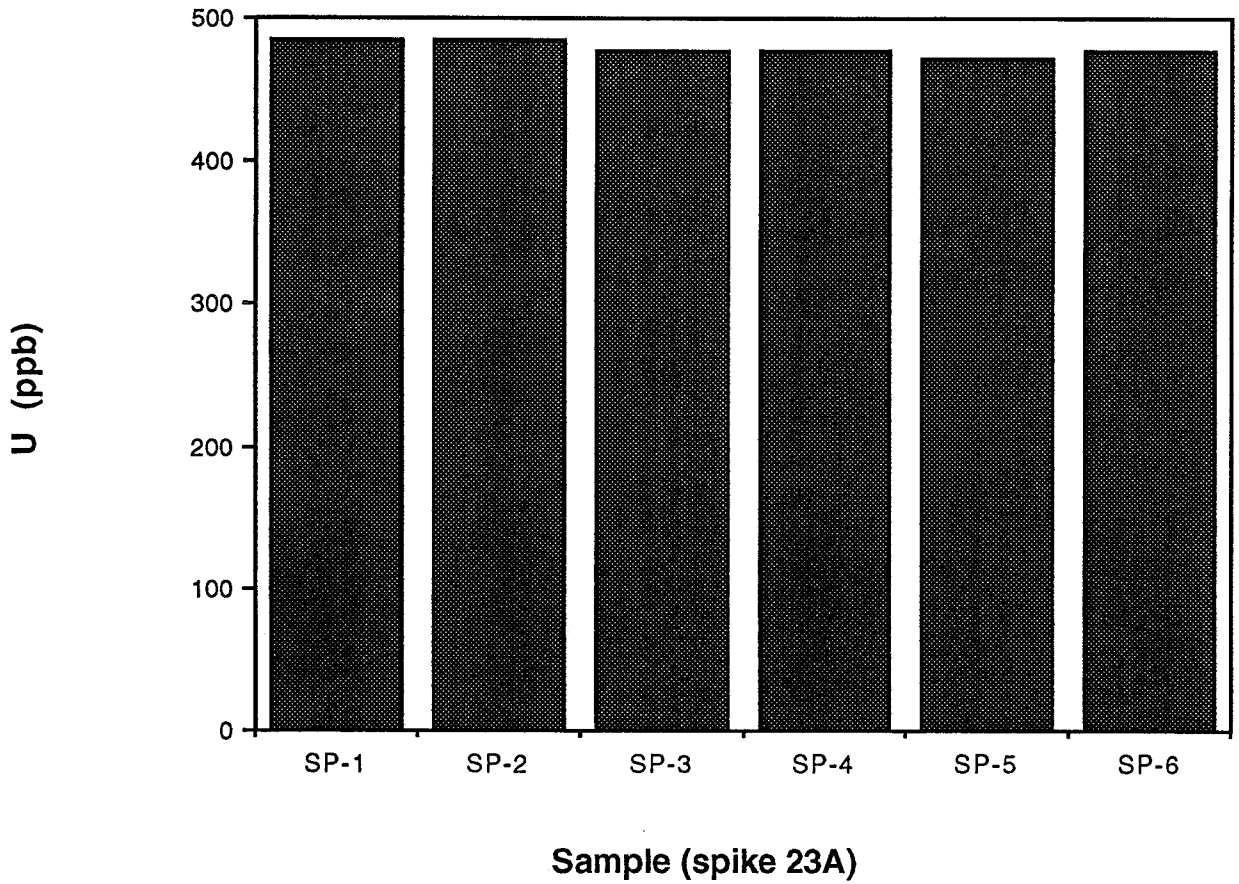

500
400
300
200
100
0
U (ppb)
SP-1
SP-2
SP-3
SP-4
SP-5
SP-6
Sample (spike 23A)

SP LSA Sample Wt

Identification	Vial wt g	S+v wt g	RACK	VIAL	Sam wt	CPMB	U (ppb)
SP-1	7.3459	7.8299	1	2	0.484	5237.66	484.18
SP-2	7.3278	7.8654	1	3	0.5376	5820.1	484.38
SP-3	7.3531	7.8486	1	4	0.4955	5285.33	477.29
SP-4	7.4149	7.918	1	5	0.5031	5364.52	477.08
SP-5	7.3655	7.8653	1	6	0.4998	5260.64	470.93
SP-6	7.3965	7.9016	1	7	0.5051	5393.59	477.77

Protocol #: 4 Name:U-233 1% 2 sigma 18-Mar-93 11:39
Region A: LL-UL= 0.0-100. Lcr= 0 Bkg= 0.00 %2 Sigma=0.25
Region B: LL-UL=100.-350. Lcr= 0 Bkg= 0.00 %2 Sigma=1.00
Region C: LL-UL= 0.0-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.10
Time =999.99 QIP = SIS
U-233 1% 2 sigma error for 500 ppb experiments

