00
330		0.00	0.00
331		0.00	0.00
332		0.00	0.00
333		0.00	0.00
334		0.00	0.00
335		0.00	0.00
336		0.00	0.00
337		0.00	0.00
338		0.00	0.00
339		0.00	0.00
340		0.00	0.00
341		0.00	0.00
342		0.00	0.00
343		0.00	0.00
344		0.00	0.00
345		0.00	0.00
346		0.00	0.00
347		0.00	0.00
348		0.00	0.00
349		0.00	0.00
350		0.00	0.00
	7		1.583
	Sum(n)		Sum(n-N) ²

PHASE II, SUB-AREA "H"
AFFECTED AREA DEPTH
MICRO 'R' READINGS AT SURFACE
LUDLUM MODEL 19, S/N111299
RESULTS IN $\mu\text{R/hr}$
SEPTEMBER 1998



NUMBER OF READINGS	72
AVERAGE READING	9
MINIMUM READING	6
MAXIMUM READING	14
STANDARD DEVIATION	2

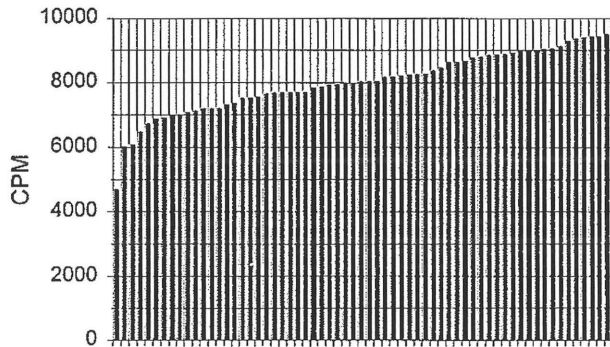
PHASE II, SUB-AREA "H"
AFFECTED AREA DEPTH
MICRO 'R' READINGS AT 1 METER ABOVE SURFACE
LUDLUM MODEL 19, S/N111299
RESULTS IN $\mu\text{R/hr}$
SEPTEMBER 1998



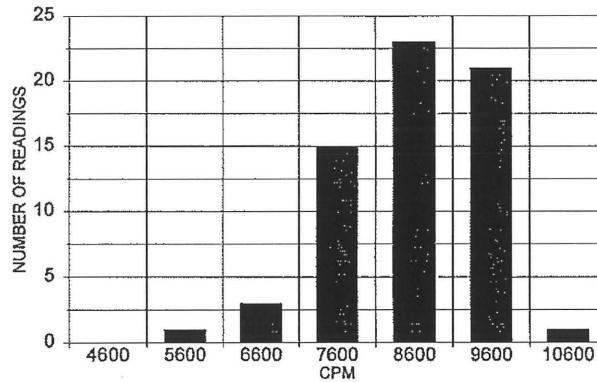
NUMBER OF READINGS	72
AVERAGE READING	9
MINIMUM READING	7
MAXIMUM READING	14
STANDARD DEVIATION	1

'PHASE II, SUB-AREA "H"
AFFECTED AREA DEPTH SAMPLES
'GROSS GAMMA READINGS IN CPM
'LUDLUM MODEL 2221, S/N 97264
SEPTEMBER, 1998

