

EFFLUENT MONITORING REPORT

(10 CFR 40.65)

Report Period: October 1, 1982 through December 31, 1982

Shootaring Canyon Uranium Processing Facility
Garfield County, Utah
NRC License No. SUP-1371
Docket No. 40-8698

Prepared By

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1.0 INTRODUCTION

The following environmental monitoring report is presented to fulfill the requirements set forth by 10 CFR 40.65 for the Shootaring Canyon Processing Facility, Source Materials License No. SUA-1371, Docket No. 40-8698, operated by Plateau Resources Limited, 772 Horizon Drive, Grand Junction, Colorado 81501.

The sampling data represents the period from October 1, 1982 through December 31, 1982. This report reflects data collected the first quarter after the shutdown of the mill on August 18, 1982, and is presented pursuant to Condition 34, Source Materials License SUA-1371.

As a result of a clarification from Ted Johnson and John Linehan on February 23, 1983, requirements of License Condition 44, Amendment 3, have been suspended because the mill has been shutdown.

When the mill becomes operational again, four consecutive quarters of sampling and analysis will be submitted as required by condition 44.

This quarterly report is submitted so that the subsequent semi-annual reports will correspond to the reporting period requirements of 10CFR40.65 during this period of nonoperation.

2.0 SUPPLEMENTAL NOTES

- 1) The "%MPC" column refers to the 10 CFR Part 20, Appendix B, Table II values for unrestricted areas:

	<u>MPC (air)</u> <u>(uCi/ml)</u>
U-natural	5.0E-12
Th 230	3.0E-13
Ra 226	2.0E-12
Pb 210	8.0E-12
Rn 222	3.0E-09

- 2) Values are presented using the "E" format, i.e.,

$$1.2E-16 = 1.2 \times 10^{-16}.$$

- 3) All airborne particulate samples were collected using continuous high volume sampling techniques.
- 4) Lower Limits of Detection (LLD) for each radionuclide are calculated as specified in Regulatory Guide 4.14 except for natural uranium. The LLD for U-natural cannot be calculated using the formula in Regulatory Guide 4.14 because the concentration is determined fluorimetrically.
- 5) Gross concentrations are the sum of naturally occurring background concentrations and mill generated effluents. Similarly, gross exposure rates are the sum of naturally occurring background exposure rates and mill generated exposure rates.

3.0 AIR SAMPLES

3.1 Particulates, High Volume

Date: 9/28/82 to 12/28/82
 Location: AP-1

<u>Radionuclides</u>	<u>Gross Concentration (uCi/ml)</u>	<u>Error Estimate (uCi/ml)</u>	<u>LLD (uCi/ml)</u>	<u>%MPC</u>
U-natural	2.5E-16	5.2E-17	2.6E-22	5.0E-03
Th 230	1.6E-16	1.0E-16	6.5E-19	5.3E-02
Ra 226	2.6E-16	1.0E-16	9.1E-19	1.3E-02
Pb 210	3.0E-14	3.0E-15	1.0E-16	0.38

Date: 9/28/82 to 12/28/82
 Location: AP-2

<u>Radionuclides</u>	<u>Gross Concentration (uCi/ml)</u>	<u>Error Estimate (uCi/ml)</u>	<u>LLD (uCi/ml)</u>	<u>%MPC</u>
U-natural	5.1E-16	8.2E-17	2.7E-22	1.0E-02
Th 230	2.9E-16	1.4E-17	8.2E-19	9.7E-02
Ra 226	4.5E-16	1.4E-16	9.6E-19	2.3E-02
Pb 210	2.8E-14	2.8E-15	9.2E-17	0.35

Date: 9/28/82 to 12/28/82
 Location: AP-3

<u>Radionuclides</u>	<u>Gross Concentration (uCi/ml)</u>	<u>Error Estimate (uCi/ml)</u>	<u>LLD (uCi/ml)</u>	<u>%MPC</u>
U-natural	4.3E-16	8.0E-17	4.0E-22	8.6E-03
Th 230	2.4E-16	1.6E-16	9.9E-19	8.0E-02
Ra 226	3.4E-16	1.2E-16	1.2E-18	1.7E-02
Pb 210	3.0E-14	3.0E-15	1.0E-16	0.38

