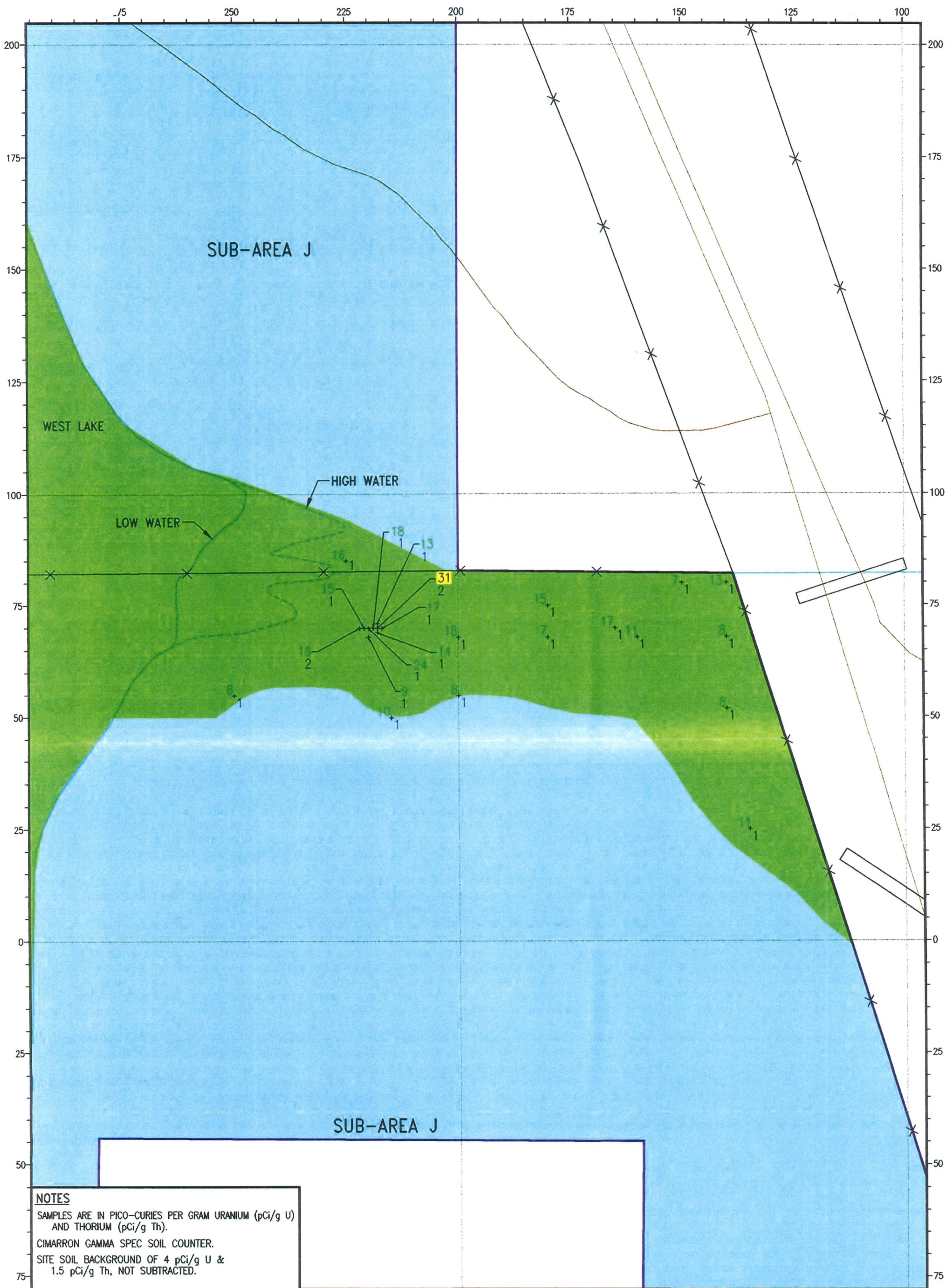


NOTES

SAMPLES ARE IN PICO-CURIES PER GRAM URANIUM (pCi/g U) AND THORIUM (pCi/g Th).

CIMARRON GAMMA SPEC SOIL COUNTER.

SITE SOIL BACKGROUND OF 4 pCi/g U & 1.5 pCi/g Th, NOT SUBTRACTED.

LEGEND

- 12 + URANIUM 1 – 30 pCi/g U
- 31 + URANIUM > 30 pCi/g U
- +1 THORIUM < 10 pCi/g Th
- – + URANIUM HIT ROCK, NO SAMPLE
- +– THORIUM HIT ROCK, NO SAMPLE

20 0 20

SCALE IN METERS

NORTH

LEGEND

- UNAFFECTED AREA (PHASE II)
- AFFECTED AREA (PHASE II)

REV.	DESCRIPTION	DRWN BY:	CK'D BY:	APP'D BY:	DATE
0	DRAWING ISSUED.	JE	RS	JK	8/20/97

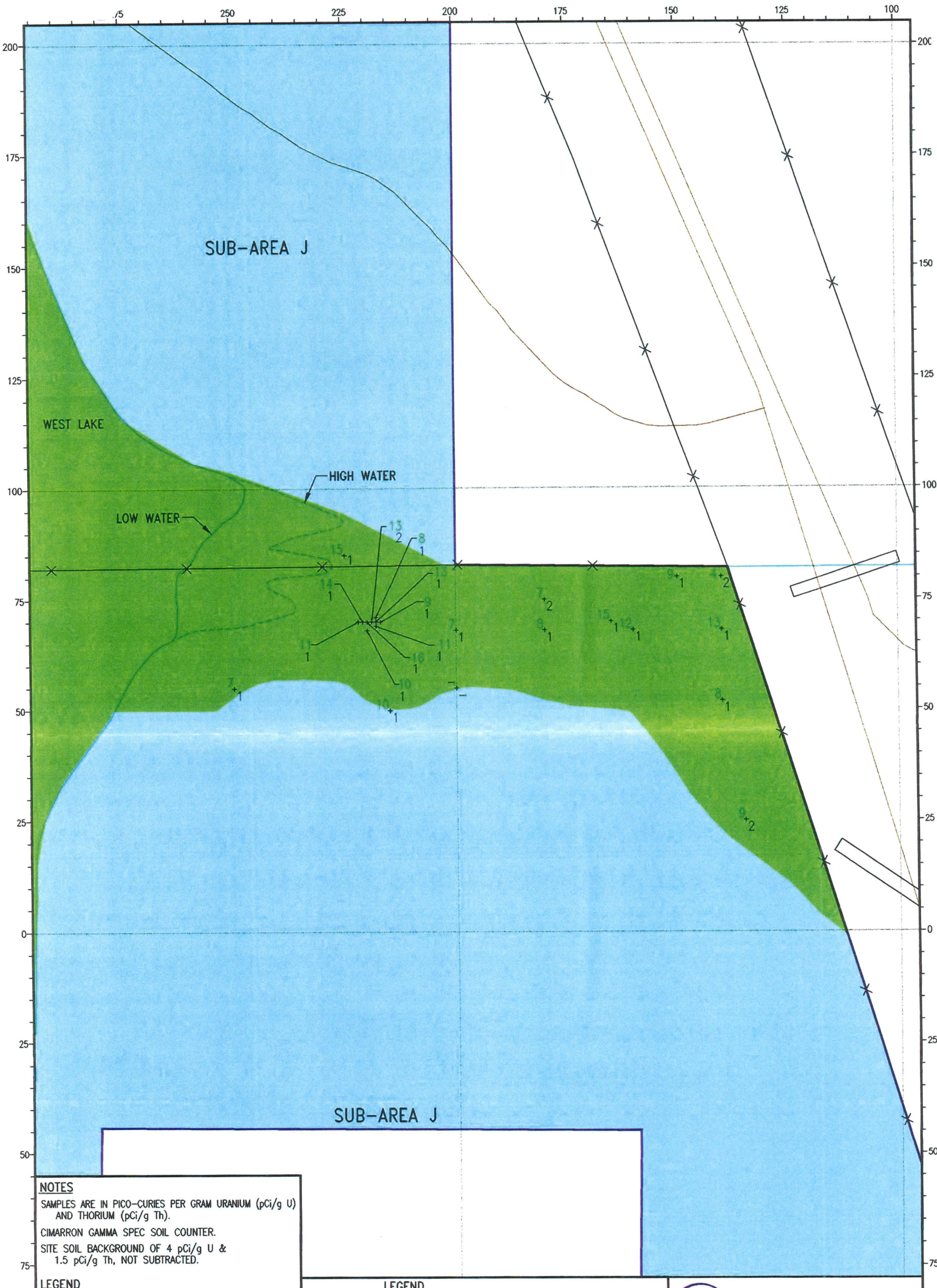
CIMARRON CORPORATION

CIMARRON FACILITY
PHASE II – SUB-AREA J
POST REMEDIATION AFFECTED AREA
CONFIRMATORY SOIL SAMPLE RESULTS (1997)
SOIL SAMPLE ALIQUOT: 1'–2'

DRWN. BY	DATE	SCALE
JE	7/9/97	AS SHOWN

JOB NO.	DRAWING NO.	REV.
	97POAJSS-CONF-2	0

...\CIMARRON\SUBAREAJ\97POAJSC



NOTES

SAMPLES ARE IN PICO-CURIES PER GRAM URANIUM (pCi/g U) AND THORIUM (pCi/g Th).

CIMARRON GAMMA SPEC SOIL COUNTER.

SITE SOIL BACKGROUND OF 4 pCi/g U & 1.5 pCi/g Th, NOT SUBTRACTED.

LEGEND

- 12 + URANIUM 1 – 30 pCi/g U
- 31 + URANIUM > 30 pCi/g U
- +1 THORIUM < 10 pCi/g Th
- –+ URANIUM HIT ROCK, NO SAMPLE
- +– THORIUM HIT ROCK, NO SAMPLE

20 0 20

SCALE IN METERS

NORTH

LEGEND

- UNAFFECTED AREA (PHASE II)
- AFFECTED AREA (PHASE II)

REV.	DESCRIPTION	DRWN BY:	CK'D BY:	APP'D BY:	DATE
0	DRAWING ISSUED.	JE	RS	JK	8/20/97

CIMARRON CORPORATION

CIMARRON FACILITY
PHASE II – SUB-AREA J
POST REMEDIATION AFFECTED AREA
CONFIRMATORY SOIL SAMPLE RESULTS (1997)
SOIL SAMPLE ALIQUOT: 2'-3'

DRWN. BY	DATE	SCALE
JE	7/9/97	AS SHOWN
JOB NO.	DRAWING NO. 97POAJSS-CONF-3	REV. 0

...\CIMARRON\SUBAREAJ\97POAJSC

SUB-AREA J

WEST LAKE

HIGH WATER

LOW WATER

SUB-AREA J

NOTES

SAMPLES ARE IN PICO-CURIES PER GRAM URANIUM (pCi/g U) AND THORIUM (pCi/g Th).

CIMARRON GAMMA SPEC SOIL COUNTER.

SITE SOIL BACKGROUND OF 4 pCi/g U & 1.5 pCi/g Th, NOT SUBTRACTED.