3" NaI UNSHIELDED DETECTOR READINGS
SURVEY DATA

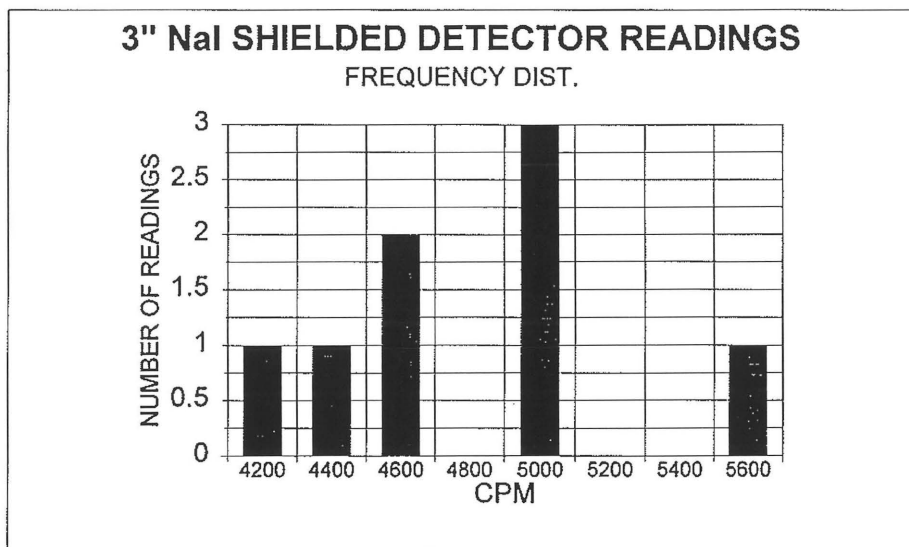
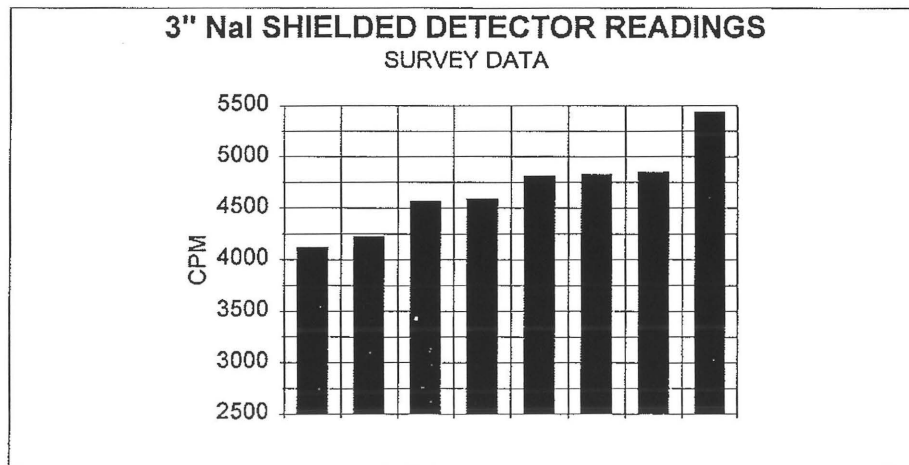