S#	TIME	CPMA	A:2S%	CPMB	B:2S%	CPMC	C:2S%	SIS	FLAG
1	999.98	18.54	1.47	3.04	3.62	27.81	1.20	139.36	B
2	7.64	29.50	17.03	5237.66	1.00	5285.94	1.00	717.62	
3	6.87	29.06	18.14	5820.10	1.00	5871.32	1.00	711.82	
4	7.57	19.24	23.26	5285.33	1.00	5327.15	1.00	716.92	
5	7.46	29.72	17.14	5364.52	1.00	5416.16	1.00	715.70	
6	7.60	23.17	20.25	5260.64	1.00	5305.88	1.00	718.17	
7	7.42	19.06	23.66	5393.59	1.00	5433.24	1.00	716.93	

Sample-	SP-1
CPMB	5237.66
233U added (g)	0.484
U233 corrected-	10821.61157
N (convert to atoms/g soln)-	1.25139E+15
Moles of 233U in g of soln	2.07768E-09
Grams (convert moles to g)	4.84182E-07
233U ppb	484.1815579

Sample-	SP-2
CPMB	5820.1
233U added (g)	0.5376
U233 corrected-	10826.07887
N (convert to atoms/g soln)-	1.2519E+15
Moles of 233U in g of soln	2.07854E-09
Grams (convert moles to g)	4.84381E-07
233U ppb	484.3814342

Sample-	SP-3
CPMB	5285.33
233U added (g)	0.4955
U233 corrected-	10666.65994
N (convert to atoms/g soln)-	1.23347E+15
Moles of 233U in g of soln	2.04793E-09
Grams (convert moles to g)	4.77249E-07
233U ppb	477.2486975

Sample-	SP-4
CPMB	5364.52
233U added (g)	0.5031
U233 corrected-	10662.92984
N (convert to atoms/g soln)-	1.23304E+15
Moles of 233U in g of soln	2.04721E-09
Grams (convert moles to g)	4.77082E-07
233U ppb	477.0818048

Sample-	SP-5
CPMB	5260.64
233U added (g)	0.4998
U233 corrected-	10525.4902
N (convert to atoms/g soln)-	1.21714E+15
Moles of 233U in g of soln	2.02083E-09
Grams (convert moles to g)	4.70932E-07
233U ppb	470.9324676

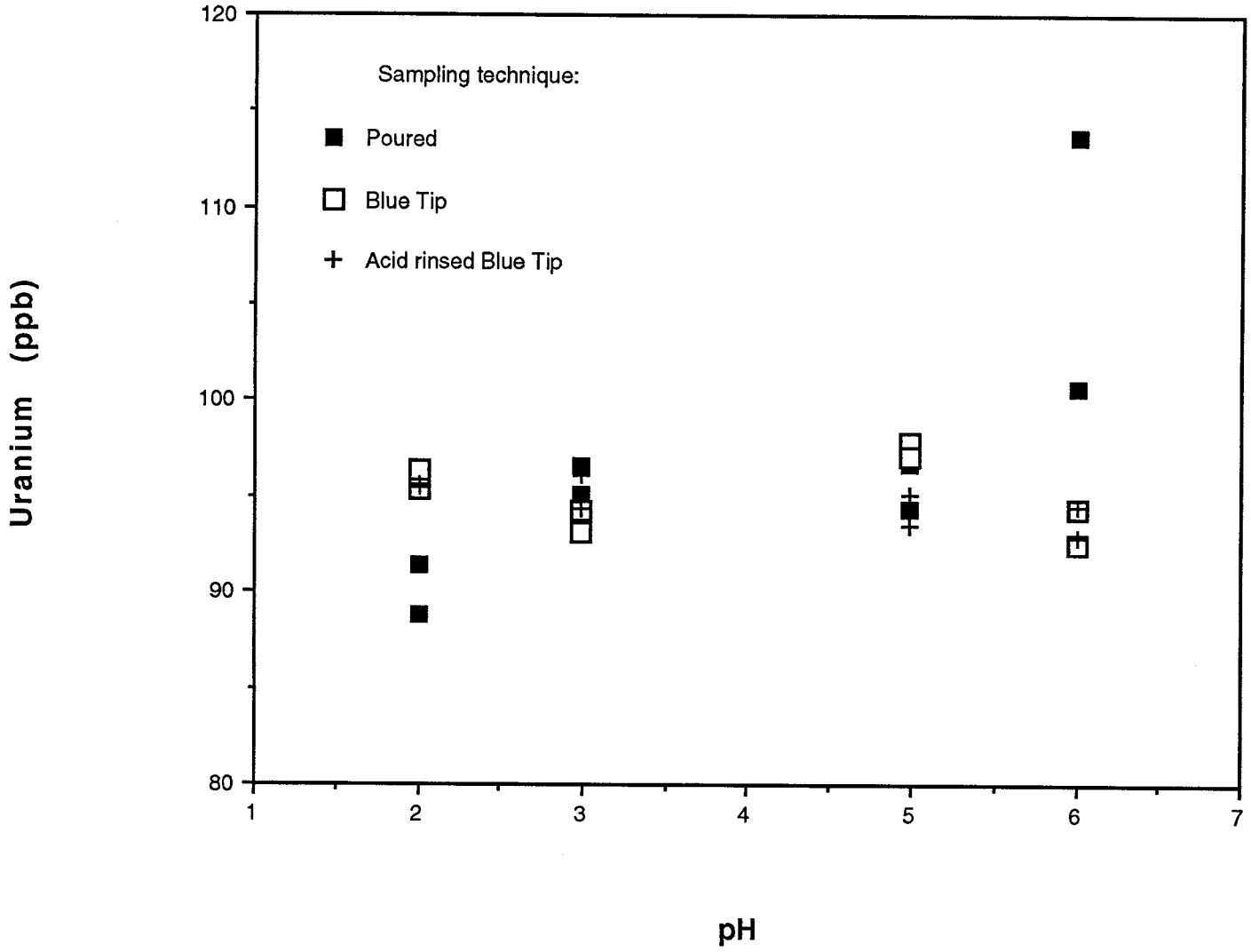
Sample-	SP-6
CPMB	5393.59
233U added (g)	0.5051
U233 corrected-	10678.26173
N (convert to atoms/g soln)-	1.23481E+15
Moles of 233U in g of soln	2.05016E-09
Grams (convert moles to g)	4.77768E-07
233U ppb	477.7677859

