

Return to URFO 467-23

40-4492

PDR

FEDERAL-AMERICAN PARTNERS

307-457-6071  
Gas Hills Route  
RIVERTON, WYOMING 82501

November 8, 1982

04004492101E



Mr. Dan Gillen  
U.S. Nuclear Regulatory Commission  
Uranium Mill Licensing Section  
7915 Eastern Avenue  
Silver Springs, Maryland 20906

Dear Dan:

Enclosed you will find five (5) copies of the chemical data for the water samples that were excluded in the semi-annual report for the period of January 1, 1982 to June 30, 1982.

If we can be of any further assistance in this matter please don't hesitate to contact me or Bob Lane, Radiation Safety Officer.

Sincerely,

Niles J. Andrus  
Acting Project Manager

NJA/dh  
enclosure

8212070407 821108  
PDR ADOCK 04004492  
C PDR

DESIGNATED ORIGINAL

Certified By B. Fisher

20869  
Add'l info

## NRC SAMPLE LOCATION

1

MONTH	Oct 81	Jan 82	Apr 82	July 82	Oct	Jan	Apr	July
Laboratory No.	165-1	454-1		987-1				
T.D.S. (mg/l)	5,940	5,989		7,705				
SPECIFIC CONDUCTIVITY umhos	9,400	7,400		8,600				
Na (mg/l)	560	447		517				
K (mg/l)	84	56		93				
Ca (mg/l)	447	414		402				
Mg (mg/l)	280	300		363				
SO <sub>4</sub> (mg/l)	4,054	4,460		5,900				
Cl (mg/l)	457	312		430				
CO <sub>2</sub> (mg/l)	0	0		0				
HCO <sub>3</sub> (mg/l)	0	0		0				
pH Units	3.62	3.29		3.17				
Al (mg/l)	122	136		154				
NH <sub>3</sub> (mg/l)	435.60	895		193				
As (mg/l)	0.003	ND		ND				
Ba (mg/l)	ND	ND		ND				
B (mg/l)	0.23	ND		ND				
Cb (mg/l)	0.225	0.120		0.195				
Cr (mg/l)	0.50	0.28		0.24				
Cu (mg/l)	0.42	0.29		0.24				
F (mg/l)	1.59	1.47		1.35				
Fe (mg/l)	62	26		88				
Pb (mg/l)	0.21	0.15		0.21				
Mn (mg/l)	37	22.7		45				
Hg (mg/l)	ND	ND		ND				
Mo (mg/l)	ND	ND		ND				
Ni (mg/l)	3.2	1.6		3.62				
NO <sub>3</sub> (mg/l)	21.46	96.98		11.71				
NO <sub>2</sub> (mg/l)	0.12	ND		0.15				
Se (mg/l)	ND	ND		ND				
U (mg/l)								
V (mg/l)	0.22	0.07		0.17				
Zn (mg/l)	4.89	2.8		2.84				
Pb-210 (uCi/ml)								
PO-210 (uCi/ml)								
Ra-226 (uCi/ml)								
Th-230 (uCi/ml)								
H <sub>2</sub> O DEPTH	31.54			43.46				

NO SAMPLE AVAILABLE

## NRC SAMPLE LOCATION R-2

MONTH	Oct 81	Jan 82	Apr 82	July 82	Oct	Jan	Apr	July
Temperature	165-2	454-22		987-2				
T.D.S. (mg/l)	9,875	8,993		8,102				
SPECIFIC CONDUCTIVITY umhos	12,100	10,200		9,200				
Na (mg/l)	500	429		436				
K (mg/l)	51	41		73				
Ca (mg/l)	333	509		381				
Mg (mg/l)	280	477		269				
SO <sub>4</sub> (mg/l)	7,920	6,620		6,533				
Cl (mg/l)	414	917		410				
CO <sub>2</sub> (mg/l)	0	0		0				
HCO <sub>3</sub> (mg/l)	0	0		0				
pH Units	3.02	2.94		3.09				
Al (mg/l)	223	171		209				
NH <sub>3</sub> (mg/l)	730.32	1,380		865				
As (mg/l)	0.050	0.030		0.014				
Ba (mg/l)	ND	ND		ND				
B (mg/l)	ND	ND		ND				
Cb (mg/l)	0.288	ND		0.234				
Cr (mg/l)	1.12	0.129		0.61				
Cu (mg/l)	0.72	0.44		0.39				
F (mg/l)	0.32	0.43		0.06				
Fe (mg/l)	177	0.14		38.4				
Pb (mg/l)	0.23	181		0.17				
Mn (mg/l)	32	0.16		36				
Hg (mg/l)	ND	31		ND				
Mo (mg/l)	ND	ND		ND				
Ni (mg/l)	3.6	ND		4.06				
NO <sub>3</sub> (mg/l)	12.17	3.1		12.46				
NO <sub>2</sub> (mg/l)	0.10	92.56		0.07				
Se (mg/l)	ND	0.07		ND				
U (mg/l)								
V (mg/l)	3.2	1.64		0.98				
Zn (mg/l)	8.71	4.3		4.92				
Pb-210 (uCi/ml)								
PO-210 (uCi/ml)								
Ra-226 (uCi/ml)								
Th-230 (uCi/ml)								
H <sub>2</sub> O DEPTH	39.40			43.78				

NO SAMPLE AVAILABLE

NRC SAMPLE LOCATION R-3

MONTH	Oct 81	Jan 82	Apr 82	July 82	Oct	Jan	Apr	July
Laboratory No.	165-3	454-2		987-3				
T.D.S. (mg/l)	8,830	9,515		8,433				
SPECIFIC CONDUCTIVITY umhos	9,500	10,500		9,750				
Na (mg/l)	465	519		446				
K (mg/l)	48	43		47				
Ca (mg/l)	424	506		361				
Mg (mg/l)	340	470		369				
SO <sub>4</sub> (mg/l)	6,950	7,050		6,780				
Cl (mg/l)	383	927		430				
CO <sub>3</sub> (mg/l)	0	0		0				
HCO <sub>3</sub> (mg/l)	0	0		0				
p.H. Units	3.30	3.07		2.90				
Al (mg/l)	172	155		193				
NH <sub>3</sub> (mg/l)	608.56	845		880				
As (mg/l)	0.011	0.018		0.020				
Ba (mg/l)	ND	ND		ND				
B (mg/l)	0.23	ND		ND				
Cb (mg/l)	0.179	0.135		0.168				
Cr (mg/l)	0.52	0.43		0.61				
Cu (mg/l)	0.45	0.43		0.48				
F (mg/l)	0.31	0.21		ND				
Fe (mg/l)	220	142		257				
Pb (mg/l)	0.20	0.18		0.17				
Mn (mg/l)	39	30		31				
Hg (mg/l)	ND	ND		ND				
Mo (mg/l)	ND	ND		ND				
Ni (mg/l)	3.5	2.8		3.62				
NO <sub>3</sub> (mg/l)	20.48	95.98		21.34				
NO <sub>2</sub> (mg/l)	0.26	0.07		0.14				
Se (mg/l)	ND	ND		0.003				
U (mg/l)								
V (mg/l)	1.63	1.68		2.11				
Zn (mg/l)	5.30	4.4		5.03				
Pb-210 (uCi/ml)								
PO-210 (uCi/ml)								
Ra-226 (uCi/ml)								
Th-230 (uCi/ml)								
H <sub>2</sub> O DEPTH	28.47			40.14				