LEGEND

12 + URANIUM 1 - 30 pCi/g U

31 + URANIUM > 30 pCi/g U

+1 THORIUM < 10 pCi/g Th

-+ URANIUM HIT ROCK, NO SAMPLE

+- THORIUM HIT ROCK, NO SAMPLE

20 0 20

SCALE IN METERS

NORTH

LEGEND

UNAFFECTED AREA (PHASE II)

AFFECTED AREA (PHASE II)

REV.	DESCRIPTION	DRWN BY:	CK'D BY:	APP'D BY:	DATE
0	DRAWING ISSUED.	JE	RS	JK	8/20/97

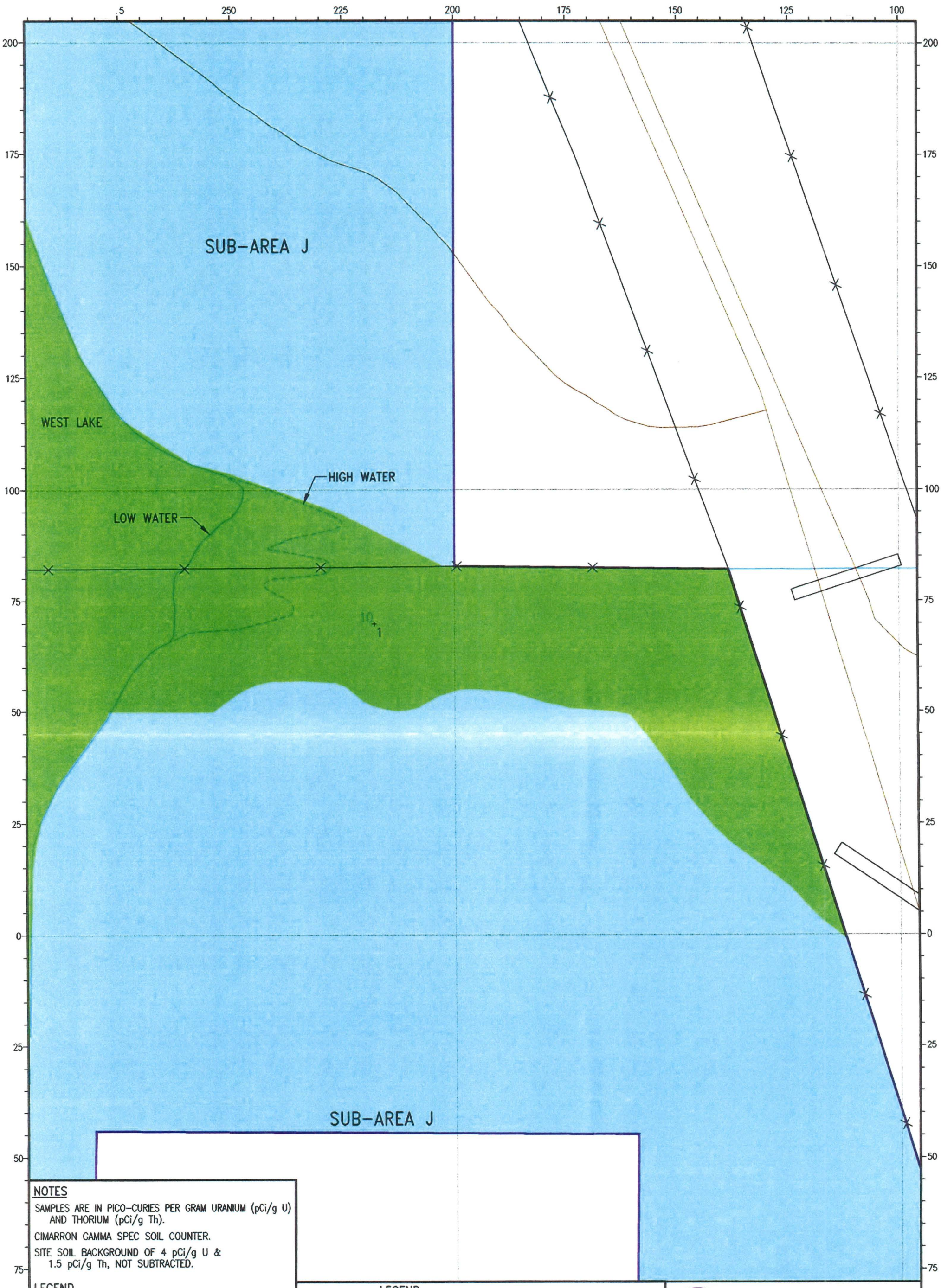
CIMARRON CORPORATION

CIMARRON FACILITY
PHASE II - SUB-AREA J
POST REMEDIATION AFFECTED AREA
CONFIRMATORY SOIL SAMPLE RESULTS (1997)
SOIL SAMPLE ALIQUOT: 3'-4'

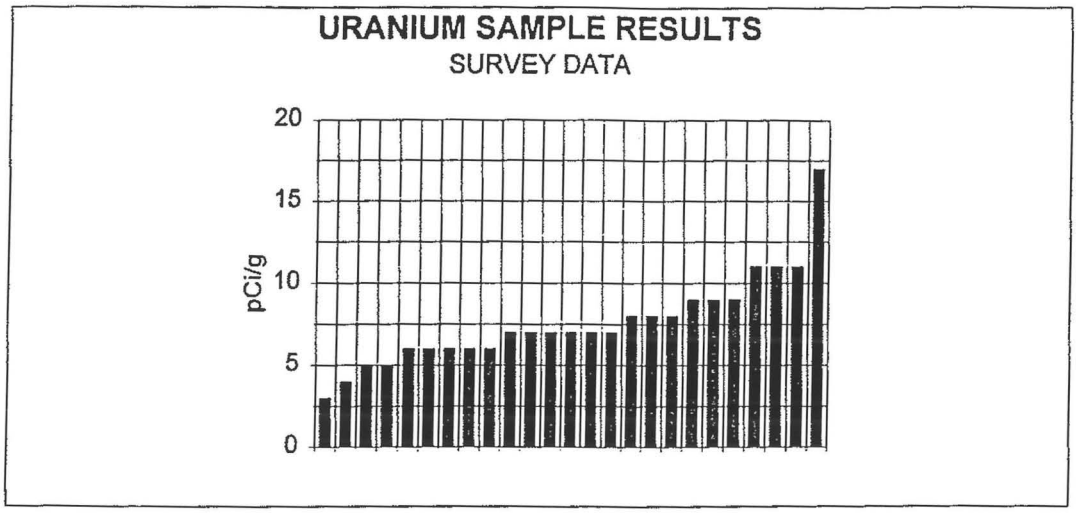
DRWN. BY	DATE	SCALE
JE	7/9/97	AS SHOWN

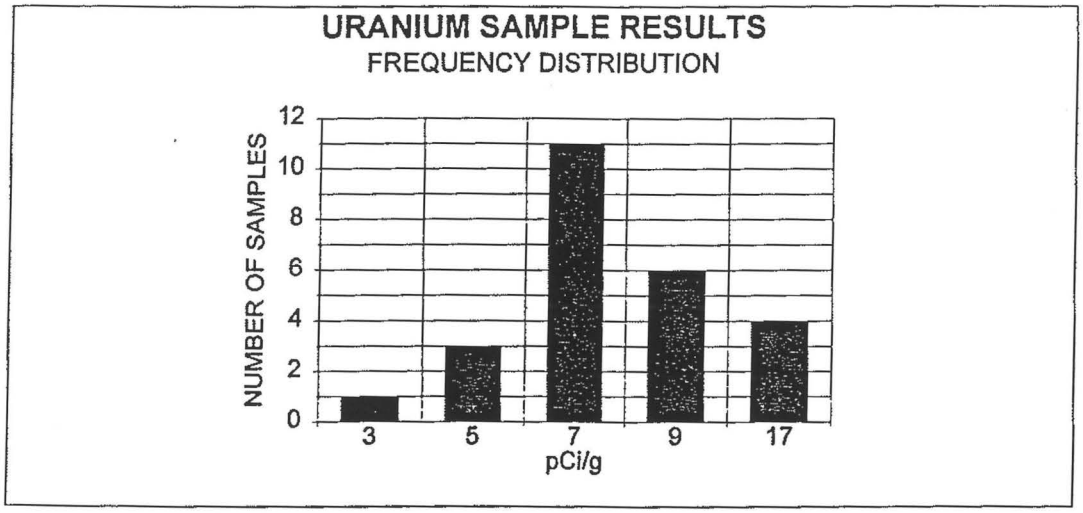
JOB NO.	DRAWING NO.	REV.
	97POAJSS-CONF-4	0

...\CIMARRON\SUBAREAJ\97POAJSC


SUB-AREA J
WEST LAKE
HIGH WATER
LOW WATER
10
1
SUB-AREA J
NOTES
SAMPLES ARE IN PICO-CURIES PER GRAM URANIUM (pCi/g U) AND THORIUM (pCi/g Th).
CIMARRON GAMMA SPEC SOIL COUNTER.
SITE SOIL BACKGROUND OF 4 pCi/g U & 1.5 pCi/g Th, NOT SUBTRACTED.
LEGEND
URANIUM 1 - 30 pCi/g U
URANIUM HIT ROCK, NO SAMPLE
URANIUM > 30 pCi/g U
THORIUM < 10 pCi/g Th
THORIUM HIT ROCK, NO SAMPLE
20 0 20
SCALE IN METERS
NORTH
LEGEND
UNAFFECTED AREA (PHASE II)
AFFECTED AREA (PHASE II)
CIMARRON CORPORATION
CIMARRON FACILITY
PHASE II - SUB-AREA J
POST REMEDIATION AFFECTED AREA
CONFIRMATORY SOIL SAMPLE RESULTS (1997)
SOIL SAMPLE ALIQUOT: 4'-5'
REV. DESCRIPTION DRWN BY: CK'D BY: APP'D BY: DATE
0 DRAWING ISSUED. JE RS JK 8/20/97
DRWN. BY JE
DATE 7/9/97
SCALE AS SHOWN
JOB NO.
DRAWING NO. 97POAJSS-CONF-5
REV. 0
...\CIMARRON\SUBAREAJ\97POAJSC

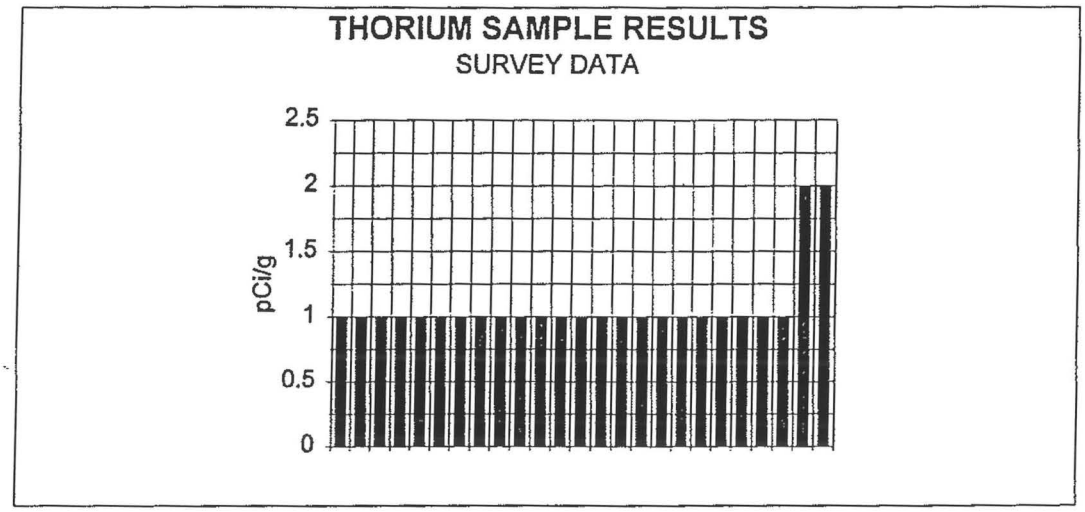
PHASE II, SUB-AREA "J" - SURFACE DRAINAGE WAY
CIMARRON SOIL COUNTER
TOTAL URANIUM SAMPLE RESULTS
SITE BACKGROUND OF 4 pCi/g NOT SUBTRACTED
MARCH 1997

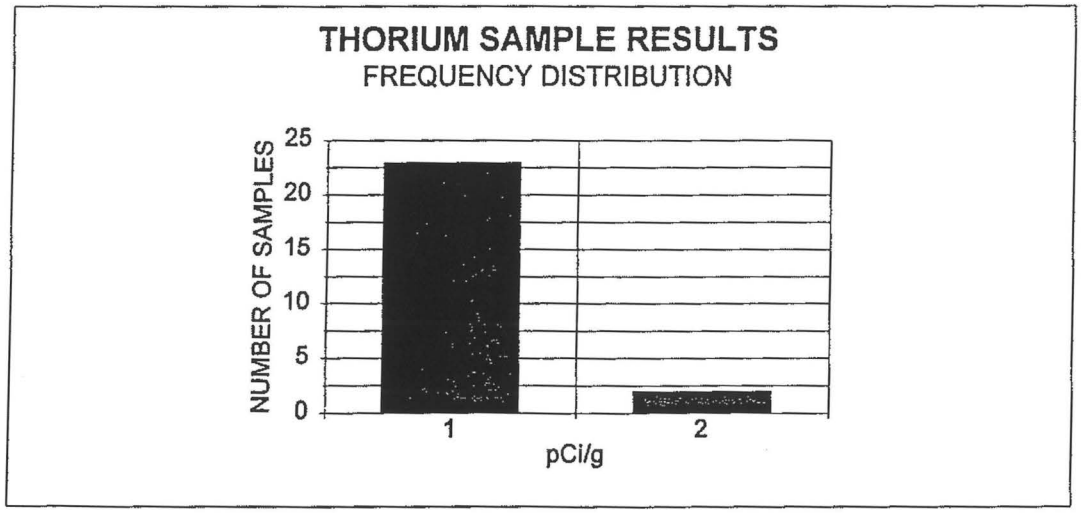




NUMBER OF SAMPLES	25
AVERAGE SAMPLE	8
MINIMUM SAMPLE	3
MAXIMUM SAMPLE	17
STANDARD DEVIATION	3

PHASE II, SUB-AREA "J" - SURFACE DRAINAGE WAY
CIMARRON SOIL COUNTER
THORIUM (NAT) SAMPLE RESULTS
SITE BACKGROUND OF 1.5 pCi/g NOT SUBTRACTED
MARCH 1997