TL LSA Sample Wt

Identification	pH	Targ pH	Vial wt g	S+v wt g	RACK	VIAL	Sam wt	CPMB	U (ppb)
TL*pH2.00*a	3.85	2.01	7.3925	7.8879	1	2	0.4954	1012.02	91.401
TL*pH2.00*b	3.85	2.01	7.4011	7.9397	1	3	0.5386	1069.24	88.823
TL*pH2.00*c	3.85	2.01	7.3806	7.8871	1	4	0.5065	1090.07	96.292
TL*pH2.00*d	3.85	2.01	7.3862	7.8915	1	5	0.5053	1076.57	95.325
TL*pH2.00*e	3.85	2.01	7.3326	7.8407	1	6	0.5081	1085.95	95.626
TL*pH2.00*f	3.85	2.01	7.368	7.8743	1	7	0.5063	1079.92	95.433
TL*pH3.00*a	3.86	2.99	7.4265	7.9773	1	8	0.5508	1170.83	95.108
TL*pH3.00*b	3.86	2.99	7.438	7.9886	1	9	0.5506	1188.66	96.591
TL*pH3.00*c	3.86	2.99	7.3323	7.84	1	10	0.5077	1056.24	93.083
TL*pH3.00*d	3.86	2.99	7.427	7.9323	1	11	0.5053	1064.58	94.264
TL*pH3.00*e	3.86	2.99	7.3239	7.8285	1	12	0.5046	1083.75	96.094
TL*pH3.00*f	3.86	2.99	7.4039	7.9095	1	13	0.5056	1065.7	94.307
TL*pH5.00*a	3.84	4.99	7.3455	7.7703	1	14	0.4248	895.741	94.344
TL*pH5.00*b	3.84	4.99	7.3588	7.9456	1	15	0.5868	1268.1	96.689
TL*pH5.00*c	3.84	4.99	7.33	7.8362	1	16	0.5062	1106.43	97.795
TL*pH5.00*d	3.84	4.99	7.4088	7.914	1	17	0.5052	1095.97	97.062
TL*pH5.00*e	3.84	4.99	7.3618	7.8699	1	18	0.5081	1080.65	95.159
TL*pH5.00*f	3.84	4.99	7.4586	7.9649	2	1	0.5063	1058.29	93.522
TL*pH6.00*a	3.82	6.01	7.3281	7.7525	2	2	0.4244	1078.46	113.696
TL*pH6.00*b	3.82	6.01	7.4151	7.9081	2	3	0.493	1109.2	100.665
TL*pH6.00*c	3.82	6.01	7.4088	7.9163	2	4	0.5075	1048.73	92.458
TL*pH6.00*d	3.82	6.01	7.4136	7.9186	2	5	0.505	1064.58	94.32
TL*pH6.00*e	3.82	6.01	7.3601	7.8662	2	6	0.5061	1050.14	92.838
TL*pH6.00*f	3.82	6.01	7.34	7.8449	2	7	0.5049	1066.91	94.545

Protocol #: 5 Name:U-233 3% 2 sigma 17-Mar-93 03:08
Region A: LL-UL= 0.0-100. Lcr= 0 Bkg= 0.00 %2 Sigma=0.25
Region B: LL-UL=100.-350. Lcr= 0 Bkg= 0.00 %2 Sigma=3.00
Region C: LL-UL= 0.0-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.10
Time =999.99 QIP = SIS
U-233 3% 2 sigma error for 50 ppb experiments

