



**KERR-McGEE CORPORATION**

KERR-McGEE CENTER • OKLAHOMA CITY, OKLAHOMA 73125

ENVIRONMENT AND HEALTH MANAGEMENT DIVISION

EDWIN T. STILL, DVM  
VICE PRESIDENT AND DIRECTOR

March 2, 1994

Mr. David N. Fauver, Project Manager  
Facilities Decommissioning Section  
Division of Low-Level Waste Management  
and Decommissioning  
Office of Nuclear Material Safety  
and Safeguards  
U. S. Nuclear Regulatory Commission  
Washington, D.C. 20555-0001

Re: Docket No. 70-0925  
License No. SNM-928  
Cimarron Corporation

Dear Mr. Fauver:

The Cimarron facility annual environmental sampling results for 1993 are enclosed. The results cover the environmental sampling stations for soil, vegetation, surface and ground water and air. For your ready convenience, sketches showing the locations of these stations are also provided.

Please call me or Mr. Kegin at the facility if you have questions.

Sincerely,

*Edwin T. Still*

Attachment

ETS:lld

copy to:  
J. Kegin  
T. Moore/K. Morgan  
R. Smith  
J. Stauter  
Cimarron File  
NRC Regional Office - George France

*cert# 22717*

9403160176 940302  
PDR ADOCK 07003073  
C PDR

*AK-10*

1993 ANNUAL ENVIRONMENTAL SAMPLE RESULTS			
SOIL		DATE	TOTAL U
SURFACE	NO.		ug/g
North 1/2 mile	1401	06/29/93	<3
North Fence	1402	06/29/93	<3
South Fence	1403	06/29/93	12
South 1/2 Mile	1404	06/29/93	<3
East 1/2 Mile	1405	06/29/93	<3
West 1/2 Mile	1406	06/29/93	<3
North 1 Mile	1407	06/29/93	<3
South 1 Mile	1408	06/29/93	<3
East 1 Mile	1409	06/29/93	<3
West 1 Mile	1410	06/29/93	<3
North Pu Fence	1418	06/29/93	<3
SUB-SURFACE			
North 1/2 Mile	1401	06/29/93	<3
North Fence	1402	06/29/93	<3
South Fence	1403	06/29/93	10
South 1/2 Mile	1404	06/29/93	<3
East 1/2 Mile	1405	06/29/93	<3
West 1/2 Mile	1406	06/29/93	<3
North 1 mile	1407	06/29/93	<3
South 1 Mile	1408	06/29/93	<3
East 1 Mile	1409	06/29/93	<3
West 1 Mile	1410	06/29/93	<3
North Pu Fence	1418	06/29/93	<3
VEGETATION			
Covered #1 Pond	1508	06/29/93	<3
Covered #2 Pond	1509	06/29/93	<3
Burial Ground	1510	06/29/93	<3

(1407 - 1 mile North)

Cimarron River



1401

(1410 - 1 mile West)

1406

Plutonium Plant

1418

1402

Uranium Plant

1403

1405

(1409 - 1 mile East)