NO SAMPLE AVAILABLE



MONTH	Oct 81	Jan 82	Apr 82	July 82	Oct	Jan	Apr	July
T.D.S. (mg/l)								
SPECIFIC CONDUCTIVITY umhos								
Na (mg/l)								
K (mg/l)								
Ca (mg/l)								
Mg (mg/l)								
SO <sub>4</sub> (mg/l)								
Cl (mg/l)								
CO <sub>3</sub> (mg/l)								
HCO <sub>3</sub> (mg/l)								
p.H. Units								
Al (mg/l)								
NH <sub>3</sub> (mg/l)								
As (mg/l)								
Ba (mg/l)								
B (mg/l)								
Cb (mg/l)								
Cr (mg/l)								
Cu (mg/l)								
F (mg/l)								
Fe (mg/l)								
Pb (mg/l)								
Mn (mg/l)								
Hg (mg/l)								
Mo (mg/l)								
Ni (mg/l)								
NO <sub>3</sub> (mg/l)								
NO <sub>2</sub> (mg/l)								
Se (mg/l)								
U (mg/l)								
V (mg/l)								
Zn (mg/l)								
Pb-210 (uCi/ml)								
PO-210 (uCi/ml)								
Ra-226 (uCi/ml)								
Th-230 (uCi/ml)								
H <sub>2</sub> O DEPTH								

NO SAMPLE AVAILABLE

NO SAMPLE AVAILABLE

NO SAMPLE AVAILABLE

NO SAMPLE AVAILABLE

## NRC SAMPLE LOCATION R-5

MONTH	Oct 81	Jan 82	Apr 82	July 82	Oct	Jan	Apr	July
Laboratory No.	165-4	454-3	698-1	987-4				
T.D.S. (mg/l)	10,549	11,120	9,775	8,624				
SPECIFIC CONDUCTIVITY umhos	12,500	12,800	12,100	9,650				
Na (mg/l)	538	560	498	436				
K (mg/l)	32	33	26	47				
Ca (mg/l)	409	538	435	402				
Mg (mg/l)	270	423	337	363				
SO <sub>4</sub> (mg/l)	8,500	9,000	8,050	6,967				
Cl (mg/l)	585	566	429	410				
CO <sub>3</sub> (mg/l)	0	0	0	0				
HCO <sub>3</sub> (mg/l)	0	0	0	0				
p.H. Units	2.82	2.55	2.60	2.88				
Al (mg/l)	265	224	363	199				
NH <sub>3</sub> (mg/l)	796.58	1,003	847	1,131				
As (mg/l)	0.007	0.026	0.007	0.016				
Ba (mg/l)	ND	ND	ND	ND				
B (mg/l)	ND	ND	ND	ND				
Cb (mg/l)	0.298	0.212	0.191	0.166				
Cr (mg/l)	1.17	0.87	0.94	0.61				
Cu (mg/l)	1.37	1.38	1.03	0.49				
F (mg/l)	0.24	0.19	0.12	ND				
Fe (mg/l)	215	120	263	259				
Pb (mg/l)	0.27	0.19	0.18	0.15				
Mn (mg/l)	22	21	30.7	39				
Hg (mg/l)	0.032	0.020	0.009	ND				
Mu (mg/l)	ND	ND	ND	ND				
Ni (mg/l)	3.3	3.5	3.74	3.55				
NO <sub>3</sub> (mg/l)	41.72	195.52	21.76	24.77				
NO <sub>2</sub> (mg/l)	0.09	0.06	0.07	0.13				
Se (mg/l)	ND	0.003	ND	0.004				
U (mg/l)								
V (mg/l)	4.2	3.4	4.47	2.10				
Zn (mg/l)	8.56	7.6	7.2	5.27				
Pb-210 (uCi/ml)								
PO-210 (uCi/ml)								
Ra-226 (uCi/ml)								
Th-230 (uCi/ml)								
H <sub>2</sub> O DEPTH	31.65		36.9	41.92				

## NRC SAMPLE LOCATION R-6

MONTH	Oct 81	Jan 82	Apr 82	July 82	Oct	Jan	Apr	July
Laboratory No.	165-5	454-4	7,354	8,180				
T.D.S. (mg/l)	8,638	9,261	7,354	8,180				
SPECIFIC CONDUCTIVITY umhos	10,900	10,000	9,000	9,650				
Na (mg/l)	472	447	449	431				
K (mg/l)	48	47	46	46				
Ca (mg/l)	361	497	459	371				
Mg (mg/l)	240	480	450	363				
SO <sub>4</sub> (mg/l)	6,900	7,400	5,550	6,560				
Cl (mg/l)	404	390	400	410				
CO <sub>3</sub> (mg/l)	0	0	0	0				
HCO <sub>3</sub> (mg/l)	0	0	0	0				
pH Units	3.32	3.10	3.03	2.97				
Al (mg/l)	152	206	183	202				
NH <sub>3</sub> (mg/l)	641.12	2,088	560	1,092				
As (mg/l)	0.011	0.012	0.003	0.015				
Ba (mg/l)	ND	ND	ND	ND				
B (mg/l)	0.14	0.3	ND	ND				
Cb (mg/l)	0.181	0.134	0.100	0.161				
Cr (mg/l)	0.51	0.43	0.27	0.57				
Cu (mg/l)	0.43	0.43	0.31	0.46				
F (mg/l)	0.26	0.20	0.45	ND				
Fe (mg/l)	213	180	209	235				
Pb (mg/l)	0.21	0.17	0.17	0.16				
Mn (mg/l)	36	42	45	35				
Hg (mg/l)	ND	ND	ND	ND				
Mo (mg/l)	ND	ND	ND	ND				
Ni (mg/l)	3.1	3.3	2.85	3.54				
NO <sub>3</sub> (mg/l)	26.12	59.67	32.65	11.81				
NO <sub>2</sub> (mg/l)	0.20	0.06	0.14	0.12				
Se (mg/l)	ND	ND	ND	0.003				
U (mg/l)								
V (mg/l)	1.49	1.7 <sup>d</sup>	0.37	2.10				
Zn (mg/l)	5.06	3.9	3.9	5.37				
Pb-210 (uCi/ml)								
PO-210 (uCi/ml)								
Ra-226 (uCi/ml)								
Th-230 (uCi/ml)								
H <sub>2</sub> O DEPTH			21.00					