NUMBER OF SAMPLES	25
AVERAGE SAMPLE	1
MINIMUM SAMPLE	1
MAXIMUM SAMPLE	2
STANDARD DEVIATION	0

CIMARRON CORPORATION - CIMARRON FACILITY

TRUE MEAN ACTIVITY VS. GUIDELINE VALUE AT 95% CONFIDENCE (PHASE II) SUB-AREA "J" DRAINAGE (SURFACE)

n = pCi/g TOTAL U

Number	n	(n-N)	$(n-N)^2$
1	3	-4.57	20.87
2	4	-3.57	12.73
3	5	-2.57	6.59
4	5	-2.57	6.59
5	6	-1.57	2.46
6	6	-1.57	2.46
7	6	-1.57	2.46
8	6	-1.57	2.46
9	6	-1.57	2.46
10	7	-0.97	0.94
11	7	-0.87	0.75
12	7	-0.77	0.59
13	7	-0.67	0.45
14	7	-0.47	0.22
15	7	-0.47	0.22
16	8	0.43	0.19
17	8	0.43	0.19
18	8	0.43	0.19
19	9	1.43	2.05
20	9	1.43	2.05
21	9	1.43	2.05
22	11	3.43	11.78
23	11	3.43	11.78
24	11	3.43	11.78
25	17	9.43	88.96
26			
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50			
	189.2		193.25
	Sum(n)		$Sum(n-N)^2$

No. of Samples (x) : 25

COUNT TIME: 5 MINUTES

Sample Mean (N) = Sum(n) ÷ (x)

Sample Mean (N) : 7.6

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

Standard Deviation: 2.8

2 Std Deviations: 5.7

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

(df) = 1.711

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

(Aμ) = 8.54 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 Comparision 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)		is (B)		95%
(df) low value(Y)		is (A)		95%
Desired value(df) (X)	24	is calculated as follow:		
EXP[((Ln(B)-Ln(A)) ÷ (Z-Y)) (X-Y) + Ln(A)]				
The (df) value for (X	24	1.711	95%	

PERFORMED BY: Irving Powell DATE: 4-8-97

REVIEWED BY: W.A. Rogers DATE: 4-8-97

CIMARRON CORPORATION - CIMARRON FACILITY

TRUE MEAN ACTIVITY VS. GUIDELINE VALUE AT 95% CONFIDENCE (PHASE II) SUB-AREA "J" DRAINAGE (SURFACE)

n = pCi/g Th (NAT)

Number	n	(n-N)	$(n-N)^2$
1	1	-0.44	0.19
2	1	-0.34	0.12
3	1	-0.34	0.12
4	1	-0.24	0.06
5	1	-0.24	0.06
6	1	-0.14	0.02
7	1	-0.04	0.00
8	1	-0.04	0.00
9	1	-0.04	0.00
10	1	-0.04	0.00
11	1	0.06	0.00
12	1	0.06	0.00
13	1	0.06	0.00
14	1	0.06	0.00
15	1	0.06	0.00
16	1	0.06	0.00
17	1	0.06	0.00
18	1	0.16	0.03
19	1	0.16	0.03
20	1	0.16	0.03
21	1	0.16	0.03
22	1	0.16	0.03
23	1	0.16	0.03
24	2	0.26	0.07
25	2	0.26	0.07
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50			
	31		0.880
	Sum(n)		$Sum(n-N)^2$

No. of Samples (x) : **25**

COUNT TIME: 5 MINUTES

Sample Mean (N) = Sum(n) ÷ (x)

Sample Mean (N) : **1.2**

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

Standard Deviation: **0.19**

2 Std Deviations: **0.38**

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

(df) = **1.711**

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

(Aμ) = **1.31** 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 Comparision 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)		is (B)		95%
(df) low value(Y)		is (A)		95%
Desired value(df) (X)	24	is calculated as follow:		

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

The (df) value for (X	24	1.711	95%

PERFORMED BY: Irving Powell DATE: 4-8-97

REVIEWED BY: [signature] DATE: 4-8-97

CIMARRON CORPORATION
CIMARRON FACILITY
PHASE II, SUB-AREA "J", SURFACE
DRAINAGE WAY

DATE: 02/27/97

.N #	GRID NUMBER	3" DETECT C.P.M.	MICRO R' SURF	MICRO R' 1 METER	0-6" Sample Total-U	0-6" Sample Th (Nat)
1	120W-32N	***	***	***	6	1
2	125W-30N	***	***	***	7	1
3	130W-35N	***	***	***	6	1
4	135W-35N	***	***	***	3	1
5	140W-40N	***	***	***	8	1
6	145W-43N	***	***	***	9	1
7	150W-46N	***	***	***	7	1
8	155W-52N	***	***	***	5	1
9	160W-55N	***	***	***	6	2
10	165W-62N	***	***	***	11	1
11	170W-60N	***	***	***	6	1
12	175W-59N	***	***	***	7	1
13	180W-60N	***	***	***	6	1
	185W-66N	***	***	***	8	1
15	190W-68N	***	***	***	7	1
16	195W-71N	***	***	***	9	1
17	200W-74N	***	***	***	8	2
18	205W-78N	***	***	***	11	1

*** - Field survey reading NOT taken over standing water. Data collected over standing water would be low and background data would vary from reported values.

NSTRUMENTS: RESULTS IN: BACKGROUND MDA

			Total U	4 10
IMMARON SOIL COUNTER 4" X 4" X 16" NaI DETECTOR		pCi/g	Th(Nat)	1.5 0.25

BACKGROUND NOT SUBTRACTED

REVIEWED BY: W.a. Rogers DATE: 3-3-97

ILE: AJDSURF

CIMARRON CORPORATION
CIMARRON FACILITY
PHASE II, SUB-AREA "J", SURFACE
DRAINAGE WAY

DATE: 02/27/97

GRID NUMBER	3" DETECT C.P.M.	MICRO R' SURF	MICRO R' 1 METER	0-6" Sample	
				Total-U	Th (Nat)
210W-79N	***	***	***	9	1
215W-80N	***	***	***	11	1
225W-81N	***	***	***	7	1
230W-81N	***	***	***	17	1
235W-82N	***	***	***	7	1
240W-83N	***	***	***	5	1
245W-83N	***	***	***	4	1

*** - Field survey reading NOT taken over standing water. Data collected over standing water would be low and background data would vary from reported values.

RUMENTS:	RESULTS IN:	BACKGROUND	MDA
		Total U 4	10
RON SOIL COUNTER 4" X 4" X 16" Nal DETECTOR	pCi/g	Th(Nat) 1.5	0.25

GROUND NOT SUBTRACTED

REVIEWED BY: W. A. Rogers DATE: 3-3-97

AJDSURF

CIMARRON CORPORATION - CIMARRON FACILITY

TRUE MEAN ACTIVITY VS. GUIDELINE VALUE AT 95% CONFIDENCE (PHASE II) SUB-AREA "J" DRAINAGE (DEPTH)

n = pCi/g TOTAL U

Number	n	(n-N)	$(n-N)^2$
1	6	-3.60	12.96
2	7	-2.60	6.76
3	10	0.40	0.16
4	11	1.40	1.96
5	14	4.40	19.36
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	48		41.20
	Sum(n)		$Sum(n-N)^2$

No. of Samples (x) : 5

COUNT TIME: 5 MINUTES

Sample Mean (N) = Sum(n) ÷ (x)

Sample Mean (N) : 9.6

Standard Deviation (Sd) = SQRT $[(n-N)^2 \div (x-1)]$

Standard Deviation: 3.2

2 Std Deviations: 6.4

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

(df) = 2.132

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

(Aμ) = 12.66 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 Comparision 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)		is (B)		95%
(df) low value(Y)		is (A)		95%
Desired value(df) (X)	4	is calculated as follow:		

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

The (df) value for (X)	4	2.132	95%

PERFORMED BY: Irving Powell DATE: 4-8-97

REVIEWED BY: W. U. Green DATE: 4-8-97

CIMARRON CORPORATION - CIMARRON FACILITY

TRUE MEAN ACTIVITY VS. GUIDELINE VALUE AT 95% CONFIDENCE (PHASE II) SUB-AREA "J" DRAINAGE (DEPTH)

n = pCi/g Th (NAT)

Number	n	(n-N)	$(n-N)^2$
1	1	-0.32	0.10
2	1	-0.22	0.05
3	1	-0.22	0.05
4	1	-0.12	0.01
5	2	0.88	0.77
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50			
	5.6		0.988
	Sum(n)		$Sum(n-N)^2$

No. of Samples (x) : 5

COUNT TIME: 5 MINUTES

Sample Mean (N) = Sum(n) ÷ (x)

Sample Mean (N) : 1.1

Standard Deviation (Sd) = SQRT $[(n-N)^2 \div (x - 1)]$

Standard Deviation: 0.50

2 Std Deviations: 0.99

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

(df) = 2.132

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

(Aμ) = 1.59 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 Comparision 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)		is (B)		95%
(df) low value(Y)		is (A)		95%
Desired value(df) (X)	4	is calculated as follow:		

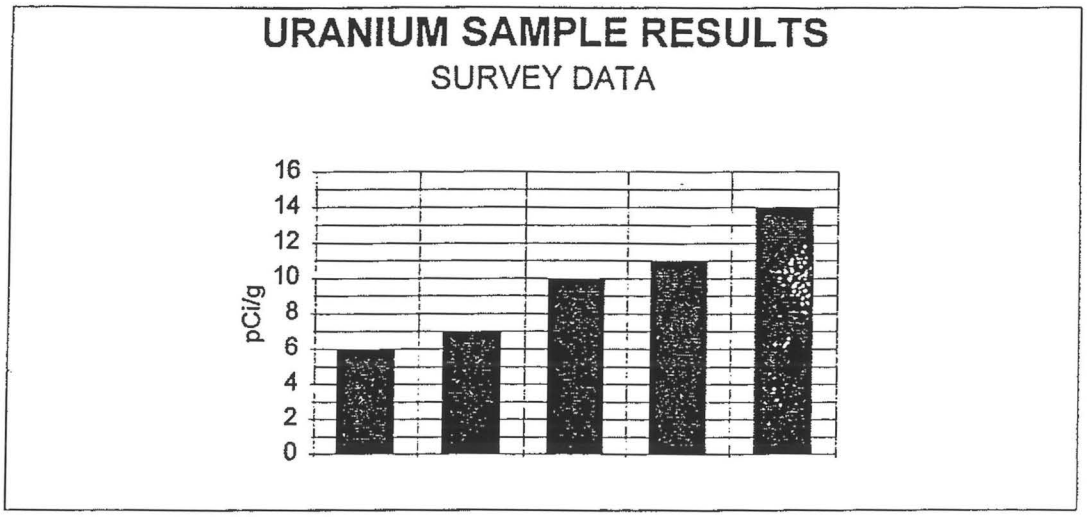
EXP[((Ln(B)-Ln(A)) ÷ (Z-Y)) (X-Y) + Ln(A)]