S#	TIME	CPMA	A:2S%	CPMB	B:2S%	CPMC	C:2S%	SIS	FLAG
1	999.98	18.76	1.46	3.047	3.62	28.13	1.19	138.86	B
2	4.38	5.44	86.56	1012.02	3.01	1021.87	3.03	712.53	
3	4.15	2.93	156.5	1069.24	3.01	1077.42	3.03	712.04	
4	4.07	7.28	69.56	1090.07	3.01	1099.39	3.03	708.93	
5	4.12	1.39	319.9	1076.57	3.01	1082.55	3.03	713.59	
6	4.09	3.49	133.9	1085.95	3.01	1094.12	3.03	711.01	
7	4.11	5.57	87.49	1079.92	3.01	1088.91	3.03	713.10	
8	3.79	9.74	56.40	1170.83	3.01	1184.54	3.02	711.54	
9	3.74	6.37	81.46	1188.66	3.00	1199.15	3.02	711.53	
10	4.20	4.33	108.4	1056.24	3.01	1063.78	3.03	709.56	
11	4.17	7.38	67.96	1064.58	3.01	1075.47	3.03	710.81	
12	4.09	5.20	93.23	1083.75	3.01	1095.35	3.03	710.33	
13	4.16	6.72	73.77	1065.70	3.01	1073.08	3.03	711.47	
14	4.95	0.63	626.3	895.741	3.01	899.15	3.04	718.62	
15	3.50	4.10	124.9	1268.10	3.01	1277.30	3.02	709.52	
16	4.01	5.68	87.08	1106.43	3.01	1115.52	3.03	716.97	
17	4.05	7.91	65.00	1095.97	3.01	1108.42	3.02	711.85	
18	4.11	6.54	75.95	1080.65	3.01	1088.42	3.03	712.75	
19	4.19	10.36	50.98	1058.29	3.01	1073.07	3.02	710.89	
20	4.11	5.57	87.49	1078.46	3.01	1088.91	3.03	715.90	
21	4.00	10.74	50.64	1109.20	3.01	1128.62	3.01	713.23	
22	4.23	3.46	132.7	1048.73	3.01	1055.80	3.03	716.70	
23	4.17	6.66	74.27	1064.58	3.01	1080.03	3.02	714.35	
24	4.23	7.48	66.69	1050.14	3.01	1061.71	3.02	711.18	
25	4.16	8.16	62.42	1066.91	3.01	1080.77	3.02	710.46	


Sampling technique:
Poured
Blue Tip
Acid rinsed Blue Tip
Uranium (ppb)
120
110
100
90
80
1
2
3
4
5
6
7
pH

Sample-	TL*pH2.00*a
CPMB	1012.02
233U added (g)	0.4954
U233 corrected-	2042.834073
N (convert to atoms/g soln)-	2.36229E+14
Moles of 233U in g of soln	3.92211E-10
Grams (convert moles to g)	9.14007E-08
233U ppb	91.40067334

Sample-	TL*pH2.00*b
CPMB	1069.24
233U added (g)	0.5386
U233 corrected-	1985.220943
N (convert to atoms/g soln)-	2.29566E+14
Moles of 233U in g of soln	3.8115E-10
Grams (convert moles to g)	8.88229E-08
233U ppb	88.82294127

Sample-	TL*pH2.00*c
CPMB	1090.07
233U added (g)	0.5065
U233 corrected-	2152.161895
N (convert to atoms/g soln)-	2.48871E+14
Moles of 233U in g of soln	4.13201E-10
Grams (convert moles to g)	9.62922E-08
233U ppb	96.29222898

Sample-	TL*pH2.00*d
CPMB	1076.57
233U added (g)	0.5053
U233 corrected-	2130.556105
N (convert to atoms/g soln)-	2.46373E+14
Moles of 233U in g of soln	4.09053E-10
Grams (convert moles to g)	9.53255E-08
233U ppb	95.3255407

Sample-	TL*pH2.00*e
CPMB	1085.95
233U added (g)	0.5081
U233 corrected-	2137.276127
N (convert to atoms/g soln)-	2.4715E+14
Moles of 233U in g of soln	4.10343E-10
Grams (convert moles to g)	9.56262E-08
233U ppb	95.62620853

Sample-	TL*pH2.00*f
CPMB	1079.92
233U added (g)	0.5063
U233 corrected-	2132.964645
N (convert to atoms/g soln)-	2.46651E+14
Moles of 233U in g of soln	4.09515E-10
Grams (convert moles to g)	9.54333E-08
233U ppb	95.43330383

Sample-	TL*pH3.00*a
CPMB	1170.83
233U added (g)	0.5508
U233 corrected-	2125.689906
N (convert to atoms/g soln)-	2.4581E+14
Moles of 233U in g of soln	4.08119E-10
Grams (convert moles to g)	9.51078E-08
233U ppb	95.10781674

Sample-	TL*pH3.00*b
CPMB	1188.66
233U added (g)	0.5506
U233 corrected-	2158.844896
N (convert to atoms/g soln)-	2.49644E+14
Moles of 233U in g of soln	4.14484E-10
Grams (convert moles to g)	9.65912E-08
233U ppb	96.59124044

Sample-	TL*pH3.00*c
CPMB	1056.24
233U added (g)	0.5077
U233 corrected-	2080.441205
N (convert to atoms/g soln)-	2.40577E+14
Moles of 233U in g of soln	3.99431E-10
Grams (convert moles to g)	9.30833E-08
233U ppb	93.08329516

