

CIMARRON CORPORATION
CIMARRON FACILITY
PHASE III, SUB-AREA "L"
FINAL SURFACE SURVEY AFTER BACK FILL

DATE: 10/22/97

LN #	GRID NUMBER	3" DETECT C.P.M.	MICRO R' SURF	MICRO R' 1 METER	0-6" Sample	
					Total-U	Th (Nat)
1	175E - 175N	4620	10	8	6.3	1.5
2	175E - 180N	3750	7	6	6.3	1.2
3	175E - 185N	3730	8	7	6.6	1.1
4	175E - 190N	3610	8	8	6.4	1.5
5	175E - 195N	4370	8	9	3.9	1.4
6	175E - 200N	3680	8	8	5.4	2
7	175E - 205N	3600	7	8	5.1	1.3
8	180E - 175N	3640	7	9	6.6	1.3
9	180E - 180N	3230	6	8	4.4	1.1
10	180E - 185N	3720	8	7	19.4	1.1
11	180E - 190N	3950	8	7	3.2	1.2
12	180E - 195N	3890	7	7	3.3	1.4
13	180E - 200N	3850	7	8	9.5	1.1
14	185E - 170N	4550	8	8	5.5	1.5
15	185E - 175N	3780	7	7	8	0.8
16	185E - 180N	3790	7	6	3.7	1.4
17	185E - 185N	3860	7	6	9	1.3
18	185E - 190N	3520	7	8	5.5	1.4
19	185E - 195N	3630	8	7	4.7	1.5
20	190E - 170N	3000	7	6	2.8	0.9
21	190E - 175N	3450	7	6	5.5	1.5
22	190E - 180N	3680	6	8	2.8	1.1
23	190E - 185N	3410	7	9	22.2	1.2
24	190E - 190N	3860	8	8	6.6	1.1
25	190E - 195N	3930	7	8	1.8	1.4

INSTRUMENTS:

LUDLUM MICRO 'R' METER MODEL 12S S/N 111299

LUDLUM 220, LEAD SHIELDED 3" X 1/2" NaI DETECTOR

S/N 48395

RESULTS IN BACKGROUND

μR/hr

7

CPM

3000

MDA

7

N/A

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

pCi/g

Total U

4

Th(Nat)

1.5

10

1

BACKGROUND NOT SUBTRACTED

REVIEWED BY: *W. C. Rogers* DATE: 10-27-97

**CIMARRON CORPORATION
CIMARRON FACILITY
PHASE III, SUB-AREA "L"
FINAL SURFACE SURVEY AFTER BACK FILL**

DATE: 10/22/97

LN #	GRID NUMBER	3" DETECT C.P.M.	MICRO R' SURF	MICRO R' 1 METER	0-6" Sample	
					Total-U	Th (Nat)
1	195E - 165N	4120	8	8	25.6	0.8
2	195E - 170N	3070	7	7	2.6	1
3	195E - 175N	4200	8	7	7.6	1.5
4	195E - 180N	3690	8	8	9.1	1.1
5	195E - 185N	3990	8	8	6.5	1.6
6	195E - 190N	4110	9	8	6.2	1.9
7	200E - 165N	3160	7	6	5.6	1.1
8	200E - 170N	3770	8	8	7.4	1.6
9	200E - 175N	3230	8	7	6.3	1
10	200E - 180N	3880	8	7	10.1	1.4
11	200E - 185N	4030	8	8	6.7	1.5
12	200E - 190N	3380	8	8	5.7	1
13	205E - 160N	4110	7	7	10.7	1.2
14	205E - 165N	3290	8	8	5	1.2
15	205E - 170N	3460	6	7	6.4	1.5
16	205E - 175N	4190	8	8	7	1.2
17	205E - 180N	3020	8	8	7.8	1.3
18	205E - 185N	3530	7	8	7.8	1.3
19	210E - 155N	4170	9	8	18.3	1.1
20	210E - 160N	3800	7	7	5.7	1.1
21	210E - 165N	2620	6	5	3.5	1
22	210E - 170N	3130	6	6	4.6	1
23	210E - 175N	2850	5	6	5.2	1
24	210E - 180N	2910	7	7	3.3	1.1
25	210E - 185N	3220	6	7	7.2	1.1

INSTRUMENTS:

LUDLUM MICRO 'R' METER MODEL 12S S/N 111299
LUDLUM 220, LEAD SHIELDED 3" X 1/2" NaI DETECTOR

S/N 48395

RESULTS IN BACKGROUND MDA

μR/hr	7	7
CPM	3000	N/A
Total U	4	10
pCi/g Th(Nat)	1.5	1

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

BACKGROUND NOT SUBTRACTED

REVIEWED BY: *W. A. Rogers* DATE: 10-27-97

CIMARRON CORPORATION
CIMARRON FACILITY
PHASE III, SUB-AREA "L"
FINAL SURFACE SURVEY AFTER BACK FILL

DATE: 10/22/97

LN #	GRID NUMBER	3" DETECT C.P.M.	MICRO R' SURF	MICRO R' 1 METER	0-6" Sample	
					Total-U	Th (Nat)
1	215E - 155N	3280	8	7	12.1	0.9
2	215E - 160N	2380	5	5	3.9	0.8
3	215E - 165N	3050	6	6	7.3	1.1
4	215E - 170N	2790	7	6	4.6	0.9
5	215E - 175N	2870	5	7	5.7	1.2
6	215E - 180N	3570	7	6	8.2	1.2
7	220E - 150N	3670	8	8	5.1	1.3
8	220E - 155N	2250	5	6	4	0.8
9	220E - 160N	3570	7	7	5.7	1.3
10	220E - 165N	2920	5	5	2.7	1.3
11	220E - 170N	2900	5	6	3.8	0.8
12	220E - 175N	2850	8	6	5.8	1
13	220E - 180N	3720	7	8	9.4	1.1
14	225E - 145N	3540	6	6	6	1.1
15	225E - 150N	3570	7	7	17	1.3
16	225E - 155N	3490	8	7	4.4	1.4
17	225E - 160N	3700	7	8	3.2	1.2
18	225E - 165N	3560	7	7	5.1	1.3
19	225E - 170N	3470	7	7	3.3	1.3
20	225E - 175N	3640	7	7	7.1	0.8
21	225E - 180N	3970	8	8	6.1	1.5
22						
23						
24						
25						

INSTRUMENTS:

LUDLUM MICRO 'R' METER MODEL 12S S/N 111299

LUDLUM 220, LEAD SHIELDED 3" X 1/2" NaI DETECTOR

S/N 48395

RESULTS IN BACKGROUND

μR/hr 7

CPM 3000

Total U 4

pCi/g Th(Nat) 1.5

MDA

7

N/A

10

1

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

BACKGROUND NOT SUBTRACTED

REVIEWED BY: *W.A. Rogers* DATE: 10-27-97

FILE: BKSSFORM

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CIMARRON CORPORATION
CIMARRON FACILITY
PHASE III, SUB-AREA "L"
FINAL SURFACE SURVEY AFTER BACK FILL

DATE: 10/22/97

LN #	GRID NUMBER	3" DETECT C.P.M.	MICRO R' SURF	MICRO R' 1 METER	0-6" Sample	
					Total-U	Th (Nat)
1	230E - 140N	3930	7	6	15.6	1.2
2	230E - 145N	3560	6	8	5.6	1.1
3	230E - 150N	3230	7	7	3.8	0.9
4	230E - 155N	3360	7	7	4.9	1.1
5	230E - 160N	3440	9	8	7.9	1.3
6	230E - 165N	3490	7	7	8	1.1
7	230E - 170N	3600	6	7	7	1.2
8	230E - 175N	3790	8	8	7.5	1.2
9	230E - 180N	3790	8	8	7.1	1.2
10	230E - 185N	3230	7	8	4.8	1.3
11	230E - 190N	3170	7	7	4.4	1.3
12	235E - 140N	2840	5	5	3.2	1.2
13	235E - 145N	2510	5	6	4.7	0.9
14	235E - 150N	3560	7	7	3.7	1.6
15	235E - 155N	3390	6	6	6.1	1.3
16	235E - 160N	3500	6	7	6.1	1.3
17	235E - 165N	3400	8	8	6.9	1.2
18	235E - 170N	3310	7	6	6.8	1.2
19	235E - 175N	3260	7	7	6.8	1.3
20	235E - 180N	3750	7	7	6.6	1.5
21	235N - 185N	3810	8	8	7.3	1.1
22	235N - 190N	4360	8	10	7.7	1.5
23	235N - 195N	3710	9	8	7	1.2
24						
25						

INSTRUMENTS:

RESULTS IN BACKGROUND MDA

LUDLUM MICRO 'R' METER MODEL 12S S/N 111299

μR/hr

7

7

LUDLUM 220, LEAD SHIELDED 3" X 1/2" NaI DETECTOR

S/N 48395

CPM

3000

N/A

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

pCi/g

Total U

4

10

Th(Nat)

1.5

1

BACKGROUND NOT SUBTRACTED

REVIEWED BY: *W.G. Rogers*

DATE: 10-27-97

FILE: BKSSFORM

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CIMARRON CORPORATION
CIMARRON FACILITY
PHASE III, SUB-AREA "L"
FINAL SURFACE SURVEY AFTER BACK FILL

DATE: 10/22/97

LN #	GRID NUMBER	3" DETECT C.P.M.	MICRO R' SURF	MICRO R' 1 METER	0-6" Sample	
					Total-U	Th (Nat)
1	240E - 135N	2820	7	8	4.9	0.8
2	240E - 140N	2930	8	8	4.1	0.9
3	240E - 145N	3300	6	8	4.9	1.4
4	240E - 150N	3780	7	7	4.7	1.3
5	240E - 155N	3340	5	6	4.8	1.4
6	240E - 160N	3380	7	7	3.5	1.4
7	240E - 165N	3440	7	8	7.9	1.3
8	240E - 170N	3870	8	8	6.3	1.3
9	240E - 175N	4000	7	8	6.1	1.2
10	240E - 180N	4260	7	7	9.4	1.2
11	240E - 185N	3700	7	8	6.2	1.4
12	240E - 190N	3700	8	8	4.7	1.2
13	240E - 195N	3890	9	10	3.2	1.6
14	240E - 200N	4600	9	9	4.3	1.6
15	240E - 205N	4250	8	8	6.4	1.4
16						
17						
18						
19						
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23						
24						
25						

INSTRUMENTS:

LUDLUM MICRO 'R' METER MODEL 12S S/N 111299

LUDLUM 220, LEAD SHIELDED 3" X 1/2" NaI DETECTOR

S/N 48395

RESULTS IN BACKGROUND

MDA

μR/hr

7

7

CPM

3000

N/A

Total U

4

10

pCi/g

Th(Nat)

1.5

1

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

BACKGROUND NOT SUBTRACTED

REVIEWED BY: W.A. Rogers DATE: 10-27-97

FILE: BKSSFORM

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CIMARRON CORPORATION
CIMARRON FACILITY
PHASE III, SUB-AREA "L"
FINAL SURFACE SURVEY AFTER BACK FILL

DATE: 10/22/97

LN #	GRID NUMBER	3" DETECT C.P.M.	MICRO R' SURF	MICRO R' 1 METER	0-6" Sample	
					Total-U	Th (Nat)
1	245E - 135N	3140	7	7	5	1
2	245E - 140N	3910	9	8	4.8	1.5
3	245E - 145N	3860	7	7	6	1.2
4	245E - 150N	3180	7	8	7.2	1.2
5	245E - 155N	3190	6	7	3.9	1.2
6	245E - 160N	3090	6	6	7.6	0.9
7	245E - 165N	3830	7	7	8.1	1.2
8	245E - 170N	3750	7	8	4.3	1.4
9	245E - 175N	3490	7	7	6.5	1.1
10	245E - 180N	3620	7	8	5.4	1.4
11	245E - 185N	3750	6	7	6.5	1
12	245E - 190N	3650	7	8	5.1	1.3
13	245E - 195N	3090	7	7	5	1.4
14	245E - 200N	4040	7	8	5.4	1.2
15	245E - 205N	3840	7	7	4.1	1.3
16	245E - 210N	4620	7	7	3.1	1.4
17	245E - 215N	3430	7	8	2.5	1.3
18						
19						
20						
21						
22						
23						
24						
25						

INSTRUMENTS:

LUDLUM MICRO 'R' METER MODEL 12S S/N 111299

LUDLUM 220, LEAD SHIELDED 3" X 1/2" NaI DETECTOR

S/N 48395

RESULTS IN BACKGROUND

MDA

µR/hr

7

7

CPM

3000

N/A

Total U

4

10

pCi/g

Th(Nat)

1.5

1

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

BACKGROUND NOT SUBTRACTED

REVIEWED BY:

W. A. Rogers

DATE: 10-27-97

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CIMARRON FACILITY
PHASE III, SUB-AREA "L"
FINAL SURFACE SURVEY AFTER BACK FILL

DATE: 10/22/97

LN #	GRID NUMBER	3" DETECT C.P.M.	MICRO R' SURF	MICRO R' 1 METER	0-6" Sample	
					Total-U	Th (Nat)
1	250E - 130N	3380	7	7	2.5	1.2
2	250E - 135N	3310	6	6	4.1	1.1
3	250E - 140N	3560	7	7	5.8	1.2
4	250E - 145N	3730	7	8	4.7	1.1
5	250E - 150N	3260	7	7	4.3	1.1
6	250E - 155N	3350	7	7	6.1	1.1
7	250E - 160N	2890	7	8	3.8	1.4
8	250E - 165N	3250	7	8	5	1.2
9	250E - 170N	3270	7	7	3.5	1.2
10	250E - 175N	3010	6	7	4.8	1.5
11	250E - 180N	3390	7	8	5.7	1
12	250E - 185N	3580	8	8	3.9	1.4
13	250E - 190N	3680	8	7	3.7	1.3
14	250E - 195N	3760	8	9	2.3	1.5
15	250E - 200N	3670	8	8	4.8	1.3
16	250E - 205N	3590	8	8	4.3	1.4
17	250E - 210N	3830	8	8	4.9	1.2
18	250E - 215N	4280	8	8	5.1	1.2
19	250E - 220N	3400	7	8	4.7	1
20	250E - 225N	3010	7	7	6.1	0.8
21						
22						
23						
24						
25						

INSTRUMENTS:

LUDLUM MICRO 'R' METER MODEL 12S S/N 111299

LUDLUM 220, LEAD SHIELDED 3" X 1/2" NaI DETECTOR

S/N 48395

RESULTS IN BACKGROUND

µR/hr

7

CPM

3000

MDA

7

N/A

Total U

4

10

pCi/g

Th(Nat)

1.5

1

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

BACKGROUND NOT SUBTRACTED

REVIEWED BY:

W.A. Rogers

DATE: 10-27-97

CIMARRON CORPORATION
CIMARRON FACILITY
PHASE III, SUB-AREA "L"
FINAL SURFACE SURVEY AFTER BACK FILL

DATE: 10/22/97

LN #	GRID NUMBER	3" DETECT C.P.M.	MICRO R' SURF	MICRO R' 1 METER	0-6" Sample	
					Total-U	Th (Nat)
1	255E - 125N	3400	7	7	5	1.1
2	255E - 130N	2590	7	7	1	1
3	255E - 135N	3760	7	7	4.6	1.4
4	255E - 140N	3750	8	8	4.6	1
5	255E - 145N	3120	7	7	2.5	1
6	255E - 150N	3020	7	7	5.3	1
7	255E - 155N	3390	7	8	2.2	1.2
8	255E - 160N	3240	7	7	3	1
9	255E - 165N	3170	7	8	3.9	0.7
10	255E - 170N	3540	7	7	4.9	0.9
11	255E - 175N	3880	7	8	3.7	1.3
12	255E - 180N	4020	7	7	4.6	1.1
13	255E - 185N	3930	7	7	5.5	1.3
14	255E - 190N	4070	7	8	5.4	1.2
15	255E - 195N	3740	7	7	4.1	1.4
16	255E - 200N	3360	8	8	3.2	1.3
17	255E - 205N	4000	7	7	4.8	1.2
18	255E - 210N	3420	7	7	4.9	1.3
19	255E - 215N	4230	8	8	7.1	1.6
20	255E - 220N	4250	8	8	3.7	1.4
21	255E - 225N	3490	7	7	3.6	1.3
22						
23						
24						
25						

INSTRUMENTS:

LUDLUM MICRO 'R' METER MODEL 12S S/N 111299
LUDLUM 220, LEAD SHIELDED 3" X 1/2" NaI DETECTOR

S/N 48395

RESULTS IN BACKGROUND

MDA

µR/hr	7	7
CPM	3000	N/A
Total U	4	10
Th(Nat)	1.5	1

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

pCi/g

BACKGROUND NOT SUBTRACTED

REVIEWED BY: *W.A. Rogers* DATE: *10-27-97*

FILE: BKSSFORM
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CIMARRON CORPORATION
CIMARRON FACILITY
PHASE III, SUB-AREA "L"
FINAL SURFACE SURVEY AFTER BACK FILL

DATE: 10/22/97

LN #	GRID NUMBER	3" DETECT C.P.M.	MICRO R' SURF	MICRO R' 1 METER	0-6" Sample	
					Total-U	Th (Nat)
1	260E - 125N	3370	7	7	5.6	1.1
2	260E - 130N	2680	6	7	2.6	0.7
3	260E - 135N	3770	8	7	3.2	1.6
4	260E - 140N	3760	8	8	3.4	1.4
5	260E - 145N	3000	7	7	7.6	0.8
6	260E - 150N	3290	7	6	5.1	0.9
7	260E - 155N	3270	7	7	4.8	0.9
8	260E - 160N	3540	7	7	1	1.2
9	260E - 165N	3360	7	6	3.5	1.1
10	260E - 170N	3550	7	8	1.2	1.2
11	260E - 175N	3490	7	7	5.1	1
12	260E - 180N	3740	7	7	2.1	1.4
13	260E - 185N	3780	8	8	3.6	1.4
14	260E - 190N	4120	7	7	4.8	1.1
15	260E - 195N	3750	7	8	7.1	1
16	260E - 200N	3830	7	8	5.7	1.1
17	260E - 205N	4260	7	7	3.7	1
18	260E - 210N	4140	7	8	6.2	1.1
19	260E - 215N	4210	8	8	1.6	1.4
20	260E - 220N	4000	8	8	3.8	1.4
21	260E - 225N	3980	7	8	3.3	1.1
22						
23						
24						
25						

INSTRUMENTS:

RESULTS IN BACKGROUND MDA

LUDLUM MICRO 'R' METER MODEL 12S S/N 111299

µR/hr

7

7

LUDLUM 220, LEAD SHIELDED 3" X 1/2" NaI DETECTOR

S/N 48395

CPM

3000

N/A

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

pCi/g

Total U

4

10

Th(Nat)

1.5

1

BACKGROUND NOT SUBTRACTED

REVIEWED BY: *W. A. Rogers* DATE: 10-27-97

FILE: BKSSFORM

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CIMARRON CORPORATION
CIMARRON FACILITY
PHASE III, SUB-AREA "L"
FINAL SURFACE SURVEY AFTER BACK FILL

DATE: 10/22/97

LN #	GRID NUMBER	3" DETECT C.P.M.	MICRO R' SURF	MICRO R' 1 METER	0-6" Sample	
					Total-U	Th (Nat)
1	265E - 120N	3350	7	7	3.9	1.2
2	265E - 125N	2850	7	7	5.4	0.9
3	265E - 130N	3990	8	8	4.3	1.4
4	265E - 135N	3520	7	7	2.6	1
5	265E - 140N	3360	7	6	3.8	1.2
6	265E - 145N	2990	7	7	1.5	1.1
7	265E - 150N	3180	8	8	4.7	0.9
8	265E - 155N	3560	7	8	1.6	1.3
9	265E - 160N	3500	7	7	4.3	1.1
10	265E - 165N	3160	7	7	2.6	1
11	265E - 170N	3960	8	8	5.6	1.1
12	265E - 175N	3720	7	8	5.3	1.1
13	265E - 180N	3730	7	7	3.4	1.4
14	265E - 185N	3510	8	9	3.6	1.2
15	265E - 190N	3630	7	8	3.5	1.2
16	265E - 195N	3690	8	8	6	1.2
17	265E - 200N	3780	8	8	4.1	1.1
18	265E - 205N	4180	9	9	4.3	1.2
19	265E - 210N	3540	8	7	4.1	1.2
20	265E - 215N	3960	8	8	6.5	1.5
21	265E - 220N	4770	9	8	9.7	1.2
22						
23						
24						
25						

INSTRUMENTS:

LUDLUM MICRO 'R' METER MODEL 12S S/N 111299
LUDLUM 220, LEAD SHIELDED 3" X 1/2" NaI DETECTOR

S/N 48395

RESULTS IN BACKGROUND

MDA

μR/hr	7	7
CPM	3000	N/A
Total U	4	10
pCi/g Th(Nat)	1.5	1

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

BACKGROUND NOT SUBTRACTED

REVIEWED BY: *W. A. Rogers* DATE: 10-27-97

CIMARRON CORPORATION
CIMARRON FACILITY
PHASE III, SUB-AREA "L"
FINAL SURFACE SURVEY AFTER BACK FILL

DATE: 10/22/97

LN #	GRID NUMBER	3" DETECT C.P.M.	MICRO R' SURF	MICRO R' 1 METER	0-6" Sample	
					Total-U	Th (Nat)
1	270E - 120N	3120	7	7	3	1
2	270E - 125N	3000	7	7	4	1
3	270E - 130N	3040	7	8	2.9	1.6
4	270E - 135N	3490	7	7	5.9	0.9
5	270E - 140N	3320	6	6	1.7	1.3
6	270E - 145N	3440	7	8	5.4	1.1
7	270E - 150N	3680	7	7	4.3	1.2
8	270E - 155N	3260	7	7	1.9	1.2
9	270E - 160N	3150	7	8	3	1
10	270E - 165N	3430	8	8	2.1	1
11	270E - 170N	3710	7	8	5.2	1.1
12	270E - 175N	3430	7	7	3.9	1.1
13	270E - 180N	3760	7	7	3.7	1.3
14	270E - 185N	3260	7	8	3.2	1.2
15	270E - 190N	3450	8	9	7	1.1
16	270E - 195N	3700	8	8	5.4	1.3
17	270E - 200N	3580	8	8	6.1	1.3
18	270E - 205N	4320	7	7	5.6	1.2
19	270E - 210N	4010	7	7	5	1.5
20	270E - 215N	4320	8	8	3.3	1.4
21	270E - 220N	4090	8	8	3.6	1.6
22						
23						
24						
25						

INSTRUMENTS:

LUDLUM MICRO 'R' METER MODEL 12S S/N 111299

LUDLUM 220, LEAD SHIELDED 3" X 1/2" NaI DETECTOR

S/N 48395

RESULTS IN BACKGROUND

µR/hr

CPM

7

3000

MDA

7

N/A

Total U

Th(Nat)

4

1.5

10

1

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

BACKGROUND NOT SUBTRACTED

REVIEWED BY: *W.A. Rogers* DATE: 10-27-97

CIMARRON CORPORATION
CIMARRON FACILITY
PHASE III, SUB-AREA "L"
FINAL SURFACE SURVEY AFTER BACK FILL

DATE: 10/22/97

LN #	GRID NUMBER	3" DETECT C.P.M.	MICRO R' SURF	MICRO R' 1 METER	0-6" Sample	
					Total-U	Th (Nat)
1	275E - 115N	3570	7	7	7.4	0.9
2	275E - 120N	3280	7	7	4.2	1.3
3	275E - 125N	2860	7	7	2.6	1.1
4	275E - 130N	2420	6	6	3.4	1
5	275E - 135N	3270	7	7	1.6	1.1
6	275E - 140N	3540	8	7	3.3	1.1
7	275E - 145N	3270	7	7	4.9	1
8	275E - 150N	3530	8	8	4.8	1.2
9	275E - 155N	3100	7	7	1.6	1.2
10	275E - 160N	2930	7	7	3.8	0.9
11	275E - 165N	3560	7	7	3.3	1.3
12	275E - 170N	3620	7	7	3.6	1.2
13	275E - 175N	3510	7	8	4.4	1.4
14	275E - 180N	3370	8	9	4.8	1.2
15	275E - 185N	3810	8	8	3.2	1.2
16	275E - 190N	4240	7	8	2.4	1.1
17	275E - 195N	3900	7	7	6.3	1
18	275E - 200N	4250	8	8	3.9	1.3
19	275E - 205N	4160	7	8	5	1.2
20	275E - 210N	4750	9	9	5.2	1.4
21	275E - 215N	3950	8	8	6.3	1
22						
23						
24						
25						

INSTRUMENTS:

LUDLUM MICRO 'R' METER MODEL 12S S/N 111299

LUDLUM 220, LEAD SHIELDED 3" X 1/2" NaI DETECTOR

S/N 48395

RESULTS IN BACKGROUND

MDA

µR/hr

7

7

CPM

3000

N/A

Total U

4

10

Th(Nat)

1.5

1

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

pCi/g

BACKGROUND NOT SUBTRACTED

REVIEWED BY: W. a. Rogers DATE: 10-27-97

CIMARRON CORPORATION
CIMARRON FACILITY
PHASE III, SUB-AREA "L"
FINAL SURFACE SURVEY AFTER BACK FILL

DATE: 10/22/97

LN #	GRID NUMBER	3" DETECT C.P.M.	MICRO R' SURF	MICRO R' 1 METER	0-6" Sample	
					Total-U	Th (Nat)
1	280E - 120N	3060	7	7	1.6	0.9
2	280E - 125N	2890	7	7	2.2	1
3	280E - 130N	2560	7	7	1.4	0.9
4	280E - 135N	3150	8	8	1.9	0.7
5	280E - 140N	3440	6	7	3.3	0.8
6	280E - 145N	2900	7	7	3.1	0.5
7	280E - 150N	3460	7	7	2.4	0.6
8	280E - 190N	3410	8	7	3.6	1.4
9	280E - 195N	3810	7	7	4.9	1.2
10	280E - 200N	4500	8	8	4.4	1.5
11	280E - 205N	4280	7	8	2.8	1.5
12	280E - 210N	3690	7	7	2.2	1.3
13	285E - 125N	2820	5	6	3.6	1.5
14	285E - 130N	2840	6	6	3.4	1.2
15	285E - 135N	2810	6	7	5.2	0.8
16	285E - 140N	3000	7	7	3.6	1
17	285E - 145N	3350	7	7	3.5	1.2
18	285E - 150N	3690	6	7	3.1	1.1
19	290E - 125N	3270	6	7	2.8	1.1
20	290E - 130N	2600	6	6	3.4	1
21	290E - 135N	2850	7	7	3.2	1.1
22	290E - 140N	3280	7	7	4.9	1.2
23	290E - 145N	2720	6	6	3.1	1.2
24	290E - 150N	3170	7	6	2.2	1.1
25						

INSTRUMENTS:

LUDLUM MICRO 'R' METER MODEL 12S S/N 111299

LUDLUM 220, LEAD SHIELDED 3" X 1/2" NaI DETECTOR

S/N 48395

RESULTS IN BACKGROUND

µR/hr

7

CPM

3000

MDA

7

N/A

Total U

4

10

pCi/g

Th(Nat)

1.5

1

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

BACKGROUND NOT SUBTRACTED

REVIEWED BY:

W.A. Rogers

DATE: 10-27-97

FILE: BKSSFORM

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CIMARRON CORPORATION
CIMARRON FACILITY
PHASE III, SUB-AREA "L"
FINAL SURFACE SURVEY AFTER BACK FILL

DATE: 10/22/97

LN #	GRID NUMBER	3" DETECT C.P.M.	MICRO R' SURF	MICRO R' 1 METER	0-6" Sample	
					Total-U	Th (Nat)
1	295E - 130N	2650	7	7	3.6	0.9
2	295E - 135N	2930	7	8	3.4	0.9
3	295E - 140N	3210	7	7	4.2	1.2
4	295E - 145N	2960	6	7	1.3	1.3
5	295E - 150N	2820	7	7	6.3	0.5
6	300E - 135N	3150	5	6	3.2	1.1
7	300E - 140N	2740	7	7	3.1	0.9
8	300E - 145N	2700	7	6	1.3	1.3
9	300E - 150N	3130	6	6	4.8	1.1
10	305E - 140N	3220	6	7	2.3	1.2
11	305E - 145N	3280	6	6	4.9	1.3
12	305E - 150N	2770	6	7	5.1	0.9
13	310E - 145N	2450	7	7	4.4	0.8
14	310E - 150N	2110	5	6	1.6	0.9
15	315E - 150N	2940	6	7	3.7	1
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						

INSTRUMENTS:

RESULTS IN BACKGROUND

MDA

LUDLUM MICRO 'R' METER MODEL 12S S/N 111299

LUDLUM 220, LEAD SHIELDED 3" X 1/2" NaI DETECTOR

S/N 48395

μR/hr
CPM

7
3000

7
N/A

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

pCi/g

Total U 4
Th(Nat) 1.5

10
1

BACKGROUND NOT SUBTRACTED

REVIEWED BY: *W. A. Rogers* DATE: 10-27-97

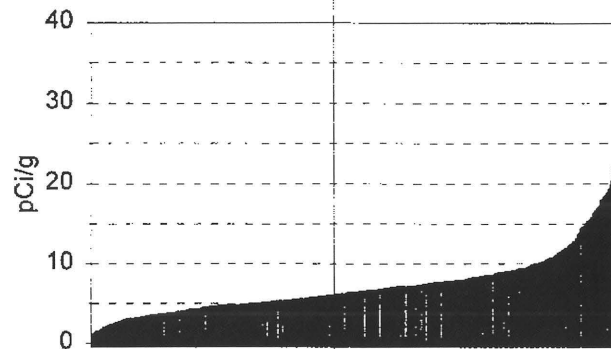
FILE: BKSSFORM

PAGE 35

**SUB AREA "L" - SURFACE
AFFECTED LAND
CIMARRON SOIL COUNTER
TOTAL URANIUM SOIL SAMPLE RESULTS
SITE BACKGROUND OF 4 pCi/g NOT SUBTRACTED
OCTOBER 1997**

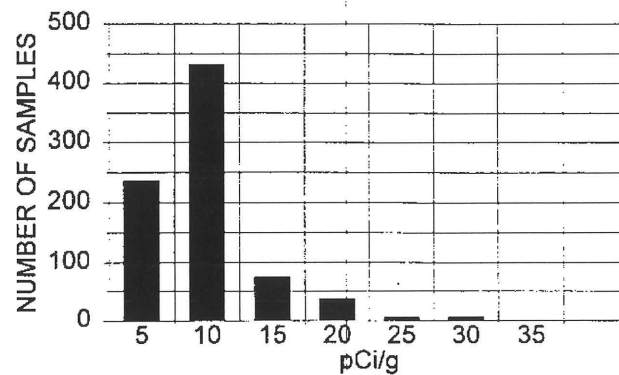
URANIUM SAMPLES RESULTS

SURVEY DATA



URANIUM SAMPLE RESULTS

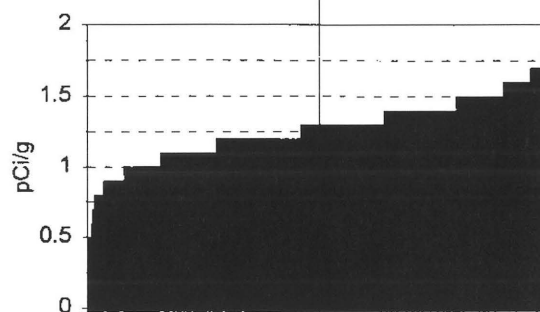
FREQUENCY DISTRIBUTION



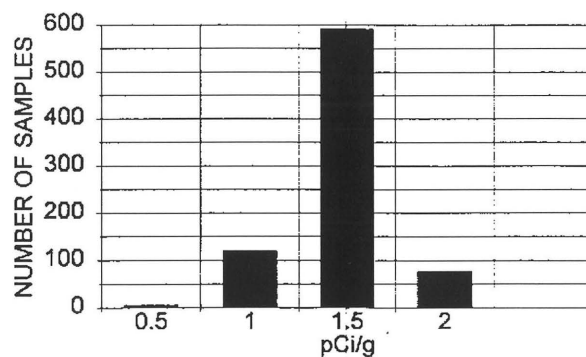
NUMBER OF SAMPLES	795
AVERAGE SAMPLE	7.3534
MINIMUM SAMPLE	5
MAXIMUM SAMPLE	35.1
STANDARD DEVIATION	4.2811

**PHASE III, SUB AREA "L" - SURFACE
 AFFECTED LAND
 CIMARRON SOIL COUNTER
 THORIUM (NAT) SAMPLE RESULTS
 SITE BACKGROUND OF 1.5 pCi/g NOT SUBTRACTED
 OCTOBER 1997**