Cimarron Property Boundary



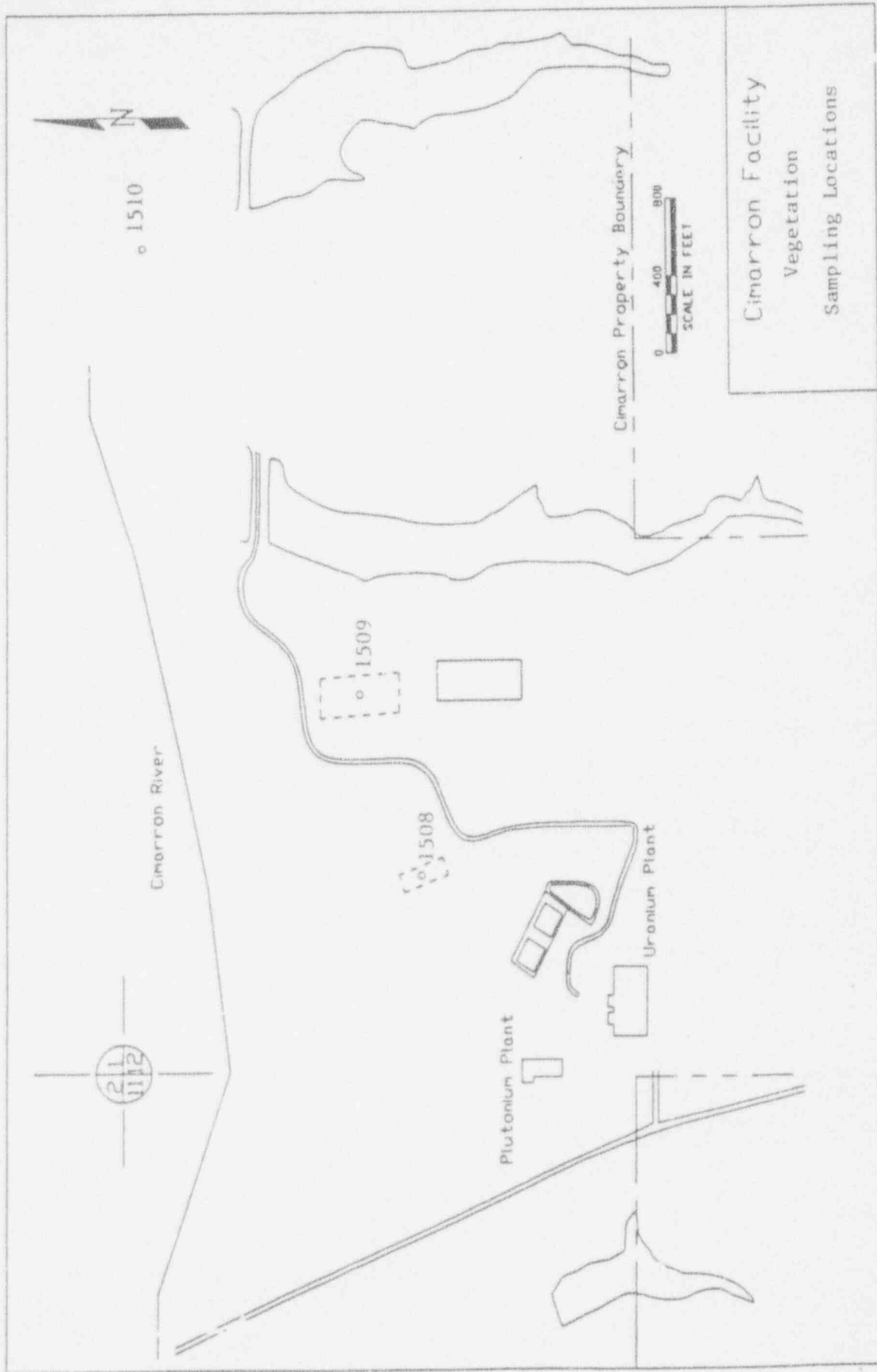
Cimarron Facility

Soil Sampling Locations

03/06/91

(1408 - 1 mile South)