## NRC SAMPLE LOCATION FOX-1

MONTH	Oct 81	Jan 82	Apr 82	July 82	Oct	Jan	Apr	July
Laboratory No.	165-6	454-5	698-6	982-6				
T.D.S. (mg/l)	4,943	5,247	5,726	5,639				
SPECIFIC CONDUCTIVITY umhos	6,200	5,600	6,350	6,090				
Na (mg/l)	756	860	901	1,057				
K (mg/l)	74	73	88	87				
Ca (mg/l)	445	415	509	391				
Mg (mg/l)	221	272	294	282				
SO <sub>4</sub> (mg/l)	2,800	3,080	3,340	3,340				
Cl (mg/l)	183	205	215	236				
CO <sub>3</sub> (mg/l)	0	0	0	0				
HCO <sub>3</sub> (mg/l)	942	693	769	512				
p.H. Units	7.73	7.79	8.20	7.54				
Al (mg/l)	ND	ND	ND	ND				
NH <sub>3</sub> (mg/l)	1.73	0.42	0.27	0.73				
As (mg/l)	0.009	0.014	0.016	0.022				
Ba (mg/l)	ND	ND	ND	ND				
B (mg/l)	0.30	0.3	ND	0.6				
Cb (mg/l)	0.025	0.013	0.017	0.021				
Cr (mg/l)	0.03	0.03	0.03	0.04				
Cu (mg/l)	0.03	0.02	0.03	0.03				
F (mg/l)	0.49	0.45	0.40	0.24				
Fe (mg/l)	0.07	ND	ND	ND				
Pb (mg/l)	0.14	0.17	0.13	0.13				
Mn (mg/l)	0.12	ND	0.04	0.03				
Hg (mg/l)	ND	ND	ND	ND				
Mo (mg/l)	ND	ND	ND	ND				
Ni (mg/l)	0.08	0.07	0.09	0.10				
NO <sub>3</sub> (mg/l)	17.14	3.82	6.45	11.71				
NO <sub>2</sub> (mg/l)	0.04	ND	ND	0.02				
Se (mg/l)	ND	ND	ND	ND				
U (mg/l)								
V (mg/l)	ND	ND	ND	ND				
Zn (mg/l)	0.018	0.009	0.026	ND				
Pb-210 (uCi/ml)								
PO-210 (uCi/ml)								
Ra-226 (uCi/ml)								
Th-230 (uCi/ml)								
H <sub>2</sub> O DEPTH	13.73	13.73	14.12	15.23				

## NRC SAMPLE LOCATION FOX-2

MONTH	Oct 81	Jan 82	Apr 82	July 82	Oct	Jan	Apr	July
Laboratory No.	165-7	454-6	698-4	987-7				
T.D.S. (mg/l)	6,680	6,918	6,180	5,450				
SPECIFIC CONDUCTIVITY umhos	7,400	6,800	7,200	5,450				
Na (mg/l)	885	770	797	651				
K (mg/l)	102	97	105	95				
Ca (mg/l)	642	426	445	402				
Mg (mg/l)	485	626	621	432				
SO <sub>4</sub> (mg/l)	4,150	4,600	3,750	3,440				
Cl (mg/l)	94	123	146	108				
CO <sub>3</sub> (mg/l)	0	0	0	0				
HCO <sub>3</sub> (mg/l)	654	569	639	654				
p.H. Units	7.67	7.80	7.98	7.73				
Al (mg/l)	ND	ND	ND	0.08				
NH <sub>3</sub> (mg/l)	0.40	0.30	0.31	3.90				
As (mg/l)	0.011	0.013	0.008	0.020				
Ba (mg/l)	ND	ND	ND	ND				
B (mg/l)	5.10	2.9	1.52	2.5				
Cb (mg/l)	0.032	0.018	0.020	0.015				
Cr (mg/l)	0.04	0.03	0.04	0.04				
Cu (mg/l)	0.03	0.03	0.02	0.02				
F (mg/l)	0.35	0.28	0.15	0.17				
Fe (mg/l)	ND	ND	ND	0.06				
Pb (mg/l)	0.21	0.20	0.19	0.15				
Mn (mg/l)	1.53	0.09	0.10	1.13				
Hg (mg/l)	ND	ND	ND	ND				
Mo (mg/l)	ND	ND	ND	ND				
Ni (mg/l)	0.10	0.08	0.10	0.10				
NO <sub>3</sub> (mg/l)	18.56	10.72	30.01	4.91				
NO <sub>2</sub> (mg/l)	0.83	0.07	0.40	0.36				
Se (mg/l)	0.010	0.010	0.010	0.003				
U (mg/l)								
V (mg/l)	ND	ND	ND	ND				
Zn (mg/l)	0.007	ND	0.018	0.016				
Pb-210 (uCi/ml)								
PO-210 (uCi/ml)								
Ra-226 (uCi/ml)								
Th-230 (uCi/ml)								
H <sub>2</sub> O DEPTH	10.00	10.00	9.0	9.40				



## NRC SAMPLE LOCATION FOX-3

MONTH	Oct 81	Jan 82	Apr 82	July 82	Oct	Jan	Apr	July
Laboratory No.	165-8	454-7	698-5	987-8				
T.D.S. (mg/l)	6,300	6,966	6,386	5,162				
SPECIFIC CONDUCTIVITY umhos	7,410	7,000	7,200	6,200				
Na (mg/l)	751	682	659	630				
K (mg/l)	127	110	109	107				
Ca (mg/l)	537	674	583	433				
Mg (mg/l)	330	590	544	526				
SO <sub>4</sub> (mg/l)	3,680	3,700	3,640	2,800				
Cl (mg/l)	281	273	288	276				
CO <sub>3</sub> (mg/l)	0	0	0	0				
HCO <sub>3</sub> (mg/l)	1,205	937	1,142	791				
p.H. Units	7.49	7.54	7.46	7.71				
Al (mg/l)	ND	ND	ND	ND				
NH <sub>3</sub> (mg/l)	40.50	13.80	59.24	126				
As (mg/l)	0.006	0.005	0.004	0.008				
Ba (mg/l)	ND	ND	ND	ND				
B (mg/l)	0.60	0.4	0.3	0.7				
Cb (mg/l)	0.033	0.019	0.022	0.020				
Cr (mg/l)	0.04	0.04	0.04	0.05				
Cu (mg/l)	0.03	0.03	0.03	0.03				
F (mg/l)	0.91	0.97	0.58	0.37				
Fe (mg/l)	0.07	ND	ND	0.09				
Pb (mg/l)	0.23	0.22	0.20	0.19				
Mn (mg/l)	5.3	6.8	7.6	6.4				
Hg (mg/l)	ND	ND	ND	ND				
Mo (mg/l)	ND	ND	ND	0.07				
Ni (mg/l)	0.16	0.19	0.18	0.20				
NO <sub>3</sub> (mg/l)	98.64	174.43	57.67	67.30				
NO <sub>2</sub> (mg/l)	7.4	21	24	0.60				
Se (mg/l)	0.011	0.020	0.018	0.022				
U (mg/l)								
V (mg/l)	ND	ND	ND	ND				
Zn (mg/l)	0.135	0.114	0.102	0.216				
Pb-210 (uCi/ml)								
PO-210 (uCi/ml)								
Ra-226 (uCi/ml)								
Th-230 (uCi/ml)								
H <sub>2</sub> O DEPTH	14.19	13.35	12.89	14.22				