Sample-	TL*pH3.00*d
CPMB	1064.58
233U added (g)	0.5053
U233 corrected-	2106.827627
N (convert to atoms/g soln)-	2.43629E+14
Moles of 233U in g of soln	4.04497E-10
Grams (convert moles to g)	9.42639E-08
233U ppb	94.26387891

Sample-	TL*pH3.00*e
CPMB	1083.75
233U added (g)	0.5046
U233 corrected-	2147.740785
N (convert to atoms/g soln)-	2.4836E+14
Moles of 233U in g of soln	4.12352E-10
Grams (convert moles to g)	9.60944E-08
233U ppb	96.09441924

Sample-	TL*pH3.00*f
CPMB	1065.7
233U added (g)	0.5056
U233 corrected-	2107.792722
N (convert to atoms/g soln)-	2.4374E+14
Moles of 233U in g of soln	4.04682E-10
Grams (convert moles to g)	9.43071E-08
233U ppb	94.30705925

Sample-	TL*pH5.00*a
CPMB	895.741
233U added (g)	0.4248
U233 corrected-	2108.618173
N (convert to atoms/g soln)-	2.43836E+14
Moles of 233U in g of soln	4.04841E-10
Grams (convert moles to g)	9.4344E-08
233U ppb	94.34399169

Sample-	TL*pH5.00*b
CPMB	1268.1
233U added (g)	0.5868
U233 corrected-	2161.042945
N (convert to atoms/g soln)-	2.49898E+14
Moles of 233U in g of soln	4.14906E-10
Grams (convert moles to g)	9.66896E-08
233U ppb	96.68958573

Sample-	TL*pH5.00*c
CPMB	1106.43
233U added (g)	0.5062
U233 corrected-	2185.756618
N (convert to atoms/g soln)-	2.52756E+14
Moles of 233U in g of soln	4.19651E-10
Grams (convert moles to g)	9.77953E-08
233U ppb	97.7953272

Sample-	TL*pH5.00*d
CPMB	1095.97
233U added (g)	0.5052
U233 corrected-	2169.378464
N (convert to atoms/g soln)-	2.50862E+14
Moles of 233U in g of soln	4.16507E-10
Grams (convert moles to g)	9.70625E-08
233U ppb	97.06253431

Sample-	TL*pH5.00*e
CPMB	1080.65
233U added (g)	0.5081
U233 corrected-	2126.845109
N (convert to atoms/g soln)-	2.45943E+14
Moles of 233U in g of soln	4.0834E-10
Grams (convert moles to g)	9.51595E-08
233U ppb	95.15950297

Sample-	TL*pH5.00*f
CPMB	1058.29
233U added (g)	0.5063
U233 corrected-	2090.242939
N (convert to atoms/g soln)-	2.41711E+14
Moles of 233U in g of soln	4.01313E-10
Grams (convert moles to g)	9.35218E-08
233U ppb	93.52184524

Sample-	TL*pH6.00*a
CPMB	1078.46
233U added (g)	0.4244
U233 corrected-	2541.140434
N (convert to atoms/g soln)-	2.93852E+14
Moles of 233U in g of soln	4.87882E-10
Grams (convert moles to g)	1.13696E-07
233U ppb	113.6959431

Sample-	TL*pH6.00*b
CPMB	1109.2
233U added (g)	0.493
U233 corrected-	2249.89858
N (convert to atoms/g soln)-	2.60173E+14
Moles of 233U in g of soln	4.31966E-10
Grams (convert moles to g)	1.00665E-07
233U ppb	100.6651729

Sample-	TL*pH6.00*c
CPMB	1048.73
233U added (g)	0.5075
U233 corrected-	2066.463054
N (convert to atoms/g soln)-	2.38961E+14
Moles of 233U in g of soln	3.96747E-10
Grams (convert moles to g)	9.24579E-08
233U ppb	92.45788341

Sample-	TL*pH6.00*d
CPMB	1064.58
233U added (g)	0.505
U233 corrected-	2108.079208
N (convert to atoms/g soln)-	2.43773E+14
Moles of 233U in g of soln	4.04738E-10
Grams (convert moles to g)	9.43199E-08
233U ppb	94.31987725

Sample-	TL*pH6.00*e
CPMB	1050.14
233U added (g)	0.5061
U233 corrected-	2074.965422
N (convert to atoms/g soln)-	2.39944E+14
Moles of 233U in g of soln	3.9838E-10
Grams (convert moles to g)	9.28383E-08
233U ppb	92.83829714

Sample-	TL*pH6.00*f
CPMB	1066.91
233U added (g)	0.5049
U233 corrected-	2113.111507
N (convert to atoms/g soln)-	2.44355E+14
Moles of 233U in g of soln	4.05704E-10
Grams (convert moles to g)	9.4545E-08
233U ppb	94.54503286

