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HYDROGEOCHEMICAL AND STREAM SEDIMENT RECONNAISSANCE BASIC DATA REPORT FOR MILLETT NTMS QUADRANGLE, NEVADA

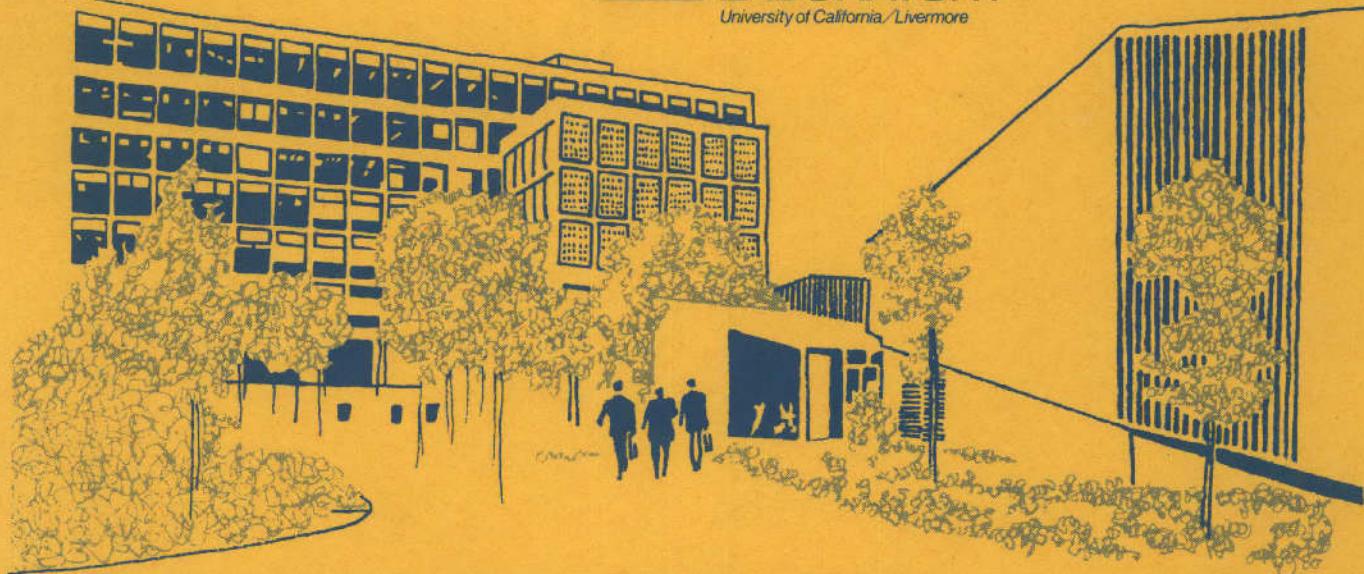
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J. L. Wagoner

December 1978

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LAWRENCE LIVERMORE LABORATORY

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UCRL-52641

**HYDROGEOCHEMICAL AND STREAM SEDIMENT
RECONNAISSANCE BASIC DATA REPORT
FOR MILLETT NTMS QUADRANGLE, NEVADA**

J. L. Wagoner

MS. date: December 1978

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HYDROGEOCHEMICAL AND STREAM SEDIMENT RECONNAISSANCE BASIC DATA REPORT FOR MILLETT NTMS QUADRANGLE, NEVADA

ABSTRACT

This report presents the results of geochemical reconnaissance sampling in the Millett $1^{\circ} \times 2^{\circ}$ quadrangle of the National Topographic Map Series (NTMS). We collected wet and dry sediment samples throughout the $18,770 \text{ km}^2$ arid to semiarid region and water samples at available streams, springs, and wells. Samples were collected between August and October, 1976, and between July and October, 1977. We present neutron activation analyses of uranium and trace elements and other measurements made in the field and laboratory in tabular hardcopy and microfiche format. The report includes seven full-size overlays for use with the Millett NTMS 1:250,000 quadrangle. Water sampling sites, sediment-sample total uranium and thorium concentrations, and Th/U ratios are shown on separate overlays. Samples were divided into nine general rock types, according to the source rock from which the sediment was derived. Each group of samples was statistically treated as an independent population. Acidic volcanics and Tertiary nonmarine clastic sediments have the highest background uranium concentrations. In general, uranium correlates best with the rare-earth elements, hafnium, and thorium. Of all the elements, uranium is the best indicator of uranium mineralization in the Millett quadrangle. The highest uranium concentrations occur near silicic volcanics and intrusive-metasedimentary contacts. The Th/U ratios define anomalous uranium concentrations; samples with a low Th/U ratio and high uranium are considered worthy of further study. Areas that warrant interest are near Tertiary silicic volcanics and near the Jurassic Austin Pluton quartz monzonite in the Toiyabe Range.

INTRODUCTION

The National Uranium Resource Evaluation (NURE) Program was established to evaluate domestic uranium resources in the continental U. S. and identify areas favorable for uranium exploration. The Grand Junction Office (GJO) of the Department of Energy (DOE) is responsible for administering and coordinating NURE program efforts. Lawrence Livermore Laboratory (LLL) is conducting a hydrogeochemical and stream-sediment reconnaissance (HSSR) of 1.8 million km^2 in 10 western states. Other DOE laboratories are responsible for similar reconnaissance of the remaining continental U. S. including Alaska (Fig. 1). The individual laboratories collect a proper set of field samples in their areas, process and analyze the material, and compile the data in report form. The resulting HSSR reports are made available to the public by DOE-GJO through simultaneous release at several locations. Lawrence Livermore Laboratory releases its data as a basic data report containing an interpretative discussion of its significance. The data are reviewed and presented in tabular form with map overlays (Appendix A, Appendix B).

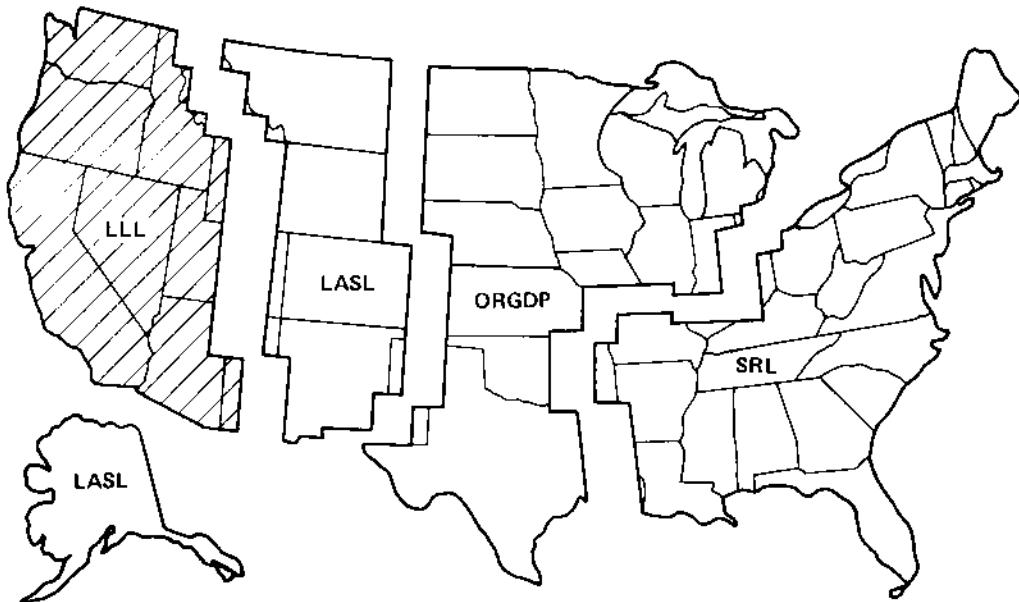


Fig. 1. Areas of responsibility or the NURE Hydrogeochemical Reconnaissance Program.

Lawrence Livermore Laboratory subdivides the 10 western states into geologic provinces that are further subdivided into sample acquisition or project areas. Each is sampled in an appropriately timed reconnaissance phase by professional geologist contract teams monitored by the LLL field quality assurance group. Before fielding a major reconnaissance project, LLL conducts one or more "pilot" or orientation studies in the geologic province, providing a rational sampling program sensitive to the variable geological and climatic conditions occurring in the area.¹ Using this system, the sediment and water samples reflect, as nearly as possible, the metallogenic nature of the region, with particular emphasis on uranium mineralization. A description of sample collection and processing methods is available.²

The samples were analyzed for uranium by delayed neutron counting. Instrumental neutron activation analysis was used to measure trace and major element content of sediment samples. The samples were irradiated at the Livermore Pool Type Reactor. The neutron activation analysis and delayed neutron counting are performed using an automated transport and detection system.³ Data reduction for neutron activation analytical results uses the GAMANAL code described by Gunnick and Niday⁴ to interpret the gamma spectra. The NURAB code described by Heft and Martin⁵ and McMillan and Carver⁶ produces the elemental concentration values.

An automated optical emission spectrometer equipped with an argon plasma source provided trace and major element analyses of water samples. A modified spectrophometric analyzer was used to measure chloride and sulphate concentration of water samples.

GEOLOGY OF THE MILLETT NTMS QUADRANGLE

The Millett NTMS $1^\circ \times 2^\circ$ quadrangle covers an area of approximately $18,770 \text{ km}^2$ and is located in the Basin and Range structural province in central Nevada (Fig. 2). The quadrangle includes parts of Lander, Churchill, Eureka, Nye, and Mineral counties. The geology of the region has been mapped and described by Stewart *et al.*,⁷ Wilden and Speed,⁸ Roberts *et al.*,⁹ Kleinhample and Ziony,¹⁰ and Ross.¹¹

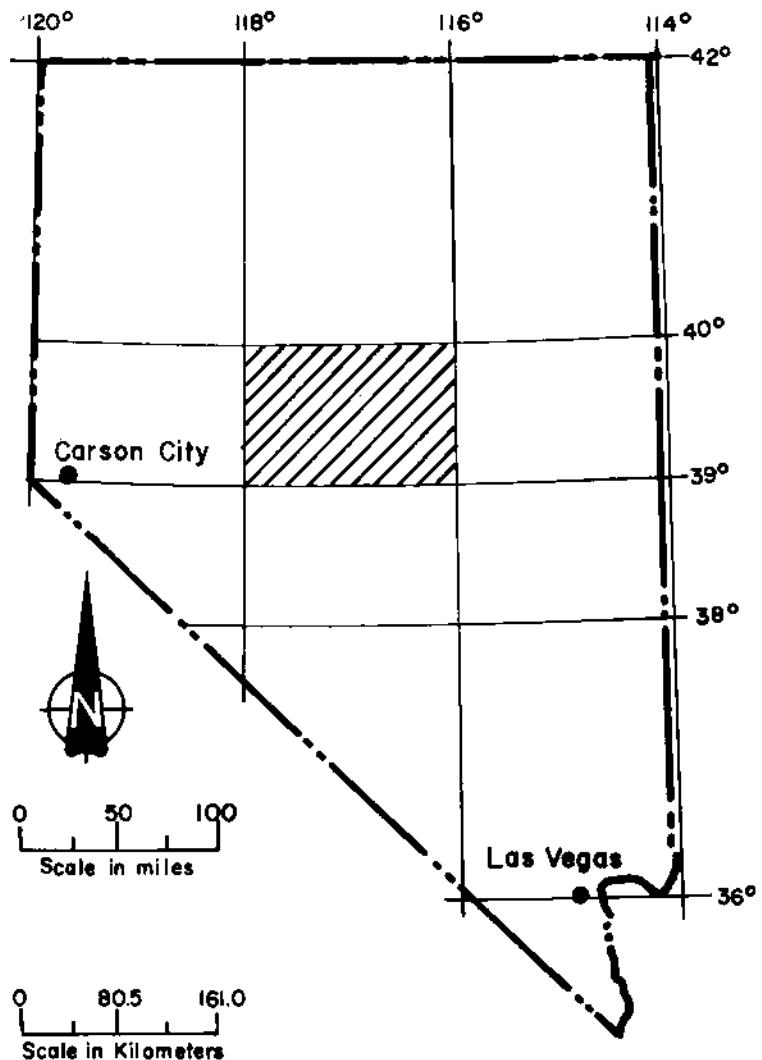


Fig. 2. Location of the Millett NTMS Quadrangle.

The quadrangle has a characteristic Basin and Range topography of northward-trending, block-faulted mountain ranges, separated by alluvial valleys. The main drainage system in the area is the Reese River, which flows to the north through the central part of the quadrangle.

The rocks exposed in the Millett quadrangle are sedimentary, igneous, and metamorphic and range in age from Early Cambrian to Holocene. Lower Paleozoic rocks consist of sediments and volcanics that were deposited in the Cordilleran geosyncline. In the eastern portion of the basin, up to 4500 m of carbonate, quartzite, and minor shale were deposited in a miogeosynclinal environment. To the west, up to 15,000 m of chert, clastics, and interbedded volcanic flows and pyroclastics were deposited in a eugeosynclinal environment. Rocks of a transitional character were deposited in a zone separating the two assemblages.

The Antler Orogeny occurred during Late Devonian to Early Mississippian time. The orogenic pulse was characterized by intense folding and faulting and culminated with the Roberts Mountains Thrust in which eugeosynclinal rocks were thrust east over transitional and miogeosynclinal rocks. Thrust movements of up to 145 km are estimated.¹²

During the Upper Paleozoic, coarse clastics were shed from the Antler Orogenic Belt and deposited on the folded and faulted Lower Paleozoic rocks. Upper Paleozoic chert, clastics, and car-

bonate of the Havallah Sequence were deposited in a deep trough west of the Antler Orogenic Belt. These strata were subsequently thrust east over comparable-age clastics along the Golconda Thrust during the Late Permian-Early Triassic Sonoma Orogeny.

Mesozoic rocks are widely scattered and diverse in the region. Rock types include early Triassic coarse clastics, Late Triassic-Jurassic marine carbonate, clastics, and volcanics, and Cretaceous lacustrine strata.

Intrusive rocks are mostly Mesozoic (minor Tertiary) and are petrologically similar to the large batholithic complexes of western North America. Intrusives are predominately quartz monzonite to granodiorite. A large gabbroic lopolith intrudes Middle Jurassic strata in northeastern Churchill County.

Cenozoic rocks consist of volcanics and nonmarine sediments; volcanics make up more than 75% of the total deposits. The oldest volcanics are dacitic to andesitic flows of earliest Oligocene age. Rhyolite to quartz latite ash-flow tuff is common from Early Oligocene to Early Miocene time. The Late Miocene to Pliocene is represented by basalt to andesitic-basalt flows and rhyolitic domes. Basalt exists locally from the Quaternary.

Nonmarine sedimentary rocks of Late Miocene-Pliocene age are common, suggesting that, by Late Miocene time, structural controls had become increasingly important in forming depositional basins characteristic of the Basin and Range structural province. Sediments include poorly sorted gravels, alluvial fan deposits, and fluvial and lacustrine deposits.

Rocks of the Millett quadrangle have experienced a complex structural history. Several orogenic episodes have been identified:

- An orogenic pulse before the Middle Ordovician (observed in Eureka County).
- The Antler Orogeny in Late Devonian to Early Mississippian.
- The Sonoma Orogeny in Late Permian to Early Triassic.
- A series of small orogenies in the Upper Mesozoic.
- Basin and Range block faulting in the Late Cenozoic.

A wide variety of structures resulted from these orogenic episodes. These include thrust faults, high-angle faults, broad open folds, tight folds, homoclinal structures, large caldera-like volcanic structures, east-west-trending lineaments, and block-faulted mountain ranges.

Economically significant deposits of silver and gold occur in the Millett quadrangle. Of less importance are occurrences of zinc, lead, tungsten, mercury, manganese, antimony, turquoise, fluorspar, and zeolites.