## NRC SAMPLE LOCATION FOX-4

MONTH	Oct 81	Jan 82	Apr 82	July 82	Oct	Jan	Apr	July
Laboratory No.	165-9	454-8	698-6	987-9				
T.D.S. (mg/l)	6,036	5,401	4,799	4,727				
SPECIFIC CONDUCTIVITY umhos	7,200	5,500	5,500	5,600				
Na (mg/l)	1,078	955	927	972				
K (mg/l)	94	84	84	94				
Ca (mg/l)	414	384	392	391				
Mg (mg/l)	227	205	198	163				
SO <sub>4</sub> (mg/l)	3,960	3,540	2,960	2,880				
Cl (mg/l)	106	78	88	87				
CO <sub>3</sub> (mg/l)	0	0	0	0				
HCO <sub>3</sub> (mg/l)	317	312	303	283				
p.H Units	7.67	7.93	7.98	8.09				
Al (mg/l)	ND	ND	ND	0.08				
NH <sub>3</sub> (mg/l)	0.46	0.37	0.12	0.06				
As (mg/l)	0.004	0.003	0.003	0.004				
Ba (mg/l)	ND	ND	ND	ND				
B (mg/l)	0.82	0.6	0.2	0.7				
Cb (mg/l)	0.024	0.014	0.012	0.016				
Cr (mg/l)	0.03	0.02	0.02	0.03				
Cu (mg/l)	0.02	0.02	ND	ND				
F (mg/l)	1.90	1.74	1.18	1.12				
Fe (mg/l)	ND	0.09	ND	ND				
Pb (mg/l)	0.14	0.14	0.09	0.11				
Mn (mg/l)	0.15	0.05	ND	0.02				
Hg (mg/l)	ND	ND	ND	ND				
Mo (mg/l)	ND	ND	ND	ND				
Ni (mg/l)	0.07	0.11	0.06	0.09				
NO <sub>3</sub> (mg/l)	1.43	1.17	0.83	3.00				
NO <sub>2</sub> (mg/l)	0.20	ND	ND	ND				
Se (mg/l)	ND	ND	ND	ND				
U (mg/l)								
V (mg/l)	ND	ND	ND	ND				
Zn (mg/l)	0.008	0.020	0.028	0.034				
Pb-210 (uCi/ml)								
PO-210 (uCi/ml)								
Ra-226 (uCi/ml)								
Th-230 (uCi/ml)								
H <sub>2</sub> O DEPTH	14.41	14.41	12.38	13.40				

## NRC SAMPLE LOCATION FOX-5

MONTH	Oct 81	Jan 82	Apr 82	July 82	Oct	Jan	Apr	July
Laboratory No.	165-10	454-9	698-7	987-10				
T.D.S. (mg/l)	14,423	11,734	11,421	11,588				
SPECIFIC CONDUCTIVITY umhos	23,000	13,000	11,800	11,900				
Na (mg/l)	3,828	1,840	2,455	2,809				
K (mg/l)	302	208	182	235				
Ca (mg/l)	347	365	413	402				
Mg (mg/l)	400	520	538	576				
SO <sub>4</sub> (mg/l)	9,200	7,720	7,100	6,780				
Cl (mg/l)	298	254	254	276				
CO <sub>3</sub> (mg/l)	0	7	0	29				
HCO <sub>3</sub> (mg/l)	971	820	971	976				
p.H. Units	7.95	8.25	8.06	8.34				
Al (mg/l)	0.14	ND	ND	0.23				
NH <sub>3</sub> (mg/l)	1.42	0.33	1.76	8.17				
As (mg/l)	0.050	0.040	0.030	0.047				
Ba (mg/l)	ND	ND	ND	ND				
B (mg/l)	2.90	2.4	0.2	2.5				
Cb (mg/l)	0.056	0.025	0.033	0.034				
Cr (mg/l)	0.06	0.03	0.04	0.06				
Cu (mg/l)	0.04	0.03	0.03	0.04				
F (mg/l)	0.84	0.43	0.44	0.36				
Fe (mg/l)	0.13	ND	ND	0.08				
Pb (mg/l)	0.25	0.21	0.19	0.19				
Mn (mg/l)	0.45	0.24	0.27	0.73				
Hg (mg/l)	ND	ND	ND	ND				
Mo (mg/l)	ND	ND	ND	0.08				
Ni (mg/l)	0.15	0.16	0.14	0.19				
NO <sub>3</sub> (mg/l)	11.84	3.86	7.05	19.24				
NO <sub>2</sub> (mg/l)	0.16	ND	0.09	0.14				
Se (mg/l)	ND	ND	0.004	0.007				
U (mg/l)								
V (mg/l)	ND	ND	ND	ND				
Zn (mg/l)	0.011	0.015	0.021	0.043				
Pb-210 (uCi/ml)								
PO-210 (uCi/ml)								
Ra-226 (uCi/ml)								
Th-230 (uCi/ml)								
H <sub>2</sub> O DEPTH	14.87	14.87	13.78	14.52				





NRC SAMPLE LOCATION TAILINGS POND #1

MONTH	Oct 81	Jan 82	Apr 82	July 82	Oct	Jan	Apr	July
Laboratory No.	165-11	454-10	698-8	987-11				
T.D.S. (mg/l)	15,334	21,849	16,467	38,198				
SPECIFIC CONDUCTIVITY umhos	20,900	24,000	21,800	33,500				
Na (mg/l)	575	1,065	709	1,535				
K (mg/l)	95	110	159	255				
Ca (mg/l)	540	602	548	824				
Mg (mg/l)	310	870	670	1,346				
SO <sub>4</sub> (mg/l)	13,000	17,250	13,600	32,600				
Cl (mg/l)	404	1,952	781	1,638				
CO <sub>3</sub> (mg/l)	0	0	0	0				
HCO <sub>3</sub> (mg/l)	0	0	0	0				
p.H. Units	2.16	2.23	2.26	2.21				
Al (mg/l)	150	229	595	1,190				
NH <sub>3</sub> (mg/l)	1278.78	3,908	1,594	2,127				
As (mg/l)	8.0	4.0	4.5	12.0				
Ba (mg/l)	ND	ND	ND	ND				
B (mg/l)	0.12	ND	ND	0.2				
Cb (mg/l)	0.574	0.447	0.671	1.410				
Cr (mg/l)	1.46	1.2	1.85	4.09				
Cu (mg/l)	1.77	1.51	2.10	3.67				
F (mg/l)	0.26	0.14	0.09	ND				
Fe (mg/l)	410	510	970	3,590				
Pb (mg/l)	0.67	0.46	0.48	0.50				
Mn (mg/l)	31	74	41	135				
Hg (mg/l)	ND	ND	ND	ND				
Mo (mg/l)	0.48	0.27	0.37	0.23				
Ni (mg/l)	9.0	10.7	10.3	23.8				
NO <sub>3</sub> (mg/l)	8.33	63.63	59.55	92.56				
NO <sub>2</sub> (mg/l)	0.18	0.19	0.25	0.99				
Se (mg/l)	0.40	0.20	0.030	0.550				
U (mg/l)								
V (mg/l)	8.0	3.9	8.25	18.3				
Zn (mg/l)	23.8	14.9	26.6	59.6				
Pb-210 (uCi/ml)								
PO-210 (uCi/ml)								
Ra-226 (uCi/ml)								
Th-230 (uCi/ml)								
H <sub>2</sub> O DEPTH	SURFACE							