3" NaI UNSHIELDED DETECTOR READINGS
FREQUENCY DISTRIBUTION

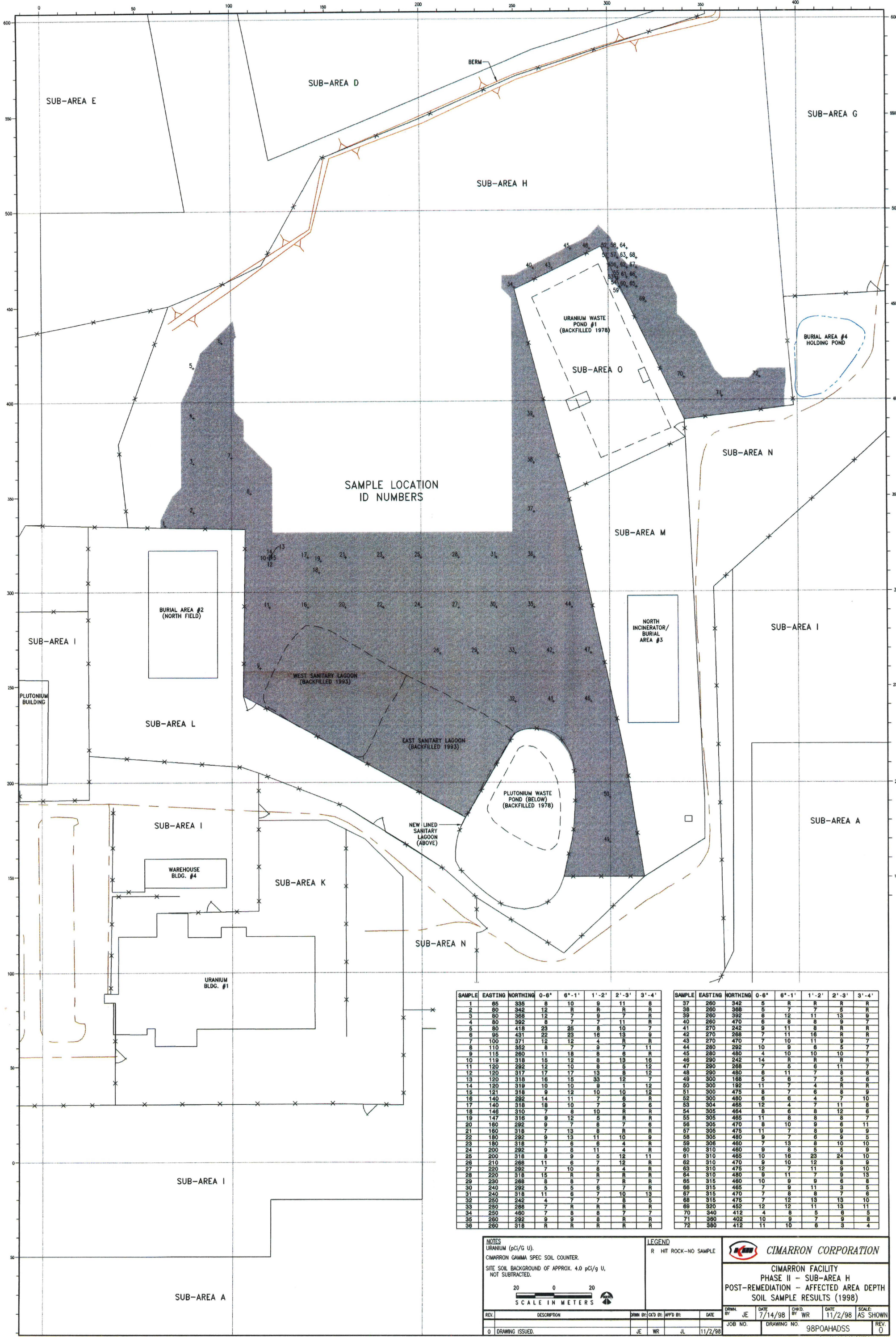


NUMBER OF READINGS	64
AVERAGE READING	8039
MINIMUM READING	4694
MAXIMUM READING	9690
STANDARD DEVIATION	967

PHASE II, SUB-AREA "H"
AFFECTED AREA DEPTH SAMPLES
GROSS GAMMA READINGS IN CPM
LUDLUM MODEL 2221, SHIELDED DETECTOR S/N 97264
SEPTEMBER, 1998



NUMBER OF READINGS	8
AVAERAGE READING	4680
MINIMUM READING	4120
MAXIMUM READING	5440
STANDARD DEVIATION	384



SAMPLE	EASTING	NORTHING	0'-6"	6"-1'	1'-2'	2'-3'	3'-4'
1	65	335	8	10	9	11	8
2	80	342	12	R	R	R	R
3	80	368	12	7	9	7	R
4	80	392	8	7	7	11	R
5	80	418	23	25	8	10	7
6	95	431	22	23	16	13	9
7	100	371	12	12	4	R	R
8	110	352	8	7	9	7	11
9	115	260	11	18	8	6	R
10	119	318	16	12	8	13	16
11	120	292	12	10	8	5	12
12	120	317	17	17	13	8	12
13	120	318	16	15	33	12	7
14	120	319	10	10	9	1	12
15	121	318	9	12	10	10	12
16	140	292	14	11	7	8	R
17	140	318	16	10	7	9	6
18	146	310	7	8	10	R	R
19	147	316	9	12	5	R	R
20	180	292	9	7	8	7	6
21	180	318	7	13	8	R	R
22	180	292	9	13	11	10	9
23	180	318	7	8	6	4	R
24	200	292	9	8	11	4	R
25	200	318	8	9	5	12	11
26	210	268	11	6	7	12	R
27	220	292	7	10	8	4	R
28	220	318	15	R	R	R	R
29	230	268	8	8	7	R	R
30	240	292	5	5	6	7	R
31	240	318	11	6	7	10	13
32	250	242	4	7	7	8	5
33	250	268	7	R	R	R	R
34	250	480	7	8	8	7	7
35	250	292	9	9	8	R	R
36	260	318	R	R	R	R	R