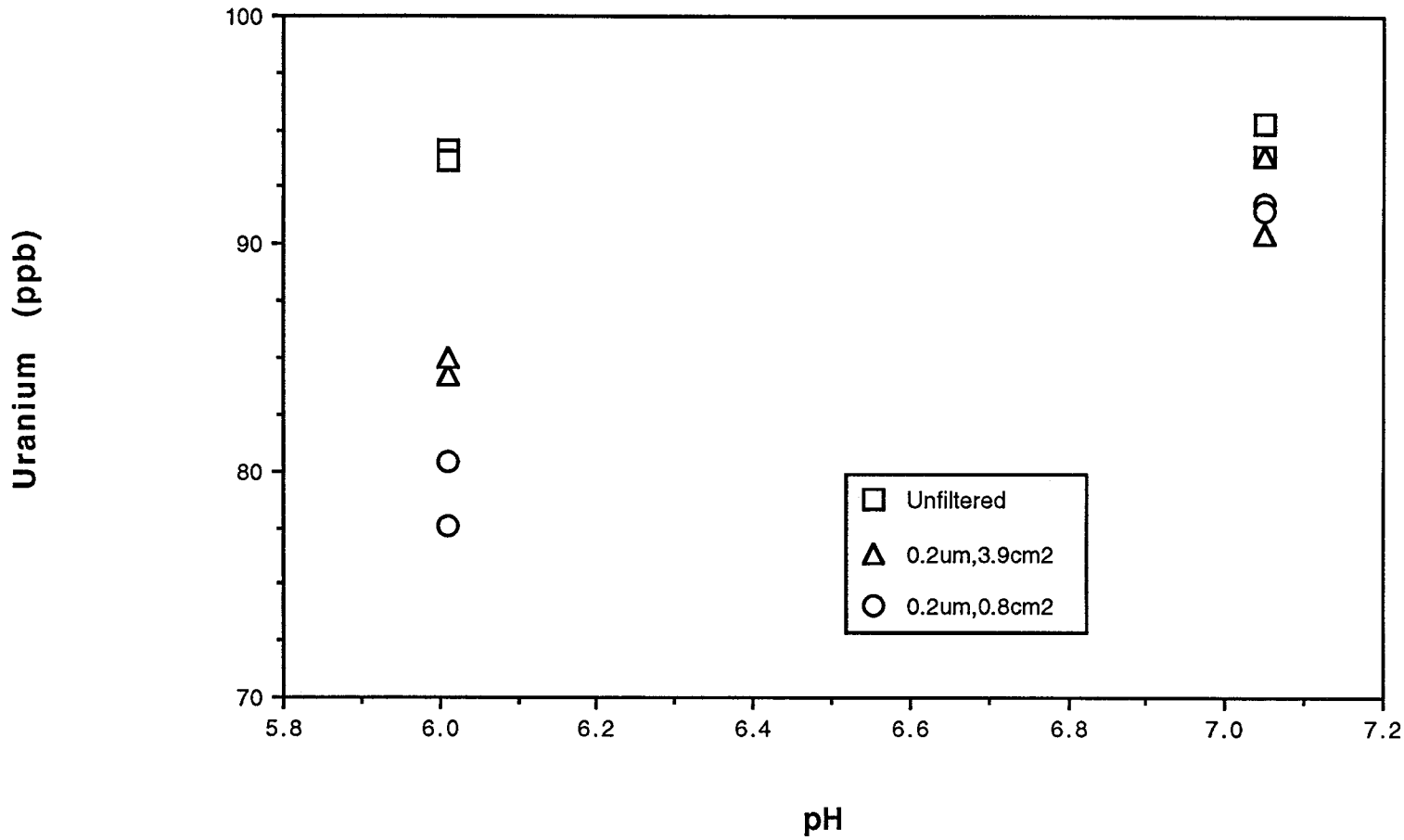
Fi

FL LSA Sample Wt

Identification	pH	Targ pH	Vial wt g	S+v wt g	RACK	VIAL	Sam wt	CPMB	U (ppb)
FL*pH6.00*a	3.84	6.01	7.391	7.9027	1	2	0.5117	1076.35	94.114
FL*pH6.00*b	3.84	6.01	7.3587	7.8639	1	3	0.5052	1056.98	93.609
FL*pH6.00*c	3.84	6.01	7.361	7.8653	1	4	0.5043	949.439	84.235
FL*pH6.00*d	3.84	6.01	7.428	7.9305	1	5	0.5025	957.968	84.992
FL*pH6.00*e	3.84	6.01	7.466	7.9702	1	6	0.5042	873.703	77.531
FL*pH6.00*f	3.84	6.01	7.3818	7.8856	1	7	0.5038	905.548	80.421
FL*pH7.00*a	3.88	7.05	7.3763	7.8792	1	8	0.5029	1070.65	95.254
FL*pH7.00*b	3.88	7.05	7.3655	7.8685	1	9	0.503	1055.79	93.913
FL*pH7.00*c	3.88	7.05	7.4299	7.9324	1	10	0.5025	1054.7	93.909
FL*pH7.00*d	3.88	7.05	7.346	7.8504	1	11	0.5044	1019.74	90.455
FL*pH7.00*e	3.88	7.05	7.4476	7.9526	1	12	0.505	1036.14	91.8
FL*pH7.00*f	3.88	7.05	7.3792	7.8836	1	13	0.5044	1030.47	91.406