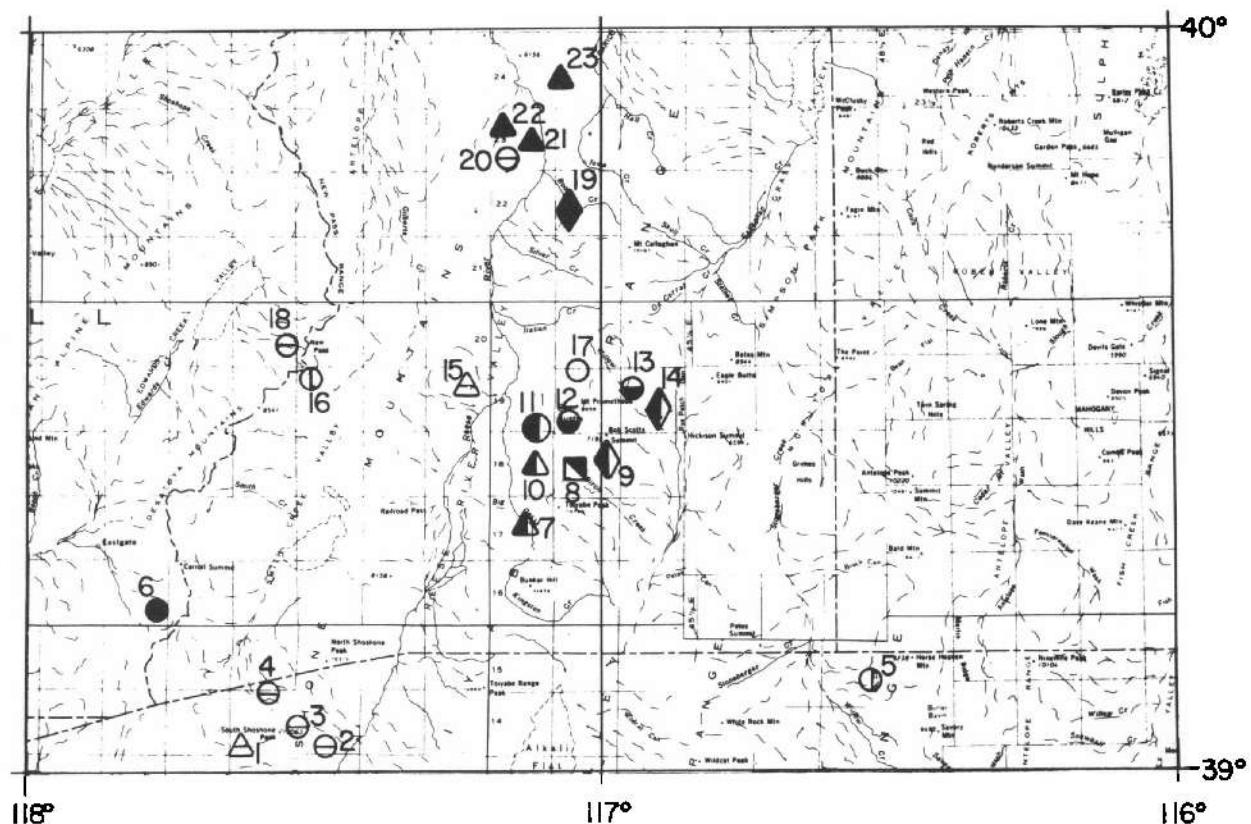
Twenty-three radioactive occurrences in the Millett quadrangle are shown on Fig. 3 and described in Table 1. Most radioactive occurrences are related to volcanic ash units, Tertiary tuffaceous sediments, intrusive-metasedimentary contacts, and fault breccia zones.^{13,14}

HYDROLOGY

The largest drainage system in the Millett quadrangle is the Reese River, which flows to the north through the central portion of the quadrangle. The mountain ranges are drained by many small, independent creeks. Many of the large valleys have internal drainage characterized by large playas. Such valleys are Edwards Creek Valley, Dixie Valley, Smith Creek Valley, Diamond Valley, Big Smoky Valley, and Grass Valley.

The climate of the area is arid to semiarid. The mountain ranges receive heavy winter snowfall, summer thunderstorms, and have relatively cool temperatures. The bottom lands receive less precipitation and have higher mean temperatures. Precipitation was average to above average during the sampling periods of 1976 and 1977.^{15,16}

Most wells in the region are located in the valleys near towns and ranches. The majority of wells observed had a decline in water level during 1976.¹⁷



LEGEND

	Pre-Tertiary Rocks		Tertiary Quaternary Rocks	Tertiary volcanic Rocks		Placer Deposits
	sedimentary volcanic & metamorphic (low-rank) rocks	plutonic metamorphic (high-rank) rocks	sedimentary rocks	massive pyroclastics rocks		
Uranium with base, precious & ferrous metals	●	●	●	○	⊖	
Uranium, Th & R.E.E. in peg- matites & small plutons					■	
Uranium with other mineral- ization minor or absent	◆		◆			
Anomalous radioactivity	▲		▲		△	



○ Minor prospect or occurrence

○ Production over 5 tons U_3O_8

Scale in Kilometers
10 0 10 30 50

Scale in miles
10 0 10 20 30 40

Fig. 3. Location of uranium occurrences.

Table 1. Millett uranium occurrences.

Map No.	District or claim	Location	Type of deposit
1	Hazel E. Prospect	S.3 T.13N.,R.39 E.	Radioactivity occurs in a bleached rhyolitic welded tuff of the Bonita Canyon Formation, associated with a fault breccia zone.
2	Bonita	S.30 T.14N.,R.40E.	No information available.
3	Dottie Lee Claims	S.24 T.14N.,R.39E.	Anomalous radioactivity associated with purple fluorite in iron-stained ash-flow tuff of the Bonita Canyon Formation.
4	Idle Wild Claims	S.3,4 T.14N.,R.39E.	Anomalous radioactivity at base of welded tuff.
5	Ultra Mining Co. Claims	S.10 T.15N.,R.48E.	No information available.
6	Gamma Group	S.35 T.16N.,R.37E.	Uranium mineralization in lignitic units of Tertiary sediments.
7	Graduation, Venus, and Jupiter Claims	S.11 T.17N.,R.43E	Anomalous radioactivity in black carbonaceous unit of the Ordovician Valmy Formation.
8	Birch Creek Area	S.(?) T.18N.,R.44E.	Monazite-bearing placer.
9	Lowboy Mine	S.13 T.18N.,R.44E.	Secondary and primary (?) uranium mineralization at or near contact of Jurassic granodiorite and metasediments of the Ordovician Vinini Formation.
10	Johnson Canyon Claims	S.12 T.18N.,R.43E.	Slightly anomalous radioactivity near fault zone in silicified sediments of the Cambrian Crane Canyon Sequence.
11	Apex Mine	S.1 T.18N.,R.43E.	Primary and secondary mineralization at or near contact of Jurassic quartz monzonite stock and metasediments of the Cambrian Gold Hill Formation.
12	El Dorado Claim	S.6 T.18N.,R.44E.	Autunite and anomalous radioactivity along a fracture zone in quartz monzonite.
13	Edna Prospect	S.17,18 T.19N.,R.45E.	Slightly anomalous radioactivity associated with iron-staining and quartz stringers in Jurassic granitics.
14	F. Escobar Claims	S.28 T.19N.,R.45E.	Radioactivity associated with iron-stained fault-breccia zone in metasediments of the Ordovician Vinini Formation near contact with Jurassic intrusives.

Table 1. (cont.)

Map No.	District or claim	Location	Type of deposit
15	Willys Group	S.11(?) T.19N.,R.42E.	Anomalous radioactivity in silicified tuff.
16	Patriot Group	S.6 T.19N.,R.40E.	Autunite occurs in iron-stained fractures in Tertiary rhyolitic volcanics.
17	Arizona Property	S.5(?) T.19N.,R.44E.	No information available.
18	Mustang Group	S.25(?) T.20N.,R.39E.	Anomalous radioactivity associated with opalized stringers, fractures, and tuffaceous unit.
19	Boon Uranium Claims	S.17,20(?) T.22N.,R.44E.	Autunite occurs along fractures in chert beds in Tertiary tuff.
20(a)	Lee Rene Claims	S.17 T.23N.,R.43E.	Anomalous radioactivity in tuffaceous siltstone. High radioactivity is locally associated with fault zones.
(b)	Rex Jeans Claims	S.17 T.23N.,R.43E.	Anomalous radioactivity associated with iron-stained fractures in rhyolite tuff.
21	DBA Hart	S.10 T.23N.,R.43E.	No information available.
22	Hart Group	S.4 T.23N.,R.43E.	Irregular areas of radioactivity in tuffaceous, calcareous Tertiary sediments.
23	Two Bit Group	S.36 T.24.,R.43E.	Anomalous radioactivity in tuffaceous lacustrine sediments.

SAMPLE-SITE SELECTION AND COLLECTION

Proper selection of the sample site is the most important technical aspect of sample acquisition. The sites must be related to the geology and the mobility of uranium in a given environment. Because uranium is measured in parts per million, seemingly insignificant sources of contamination can mask the natural background. Therefore, sample sites were selected to best represent the acquisition areas and minimize the contamination by environmental pollution (agriculture, roads, mines, etc.), windblown sediment, and lake deposits.

Emphasis was placed on stream sampling along the range fronts. For relatively small drainages, a single sample was collected at the canyon mouth. In larger drainage systems, samples were taken up the canyons and along tributaries to obtain representative coverage. Sampling on the fan aprons and valley lowlands was biased toward groundwater samples; dry stream samples were collected only along the most prominent, active stream channels.

To minimize windblown contamination, dry sediments samples were sieved to eliminate the fine-grained, wind-transported fraction. The 500-1000- μm fraction was retained for analysis.

QUALITY ASSURANCE

FIELD SAMPLING

Our field quality assurance program provides a reasonably high level of confidence in the quality of the samples returned to LLL for analysis. Contract specifications on sample collection impose strict requirements for methods and procedures. The specifications attempt to provide uniformity in the sampling process and thus minimize errors. To encourage a high level of professionalism, sampling personnel are required to place a biodegradable tag at the site and photograph the exact sample location. In addition, sampling personnel must ensure that the samples are not contaminated and represent the area being sampled and that the site locations are plotted accurately on the field map. Contract personnel must select suitable alternative sites should the original site prove to be inadequate or inaccessible. All persons collecting samples must be graduate geologists or possess a minimum of two years formal education in geology plus one year field experience.

Lawrence Livermore Laboratory personnel occasionally accompanied the contract sampling crews, and LLL geologists resampled approximately 5% of the project sites. Sites selected for quality assurance were biased toward sites that were relocated by the contractor. More than 95% of the resample sites were accurately located on the field maps; the remaining sites were plotted within 180 m of the correct location.

The duplicate samples are reported in the Appendix B. Comparison of the sediment duplicate and original sample results show an average variance of 9% for the uranium values. This 9% also takes into account the natural variability of the sample. Therefore, the reported values are within the same magnitude of uncertainty as the analytical variance.

LABORATORY ANALYSIS

Sediment samples were analyzed by neutron activation analysis (INAA) and delayed neutron counting (DNC) with the automated transport and detection system installed at the LLL Pool Type Reactor (LPTR). Water samples were analyzed by optical emission spectrometry (OES) using an inductively coupled plasma (ICP) source.

The reduction of INAA data uses the GAMANAL code⁴ to interpret the gamma spectra and the NURDAC code^{5,6} to produce elemental concentration values. Detection limits for the elements are reported in Table 2.

Six types of samples are analyzed for calibration of the analytical systems and for quality assurance:

- Elemental standards are used to calibrate emission spectrometry and spectrophotometry and determine physical parameters for the activation analysis system.
- Blanks are analyzed concurrently with samples to detect any source of contamination.
- Splits of samples are analyzed to determine whether the results of the analytical systems are reproducible. These data are included in the microfiche tables. Reproducibility is generally within the estimated standard deviation of the measurement.
- Quality control samples are analyzed by all systems at an approximate ratio of 1:30 to check the precision of the measurements and to detect long term drift. Results are summarized in Table 2.
- Standard reference samples are analyzed to determine the accuracy of measurements in actual samples. Results are tabulated in Table 3.
- Interlaboratory comparison samples for uranium are distributed by DOE to the national laboratories participating in the NURE Program. Analyses of these samples are reported monthly by the Ames Laboratory.¹⁸ This data is summarized in Table 4.

Table 2. Instrumental neutron activation analysis sediment quality assurance data summary.

Element	Detection limit, ^a ppm	Precision, ^b %	Accuracy ^c % bias
Ag	500	ND ^d	ND
Al	50	10	-7
As	3	6	-1
Ba	100	13	ND
Br	5	ND	NR ^e
Ca	20,000	7	ND
Ce	15	ND	NR
C1	50	ND	NR
Co	3	5	+6
Cr	30	8	+13
Cs	30	5	NR
Dy	0.2	10	NR
Eu	0.1	16	NR
Fe	2,000	5	5
Hf	1	14	NR
Hg	500	ND	NR
K	2,000	7	ND
La	0.3	4	NR
Lu	2	22	NR
Mg	50	10	+4
Mn	0.2	4	+11
Na	20	4	0
Rb	150	4	ND
Sb	0.5	4	-5
Sc	0.1	5	-1
Sm	0.3	4	NR
Sr	40	ND	ND
Ta	3	20	NR
Tb	20	ND	NR
Th	2	4	-6
Ti	200	8	+2
U	2	12	-4
V	1	5	+4
W	30	ND	NR
Yb	3	13	-6
Zn	200	16	ND

^aApproximate lower limits for detection in "typical" sediment samples.

^bPrecision is an estimate of the reproducibility of analyses. Values entered are percent standard deviation of a measurement for 30 analyses of control samples over a five-month period. (See footnote c, Table 4.)

^cAccuracy is a measure of analytical agreement with "known" values. Entries are the percent deviation from unity of the ratio of measured to known values, averaged for 15 measurements obtained over a five-month period. (See footnote d, Table 4.) Known values were obtained from the Canadian Association for Applied Spectroscopy.

^dND = not detected.

^eNR = not reported for standards.

Table 3. Optical emission spectrometry water quality assurance data summary.

Element	Detection limit, ^a ppb	Precision, ^b % bias
Al	12	+16
As	20	+34
Ca	30	+10
Cd	4	+2
Co	4	-1
Cu	4	+6
Fe	4	+5
K	70	+7
Mg	5	+5
Na	5	+1
Ni	50	-13
Pb	40	-2
V	4	+2
Zn	3	+20

^aApproximate lower limits of detection in water samples. Values given are four times the standard deviation of the background in each elemental channel.

^bPrecision is a measure of analytical agreement with known values. Entries are the percent deviation from unity of the ratio of measured to known values averaged for 15 measurements. (See footnote d, Table 4.) Known values were obtained from the Environmental Protection Agency.

GEOCHEMISTRY

INTRODUCTION

The sediment and water samples were collected from many different geologic environments in the Millett quadrangle and have widely diverse chemical compositions. In a large data set such as this, it is necessary to organize the samples into useful, independent populations.

Each sediment sample was classified according to the type of source rock from which the sediment detritus originated. Source rocks were grouped into nine general lithologic classes: basic volcanics, intermediate volcanics, acidic volcanics, intrusives, chert, carbonate, pre-Tertiary clastics, Tertiary clastics, and alluvium. Statistical treatment of data in each group included sorting and ranking of elemental concentrations, cross-correlation analysis, principal component analysis, and discriminant analysis.

The objectives of this section are:

- To divide samples into general lithologic groups.
- To document the characteristic trace element geochemistry of each rock type.
- To describe the nature of the uranium content of each group.
- To define anomalous uranium concentrations in the Millett quadrangle.
- To determine areas favorable for uranium mineralization.

Table 4. Delayed neutron assay for uranium analyses of DOE interlaboratory comparison samples during analytical activity for Millett.

	Water, ppb		Sediment, ppm		
	A2	B2	R1	S1	T1
Number of analyses	10	10	11	12	7
Recommended value ^a	0.98	9.98	5.28	11.0	95
Mean value ^b	1.07	9.44	5.38	10.3	90.3
Standard deviation of a measurement, ^c %	5.6	4.3	4.0	2.5	2.1
Bias, ^d ± %	+9	-5	-2	-6	-5

(a) Recommended values for samples A2 and B2 are from isotope dilution mass spectrometry (Ref. 18). Values for samples R1 and S1 are the average of results from two independent laboratories. The value for sample T1 is estimated from synthesis parameters.

(b) Mean of LLL measurements.

$$(c) \frac{100}{\bar{x}} [\sum(x-\bar{x})^2/(n-1)]^{1/2}$$

$$(d) \left[\frac{\text{mean value}^b}{\text{recommended value}^a} - 1 \right] \cdot 100$$

GEOCHEMISTRY OF THE ROCK TYPES

Basic Volcanics

Basic volcanics are Late Tertiary and Quaternary basalt and olivine basalt flows. The volcanic units locally include interbedded nonmarine sediments and andesite flows. The group has uranium concentrations ranging from 2.64 to 17.15 ppm, with a median of 4.29 ppm. The median Th/U ratio is 3.24 (Table 5).

Relative to the other rock types in the Millett quadrangle, basic volcanics have high concentrations of aluminum, manganese, lutetium, and antimony and low concentrations of vanadium and ytterbium (Table 6).