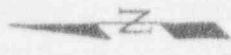
1404



## 1993 ENVIRONMENTAL

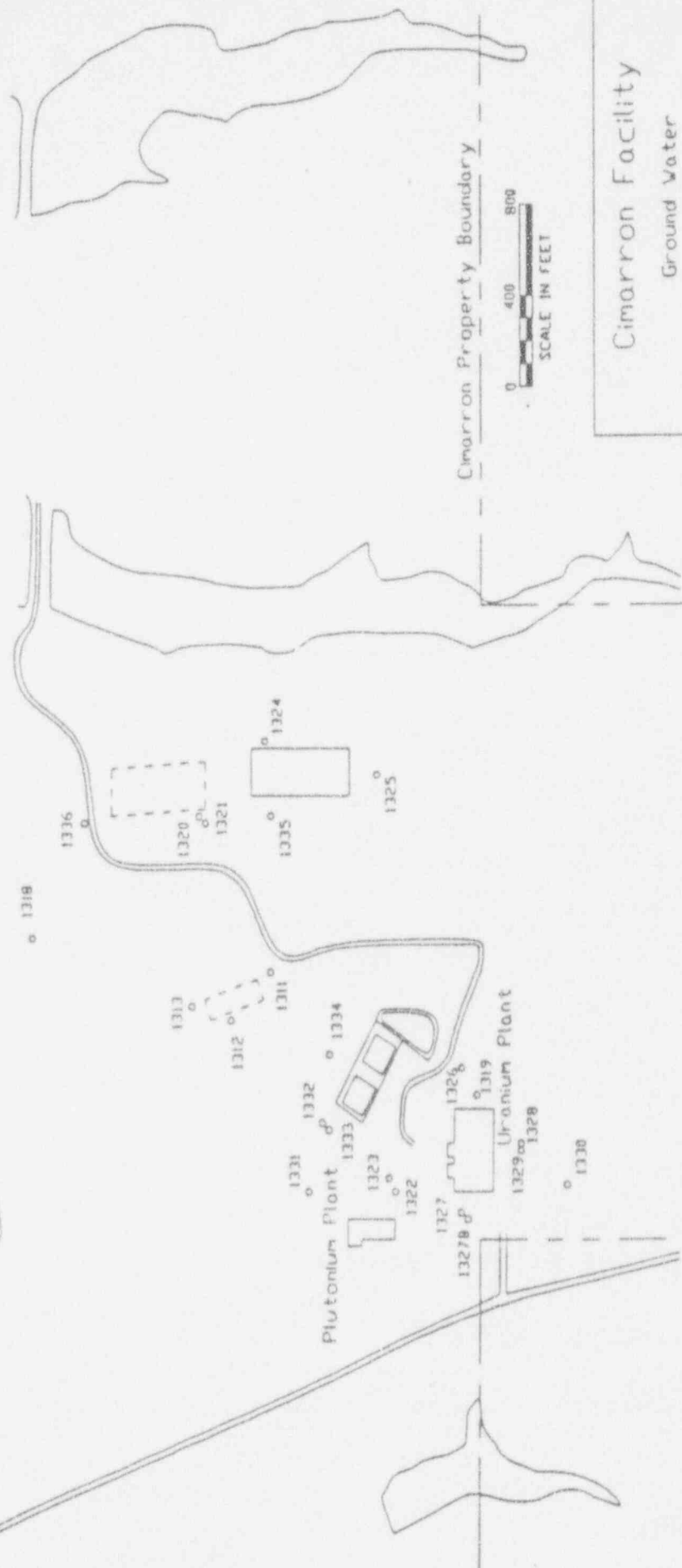
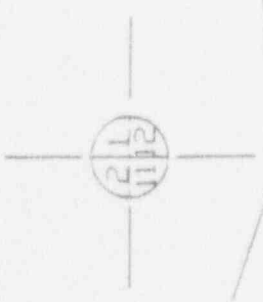
## SAMPLE RESULTS

		DATE	F	No3(N)	GROSS ALPHA	GROSS BETA	TOTAL U	U-234	U-235	U-236	U-238
WELL WATER	NO.		mg/L	mg/L	pCi/L	pCi/L	mg/L	pci/L	pci/L	pci/L	pci/L
S of Landfill	1311	06/14/93	0.3	69	13	<20	<.005	1.6	0.4		1.7
W.of Landfill	1312	06/14/93	<2	320	116	176	0.012	30.2	3.3		10.7
N of Landfill	1313	06/15/93	89	410	647	791	0.032	45.7	2.9		17.7
S of Burial Pit	1314	06/16/93	<2	2.4	<10	<20	<.005				
N.of Burial Pit	1315	06/17/93	0.6	7.3	2970	250	2.86	2000	71.3		1240
NW of Burial Pit	1316	06/17/93	0.5	7.7	473	37	0.35	388	23.4		164
N.of Burial Pit	1317	06/16/93	0.2	0.5	286	37	0.26	170	3.8		100
U-Plant Yard	1319	06/14/93	1	1.1	16	<20	<.005				
N Designated Area	1320	06/15/93	<2	25	14	24	<.005				
N.of D.A (Deep)	1321	06/15/93	0.4	1.3	21	<20	0.012	14.5	0.3		6.4
W.of Tractor Shed	1322	06/18/93	0.2	3.9	22	<20	0.006	12.9	<5.6		1.9
W.of Tractor Shed-deep	1323	06/14/93	<2	1.7	32	<20	0.021	22.1	1.3		12.6
E.of Designated Area	1324	06/16/93	0.3	14	<10	<20	<.005				
S.of Designated Area	1325	06/16/93	0.3	14	<10	<20	<.005				
E.of U-plant Yard	1326	06/14/93	<2	14	16	<20	<.005	5.1	0		2.6
W of U-plant Yard	1327B	06/14/93	10	10	11	<20	0.006				
S.of U-plant(deep)	1328	06/18/93	<2	2	31	<20	<.005	18.9	1.8		11.3
S.of U-Plant	1329	06/18/93	0.2	4.1	<10	<20	<.005				
SWof U-plant Yard	1330	06/17/93	0.5	<5	27	<20	<.005	7.3	0.3		2.4
NE of Pu-Plant Yard	1331	06/14/93	0.2	9.3	135	<20	0.036	118	9.3		38.5
W of San Lagoon(Deep)	1332	06/14/93	<2	1.6	35	<20	0.026	19.7	0.7		12.9
W of Sani Lagoon	1333	06/14/93	0.5	1.6	28	<20	0.016	21.6	1.6		8.2
N of Sani Lagoon	1334	06/17/93	0.5	1.1	11	<20	<.005				
W.of Designated Area	1335	06/16/93	0.3	0.3	<10	<20	<.005				