Date: 9/28/82 to 12/28/82
Location: AP-4

<u>Radionuclides</u>	<u>Gross Concentration (uCi/ml)</u>	<u>Error Estimate (uCi/ml)</u>	<u>LLD (uCi/ml)</u>	<u>%MPC</u>
U-natural	2.8E-16	6.2E-17	3.1E-22	5.6E-03
Th 230	1.7E-16	9.4E-17	7.9E-19	5.7E-02
Ra 226	1.7E-16	9.4E-17	3.1E-19	8.5E-03
Pb 210	2.6E-14	2.0E-15	1.0E-16	0.33

Date: 9/28/82 to 12/28/82
Location: APC-1B

<u>Radionuclides</u>	<u>Gross Concentration (uCi/ml)</u>	<u>Error Estimate (uCi/ml)</u>	<u>LLD (uCi/ml)</u>	<u>%MPC</u>
U-natural	1.9E-16	6.4E-17	3.2E-22	3.8E-03
Th 230	1.3E-16	1.0E-16	8.0E-19	4.3E-02
Ra 226	1.5E-16	8.6E-17	9.6E-19	7.5E-03
Pb 210	2.4E-14	2.0E-15	1.0E-16	0.30

Date: 9/28/82 to 12/28/82
Location: APC-2T

<u>Radionuclides</u>	<u>Gross Concentration (uCi/ml)</u>	<u>Error Estimate (uCi/ml)</u>	<u>LLD (uCi/ml)</u>	<u>%MPC</u>
U-natural	3.2E-16	6.0E-17	3.0E-22	6.4E-03
Th 230	1.7E-16	1.2E-16	9.1E-19	5.7E-02
Ra 226	1.8E-16	9.2E-17	3.0E-19	9.0E-03
Pb 210	3.3E-14	3.0E-15	1.0E-16	0.41

3.2 Airborne Rn-222 Concentrations from Radon Cup Measurements

Date: 10/5/82 to 11/2/82

<u>Location</u>	<u>Gross Average Concentration (uCi/ml)</u>	<u>Error Estimate (uCi/ml)</u>	<u>LLD (uCi/ml)</u>	<u>%MPC</u>
AP-1	5.6E-10	2.8E-10	2.0E-10	19
AP-2	8.6E-10	3.4E-10	2.0E-10	29
AP-3	6.9E-10	3.1E-10	2.0E-10	23
AP-4	4.0E-10	2.4E-10	2.0E-10	13
APC-1B	3.0E-10	2.1E-10	2.0E-10	10
APC-2T	8.9E-10	3.5E-10	2.0E-10	30

Date: 11/2/82 to 12/7/82

<u>Location</u>	<u>Gross Average Concentration (uCi/ml)</u>	<u>Error Estimate (uCi/ml)</u>	<u>LLD (uCi/ml)</u>	<u>%MPC</u>
AP-1	4.0E-10	2.1E-10	2.0E-10	13
AP-2	7.7E-10	2.9E-10	2.0E-10	26
AP-3	1.4E-09	3.9E-10	2.0E-10	47
AP-4	6.3E-10	2.6E-10	2.0E-10	21
APC-1B	5.6E-10	2.5E-10	2.0E-10	19
APC-2T	7.7E-10	2.9E-10	2.0E-10	26

Date: 12/7/83 to 1/4/83

<u>Location</u>	<u>Gross Average Concentration (uCi/ml)</u>	<u>Error Estimate (uCi/ml)</u>	<u>LLD (uCi/ml)</u>	<u>%MPC</u>
AP-1	1.1E-09	3.9E-10	2.0E-10	37
AP-2	1.2E-09	4.1E-10	2.0E-10	40
AP-3	1.7E-09	4.9E-10	2.0E-10	57
AP-4	1.3E-09	4.3E-10	2.0E-10	43
APC-1B	1.3E-09	4.3E-10	2.0E-10	43
APC-2T	9.6E-10	3.7E-10	2.0E-10	32