THORIUM SAMPLE RESULTS
 SURVEY DATA



THORIUM SAMPLE RESULTS
 FREQUENCY DISTRIBUTION

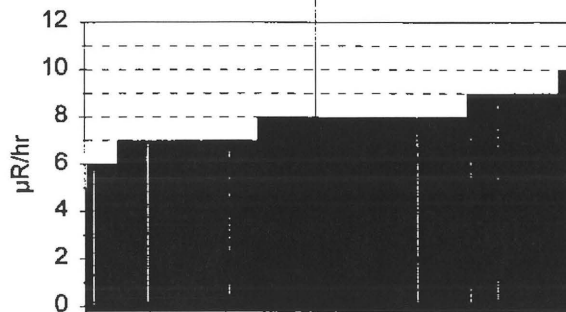


NUMBER OF SAMPLES	795
AVERAGE SAMPLE	1.26
MINIMUM SAMPLE	0.5
MAXIMUM SAMPLE	2
STANDARD DEVIATION	0.2394

PHASE III, SUB AREA "L" - SURFACE
AFFECTED LAND
MICRO 'R' READINGS AT 1 METER ABOVE SURFACE
LUDLUM MODEL 12S, S/N 111299
RESULTS IN $\mu\text{R/hr}$
OCTOBER 1997

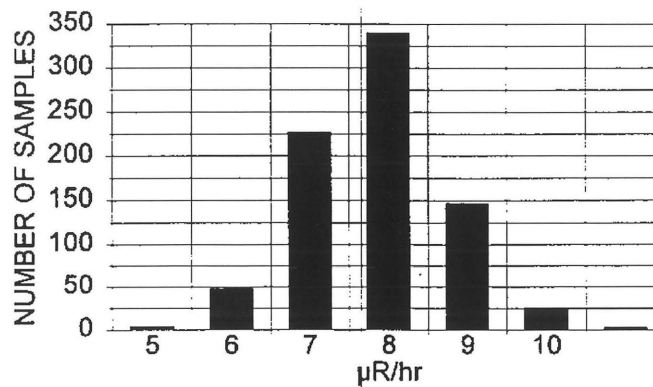
MICRO 'R' READINGS

SURVEY DATA



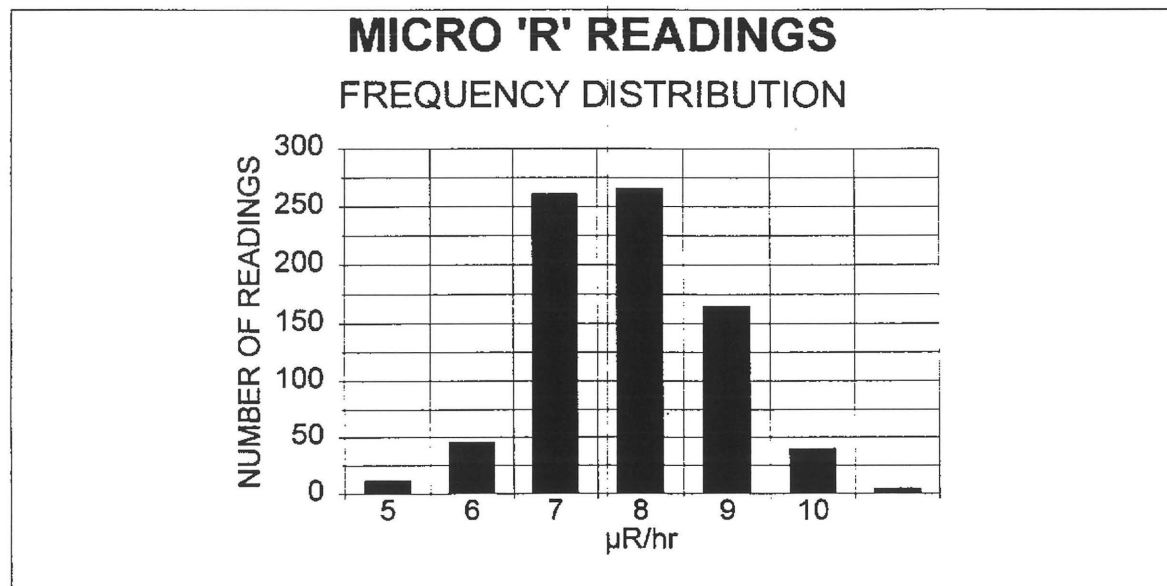
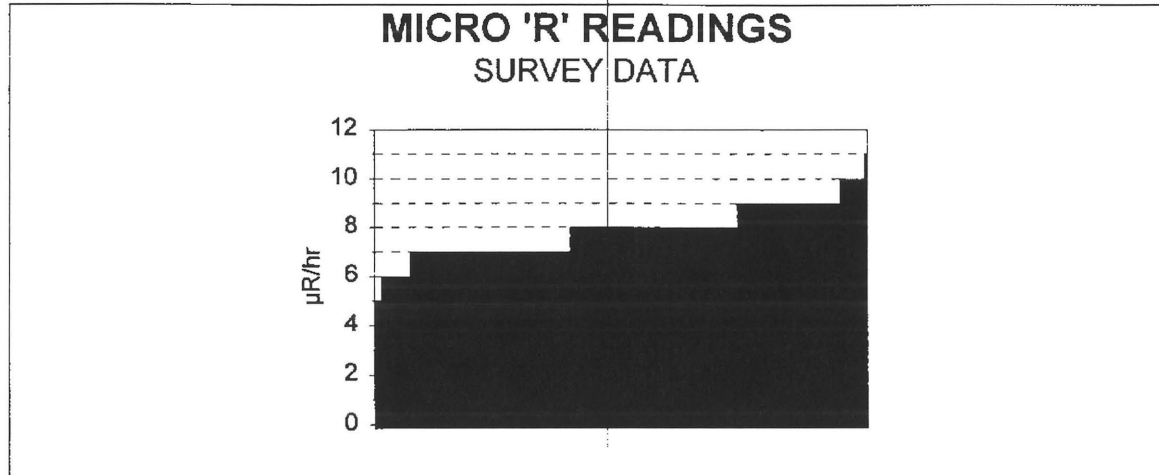
MICRO R READINGS

FREQUENCY DISTRIBUTION



NUMBER OF READINGS	795
AVERAGE READING	7.812
MINIMUM READING	5
MAXIMUM READING	12
STANDARD DEVIATION	1.0642

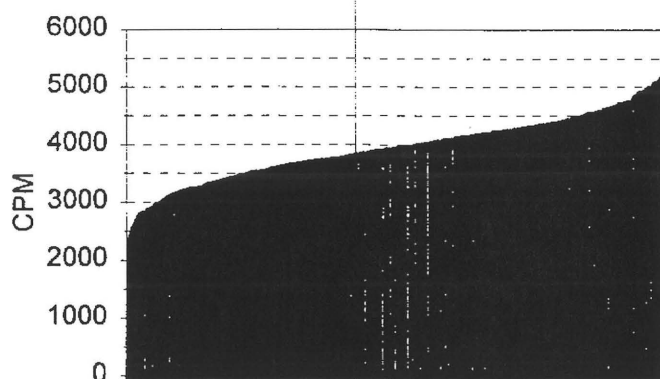
PHASE III, SUB AREA "L" - SURFACE
AFFECTED LAND
MICRO 'R' READINGS AT SURFACE
LUDLUM MODEL 12S, S/N 111299
RESULTS IN $\mu\text{R/hr}$
OCTOBER 1997



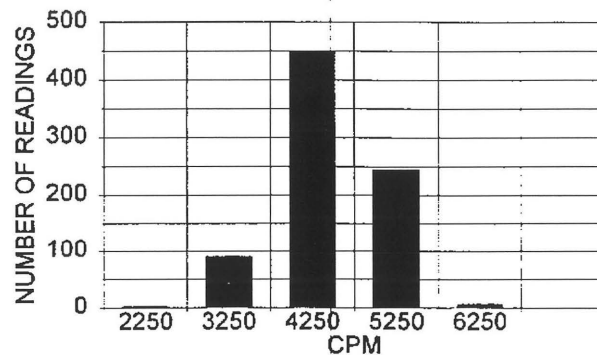
NUMBER OF SAMPLES	795
AVERAGE SAMPLE	7.8083
MINIMUM SAMPLE	5
MAXIMUM SAMPLE	11
STANDARD DEVIATION	1.1664

PHASE III, SUB AREA "L" - SURFACE
AFFECTED LAND
GROSS GAMMA READINGS IN CPM
LUDLUM MODEL 220, S/N 48395
BACKGROUND AVERAGE: 3000
OCTOBER 1997

3" NaI DETECTOR READINGS
SURVEY DATA



3" NaI DETECTOR READINGS
FREQUENCY DISTRIBUTION



NUMBER OF READINGS	795
AVERAGE READING	3940.3
MINIMUM READING	2110
MAXIMUM READING	5470
STANDARD DEVIATION	626.06

CIMARRON CORPORATION - CIMARRON FACILITY

TRUE MEAN ACTIVITY VS. GUIDELINE VALUE AT 95% CONFIDENCE

PHASE III (SUB - AREA " L ")

FINAL SURFACE SURVEY

AFTER BACKFILL

n = pCi/g TOTAL U

Number	n	(n-N)	(n-N) ²
1	3.9	-3.48	12.1
2	5.7	-1.68	2.8
3	7.2	-0.18	0.0
4	5.4	-1.98	3.9
5	2.1	-5.28	27.9
6	5.3	-2.08	4.3
7	4.6	-2.78	7.7
8	4.5	-2.88	8.3
9	4.1	-3.28	10.8
10	6.7	-0.68	0.5
11	5.6	-1.78	3.2
12	4.9	-2.48	6.2
13	13.2	5.82	33.9
14	7.5	0.12	0.0
15	6.3	-1.08	1.2
16	6.1	-1.28	1.6
17	6.7	-0.68	0.5
18	11.7	4.32	18.7
19	7.1	-0.28	0.1
20	7.3	-0.08	0.0
21	9	1.62	2.6
22	9.3	1.92	3.7
23	7.3	-0.08	0.0
24	10.8	3.42	11.7
25	8.6	1.22	1.5
26	8.3	0.92	0.8
27	8.6	1.22	1.5
28	6.6	-0.78	0.6
29	8.6	1.22	1.5
30	9.8	2.42	5.9
31	6.4	-0.98	1.0
32	5.7	-1.68	2.8
33	7.3	-0.08	0.0
34	14	6.62	43.8
35	18.5	11.12	123.6
36	5.8	-1.58	2.5
37	6.6	-0.78	0.6
38	7.2	-0.18	0.0
39	5.8	-1.58	2.5
40	4.8	-2.58	6.7
41	5.7	-1.68	2.8
42	8.8	1.42	2.0
43	5.5	-1.88	3.5
44	8.9	1.52	2.3
45	8.6	1.22	1.5
46	8.7	1.32	1.7
47	15.5	8.12	65.9
48	7.7	0.32	0.1
49	7.3	-0.08	0.0
50	8.6	1.22	1.5
	802.8		1377.2
	770.3		985.3
	874.5		2197.2
	1049.6		4088.9
	860.2		2484.4
	559.7		834.4
	412.6		1305.4
	158.1		751.9
	5868.00		14463.1
	Sum(n)		Sum(n-N) ²

No. of Samples (x) : 795

COUNT TIME: 5 MINUTES

Sample Mean (N) = Sum(n) ÷ (x)

Sample Mean (N) : 7.38

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

Standard Deviation: 4.27

2 Std Deviations: 8.54

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

(df) = 1.646

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

(A_u) = 7.63 pCi/gU TOTAL U

GUIDELINE VALUE: 30 pCi/gU TOTAL U

Acceptable Level: 34.0 pCi/gU TOTAL U

(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)	INFINITE	is (B)	1.645	95%
(df) low value(Y)	400	is (A)	1.649	95%

Desired value(df) (X) 794 is calculated as follow:

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

The (df) value for (X) 794 1.646 95%

PERFORMED BY: C. Powell DATE: 10-30-97

REVIEWED BY: W.A. Rogers DATE: 10-30-97

CIMARRON CORPORATION - CIMARRON FACILITY

TRUE MEAN ACTIVITY VS. GUIDELINE VALUE AT 95% CONFIDENCE (PHASE III)

n = pCi/g TOTAL U

Number	n	(n-N)	(n-N) ²
51	7	-0.38	0.15
52	7.1	-0.28	0.08
53	5.7	-1.68	2.83
54	4.1	-3.28	10.77
55	11.5	4.12	16.97
56	11.3	3.92	15.36
57	14.6	7.22	52.11
58	5.2	-2.18	4.76
59	12.3	4.92	24.20
60	5.4	-1.98	3.92
61	8.9	1.52	2.31
62	4.3	-3.08	9.49
63	7.2	-0.18	0.03
64	8	0.62	0.38
65	8	0.62	0.38
66	7.4	0.02	0.00
67	6.6	-0.78	0.61
68	5.6	-1.78	3.17
69	8.4	1.02	1.04
70	9.3	1.92	3.68
71	35.1	27.72	768.34
72	7.2	-0.18	0.03
73	10.2	2.82	7.95
74	6.2	-1.18	1.40
75	7.1	-0.28	0.08
76	7.2	-0.18	0.03
77	5.2	-2.18	4.76
78	9.1	1.72	2.95
79	7.4	0.02	0.00
80	8.7	1.32	1.74
81	7.3	-0.08	0.01
82	4.9	-2.48	6.16
83	9	1.62	2.62
84	10.4	3.02	9.11
85	6.8	-0.58	0.34
86	5.2	-2.18	4.76
87	3.9	-3.48	12.12
88	6.3	-1.08	1.17
89	4.1	-3.28	10.77
90	5	-2.38	5.67
91	9.1	1.72	2.95
92	5.8	-1.58	2.50
93	5.1	-2.28	5.20
94	8	0.62	0.38
95	14.7	7.32	53.57
96	9.2	1.82	3.31
97	7.8	0.42	0.18
98	5.9	-1.48	2.19
99	8.2	0.82	0.67
100	4.8	-2.58	6.66
	402.8		1069.8
	Sum(n)		Sum(n-N) ²

n = pCi/g TOTAL U

SUB - AREA " L "

Number	n	(n-N)	(n-N) ²
101	2.9	-4.48	20.08
102	18	10.62	112.76
103	4.9	-2.48	6.16
104	5.4	-1.98	3.92
105	6	-1.38	1.91
106	6	-1.38	1.91
107	7	-0.38	0.15
108	8.1	0.72	0.52
109	7	-0.38	0.15
110	8.3	0.92	0.84
111	4.8	-2.58	6.66
112	7	-0.38	0.15
113	9	1.62	2.62
114	8.3	0.92	0.84
115	6.8	-0.58	0.34
116	8.2	0.82	0.67
117	5.9	-1.48	2.19
118	7.4	0.02	0.00
119	11.4	4.02	16.15
120	7.7	0.32	0.10
121	8	0.62	0.38
122	9.9	2.52	6.34
123	7.3	-0.08	0.01
124	11.4	4.02	16.15
125	5.4	-1.98	3.92
126	7.9	0.52	0.27
127	9.1	1.72	2.95
128	9.2	1.82	3.31
129	9.4	2.02	4.08
130	6.9	-0.48	0.23
131	7.5	0.12	0.01
132	8.5	1.12	1.25
133	10.9	3.52	12.38
134	9.4	2.02	4.08
135	7.8	0.42	0.18
136	7.9	0.52	0.27
137	9.9	2.52	6.34
138	10.2	2.82	7.95
139	10.2	2.82	7.95
140	7.9	0.52	0.27
141	9.1	1.72	2.95
142	7.7	0.32	0.10
143	11.9	4.52	20.42
144	5.1	-2.28	5.20
145	5.9	-1.48	2.19
146	10.3	2.92	8.52
147	4.9	-2.48	6.16
148	7.8	0.42	0.18
149	5.1	-2.28	5.20
150	7.4	0.02	0.00
	400.0		307.4
	Sum(n)		Sum(n-N) ²