NRC SAMPLE LOCATION TAILINGS POND #2

MONTH	Oct 81	Jan 82	Apr 82	July 82	Oct	Jan	Apr	July
Laboratory No.	165-12	454-11	698-9	987-12				
T.D.S. (mg/l)	3,293	15,865	6,177	150,111				
SPECIFIC CONDUCTIVITY umhos	4,890	18,500	30,000	82,500				
Na (mg/l)	177	617	1,059	3,742				
K (mg/l)	30	98	278	1,209				
Ca (mg/l)	367	639	566	6,695				
Mg (mg/l)	36	353	820	5,321				
SO <sub>4</sub> (mg/l)	2,630	13,650	2,380	127,000				
Cl (mg/l)	53	508	1,074	6,144				
CO <sub>3</sub> (mg/l)	0	0	0	0				
HCO <sub>3</sub> (mg/l)	0	0	0	0				
pH Units	2.74	2.27	2.28	1.63				
Al (mg/l)	8.5	270	1,060	750				
NH <sub>3</sub> (mg/l)	130.26	3,356	2,974	7,273				
As (mg/l)	1.1	5.0	7.0	130.0				
Ba (mg/l)	ND	ND	ND	ND				
B (mg/l)	0.14	ND	ND	0.7				
Cb (mg/l)	0.059	0.514	1.59	12.37				
Cr (mg/l)	0.11	1.0	3.4	18.7				
Cu (mg/l)	0.23	1.88	4.2	32.1				
F (mg/l)	0.84	0.05	0.07	0.06				
Fe (mg/l)	37	810	4,500	30,400				
Pb (mg/l)	0.14	0.37	0.65	1.17				
Mn (mg/l)	1.8	21	98	580				
Hg (mg/l)	ND	ND	ND	ND				
Mo (mg/l)	0.10	0.58	0.56	2.36				
Ni (mg/l)	8.4	9.5	21.4	116				
NO <sub>3</sub> (mg/l)	1.03	158.91	97.54	279.30				
NO <sub>2</sub> (mg/l)	0.03	0.4	0.43	1.79				
Se (mg/l)	0.030	0.020	0.017	2.5				
U (mg/l)								
V (mg/l)	4.8	4.7	17.20	177				
Zn (mg/l)	1.10	15.6	61	387				
Pb-210 (uCi/ml)								
PO-210 (uCi/ml)								
Ra-226 (uCi/ml)								
Th-230 (uCi/ml)								
H <sub>2</sub> O DEPTH	SURFACE							

## NRC SAMPLE LOCATION

TP1-D2

MONTH	Oct 81	Jan 82	Apr 82	July 82	Oct	Jan	Apr	July
Laboratory No.	165-13	454-12	698-10	987-14				
T.D.S. (mg/l)	949	958	1,000	986				
SPECIFIC CONDUCTIVITY umhos	1,500	1,300	1,270	1,250				
Na (mg/l)	126	100	121	127				
K (mg/l)	23	23	20	21				
Ca (mg/l)	124	135	138	142				
Mg (mg/l)	34	32	38	36				
SO <sub>4</sub> (mg/l)	510	556	542	514				
Cl (mg/l)	13	14	11	11				
CO <sub>3</sub> (mg/l)	0	0	0	0				
HCO <sub>3</sub> (mg/l)	242	200	264	273				
pH Units	7.74	7.50	7.94	7.84				
Al (mg/l)	ND	15.5	ND	ND				
NH <sub>3</sub> (mg/l)	0.37	1.49	0.81	0.29				
As (mg/l)	ND	ND	ND	ND				
Ba (mg/l)	ND	ND	ND	ND				
B (mg/l)	ND	ND	ND	0.7				
Cb (mg/l)	0.010	ND	ND	ND				
Cr (mg/l)	ND	ND	ND	ND				
Cu (mg/l)	ND	ND	ND	ND				
F (mg/l)	0.60	0.56	0.59	0.41				
Fe (mg/l)	0.10	ND	0.30	0.07				
Pb (mg/l)	ND	ND	ND	ND				
Mn (mg/l)	0.13	0.31	0.17	0.12				
Hg (mg/l)	ND	ND	ND	ND				
Mo (mg/l)	ND	ND	ND	ND				
Ni (mg/l)	0.04	0.04	0.03	0.02				
NO <sub>3</sub> (mg/l)	5.22	2.07	0.70	6.51				
NO <sub>2</sub> (mg/l)	0.42	1.3	ND	0.06				
Se (mg/l)	ND	ND	ND	ND				
U (mg/l)								
V (mg/l)	ND	ND	ND	ND				
Zn (mg/l)	0.967	0.64	0.058	0.024				
Pb-210 (uCi/ml)								
PO-210 (uCi/ml)								
Ra-226 (uCi/ml)								
Th-230 (uCi/ml)								
H <sub>2</sub> O DEPTH	60.15	60.34	60.51	60.83				

## NRC SAMPLE LOCATION TP1-1

MONTH	Oct 81	Jan 82	Apr 82	July 82	Oct	Jan	Apr	July
Laboratory No.	165-15	454-14	698-12	987-13				
T.D.S. (mg/l)	1,613	1,392	1,389	1,500				
SPECIFIC CONDUCTIVITY umhos	2,250	1,850	1,620	1,890				
Na (mg/l)	184	134	115	132				
K (mg/l)	23	32	28	35				
Ca (mg/l)	193	210	213	206				
Mg (mg/l)	72	48	58	69				
SO <sub>4</sub> (mg/l)	1,100	940	960	1,040				
Cl (mg/l)	21	19	14	15				
CO <sub>3</sub> (mg/l)	0	0	0	0				
HCO <sub>3</sub> (mg/l)	41	20	2	5				
p.H. Units	5.80	5.45	4.99	4.65				
Al (mg/l)	ND	0.43	1.33	1.03				
NH <sub>3</sub> (mg/l)	0.90	0.70	0.47	0.22				
As (mg/l)	ND	ND	ND	ND				
Ba (mg/l)	ND	ND	ND	ND				
B (mg/l)	ND	ND	0.5	ND				
Cb (mg/l)	0.016	0.007	0.012	0.010				
Cr (mg/l)	ND	ND	ND	ND				
Cu (mg/l)	ND	ND	0.03	0.04				
F (mg/l)	0.66	0.50	0.30	0.24				
Fe (mg/l)	ND	0.16	0.20	0.37				
Pb (mg/l)	ND	0.06	0.07	0.11				
Mn (mg/l)	2.3	2.6	1.79	1.97				
Hg (mg/l)	ND	ND	ND	ND				
Mo (mg/l)	ND	ND	ND	ND				
Ni (mg/l)	0.33	0.30	0.30	0.36				
NO <sub>3</sub> (mg/l)	0.69	0.31	0.57	0.52				
NO <sub>2</sub> (mg/l)	ND	ND	ND	ND				
Se (mg/l)	ND	ND	ND	ND				
U (mg/l)								
V (mg/l)	ND	ND	ND	ND				
Zn (mg/l)	0.088	0.23	0.185	0.487				
Pb-210 (uCi/ml)								
PO-210 (uCi/ml)								
Ra-226 (uCi/ml)								
Th-230 (uCi/ml)								
H <sub>2</sub> O DEPTH	15.67	16.23	16.61	16.89				