4.0 DIRECT RADIATION

4.1 Thermoluminescent Dosimeter Measurements

Date: 10/5/82 to 1/4/83

<u>Location</u>	<u>Gross Exposure Rate (mR/qr)</u>	<u>Error Estimate (mR/qr)</u>
AP-1	22.4	8.5
AP-2	32.8	12.5
AP-3	21.6	8.7
AP-4	17.8	7.3
APC-1B	21.6	8.7
APC-2T	21.8	6.0
Control (Shielded)	12.5	4.8
Control (Shielded)	13.5	9.9

5.0 WATER SAMPLES

5.1 Ground Water, Wells

Date: 10/27/82

Location: RM-1

Type: Radiological Monitoring Well (hydrologically up gradient)

<u>Radionuclides</u>	<u>Gross Concentration (uCi/ml)</u>	<u>Error Estimate (uCi/ml)</u>	<u>LLD (uCi/ml)</u>
U-natural (dissolved)	6.8E-09	4.2E-09	2.0E-10
Th 230 (dissolved)	3.0E-10	6.0E-11	2.0E-10
Ra 226 (dissolved)	2.0E-10	4.0E-10	2.0E-11
Pb 210 (dissolved)	-1.0E-09	3.9E-09	6.5E-09
Po 210 (dissolved)	0.0	0.0	1.1E-11

Date: 10/27/82

Location: RM-4

Type: Radiological Monitoring Well (hydrologically down gradient)

<u>Radionuclides</u>	<u>Gross Concentration (uCi/ml)</u>	<u>Error Estimate (uCi/ml)</u>	<u>LLD (uCi/ml)</u>
U-natural (dissolved)	5.9E-09	4.2E-09	2.0E-10
Th 230 (dissolved)	1.0E-10	2.0E-11	2.0E-10
Ra 226 (dissolved)	3.0E-10	2.0E-10	3.0E-11
Pb 210 (dissolved)	6.9E-09	4.4E-09	1.0E-09
Po 210 (dissolved)	0.0	0.0	4.3E-11

Date: 10/27/82

Location: RM-5

Type: Radiological Monitoring Well (hydrologically down gradient)

<u>Radionuclides</u>	<u>Gross Concentration (uCi/ml)</u>	<u>Error Estimate (uCi/ml)</u>	<u>LLD (uCi/ml)</u>
U-natural (dissolved)	7.1E-09	4.2E-09	2.0E-10
Th 230 (dissolved)	8.0E-10	1.2E-10	2.0E-10
Ra 226 (dissolved)	2.5E-09	1.0E-09	7.0E-12
Pb 210 (dissolved)	-3.8E-09	3.9E-09	6.8E-09
Po 210 (dissolved)	1.1E-10	1.5E-10	1.1E-11

Date: 10/27/82

Location: RM-6

Type: Radiological Monitoring Well (hydrologically down gradient)

<u>Radionuclides</u>	<u>Gross Concentration (uCi/ml)</u>	<u>Error Estimate (uCi/ml)</u>	<u>LLD (uCi/ml)</u>
U-natural (dissolved)	4.7E-09	4.6E-09	2.0E-10
Th 230 (dissolved)	4.0E-10	6.0E-11	2.0E-10
Ra 226 (dissolved)	8.0E-10	8.0E-10	7.0E-11
Pb 210 (dissolved)	-3.2E-09	4.0E-09	6.9E-09
Po 210 (dissolved)	1.1E-10	1.1E-10	1.1E-10

Date: 11/30/82

Location: RM-1

Type: Radiological Monitoring Well (hydrologically up gradient)

<u>Radionuclides</u>	<u>Gross Concentration (uCi/ml)</u>	<u>Error Estimate (uCi/ml)</u>	<u>LLD (uCi/ml)</u>
U-natural (dissolved)	2.3E-09	2.0E-09	2.0E-10
Th 230 (dissolved)	4.0E-10	6.0E-10	3.0E-11
Ra 226 (dissolved)	3.0E-10	4.0E-10	1.0E-11
Pb 210 (dissolved)	2.3E-09	1.8E-09	2.7E-09
Po 210 (dissolved)	0.0	0.0	1.1E-10

Date: 11/29/82

Location: RM-4

Type: Radiological Monitoring Well (hydrologically down gradient)