SAMPLE	EASTING	NORTHING	0'-6"	6"-1'	1'-2'	2'-3'	3'-4'
37	260	342	5	R	R	R	R
38	260	368	5	7	7	5	R
39	260	392	8	12	11	13	8
40	260	470	6	8	8	9	7
41	270	242	9	11	8	R	R
42	270	268	7	11	16	R	R
43	270	470	7	10	11	9	7
44	280	292	10	9	6	5	7
45	280	480	4	10	10	10	7
46	290	242	14	R	R	R	R
47	290	268	7	6	6	11	7
48	290	480	6	11	7	8	6
49	300	168	5	6	7	5	6
50	300	192	11	7	4	R	R
51	300	475	8	7	6	8	9
52	300	480	6	6	4	7	10
53	304	465	12	4	7	11	8
54	305	464	8	6	8	12	6
55	305	465	11	8	8	8	7
56	305	470	8	10	9	6	11
57	305	475	11	7	8	9	9
58	305	480	9	7	6	9	5
59	306	480	7	13	8	10	10
60	310	460	9	8	5	5	9
61	310	465	10	16	23	24	10
62	310	470	9	10	12	8	9
63	310	475	12	7	11	9	10
64	310	480	9	11	7	9	13
65	315	460	10	9	9	8	8
66	315	465	7	9	11	9	5
67	315	470	7	8	8	7	6
68	315	475	7	12	13	13	10
69	320	452	12	12	11	13	11
70	340	412	4	8	5	6	5
71	360	402	10	9	7	9	8
72	360	412	11	10	6	9	4

NOTES
URANIUM (pCi/g U).
CIMARRON GAMMA SPEC SOIL COUNTER.
SITE SOIL BACKGROUND OF APPROX. 4.0 pCi/g U,
NOT SUBTRACTED.