## NRC SAMPLE LOCATION TP1-24

MONTH	Oct 81	Jan 82	Apr 82	July 82	Oct	Jan	Apr	July
Laboratory No.	165-14	454-13	698-11	987-15				
T.D.S. (mg/l)	7,553	6,995	6,798	5,864				
SPECIFIC CONDUCTIVITY umhos	8,410	8,000	8,100	6,850				
Na (mg/l)	514	432	469	509				
K (mg/l)	155	96	117	87				
Ca (mg/l)	488	507	460	427				
Mg (mg/l)	390	431	433	106				
SO <sub>4</sub> (mg/l)	5,560	5,100	4,880	4,300				
Cl (mg/l)	446	429	439	434				
CO <sub>3</sub> (mg/l)	0	0	0	0				
HCO <sub>3</sub> (mg/l)	0	0	0	0				
p.H. Units	4.15	3.70	3.75	4.03				
Al (mg/l)	63	125	141	98				
NH <sub>3</sub> (mg/l)	500.54	641	421.6	263				
As (mg/l)	ND	ND	ND	0.003				
Ba (mg/l)	ND	ND	ND	ND				
B (mg/l)	ND	ND	ND	ND				
Cb (mg/l)	0.174	0.110	0.120	0.101				
Cr (mg/l)	0.09	0.07	0.08	0.08				
Cu (mg/l)	0.07	0.11	0.14	0.17				
F (mg/l)	3.32	3.11	2.56	2.22				
Fe (mg/l)	0.54	1.81	2.70	1.76				
Pb (mg/l)	0.25	0.36	0.25	0.31				
Mn (mg/l)	26	21	28.2	24.8				
Hg (mg/l)	ND	ND	ND	ND				
Mo (mg/l)	ND	ND	ND	ND				
Ni (mg/l)	2.9	2.4	2.74	2.65				
NO <sub>3</sub> (mg/l)	5.60	23.28	12.61	9.14				
NO <sub>2</sub> (mg/l)	ND	ND	ND	ND				
Se (mg/l)	ND	ND	0.003	ND				
U (mg/l)								
V (mg/l)	ND	ND	ND	ND				
Zn (mg/l)	0.315	0.65	0.750	1.22				
Pb-210 (uCi/ml)								
PO-210 (uCi/ml)								
Ra-226 (uCi/ml)								
Th-230 (uCi/ml)								
H <sub>2</sub> O DEPTH	34.85	36.30	37.20	37.22				

## NRC SAMPLE LOCATION TP2-1

MONTH	Oct 81	Jan 82	Apr 82	July 82	Oct	Jan	Apr	July
Laboratory No.	165-16	454-15	698-13	987-16				
T.D.S. (mg/l)	3,668	4,172	3,738	3,602				
SPECIFIC CONDUCTIVITY umhos	4,700	4,100	4,300	4,000				
Na (mg/l)	250	232	258	277				
K (mg/l)	40	37	36	37				
Ca (mg/l)	847	838	816	814				
Mg (mg/l)	92	128	147	131				
SO <sub>4</sub> (mg/l)	1,610	1,810	1,830	1,670				
Cl (mg/l)	165	156	160	156				
CO <sub>3</sub> (mg/l)	0	0	0	0				
HCO <sub>3</sub> (mg/l)	1,347	971	996	1,049				
p.H. Units	7.75	7.25	7.55	7.47				
Al (mg/l)	ND	ND	ND	0.09				
NH <sub>3</sub> (mg/l)	14.66	1.52	0.65	0.24				
As (mg/l)	ND	0.004	ND	0.006				
Ba (mg/l)	ND	ND	ND	ND				
B (mg/l)	0.12	ND	ND	ND				
Cb (mg/l)	0.021	0.014	0.008	0.013				
Cr (mg/l)	0.04	0.03	0.03	0.05				
Cu (mg/l)	0.03	0.02	ND	ND				
F (mg/l)	0.30	0.24	0.20	0.14				
Fe (mg/l)	0.17	ND	ND	ND				
Pb (mg/l)	0.15	0.15	0.14	0.16				
Mn (mg/l)	0.24	0.37	0.08	0.07				
Hg (mg/l)	ND	ND	ND	ND				
Mo (mg/l)	ND	ND	ND	ND				
Ni (mg/l)	0.10	0.11	0.09	0.12				
NO <sub>3</sub> (mg/l)	1.84	14.14	76.29	86.94				
NO <sub>2</sub> (mg/l)	ND	4.5	0.07	0.05				
Se (mg/l)	0.003	0.007	0.005	0.005				
U (mg/l)								
V (mg/l)	ND	ND	ND	ND				
Zn (mg/l)	0.008	0.047	0.023	0.032				
Pb-210 (uCi/ml)								
PO-210 (uCi/ml)								
Ra-226 (uCi/ml)								
Th-230 (uCi/ml)								
H <sub>2</sub> O DEPTH	41.05	39.37	38.50	38.35				

## NRC SAMPLE LOCATION TP2-2

MONTH	Oct 81	Jan 82	Apr 82	July 82	Oct	Jan	Apr	July
Laboratory No.	165-17	454-16	698-14	987-17				
T.D.S. (mg/l)	3,057	3,461	3,333	3,335				
SPECIFIC CONDUCTIVITY umhos	3,910	3,550	3,900	3,580				
Na (mg/l)	201	182	189	220				
K (mg/l)	61	60	57	53				
Ca (mg/l)	671	759	689	711				
Mg (mg/l)	94	123	102	106				
SO <sub>4</sub> (mg/l)	1,680	1,820	1,930	1,900				
Cl (mg/l)	136	117	137	135				
CO <sub>3</sub> (mg/l)	0	0	0	0				
HCO <sub>3</sub> (mg/l)	434	400	464	425				
p.H. Units	7.38	7.16	7.48	7.13				
Al (mg/l)	ND	ND	0.59	0.07				
NH <sub>3</sub> (mg/l)	11.25	2.35	18.48	8.00				
As (mg/l)	ND	0.003	ND	0.006				
Ba (mg/l)	ND	ND	ND	ND				
B (mg/l)	ND	ND	ND	ND				
Cb (mg/l)	0.026	0.013	0.013	0.011				
Cr (mg/l)	0.03	0.03	0.03	0.04				
Cu (mg/l)	0.03	0.02	0.03	ND				
F (mg/l)	0.20	0.13	0.23	0.09				
Fe (mg/l)	ND	0.26	0.61	0.06				
Pb (mg/l)	0.16	0.16	0.12	0.13				
Mn (mg/l)	10.5	5.6	8.7	5.2				
Hg (mg/l)	ND	ND	ND	ND				
Mo (mg/l)	ND	ND	ND	ND				
Ni (mg/l)	0.25	0.13	0.18	0.16				
NO <sub>3</sub> (mg/l)	105.31	111.93	74.19	111.50				
NO <sub>2</sub> (mg/l)	4.84	8	0.52	0.79				
Se (mg/l)	0.004	0.004	ND	ND				
U (mg/l)								
V (mg/l)	ND	ND	ND	ND				
Zn (mg/l)	0.115	0.053	0.066	0.011				
Pb-210 (uCi/ml)								
PO-210 (uCi/ml)								
Ra-226 (uCi/ml)								
Th-230 (uCi/ml)								
H <sub>2</sub> O DEPTH	40.0	38.12	37.21	37.53				