The uranium in the basic volcanics is probably associated with resistates and adsorption onto clays, as evidenced from the high cesium correlation (0.68). There is no evidence of adsorption onto iron oxides.

Intermediate Volcanics

The intermediate volcanic group consists of Tertiary and Quaternary andesites, andesitic-basalts, latite, and dacite flows. The group has a uranium concentration ranging from 1.51 to 29.38 ppm, with a median of 4.32 ppm. The median Th/U ratio is 4.02 (Table 5).

The intermediate volcanics have high relative concentrations of dysprosium, europium, lanthanum, lutetium, cerium, hafnium, thorium, rubidium, manganese, barium, potassium, and aluminum and are low in cesium and antimony (Table 6).

Uranium does not correlate well with any element. Some samples with high uranium content are high in hafnium and the rare earths, suggesting that the uranium is locked up in the resistate phase.

Table 5. Uranium (ppm) and thorium (ppm) concentrations for the various rock types of the Millett quadrangle.

Rock type	Uranium, ppm			Thorium, ppm			Th/U (median)	No. of samples
	Minimum	Median	Maximum	Minimum	Median	Maximum		
Basic volcanics	2.64	4.29	17.15	6.50	15.14	26.06	3.24	34
Intermediate volcanics	1.51	4.32	29.38	5.24	17.51	41.65	4.02	131
Acidic volcanics	1.41	4.78	248.20	5.50	18.01	36.06	3.66	451
Intrusives	1.24	3.65	37.91	4.53	12.73	48.15	3.42	87
Tertiary clastics	1.28	4.74	8.72	5.10	15.29	48.15	3.42	81
Pre-Tertiary clastics	0.05	3.26	10.58	1.71	12.16	25.41	3.80	67
Chert	1.67	3.99	18.40	3.41	11.41	26.72	2.87	123
Carbonate	1.08	2.88	7.60	1.71	9.14	22.49	3.15	96
Alluvium	1.17	4.19	37.91	2.52	15.70	33.96	3.70	334
Radioactive occurrences	1.70	4.76	48.64	5.02	15.00	25.49	3.16	40

Acidic Volcanics

The acidic volcanics are predominantly rhyolitic welded to nonwelded ash-flow tuff, with subordinate rhyolitic to rhyodacitic flows, water-laid tuff, and tuffaceous sediments. Uranium ranges from 1.41 to 248.20 ppm, with a median concentration of 4.78 ppm. The median Th/U ratio is 3.66 (Table 5).

Acidic volcanics have high relative concentrations of barium, potassium, sodium, rubidium, lanthanum, cerium, europium, hafnium, and uranium. The group is low in lutetium, antimony, iron, magnesium, scandium, titanium, and vanadium (Table 6).

There is evidence for three modes of origin of the uranium. High uranium concentrations are associated with high concentrations of cerium, lanthanum, hafnium, thorium, and ytterbium, (resistate phase), aluminum, potassium, cesium (clay adsorption), iron, scandium, titanium, and vanadium (iron oxide adsorption). The resistate phase is the most common.

Intrusives

Mesozoic quartz monzonite to granodiorite is the dominant intrusive rock in the Millett quadrangle. Small rhyolite and dacite intrusions occur locally. Intrusives have a median concentration of 3.65 ppm uranium, which ranges from 1.24 to 37.91 ppm. The median Th/U ratio is 3.42 (Table 5).

The group has high relative concentrations of sodium, cesium, rubidium, iron, scandium, titanium, and magnesium and are low in barium, cerium, dysprosium, and europium (Table 6).

Most of the high uranium values correlate well with the rare earths, suggesting that uranium exists in the resistate phase. There is some evidence for adsorption of uranium by iron oxides.

Chert

This lithologic group consists of stratigraphic units that are predominantly chert with subordinate amounts of clastics, greenstone, and pyroclastics. The rocks are Paleozoic, and marine and

Table 6. Median elemental concentrations (ppm) of sediment samples from various rock types in the Millett Quadrangle.

	Basic volcanics	Intermediate volcanics	Acidic volcanics	Intrusives	Tertiary clastics	Pre-Tertiary clastics	Chert	Carbonate	Alluvium	Radioactive occurrences
Al*	70.35	68.96	67.05	68.96	66.45	62.77	52.54	47.32	64.81	62.58
Ba*	1.31	1.42	1.47	1.25	1.51	1.06	1.34	1.15	1.36	1.33
Ce	75.93	93.34	86.16	64.73	81.88	75.13	63.96	58.10	79.50	81.39
Cs	6.84	5.70	6.66	7.06	7.09	7.90	5.89	6.19	6.67	8.20
Dy	5.31	5.96	5.62	5.24	5.99	5.78	5.87	4.95	5.87	5.84
Eu	0.90	1.13	1.02	0.88	1.03	1.01	0.83	0.72	0.99	0.84
Fe*	20.41	22.03	16.33	22.05	17.38	31.93	27.15	20.23	19.65	17.58
Hf	5.42	6.01	5.61	5.43	5.79	5.57	5.30	4.65	5.38	5.33
K*	43.47	44.15	49.53	42.29	45.99	31.64	32.23	23.30	42.33	42.67
La	42.38	52.52	47.52	36.42	46.63	42.28	37.27	33.47	44.18	41.73
Lu	0.54	0.54	0.50	0.49	0.50	0.57	0.54	0.42	0.53	0.42
Mg*	8.12	8.68	6.46	9.59	7.85	12.96	10.73	11.57	8.16	7.89
Mn*	0.58	0.59	0.57	0.53	0.59	0.50	0.52	0.40	0.57	0.57
Na*	19.80	21.25	22.39	22.59	21.77	10.08	6.04	4.28	18.59	19.12
Rb	116.40	136.20	135.50	133.70	123.30	130.00	113.40	98.72	122.20	134.60
Sb	2.94	1.86	2.21	2.60	2.75	3.30	3.36	2.66	2.48	3.04
Sc	5.05	5.80	4.55	6.86	5.09	9.82	8.75	5.70	5.65	5.23
Ti*	2.59	2.90	2.11	2.71	2.08	3.37	2.85	2.11	2.41	2.31
Th	15.14	17.51	18.01	12.73	15.40	12.90	11.41	9.14	15.70	15.00
U	4.29	4.32	4.78	3.65	4.74	3.26	3.99	2.88	4.19	4.76
V	43.04	61.45	32.34	63.29	47.67	101.80	145.20	73.02	59.52	60.25
Yb	2.18	2.33	2.21	2.22	2.36	2.40	2.43	1.87	2.35	2.47

*Parts per thousand (PPK).

were deposited in a eugeosynclinal environment (western assemblage). The sediments have locally undergone variable degrees of metamorphism. Uranium concentration ranges from 1.67 to 18.40 ppm, with a median of 3.99 ppm. The median Th/U ratio is 2.87 (Table 5).

This group has high relative concentrations of iron, scandium, vanadium, antimony, lutetium, titanium, magnesium, dysprosium, and ytterbium. The rocks have low concentrations of aluminum, potassium, sodium, manganese, rubidium, cesium, cerium, lanthanum, and thorium (Table 6).

High uranium concentrations are associated with high Fe-Ti-Sc-V concentrations, indicative of iron-oxide adsorption. Resistate uranium is present but minor.

Carbonate

Carbonates consist predominantly of Paleozoic, marine, miogeosynclinal (eastern assemblage) limestone with minor dolomite. Uranium concentration ranges from 1.08 to 7.60 ppm, with a median of 2.88 ppm. The median Th/U ratio is 3.15 (Table 5).

The carbonate group has high relative concentrations of magnesium and vanadium and low concentrations of cesium, lutetium, aluminum, barium, cerium, dysprosium, europium, hafnium, potassium, lanthanum, manganese, sodium, rubidium, titanium, thorium, uranium, ytterbium (Table 6).

Uranium occurs in the resistate phase and as adsorption on clays. Uranium correlates well with thorium (0.73), lanthanum (0.68), cerium (0.66), dysprosium (0.63), potassium (0.79), aluminum (0.74), and cesium (0.62).

Pre-Tertiary Clastics

This rock group consists predominantly of Paleozoic marine clastics of the eastern assemblage. Two marine clastic units of the western assemblage are included here. A nonmarine Cretaceous unit is also included. The rocks are mainly fine-grained quartz arenite, feldspathic arenite, arkose, siltstone and shale. The rocks are locally metamorphosed. Uranium ranges from 0.05 to 10.58 ppm, with a median concentration of 3.26 ppm. The median Th/U ratio is 3.80 (Table 5).

The group has high relative concentrations of iron, scandium, titanium, vanadium, magnesium, cesium, antimony, rubidium, and lutetium and is low in barium, potassium, manganese, sodium, and uranium (Table 6).

Uranium does not correlate well with any element. There is some evidence of uranium association with resistate phases and clay adsorption.

Tertiary Clastics

The Tertiary clastics consist of tuffaceous sedimentary deposits interbedded locally with nonwelded ash-flow and air-fall tuffs. The Tertiary clastics were deposited in lacustrine and fluvial environments. Uranium concentration ranges from 1.28 to 8.72 ppm, with a median of 4.74 ppm. The median Th/U is 3.42 (Table 5).

The rocks have high relative concentrations of barium, cerium, dysprosium, europium, hafnium, potassium, lanthanum, manganese, sodium, and uranium and are low in magnesium, scandium, titanium, iron, and vanadium. The major source for the deposits was Tertiary rhyolite flows and ash-flow tuffs, with subordinate detritus from the Paleozoic sediments. The elemental concentrations of the Tertiary clastics most closely resemble the acidic volcanics (Table 6).

Uranium correlates well with thorium (0.68), dysprosium (0.65), rubidium (0.64), potassium (0.61), and ytterbium (0.60). Uranium is associated with resistate phases and clay adsorption.

Alluvium

The alluvium group contains all of the Tertiary and Quaternary alluvial deposits. Uranium concentration ranges from 1.17 to 37.91 ppm, with a median concentration of 4.19 ppm. The median Th/U ratio is 3.70 (Table 5).

Relative elemental concentrations are moderate and highly variable, depending on the nature of the local source area. Uranium does not correlate well with the other elements, and there is no single mode of origin evident for alluvium.

Summary

The volcanics and Tertiary clastics have the highest background (median) uranium concentrations. The uranium concentration increases with increasing silica content in the volcanics. The Tertiary nonmarine clastics have high background uranium and are geochemically very similar to the acidic volcanics. This is because of the close proximity of the clastic deposits to the volcanics, which provided a major source of detritus for the sediments.

The miogeosynclinal sediments (pre-Tertiary clastics and carbonates) have the lowest uranium concentrations. The carbonate group has the lowest relative concentrations of most of the trace elements. The eugeosynclinal sediments (chert) have higher uranium content than the miogeosynclinal deposits. Chert and pre-Tertiary clastics are characterized by high concentrations of iron, scandium, titanium, vanadium, and magnesium.

Uranium is associated most closely with the rare earths, thorium, and hafnium, which suggests that it occurs predominantly in resite minerals. Some uranium appears to be adsorbed by clays (K-Al-Cs) and iron oxides (Fe-Sc-Ti-V-Mn). A more detailed discussion of the mode of occurrence of uranium is not practical in a large reconnaissance survey like the Millett quadrangle.

IDENTIFICATION OF KNOWN URANIUM DEPOSITS

Samples located downstream from known radioactive occurrences (Fig. 3) were studied to determine whether anomalous elemental values would identify the uranium mineralization. Sediment samples have relatively high median uranium concentrations (4.76 ppm), with a maximum of 48.64 ppm. The median Th/U ratio is 3.16 (Table 5), which is not anomalous for the Millett quadrangle.

The sediment samples are characterized by relatively high concentrations of cerium, cesium, rubidium, antimony, ytterbium, and uranium and are low in iron, magnesium, and lutetium. Uranium correlates best with dysprosium (0.74) and thorium (0.57).

The water samples have a median uranium concentration of 5.22 ppb, with a range of 3.72 to 23.88 ppb. This median concentration is much greater than the median uranium concentration (1.92 ppb) for the entire Millett water sample set. Anomalous high uranium values were found in both groundwater and surface samples, suggesting that the high uranium is not simply the result of mine dump contamination.

Uranium is the only element that is anomalous in both sediment and water samples and is thus the best indicator of uranium mineralization in the Millett region. Water samples are optimum in identifying uranium mineralization, indicating the uranium is readily leachable.

GEOGRAPHICAL URANIUM DISTRIBUTION

The areal distribution of water and sediment uranium concentrations is found in overlays 1B and 2B (in pocket). Samples with high uranium values are plotted on Fig. 4 and 5, along with the partial geology of the quadrangle. High uranium concentrations are arbitrarily set at greater than 10.0 ppm for sediment samples and greater than 5.0 ppb for water samples.

In the central Toiyabe Range near Austin, seven sediment samples have uranium concentrations of 10.0 to 100.0 ppm (Fig. 4) and 19 water samples have greater than 5.0 ppb (Fig. 5). The high uranium values are associated with quartz monzonite of the Jurassic Austin Pluton, which intrudes Paleozoic metasediments of the transitional assemblage. Most of the high uranium values occur near the contact of the intrusives with the metasediments.

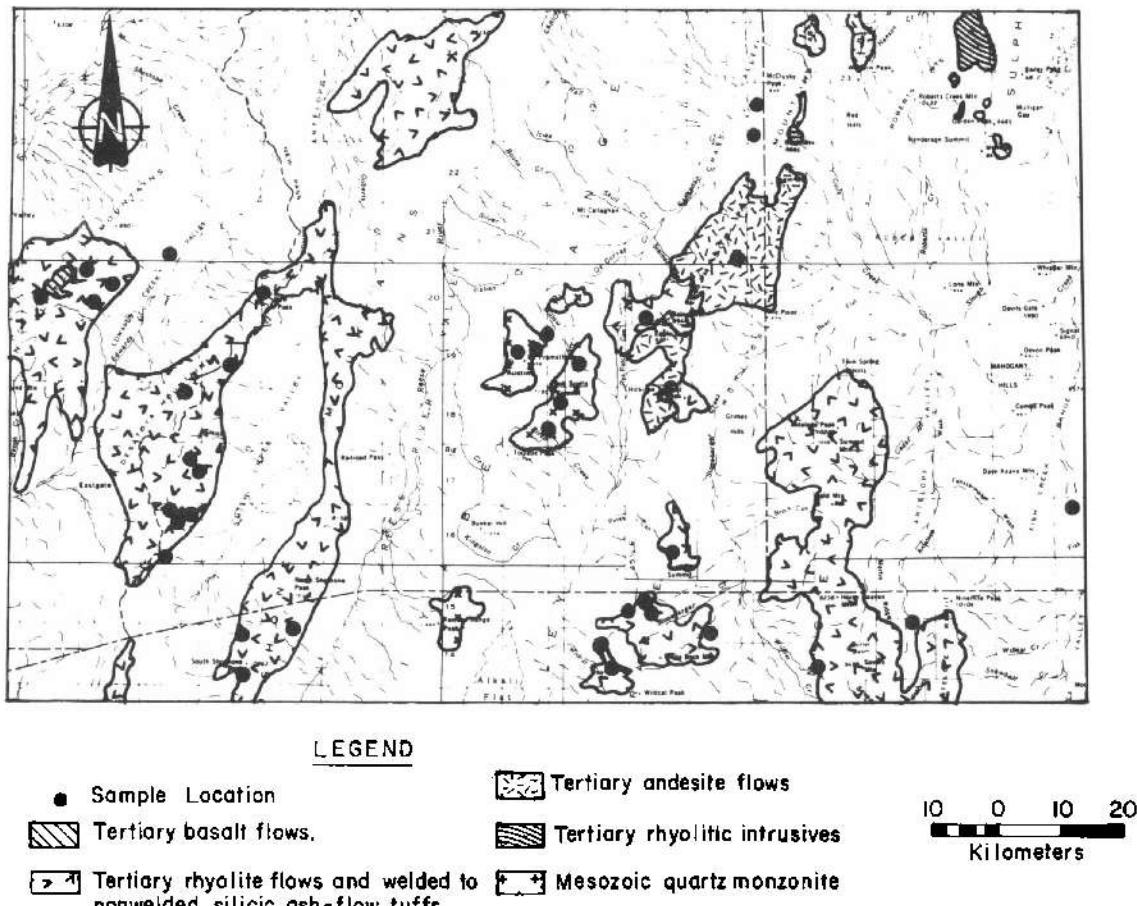


Fig. 4. Distribution of sediment samples with greater than 10.0 ppm uranium.