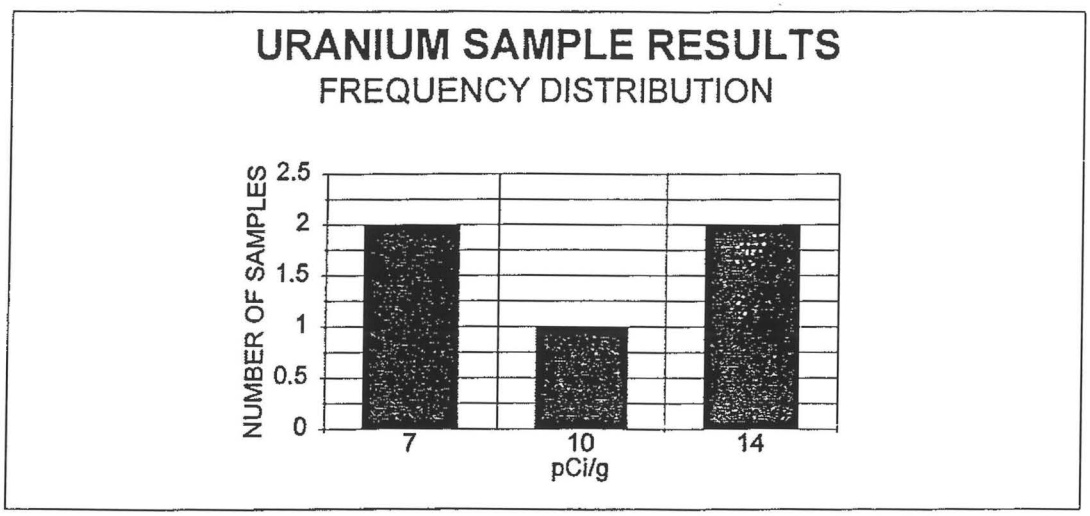
The (df) value for (X)	4	2.132	95%

PERFORMED BY: Irving Powell DATE: 4-8-97

REVIEWED BY: W.A. Rogers DATE: 4-8-97

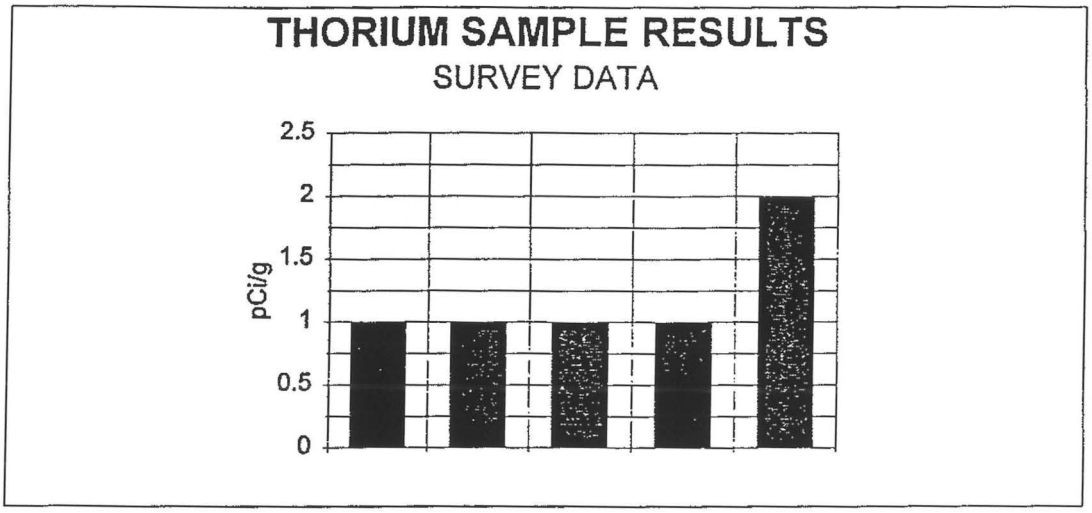
PHASE II, SUB-AREA "J" - DEPTH
DRAINAGE WAY
CIMARRON SOIL COUNTER
TOTAL URANIUM SAMPLE RESULTS
SITE BACKGROUND OF 4 pCi/g NOT SUBTRACTED
MARCH 1997

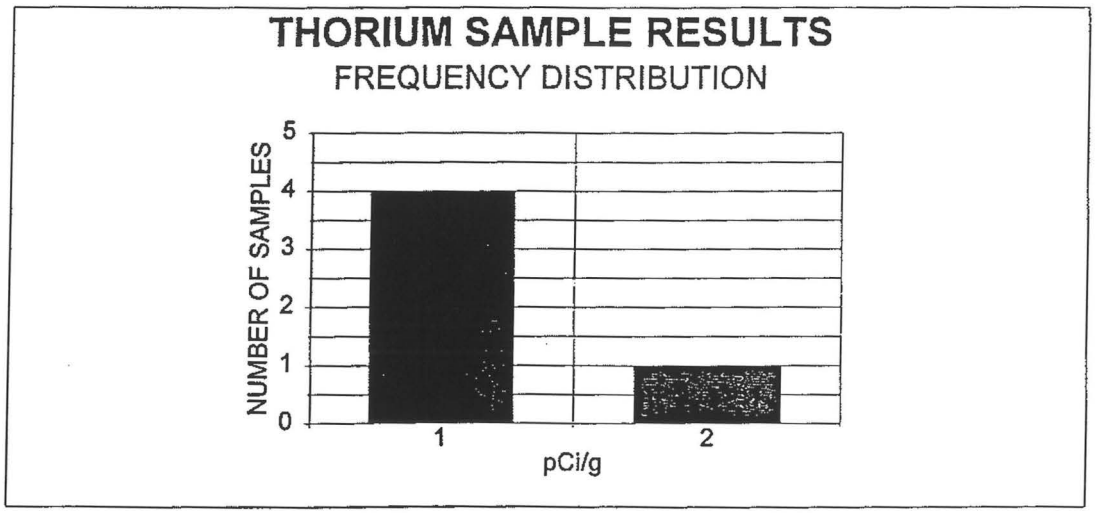




NUMBER OF SAMPLES	5
AVERAGE SAMPLE	10
MINIMUM SAMPLE	6
MAXIMUM SAMPLE	14
STANDARD DEVIATION	3

PHASE II, SUB-AREA "J" - DEPTH
DRAINAGE WAY
CIMARRON SOIL COUNTER
THORIUM (NAT) SAMPLE RESULTS
SITE BACKGROUND OF 1.5 pCi/g NOT SUBTRACTED
MARCH 1997





NUMBER OF SAMPLES	5
AVGERAGE SAMPLE	1
MINIMUM SAMPLE	1
MAXIMUM SAMPLE	2
STANDARD DEVIATION	0

CIMARRON FACIL
PHASE II, SUB-AREA "J", SURFACE
DRAINAGE WAY

REV.1

SAMPLE LOCATION :
GRID LOCATION :

DATE: 03/03/97

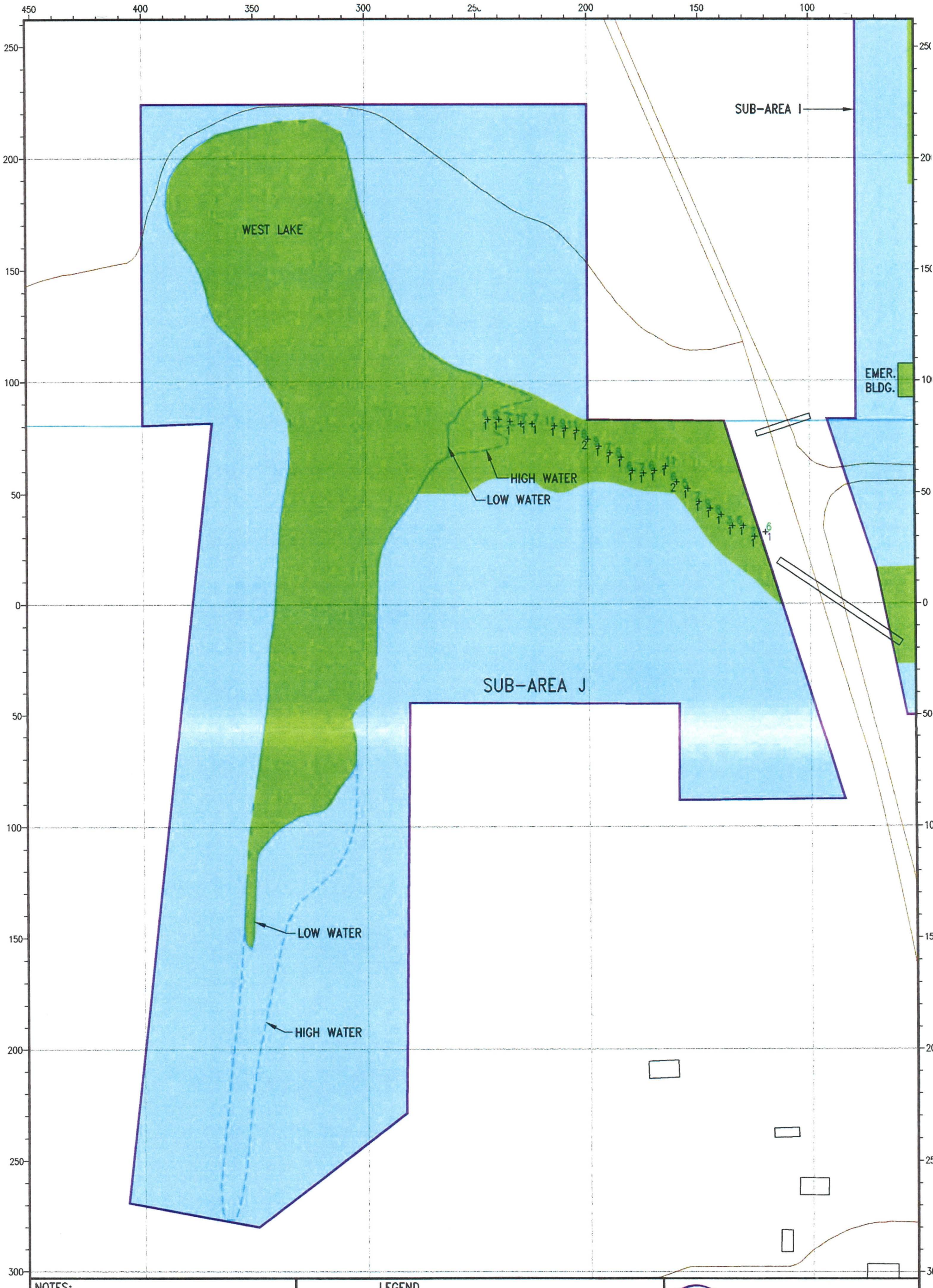
LN #	GRID NUMBER	3" DETECT C.P.M.	MICRO R' SURF	MICRO R' 1 METER	pCi/g									
					0 - 6"		6" - 1'		1' - 2'		2' - 3'		3' - 4'	
					Total-U	Th (Nat)	Total-U	Th (Nat)	Total-U	Th (Nat)	Total-U	Th (Nat)	Total-U	Th (Nat)
1	220W-80N	***	***	***	11	1	6	1	14	2	10	1	7	1
2														
3														
4														
5														
6														
7														
8														
9														
10														
11														
12														
13														
14														
15														
16														
17														
18														

INSTRUMENTS:	RESULTS IN	BACKGROUND		MDA
		Total U	4	10
CIMMARON SOIL COUNTER X" X 4" X 16" Nal DETECTOR	pCi/G	Th (Nat)	1.5	0.25

BACKGROUND NOT SUBTRACTED

REVIEWED BY: W. A. Rogers DATE: 3-3-97

FILE: AJDDEPTH



NOTES:

SAMPLES ARE IN PICO-CURIES PER GRAM URANIUM (pCi/g U) AND THORIUM (pCi/g Th).

CIMARRON GAMMA SPEC SOIL COUNTER.

SITE SOIL BACKGROUND OF 4 pCi/g U & 1.5 pCi/g Th, NOT SUBTRACTED.

$^{8}_{+}$ URANIUM
$^{}_{+1}$ THORIUM

40 0 40

SCALE IN METERS

NORTH

LEGEND

UNAFFECTED AREA (PHASE II)

AFFECTED AREA (PHASE II)

REV.	DESCRIPTION	DRWN BY:	CK'D BY:	APP'D BY:	DATE
0	DRAWING ISSUED.	JE	RS	JK	8/20/97

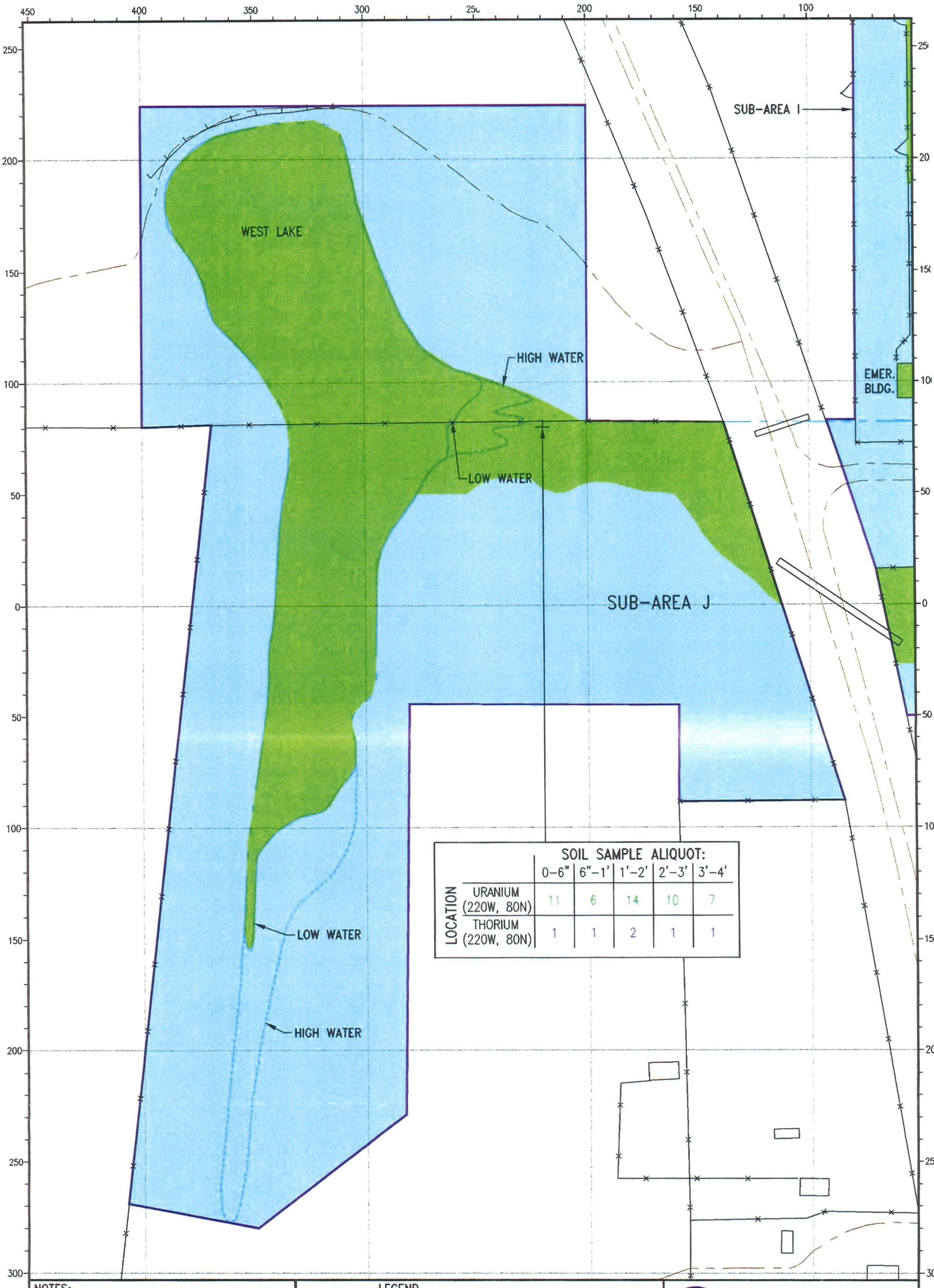
CIMARRON CORPORATION

CIMARRON FACILITY
PHASE II – SUB-AREA J
POST REMEDIATION DRAINAGE WAY
SOIL SAMPLE RESULTS (1997)
SOIL SAMPLE ALIQUOT: 0-6"