## NRC SAMPLE LOCATION M-1

MONTH	Oct 81	Jan 82	Apr 82	July 82	Oct	Jan	Apr	July
Laboratory No.	165-19	454-18	698-16	987-25				
T.D.S. (mg/l)	5,730	7,053	7,713	7,681				
SPECIFIC CONDUCTIVITY umhos	7,200	7,600	8,600	8,200				
Na (mg/l)	483	457	498	534				
K (mg/l)	80	79	90	79				
Ca (mg/l)	434	533	455	422				
Mg (mg/l)	246	442	510	476				
SO <sub>4</sub> (mg/l)	4,100	5,140	5,760	5,740				
Cl (mg/l)	387	402	400	430				
CO <sub>3</sub> (mg/l)	0	0	0	0				
HCO <sub>3</sub> (mg/l)	0	0	0	0				
pH Units	4.30	3.80	3.80	3.81				
Al (mg/l)	42	101	184	95				
NH <sub>3</sub> (mg/l)	263.22	473	501.9	364				
As (mg/l)	ND	ND	ND	ND				
Ba (mg/l)	ND	ND	ND	ND				
B (mg/l)	0.43	0.3	0.3	ND				
Cb (mg/l)	0.117	0.101	0.147	0.159				
Cr (mg/l)	0.06	0.06	0.11	0.17				
Cu (mg/l)	0.07	0.14	0.32	0.44				
F (mg/l)	3.11	2.18	1.45	1.10				
Fe (mg/l)	3.6	3.5	62	122				
Pb (mg/l)	0.40	0.36	0.27	0.38				
Mn (mg/l)	28	33	58	54				
Hg (mg/l)	ND	ND	ND	ND				
Mo (mg/l)	ND	ND	ND	ND				
Ni (mg/l)	1.8	2.8	3.54	3.79				
NO <sub>3</sub> (mg/l)	15.83	48.84	18.91	11.57				
NO <sub>2</sub> (mg/l)	ND	ND	0.05	0.05				
Se (mg/l)	ND	ND	ND	ND				
U (mg/l)								
V (mg/l)	ND	ND	ND	ND				
Zn (mg/l)	0.669	4.6	3.47	4.12				
Pb-210 (uCi/ml)								
PO-210 (uCi/ml)								
Ra-226 (uCi/ml)								
Th-230 (uCi/ml)								
H <sub>2</sub> O DEPTH	41.54	43.25	44.47	45.88				



## NRC SAMPLE LOCATION M-2

MONTH	Oct 81	Jan 82	Apr 82	July 82	Oct	Jan	Apr	July
Laboratory No.	165-20	454-19	698-17					
T.D.S. (mg/l)	8,006	8,630	8,962					
SPECIFIC CONDUCTIVITY umhos	11,200	10,700	10,200					
Na (mg/l)	654	476	425					
K (mg/l)	91	65	77					
Ca (mg/l)	425	436	429					
Mg (mg/l)	290	133	500					
SO <sub>4</sub> (mg/l)	6,100	7,120	7,150					
Cl (mg/l)	446	400	381					
CO <sub>3</sub> (mg/l)	0	0	0					
HCO <sub>3</sub> (mg/l)	0	0	0					
p.H. Units	3.47	3.12	3.26					
Al (mg/l)	142	165	281					
NH <sub>3</sub> (mg/l)	666.67	1,354	995.6					
As (mg/l)	ND	0.007	ND					
Ba (mg/l)	ND	ND	ND					
B (mg/l)	0.14	ND	ND					
Cb (mg/l)	0.266	0.220	0.212					
Cr (mg/l)	0.43	0.49	0.38					
Cu (mg/l)	0.33	0.72	0.56					
F (mg/l)	1.21	0.17	0.21					
Fe (mg/l)	50	67	105					
Pb (mg/l)	0.30	0.16	0.21					
Mn (mg/l)	37	25	42					
Hg (mg/l)	ND	ND	ND					
Mo (mg/l)	ND	ND	ND					
Ni (mg/l)	3.7	3.6	4.18					
NO <sub>3</sub> (mg/l)	21.97	66.80	19.38					
NO <sub>2</sub> (mg/l)	0.26	0.15	0.06					
Se (mg/l)	ND	ND	ND					
U (mg/l)								
V (mg/l)	0.13	0.63	0.43					
Zn (mg/l)	7.37	6.6	7.60					
Pb-210 (uCi/ml)								
PO-210 (uCi/ml)								
Ra-226 (uCi/ml)								
Th-230 (uCi/ml)								
H <sub>2</sub> O DEPTH	43.78	45	46.37					

-----DRY-----



NRC SAMPLE LOCATION

M-3

MONTH	Oct 81	Jan 82	Apr 82	July 82	Oct	Jan	Apr	July
T.D.S. (mg/l)								
SPECIFIC CONDUCTIVITY umhos								
Na (mg/l)								
K (mg/l)								
Ca (mg/l)								
Mg (mg/l)								
SO <sub>4</sub> (mg/l)								
Cl (mg/l)								
CO <sub>3</sub> (mg/l)								
HCO <sub>3</sub> (mg/l)								
p.H. Units								
Al (mg/l)								
NH <sub>3</sub> (mg/l)								
As (mg/l)								
Be (mg/l)								
B (mg/l)								
Cb (mg/l)								
Cr (mg/l)								
Cu (mg/l)								
F (mg/l)								
Fe (mg/l)								
Pb (mg/l)								
Mn (mg/l)								
Hg (mg/l)								
Mn (mg/l)								
Ni (mg/l)								
NO <sub>3</sub> (mg/l)								
NO <sub>2</sub> (mg/l)								
Se (mg/l)								
U (mg/l)								
V (mg/l)								
Zn (mg/l)								
Pb-210 (uCi/ml)								
PO-210 (uCi/ml)								
Ra-226 (uCi/ml)								
Th-230 (uCi/ml)								
H <sub>2</sub> O DEPTH								

PIPE BROKEN OFF - WELL DESTROYED

PIPE BROKEN OFF - WELL DESTROYED

PIPE BROKEN OFF - WELL DESTROYED

PIPE BROKEN OFF - WELL DESTROYED

NRC SAMPLE LOCATION M-4

MONTH	Oct 81	Jan 82	Apr 82	July 82	Oct	Jan	Apr	July
Lab. oatory No.	165-21	454-20	698-18					
T.D.S. (mg/l)	6,706	7,950	7,587					
SPECIFIC CONDUCTIVITY umhos	10,200	9,200	9,200					
Na (mg/l)	456	432	447					
K (mg/l)	41	37	40					
Ca (mg/l)	414	515	433					
Mg (mg/l)	310	426	417					
SO <sub>4</sub> (mg/l)	4,940	6,140	5,850					
Cl (mg/l)	404	400	400					
CO <sub>2</sub> (mg/l)	0	0	0					
HCO <sub>3</sub> (mg/l)	0	0	0					
p.H. Units	3.23	3.03	3.03					
Al (mg/l)	143	110	171					
NH <sub>3</sub> (mg/l)	693.24	916	825.3					
As (mg/l)	ND	ND	ND					
Ba (mg/l)	ND	ND	ND					
B (mg/l)	ND	ND	0.3					
Cb (mg/l)	0.166	0.114	0.114					
Cr (mg/l)	0.07	0.06	0.06					
Cu (mg/l)	0.37	0.40	0.38					
F (mg/l)	0.76	1.13	0.18					
Fe (mg/l)	141	62	204					
Pb (mg/l)	0.41	0.47	0.32					
Mn (mg/l)	46	40	44					
Hg (mg/l)	ND	ND	ND					
Mo (mg/l)	ND	ND	ND					
Ni (mg/l)	3.4	2.7	3.18					
NO <sub>3</sub> (mg/l)	39.22	71.56	37.43					
NO <sub>2</sub> (mg/l)	0.73	0.40	0.16					
Se (mg/l)	ND	ND	ND					
U (mg/l)								
V (mg/l)	ND	ND	ND					
Zn (mg/l)	4.93	4.0	4.50					
Pb-210 (uCi/ml)								
PO-210 (uCi/ml)								
Ra-226 (uCi/ml)								
Th-230 (uCi/ml)								
H <sub>2</sub> O DEPTH	16.58	19.07	17.09					