20 0 20
SCALE IN METERS

LEGEND
R HIT ROCK-NO SAMPLE

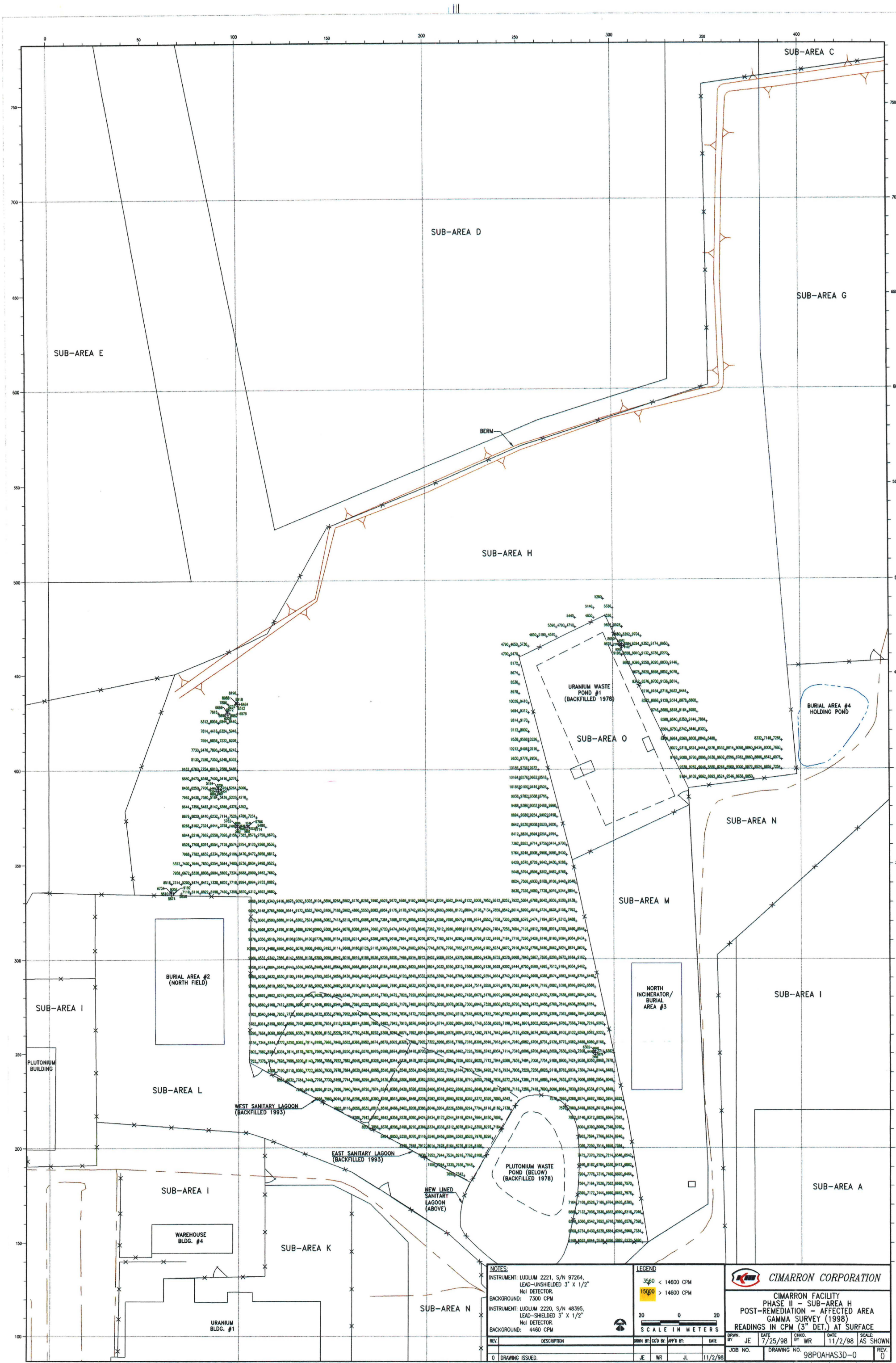
CIMARRON CORPORATION

CIMARRON FACILITY
PHASE II - SUB-AREA H
POST-REMEDIATION - AFFECTED AREA DEPTH
SOIL SAMPLE RESULTS (1998)

REV.	DESCRIPTION	DRAWN BY	DATE	CHECKED BY	DATE	APPROVED BY	DATE
0	DRAWING ISSUED.	JE	WR	JL	11/2/98		

DRAWN BY	DATE	CHECKED BY	DATE	SCALE
JE	7/14/98	WR	11/2/98	AS SHOWN
JOB NO.	DRAWING NO.	98POHADSS	REV.	0

\\CIMARRON\SUBAREA\DEPTH\98POHADSS



NOTES:

INSTRUMENT: LUDLUM 2221, S/N 97264,
LEAD-UNSHIELDED 3" x 1/2"
NoI DETECTOR.
BACKGROUND: 7300 CPM

INSTRUMENT: LUDLUM 2220, S/N 48395,
LEAD-SHIELDED 3" x 1/2"
NoI DETECTOR.
BACKGROUND: 4460 CPM

LEGEND

3560 < 14600 CPM
15000 > 14600 CPM

20 0 20
SCALE IN METERS

CIMARRON CORPORATION

CIMARRON FACILITY
PHASE II - SUB-AREA H
POST-REMEDIATION - AFFECTED AREA
GAMMA SURVEY (1998)
READINGS IN CPM (3" DET.) AT SURFACE