<u>Radionuclides</u>	<u>Gross Concentration (uCi/ml)</u>	<u>Error Estimate (uCi/ml)</u>	<u>LLD (uCi/ml)</u>
U-natural (dissolved)	7.0E-11	1.6E-09	2.0E-10
Th 230 (dissolved)	2.7E-09	1.4E-09	6.0E-11
Ra 226 (dissolved)	3.0E-10	4.0E-10	6.0E-11
Pb 210 (dissolved)	1.3E-09	8.0E-09	2.8E-09
Po 210 (dissolved)	0.0	0.0	4.4E-11

Date: 11/29/82

Location: RM-5

Type: Radiological Monitoring Well (hydrologically down gradient)

<u>Radionuclides</u>	<u>Gross Concentration (uCi/ml)</u>	<u>Error Estimate (uCi/ml)</u>	<u>LLD (uCi/ml)</u>
U-natural (dissolved)	1.0E-10	1.6E-09	2.0E-10
Th 230 (dissolved)	0.0	0.0	3.0E-11
Ra 226 (dissolved)	1.1E-09	4.0E-10	2.0E-11
Pb 210 (dissolved)	-7.0E-10	1.7E-09	2.8E-09
Po 210 (dissolved)	3.3E-10	6.5E-10	3.3E-10

Date: 11/29/82

Location: RM-6

Type: Radiological Monitoring Well (hydrologically down gradient)

<u>Radionuclides</u>	<u>Gross Concentration (uCi/ml)</u>	<u>Error Estimate (uCi/ml)</u>	<u>LLD (uCi/ml)</u>
U-natural (dissolved)	5.0E-09	2.6E-09	2.0E-10
Th 230 (dissolved)	-3.0E-10	8.0E-10	6.0E-11
Ra 226 (dissolved)	3.0E-10	2.0E-10	2.0E-11
Pb 210 (dissolved)	-1.0E-10	1.7E-09	2.9E-09
Po 210 (dissolved)	5.4E-10	8.7E-10	5.4E-11

Date: 12/15/82

Location: RM-1

Type: Radiological Monitoring Well (hydrologically up gradient)

<u>Radionuclides</u>	<u>Gross Concentration (uCi/ml)</u>	<u>Error Estimate (uCi/ml)</u>	<u>LLD (uCi/ml)</u>
U-natural (dissolved)	2.3E-09	2.0E-09	1.0E-10
Th 230 (dissolved)	1.5E-09	1.0E-09	5.0E-11
Ra 226 (dissolved)	0.0	0.0	4.0E-11
Pb 210 (dissolved)	-1.8E-09	3.3E-09	5.6E-09
Po 210 (dissolved)	1.4E-09	1.3E-09	3.2E-11

Date: 12/15/82

Location: RM-4

Type: Radiological Monitoring Well (hydrologically down gradient)

<u>Radionuclides</u>	<u>Gross Concentration (uCi/ml)</u>	<u>Error Estimate (uCi/ml)</u>	<u>LLD (uCi/ml)</u>
U-natural (dissolved)	1.0E-10	1.8E-09	1.0E-10
Th 230 (dissolved)	-2.0E-10	8.0E-10	5.0E-11
Ra 226 (dissolved)	1.1E-09	6.0E-10	4.0E-11
Pb 210 (dissolved)	1.2E-09	3.5E-09	5.6E-09
Po 210 (dissolved)	3.2E-10	6.4E-10	5.4E-11

Date: 12/15/82

Location: RM-5

Type: Radiological Monitoring Well (hydrologically down gradient)

<u>Radionuclides</u>	<u>Gross Concentration (uCi/ml)</u>	<u>Error Estimate (uCi/ml)</u>	<u>LLD (uCi/ml)</u>
U-natural (dissolved)	1.1E-09	1.8E-09	1.0E-10
Th 230 (dissolved)	9.0E-10	8.0E-10	1.0E-10
Ra 226 (dissolved)	6.0E-10	4.0E-10	2.0E-11
Pb 210 (dissolved)	-2.2E-09	3.0E-09	5.1E-09
Po 210 (dissolved)	7.5E-10	1.1E-09	3.2E-11

Date: 12/15/82

Location: RM-6

Type: Radiological Monitoring Well (hydrologically down gradient)