DRWN. BY	DATE	SCALE
JE	7/7/97	AS SHOWN

JOB NO.	DRAWING NO.	REV.
	97PODJSS-0	0

...\CIMARRON\SUBAREAJ\97PODJSS



LOCATION	SOIL SAMPLE ALIQUOT: 0–6"	6"–1'	1'–2'	2'–3'	3'–4'
URANIUM (220W, 80N)	11	6	14	10	7
THORIUM (220W, 80N)	1	1	2	1	1

NOTES:

SAMPLES ARE IN PICO-CURIES PER GRAM URANIUM (pCi/g U) AND THORIUM (pCi/g Th).

CIMARRON GAMMA SPEC SOIL COUNTER.

SITE SOIL BACKGROUND OF 4 pCi/g U & 1.5 pCi/g Th, NOT SUBTRACTED.

40 0 40

SCALE IN METERS

NORTH

LEGEND

UNAFFECTED AREA (PHASE II)

AFFECTED AREA (PHASE II)

REV.	DESCRIPTION	DRWN BY:	CK'D BY:	APP'D BY:	DATE
0	DRAWING ISSUED.	JE	RS	JK	8/20/97

CIMARRON CORPORATION

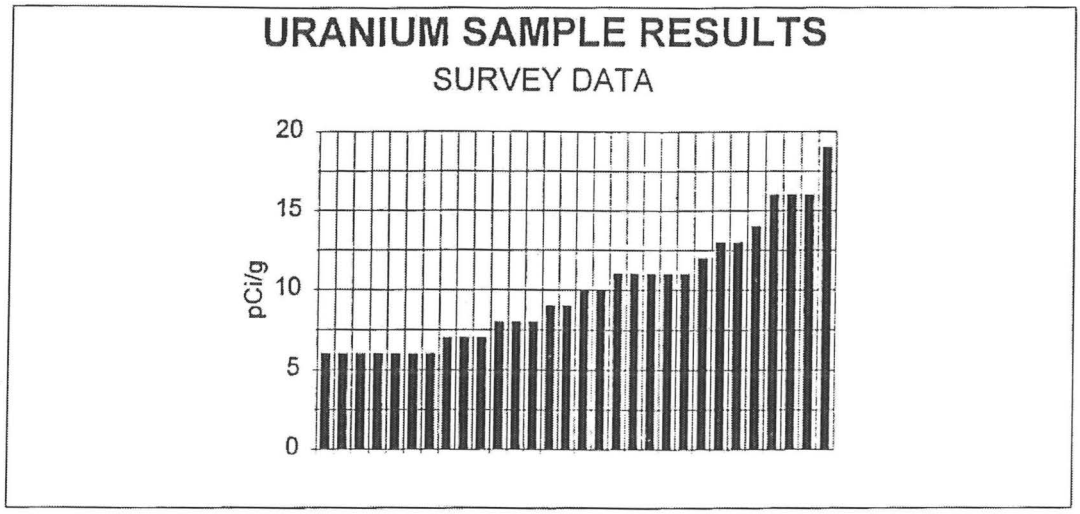
CIMARRON FACILITY
PHASE II – SUB-AREA J
POST REMEDIATION DRAINAGE WAY
CONFIRMATORY SOIL SAMPLE RESULTS (1997)

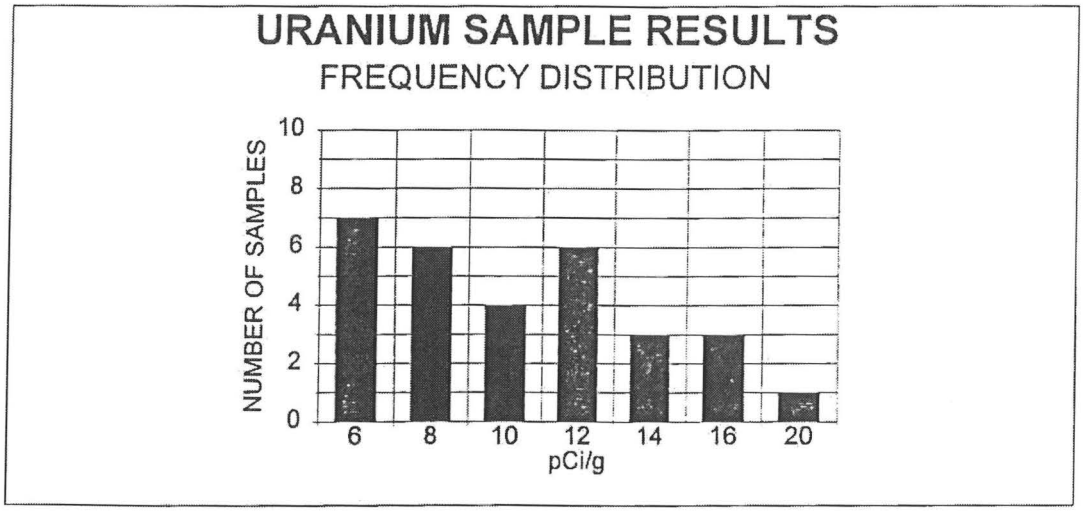
DRWN. BY	DATE	SCALE
JE	7/9/97	AS SHOWN

JOB NO.	DRAWING NO.	REV.
	97PODJSS-CONF-0	0

...\CIMARRON\SUBAREAJ\97PODJSC

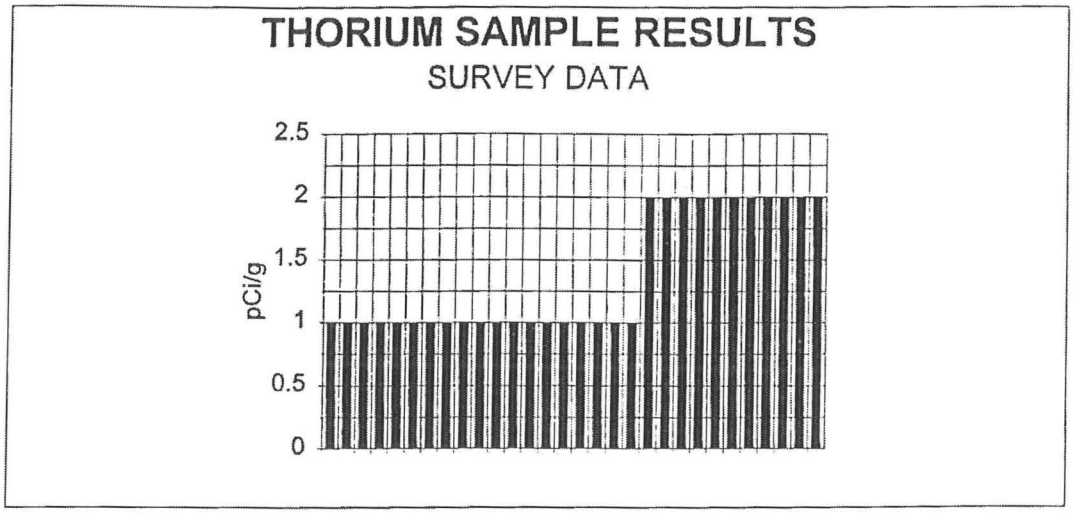
PHASE II, SUB-AREA "J" - SURFACE
LAKE
CIMARRON SOIL COUNTER
TOTAL URANIUM SAMPLE RESULTS
SITE BACKGROUND OF 4 pCi/g NOT SUBTRACTED
MARCH 1997

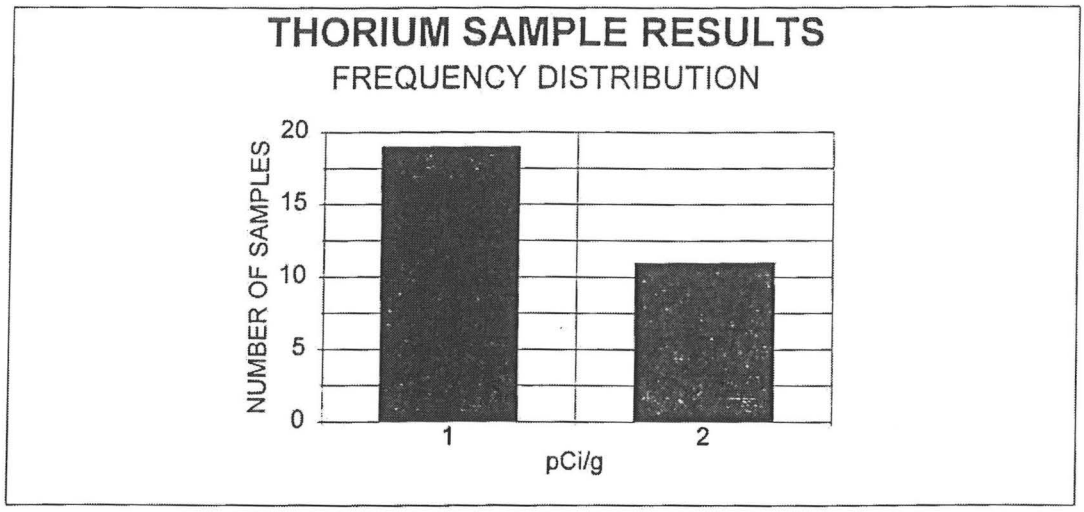




NUMBER OF SAMPLES	30
AVERAGE SAMPLE	10
MINIMUM SAMPLE	6
MAXIMUM SAMPLE	19
STANDARD DEVIATION	4

PHASE II, SUB-AREA "J" - SURFACE
LAKE
CIMARRON SOIL COUNTER
THORIUM (NAT) SAMPLE RESULTS
SITE BACKGROUND OF 1.5 pCi/g NOT SUBTRACTED
MARCH 1997





NUMBER OF SAMPLES	30
AVERAGE SAMPLE	1
MINIMUM SAMPLE	1
MAXIMUM SAMPLE	2
STANDARD DEVIATION	0

CIMARRON CORPORATION - CIMARRON FACILITY

TRUE MEAN ACTIVITY VS. GUIDELINE VALUE AT 95% CONFIDENCE (PHASE II) SUB-AREA "J" LAKE (SURFACE)

n = pCi/g TOTAL U

Number	n	(n-N)	(n-N)²
1	6	-3.97	15.73
2	6	-3.97	15.73
3	6	-3.97	15.73
4	6	-3.97	15.73
5	6	-3.97	15.73
6	6	-3.97	15.73
7	6	-3.97	15.73
8	7	-2.97	8.80
9	7	-2.97	8.80
10	7	-2.97	8.80
11	8	-1.97	3.87
12	8	-1.97	3.87
13	8	-1.97	3.87
14	9	-0.97	0.93
15	9	-0.97	0.93
16	10	0.03	0.00
17	10	0.03	0.00
18	11	1.03	1.07
19	11	1.03	1.07
20	11	1.03	1.07
21	11	1.03	1.07
22	11	1.03	1.07
23	12	2.03	4.13
24	13	3.03	9.20
25	13	3.03	9.20
26	14	4.03	16.27
27	16	6.03	36.40
28	16	6.03	36.40
29	16	6.03	36.40
30	19	9.03	81.60
31			
32			
33			
34			
35			
36			
37			
38			
39			
40			
41			
42			
43			
44			
45			
46			
47			
48			
49			
50			
	299		384.97
	Sum(n)		Sum(n-N)²

No. of Samples (x) : 30

COUNT TIME: 5 MINUTES

Sample Mean (N) = Sum(n) ÷ (x)