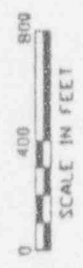


o 1317  
1316 o o 1315  
o 1314

Cimarron River



Cimarron Property Boundary



Cimarron Facility

Ground Water

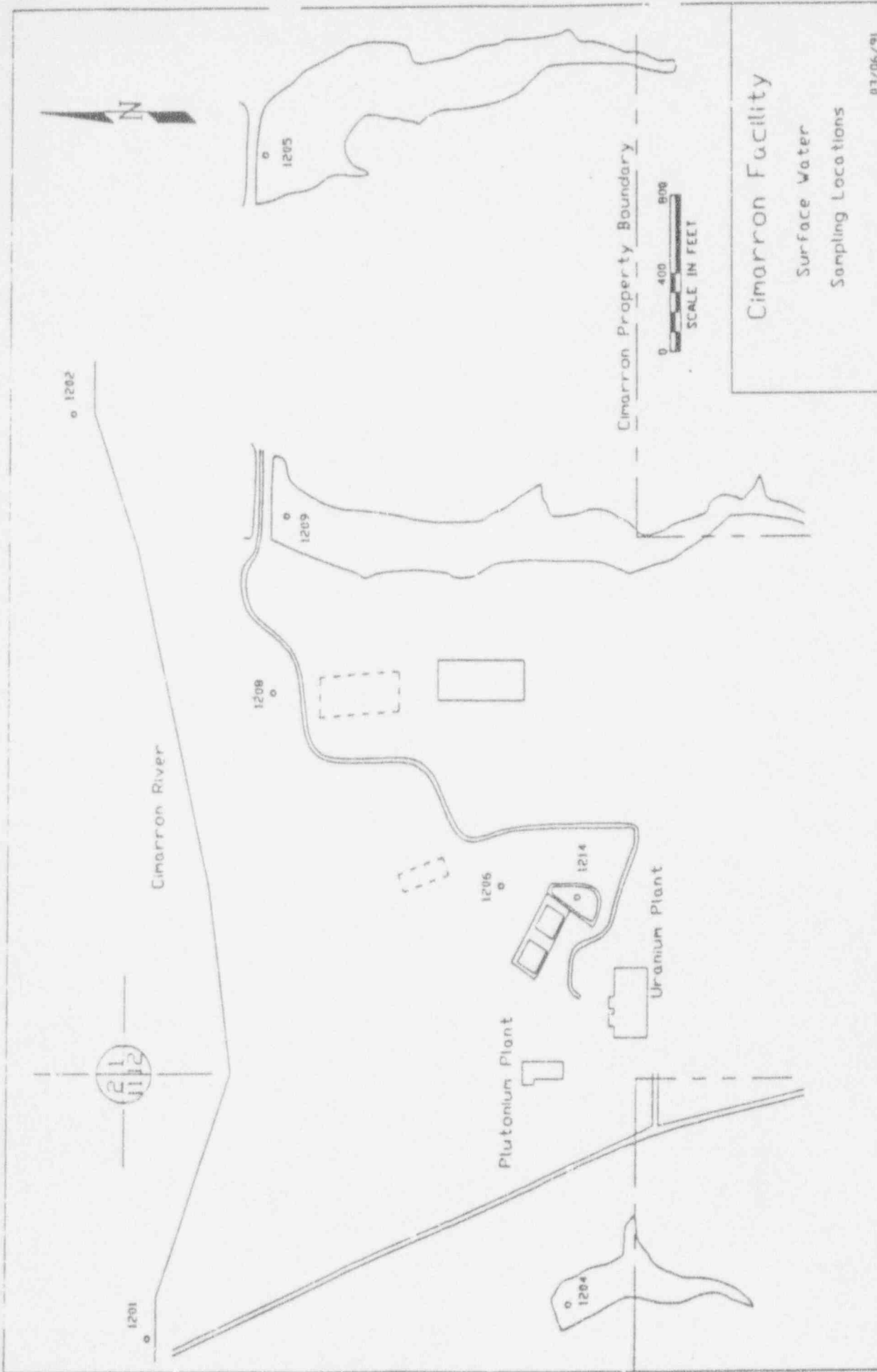
Monitoring Well Locations

03/06/91

## 1993 ANNUAL ENVIRONMENTAL

## SAMPLE RES' J

SURFACE WATER		DATE	F	No3(N)	GROSS ALPHA	GROSS BETA	TOTAL U	U-234	U-235	U-236	U-238
LOCATION	NO.		mg/L	mg/L	pCi/L	pCi/L	mg/L	pci/L	pci/L	pci/L	pci/L
River-Upstream	1201	06/18/93	<.2	0.5	<10	<20	0.008				
River-Downstream	1202	06/18/93	<.2	0.5	<10	<20	0.008				
Pond West of Plant	1204	06/18/93	<.2	3.6	<10	<20	<.005				
KM Lake-East	1205	06/18/93	<.2	0.7	<10	<20	<.005				
Slough-NW of Inc	1206	06/18/93	1.9	0.5	11	<20	<.005	<4.9	<2.6		<5.9
Stream NW Old #2	1208	06/18/93	3.4	49	296	30	0.2	217	9.2		77.1
KM Lake-West	1209	06/18/93	<.2	0.5	<10	<20	<.005				
New San. Lagoon	1214	06/18/93	1.3	0.5	43	<20	0.01	21.1	0.9		7.1





CIMARRON FACILITY  
1993 ANNUAL ENVIRONMENTAL SAMPLINGS  
AIR

ANALYSIS - GROSS ALPHA  
( $\mu\text{Ci}/\text{ml} \times \text{E-14}$ )