<u>Radionuclides</u>	<u>Gross Concentration (uCi/ml)</u>	<u>Error Estimate (uCi/ml)</u>	<u>LLD (uCi/ml)</u>
U-natural (dissolved)	2.0E-11	1.4E-09	1.0E-10
Th 230 (dissolved)	8.0E-10	6.0E-10	1.0E-10
Ra 226 (dissolved)	4.0E-10	4.0E-10	1.0E-10
Pb 210 (dissolved)	8.0E-10	3.5E-09	5.6E-09
Po 210 (dissolved)	5.4E-10	6.4E-10	2.1E-10

Date: 11/29/82
 Location: Ticaboo Water Well
 Type: Drinking Well

<u>Radionuclides</u>	<u>Gross Concentration (uCi/ml)</u>	<u>Error Estimate (uCi/ml)</u>	<u>LLD (uCi/ml)</u>
U-nat (dissolved)	5.0E-10	1.8E-09	2.0E-10
(suspended)	3.0E-10	2.0E-10	1.0E-11
Th 230 (dissolved)	4.0E-10	6.0E-10	4.0E-11
(suspended)	1.2E-09	1.4E-09	1.0E-10
Ra 226 (dissolved)	2.0E-10	2.0E-10	2.0E-11
(suspended)	-5.0E-10	8.0E-10	2.0E-11
Pb 210 (dissolved)	-4.0E-10	1.7E-09	2.9E-09
(suspended)	1.2E-09	3.5E-09	5.6E-09
Po 210 (dissolved)	0.0	0.0	5.4E-11
(suspended)	7.6E-10	1.5E-09	5.4E-11

Date: 12/02/82
 Location: Mill Well #1
 Type: Drinking Well

<u>Radionuclides</u>	<u>Gross Concentration (uCi/ml)</u>	<u>Error Estimate (uCi/ml)</u>	<u>LLD (uCi/ml)</u>
U-nat (dissolved)	8.0E-10	1.8E-09	2.0E-10
(suspended)	3.0E-10	2.0E-10	1.0E-11
Th 230 (dissolved)	9.0E-10	8.0E-10	3.0E-11
(suspended)	4.0E-10	1.2E-09	1.0E-10
Ra 226 (dissolved)	-1.0E-10	2.0E-10	1.0E-11
(suspended)	6.0E-10	8.0E-10	6.0E-11
Pb 210 (dissolved)	3.0E-10	1.8E-09	3.0E-09
(suspended)	3.0E-10	2.4E-09	3.9E-09
Po 210 (dissolved)	0.0	0.0	1.1E-10
(suspended)	0.0	0.0	1.1E-10

Date: 12/02/82
 Location: Mill Well #2
 Type: Drinking Well

<u>Radionuclides</u>	<u>Gross Concentration (uCi/ml)</u>	<u>Error Estimate (uCi/ml)</u>	<u>LLD (uCi/ml)</u>
U-nat (dissolved)	6.0E-10	1.8E-09	1.0E-10
(suspended)	2.0E-10	2.0E-10	1.0E-11
Th 230 (dissolved)	0.0	0.0	4.0E-11
(suspended)	9.0E-10	1.4E-09	1.0E-10
Ra 226 (dissolved)	1.0E-10	2.0E-10	2.0E-11
(suspended)	1.0E-10	1.6E-09	2.0E-11
Pb 210 (dissolved)	3.0E-10	1.9E-09	3.0E-09
(suspended)	7.0E-10	3.7E-09	5.9E-09
Po 210 (dissolved)	1.1E-09	1.1E-09	4.4E-11
(suspended)	1.9E-09	1.7E-09	4.4E-11

5.2 Groundwater, Seeps

Date: 10/11/82
 Location: Seep #1
 Type: Surface Seepage

<u>Radionuclides</u>	<u>Gross Concentration (uCi/ml)</u>	<u>Error Estimate (uCi/ml)</u>	<u>LLD (uCi/ml)</u>
U-nat (dissolved)	3.3E-09	1.2E-09	1.0E-11
(suspended)	1.8E-08*	5.5E-09	2.8E-11
Th 230 (dissolved)	1.0E-09	4.0E-10	6.0E-11
(suspended)	8.7E-09*	3.6E-09	1.9E-10
Ra 226 (dissolved)	2.4E-09	4.0E-10	3.0E-11
(suspended)	2.3E-08*	1.1E-08	5.5E-10
Pb 210 (dissolved)	3.0E-10	2.0E-09	3.3E-09
(suspended)	5.8E-08*	9.0E-09	1.1E-08
Po 210 (dissolved)	7.4E-10	8.4E-10	2.1E-10
(suspended)	8.3E-09*	4.2E-09	2.1E-10