Protocol #: 5 Name:U-233 3% 2 sigma 13-Mar-93 09:56
Region A: LL-UL= 0.0-100. Lcr= 0 Bkg= 0.00 %2 Sigma=0.25
Region B: LL-UL=100.-350. Lcr= 0 Bkg= 0.00 %2 Sigma=3.00
Region C: LL-UL= 0.0-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.10
Time =999.99 QIP = SIS
U-233 3% 2 sigma error for 50 ppb experiments

S#	TIME	CPMA	A:2S%	CPMB	B:2S%	CPMC	C:2S%	SIS	FLAG
1	999.98	19.26	1.44	3.023	3.64	28.37	1.19	135.27	B
2	4.12	81.71	12.12	1076.35	3.01	1160.47	2.93	663.55	
3	4.20	72.88	12.86	1056.98	3.01	1132.82	2.94	666.18	
4	4.67	104.93	9.83	949.439	3.01	1057.93	2.88	640.05	
5	4.64	6.17	76.06	957.968	3.00	966.67	3.03	708.88	
6	5.07	23.14	25.02	873.703	3.01	899.44	3.01	696.98	
7	4.90	5.02	88.84	905.548	3.01	914.08	3.03	706.75	
8	4.14	55.86	15.26	1070.65	3.01	1128.64	2.96	676.93	
9	4.20	40.74	18.57	1055.79	3.01	1097.35	2.98	683.76	
10	4.21	56.51	15.02	1054.70	3.01	1115.81	2.96	675.59	
11	4.35	101.20	10.40	1019.74	3.01	1122.44	2.90	648.99	
12	4.29	16.17	35.59	1036.14	3.00	1054.38	3.01	701.93	
13	4.30	26.78	24.46	1030.47	3.01	1060.47	3.00	694.20	


100
90
80
70
5.8
6.0
6.2
6.4
6.6
6.8
7.0
7.2
Uranium (ppb)
pH
Unfiltered
0.2um,3.9cm2
0.2um,0.8cm2

Sample-	FL*pH6.00*a
CPMB	1076.35
233U added (g)	0.5117
U233 corrected-	2103.478601
N (convert to atoms/g soln)-	2.43241E+14
Moles of 233U in g of soln	4.03854E-10
Grams (convert moles to g)	9.4114E-08
233U ppb	94.11403646

Sample-	FL*pH6.00*b
CPMB	1056.98
233U added (g)	0.5052
U233 corrected-	2092.201108
N (convert to atoms/g soln)-	2.41937E+14
Moles of 233U in g of soln	4.01689E-10
Grams (convert moles to g)	9.36095E-08
233U ppb	93.60945784

Sample-	FL*pH6.00*c
CPMB	949.439
233U added (g)	0.5043
U233 corrected-	1882.686893
N (convert to atoms/g soln)-	2.1771E+14
Moles of 233U in g of soln	3.61464E-10
Grams (convert moles to g)	8.42354E-08
233U ppb	84.23535319

Sample-	FL*pH6.00*d
CPMB	957.968
233U added (g)	0.5043
U233 corrected-	1899.599445
N (convert to atoms/g soln)-	2.19665E+14
Moles of 233U in g of soln	3.64711E-10
Grams (convert moles to g)	8.49921E-08
233U ppb	84.99205617

Sample-	FL*pH6.00*e
CPMB	873.703
233U added (g)	0.5042
U233 corrected-	1732.85006
N (convert to atoms/g soln)-	2.00383E+14
Moles of 233U in g of soln	3.32696E-10
Grams (convert moles to g)	7.75313E-08
233U ppb	77.53133957

Sample-	FL*pH6.00*f
CPMB	905.548
233U added (g)	0.5038
U233 corrected-	1797.43549
N (convert to atoms/g soln)-	2.07851E+14
Moles of 233U in g of soln	3.45096E-10
Grams (convert moles to g)	8.0421E-08
233U ppb	80.42102696

Sample-	FL*pH7.00*a
CPMB	1070.65
233U added (g)	0.5029
U233 corrected-	2128.952078
N (convert to atoms/g soln)-	2.46187E+14
Moles of 233U in g of soln	4.08745E-10
Grams (convert moles to g)	9.52538E-08
233U ppb	95.25377316

Sample-	FL*pH7.00*b
CPMB	1055.79
233U added (g)	0.503
U233 corrected-	2098.986083
N (convert to atoms/g soln)-	2.42722E+14
Moles of 233U in g of soln	4.02992E-10
Grams (convert moles to g)	9.3913E-08
233U ppb	93.91303183

Sample-	FL*pH7.00*c
CPMB	1054.7
233U added (g)	0.5025
U233 corrected-	2098.905473
N (convert to atoms/g soln)-	2.42713E+14
Moles of 233U in g of soln	4.02976E-10
Grams (convert moles to g)	9.39094E-08
233U ppb	93.90942513