--- DRY ---

## NRC SAMPLE LOCATION WILLOW SPRING

MONTH	Oct 81	Jan 82	Apr 82	July 82	Oct	Jan	Apr	July
Laboratory No.	165-28	454-26	698-23	987-28				
T.D.S. (mg/l)	1,961	2,093	2,121	2,306				
SPECIFIC CONDUCTIVITY umhos	2,720	2,550	2,710	2,420				
Na (mg/l)	160	125	162	164				
K (mg/l)	43	39	41	45				
Ca (mg/l)	383	410	403	443				
Mg (mg/l)	79	73	83	75				
SO <sub>4</sub> (mg/l)	990	1,170	1,120	1,270				
Cl (mg/l)	57	55	66	61				
CO <sub>3</sub> (mg/l)	0	0	0	0				
HCO <sub>3</sub> (mg/l)	505	449	498	503				
p.H. Units	7.58	7.55	7.51	7.61				
Al (mg/l)	ND	ND	ND	ND				
NH <sub>3</sub> (mg/l)	11.30	4.36	14.54	10.14				
As (mg/l)	0.011	0.008	0.006	0.011				
Ba (mg/l)	ND	ND	ND	ND				
B (mg/l)	ND	ND	0.2	ND				
Cb (mg/l)	0.016	ND	0.007	ND				
Cr (mg/l)	0.02	ND	0.02	0.02				
Cu (mg/l)	0.02	ND	ND	ND				
F (mg/l)	0.34	0.28	0.25	0.23				
Fe (mg/l)	ND	ND	0.16	ND				
Pb (mg/l)	0.14	0.07	0.08	0.08				
Mn (mg/l)	2.4	2.3	2.94	2.91				
Hg (mg/l)	ND	ND	ND	ND				
Mo (mg/l)	ND	0.07	ND	ND				
Ni (mg/l)	0.07	0.09	0.08	0.09				
NO <sub>3</sub> (mg/l)	4.68	3.82	2.87	7.19				
NO <sub>2</sub> (mg/l)	0.09	1.2	0.05	0.12				
Se (mg/l)	ND	ND	ND	ND				
U (mg/l)								
V (mg/l)	ND	ND	ND	ND				
Zn (mg/l)	ND	0.018	0.020	0.018				
Pb-210 (uCi/ml)								
PO-210 (uCi/ml)								
Ra-226 (uCi/ml)								
Th-230 (uCi/ml)								
H <sub>2</sub> O DEPTH	SURFACE							

NRC SAMPLE LOCATION WELL #6

MONTH	Oct 81	Jan 82	Apr 82	July 82	Oct	Jan	Apr	July
Laboratory No.	165-29	454-27	698-24	987-22				
T.D.S. (mg/l)	681	623	620	598				
SPECIFIC CONDUCTIVITY umhos	1,010	905	960	820				
Na (mg/l)	211	171	187	166				
K (mg/l)	12	11	10	11				
Ca (mg/l)	6	6	7	7				
Mg (mg/l)	4	3	1	4				
SO <sub>4</sub> (mg/l)	395	386	376	370				
Cl (mg/l)	11	12	10	10				
CO <sub>3</sub> (mg/l)	10	10	10	14				
HCO <sub>3</sub> (mg/l)	66	49	39	29				
p.H Units	8.58	8.80	9.01	9.12				
Al (mg/l)	ND	ND	ND	ND				
NH <sub>3</sub> (mg/l)	0.32	0.11	0.44	0.29				
As (mg/l)	ND	0.004	ND	ND				
Ba (mg/l)	ND	ND	ND	ND				
B (mg/l)	ND	ND	ND	ND				
Cb (mg/l)	ND	ND	ND	ND				
Cr (mg/l)	ND	ND	ND	ND				
Cu (mg/l)	ND	ND	ND	ND				
F (mg/l)	0.95	0.72	0.80	0.83				
Fe (mg/l)	ND	0.08	ND	ND				
Pb (mg/l)	ND	ND	ND	ND				
Mn (mg/l)	ND	ND	ND	0.02				
Hg (mg/l)	ND	ND	ND	ND				
Mo (mg/l)	ND	ND	ND	ND				
Ni (mg/l)	ND	ND	ND	ND				
NO <sub>3</sub> (mg/l)	0.72	0.57	0.37	1.10				
NO <sub>2</sub> (mg/l)	0.06	ND	ND	ND				
Se (mg/l)	ND	ND	ND	ND				
U (mg/l)								
V (mg/l)	ND	ND	ND	ND				
Zn (mg/l)	ND	ND	ND	0.009				
Pb-210 (uCi/ml)								
PO-210 (uCi/ml)								
Ra-226 (uCi/ml)								
Th-230 (uCi/ml)								
H <sub>2</sub> O DEPTH	119.0	111.91	108.97	108.45				



NRC SAMPLE LOCATION WELL #13

MONTH	Oct 81	Jan 82	Apr 82	July 82	Oct	Jan	Apr	July
Laboratory No.	165-30	454-28	698-25	987-23				
T.D.S. (mg/l)	860	609	827	858				
SPECIFIC CONDUCTIVITY umhos	1,230	840	1,100	1,110				
Na (mg/l)	132	113	96	124				
K (mg/l)	20	19	19	20				
Ca (mg/l)	114	44	127	115				
Mg (mg/l)	28	18	28	28				
SO <sub>4</sub> (mg/l)	410	316	432	426				
Cl (mg/l)	12	10	12	10				
CO <sub>3</sub> (mg/l)	0	0	0	0				
HCO <sub>3</sub> (mg/l)	293	181	229	273				
p.H. Units	7.53	7.56	8.07	7.71				
Al (mg/l)	ND	ND	ND	ND				
NH <sub>3</sub> (mg/l)	0.19	0.21	0.21	0.30				
As (mg/l)	0.012	ND	0.004	0.014				
Ba (mg/l)	ND	ND	ND	ND				
B (mg/l)	0.20	ND	0.2	ND				
Cb (mg/l)	0.007	ND	ND	ND				
Cr (mg/l)	ND	ND	ND	ND				
Cu (mg/l)	ND	ND	ND	ND				
F (mg/l)	0.43	0.29	0.26	0.24				
Fe (mg/l)	0.07	ND	0.07	0.18				
Pb (mg/l)	ND	ND	ND	ND				
Mn (mg/l)	0.05	0.06	0.13	0.09				
Hg (mg/l)	ND	ND	ND	ND				
Mo (mg/l)	ND	ND	ND	ND				
Ni (mg/l)	ND	ND	ND	0.03				
NO <sub>3</sub> (mg/l)	0.77	0.70	0.66	2.55				
NO <sub>2</sub> (mg/l)	ND	ND	ND	ND				
Se (mg/l)	ND	ND	ND	ND				
U (mg/l)								
V (mg/l)	ND	ND	ND	ND				
Zn (mg/l)	ND	ND	ND	0.069				
Pb-210 (uCi/ml)								
PO-210 (uCi/ml)								
Ra-226 (uCi/ml)								
Th-230 (uCi/ml)								
H <sub>2</sub> O DEPTH		54.66						