* - Concentration high due to excessive solids in sample (13.8 g/l)

Date: 10/13/82
 Location: Seep #2
 Type: Surface Seepage

<u>Radionuclides</u>	<u>Gross Concentration (uCi/ml)</u>	<u>Error Estimate (uCi/ml)</u>	<u>LLD (uCi/ml)</u>
U-nat (dissolved)	8.8E-09	2.0E-09	1.0E-11
(suspended)	1.5E-09	8.0E-10	2.0E-11
Th 230 (dissolved)	1.0E-10	1.2E-10	2.0E-11
(suspended)	2.7E-09	8.0E-10	5.0E-11
Ra 226 (dissolved)	2.0E-11	4.0E-10	3.0E-11
(suspended)	5.6E-09	1.0E-09	1.0E-10
Pb 210 (dissolved)	5.2E-09	2.6E-09	3.8E-09
(suspended)	4.9E-09	4.0E-09	6.1E-09
Po 210 (dissolved)	1.0E-09	1.0E-09	3.1E-10
(suspended)	0.0	0.0	2.1E-10

5.3 Surface Water

Date: 11/11/82

Location: Shootaring Creek Runoff Location #1 (hydrologically downstream)

Type: Stream

<u>Radionuclides</u>	<u>Gross Concentration (uCi/ml)</u>	<u>Error Estimate (uCi/ml)</u>	<u>LLD (uCi/ml)</u>
U-nat (dissolved)	1.7E-08	4.0E-09	2.0E-10
(suspended)	9.4E-08**	3.1E-08	2.6E-12
Th 230 (dissolved)	*		
(suspended)	6.8E-08**	1.6E-08	1.3E-09
Ra 226 (dissolved)	*		
(suspended)	4.2E-08**	1.6E-08	5.2E-10
Pb 210 (dissolved)	-2.0E-10	2.5E-09	4.1E-09
(suspended)	5.7E-08**	8.0E-09	8.0E-09
Po 210 (dissolved)	-1.1E-11	4.2E-11	2.1E-11
(suspended)	3.3E-08**	3.6E-08	4.4E-10

* - lab inadvertently failed to analyze samples for that radionuclide
 ** - concentration high due to excessive solids in sample (26.0 g/l)

Date: 11/11/82

Location: Shootaring Creek Runoff Location #3 (hydrologically upstream)

Type: Stream

<u>Radionuclides</u>	<u>Gross Concentration (uCi/ml)</u>	<u>Error Estimate (uCi/ml)</u>	<u>LLD (uCi/ml)</u>
U-nat (dissolved)	1.2E-08	4.0E-09	2.0E-10
(suspended)	3.2E-08**	1.2E-08	1.2E-12
Th 230 (dissolved)	*		
(suspended)	1.0E-07**	3.2E-08	9.7E-10
Ra 226 (dissolved)	*		
(suspended)	1.6E-08**	7.3E-09	2.4E-10
Pb 210 (dissolved)	-2.7E-09	2.4E-09	4.2E-09
(suspended)	1.1E-08**	3.0E-09	3.0E-09
Po 210 (dissolved)	-2.1E-11	4.2E-11	2.1E-11
(suspended)	2.1E-08**	1.1E-08	6.1E-10

* - lab inadvertently failed to analyze samples for that radionuclide
 ** - concentration high due to excessive solids in sample (26.0 g/l)

Date: 10/13/82
 Location: Seep #3
 Type: Surface Seepage

<u>Radionuclides</u>	<u>Gross Concentration (uCi/ml)</u>	<u>Error Estimate (uCi/ml)</u>	<u>LLD (uCi/ml)</u>
U-nat (dissolved)	1.2E-08	2.4E-09	1.0E-11
(suspended)	1.3E-09	2.6E-09	2.0E-11
Th 230 (dissolved)	1.0E-09	4.0E-10	2.0E-11
(suspended)	8.0E-10	4.0E-10	1.0E-12
Ra 226 (dissolved)	7.0E-10	6.0E-10	3.0E-11
(suspended)	1.0E-09	8.0E-10	5.0E-11
Pb 210 (dissolved)	-5.0E-10	2.0E-09	3.4E-09
(suspended)	3.2E-09	3.3E-09	5.1E-09
Po 210 (dissolved)	6.2E-10	6.2E-10	1.0E-11
(suspended)	1.5E-09	1.5E-09	1.0E-10