Sample-	FL*pH7.00*d
CPMB	1019.74
233U added (g)	0.5044
U233 corrected-	2021.689136
N (convert to atoms/g soln)-	2.33783E+14
Moles of 233U in g of soln	3.88151E-10
Grams (convert moles to g)	9.04546E-08
233U ppb	90.45460455

Sample-	FL*pH7.00*e
CPMB	1036.14
233U added (g)	0.505
U233 corrected-	2051.762376
N (convert to atoms/g soln)-	2.37261E+14
Moles of 233U in g of soln	3.93925E-10
Grams (convert moles to g)	9.18001E-08
233U ppb	91.8001443

Sample-	FL*pH7.00*f
CPMB	1030.47
233U added (g)	0.5044
U233 corrected-	2042.961935
N (convert to atoms/g soln)-	2.36243E+14
Moles of 233U in g of soln	3.92235E-10
Grams (convert moles to g)	9.14064E-08
233U ppb	91.40639413

Identification	Activity (DPM)	Scientific Notebook Page Entry	Activity (pCi)	Spike #	Disposal Date	Activity of Spike Remaining (µCi)
						23.366
FL*pH6.00*a	1076.35	GC-08-54	484.8423423	23A	7/9/93	
FL*pH6.00*b	1056.98	GC-08-54	476.1171171	23A	7/9/93	
FL*pH6.00*c	949.439	GC-08-54	427.6752252	23A	7/9/93	
FL*pH6.00*d	957.968	GC-08-54	431.5171171	23A	7/9/93	
FL*pH6.00*e	873.703	GC-08-54	393.5599099	23A	7/9/93	
FL*pH6.00*f	905.548	GC-08-54	407.9045045	23A	7/9/93	
FL*pH7.00*a	1070.65	GC-08-54	482.2747748	23A	7/9/93	
FL*pH7.00*b	1055.79	GC-08-54	475.5810811	23A	7/9/93	
FL*pH7.00*c	1054.7	GC-08-54	475.0900901	23A	7/9/93	
FL*pH7.00*d	1019.74	GC-08-54	459.3423423	23A	7/9/93	
FL*pH7.00*e	1036.14	GC-08-54	466.7297297	23A	7/9/93	
FL*pH7.00*f	1030.47	GC-08-54	464.1756757	23A	7/9/93	
						23.3605
TL*pH2.00*a	1012.02	GC-08-58	455.8648649	23A	7/9/93	
TL*pH2.00*b	1069.24	GC-08-58	481.6396396	23A	7/9/93	
TL*pH2.00*c	1090.07	GC-08-58	491.0225225	23A	7/9/93	
TL*pH2.00*d	1076.57	GC-08-58	484.9414414	23A	7/9/93	
TL*pH2.00*e	1085.95	GC-08-58	489.1666667	23A	7/9/93	
TL*pH2.00*f	1079.92	GC-08-58	486.4504505	23A	7/9/93	
TL*pH3.00*a	1170.83	GC-08-58	527.4009009	23A	7/9/93	
TL*pH3.00*b	1188.66	GC-08-58	535.4324324	23A	7/9/93	
TL*pH3.00*c	1056.24	GC-08-58	475.7837838	23A	7/9/93	
TL*pH3.00*d	1064.58	GC-08-58	479.5405405	23A	7/9/93	
TL*pH3.00*e	1083.75	GC-08-58	488.1756757	23A	7/9/93	
TL*pH3.00*f	1065.7	GC-08-58	480.045045	23A	7/9/93	
TL*pH5.00*a	895.741	GC-08-58	403.4869369	23A	7/9/93	
TL*pH5.00*b	1268.1	GC-08-58	571.2162162	23A	7/9/93	
TL*pH5.00*c	1106.43	GC-08-58	498.3918919	23A	7/9/93	
TL*pH5.00*d	1095.97	GC-08-58	493.6801802	23A	7/9/93	
TL*pH5.00*e	1080.65	GC-08-58	486.7792793	23A	7/9/93	

TL*pH5.00*f	1058.29	GC-08-58	476.7072072	23A	7/9/93	
TL*pH6.00*a	1078.46	GC-08-58	485.7927928	23A	7/9/93	
TL*pH6.00*b	1109.2	GC-08-58	499.6396396	23A	7/9/93	
TL*pH6.00*c	1048.73	GC-08-58	472.4009009	23A	7/9/93	
TL*pH6.00*d	1064.58	GC-08-58	479.5405405	23A	7/9/93	
TL*pH6.00*e	1050.14	GC-08-58	473.036036	23A	7/9/93	
TL*pH6.00*f	1066.91	GC-08-58	480.5900901	23A	7/9/93	
						23.349
SP-1	5237.66	GC-08-62	2359.306306	23A	7/9/93	
SP-2	5820.1	GC-08-62	2621.666667	23A	7/9/93	
SP-3	5285.33	GC-08-62	2380.779279	23A	7/9/93	
SP-4	5364.52	GC-08-62	2416.45045	23A	7/9/93	
SP-5	5260.64	GC-08-62	2369.657658	23A	7/9/93	
SP-6	5393.59	GC-08-62	2429.545045	23A	7/9/93	
		Total=	31718.94099			23.334