In the Desatoya Mountains, nine sediment samples have greater than 10.0 ppm uranium (Fig. 4), and five water samples have 5.0 to 20.0 ppb uranium (Fig. 5). The high values are associated with Oligocene-Miocene rhyolitic ash-flow tuff.

In the northern Toquima Range, seven sediment samples have 10.0 to 100.0 ppm uranium (Fig. 4) and five water samples have 5.0 to 100.0 ppb uranium (Fig. 5). High values are associated with the Oligocene Tuff of Moore's Creek and Miocene Tuff of Meadow Creek. The rocks are welded to nonwelded ash-flow tuff.

In the central Clan Alpine Mountains, five sediment samples have 10.0 to 20.0 ppm uranium (Fig. 4). High uranium concentrations are associated with the contacts of Tertiary rhyodacite flows and Tertiary basalt flows.

In the southern Shoshone Range, three sediment samples have 10.0 to 50.0 ppm uranium (Fig. 4). The uranium is associated with Oligocene air-fall tuff and rhyodacite flows and Miocene welded ash-flow tuff and andesite flows.

THORIUM-TO-URANIUM RATIOS

In a large data set such as the Millett quadrangle, it is necessary to differentiate between anomalous and background uranium concentrations. Rosholt and others¹⁹ have shown that uranium is released during the weathering of rhyolitic volcanics, while the thorium content remains constant.

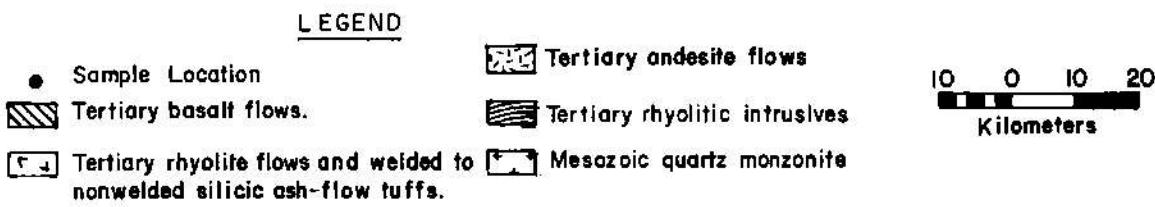
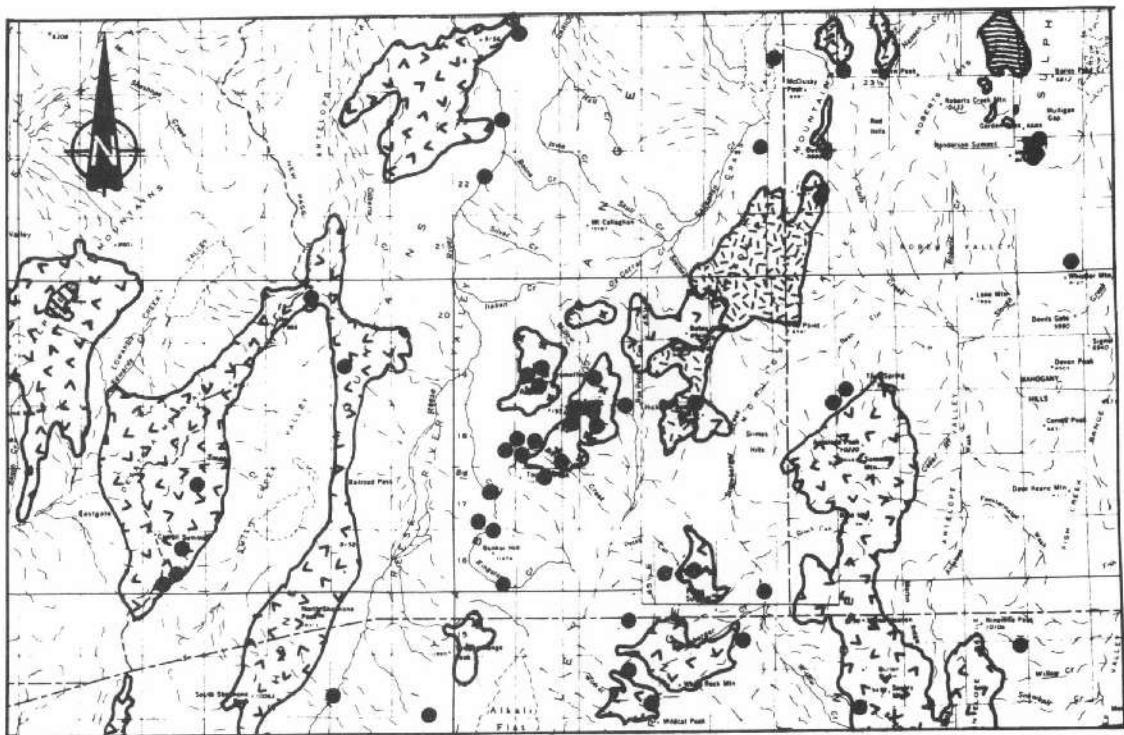


Fig. 5. Distribution of water samples with greater than 5.0 ppm uranium.

Areas of redeposition and concentration of the mobile uranium are considered worthy of further study. The variation of the relatively insoluble thorium to soluble uranium, considered as Th/U ratio, is useful in defining anomalous uranium concentrations in the large population.²⁰

The Th/U ratios were calculated for each rock type. Anomalous high and low ratios were determined from the frequency distribution for each rock class. Anomalous ratios are:

	Low	High
Basic volcanics	<1.5	>5.0
Intermediate volcanics	<2.5	>6.5
Acidic volcanics	<2.0	>5.5
Intrusives	<1.5	>5.5
Tertiary clastics	<2.0	>4.5
Pre-Tertiary clastics	<2.5	>5.5
Chert	<1.0	>5.0
Carbonate	<1.5	>4.5
Alluvium	<2.0	>5.5

Figure 6 shows the distribution of anomalous low Th/U values for the Millert quadrangle. Anomalous Th/U with uranium concentration greater than 10.0 ppm are mainly associated with

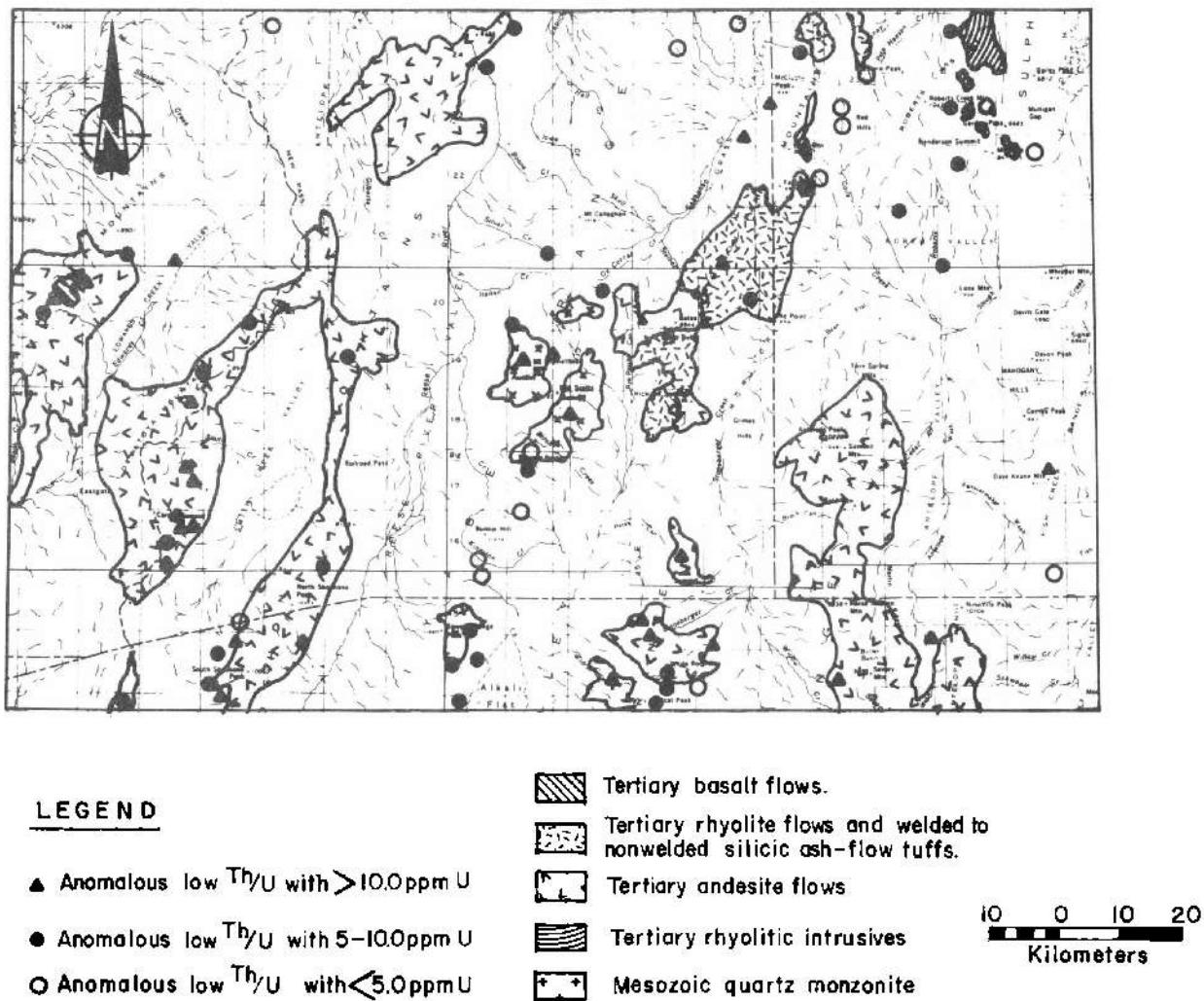


Fig. 6. Distribution of anomalous low-Th/U ratios and corresponding uranium concentration.

Tertiary rhyolite ash-flow tuff. Some anomalous values are also associated with quartz monzonite of the Jurassic Austin Pluton.

Anomalous values with between 5.0 and 10.0 ppm uranium are associated with acidic volcanics, intrusives, and andesite flows. Samples with less than 5.0 ppm occur in Paleozoic metasediments in the Toiyabe Range and near various rock types in the northeastern corner of the quadrangle.

Figure 7 shows the distribution of anomalous high Th/U ratios for the quadrangle. Most of the anomalous samples are located east of the Toiyabe Range. The greatest concentration of sites is associated with the volcanics in the Monitor Range in the southeastern corner of the quadrangle. The volcanics are Tertiary rhyolite flows and silicic ash-flow tuffs (Fig. 7).

It is not known how the lithology of these volcanics compares to the silicic volcanics of the western half of the quadrangle, but the Th/U ratios are significantly higher. The background uranium concentration is generally lower in the eastern half of the quadrangle (Overlay 2B). No reasons for these large-scale trends in background uranium are hypothesized in this report.

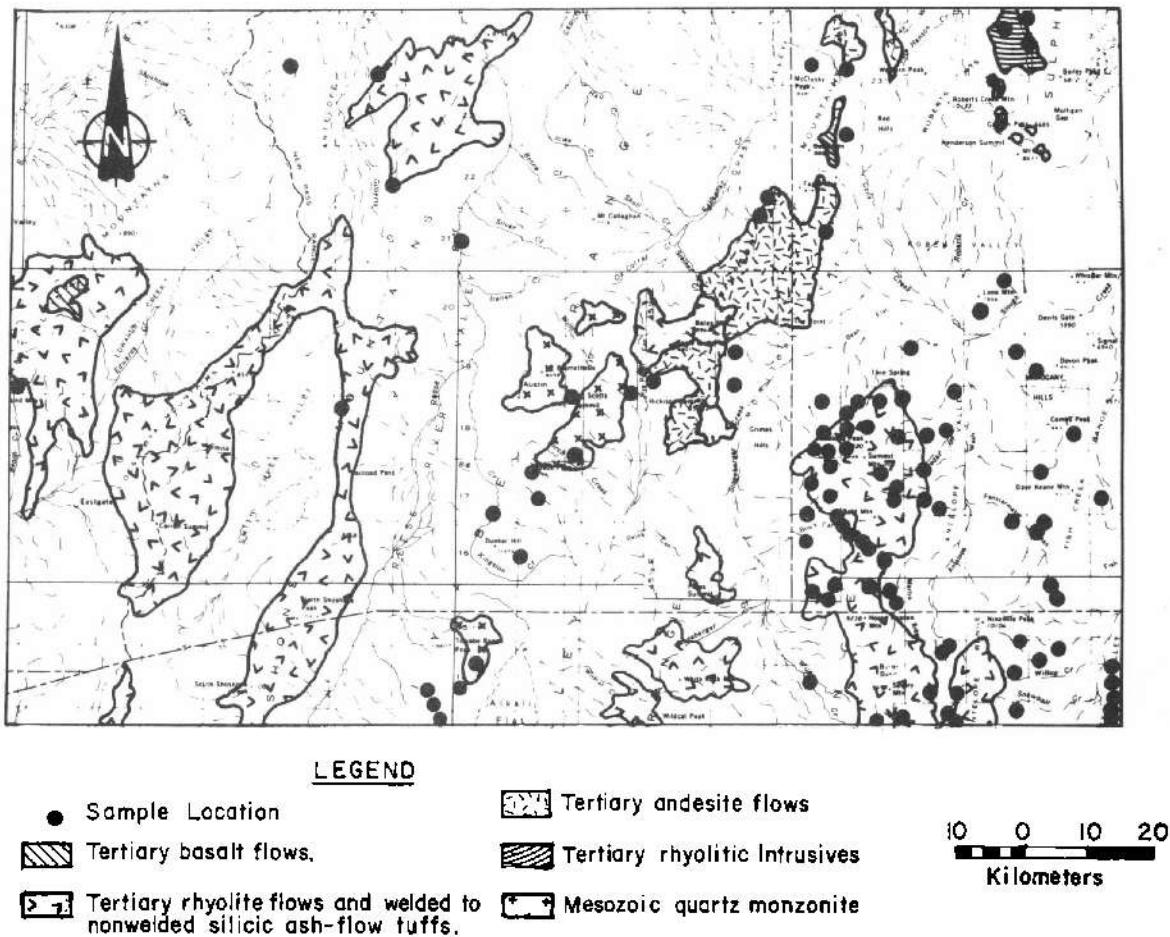


Fig. 7. Distribution of sediment samples with anomalous high-Th/U ratios.

CONCLUSIONS

- The individual rock types in the Millett quadrangle have characteristic uranium and trace element concentrations.
- Acidic volcanics and Tertiary clastics have the highest background uranium concentrations. Western assemblage sediments have moderate background uranium. Eastern assemblage sediments have the lowest background uranium concentrations.
 - Uranium correlates best with the rare earths, hafnium, and thorium in most of the samples, suggesting that uranium exists predominantly in the resistate phase.
 - Uranium is the best indicator of uranium mineralization in the Millett quadrangle. Water samples are best for identifying areas of known uranium mineralization, suggesting that the uranium is readily leachable in the deposits.
 - Sediment samples containing the highest uranium concentrations occur near Tertiary rhyolite flows and silicic ash-flow tuff. Water samples having the highest uranium concentration are located near intrusive-metasedimentary contacts in the Toiyabe Range.
 - Th/U ratios are used to differentiate anomalous and background uranium concentrations.
 - Anomalous low Th/U ratios with greater than 5.0 ppm uranium are located near Tertiary silicic volcanics and near the Jurassic Austin Pluton in the Toiyabe Range. These areas warrant further study.

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APPENDIX A

DATA ORGANIZATION AND DEFINITIONS

DATA PRESENTATION

ORGANIZATION

The numerical results of this reconnaissance survey are presented in three hardcopy tables (Appendix B), in microfiche tables (back-cover pocket), and in seven vellum overlays (back-cover pocket). In addition, frequency histograms and cumulative frequency plots of the uranium and thorium concentrations, water conductivity, and Th/U ratios are included in the back of this appendix.

HARDCOPY TABLES

Selected results of this study are presented in the tables in Appendix B. Additional data on the trace elements for each of the samples is reported in the microfiche tables. The titles and data reported in each of the three tables are given below.

Sediment analyses; dry and stream sites given in Table B-1.

LLL sample number
DOE sample number
Sample date
Sample source and condition
Sieve fraction size, upper limit
Sieve fraction size, lower limit
Possible contamination
Quality-control, cross-reference number
Uranium concentration, ppm
Thorium concentration, ppm

Water analyses; river, stream, and lake sites given in Table B-2.