Date: 10/13/82
 Location: Seep #4 (Lost Spring)
 Type: Surface Seepage

<u>Radionuclides</u>	<u>Gross Concentration (uCi/ml)</u>	<u>Error Estimate (uCi/ml)</u>	<u>LLD (uCi/ml)</u>
U-nat (dissolved)	2.1E-09	1.0E-09	1.0E-11
(suspended)	1.3E-09	8.0E-10	2.0E-11
Th 230 (dissolved)	3.0E-10	2.0E-10	2.0E-11
(suspended)	6.0E-10	4.0E-10	9.0E-11
Ra 226 (dissolved)	1.0E-10	2.0E-10	3.0E-11
(suspended)	9.0E-10	8.0E-10	1.0E-10
Pb 210 (dissolved)	-5.0E-10	2.1E-09	3.5E-09
(suspended)	1.2E-09	3.2E-09	5.2E-09
Po 210 (dissolved)	6.2E-10	1.0E-09	3.1E-10
(suspended)	3.5E-09	2.7E-09	3.1E-10

6.0 SOIL SAMPLES

Date: 11/09/82
 Location: AP-1
 Type: Soil

<u>Radionuclides</u>	<u>Gross Concentration (uCi/g)</u>	<u>Error Estimate (uCi/g)</u>	<u>LLD (uCi/g)</u>
U-natural	1.5E-06	8.0E-07	2.0E-08
Ra 226	1.4E-06	6.0E-07	1.0E-08
Pb 210	3.5E-07	1.6E-07	2.3E-07

Date: 11/09/82
 Location: AP-2
 Type: Soil

<u>Radionuclides</u>	<u>Gross Concentration (uCi/g)</u>	<u>Error Estimate (uCi/g)</u>	<u>LLD (uCi/g)</u>
U-natural	2.3E-06	1.0E-06	2.0E-08
Ra 226	1.9E-06	8.0E-07	2.0E-08
Pb 210	2.8E-07	1.6E-07	2.4E-07

Date: 11/09/82
 Location: AP-3
 Type: Soil

<u>Radionuclides</u>	<u>Gross Concentration (uCi/g)</u>	<u>Error Estimate (uCi/g)</u>	<u>LLD (uCi/g)</u>
U-natural	1.1E-06	6.0E-07	2.0E-08
Ra 226	6.0E-07	4.0E-07	2.0E-08
Pb 210	9.0E-08	1.5E-07	2.4E-07

Date: 11/09/82
Location: AP-4
Type: Soil

<u>Radionuclides</u>	<u>Gross Concentration (uCi/g)</u>	<u>Error Estimate (uCi/g)</u>	<u>LLD (uCi/g)</u>
U-natural	1.1E-06	8.0E-07	2.0E-08
Ra 226	4.0E-07	4.0E-07	2.0E-08
Pb 210	5.0E-08	1.5E-07	2.4E-07

Date: 11/09/82
Location: APC-1B
Type: Soil

<u>Radionuclides</u>	<u>Gross Concentration (uCi/g)</u>	<u>Error Estimate (uCi/g)</u>	<u>LLD (uCi/g)</u>
U-natural	1.0E-06	8.0E-07	2.0E-08
Ra 226	9.0E-07	6.0E-07	7.0E-08
Pb 210	7.5E-07	1.8E-07	2.3E-07

Date: 11/09/82
Location: APC-2T
Type: Soil

<u>Radionuclides</u>	<u>Gross Concentration (uCi/g)</u>	<u>Error Estimate (uCi/g)</u>	<u>LLD (uCi/g)</u>
U-natural	1.5E-06	1.2E-06	2.0E-08
Ra 226	6.0E-07	6.0E-07	1.0E-08
Pb 210	4.2E-07	1.6E-07	2.3E-07