CIMARRON CORPORATION - CIMARRON FACILITY

TRUE MEAN ACTIVITY VS. GUIDELINE VALUE AT 95% CONFIDENCE (PHASE III)

n = pCi/g TOTAL U

Number	n	(n-N)	(n-N) ²
151	8	0.62	0.38
152	5.8	-1.58	2.50
153	6.8	-0.58	0.34
154	4.7	-2.68	7.19
155	5.5	-1.88	3.54
156	6.5	-0.88	0.78
157	6.3	-1.08	1.17
158	10.8	3.42	11.69
159	4	-3.38	11.43
160	9	1.62	2.62
161	8.9	1.52	2.31
162	8.1	0.72	0.52
163	5.8	-1.58	2.50
164	6.8	-0.58	0.34
165	8.2	0.82	0.67
166	6	-1.38	1.91
167	9.9	2.52	6.34
168	6.6	-0.78	0.61
169	6.5	-0.88	0.78
170	10	2.62	6.86
171	7.2	-0.18	0.03
172	13.6	6.22	38.67
173	9.4	2.02	4.08
174	8	0.62	0.38
175	11.9	4.52	20.42
176	8	0.62	0.38
177	8.6	1.22	1.49
178	6.8	-0.58	0.34
179	5.4	-1.98	3.92
180	7.1	-0.28	0.08
181	9.1	1.72	2.95
182	4.5	-2.88	8.30
183	2	-5.38	28.96
184	5.7	-1.68	2.83
185	6.7	-0.68	0.46
186	7.3	-0.08	0.01
187	5.2	-2.18	4.76
188	9.5	2.12	4.49
189	5.8	-1.58	2.50
190	5.5	-1.88	3.54
191	11.2	3.82	14.58
192	7.3	-0.08	0.01
193	12.9	5.52	30.46
194	7.2	-0.18	0.03
195	11.8	4.42	19.53
196	9.7	2.32	5.38
197	8.7	1.32	1.74
198	7.5	0.12	0.01
199	4.6	-2.78	7.73
200	6	-1.38	1.91
	378.4		274.4
	Sum(n)		Sum(n-N) ²

n = pCi/g TOTAL U

SUB - AREA " L "

Number	n	(n-N)	(n-N) ²
201	9.2	1.82	3.31
202	7.6	0.22	0.05
203	6.7	-0.68	0.46
204	6.4	-0.98	0.96
205	6.9	-0.48	0.23
206	7.7	0.32	0.10
207	8.4	1.02	1.04
208	6.9	-0.48	0.23
209	7.5	0.12	0.01
210	5.1	-2.28	5.20
211	6.8	-0.58	0.34
212	6.7	-0.68	0.46
213	5.7	-1.68	2.83
214	4.8	-2.58	6.66
215	16.4	9.02	81.34
216	8	0.62	0.38
217	4.8	-2.58	6.66
218	5.3	-2.08	4.33
219	7.1	-0.28	0.08
220	4.7	-2.68	7.19
221	4.1	-3.28	10.77
222	12.1	4.72	22.27
223	6.1	-1.28	1.64
224	8.6	1.22	1.49
225	4.4	-2.98	8.89
226	7.2	-0.18	0.03
227	4.5	-2.88	8.30
228	5.2	-2.18	4.76
229	7.8	0.42	0.18
230	12	4.62	21.33
231	9.4	2.02	4.08
232	9.3	1.92	3.68
233	10.5	3.12	9.73
234	8	0.62	0.38
235	7.3	-0.08	0.01
236	3.9	-3.48	12.12
237	3	-4.38	19.19
238	6.9	-0.48	0.23
239	5.2	-2.18	4.76
240	14.8	7.42	55.04
241	26.5	19.12	365.53
242	5.5	-1.88	3.54
243	7.9	0.52	0.27
244	11.8	4.42	19.53
245	7.2	-0.18	0.03
246	7.2	-0.18	0.03
247	10.4	3.02	9.11
248	8.2	0.82	0.67
249	6.3	-1.08	1.17
250	7.9	0.52	0.27
	391.9		710.9
	Sum(n)		Sum(n-N) ²

CIMARRON CORPORATION - CIMARRON FACILITY

TRUE MEAN ACTIVITY VS. GUIDELINE VALUE AT 95% CONFIDENCE (PHASE III)

n = pCi/g TOTAL U

Number	n	(n-N)	(n-N) ²
251	6.5	-0.88	0.78
252	6.1	-1.28	1.64
253	6.1	-1.28	1.64
254	6.9	-0.48	0.23
255	9	1.62	2.62
256	8	0.62	0.38
257	8.6	1.22	1.49
258	8.5	1.12	1.25
259	10.1	2.72	7.39
260	7.5	0.12	0.01
261	5	-2.38	5.67
262	4.7	-2.68	7.19
263	7.9	0.52	0.27
264	7.3	-0.08	0.01
265	10.8	3.42	11.69
266	15.3	7.92	62.71
267	6.6	-0.78	0.61
268	16.7	9.32	86.84
269	9.1	1.72	2.95
270	10.1	2.72	7.39
271	8.3	0.92	0.84
272	10.3	2.92	8.52
273	11.4	4.02	16.15
274	8.5	1.12	1.25
275	5.8	-1.58	2.50
276	5.9	-1.48	2.19
277	6.5	-0.88	0.78
278	4.9	-2.48	6.16
279	2.4	-4.98	24.81
280	4.6	-2.78	7.73
281	5.2	-2.18	4.76
282	6.9	-0.48	0.23
283	4.8	-2.58	6.66
284	6.6	-0.78	0.61
285	7.5	0.12	0.01
286	4.8	-2.58	6.66
287	5.9	-1.48	2.19
288	6.8	-0.58	0.34
289	4.1	-3.28	10.77
290	17.1	9.72	94.46
291	22	14.62	213.71
292	26.6	19.22	369.36
293	6.1	-1.28	1.64
294	7.8	0.42	0.18
295	6.4	-0.98	0.96
296	7.8	0.42	0.18
297	10.8	3.42	11.69
298	8.5	1.12	1.25
299	9.9	2.52	6.34
300	7.7	0.32	0.10
	422.7		1005.8
	Sum(n)		Sum(n-N) ²

n = pCi/g TOTAL U

SUB - AREA " L "

Number	n	(n-N)	(n-N) ²
301	3.9	-3.48	12.12
302	8.3	0.92	0.84
303	7.4	0.02	0.00
304	7.7	0.32	0.10
305	5.2	-2.18	4.76
306	9.6	2.22	4.92
307	5	-2.38	5.67
308	6.5	-0.88	0.78
309	7.4	0.02	0.00
310	9.4	2.02	4.08
311	9.3	1.92	3.68
312	7.6	0.22	0.05
313	8.4	1.02	1.04
314	6.8	-0.58	0.34
315	16.7	9.32	86.84
316	10.1	2.72	7.39
317	18.4	11.02	121.42
318	5.6	-1.78	3.17
319	7.9	0.52	0.27
320	9.3	1.92	3.68
321	8.1	0.72	0.52
322	4.6	-2.78	7.73
323	8.5	1.12	1.25
324	14.6	7.22	52.11
325	5.0	-2.38	5.67
326	5.6	-1.78	3.17
327	5.8	-1.58	2.50
328	4.9	-2.48	6.16
329	8.8	1.42	2.01
330	5.5	-1.88	3.54
331	4.5	-2.88	8.30
332	5.5	-1.88	3.54
333	5.2	-2.18	4.76
334	6.2	-1.18	1.40
335	7.7	0.32	0.10
336	7.5	0.12	0.01
337	18.4	11.02	121.42
338	5.3	-2.08	4.33
339	10.0	2.62	6.86
340	13.8	6.42	41.20
341	20.7	13.32	177.39
342	22.6	15.22	231.61
343	19.4	12.02	144.45
344	4.1	-3.28	10.77
345	7.9	0.52	0.27
346	8.9	1.52	2.31
347	9.2	1.82	3.31
348	8.8	1.42	2.01
349	7.8	0.42	0.18
350	16.4	9.02	81.34
	451.8		1191.4
	Sum(n)		Sum(n-N) ²

CIMARRON CORPORATION - CIMARRON FACILITY

TRUE MEAN ACTIVITY VS. GUIDELINE VALUE AT 95% CONFIDENCE (PHASE III)

n = pCi/g TOTAL U

Number	n	(n-N)	(n-N) ²
351	6.5	-0.88	0.78
352	8	0.62	0.38
353	8	0.62	0.38
354	10.3	2.92	8.52
355	5.1	-2.28	5.20
356	7.2	-0.18	0.03
357	7.8	0.42	0.18
358	3.6	-3.78	14.30
359	6.2	-1.18	1.40
360	12.5	5.12	26.20
361	8.6	1.22	1.49
362	10.6	3.22	10.36
363	19.2	11.82	139.69
364	9.2	1.82	3.31
365	18	10.62	112.76
366	20	12.62	159.24
367	26.5	19.12	365.53
368	17.1	9.72	94.46
369	18.1	10.72	114.89
370	7.2	-0.18	0.03
371	13.7	6.32	39.93
372	7.5	0.12	0.01
373	8.6	1.22	1.49
374	5.7	-1.68	2.83
375	11.8	4.42	19.53
376	8.4	1.02	1.04
377	7.7	0.32	0.10
378	6.5	-0.88	0.78
379	12.9	5.52	30.46
380	8	0.62	0.38
381	9.4	2.02	4.08
382	9.5	2.12	4.49
383	5.5	-1.88	3.54
384	7.2	-0.18	0.03
385	15.2	7.82	61.13
386	11.2	3.82	14.58
387	15.4	8.02	64.30
388	12.6	5.22	27.24
389	12.8	5.42	29.36
390	14.8	7.42	55.04
391	15.9	8.52	72.57
392	15.9	8.52	72.57
393	22	14.62	213.71
394	11.9	4.52	20.42
395	6	-1.38	1.91
396	7.7	0.32	0.10
397	7.3	-0.08	0.01
398	4.8	-2.58	6.66
399	4.9	-2.48	6.16
400	6.1	-1.28	1.64
	536.6		1815.2
	Sum(n)		Sum(n-N) ²

n = pCi/g TOTAL U

SUB - AREA " L "

Number	n	(n-N)	(n-N) ²
401	4.7	-2.68	7.19
402	10.6	3.22	10.36
403	12.4	5.02	25.19
404	5.3	-2.08	4.33
405	8.3	0.92	0.84
406	5.1	-2.28	5.20
407	7	-0.38	0.15
408	9	1.62	2.62
409	20.5	13.12	172.10
410	19.6	12.22	149.30
411	15.5	8.12	65.92
412	8.4	1.02	1.04
413	12.6	5.22	27.24
414	7.6	0.22	0.05
415	9.1	1.72	2.95
416	9.1	1.72	2.95
417	6	-1.38	1.91
418	18.7	11.32	128.12
419	17	9.62	92.52
420	8.3	0.92	0.84
421	12.9	5.52	30.46
422	10.7	3.32	11.01
423	14.7	7.32	53.57
424	6.8	-0.58	0.34
425	5.1	-2.28	5.20
426	4.4	-2.98	8.89
427	6.4	-0.98	0.96
428	8.8	1.42	2.01
429	13.2	5.82	33.86
430	19	11.62	135.00
431	9.7	2.32	5.38
432	27.1	19.72	388.83
433	3.8	-3.58	12.82
434	5.6	-1.78	3.17
435	5.5	-1.88	3.54
436	5.2	-2.18	4.76
437	5.6	-1.78	3.17
438	7.6	0.22	0.05
439	12	4.62	21.33
440	28.9	21.52	463.06
441	6.9	-0.48	0.23
442	7.3	-0.08	0.01
443	5.1	-2.28	5.20
444	3.4	-3.98	15.85
445	5.8	-1.58	2.50
446	9.6	2.22	4.92
447	17.2	9.82	96.41
448	22.6	15.22	231.61
449	3	-4.38	19.19
450	4.3	-3.08	9.49
	513.0		2273.7
	Sum(n)		Sum(n-N) ²

CIMARRON CORPORATION - CIMARRON FACILITY

TRUE MEAN ACTIVITY VS. GUIDELINE VALUE AT 95% CONFIDENCE (PHASE III)

n = pCi/g TOTAL U

Number	n	(n-N)	(n-N) ²
451	3.6	-3.78	14.30
452	6.8	-0.58	0.34
453	8.7	1.32	1.74
454	10.6	3.22	10.36
455	9.4	2.02	4.08
456	17.7	10.32	106.48
457	5.8	-1.58	2.50
458	4	-3.38	11.43
459	5.8	-1.58	2.50
460	9.1	1.72	2.95
461	11.5	4.12	16.97
462	10.1	2.72	7.39
463	16.4	9.02	81.34
464	4.7	-2.68	7.19
465	5	-2.38	5.67
466	17.3	9.92	98.38
467	15.8	8.42	70.88
468	14.7	7.32	53.57
469	26.8	19.42	377.09
470	11	3.62	13.10
471	10	2.62	6.86
472	4.2	-3.18	10.12
473	2.7	-4.68	21.91
474	9.5	2.12	4.49
475	14.5	7.12	50.68
476	7.7	0.32	0.10
477	12.4	5.02	25.19
478	18.9	11.52	132.68
479	7.2	-0.18	0.03
480	4.6	-2.78	7.73
481	10.8	3.42	11.69
482	15.6	8.22	67.55
483	5.3	-2.08	4.33
484	6.6	-0.78	0.61
485	5.2	-2.18	4.76
486	7.1	-0.28	0.08
487	12.9	5.52	30.46
488	11.2	3.82	14.58
489	8.3	0.92	0.84
490	14.9	7.52	56.53
491	5.6	-1.78	3.17
492	8.6	1.22	1.49
493	8	0.62	0.38
494	7.8	0.42	0.18
495	8.6	1.22	1.49
496	6.9	-0.48	0.23
497	13.8	6.42	41.20
498	7.9	0.52	0.27
499	5.2	-2.18	4.76
500	6.7	-0.68	0.46
	483.5		1393.1
	Sum(n)		Sum(n-N) ²

n = pCi/g TOTAL U

SUB - AREA " L "

Number	n	(n-N)	(n-N) ²
501	10.2	2.82	7.95
502	5.1	-2.28	5.20
503	8.3	0.92	0.84
504	9.9	2.52	6.34
505	10.6	3.22	10.36
506	6.3	-1.08	1.17
507	6.3	-1.08	1.17
508	6.6	-0.78	0.61
509	6.4	-0.98	0.96
510	3.9	-3.48	12.12
511	5.4	-1.98	3.92
512	5.1	-2.28	5.20
513	6.6	-0.78	0.61
514	4.4	-2.98	8.89
515	19.4	12.02	144.45
516	3.2	-4.18	17.48
517	3.3	-4.08	16.66
518	9.5	2.12	4.49
519	5.5	-1.88	3.54
520	8	0.62	0.38
521	3.7	-3.68	13.55
522	9	1.62	2.62
523	5.5	-1.88	3.54
524	4.7	-2.68	7.19
525	2.8	-4.58	20.99
526	5.5	-1.88	3.54
527	2.8	-4.58	20.99
528	22.2	14.82	219.60
529	6.6	-0.78	0.61
530	1.8	-5.58	31.15
531	25.6	18.22	331.93
532	2.6	-4.78	22.86
533	7.6	0.22	0.05
534	9.1	1.72	2.95
535	6.5	-0.88	0.78
536	6.2	-1.18	1.40
537	5.6	-1.78	3.17
538	7.4	0.02	0.00
539	6.3	-1.08	1.17
540	10.1	2.72	7.39
541	6.7	-0.68	0.46
542	5.7	-1.68	2.83
543	10.7	3.32	11.01
544	5	-2.38	5.67
545	6.4	-0.98	0.96
546	7	-0.38	0.15
547	7.8	0.42	0.18
548	7.8	0.42	0.18
549	18.3	10.92	119.22
550	5.7	-1.68	2.83
	376.7		1091.3
	Sum(n)		Sum(n-N) ²

CIMARRON CORPORATION - CIMARRON FACILITY

TRUE MEAN ACTIVITY VS. GUIDELINE VALUE AT 95% CONFIDENCE (PHASE III)

n = pCi/g TOTAL U

Number	n	(n-N)	(n-N) ²
551	3.5	-3.88	15.06
552	4.6	-2.78	7.73
553	5.2	-2.18	4.76
554	3.3	-4.08	16.66
555	7.2	-0.18	0.03
556	12.1	4.72	22.27
557	3.9	-3.48	12.12
558	7.3	-0.08	0.01
559	4.6	-2.78	7.73
560	5.7	-1.68	2.83
561	8.2	0.82	0.67
562	5.1	-2.28	5.20
563	4	-3.38	11.43
564	5.7	-1.68	2.83
565	2.7	-4.68	21.91
566	3.8	-3.58	12.82
567	5.8	-1.58	2.50
568	9.4	2.02	4.08
569	6	-1.38	1.91
570	17	9.62	92.52
571	4.4	-2.98	8.89
572	3.2	-4.18	17.48
573	5.1	-2.28	5.20
574	3.3	-4.08	16.66
575	7.1	-0.28	0.08
576	6.1	-1.28	1.64
577	15.6	8.22	67.55
578	5.6	-1.78	3.17
579	3.8	-3.58	12.82
580	4.9	-2.48	6.16
581	7.9	0.52	0.27
582	8	0.62	0.38
583	7	-0.38	0.15
584	7.5	0.12	0.01
585	7.1	-0.28	0.08
586	4.8	-2.58	6.66
587	4.4	-2.98	8.89
588	3.2	-4.18	17.48
589	4.7	-2.68	7.19
590	3.7	-3.68	13.55
591	6.1	-1.28	1.64
592	6.1	-1.28	1.64
593	6.9	-0.48	0.23
594	6.8	-0.58	0.34
595	6.8	-0.58	0.34
596	6.6	-0.78	0.61
597	7.3	-0.08	0.01
598	7.7	0.32	0.10
599	7	-0.38	0.15
600	4.9	-2.48	6.16
	308.7		450.6
	Sum(n)		Sum(n-N)

n = pCi/g TOTAL U

SUB - AREA " L "