LLL sample number
DOE sample number
Sample date
Sample source and condition
Water temperature, °C
pH meter
Specific conductance, $\mu\text{mho}/\text{cm}$
Total alkalinity
Phenolphthalein alkalinity
Possible contamination
Uranium concentration, ppb
Quality-control, cross-reference site number

Water analyses; springs and wells given in Table B-3.

LLL sample number
DOE sample number
Sample date
Sample source and condition
Water temperature, °C
Well depth-type casing
pH meter
Specific conductance, μ mho/cm
Total alkalinity
Phenolphthalein alkalinity
Possible contamination
Uranium concentration, ppb
Quality-control, cross-reference number

MICROFICHE TABLES

The additional element data gathered for each sample are presented in tables on microfiche film. These tables contain data from neutron activation analyses, special chemistry, and emission spectra analyses. The table titles are exactly as in the hardcopy tables, and the columnar entries of the hardcopy tables are repeated as the first part of each microfiche table. This is followed by the element values arranged in alphabetical order according to the element's proper name. Because of the amount of data, the tables are subdivided into several parts presented on separate pages.

OVERLAYS

Full-size vellum overlays for use with National Topographic Map Series (NTMS) 1:250,000 scale $1^{\circ} \times 2^{\circ}$ quadrangle are located in the rear pocket of this report. These may be used with the commercially available NTMS map for visual display of the sampling site locations and uranium concentration relative to local geographic features. The NTMS map name and number is given on the overlay. To limit the number of overlays that must be generated for each map, the information presented has been divided into two major classes—waters and sediments. Different sample-site types (stream vs spring or well water, or wet vs dry sediment) are distinguished by using different symbols in association with the site number. The site-type symbol is plotted over the geographic location with the site number plotted beside it. The corresponding concentration-range value is indicated in a separate overlay by a symbol whose shape and size varies with the range value. The symbol set employed here is a slightly modified version of that employed by the Geological Survey of Canada in their hydrogeochemical surveys. Two sets of ranges are employed because the average

uranium trace element concentration is larger by a factor of nearly 10^3 in sediments than in natural waters. The range assignments are shown below.

Water Sample

Uranium (total) concentrations

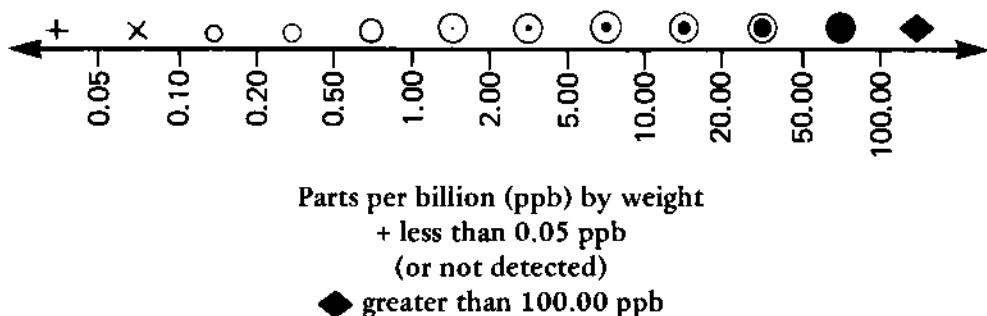


Fig. A-1. Uranium concentrations in water samples.

Sediment Samples

Uranium (total) concentrations

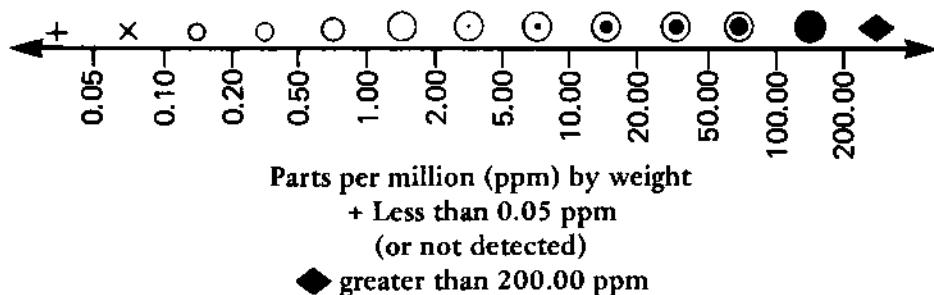


Fig. A-2. Uranium concentrations in sediment samples.

Thorium (total) concentration

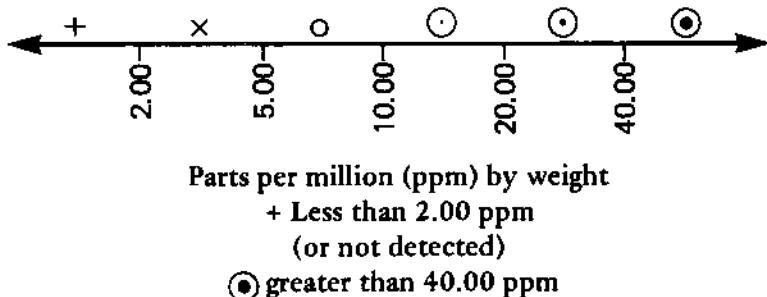


Fig. A-3. Thorium concentrations in sediment samples.

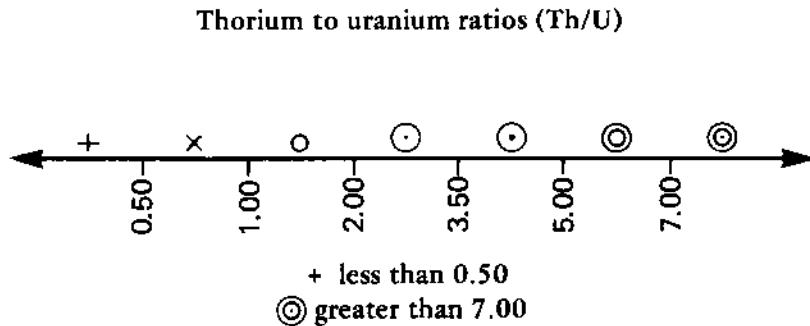


Fig. A-4. Thorium-to-uranium ratios in sediment samples.

The overlays in the rear pocket are:

- Overlay 1A—site locations, water samples.
- Overlay 1B—total uranium concentration, water samples.
- Overlay 1C—field conductivity, water samples.
- Overlay 2A—site locations, sediment samples.
- Overlay 2B—total uranium concentration, sediment samples.
- Overlay 2C—total thorium concentration, sediment samples.
- Overlay 2D—Th/U ratios, sediment samples.

HISTOGRAMS AND CUMULATIVE FREQUENCY CURVES

Histograms and cumulative frequency plots for uranium concentration on Overlays 1B and 2B are shown in Fig. A-5 (water samples) and Figs. A-7 (sediment samples). Histograms and cumulative frequency plots for field conductivity on Overlay 1C are given in Fig. A-6, for thorium concentration of sediments on Overlay 2C in Fig. A-8, and for Th/U ratios of sediments on Overlay 2D in Fig. A-9. These are presented as the logarithm of the elemental concentrations.

DATA DEFINITIONS

This section presents a brief explanation of the columnar entries for the hardcopy and microfiche data tables.

Blanks in the data tables indicate no measurement available. Detection units for INAA determinations are given in the text. Emission spectrometry detection limits are indicated in the data tables by the symbol (<).

DOE SAMPLE NUMBER

Each analyzed field sample is assigned a DOE number consisting of 28 characters. Five characters (dashes) are used to delineate the number subdivision. The subdivision assignments are as follows:

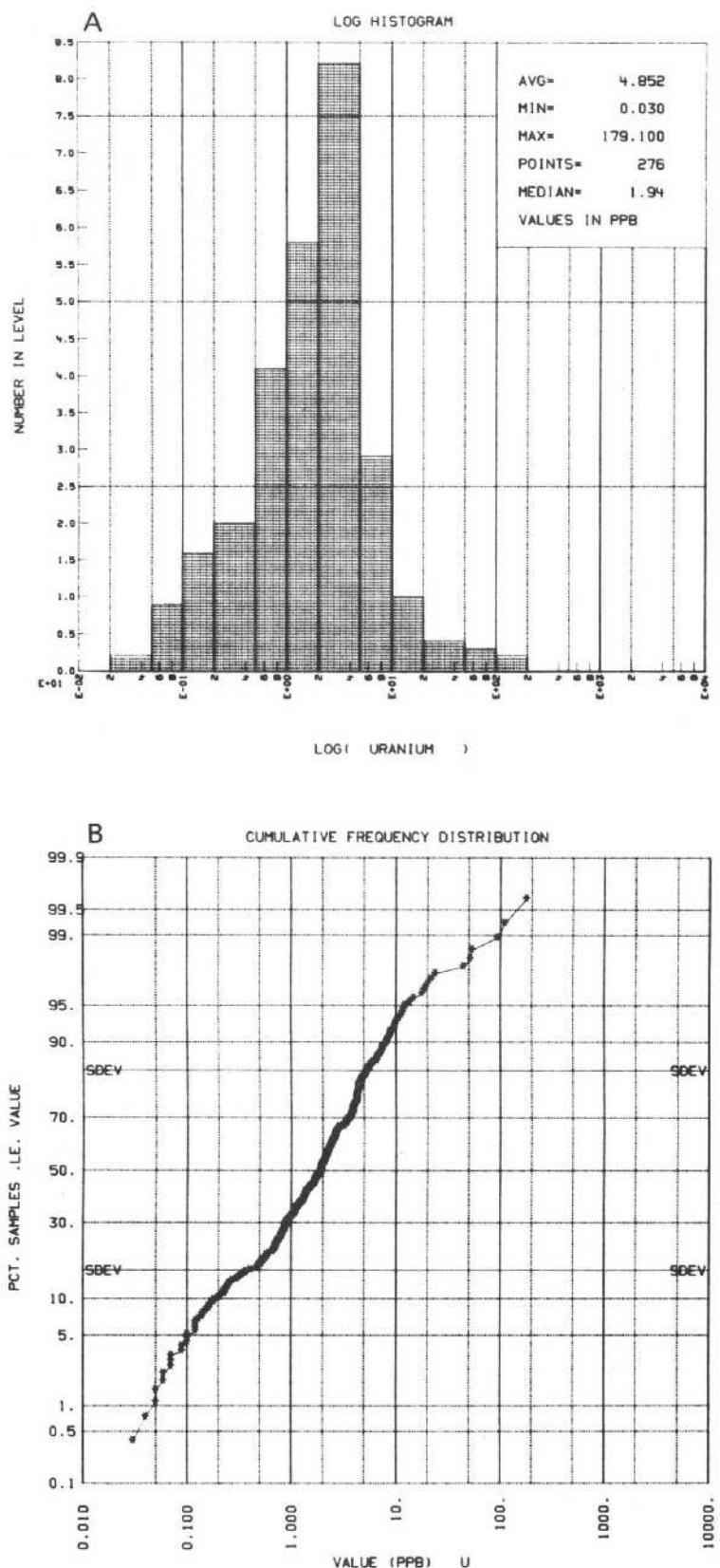


Fig. A-5. Histogram (A) and cumulative frequency distribution (B) of uranium concentrations for water samples plotted on Overlay 1B.

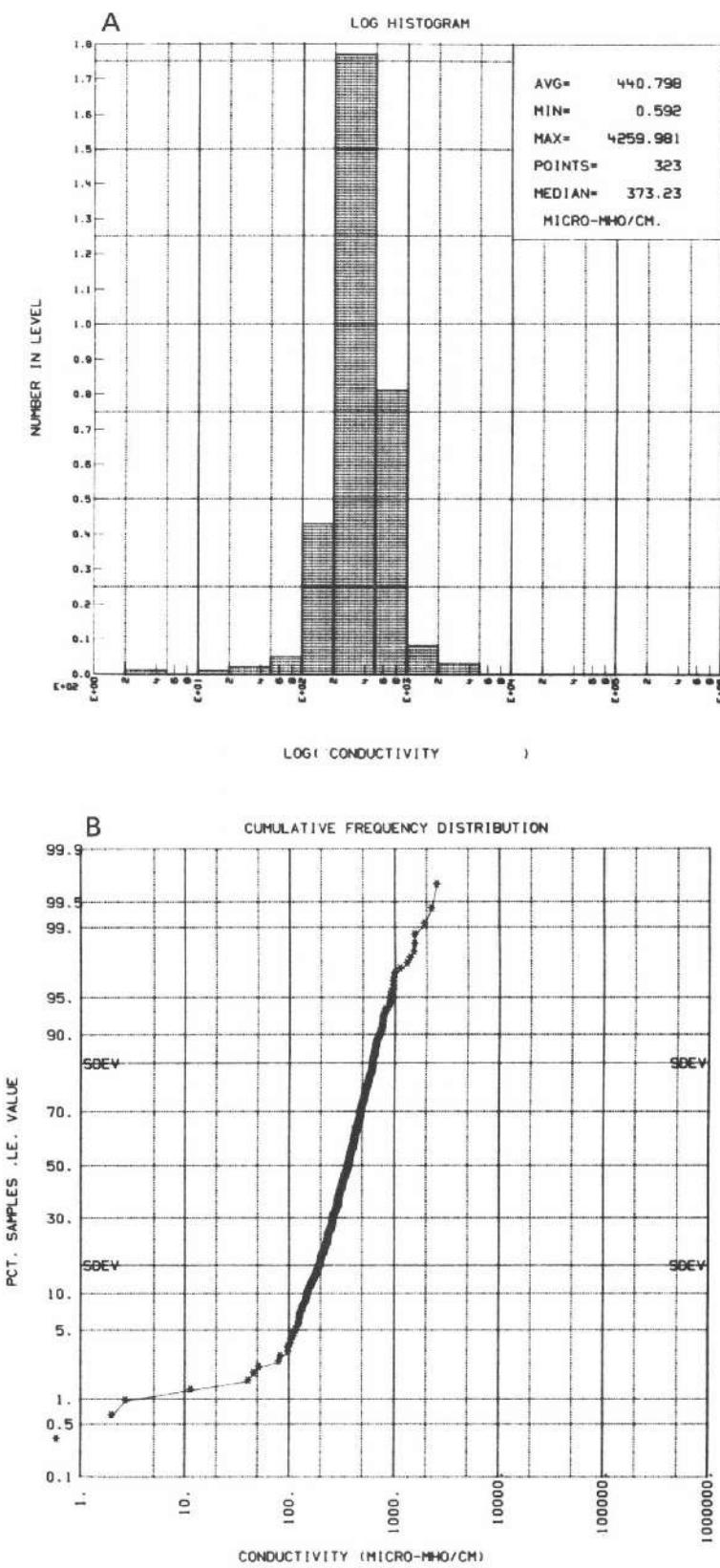


Fig. A-6. Histogram (A) and cumulative frequency distribution (B) of field conductivity for water samples plotted on Overlay 1C.