DRAWN BY: JE	DATE: 7/25/98	CHECKED BY: WR	DATE: 11/2/98	SCALE: AS SHOWN
JOB NO.	DRAWING NO. 98POAHAS3D-0	REV. 0		

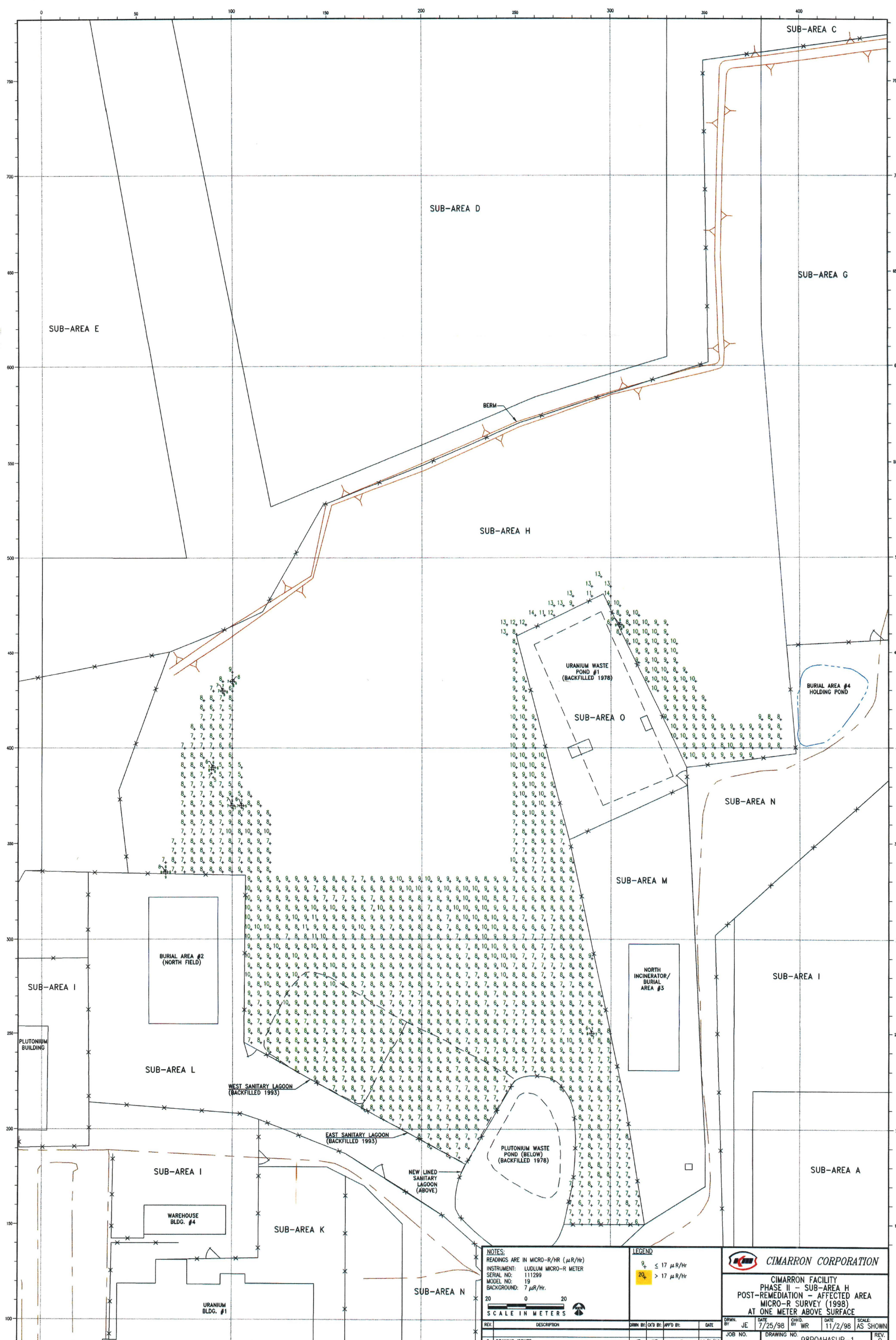


NOTES:
READINGS ARE IN MICRO-R/HR ($\mu R/HR$)
INSTRUMENT: LUDLUM MICRO-R METER
SERIAL NO: 111299
MODEL NO: 19
BACKGROUND: 7 $\mu R/HR$