Number	n	(n-N)	(n-N) ²
601	4.1	-3.28	10.77
602	4.9	-2.48	6.16
603	4.7	-2.68	7.19
604	4.8	-2.58	6.66
605	3.5	-3.88	15.06
606	7.9	0.52	0.27
607	6.3	-1.08	1.17
608	6.1	-1.28	1.64
609	9.4	2.02	4.08
610	6.2	-1.18	1.40
611	4.7	-2.68	7.19
612	3.2	-4.18	17.48
613	4.3	-3.08	9.49
614	6.4	-0.98	0.96
615	5	-2.38	5.67
616	4.8	-2.58	6.66
617	6	-1.38	1.91
618	7.2	-0.18	0.03
619	3.9	-3.48	12.12
620	7.6	0.22	0.05
621	8.1	0.72	0.52
622	4.3	-3.08	9.49
623	6.5	-0.88	0.78
624	5.4	-1.98	3.92
625	6.5	-0.88	0.78
626	5.1	-2.28	5.20
627	5	-2.38	5.67
628	5.4	-1.98	3.92
629	4.1	-3.28	10.77
630	3.1	-4.28	18.33
631	2.5	-4.88	23.83
632	2.5	-4.88	23.83
633	4.1	-3.28	10.77
634	5.8	-1.58	2.50
635	4.7	-2.68	7.19
636	4.3	-3.08	9.49
637	6.1	-1.28	1.64
638	3.8	-3.58	12.82
639	5	-2.38	5.67
640	3.5	-3.88	15.06
641	4.8	-2.58	6.66
642	5.7	-1.68	2.83
643	3.9	-3.48	12.12
644	3.7	-3.68	13.55
645	2.3	-5.08	25.82
646	4.8	-2.58	6.66
647	4.3	-3.08	9.49
648	4.9	-2.48	6.16
649	5.1	-2.28	5.20
650	4.7	-2.68	7.19
	251.0		383.8
	Sum(n)		Sum(n-N)

CIMARRON CORPORATION - CIMARRON FACILITY

TRUE MEAN ACTIVITY VS. GUIDELINE VALUE AT 95% CONFIDENCE (PHASE III)

n = pCi/g TOTAL U

Number	n	(n-N)	(n-N) ²
651	6.1	-1.28	1.64
652	5	-2.38	5.67
653	1	-6.38	40.72
654	4.6	-2.78	7.73
655	4.6	-2.78	7.73
656	2.5	-4.88	23.83
657	5.3	-2.08	4.33
658	2.2	-5.18	26.84
659	3	-4.38	19.19
660	3.9	-3.48	12.12
661	4.9	-2.48	6.16
662	3.7	-3.68	13.55
663	4.6	-2.78	7.73
664	5.5	-1.88	3.54
665	5.4	-1.98	3.92
666	4.1	-3.28	10.77
667	3.2	-4.18	17.48
668	4.8	-2.58	6.66
669	4.9	-2.48	6.16
670	7.1	-0.28	0.08
671	3.7	-3.68	13.55
672	3.6	-3.78	14.30
673	5.6	-1.78	3.17
674	2.6	-4.78	22.86
675	3.2	-4.18	17.48
676	3.4	-3.98	15.85
677	7.6	0.22	0.05
678	5.1	-2.28	5.20
679	4.8	-2.58	6.66
680	1	-6.38	40.72
681	3.5	-3.88	15.06
682	1.2	-6.18	38.21
683	5.1	-2.28	5.20
684	2.1	-5.28	27.89
685	3.6	-3.78	14.30
686	4.8	-2.58	6.66
687	7.1	-0.28	0.08
688	5.7	-1.68	2.83
689	3.7	-3.68	13.55
690	6.2	-1.18	1.40
691	1.6	-5.78	33.42
692	3.8	-3.58	12.82
693	3.3	-4.08	16.66
694	3.9	-3.48	12.12
695	5.4	-1.98	3.92
696	4.3	-3.08	9.49
697	2.6	-4.78	22.86
698	3.8	-3.58	12.82
699	1.5	-5.88	34.59
700	4.7	-2.68	7.19
	204.9		656.8
	Sum(n)		Sum(n-N)

n = pCi/g TOTAL U

SUB - AREA " L "

Number	n	(n-N)	(n-N) ²
701	1.6	-5.78	33.42
702	4.3	-3.08	9.49
703	2.6	-4.78	22.86
704	5.6	-1.78	3.17
705	5.3	-2.08	4.33
706	3.4	-3.98	15.85
707	3.6	-3.78	14.30
708	3.5	-3.88	15.06
709	6	-1.38	1.91
710	4.1	-3.28	10.77
711	4.3	-3.08	9.49
712	4.1	-3.28	10.77
713	6.5	-0.88	0.78
714	9.7	2.32	5.38
715	3	-4.38	19.19
716	4	-3.38	11.43
717	2.9	-4.48	20.08
718	5.9	-1.48	2.19
719	1.7	-5.68	32.28
720	5.4	-1.98	3.92
721	4.3	-3.08	9.49
722	1.9	-5.48	30.04
723	3	-4.38	19.19
724	2.1	-5.28	27.89
725	5.2	-2.18	4.76
726	3.9	-3.48	12.12
727	3.7	-3.68	13.55
728	3.2	-4.18	17.48
729	7	-0.38	0.15
730	5.4	-1.98	3.92
731	6.1	-1.28	1.64
732	5.6	-1.78	3.17
733	5	-2.38	5.67
734	3.3	-4.08	16.66
735	3.6	-3.78	14.30
736	7.4	0.02	0.00
737	4.2	-3.18	10.12
738	2.6	-4.78	22.86
739	3.4	-3.98	15.85
740	1.6	-5.78	33.42
741	3.3	-4.08	16.66
742	4.9	-2.48	6.16
743	4.8	-2.58	6.66
744	1.6	-5.78	33.42
745	3.8	-3.58	12.82
746	3.3	-4.08	16.66
747	3.6	-3.78	14.30
748	4.4	-2.98	8.89
749	4.8	-2.58	6.66
750	3.2	-4.18	17.48
	207.7		648.7
	Sum(n)		Sum(n-N)

CIMARRON CORPORATION - CIMARRON FACILITY

TRUE MEAN ACTIVITY VS. GUIDELINE VALUE AT 95% CONFIDENCE (PHASE III)

n = pCi/g TOTAL U

Number	n	(n-N)	(n-N) ²
751	2.4	-4.98	24.81
752	6.3	-1.08	1.17
753	3.9	-3.48	12.12
754	5	-2.38	5.67
755	5.2	-2.18	4.76
756	6.3	-1.08	1.17
757	1.6	-5.78	33.42
758	2.2	-5.18	26.84
759	1.4	-5.98	35.77
760	1.9	-5.48	30.04
761	3.3	-4.08	16.66
762	3.1	-4.28	18.33
763	2.4	-4.98	24.81
764	3.6	-3.78	14.30
765	4.9	-2.48	6.16
766	4.4	-2.98	8.89
767	2.8	-4.58	20.99
768	2.2	-5.18	26.84
769	3.6	-3.78	14.30
770	3.4	-3.98	15.85
771	5.2	-2.18	4.76
772	3.6	-3.78	14.30
773	3.5	-3.88	15.06
774	3.1	-4.28	18.33
775	2.8	-4.58	20.99
776	3.4	-3.98	15.85
777	3.2	-4.18	17.48
778	4.9	-2.48	6.16
779	3.1	-4.28	18.33
780	2.2	-5.18	26.84
781	3.6	-3.78	14.30
782	3.4	-3.98	15.85
783	4.2	-3.18	10.12
784	1.3	-6.08	36.98
785	6.3	-1.08	1.17
786	3.2	-4.18	17.48
787	3.1	-4.28	18.33
788	1.3	-6.08	36.98
789	4.8	-2.58	6.66
790	2.3	-5.08	25.82
791	4.9	-2.48	6.16
792	5.1	-2.28	5.20
793	4.4	-2.98	8.89
794	1.6	-5.78	33.42
795	3.7	-3.68	13.55
796			
797			
798			
799			
800			
	158.1		751.9
	Sum(n)		Sum(n-N)

n = pCi/g TOTAL U

SUB - AREA " L "

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

CIMARRON CORPORATION - CIMARRON FACILITY

TRUE MEAN ACTIVITY VS. GUIDELINE VALUE AT 95% CONFIDENCE

PHASE III (SUB - AREA " L ")

FINAL SURFACE SURVEY

AFTER BACKFILL

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

Number	n	(n-N)	(n-N) ²
1	0.4	-0.86	0.7
2	1.3	0.04	0.0
3	1.3	0.04	0.0
4	1.7	0.44	0.2
5	0.5	-0.76	0.6
6	0.9	-0.36	0.1
7	1.5	0.24	0.1
8	1.5	0.24	0.1
9	1.3	0.04	0.0
10	1.2	-0.06	0.0
11	1.3	0.04	0.0
12	1.1	-0.16	0.0
13	1.3	0.04	0.0
14	1.1	-0.16	0.0
15	1.3	0.04	0.0
16	1.8	0.54	0.3
17	1.7	0.44	0.2
18	1.7	0.44	0.2
19	1.6	0.34	0.1
20	1.5	0.24	0.1
21	1.4	0.14	0.0
22	1.7	0.44	0.2
23	1.4	0.14	0.0
24	1.6	0.34	0.1
25	1.6	0.34	0.1
26	1.5	0.24	0.1
27	1.4	0.14	0.0
28	1.5	0.24	0.1
29	1.5	0.24	0.1
30	1.3	0.04	0.0
31	1.6	0.34	0.1
32	1.6	0.34	0.1
33	1.7	0.44	0.2
34	1.5	0.24	0.1
35	1.3	0.04	0.0
36	1.4	0.14	0.0
37	0.9	-0.36	0.1
38	0.9	-0.36	0.1
39	1.1	-0.16	0.0
40	1	-0.26	0.1
41	1.6	0.34	0.1
42	1.6	0.34	0.1
43	1.3	0.04	0.0
44	1.7	0.44	0.2
45	1.6	0.34	0.1
46	1.6	0.34	0.1
47	1.3	0.04	0.0
48	1.4	0.14	0.0
49	1.2	-0.06	0.0
50	1.4	0.14	0.0
	122.8		7.9
	135.6		4.6
	128.9		3.2
	135.9		4.7
	124		3.9
	121		4.8
	117.4		4.4
	51.3		2.5
	1005.50		41.0
	Sum(n)		Sum(n-N) ²

No. of Samples (x) : **795**

COUNT TIME: 5 MINUTES

Sample Mean (N) = Sum(n) + (x)

Sample Mean (N) : **1.26**

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

Standard Deviation: **0.23**

2 Std Deviations: **0.45**

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

(df) = **1.646**

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

(A_u) = **1.28** 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) **INFINITE** is (B) **1.645** 95%

(df) low value(Y) **400** is (A) **1.649** 95%

Desired value(df) (X) **794** is calculated as follow:

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

The (df) value for (X) **794** **1.646** 95%

PERFORMED BY: *Sh. Powell* DATE: 10-30-97

REVIEWED BY: *W. G. Rogers* DATE: 10-30-97

CIMARRON CORPORATION - CIMARRON FACILITY

TRUE MEAN ACTIVITY VS. GUIDELINE VALUE AT 95% CONFIDENCE (PHASE III)

n = pCi/g Th (NAT)

Number	n	(n-N)	(n-N) ²
51	1.2	-0.06	0.00
52	1.3	0.04	0.00
53	1.5	0.24	0.06
54	1.6	0.34	0.11
55	1.7	0.44	0.19
56	1.5	0.24	0.06
57	1.2	-0.06	0.00
58	1.8	0.54	0.29
59	1.4	0.14	0.02
60	1.4	0.14	0.02
61	1.5	0.24	0.06
62	1.5	0.24	0.06
63	1.4	0.14	0.02
64	1.5	0.24	0.06
65	1.4	0.14	0.02
66	1.5	0.24	0.06
67	1.5	0.24	0.06
68	1.6	0.34	0.11
69	1.4	0.14	0.02
70	1.3	0.04	0.00
71	0.9	-0.36	0.13
72	1	-0.26	0.07
73	0.9	-0.36	0.13
74	0.7	-0.56	0.32
75	0.8	-0.46	0.22
76	0.5	-0.76	0.58
77	0.6	-0.66	0.44
78	1.4	0.14	0.02
79	1.2	-0.06	0.00
80	1.5	0.24	0.06
81	1.5	0.24	0.06
82	1.3	0.04	0.00
83	1.5	0.24	0.06
84	1.2	-0.06	0.00
85	0.8	-0.46	0.22
86	1	-0.26	0.07
87	1.2	-0.06	0.00
88	1.1	-0.16	0.03
89	1.1	-0.16	0.03
90	1	-0.26	0.07
91	1.1	-0.16	0.03
92	1.2	-0.06	0.00
93	1.2	-0.06	0.00
94	1.1	-0.16	0.03
95	1	-0.26	0.07
96	1.2	-0.06	0.00
97	1.1	-0.16	0.03
98	1.2	-0.06	0.00
99	1.4	0.14	0.02
100	1.3	0.04	0.00
	62.2		3.9
	Sum(n)		Sum(n-N) ²

n = pCi/g Th (NAT)

SUB - AREA " L "

Number	n	(n-N)	(n-N) ²
101	1.1	-0.16	0.03
102	1.4	0.14	0.02
103	1.4	0.14	0.02
104	1.5	0.24	0.06
105	1.2	-0.06	0.00
106	1.4	0.14	0.02
107	1.2	-0.06	0.00
108	1.3	0.04	0.00
109	1.3	0.04	0.00
110	1.5	0.24	0.06
111	1.7	0.44	0.19
112	1	-0.26	0.07
113	1.5	0.24	0.06
114	1.3	0.04	0.00
115	1	-0.26	0.07
116	1.5	0.24	0.06
117	1.3	0.04	0.00
118	1.3	0.04	0.00
119	1.1	-0.16	0.03
120	1.3	0.04	0.00
121	1.4	0.14	0.02
122	1.8	0.54	0.29
123	1.2	-0.06	0.00
124	0.5	-0.76	0.58
125	0.3	-0.96	0.93
126	0.7	-0.56	0.32
127	0.9	-0.36	0.13
128	0.6	-0.66	0.44
129	1	-0.26	0.07
130	1.1	-0.16	0.03
131	1.1	-0.16	0.03
132	1.3	0.04	0.00
133	1	-0.26	0.07
134	1.2	-0.06	0.00
135	1.6	0.34	0.11
136	1.2	-0.06	0.00
137	1.2	-0.06	0.00
138	1.3	0.04	0.00
139	1.4	0.14	0.02
140	1.1	-0.16	0.03
141	1.3	0.04	0.00
142	1.3	0.04	0.00
143	1	-0.26	0.07
144	1.4	0.14	0.02
145	1.5	0.24	0.06
146	1.2	-0.06	0.00
147	1.2	-0.06	0.00
148	1.2	-0.06	0.00
149	1	-0.26	0.07
150	1.3	0.04	0.00
	60.6		4.0
	Sum(n)		Sum(n-N) ²

CIMARRON CORPORATION - CIMARRON FACILITY

TRUE MEAN ACTIVITY VS. GUIDELINE VALUE AT 95% CONFIDENCE (PHASE III)

n = pCi/g Th (NAT)