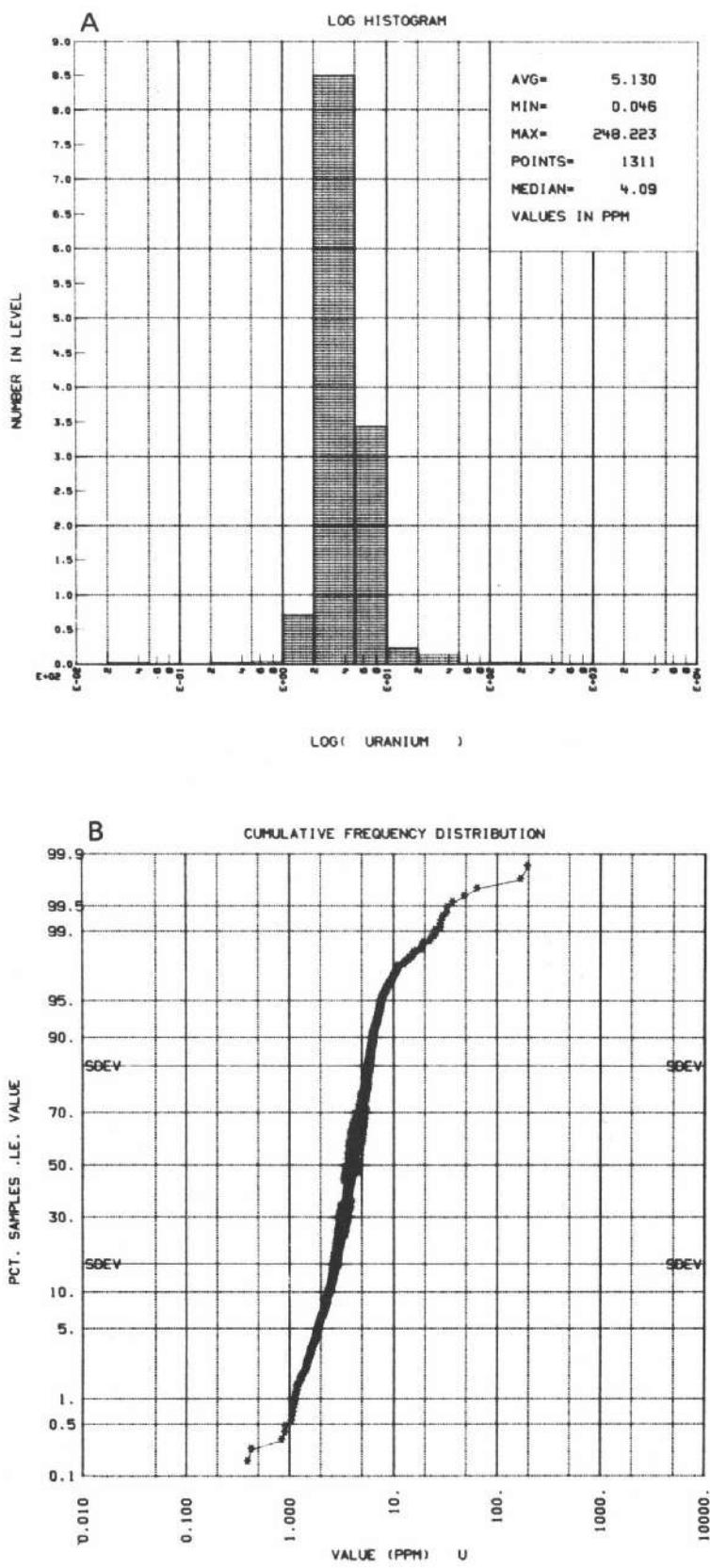


Fig. A-7. Histogram (A) and cumulative frequency distribution (B) of uranium concentrations for sediment samples plotted on Overlay 2B.

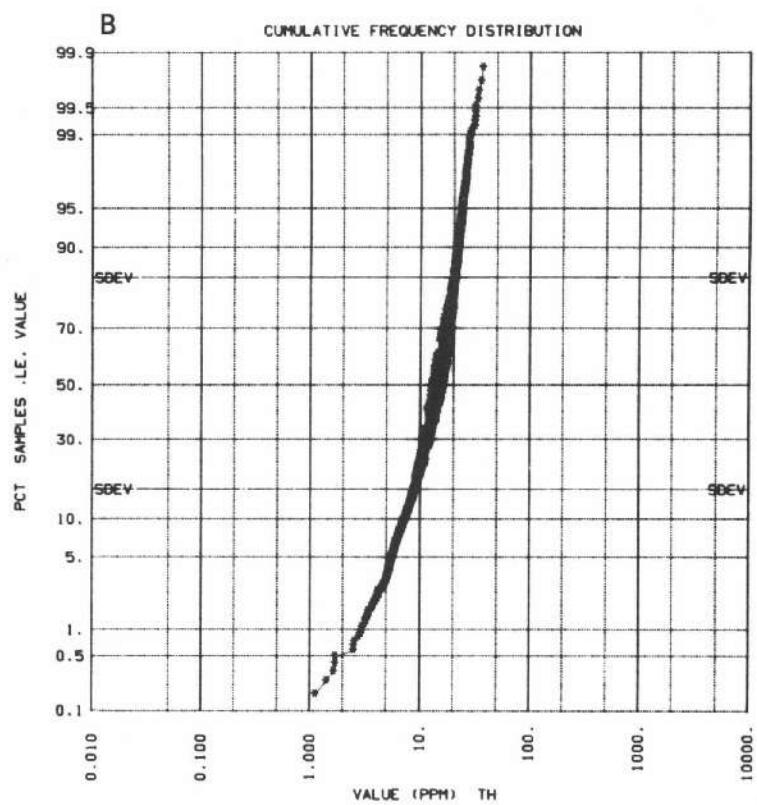
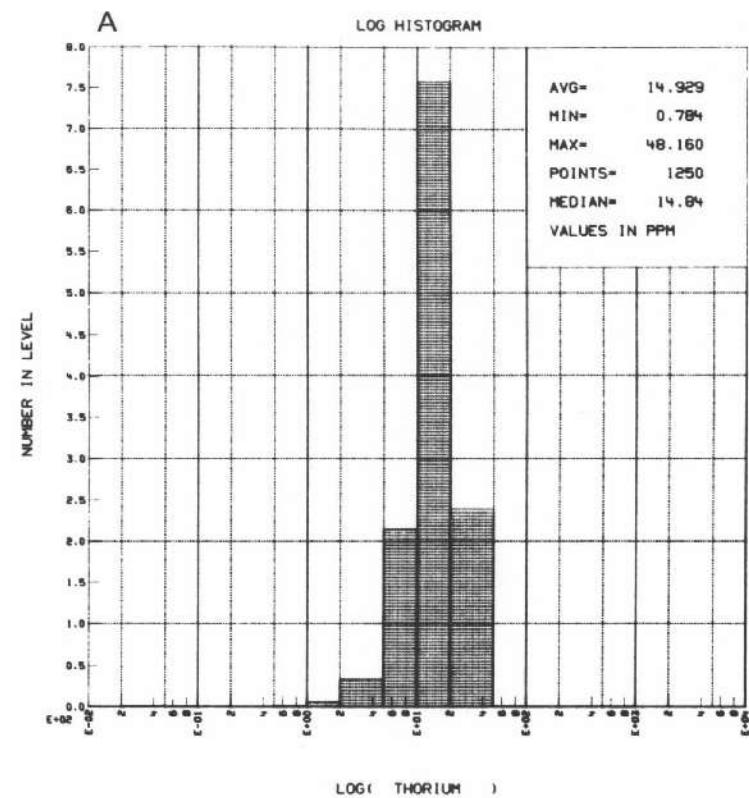


Fig. A-8. Histogram (A) and cumulative frequency distribution (B) of thorium concentrations for sediment samples plotted on Overlay 2C.

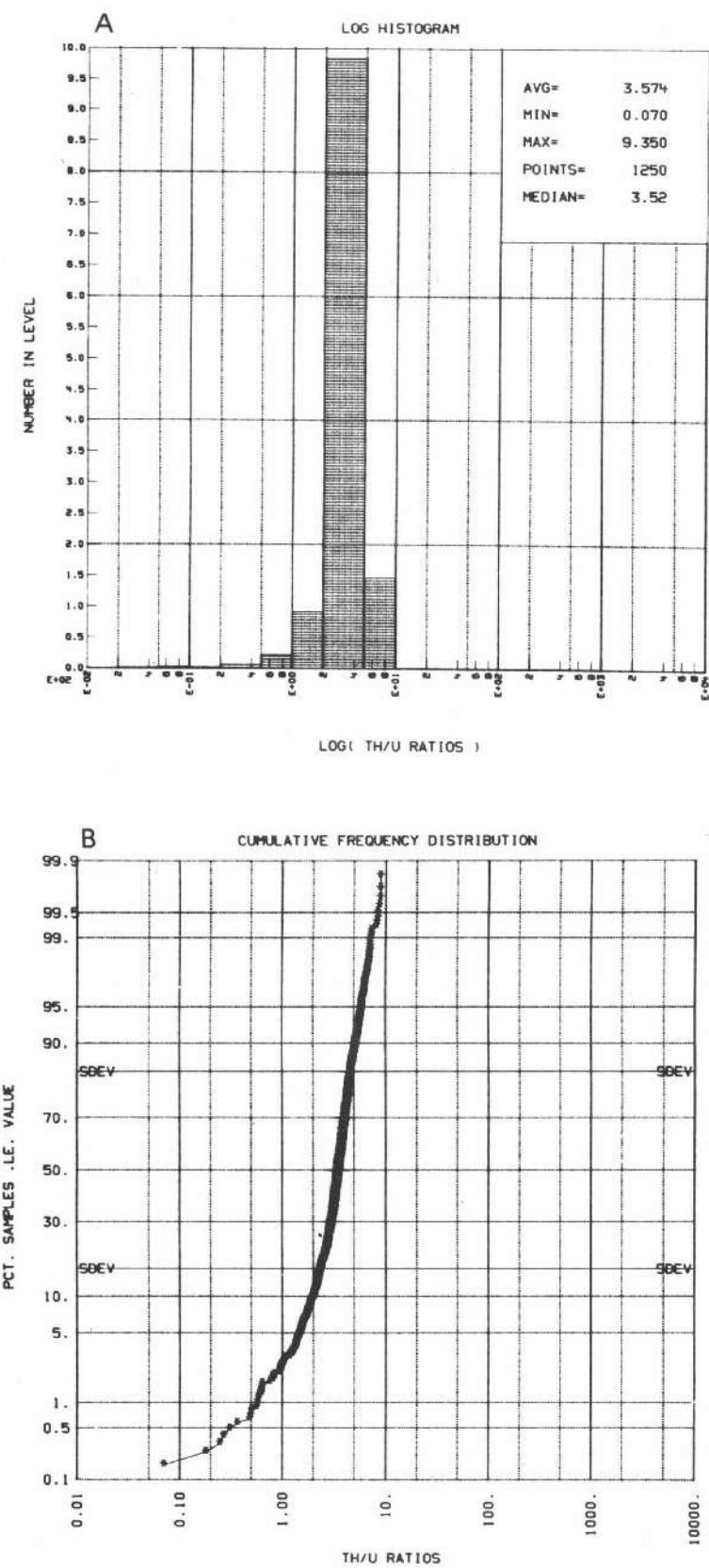


Fig. A-9. Histogram (A) and cumulative frequency distribution (B) of Th/U ratios for sediment samples plotted on Overlay 2D.

<u>Position</u>		<u>Description</u>
1-2	ST,	State, the two-digit Federal Information Processing Standard (FIPS) designated for the state corresponding to the sample site location (AZ=04, CA=06, ID=16, NV=32, OR=41, UT=49, WA=53).
4-10	LAT,	Latitude of site in decimal degrees.
12-19	LONG,	Longitude of site in decimal degrees.
21	L,	Originating laboratory (1=LLL)
23-24	TY,	Doe Sample Type. A two-digit code describing the sample source, medium, and overall geochemical treatment (field and laboratory) prior to analysis. See DOE Sample Type Numbers below for specific assignments.
26-28	RPL,	Replication Code. Three-digits used to distinguish between samples from the same site. The first indicates sample type (1=sediment, 2=water), the second identifies the field duplicate, and the third identifies analytical splits.

TY, DOE SAMPLE TYPE NUMBERS

<u>Number</u>	<u>Description</u>
01	<u>Spring water sample untreated.</u>
02	<u>River or stream water sample untreated.</u>
03	<u>Well water sample untreated.</u>
04	<u>Lake or reservoir water sample untreated.</u>
06	<u>Spring water sample filtered through a 0.45-μm membrane filter and acidified to a pH of <1 with high purity nitric acid (HNO₃).</u>
07	<u>River or stream water sample filtered through a 0.45-μm membrane filter and acidified to a pH of <1 with high purity nitric acid (HNO₃).</u>
08	<u>Well water sample filtered through a 0.45-μm membrane filter and acidified to a pH of <1 with high purity nitric acid (HNO₃).</u>
09	<u>Lake or reservoir water sample filtered through a 0.45-μm membrane filter and acidified to a pH of <1 with high purity nitric acid (HNO₃).</u>
21	<u>Spring water sample filtered through a 0.45-μm membrane filter.</u>
22	<u>River or stream water sample filtered through a 0.45-μm membrane filter.</u>
23	<u>Well water sample filtered through a 0.45-μm membrane filter.</u>
24	<u>Lake or reservoir water sample filtered through 0.45-μm membrane filter.</u>
70	<u>Wet sediment sample dried at 110°C and sieved to the reported particle size range.</u>
71	<u>Lake or reservoir sediment sample dried at 110°C and sieved to the reported particle size range.</u>
72	<u>Dry sediment sample dried at 110°C and sieved to the reported particle size range.</u>
73	<u>Playa sediment sample taken by hand auger over the reported depth, dried at 100°C, and crushed to a fine powder.</u>
74	<u>Rock sample crushed and sieved to less than 250 μm.</u>

TEMPERATURE

Temperature. Measurement of water temperature in situ by mercury thermometer to nearest 0.1°C.

pH

Activity in pH units, reported to nearest 0.1 pH unit at ambient water temperature.

SP COND

Specific conductance. Measurement in situ with a commercial conductivity meter. Reported as conductance in micromhos per cm ($\mu\text{mho}/\text{cm}$) normalized to 25°C.

PHENO-ALK

Phenolphthalein alkalinity. Measurement by titration with standard sulphuric acid to a phenolphthalein indicator endpoint (pH = 8.3). Reported as an equivalent amount of CaCO_3 in mg/l, minimum detection 20 mg/l.

TOT-ALK

Total alkalinity. Measurement by titration with standard sulphuric acid to a bromcresol green-methyl red indicator endpoint (pH = 4.8). Reported as an equivalent amount of CaCO_3 in mg/l, minimum detection 20 mg/l.

POSSIBLE CONTAMINATION

The major possible contaminant types are indicated according to the following code: 1. none, 2. mining, 3. agricultural, 4. industrial, 5. sewage, 6. power generation, 7. urban, 8. recreation, 9. other.

URANIUM

The trace element concentration of uranium in the sample as determined by DNC is given in parts-per-billion (ppb) by weight for waters and in parts-per-million (ppm) by weight for sediments. The error column contains a statistical estimate of measurement uncertainty expressed as a percentage of the concentration.