LEGEND
 $\mu R \leq 17 \mu R/HR$
 $20 \mu R > 17 \mu R/HR$


CIMARRON CORPORATION			
CIMARRON FACILITY PHASE II - SUB-AREA H POST-REMEDIATION - AFFECTED AREA MICRO-R SURVEY (1998) AT LAND SURFACE			
REV.	DESCRIPTION	DATE	BY
0	DRAWING ISSUED	11/2/98	JE WR



NOTES:
READINGS ARE IN MICRO-R/HR ($\mu\text{R}/\text{hr}$)
INSTRUMENT: LUDLUM MICRO-R METER
SERIAL NO: 111299
MODEL NO: 19
BACKGROUND: $7 \mu\text{R}/\text{hr}$

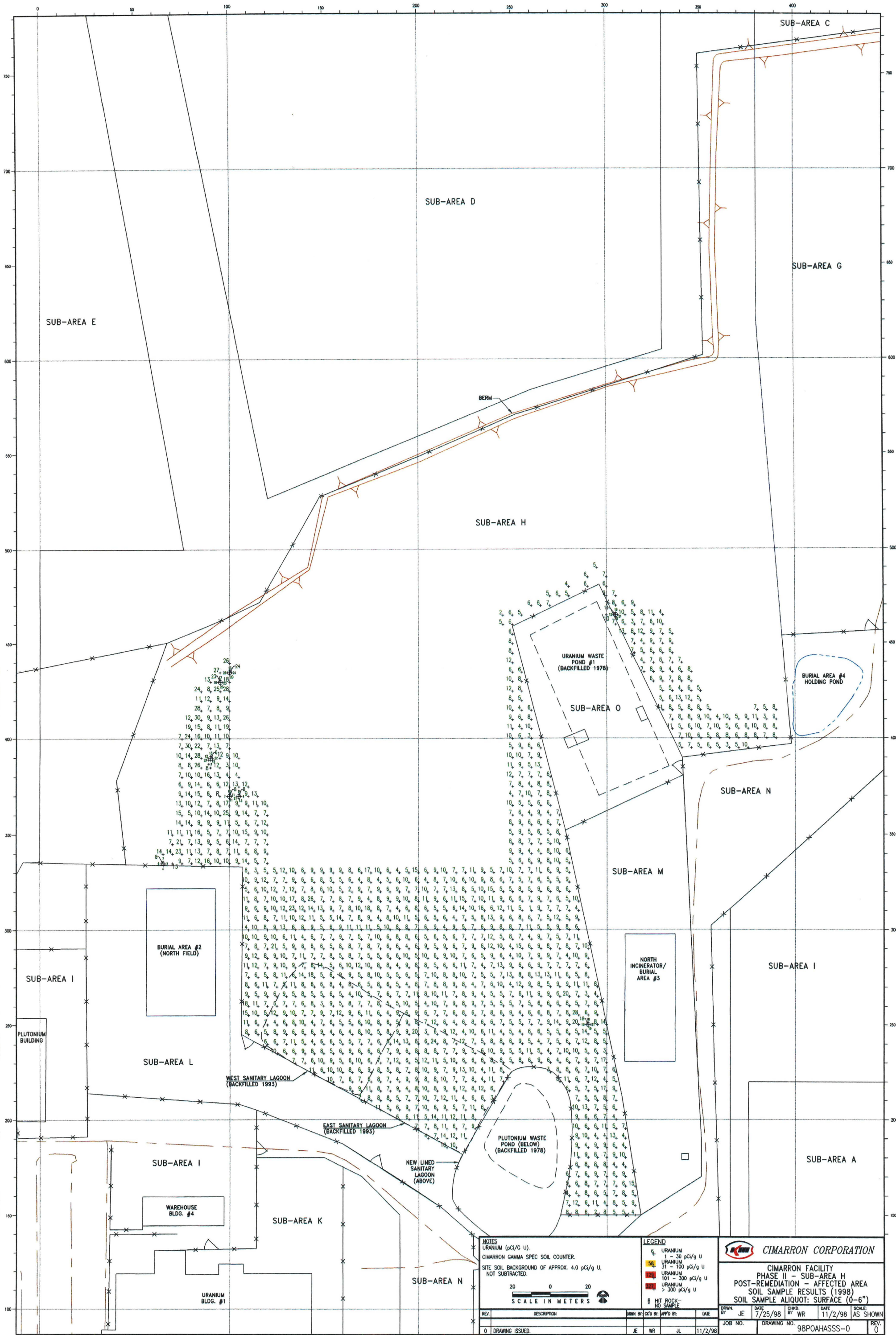
SCALE IN METERS

LEGEND
 $9_+ \leq 17 \mu\text{R}/\text{hr}$
 $20_+ > 17 \mu\text{R}/\text{hr}$

**CIMARRON CORPORATION**

CIMARRON FACILITY
PHASE II - SUB-AREA H
POST-REMEDIATION - AFFECTED AREA
MICRO-R SURVEY (1998)
AT ONE METER ABOVE SURFACE

DRWN. BY: JE	DATE: 7/25/98	CHKD. BY: WR	DATE: 11/2/98	SCALE: AS SHOWN
JOB NO.	DRAWING NO.	98POHASUR-1	REV. 0	



CIMARRON CORPORATION
CIMARRON FACILITY
SUB-AREA "H" AFFECTED
EAST PIPELINE TO RIVER - SURFACE

DATE: 6/29/98

LN #	GRID NUMBER					3" DETECT C.P.M.	MICRO R' SURF	MICRO R' 1 METER	0-6" Sample	