Number	n	(n-N)	(n-N) ²
151	1.2	-0.06	0.00
152	1.3	0.04	0.00
153	1.4	0.14	0.02
154	1.3	0.04	0.00
155	1.3	0.04	0.00
156	1.5	0.24	0.06
157	1.4	0.14	0.02
158	1.1	-0.16	0.03
159	1.1	-0.16	0.03
160	1.1	-0.16	0.03
161	1.1	-0.16	0.03
162	1.3	0.04	0.00
163	1.4	0.14	0.02
164	1.1	-0.16	0.03
165	1.4	0.14	0.02
166	1.1	-0.16	0.03
167	1.5	0.24	0.06
168	1.5	0.24	0.06
169	1.5	0.24	0.06
170	1.2	-0.06	0.00
171	1.1	-0.16	0.03
172	1.3	0.04	0.00
173	1.1	-0.16	0.03
174	1.2	-0.06	0.00
175	1.2	-0.06	0.00
176	1.4	0.14	0.02
177	1.5	0.24	0.06
178	1.3	0.04	0.00
179	1.7	0.44	0.19
180	1.4	0.14	0.02
181	1.2	-0.06	0.00
182	1.2	-0.06	0.00
183	1.8	0.54	0.29
184	1.4	0.14	0.02
185	1.5	0.24	0.06
186	1.3	0.04	0.00
187	1.4	0.14	0.02
188	1.6	0.34	0.11
189	1.4	0.14	0.02
190	1.6	0.34	0.11
191	1.5	0.24	0.06
192	1.5	0.24	0.06
193	1.5	0.24	0.06
194	1.2	-0.06	0.00
195	1.2	-0.06	0.00
196	1.6	0.34	0.11
197	1.3	0.04	0.00
198	1.7	0.44	0.19
199	1.8	0.54	0.29
200	1.3	0.04	0.00
	68.0		2.2
	Sum(n)		Sum(n-N) ²

n = pCi/g Th (NAT)

SUB - AREA " L "

Number	n	(n-N)	(n-N) ²
201	1.1	-0.16	0.03
202	1.6	0.34	0.11
203	1.7	0.44	0.19
204	1.4	0.14	0.02
205	1.2	-0.06	0.00
206	1.5	0.24	0.06
207	1.3	0.04	0.00
208	1.4	0.14	0.02
209	1.6	0.34	0.11
210	1.6	0.34	0.11
211	1.7	0.44	0.19
212	1.6	0.34	0.11
213	1.8	0.54	0.29
214	1.5	0.24	0.06
215	0.9	-0.36	0.13
216	1.2	-0.06	0.00
217	1.3	0.04	0.00
218	1.3	0.04	0.00
219	1.2	-0.06	0.00
220	1.2	-0.06	0.00
221	1.1	-0.16	0.03
222	1.1	-0.16	0.03
223	1.5	0.24	0.06
224	1.3	0.04	0.00
225	1.4	0.14	0.02
226	1.4	0.14	0.02
227	1.5	0.24	0.06
228	1.5	0.24	0.06
229	1.3	0.04	0.00
230	1.4	0.14	0.02
231	1.3	0.04	0.00
232	1.2	-0.06	0.00
233	1	-0.26	0.07
234	1.3	0.04	0.00
235	1.5	0.24	0.06
236	1.4	0.14	0.02
237	1.4	0.14	0.02
238	1.4	0.14	0.02
239	0.9	-0.36	0.13
240	1.2	-0.06	0.00
241	1.7	0.44	0.19
242	1.3	0.04	0.00
243	1.3	0.04	0.00
244	1.3	0.04	0.00
245	1.3	0.04	0.00
246	1.2	-0.06	0.00
247	1	-0.26	0.07
248	1.3	0.04	0.00
249	1.5	0.24	0.06
250	1.5	0.24	0.06
	67.6		2.4
	Sum(n)		Sum(n-N) ²

CIMARRON CORPORATION - CIMARRON FACILITY

TRUE MEAN ACTIVITY VS. GUIDELINE VALUE AT 95% CONFIDENCE (PHASE III)

n = pCi/g Th (NAT)

Number	n	(n-N)	(n-N) ²
251	1.4	0.14	0.02
252	1.3	0.04	0.00
253	1.2	-0.06	0.00
254	1.3	0.04	0.00
255	1	-0.26	0.07
256	1.1	-0.16	0.03
257	1	-0.26	0.07
258	1.3	0.04	0.00
259	1.2	-0.06	0.00
260	1.3	0.04	0.00
261	1.1	-0.16	0.03
262	1.1	-0.16	0.03
263	1.2	-0.06	0.00
264	1.1	-0.16	0.03
265	1.2	-0.06	0.00
266	1.4	0.14	0.02
267	1.5	0.24	0.06
268	1.1	-0.16	0.03
269	1.3	0.04	0.00
270	1.1	-0.16	0.03
271	1.4	0.14	0.02
272	1.3	0.04	0.00
273	1.3	0.04	0.00
274	1.4	0.14	0.02
275	1.4	0.14	0.02
276	1.4	0.14	0.02
277	1.4	0.14	0.02
278	1.4	0.14	0.02
279	1.4	0.14	0.02
280	1.4	0.14	0.02
281	1.2	-0.06	0.00
282	1.2	-0.06	0.00
283	1	-0.26	0.07
284	1.5	0.24	0.06
285	1.1	-0.16	0.03
286	1.3	0.04	0.00
287	1.3	0.04	0.00
288	1.3	0.04	0.00
289	0.9	-0.36	0.13
290	1.2	-0.06	0.00
291	1.3	0.04	0.00
292	1	-0.26	0.07
293	1.6	0.34	0.11
294	1.4	0.14	0.02
295	1	-0.26	0.07
296	1.3	0.04	0.00
297	1.1	-0.16	0.03
298	1.2	-0.06	0.00
299	1.7	0.44	0.19
300	1.6	0.34	0.11
	63.2		1.5
	Sum(n)		Sum(n-N) ²

n = pCi/g Th (NAT)

SUB - AREA " L "

Number	n	(n-N)	(n-N) ²
301	1.4	0.14	0.02
302	1.5	0.24	0.06
303	1.8	0.54	0.29
304	1.3	0.04	0.00
305	1.5	0.24	0.06
306	1.3	0.04	0.00
307	1.1	-0.16	0.03
308	1.1	-0.16	0.03
309	1.1	-0.16	0.03
310	1.3	0.04	0.00
311	0.8	-0.46	0.22
312	1.2	-0.06	0.00
313	1.2	-0.06	0.00
314	1.2	-0.06	0.00
315	1	-0.26	0.07
316	1.2	-0.06	0.00
317	1.4	0.14	0.02
318	1.3	0.04	0.00
319	1.3	0.04	0.00
320	1.5	0.24	0.06
321	1.4	0.14	0.02
322	1.5	0.24	0.06
323	1.3	0.04	0.00
324	1.4	0.14	0.02
325	1.4	0.14	0.02
326	1.4	0.14	0.02
327	1.4	0.14	0.02
328	1.4	0.14	0.02
329	1.3	0.04	0.00
330	1.4	0.14	0.02
331	1.7	0.44	0.19
332	1.2	-0.06	0.00
333	1.2	-0.06	0.00
334	1.7	0.44	0.19
335	1.4	0.14	0.02
336	1.2	-0.06	0.00
337	1.3	0.04	0.00
338	1.1	-0.16	0.03
339	1.2	-0.06	0.00
340	1.1	-0.16	0.03
341	1.4	0.14	0.02
342	1.3	0.04	0.00
343	1.5	0.24	0.06
344	1.2	-0.06	0.00
345	1.5	0.24	0.06
346	1.3	0.04	0.00
347	1.4	0.14	0.02
348	1.1	-0.16	0.03
349	1.2	-0.06	0.00
350	1.3	0.04	0.00
	65.7		1.7
	Sum(n)		Sum(n-N) ²

CIMARRON CORPORATION - CIMARRON FACILITY

TRUE MEAN ACTIVITY VS. GUIDELINE VALUE AT 95% CONFIDENCE (PHASE III)

n = pCi/g Th (NAT)

Number	n	(n-N)	(n-N) ²
351	1.3	0.04	0.00
352	1.3	0.04	0.00
353	1.2	-0.06	0.00
354	1.6	0.34	0.11
355	1.4	0.14	0.02
356	1.3	0.04	0.00
357	1.4	0.14	0.02
358	1.4	0.14	0.02
359	1.5	0.24	0.06
360	1.6	0.34	0.11
361	0.9	-0.36	0.13
362	1.2	-0.06	0.00
363	1	-0.26	0.07
364	1.3	0.04	0.00
365	0.9	-0.36	0.13
366	0.9	-0.36	0.13
367	1.3	0.04	0.00
368	1.7	0.44	0.19
369	1.5	0.24	0.06
370	1.3	0.04	0.00
371	1.4	0.14	0.02
372	1.3	0.04	0.00
373	1.2	-0.06	0.00
374	1.2	-0.06	0.00
375	1.1	-0.16	0.03
376	1.5	0.24	0.06
377	1.4	0.14	0.02
378	1.3	0.04	0.00
379	1.4	0.14	0.02
380	1.5	0.24	0.06
381	1.3	0.04	0.00
382	1.3	0.04	0.00
383	1.3	0.04	0.00
384	1.4	0.14	0.02
385	1.3	0.04	0.00
386	1.4	0.14	0.02
387	1.5	0.24	0.06
388	1	-0.26	0.07
389	1.1	-0.16	0.03
390	1.3	0.04	0.00
391	1.2	-0.06	0.00
392	1	-0.26	0.07
393	1.2	-0.06	0.00
394	1.5	0.24	0.06
395	1.3	0.04	0.00
396	1.4	0.14	0.02
397	1.6	0.34	0.11
398	1.6	0.34	0.11
399	1.2	-0.06	0.00
400	1.1	-0.16	0.03
	65.3		1.9
	Sum(n)		Sum(n-N) ²

n = pCi/g Th (NAT)

SUB - AREA " L "

Number	n	(n-N)	(n-N) ²
401	1.7	0.44	0.19
402	1.5	0.24	0.06
403	1.4	0.14	0.02
404	1.6	0.34	0.11
405	1.4	0.14	0.02
406	1.6	0.34	0.11
407	1.6	0.34	0.11
408	1.5	0.24	0.06
409	1.7	0.44	0.19
410	1.6	0.34	0.11
411	1.3	0.04	0.00
412	1.6	0.34	0.11
413	1.5	0.24	0.06
414	1.3	0.04	0.00
415	1.2	-0.06	0.00
416	1.2	-0.06	0.00
417	1.1	-0.16	0.03
418	1.2	-0.06	0.00
419	1.5	0.24	0.06
420	1.5	0.24	0.06
421	1.4	0.14	0.02
422	1.4	0.14	0.02
423	1.6	0.34	0.11
424	1.6	0.34	0.11
425	1.2	-0.06	0.00
426	1.3	0.04	0.00
427	1.4	0.14	0.02
428	1.6	0.34	0.11
429	1.6	0.34	0.11
430	1.6	0.34	0.11
431	1.6	0.34	0.11
432	1.5	0.24	0.06
433	1.6	0.34	0.11
434	1.2	-0.06	0.00
435	1.4	0.14	0.02
436	1.6	0.34	0.11
437	1.8	0.54	0.29
438	1.4	0.14	0.02
439	1.2	-0.06	0.00
440	1.2	-0.06	0.00
441	1.2	-0.06	0.00
442	1.2	-0.06	0.00
443	1	-0.26	0.07
444	1	-0.26	0.07
445	1.3	0.04	0.00
446	1.4	0.14	0.02
447	1.2	-0.06	0.00
448	1.4	0.14	0.02
449	1.3	0.04	0.00
450	1.4	0.14	0.02
	70.6		2.9
	Sum(n)		Sum(n-N) ²

CIMARRON CORPORATION - CIMARRON FACILITY

TRUE MEAN ACTIVITY VS. GUIDELINE VALUE AT 95% CONFIDENCE (PHASE III)

n = pCi/g Th (NAT)

Number	n	(n-N)	(n-N) ²
451	1.2	-0.06	0.00
452	1.2	-0.06	0.00
453	1.4	0.14	0.02
454	1.4	0.14	0.02
455	1	-0.26	0.07
456	0.9	-0.36	0.13
457	1.3	0.04	0.00
458	1.2	-0.06	0.00
459	1.4	0.14	0.02
460	0.8	-0.46	0.22
461	1.4	0.14	0.02
462	1.4	0.14	0.02
463	1.1	-0.16	0.03
464	1.2	-0.06	0.00
465	1	-0.26	0.07
466	1.3	0.04	0.00
467	1.1	-0.16	0.03
468	1	-0.26	0.07
469	1.3	0.04	0.00
470	1.3	0.04	0.00
471	1	-0.26	0.07
472	0.9	-0.36	0.13
473	1.4	0.14	0.02
474	1	-0.26	0.07
475	0.8	-0.46	0.22
476	1.4	0.14	0.02
477	1.1	-0.16	0.03
478	1.2	-0.06	0.00
479	0.9	-0.36	0.13
480	1	-0.26	0.07
481	1.2	-0.06	0.00
482	1	-0.26	0.07
483	1.2	-0.06	0.00
484	1.2	-0.06	0.00
485	1.2	-0.06	0.00
486	1.2	-0.06	0.00
487	1.2	-0.06	0.00
488	1.5	0.24	0.06
489	1	-0.26	0.07
490	1.3	0.04	0.00
491	1.2	-0.06	0.00
492	1.6	0.34	0.11
493	1.1	-0.16	0.03
494	1.3	0.04	0.00
495	1.2	-0.06	0.00
496	1.2	-0.06	0.00
497	1.5	0.24	0.06
498	1.4	0.14	0.02
499	1.3	0.04	0.00
500	1.3	0.04	0.00
	59.7		1.9
	Sum(n)		Sum(n-N) ²

n = pCi/g Th (NAT)

SUB - AREA " L "

Number	n	(n-N)	(n-N) ²
501	1.4	0.14	0.02
502	1.4	0.14	0.02
503	1.2	-0.06	0.00
504	1.4	0.14	0.02
505	1.3	0.04	0.00
506	1.1	-0.16	0.03
507	1	-0.26	0.07
508	1.2	-0.06	0.00
509	1.4	0.14	0.02
510	1.2	-0.06	0.00
511	1.3	0.04	0.00
512	1.2	-0.06	0.00
513	1.2	-0.06	0.00
514	1.2	-0.06	0.00
515	1.3	0.04	0.00
516	1.3	0.04	0.00
517	1.2	-0.06	0.00
518	1.5	0.24	0.06
519	1.5	0.24	0.06
520	1.3	0.04	0.00
521	1.2	-0.06	0.00
522	1.4	0.14	0.02
523	1.3	0.04	0.00
524	1.4	0.14	0.02
525	1.1	-0.16	0.03
526	1.5	0.24	0.06
527	1.1	-0.16	0.03
528	0.9	-0.36	0.13
529	1.3	0.04	0.00
530	1.5	0.24	0.06
531	1.2	-0.06	0.00
532	1.1	-0.16	0.03
533	1.5	0.24	0.06
534	1.4	0.14	0.02
535	2	0.74	0.54
536	1.3	0.04	0.00
537	1.3	0.04	0.00
538	1.1	-0.16	0.03
539	1.1	-0.16	0.03
540	1.2	-0.06	0.00
541	1.4	0.14	0.02
542	1.1	-0.16	0.03
543	1.5	0.24	0.06
544	0.8	-0.46	0.22
545	1.4	0.14	0.02
546	1.3	0.04	0.00
547	1.4	0.14	0.02
548	1.5	0.24	0.06
549	0.9	-0.36	0.13
550	1.5	0.24	0.06
	64.3		2.0
	Sum(n)		Sum(n-N) ²

CIMARRON CORPORATION - CIMARRON FACILITY

TRUE MEAN ACTIVITY VS. GUIDELINE VALUE AT 95% CONFIDENCE (PHASE III)

n = pCi/g Th (NAT)

Number	n	(n-N)	(n-N) ²
551	1.1	-0.16	0.03
552	1.2	-0.06	0.00
553	1.1	-0.16	0.03
554	1.4	0.14	0.02
555	0.8	-0.46	0.22
556	1	-0.26	0.07
557	1.5	0.24	0.06
558	1.1	-0.16	0.03
559	1.6	0.34	0.11
560	1.9	0.64	0.40
561	1.1	-0.16	0.03
562	1.6	0.34	0.11
563	1	-0.26	0.07
564	1.4	0.14	0.02
565	1.5	0.24	0.06
566	1	-0.26	0.07
567	1.2	-0.06	0.00
568	1.2	-0.06	0.00
569	1.5	0.24	0.06
570	1.2	-0.06	0.00
571	1.3	0.04	0.00
572	1.3	0.04	0.00
573	1.1	-0.16	0.03
574	1.1	-0.16	0.03
575	1	-0.26	0.07
576	1	-0.26	0.07
577	1	-0.26	0.07
578	1.1	-0.16	0.03
579	1.1	-0.16	0.03
580	0.9	-0.36	0.13
581	0.8	-0.46	0.22
582	1.1	-0.16	0.03
583	0.9	-0.36	0.13
584	1.2	-0.06	0.00
585	1.2	-0.06	0.00
586	1.3	0.04	0.00
587	0.8	-0.46	0.22
588	1.3	0.04	0.00
589	1.3	0.04	0.00
590	0.8	-0.46	0.22
591	1	-0.26	0.07
592	1.1	-0.16	0.03
593	1.1	-0.16	0.03
594	1.3	0.04	0.00
595	1.4	0.14	0.02
596	1.2	-0.06	0.00
597	1.3	0.04	0.00
598	1.3	0.04	0.00
599	0.8	-0.46	0.22
600	1.5	0.24	0.06
	59.0		3.1
	Sum(n)		Sum(n-N)

n = pCi/g Th (NAT)