Week No.	NW 1/2 Mile Sample 1101	KM Lake East Sample 1102	Jct Hwy. 33/74 Sample 1103		Week No.	NW 1/2 Mile Sample 1101	KM Lake East Sample 1102	Jct Hwy. 33/74 Sample 1103
1	1.80	1.70	1.70		27	0.35	0.85	0.30
2	0.70	1.80	1.60		28	**	**	0.79
3	2.10	2.90	2.40		29	1.6	1.4	1.3
4	0.31	0.85	1.10		30	1.4	1.3	1.2
5	1.10	1.40	1.60		31	0.98	0.94	1.3
6	0.97	0.17	0.99		32	1.2	1.2	1.1
7	1.10	1.10	1.40		33	1.5	1.3	1.4
8	1.50	1.80	1.60		34	0.92	1.4	1.7
9	0.79	1.40	0.95		35	0.88	0.83	0.69
10	1.00	0.99	0.72		36	0.88	0.82	0.27
11	0.67	0.47	1.60		37	0.98	0.94	0.77
12	0.68	0.77	1.00		38	0.58	0.72	0.56
13	0.81	1.20	1.00		39	0.76	0.91	0.77
14	0.98	0.94	0.52		40	0.91	0.92	0.97
15	0.60	0.37	0.60		41	0.99	1.3	1.0
16	0.98	1.2	1.40		42	0.83	0.53	0.70
17	0.40	0.52	0.50		43	0.68	1.0	0.63
18	0.87	0.36	0.52		44	1.1	0.91	1.4
19	0.52	0.52	0.72		45	0.86	0.70	0.67
20	0.59	0.49	0.69		46	1.5	0.82	0.60
21	0.54	0.33	0.55		47	0.86	0.60	0.92
22	0.33	0.56	0.60		48	0.77	0.40	0.65
23	0.16	0.28	0.45		49	0.67	0.58	0.34
24	0.10	0.52	0.24		50	0.44	**	0.33
25	**	0.37	0.50		51	0.45	0.60	0.42
26	0.69	0.69	0.69		52	0.74	0.55	0.39

\*\* Did not run - due to faulty sampler.