									Total-U	Th (Nat)
1	325	E	-	461	N	8756	8	8	12	2
2	328	E	-	465	N	8902	10	10	10	2
3	332	E	-	468	N	8898	10	10	11	2
4	334	E	-	468	N	8948	10	10	11	2
5	335	E	-	473	N	8558	9	10	13	2
6	336	E	-	478	N	8432	9	9	12	2
7	337	E	-	483	N	7812	8	8	15	2
8	339	E	-	488	N	6924	7	8	7	1
9	340	E	-	493	N	6812	7	8	14	1
10	342	E	-	498	N	6484	8	7	4	1
11	344	E	-	503	N	6418	6	7	15	2
12	345	E	-	508	N	6750	8	8	10	2
13	347	E	-	513	N	6820	7	8	6	2
14	349	E	-	518	N	6918	8	9	8	1
15	350	E	-	522	N	7206	8	9	8	1
16	352	E	-	526	N	6220	7	8	9	1
17	354	E	-	531	N	6972	8	8	13	1
18	355	E	-	536	N	6980	7	8	6	1
19	356	E	-	541	N	6868	8	8	8	2
20	356	E	-	546	N	6594	7	8	9	1

INSTRUMENTS:

RESULTS IN:

BACKGROUND

MDA

LUDLUM MICRO 'R' METER - MODEL 19 S/N 111299

µR/hr

7

2

LUDLUM 2221, UNSHIELDED 3" X 1/2" NaI DETECTOR S/N 97264

CPM

8000

N/A

Total U 4 10

CIMMARON SOIL COUNTER 4" X 4" X 16" NaI DETECTOR

pCi/g

Thorium 1.5 1

BACKGROUND NOT SUBTRACTED

PAGE 1

FILE: HEASTPIPSURF

W.A. Rogers

DATE: 7-6-98