SUB - AREA " L "

Number	n	(n-N)	(n-N) ²
601	1.2	-0.06	0.00
602	1.1	-0.16	0.03
603	0.9	-0.36	0.13
604	1.1	-0.16	0.03
605	1.3	0.04	0.00
606	1.1	-0.16	0.03
607	1.2	-0.06	0.00
608	1.2	-0.06	0.00
609	1.2	-0.06	0.00
610	1.3	0.04	0.00
611	1.3	0.04	0.00
612	1.2	-0.06	0.00
613	0.9	-0.36	0.13
614	1.6	0.34	0.11
615	1.3	0.04	0.00
616	1.3	0.04	0.00
617	1.2	-0.06	0.00
618	1.2	-0.06	0.00
619	1.3	0.04	0.00
620	1.5	0.24	0.06
621	1.1	-0.16	0.03
622	1.5	0.24	0.06
623	1.2	-0.06	0.00
624	0.8	-0.46	0.22
625	0.9	-0.36	0.13
626	1.4	0.14	0.02
627	1.3	0.04	0.00
628	1.4	0.14	0.02
629	1.4	0.14	0.02
630	1.3	0.04	0.00
631	1.3	0.04	0.00
632	1.2	-0.06	0.00
633	1.2	-0.06	0.00
634	1.4	0.14	0.02
635	1.2	-0.06	0.00
636	1.6	0.34	0.11
637	1.6	0.34	0.11
638	1.4	0.14	0.02
639	1	-0.26	0.07
640	1.5	0.24	0.06
641	1.2	-0.06	0.00
642	1.2	-0.06	0.00
643	1.2	-0.06	0.00
644	0.9	-0.36	0.13
645	1.2	-0.06	0.00
646	1.4	0.14	0.02
647	1.1	-0.16	0.03
648	1.4	0.14	0.02
649	1	-0.26	0.07
650	1.3	0.04	0.00
	62.0		1.7
	Sum(n)		Sum(n-N)

CIMARRON CORPORATION - CIMARRON FACILITY

TRUE MEAN ACTIVITY VS. GUIDELINE VALUE AT 95% CONFIDENCE (PHASE III)

n = pCi/g Th (NAT)

Number	n	(n-N)	(n-N) ²
651	1.4	0.14	0.02
652	1.2	-0.06	0.00
653	1.3	0.04	0.00
654	1.4	0.14	0.02
655	1.3	0.04	0.00
656	1.2	-0.06	0.00
657	1.1	-0.16	0.03
658	1.2	-0.06	0.00
659	1.1	-0.16	0.03
660	1.1	-0.16	0.03
661	1.1	-0.16	0.03
662	1.4	0.14	0.02
663	1.2	-0.06	0.00
664	1.2	-0.06	0.00
665	1.5	0.24	0.06
666	1	-0.26	0.07
667	1.4	0.14	0.02
668	1.3	0.04	0.00
669	1.5	0.24	0.06
670	1.3	0.04	0.00
671	1.4	0.14	0.02
672	1.2	-0.06	0.00
673	1.2	-0.06	0.00
674	1	-0.26	0.07
675	0.8	-0.46	0.22
676	1.1	-0.16	0.03
677	1	-0.26	0.07
678	1.4	0.14	0.02
679	1	-0.26	0.07
680	1	-0.26	0.07
681	1	-0.26	0.07
682	1.2	-0.06	0.00
683	1	-0.26	0.07
684	0.7	-0.56	0.32
685	0.9	-0.36	0.13
686	1.3	0.04	0.00
687	1.1	-0.16	0.03
688	1.3	0.04	0.00
689	1.2	-0.06	0.00
690	1.4	0.14	0.02
691	1.3	0.04	0.00
692	1.2	-0.06	0.00
693	1.3	0.04	0.00
694	1.6	0.34	0.11
695	1.4	0.14	0.02
696	1.3	0.04	0.00
697	1.1	-0.16	0.03
698	0.7	-0.56	0.32
699	1.6	0.34	0.11
700	1.4	0.14	0.02
	60.3		2.2
	Sum(n)		Sum(n-N)

n = pCi/g Th (NAT)

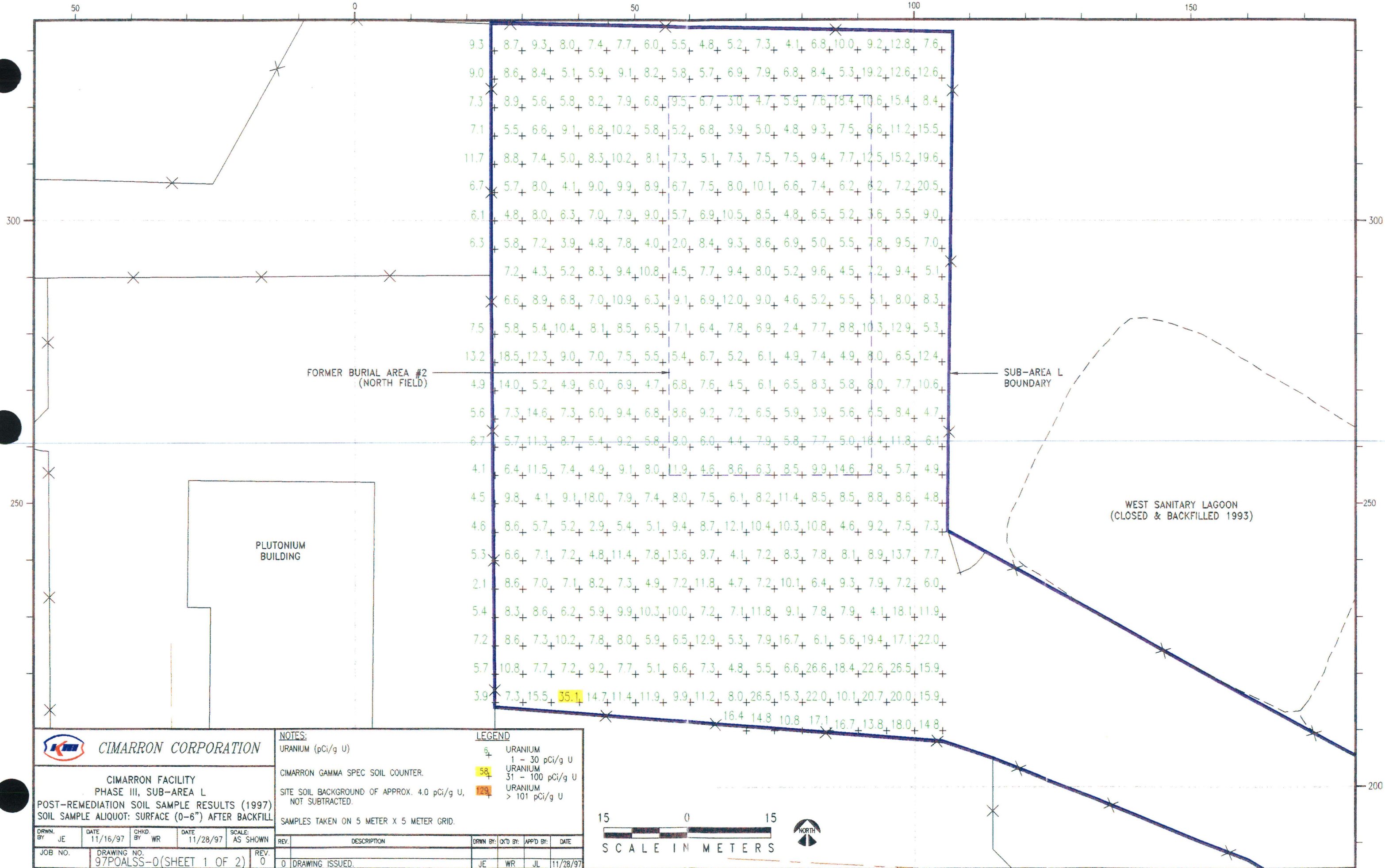
SUB - AREA " L "

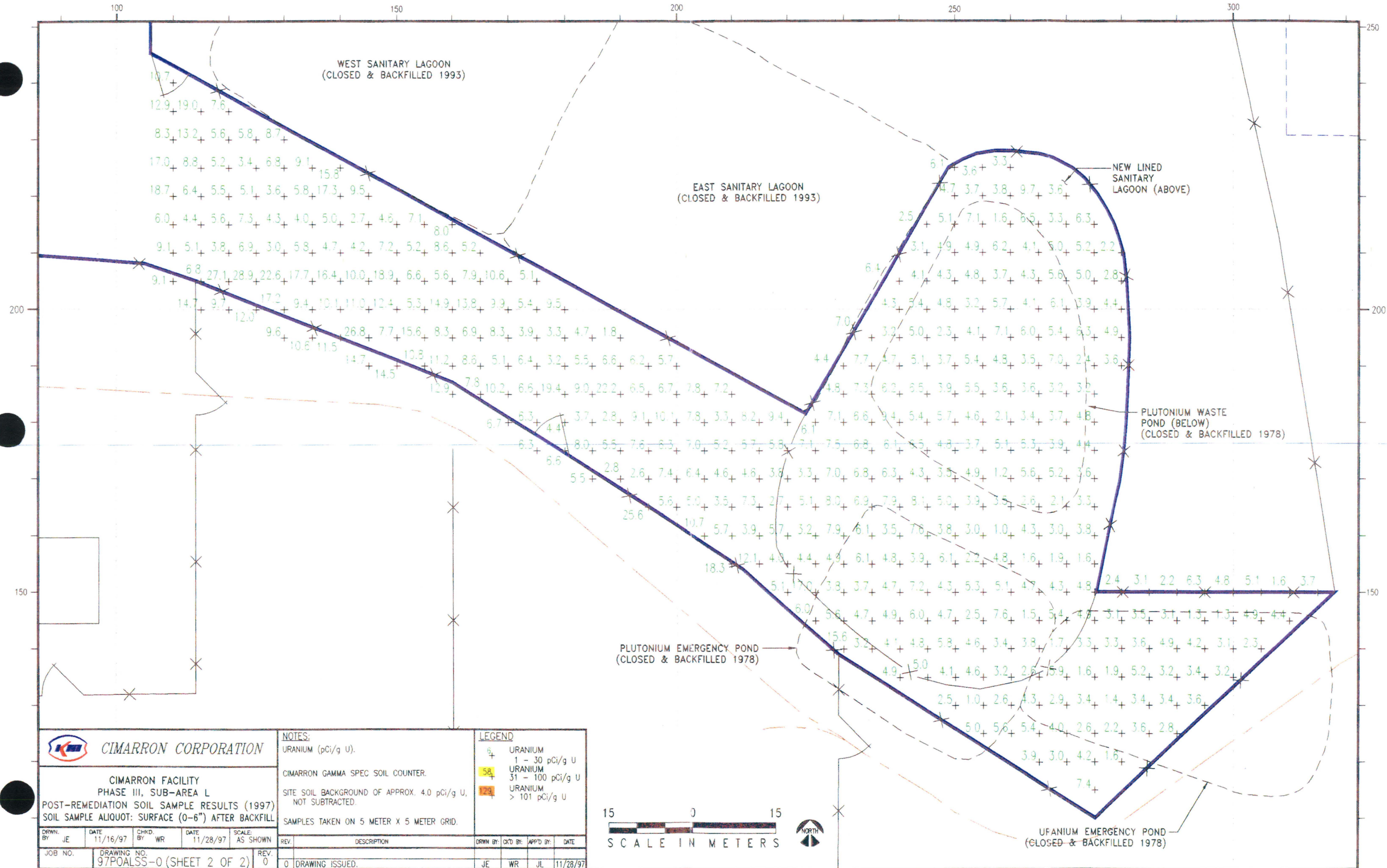
Number	n	(n-N)	(n-N) ²
701	0.8	-0.46	0.22
702	0.9	-0.36	0.13
703	0.9	-0.36	0.13
704	1.2	-0.06	0.00
705	1.1	-0.16	0.03
706	1.2	-0.06	0.00
707	1	-0.26	0.07
708	1.4	0.14	0.02
709	1.4	0.14	0.02
710	1.1	-0.16	0.03
711	1	-0.26	0.07
712	1.1	-0.16	0.03
713	1	-0.26	0.07
714	1.1	-0.16	0.03
715	1.4	0.14	0.02
716	1.4	0.14	0.02
717	1.1	-0.16	0.03
718	1.2	-0.06	0.00
719	0.9	-0.36	0.13
720	1.4	0.14	0.02
721	1	-0.26	0.07
722	1.2	-0.06	0.00
723	1.1	-0.16	0.03
724	0.9	-0.36	0.13
725	1.3	0.04	0.00
726	1.1	-0.16	0.03
727	1	-0.26	0.07
728	1.1	-0.16	0.03
729	1.1	-0.16	0.03
730	1.4	0.14	0.02
731	1.2	-0.06	0.00
732	1.2	-0.06	0.00
733	1.2	-0.06	0.00
734	1.1	-0.16	0.03
735	1.2	-0.06	0.00
736	1.2	-0.06	0.00
737	1.5	0.24	0.06
738	1.2	-0.06	0.00
739	1	-0.26	0.07
740	1	-0.26	0.07
741	1.6	0.34	0.11
742	0.9	-0.36	0.13
743	1.3	0.04	0.00
744	1.1	-0.16	0.03
745	1.2	-0.06	0.00
746	1.2	-0.06	0.00
747	1	-0.26	0.07
748	1	-0.26	0.07
749	1.1	-0.16	0.03
750	1.1	-0.16	0.03
	57.1		2.2
	Sum(n)		Sum(n-N)

TRUE MEAN ACTIVITY VS. GUIDELINE VALUE AT 95% CONFIDENCE (PHASE III)