APPENDIX B

NUMERICAL RESULTS OF RECONNAISSANCE SURVEY

MILLETT QUAD REPORT, LAWRENCE LIVERMORE LABORATORY
 TABLE B-1. SEDIMENT ANALYSIS; DRY AND STREAM SITES

PAGE B-2

SITE NUMBER	DOE ST	SAMPLE LAT.	NUMBER LONG.	DATE L TY RPL	SAMPLE MO-DA-YR	PARTICLE SOURCE/COND.	SIZE UPPER	POS. LOWER	Q. C. CONT	URANIUM(DNC) X-RE>	URANIUM(DNC) PPM	THORIUM(NAA) ZERR	THORIUM(NAA) PPM	THORIUM(NAA) ERR
6125	32-39.	9631-117.	3021-1-72-100	09/18/76	STREAM	DRY	1000	0500	1	6.60	1.23	25.85	2.25	
6126	32-39.	9656-117.	3208-1-72-100	09/18/76	STREAM	DRY	1000	0500	1	3.51	1.29	17.13	1.02	
6127	32-39.	9145-117.	3042-1-72-100	09/18/76	STREAM	DRY	1000	0500	1	4.74	1.28	17.99	1.89	
6128	32-39.	8875-117.	2667-1-72-100	09/18/76	STREAM	DRY	1000	0500	1	4.29	1.29	19.73	1.41	
6129	32-39.	9244-117.	2867-1-72-100	09/18/76	STREAM	DRY	1000	0500	1	4.76	1.36	19.90	2.99	
6130	32-39.	9641-117.	2599-1-72-100	09/18/76	STREAM	DRY	1000	0500	1	5.69	1.25	24.23	1.76	
6131	32-39.	9786-117.	2588-1-72-100	09/18/76	STREAM	DRY	1000	0500	1	5.60	1.31	19.62	3.06	
6132	32-39.	9891-117.	3502-1-70-100	09/18/76	STREAM	WET	1000	0500	1	3.23	1.49	15.30	1.79	
6133	32-39.	9171-117.	3381-1-72-100	09/18/76	STREAM	DRY	1000	0500	1	4.71	1.31	19.94	1.89	
6134	32-39.	9009-117.	3381-1-72-100	09/18/76	STREAM	DRY	1000	0500	1	4.07	1.31	23.57	1.43	
6135	32-39.	8693-117.	3555-1-72-100	09/20/76	STREAM	DRY	1000	0500	1	4.08	1.29	17.29	1.17	
6136	32-39.	8480-117.	3144-1-72-100	09/20/76	STREAM	DRY	1000	0500	9	3.66	1.32	13.98	1.13	
6137	32-39.	8252-117.	3248-1-72-100	09/20/76	STREAM	DRY	1000	0500	1	4.34	1.29	19.79	1.21	
6138	32-39.	8000-117.	3201-1-72-100	09/20/76	STREAM	DRY	1000	0500	1	4.34	1.27	19.24	1.15	
6139	32-39.	7865-117.	3060-1-72-100	09/20/76	STREAM	DRY	1000	0500	1	4.55	1.29	20.80	1.47	
6140	32-39.	8082-117.	2850-1-72-100	09/20/76	STREAM	DRY	1000	0500	1	4.05	1.30	19.67	1.28	
6141	32-39.	7973-117.	3609-1-72-100	09/20/76	STREAM	DRY	1000	0500	1	2.87	1.36	10.92	1.20	
6142	32-39.	7631-117.	3082-1-72-100	09/20/76	STREAM	DRY	1000	0500	1	2.98	1.39	13.76	1.27	
6143	32-39.	7984-117.	2756-1-72-100	09/20/76	STREAM	DRY	1000	0500	1	4.09	1.28	20.16	1.30	
6144	32-39.	7969-117.	4357-1-72-100	09/20/76	STREAM	DRY	1000	0500	1	3.98	1.38	16.08	1.11	
6145	32-39.	7860-117.	4730-1-72-100	09/20/76	STREAM	DRY	1000	0500	1	3.17	1.36	13.25	1.42	
6146	32-39.	8455-117.	4535-1-72-100	09/20/76	STREAM	DRY	1000	0500	1	6.51	1.22	24.90	1.56	
6147	32-39.	8545-117.	4501-1-72-100	09/20/76	STREAM	DRY	1000	0500	1	3.59	1.44	14.34	2.43	
6148	32-39.	8256-117.	4697-1-72-100	09/20/76	STREAM	DRY	1000	0500	1	3.64	1.41	16.06	2.10	
6149	32-39.	8564-117.	4244-1-70-100	09/20/76	STREAM	WET	1000	0500	1	4.11	1.30	16.65	1.15	
6150	32-39.	8925-117.	4293-1-72-100	09/20/76	STREAM	DRY	1000	0500	1	3.75	1.30	16.33	1.58	
6151	32-39.	8782-117.	3918-1-70-100	09/20/76	STREAM	WET	1000	0500	1	3.65	1.36	19.17	1.63	
6152	32-39.	9194-117.	4470-1-72-100	09/20/76	STREAM	DRY	1000	0500	1	4.38	1.36	20.22	1.21	
6153	32-39.	9302-117.	4541-1-72-100	09/20/76	STREAM	DRY	1000	0500	1	7.15	1.20	33.95	2.16	
6155	32-39.	9611-117.	3946-1-70-100	09/20/76	STREAM	WET	1000	0500	1	3.18	1.35	12.37	1.26	
6156	32-39.	9483-117.	4425-1-72-100	09/20/76	STREAM	DRY	1000	0500	1	3.20	1.42	14.30	1.08	
6157	32-39.	7368-117.	3016-1-72-100	09/19/76	STREAM	DRY	1000	0500	1	3.62	1.30	15.79	1.06	
6158	32-39.	7420-117.	4248-1-72-100	09/19/76	STREAM	DRY	1000	0500	1	4.37	1.26	17.16	1.40	
6159	32-39.	7059-117.	4538-1-72-100	09/19/76	STREAM	DRY	1000	0500	1	5.11	1.21	18.19	1.13	
6160	32-39.	6915-117.	4257-1-72-100	09/19/76	STREAM	DRY	1000	0500	1	3.76	1.32	10.87	1.35	
6161	32-39.	6681-117.	4057-1-72-100	09/19/70	STREAM	DRY	1000	0500	1	3.97	1.29	14.48	0.98	
6162	32-39.	6682-117.	4034-1-72-100	09/19/76	STREAM	DRY	1000	0500	1	3.34	1.29	13.07	0.85	
6163	32-39.	6348-117.	4335-1-72-100	09/19/76	STREAM	DRY	1000	0500	1	4.08	1.30	16.39	1.16	
6278	32-39.	8828-116.	1264-1-72-100	08/09/76	STREAM	DRY	1000	0500	1	2.29	1.39	6.50	0.67	
6279	32-39.	9079-116.	1191-1-72-100	08/09/76	STREAM	DRY	1000	0500	1	2.45	1.34	4.23	0.83	
6280	32-39.	9017-116.	1285-1-72-100	08/09/76	STREAM	DRY	1000	0500	1	2.49	1.35	5.16	0.65	
6281	32-39.	8857-116.	1614-1-72-100	08/09/76	STREAM	DRY	1000	0500	1	2.41	1.41	5.79	0.84	
6282	32-39.	8469-116.	1572-1-72-100	08/09/76	STREAM	DRY	1000	0500	1	3.50	1.25	7.74	0.66	
6283	32-39.	8984-116.	1671-1-72-100	08/09/76	STREAM	DRY	1000	0500	1	3.24	1.34	13.80	1.17	
6284	32-39.	9335-116.	1632-1-72-100	08/09/76	STREAM	DRY	1000	0500	1	2.65	1.36	4.97	1.15	
6285	32-39.	9533-116.	1665-1-72-100	08/09/76	STREAM	DRY	1000	0500	1	2.75	1.41	16.46	1.29	
6286	32-39.	9440-116.	1245-1-72-100	08/09/76	STREAM	DRY	1000	0500	1	3.30	1.25	3.43	0.34	
6287	32-39.	9765-116.	1299-1-72-100	08/09/76	STREAM	DRY	1000	0500	1	3.25	1.31	9.37	0.99	
6288	32-39.	9861-116.	2141-1-72-100	08/09/76	STREAM	DRY	1000	0500	1	4.25	1.22			

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 TABLE 8-1. SEDIMENT ANALYSIS; DRY AND STREAM SITES

PAGE B-3

SITE NUMBER	ST	DOE SAMPLE NUMBER	DATE L LAT. LONG.	TY RPL	MO-DA-YR	SOURCE/COND.	PARTICLE SIZE UPPER	POS. LOWER	Q. C. CONT	URANIUM(DNC) PPM	THORIUM(NAA) PPM	X-ERR	ERR
6289	32-39.	9931-116.1906-1-72-100	08/09/76	STREAM	DRY	1000	0500	1		3.00	1.41	18.77	1.24
6290	32-39.	9844-116.2340-1-72-100	08/09/76	STREAM	DRY	1000	0500	1		2.91	1.43	21.64	1.31
6291	32-39.	9247-116.3400-1-70-100	08/10/76	STREAM	WET	1000	0500	1		0.92	1.77		
6292	32-39.	8800-116.4001-1-72-100	08/10/76	STREAM	DRY	1000	0500	1		3.78	1.29	8.66	0.75
6293	32-39.	8934-116.3812-1-72-100	08/10/76	STREAM	DRY	1000	0500	1		1.08	1.64	1.71	0.34
6294	32-39.	9259-116.3903-1-72-100	09/12/76	STREAM	DRY	1000	0500	1		1.17	1.64	2.53	0.43
6295	32-39.	9803-116.4507-1-70-100	08/10/76	STREAM	WET	1000	0500	1		3.42	1.37		
6296	32-39.	9604-116.4439-1-70-100	08/10/76	STREAM	WET	1000	0500	1		2.87	1.32	5.23	0.62
6297	32-39.	9294-116.3751-1-72-100	08/10/76	STREAM	DRY	1000	0500	1		0.90	1.70		
6322	32-39.	9922-117.1851-1-72-100	08/14/76	STREAM	DRY	1000	0500	1		4.57	1.22	14.40	1.07
6323	32-39.	9787-117.1651-1-72-100	08/14/76	STREAM	DRY	1000	0500	1		3.10	1.32	12.12	0.93
6324	32-39.	9346-117.1486-1-72-100	08/14/76	STREAM	DRY	1000	0500	1		4.59	1.28	17.19	1.34
6325	32-39.	9112-117.1509-1-72-100	08/14/76	STREAM	DRY	1000	0500	1		5.52	1.23	17.94	1.40
6326	32-39.	9012-117.1661-1-72-100	08/14/76	STREAM	DRY	1000	0500	1		6.06	1.21	21.24	1.53
6327	32-39.	8363-117.2162-1-72-100	08/14/76	STREAM	DRY	1000	0500	9		5.23	1.30	24.33	1.64
6328	32-39.	8751-117.1906-1-72-100	08/14/76	STREAM	DRY	1000	0500	1		5.92	1.22	16.21	2.04
6329	32-39.	8996-117.1520-1-72-100	08/14/76	STREAM	DRY	1000	0500	1		5.88	1.19	20.55	1.41
6330	32-39.	8778-117.1614-1-72-100	08/14/76	STREAM	DRY	1000	0500	1		5.86	1.21	23.70	1.69
6331	32-39.	8715-117.1660-1-72-100	08/14/76	STREAM	DRY	1000	0500	1		5.97	1.20	25.50	1.67
6332	32-39.	8562-117.1812-1-72-100	08/14/76	STREAM	DRY	1000	0500	1		5.57	1.21	21.42	1.34
6333	32-39.	8508-117.1625-1-72-100	08/14/76	STREAM	DRY	1000	0500	1		4.32	1.33	14.55	1.15
6334	32-39.	8715-117.1590-1-72-100	08/14/76	STREAM	DRY	1000	0500	1		8.72	1.14	22.71	1.70
6335	32-39.	8950-117.1322-1-72-100	08/14/76	STREAM	DRY	1000	0500	1		3.24	1.28	9.46	0.72
6528	32-39.	2956-117.2574-1-72-100	09/21/76	STREAM	DRY	1000	0500	1		4.20	1.24	16.71	1.13
6529	32-39.	1113-117.4233-1-72-100	09/04/76	STREAM	DRY	1000	0500	1		4.97	1.19	17.36	1.07
6530	32-39.	1248-117.4026-1-72-100	09/04/76	STREAM	DRY	1000	0500	1		5.97	1.19	21.28	1.35
6531	32-39.	1520-117.3645-1-72-100	09/04/76	STREAM	DRY	1000	0500	1		5.58	1.20	21.56	1.50
6532	32-39.	1736-117.3600-1-72-100	09/04/76	STREAM	DRY	1000	0500	1		7.28	1.17	18.85	1.70
6533	32-39.	0940-117.4637-1-72-100	09/04/76	STREAM	DRY	1000	0500	1		6.19	1.18	20.24	1.28
6534	32-39.	8049-117.4810-1-72-100	09/04/76	STREAM	DRY	1000	0500	1		5.75	1.19	19.42	1.56
6535	32-39.	0880-117.3619-1-72-100	09/04/76	STREAM	DRY	1000	0500	1		3.50	1.27	15.97	1.18
6536	32-39.	2251-117.3371-1-72-100	09/08/76	STREAM	DRY	1000	0500	1		5.58	1.23	20.85	1.62
6537	32-39.	0555-117.3860-1-72-100	09/08/76	STREAM	DRY	1000	0500	1		3.93	1.30	9.67	1.81
6538	32-39.	0359-117.3339-1-70-100	09/08/76	STREAM	WET	1000	0500	1		3.43	1.29	12.97	0.96
6539	32-39.	1322-117.3448-1-72-100	09/08/76	STREAM	DRY	1000	0500	1		4.55	1.24	16.69	1.34
6540	32-39.	0927-117.3168-1-70-100	09/08/76	STREAM	WET	1000	0500	1		3.71	1.26	14.90	1.22
6541	32-39.	4026-117.4080-1-70-100	09/08/76	STREAM	WET	1000	0500	1		5.04	1.24	18.24	1.52
6542	32-39.	2172-117.2572-1-72-100	09/09/76	STREAM	DRY	1000	0500	1		2.69	1.31	8.07	0.68
6543	32-39.	2037-117.2305-1-70-100	09/09/76	STREAM	WET	1000	0500	1		2.89	1.32	8.29	0.63
6544	32-39.	2335-117.2213-1-72-100	09/09/76	STREAM	DRY	1000	0500	1		3.23	1.29	7.24	0.78
6545	32-39.	2558-117.2955-1-72-100	09/09/76	STREAM	DRY	1000	0500	1		4.57	1.17		
6546	32-39.	2638-117.3361-1-72-100	09/09/76	STREAM	DRY	1000	0500	1					
6547	32-39.	2945-117.3259-1-72-100	09/09/76	STREAM	DRY	1000	0500	1		4.85	1.16		
6548	32-39.	2828-117.3049-1-72-100	09/09/76	STREAM	DRY	1000	0500	1		4.68	1.29	17.32	1.19
6549	32-39.	3044-117.3120-1-72-100	09/09/76	STREAM	DRY	1000	0500	1		5.14	1.32	18.89	1.90
6550	32-39.	3089-117.3236-1-72-100	09/09/76	STREAM	DRY	1000	0500	1		4.00	1.33	17.14	2.12
6551	32-39.	3368-117.3377-1-72-100	09/09/76	STREAM	DRY	1000	0500	1		5.18	1.27	25.93	1.98
6552	32-39.	3512-117.3493-1-72-100	09/09/76	STREAM	DRY	1000	0500	1		5.03	1.22	20.61	1.44
6553	32-39.	3460-117.2646-1-72-100	09/09/76	STREAM	DRY	1000	0500	1		5.62	1.13		