Sample Mean (N) : 10.0

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

Standard Deviation: 3.6

2 Std Deviations: 7.3

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

(df) = 1.699

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

(Aμ) = 11.10 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 Comparision 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)		is (B)		95%
(df) low value(Y)		is (A)		95%
Desired value(df) (X)	29	is calculated as follow:		

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

The (df) value for (X)	29	1.699	95%

PERFORMED BY: Irving Powell DATE: 4-8-97

REVIEWED BY: W. C. Rogers DATE: 4-8-97

CIMARRON CORPORATION - CIMARRON FACILITY

TRUE MEAN ACTIVITY VS. GUIDELINE VALUE AT 95% CONFIDENCE (PHASE II) SUB-AREA "J" LAKE (SURFACE)

n = pCi/g Th (NAT)

Number	n	(n-N)	$(n-N)^2$
1	1	-0.52	0.27
2	1	-0.42	0.17
3	1	-0.42	0.17
4	1	-0.32	0.10
5	1	-0.32	0.10
6	1	-0.22	0.05
7	1	-0.12	0.01
8	1	-0.12	0.01
9	1	-0.12	0.01
10	1	-0.12	0.01
11	1	-0.02	0.00
12	1	-0.02	0.00
13	1	-0.02	0.00
14	1	-0.02	0.00
15	1	-0.02	0.00
16	1	-0.02	0.00
17	1	-0.02	0.00
18	1	0.08	0.01
19	1	0.08	0.01
20	2	0.18	0.03
21	2	0.18	0.03
22	2	0.18	0.03
23	2	0.18	0.03
24	2	0.18	0.03
25	2	0.18	0.03
26	2	0.18	0.03
27	2	0.18	0.03
28	2	0.28	0.08
29	2	0.38	0.15
30	2	0.48	0.23
31			
32			
33			
34			
35			
36			
37			
38			
39			
40			
41			
42			
43			
44			
45			
46			
47			
48			
49			
50			
	39.5		1.662
	Sum(n)		Sum(n-N)²

No. of Samples (x) : 30

COUNT TIME: 5 MINUTES

Sample Mean (N) = Sum(n) ÷ (x)

Sample Mean (N) : 1.3

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

Standard Deviation: 0.24

2 Std Deviations: 0.48

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

(df) = 1.699

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

(Aμ) = 1.39 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 Comparision 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)		is (B)		95%
(df) low value(Y)		is (A)		95%

Desired value(df) (X) 29 is calculated as follow:

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

The (df) value for (X	29	1.699	95%

PERFORMED BY: Irving Powell DATE: 4-8-97

REVIEWED BY: W. O. Rogers DATE: 4-8-97

CIMARRON CORPORATION
CIMARRON FACILITY
PHASE II, SUB-AREA "J"
LAKE
COMPOSITE SAMPLES OVER DEPTH OF SEDIMENT

DATE: 02/28/97

N	GRID NUMBER	3" DETECT C.P.M.	MICRO R' SURF	MICRO R' 1 METER	Sample	
					Total-U	Th (Nat)
1	260W-90N	***	***	***	6	1
2	270W-80N	***	***	***	10	1
3	290W-40N	***	***	***	6	1
4	290W-50N	***	***	***	8	1
5	290W-60N	***	***	***	8	1
6	290W-70N	***	***	***	6	1
7	290W-80N	***	***	***	6	1
8	290W-90N	***	***	***	11	2
9	290W-100N	***	***	***	7	1
0	290W-110N	***	***	***	16	2
1	290W-120N	***	***	***	12	1
2	290W-130N	***	***	***	7	2
3	290W-140N	***	***	***	9	1
	310W-100S	***	***	***	7	1
5	310W-190N	***	***	***	9	2
6	320W-40S	***	***	***	13	1
7	320W-10N	***	***	***	13	1
8	320W-60N	***	***	***	11	2

*** - Field survey reading NOT taken over standing water. Data collected over standing water would be low and background data would vary from reported values.

MOST SAMPLES ARE 0-1', SOME AREA 0-3'

STRUMENTS:	RESULTS IN:	BACKGROUND	MDA
OLUM MICRO 'R' METER - MODEL	µR/hr	N/A	N/A
OLUM 2220, LEAD SHIELDED 3" X 1/2" NaI DETECTOR	CPM	N/A	N/A
		Total U 4	10
IMARON SOIL COUNTER 4" X 4" X 16" NaI DETECTOR	pCi/g	Th(Nat) 1.5	1

CKGROUND NOT SUBTRACTED

EVIEWED BY: W. A. Rogers DATE: 3-3-97

E: AJLSURF

CIMARRON CORPORATION
CIMARRON FACILITY
PHASE II, SUB-AREA "J"
LAKE
COMPOSITE SAMPLES OVER DEPTH OF SEDIMENT

DATE: 02/28/97

J	GRID NUMBER	3" DETECT C.P.M.	MICRO R' SURF	MICRO R' 1 METER	Sample	
					Total-U	Th (Nat)
1	320W-110N	***	***	***	11	1
2	320W-160N	***	***	***	11	2
3	320W-190N	***	***	***	8	1
4	320W-210N	***	***	***	6	1
5	330W-80S	***	***	***	10	1
6	330W-190N	***	***	***	16	1
7	340W-190N	***	***	***	16	2
8	350W-100S	***	***	***	6	1
9	350W-190N	***	***	***	11	2
0	360W-190N	***	***	***	19	2
1	370W-190N	***	***	***	14	2
2	380W-190N	***	***	***	6	2
4						
5						
6						
7						
8						

*** - Field survey reading NOT taken over standing water. Data collected over standing water would be low and background data would vary from reported values.

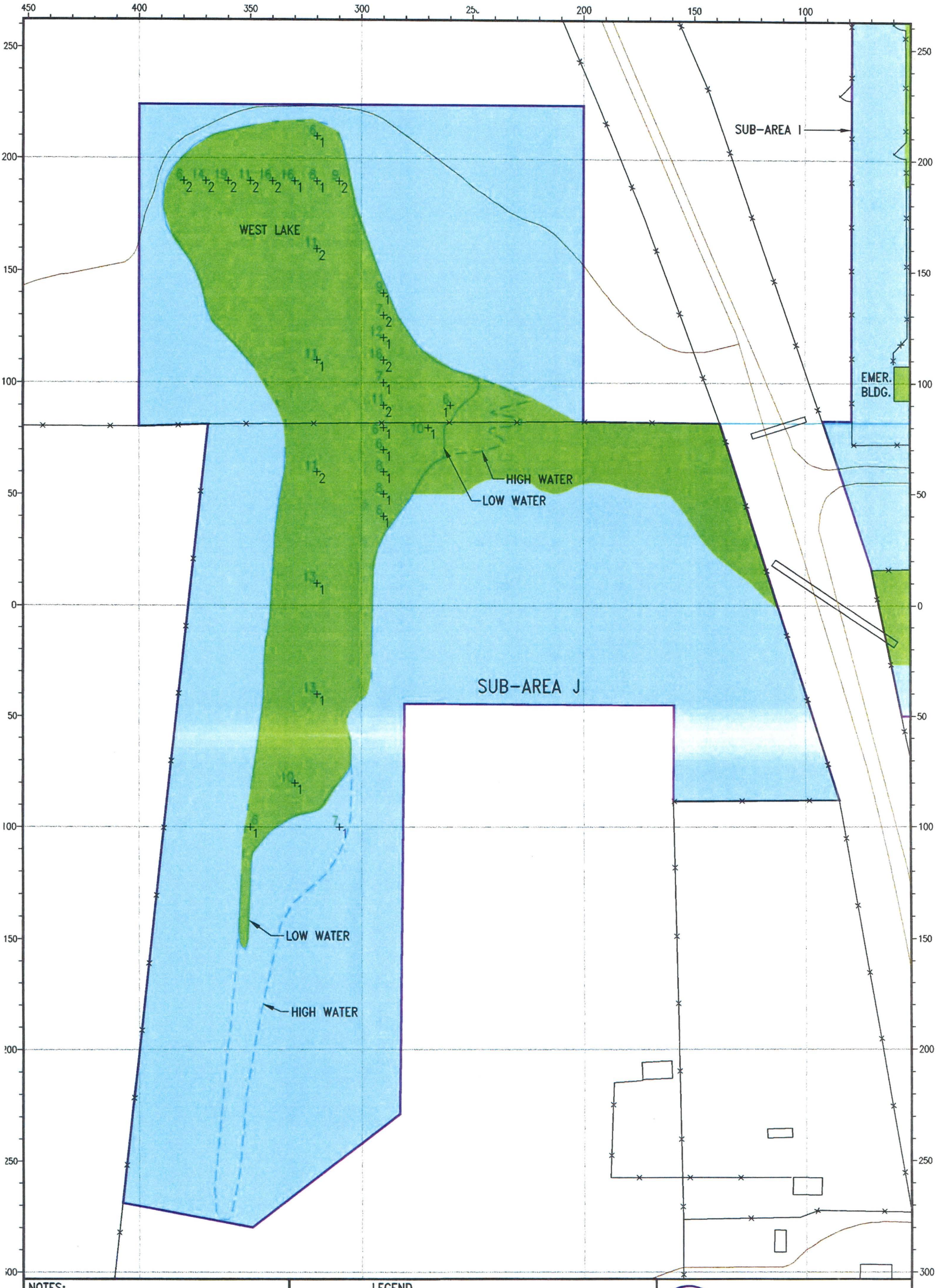
MOST SAMPLES ARE 0-1', SOME AREA 0-3'

STRUMENTS:	RESULTS IN:		BACKGROUND	MDA
DLUM MICRO 'R' METER - MODEL		µR/hr	N/A	N/A
DLUM 2220, LEAD SHIELDED 3" X 1/2" NaI DETECTOR		CPM	N/A	N/A
			Total U 4	10
MMARON SOIL COUNTER 4" X 4" X 16" NaI DETECTOR		pCi/g	Th(Nat) 1.5	1

ACKGROUND NOT SUBTRACTED

EVIEWED BY: W. A. Rogers DATE: 3-3-97

AJLSURF



NOTES:

SAMPLES ARE IN PICO-CURIES PER GRAM URANIUM (pCi/g U) AND THORIUM (pCi/g Th).

CIMARRON GAMMA SPEC SOIL COUNTER.

SITE SOIL BACKGROUND OF 4 pCi/g U & 1.5 pCi/g Th, NOT SUBTRACTED.

$^{8}_{+}$ URANIUM
$_{+1}$ THORIUM

40 0 40

SCALE IN METERS

NORTH

LEGEND

UNAFFECTED AREA (PHASE II)

AFFECTED AREA (PHASE II)

REV.	DESCRIPTION	DRWN BY:	CK'D BY:	APP'D BY:	DATE
0	DRAWING ISSUED.	JE	RS	JK	8/20/97

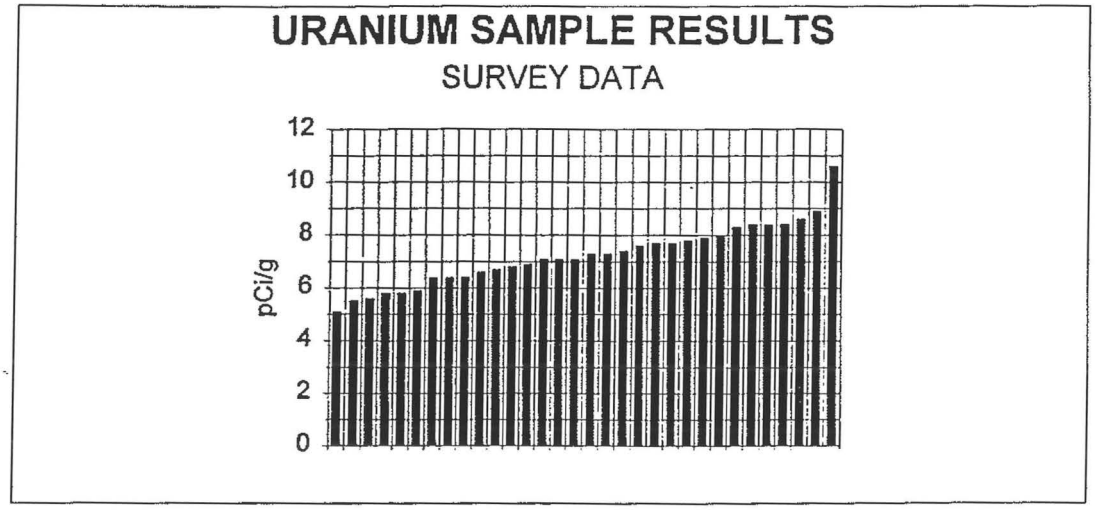
CIMARRON CORPORATION

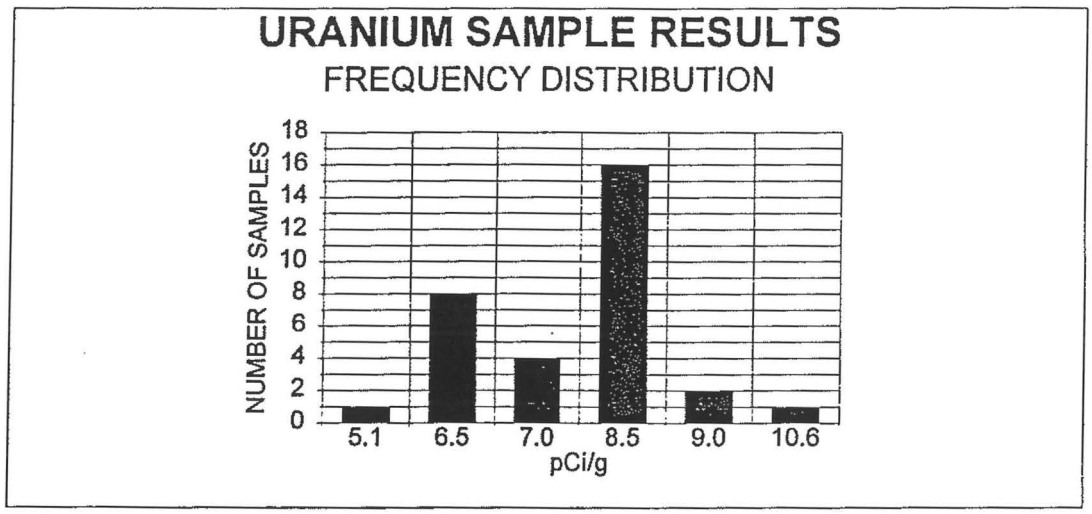
CIMARRON FACILITY
PHASE II - SUB-AREA J
POST REMEDIATION WEST LAKE AREA
SOIL SAMPLE RESULTS (1997)
SOIL SAMPLE ALIQUOT: 0-6"