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

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



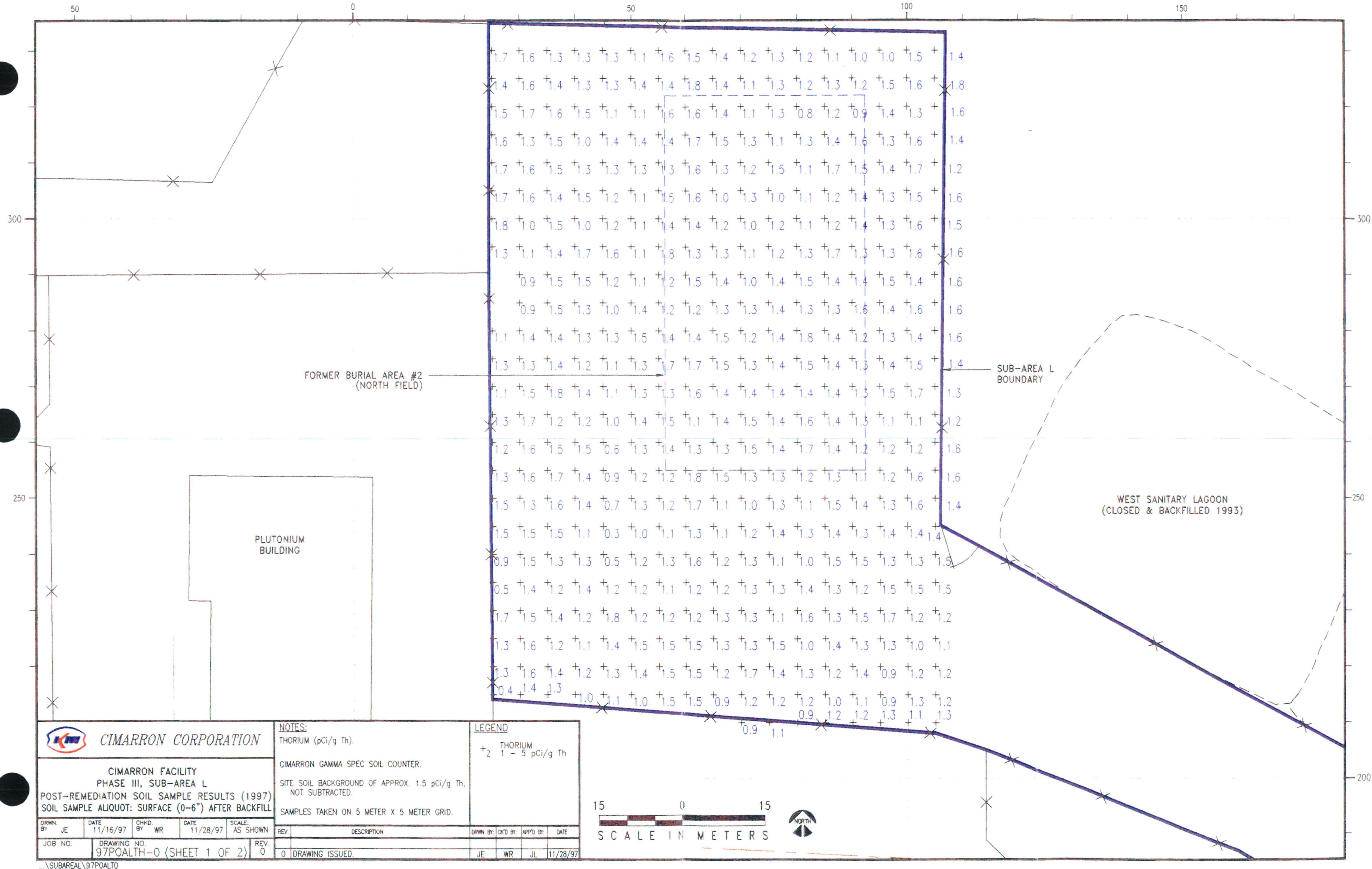


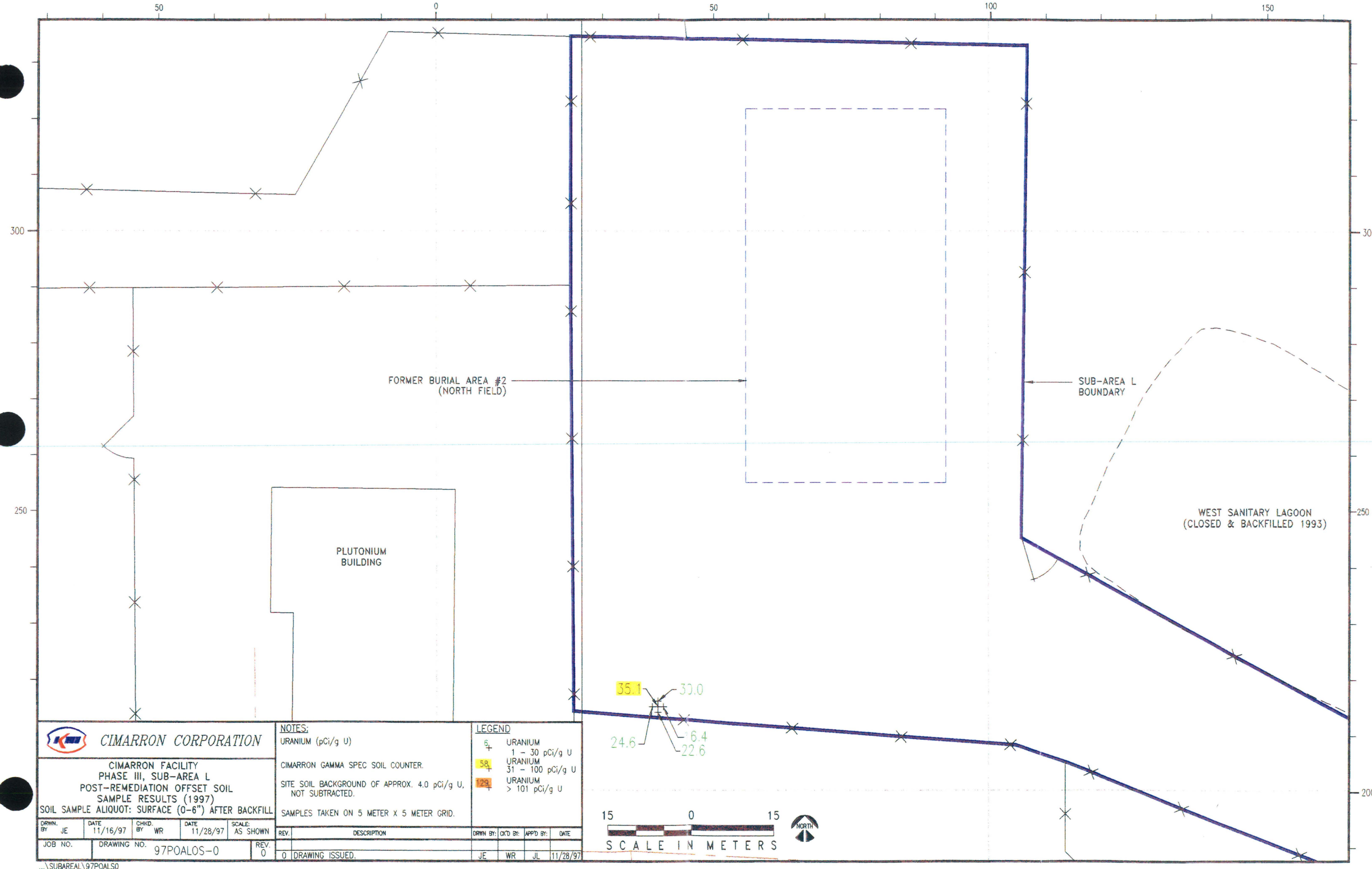
 **CIMARRON CORPORATION**

**CIMARRON FACILITY
PHASE III, SUB-AREA L
POST-REMEDIATION SOIL SAMPLE RESULTS (1997)
SOIL SAMPLE ALIQUOT: SURFACE (0-6") AFTER BACKFILL**

DRWN. BY: JE	DATE: 11/16/97	CHKD. BY: WR	DATE: 11/28/97	SCALE: AS SHOWN
JOB NO.	DRAWING NO. 97POALSS-0 (SHEET 2 OF 2)	REV. 0	0 DRAWING ISSUED.	JE WR JL 11/28/97

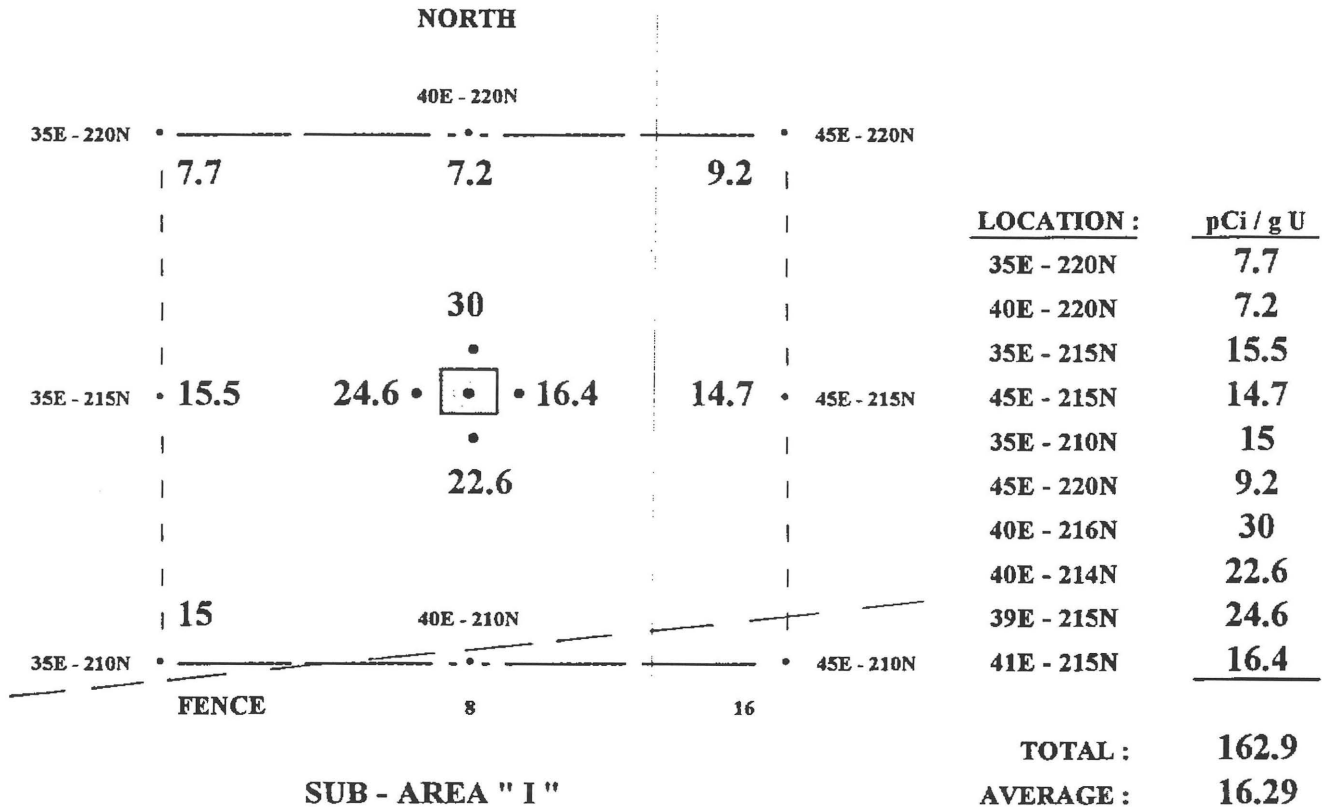
...\\SUBAREAL\97POALSB





**CIMARRON CORPORATION
CIMARRON FACILITY
PHASE II SUB - AREA " L "
HOT SPOT AVERAGING (5 X 5 METER GRID)**

(HOT SPOT) LOCATION : 40 EAST - 215 NORTH (35.1 pCi / g U)



GRID AREA : 95 SQUARE METERS

ELEVATED AREA (40E - 215N) REPRESENTS 1 SQUARE METERS

$$A = 1$$

SQUARE ROOT OF (95 / A) = SQRT (95 / 1) = 9.7

9.7 X 100 = 970 pCi / g U.

970 pCi / g U > 35.1 pCi / g U CRITERIA IS SATISFIED.

$$X_w = 16.29 [1 - 1 / 95] + 35.1 [1 / 95] = 16.11 + 0.369 = 16.48 \text{ pCi / g U}$$

$$X_w = 16.48 \text{ pCi / g U}$$

W. A. Rogers
6-25-98

CIMARRON CORPORATION
CIMARRON FACILITY
PHASE III, SUB-AREA "L"
FINAL OFFSET DATA AFTER BACKFILL

DATE: 10/22/97

LN #	GRID NUMBER	3" DETECT C.P.M.	MICRO R' 1 METER	MICRO R' SURF	pCi/g					
					0-6" Sample		6" - 1'		1' - 2'	
					Total-U	Th (Nat)	Total-U	Th (Nat)	Total-U	Th (Nat)
1	39E - 215N	5140	7	9	24.6	1.4				
2	40E - 214N	5290	9	9	22.6	1.2				
3	40E - 215N	4760	9	9	35.1	1	16.6	1.4	8.9	1.1
4	40E - 216N	5040	8	9	30	1.3				
5	41E - 215N	4810	9	8	16.4	1.2				
6										
7										
8										
9										
10										
11										
12										
13										
14										
15										
16										
17										
18										

INSTRUMENTS:

LUDLUM MICRO 'R' METER - MOD 12S S/N 9081

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

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

RESULTS IN: BACKGROUND MDA

µR/hr 7 7

CPM 3000 N/A

Total U 4 10

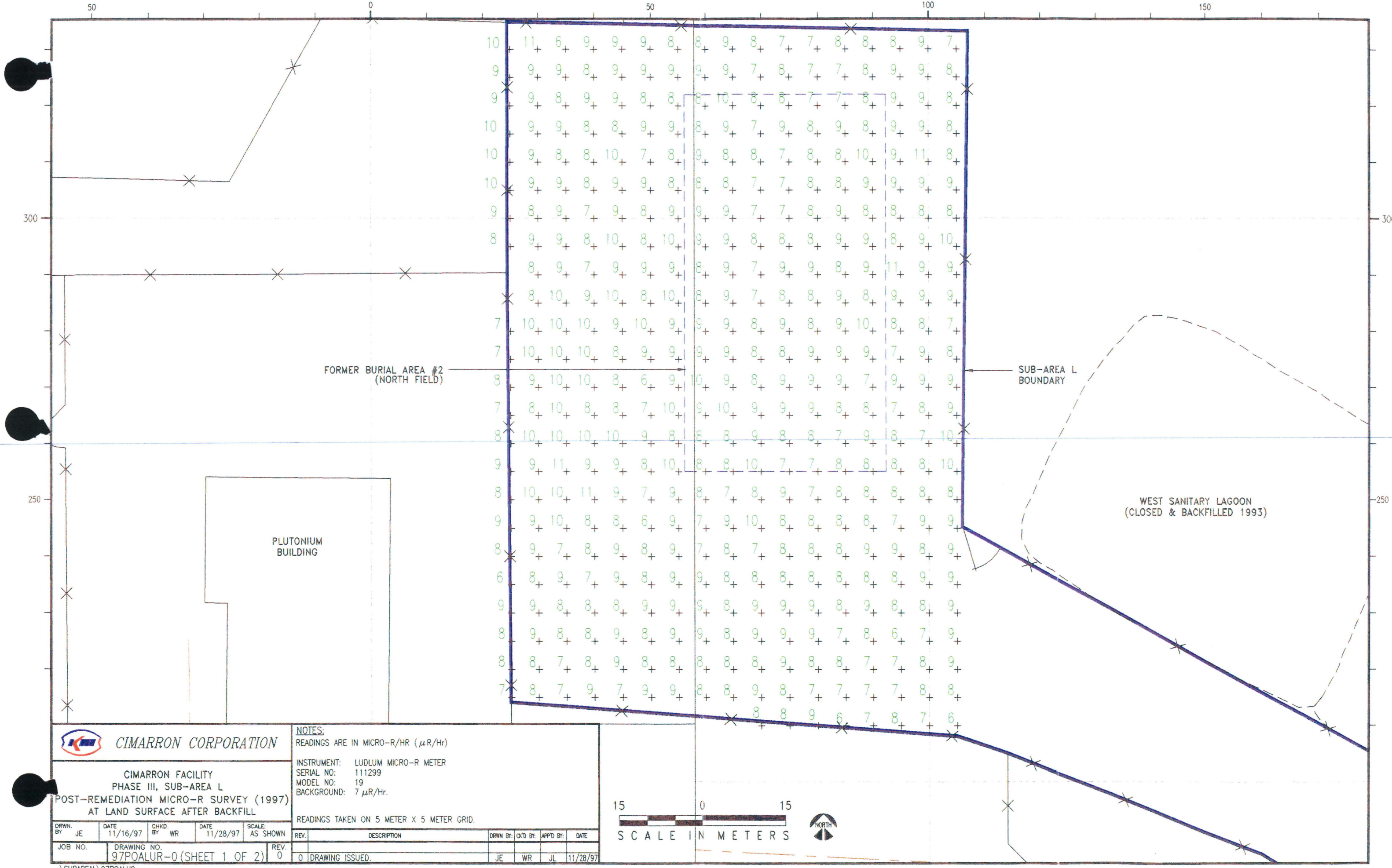
pCi/g Th(Nat) 1 1

BACKGROUND NOT SUBTRACTED

REVIEWED BY: *W. A. Rogers*

DATE: 10-27-97

FILE: BKSSFORM



FORMER BURIAL AREA #2
(NORTH FIELD)

PLUTONIUM
BUILDING

SUB-AREA L
BOUNDARY

WEST SANITARY LAGOON
(CLOSED & BACKFILLED 1993)

 **CIMARRON CORPORATION**

CIMARRON FACILITY
PHASE III, SUB-AREA L
POST-REMEDIATION MICRO-R SURVEY (1997)
AT LAND SURFACE AFTER BACKFILL

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

READINGS TAKEN ON 5 METER X 5 METER GRID.

DRWN. BY	JE	DATE	11/16/97	CHKD. BY	WR	DATE	11/28/97	SCALE:	AS SHOWN	REV.		DESCRIPTION	DRWN BY:	JE	CHKD BY:	WR	APP'D BY:	JL	DATE	11/28/97
JOB NO.		DRAWING NO.	97POALUR-0 (SHEET 1 OF 2)	REV.	0							DRAWING ISSUED.								