DRWN. BY	DATE	SCALE
JE	7/9/97	AS SHOWN
JOB NO.	DRAWING NO.	REV.
	97POLJSS-0	0

...\CIMARRON\SUBAREAJ\97POLJSS

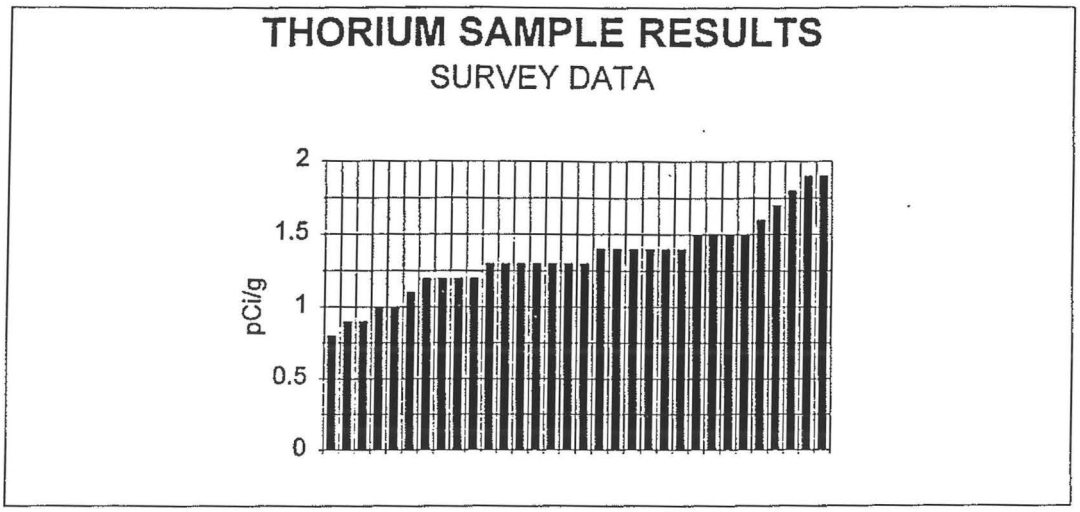
PHASE II, SUB-AREA "J" - SURFACE
UNAFFECTED AREA
CIMARRON SOIL COUNTER
TOTAL URANIUM SAMPLE RESULTS
SITE BACKGROUND OF 4 pCi/g NOT SUBTRACTED
MARCH 1997

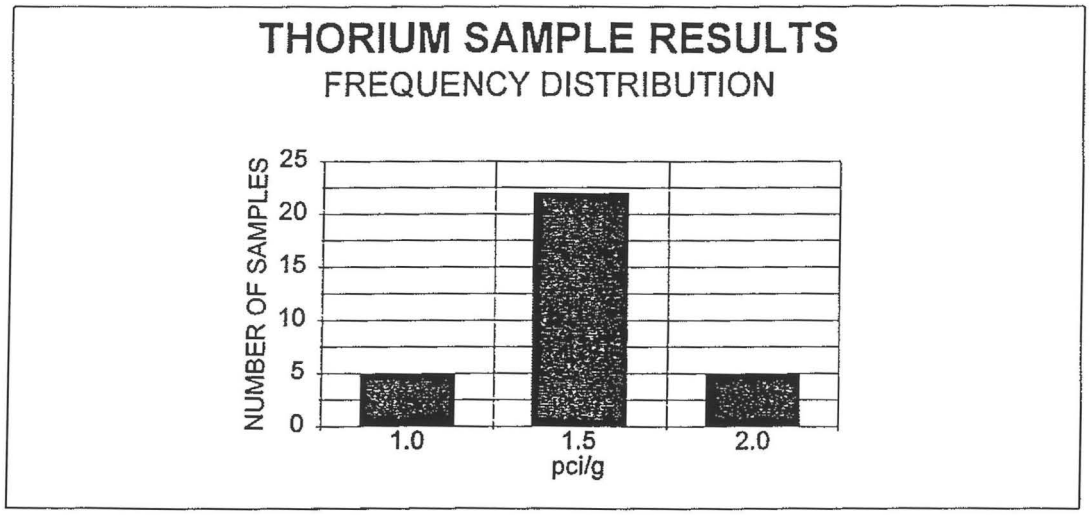




NUMBER OF SAMPLES	32
AVERAGE SAMPLE	7
MINIMUM SAMPLE	5
MAXIMUM SAMPLE	11
STANDARD DEVIATION	1

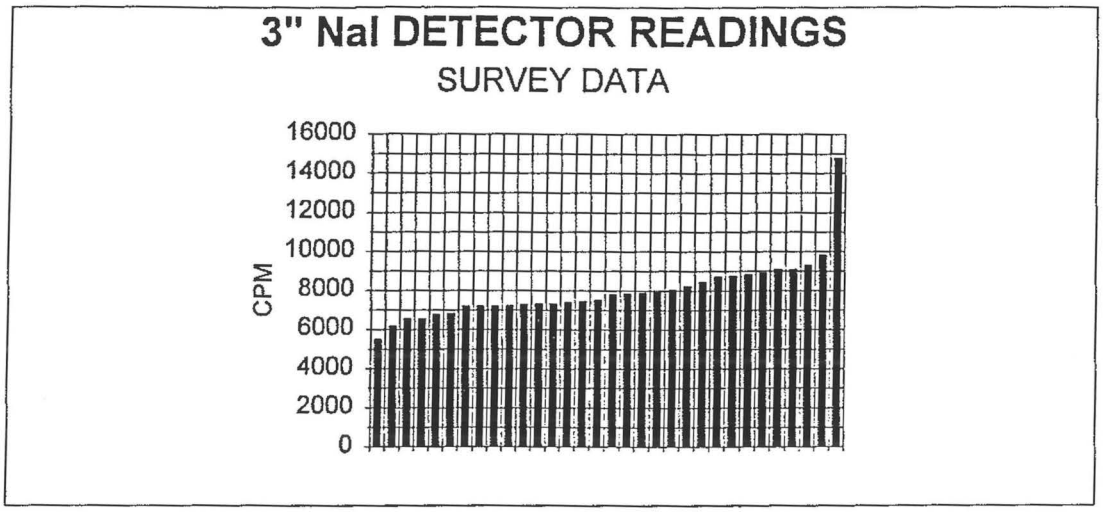
PHASE II, SUB-AREA "J" - SURFACE
UNAFFECTED AREA
CIMARRON SOIL COUNTER
THORIUM (NAT) SAMPLE RESULTS
SITE BACKGROUND OF 1.5 pCi/g NOT SUBTRACTED
MARCH 1997

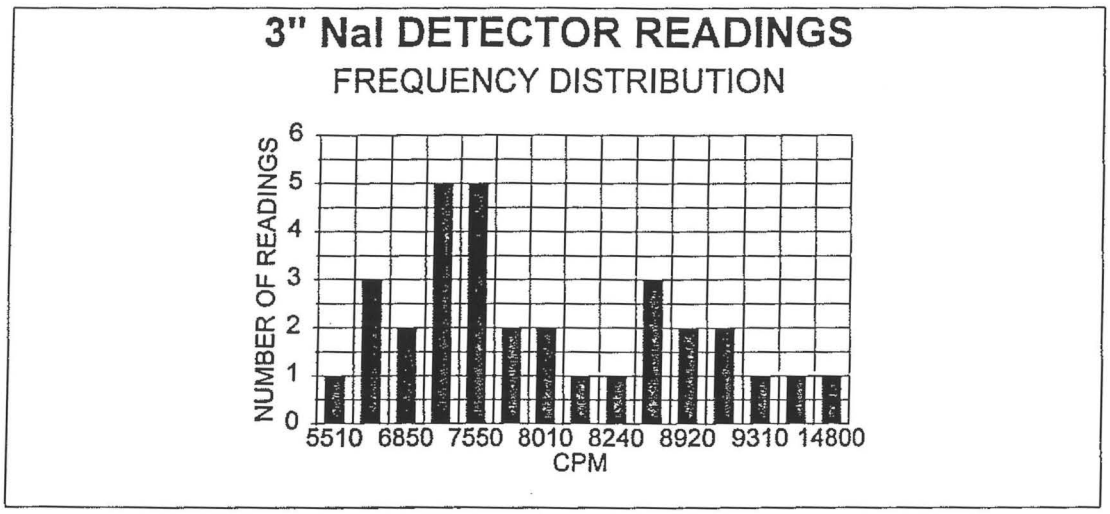




NUMBER OF SAMPLES	32
AVERAGE SAMPLE	1
MINIMUM SAMPLE	1
MAXIMUM SAMPLE	2
STANDARD DEVIATION	0

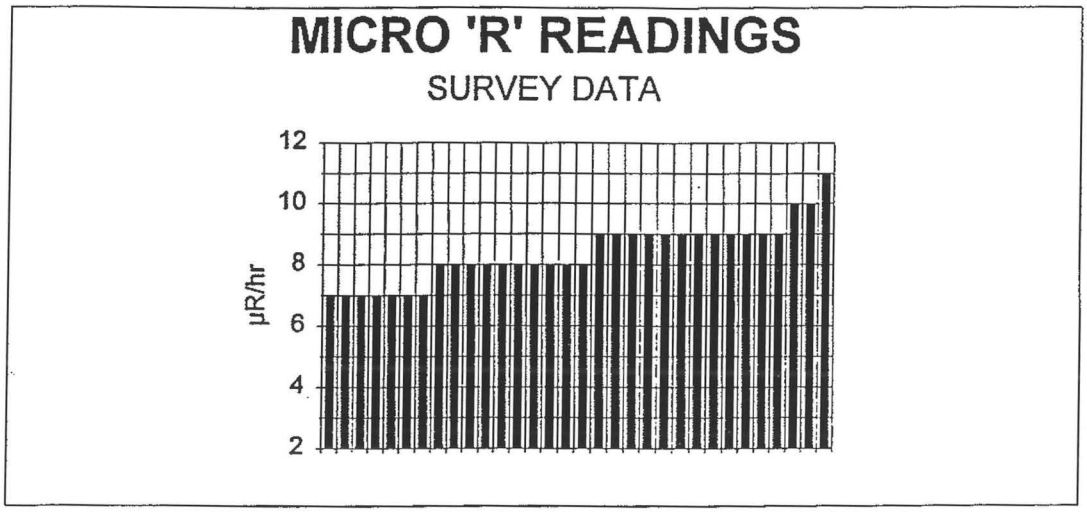
PHASE II, SUB-AREA "J" - SURFACE
UNAFFECTED AREA
GROSS GAMMA READINGS IN CPM
LUDLUM MODEL 2221, S/N 97264
BACKGROUND AVERAGE: 7238
MARCH 1997

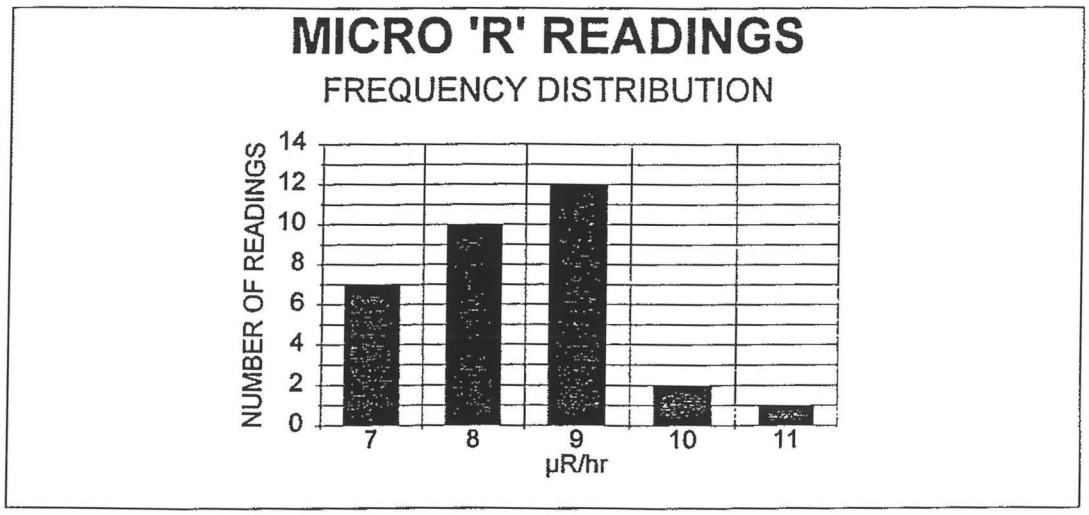




NUMBER OF READINGS	32
AVERAGE READING	7983
MINIMUM READING	5506
MAXIMUM READING	14800
STANDARD DEVIATION	1559

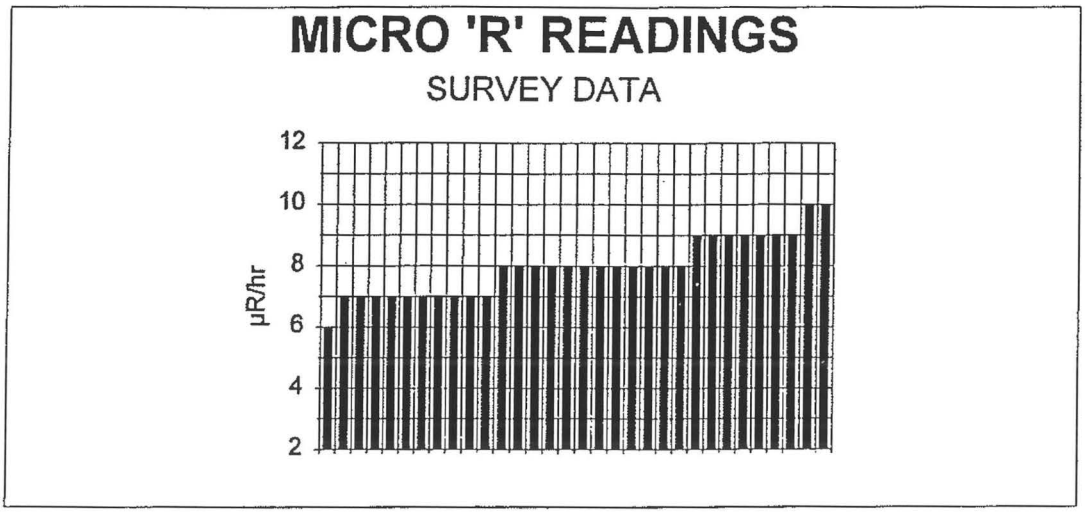
PHASE II, SUB-AREA "J" - SURFACE
UNAFFECTED AREA
MICRO 'R' READINGS AT SURFACE
LUDLUM MODEL 19, S/N 111299
RESULTS IN µR/hr
MARCH 1997

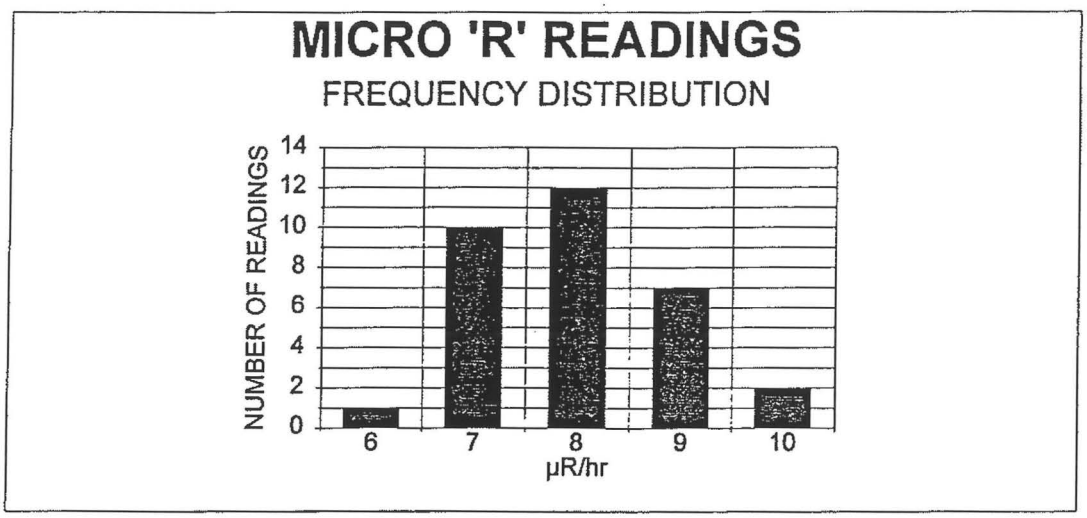




NUMBER OF READINGS	32
AVERAGE READING	8
MINIMUM READING	7
MAXIMUM READING	11
STANDARD DEVIATION	1

PHASE II, SUB-AREA "J" - SURFACE
UNAFFECTED AREA
MICRO 'R' READINGS AT 1 METER ABOVE SURFACE
LUDLUM MODEL 19, S/N 111299
RESULTS IN µR/hr
MARCH 1997





NUMBER OF READINGS	32
AVERAGE READING	8
MINIMUM READING	6
MAXIMUM READING	10
STANDARD DEVIATION	1

CIMARRON CORPORATION - CIMARRON FACILITY

TRUE MEAN ACTIVITY VS. GUIDELINE VALUE AT 95% CONFIDENCE (PHASE II) SUB-AREA "J" UNAFFECTED AREA (SURFACE)

n = pCi/g TOTAL U

Number	n	(n-N)	$(n-N)^2$
1	5.1	-2.13	4.56
2	5.5	-1.73	3.01
3	5.6	-1.63	2.67
4	5.8	-1.43	2.06
5	5.8	-1.43	2.06
6	5.9	-1.33	1.78
7	6.4	-0.83	0.70
8	6.4	-0.83	0.70
9	6.4	-0.83	0.70
10	6.6	-0.63	0.40
11	6.7	-0.53	0.29
12	6.8	-0.43	0.19
13	6.9	-0.33	0.11
14	7.1	-0.13	0.02
15	7.1	-0.13	0.02
16	7.1	-0.13	0.02
17	7.3	0.07	0.00
18	7.3	0.07	0.00
19	7.4	0.17	0.03
20	7.6	0.37	0.13
21	7.7	0.47	0.22
22	7.7	0.47	0.22
23	7.8	0.57	0.32
24	7.9	0.67	0.44
25	8.0	0.77	0.59
26	8.3	1.07	1.14
27	8.4	1.17	1.36
28	8.4	1.17	1.36
29	8.4	1.17	1.36
30	8.6	1.37	1.86
31	8.9	1.67	2.77
32	10.6	3.37	11.33
33			
34			
35			
36			
37			
38			
39			
40			
41			
42			
43			
44			
45			
46			
47			
48			
49			
50			
	231.5		42.39
	Sum(n)		$Sum(n-N)^2$

No. of Samples (x) : 32

COUNT TIME: 5 MINUTES

Sample Mean (N) = Sum(n) ÷ (x)

Sample Mean (N) : 7.2

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

Standard Deviation: 1.2

2 Std Deviations: 2.3

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

(df) = 1.696

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

(Aµ) = 7.58 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 Comparision 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)	40	is (B)	1.684	95%
(df) low value(Y)	30	is (A)	1.697	95%
Desired value(df) (X)	31	is calculated as follow:		

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

The (df) value for (X) 31 | 1.696 | 95%

PERFORMED BY: Irving Powell DATE: 4-8-97

REVIEWED BY: W. C. [illegible] DATE: 4-8-97

CIMARRON CORPORATION - CIMARRON FACILITY

TRUE MEAN ACTIVITY VS. GUIDELINE VALUE AT 95% CONFIDENCE (PHASE II) SUB-AREA "J" UNAFFECTED AREA (SURFACE)

n = pCi/g Th (NAT)

Number	n	(n-N)	$(n-N)^2$
1	0.8	-0.54	0.29
2	0.9	-0.44	0.19
3	0.9	-0.44	0.19
4	1.0	-0.34	0.12
5	1.0	-0.34	0.12
6	1.1	-0.24	0.06
7	1.2	-0.14	0.02
8	1.2	-0.14	0.02
9	1.2	-0.14	0.02
10	1.2	-0.14	0.02
11	1.3	-0.04	0.00
12	1.3	-0.04	0.00
13	1.3	-0.04	0.00
14	1.3	-0.04	0.00
15	1.3	-0.04	0.00
16	1.3	-0.04	0.00
17	1.3	-0.04	0.00
18	1.4	0.06	0.00
19	1.4	0.06	0.00
20	1.4	0.06	0.00
21	1.4	0.06	0.00
22	1.4	0.06	0.00
23	1.4	0.06	0.00
24	1.5	0.16	0.03
25	1.5	0.16	0.03
26	1.5	0.16	0.03
27	1.5	0.16	0.03
28	1.6	0.26	0.07
29	1.7	0.36	0.13
30	1.8	0.46	0.21
31	1.9	0.56	0.31
32	1.9	0.56	0.31
33			
34			
35			
36			
37			
38			
39			
40			
41			
42			
43			
44			
45			
46			
47			
48			
49			
50			
	42.9		2.217
	Sum(n)		$Sum(n-N)^2$

No. of Samples (x) : 32

COUNT TIME: 5 MINUTES

Sample Mean (N) = Sum(n) ÷ (x)

Sample Mean (N) : 1.3

Standard Deviation (Sd) = SQRT $[(n-N)^2 \div (x - 1)]$

Standard Deviation: 0.27

2 Std Deviations: 0.53

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

(df) = 1.696

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

(Aμ) = 1.42 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 Comparision 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)	40	is (B)	1.684	95%
(df) low value(Y)	30	is (A)	1.697	95%
Desired value(df) (X)	31	is calculated as follow:		

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

The (df) value for (X)	31	1.696	95%

PERFORMED BY: Irving Powell DATE: 4-8-97

REVIEWED BY: W.a. Rogers DATE: 4-8-97

CIMARRON CORPORATION
CIMARRON FACILITY
PHASE II, SUB AREA "J"
UNAFFECTED AREA

DATE: 02/27/97

N f	GRID NUMBER	3" DETECT C.P.M.	MICRO R' SURF	MICRO R' 1 METER	0-6" Sample Total-U	0-6" Sample Th (Nat)
1	90W-80S	9310	11	10	7.6	1.7
2	110W-80S	14800	9	8	8.9	1.9
3	130W-20S	9104	9	9	5.6	1.6
4	130W-20S	9104	9	9	7.3	1.4
5	140W-20S	8050	10	9	6.4	1.5
6	180W-0N	7820	8	8	7.7	1.0
7	180W-50N	7210	9	8	7.8	1.2
8	180W-50N	7210	9	8	8.4	1.1
9	190W-20S	5506	7	6	6.4	1.3
10	190W-20N	6560	7	7	7.4	1.2
11	200W-130N	7460	8	8	5.1	1.2
12	220W-210N	8238	8	8	7.3	1.9
[illegible]	230W-50N	7420	7	7	5.8	1.4
[illegible]	240W-30N	8460	9	8	6.6	1.8
15	250W-210N	8834	8	8	6.9	0.9
16	270W-210N	6558	7	7	5.5	1.3
17	280W-180N	7238	8	7	7.7	1.3
18	280W-70S	6198	7	7	5.9	0.9

STRUMENTS:	RESULTS IN:		BACKGROUND	MDA
DLUM MICRO 'R' METER - MODEL 19 - S/N 111299	µR/hr		7-10	7
DLUM 2221, UNSHIELDED 3" X 1/2" NaI DETECTOR S/N 97264	CPM		7238	N/A
		Total U	4	10
MMARON SOIL COUNTER 4" X 4" X 16" NaI DETECTOR	pCi/g	Th(Nat)	1.5	0.25

CKGROUND NOT SUBTRACTED

REVIEWED BY: W. A. Rogers DATE: 3-3-97

E: AJUASURF