MILLETT QUAD REPORT, LAWRENCE LIVERMORE LABORATORY
TABLE B-1. SEDIMENT ANALYSIS: DRY AND STREAM SITES

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SITE NUMBER	DOE ST	SAMPLE LAT.	NUMBER LONG.	DATE L TY RPL	SAMPLE MO-DA-YR	PARTICLE SOURCE/COND.	SIZE UPPER	SIZE LOWER	POS. CONT	Q. C. X-RE>	URANIUM(DNC) PPM	URANIUM(DNC) ZERR	THORIUM(NAA) PPM	THORIUM(NAA) ERR
6554	32-39.	3461	-117.2112	-1-72-100	09/09/76	STREAM	DRY	1000	0500	1	3.34	1.23	8.97	0.63
6555	32-39.	4228	-117.1464	-1-72-100	09/09/76	STREAM	DRY	1000	0500	1	3.33	1.29	9.26	0.84
6556	32-39.	3977	-117.1301	-1-72-100	09/09/76	STREAM	DRY	1000	0500	9	3.91	1.18		
6557	32-39.	4228	-117.1270	-1-72-100	09/09/76	STREAM	DRY	1000	0500	1				
6558	32-39.	4977	-117.0954	-1-72-100	09/09/76	STREAM	DRY	1000	0500	9	2.59	1.54	7.89	2.21
6559	32-39.	4307	-117.2905	-1-72-100	09/10/76	STREAM	DRY	1000	0500	1	4.84	1.30	21.54	1.55
6560	32-39.	4514	-117.2987	-1-72-100	09/10/76	STREAM	DRY	1000	0500	1	3.90	1.25	14.10	1.09
6561	32-39.	4729	-117.3372	-1-72-100	09/10/76	STREAM	DRY	1000	0500	1	4.26	1.25	19.02	1.22
6562	32-39.	4756	-117.3209	-1-72-100	09/10/76	STREAM	DRY	1000	0500	1	3.32	1.28	11.43	0.92
6563	32-39.	4919	-117.2826	-1-72-100	09/10/76	STREAM	DRY	1000	0500	1	3.75	1.26	14.56	1.05
6564	32-39.	4305	-117.3497	-1-72-100	09/10/76	STREAM	DRY	1000	0500	1	5.38	1.24	26.68	1.60
6565	32-39.	4152	-117.3462	-1-72-100	09/10/76	STREAM	DRY	1000	0500	1	4.76	1.26	19.02	1.85
6566	32-39.	3681	-117.3623	-1-72-100	09/10/76	STREAM	DRY	1000	0500	1	6.07	1.22	23.90	1.69
6567	32-39.	4399	-117.2266	-1-70-100	09/10/76	STREAM	WET	1000	0500	9	4.65	1.24	13.07	0.98
6568	32-39.	1495	-117.2858	-1-70-100	09/12/76	STREAM	WET	1000	0500	1	2.70	1.39	9.70	1.22
6569	32-39.	1171	-117.2765	-1-70-100	09/12/76	STREAM	WET	1000	0500	1	5.64	1.21	19.21	1.43
6570	32-39.	1198	-117.2707	-1-70-100	09/12/76	STREAM	WET	1000	0500	1	4.38	1.25	14.31	1.34
6571	32-39.	1721	-117.2848	-1-70-100	09/12/76	STREAM	WET	1000	0500	1	2.08	1.85	5.72	2.62
6572	32-39.	2468	-117.3036	-1-70-100	09/12/76	STREAM	WET	1000	0500	1	3.54	1.30	11.20	1.34
6573	32-39.	3038	-117.1925	-1-72-100	09/12/76	STREAM	DRY	1000	0500	1	4.25	1.20	9.92	0.74
6574	32-39.	3372	-117.1242	-1-70-100	09/12/76	STREAM	WET	1000	0500	1	3.51	1.38	12.49	1.14
6575	32-39.	3408	-117.1207	-1-70-100	09/12/76	STREAM	WET	1000	0500	1	3.59	1.18		
6576	32-39.	4544	-117.0941	-1-70-100	09/12/76	STREAM	WET	1000	0500	9	1.99	1.41	8.46	0.72
6577	32-39.	4373	-117.1092	-1-70-100	09/12/76	STREAM	WET	1000	0500	1	2.19	1.45	6.90	0.97
6578	32-39.	4968	-117.0930	-1-72-100	09/12/76	STREAM	DRY	1000	0500	1	1.94	1.58	7.00	1.46
6579	32-39.	5094	-117.0756	-1-72-100	09/13/76	STREAM	DRY	1000	0500	2	2.62	1.33	6.36	0.66
6580	32-39.	5193	-117.0663	-1-72-100	09/13/76	STREAM	DRY	1000	0500	1	2.02	1.31		
6581	32-39.	5265	-117.0605	-1-72-100	09/12/76	STREAM	DRY	1000	0500	1	1.80	1.41		
6582	32-39.	5409	-117.0582	-1-72-100	09/17/76	STREAM	DRY	1000	0500	2	5.61	1.21	17.86	1.36
6583	32-39.	5580	-117.0792	-1-70-100	09/13/73	STREAM	WET	1000	0500	9	18.40	1.10	10.74	1.08
6584	32-39.	5797	-117.0792	-1-72-100	09/13/76	STREAM	DRY	1000	0500	9	3.46	1.27	11.08	0.89
6585	32-39.	5860	-117.1095	-1-72-100	09/13/76	STREAM	DRY	1000	0500	1	4.28	1.23	17.41	1.20
6586	32-39.	6085	-117.0804	-1-70-100	09/13/76	STREAM	WET	1000	0500	1	3.27	1.27	9.51	0.81
6587	32-39.	6273	-117.1594	-1-72-100	09/13/76	STREAM	DRY	1000	0500	1	4.30	1.22	14.16	1.06
6588	32-39.	5453	-117.1804	-1-72-100	09/13/76	STREAM	DRY	1000	0500	1	3.99	1.23	11.86	1.18
6589	32-39.	5525	-117.1979	-1-72-100	09/13/76	STREAM	DRY	1000	0500	1	4.45	1.20	11.91	0.83
6590	32-39.	5615	-117.2107	-1-72-100	09/13/76	STREAM	DRY	1000	0500	1	3.89	1.19		
6591	32-39.	5885	-117.2271	-1-72-100	09/13/76	STREAM	DRY	1000	0500	1	3.14	1.28	11.49	1.08
6592	32-39.	6109	-117.2521	-1-72-100	09/13/76	STREAM	DRY	1000	0500	1	4.67	1.16		
6593	32-39.	6147	-117.1608	-1-72-100	09/13/76	STREAM	DRY	1000	0500	1	3.59	1.27	12.71	1.03
6594	32-39.	6246	-117.1888	-1-72-100	09/13/76	STREAM	DRY	1000	0500	1	4.02	1.27	13.48	1.35
6595	32-39.	5931	-117.1770	-1-72-100	09/13/76	STREAM	DRY	1000	0500	1	3.53	1.27	11.35	0.95
6596	32-39.	5796	-117.1584	-1-72-100	09/13/76	STREAM	DRY	1000	0500	1	4.07	1.24	13.01	1.19
6597	32-39.	5246	-117.1617	-1-70-100	09/13/76	STREAM	WET	1000	0500	1	4.43	1.39	14.51	1.35
6598	32-39.	6571	-117.1655	-1-72-100	09/14/76	STREAM	DRY	1000	0500	1	3.21	1.28	12.01	0.94
6599	32-39.	6579	-117.1688	-1-72-100	09/14/76	STREAM	DRY	1000	0500	1	3.88	1.30	15.06	1.15
6600	32-39.	7192	-117.1680	-1-72-100	09/14/76	STREAM	DRY	1000	0500	1	3.24	1.30	7.25	1.21
6601	32-39.	7372	-117.1844	-1-72-100	09/14/76	STREAM	DRY	1000	0500	1	3.30	1.33	13.99	1.14
6602	32-39.	7336	-117.2159	-1-72-100	09/14/76	STREAM	DRY	1000	0500	1	2.82	1.37	11.07	1.30

MILLETT QUAD REPORT, LAWRENCE LIVERMORE LABORATORY
 TABLE B-1. SEDIMENT ANALYSIS: DRY AND STREAM SITES

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SITE NUMBER	ST	DOE SAMPLE NUMBER	DATE	SAMPLE SOURCE/COND.	PARTICLE SIZE	POS. UPPER LOWER CONT	Q. C. X-REF	URANIUM(DNC) PPM	URR	THORIUM(NAA) PPM	ERR
6603	32-39.	6515-117.2471-1-72-100	09/14/76	STREAM	DRY	1000 0500	I	3.51	1.23		
6604	32-39.	6822-117.2169-1-72-100	09/14/76	STREAM	DRY	1000 0500	I	3.36	1.28	14.19	0.93
6605	32-39.	6984-117.2158-1-72-100	09/14/76	STREAM	DRY	1000 0500	I	3.42	1.28	13.69	0.99
6606	32-39.	7651-117.2103-1-72-100	09/14/76	STREAM	DRY	1000 0500	I	3.02	1.34	12.51	1.24
6607	32-39.	7049-117.0502-1-70-100	09/14/76	STREAM	WET	1000 0500	I	3.57	1.38	15.40	1.05
6608	32-39.	7302-117.0525-1-72-100	09/14/76	STREAM	DRY	1000 0500	I	3.74	1.30	14.28	1.43
6609	32-39.	7284-117.0513-1-72-100	09/14/76	STREAM	DRY	1000 0500	I	2.67	1.57	10.23	1.68
6610	32-39.	6671-117.0793-1-72-100	09/14/76	STREAM	DRY	1000 0500	I	3.33	1.34	18.78	1.25
6611	32-39.	6680-117.0781-1-72-100	09/14/76	STREAM	DRY	1000 0500	I	2.82	1.32	12.72	0.89
6612	32-39.	6310-117.0385-1-74-400	09/14/76	ROCK	DRY	0150 0000	I				
6613	32-39.	6815-117.0711-1-74-400	09/14/76	ROCK	DRY	0150 0000	I				
6614	32-39.	7751-117.1343-1-70-100	09/14/76	STREAM	WET	1000 0500	I	4.87	1.24		
6615	32-39.	7742-117.1436-1-72-100	09/14/76	STREAM	DRY	1000 0500	I	3.88	1.25	13.41	1.16
6630	32-39.	9833-116.0524-1-72-100	08/05/76	STREAM	DRY	1000 0500	I	3.08	1.32	10.28	0.79
6638	32-39.	9734-116.0876-1-72-100	08/06/76	STREAM	DRY	1000 0500	I	3.95	1.29	15.63	1.33
6839	32-39.	9581-116.0935-1-72-100	08/06/76	STREAM	DRY	1000 0500	I	3.05	1.36	15.59	1.25
6840	32-39.	9400-116.0872-1-72-100	08/06/76	STREAM	DRY	1000 0500	I	2.70	1.28		
6849	32-39.	9212-116.9169-1-72-100	08/06/76	STREAM	DRY	1000 0500	I	2.91	1.33	12.29	0.90
6850	32-39.	9878-116.9228-1-72-100	08/06/76	STREAM	DRY	1000 0500	I	4.51	1.25	15.70	1.14
6851	32-39.	8761-116.9626-1-72-100	08/06/76	STREAM	DRY	1000 0500	I	3.99	1.34	13.23	1.35
6852	32-39.	8545-117.0070-1-72-100	08/06/76	STREAM	DRY	1000 0500	I	2.48	1.39	5.10	0.88
6853	32-39.	8942-117.0023-1-72-100	08/06/76	STREAM	DRY	1000 0500	I	3.78	1.34	17.27	1.45
6854	32-39.	9266-116.9906-1-72-100	08/06/76	STREAM	DRY	1000 0500	I	3.50	1.44	13.66	2.20
6868	32-39.	8589-116.1898-1-70-100	08/09/76	STREAM	WET	1000 0500	I	3.88	1.32	6.12	0.89
6869	32-39.	8364-116.2018-1-70-100	08/09/76	STREAM	WET	1000 0500	I	4.06	1.27	10.53	0.94
6870	32-39.	8893-116.1637-1-72-100	08/09/76	STREAM	DRY	1000 0500	I	2.61	1.35	8.60	0.65
6871	32-39.	9596-116.1676-1-70-100	08/09/76	STREAM	WET	1000 0500	I	3.35	1.35	11.96	1.01
6873	32-39.	9989-116.2468-1-72-100	08/09/76	STREAM	DRY	1000 0500	I	3.63	1.37	17.83	1.38
6874	32-39.	9035-116.4127-1-70-100	08/10/76	STREAM	WET	1000 0500	I	2.40	1.45	4.22	1.17
6875	32-39.	9350-116.4125-1-70-100	08/10/76	STREAM	WET	1000 0500	I	3.96	1.26	10.07	0.85
6876	32-39.	9796-116.3325-1-72-100	08/10/76	STREAM	DRY	1000 0500	I	1.79	1.71	3.40	1.46
6877	32-39.	9526-116.3257-1-72-100	08/10/76	STREAM	DRY	1000 0500	I	1.13	1.60		
6878	32-39.	9489-116.3140-1-70-100	08/10/76	STREAM	WET	1000 0500	I	1.85	1.45	2.98	0.50
6879	32-39.	9630-116.2894-1-72-100	08/10/76	STREAM	DRY	1000 0500	I	5.24	1.19	7.12	0.73
6880	32-39.	9658-116.2822-1-72-100	08/10/76	STREAM	DRY	1000 0500	I	4.29	1.27	7.23	0.99
6903	32-39.	9616-117.1604-1-72-100	08/14/76	STREAM	DRY	1000 0500	I	3.14	1.42	14.44	1.63
6904	32-39.	9562-117.1487-1-72-100	08/14/76	STREAM	DRY	1000 0500	I	3.91	1.32	16.33	1.35
6905	32-39.	9220-117.1135-1-72-100	08/14/76	STREAM	DRY	1000 0500	I	8.59	1.13	9.28	0.86
6906	32-39.	9527-117.0784-1-72-100	08/14/76	STREAM	DRY	1000 0500	I	2.85	1.38	12.92	0.98
6907	32-39.	9851-117.0668-1-72-100	08/14/76	STREAM	DRY	1000 0500	I	4.62	1.18		
6908	32-39.	9824-117.0655-1-72-100	08/14/76	STREAM	DRY	1000 0500	I	2.65	1.38	11.72	1.01
6909	32-39.	9698-117.0480-1-72-100	08/14/76	STREAM	DRY	1000 0500	I	3.34	1.44	14.23	1.54
6910	32-39.	9455-117.0211-1-72-100	08/14/76	STREAM	DRY	1000 0500	I	4.19	1.27	15.93	1.01
6911	32-39.	9410-117.0503-1-72-100	08/14/76	STREAM	DRY	1000 0500	I	3.84	1.32	11.54	1.20
6912	32-39.	8851-117.0924-1-72-100	08/14/76	STREAM	DRY	1000 0500	I	4.76	1.31	15.85	2.58
6913	32-39.	8914-117.1111-1-72-100	08/14/76	STREAM	DRY	1000 0500	I	4.58	1.27	13.27	1.14
6914	32-39.	9022-117.1065-1-70-100	08/14/76	STREAM	WET	1000 0500	I	6.07	1.27	13.73	2.40
7481	32-39.	9026-116.1343-1-70-100	08/08/76	STREAM	WET	1000 0500	I	1.67	1.47	3.41	0.66
7488	32-39.	8982-116.2806-1-70-100	08/10/76	STREAM	WET	1000 0500	I	4.68	1.40	8.78	2.00

MILLETT QUAD REPORT, LAWRENCE LIVERMORE LABORATORY
TABLE B-1. SEDIMENT ANALYSIS; DRY AND STREAM SITES

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SITE NUMBER	DOE ST	SAMPLE LAT.	SAMPLE LONG.	DATE L TY RPL	SOURCE/COND.	PARTICLE SIZE	POS. UPPER	LOWER CONT	G. C. X-RE)	URANIUM(DNC) PPM	THORIUM(NAA) PPM	ERR		
7489	32-39.	8622-	116.2822-	1-70-100	09/10/76	STREAM	WET	1000	0500	1	9.96	1.14	6.22	2.57
7489	32-39.	8622-	116.2822-	1-70-101		STREAM	WET	1000	0500		6.00	1.26	12.31	1.26
7502	32-39.	4490-	117.0651-	1-70-100	09/29/76	STREAM	WET	1000	0500	1	2.83	1.38	7.56	0.79
7508	32-39.	1099-	117.2799-	1-70-100	09/29/76	STREAM	WET	1000	0500	1	4.91	1.22	15.82	1.55
7509	32-39.	5070-	117.3757-	1-70-100	09/30/76	STREAM	WET	1000	0500	1	7.95	1.15	13.72	1.14
7510	32-39.	7447-	117.4237-	1-70-100	09/30/76	STREAM	WET	1000	0500	1	4.20	1.28	11.60	1.23
7511	32-39.	8262-	117.2068-	1-70-100	10/02/76	STREAM	WET	1000	0500	1	7.01	1.29	15.55	1.57
7512	32-39.	8940-	117.1825-	1-70-100	10/02/76	STREAM	WET	1000	0500	1	5.90	1.27	22.31	1.66
7513	32-39.	9878-	117.0660-	1-70-100	10/02/76	STREAM	WET	1000	0500	1	6.42	1.23	15.75	1.50
7620	32-39.	8990-	116.4140-	1-70-100	09/10/76	STREAM	WET	1000	0500	1	3.12	1.46	15.32	1.18
7646	32-39.	0693-	117.5456-	1-70-100	09/29/76	STREAM	WET	1000	0500	1	6.24	1.26	19.18	1.98
7647	32-39.	0994-	117.4660-	1-70-100	09/29/76	STREAM	WET	1000	0500	1	10.44	1.15	19.85	1.68
7648	32-39.	1734-	117.4389-	1-70-100	09/29/76	STREAM	WET	1000	0500	1	7.33	1.15	13.08	1.58
7649	32-39.	5022-	117.0582-	1-70-100	09/30/76	STREAM	WET	1000	0500	1	29.97	1.04	11.11	1.30
7651	32-39.	6662-	117.0140-	1-70-100	09/30/76	STREAM	WET	1000	0500	1	7.60	1.19	11.06	1.26
7652	32-39.	6554-	116.9848-	1-70-100	09/30/76	STREAM	WET	1000	0500	1	2.83	1.46	9.64	1.20
7654	32-39.	8174-	117.2220-	1-70-100	10/02/76	STREAM	WET	1000	0500	1	4.52	1.25	18.06	1.08
7655	32-39.	9841-	117.5048-	1-70-100	10/03/76	STREAM	WET	1000	0500	1	2.96	1.48	8.53	1.18
7762	32-39.	7332-	117.3734-	1-72-100	09/19/76	STREAM	DRY	1000	0500	1	3.54	1.31	12.36	1.15
7763	32-39.	6910-	117.3312-	1-72-100	09/19/76	STREAM	DRY	1000	0500	1	3.04	1.36	11.14	1.33
7764	32-39.	6901-	117.3137-	1-72-100	09/19/76	STREAM	DRY	1000	0500	1	3.70	1.35	12.01	1.82
7765	32-39.	6564-	117.3159-	1-72-100	09/19/76	STREAM	DRY	1000	0500	1	4.27	1.27	14.36	1.33
7766	32-39.	6396-	117.3205-	1-72-100	09/19/76	STREAM	DRY	1000	0500	1	3.39	1.34	11.75	1.54
7767	32-39.	6424-	117.2995-	1-72-100	09/19/76	STREAM	DRY	1000	0500	1	4.04	1.23	9.47	0.68
7768	32-39.	6070-	117.3693-	1-72-100	09/19/76	STREAM	DRY	1000	0500	1	3.52	1.29	14.54	1.07
7769	32-39.	5864-	117.3377-	1-72-100	09/19/76	STREAM	DRY	1000	0500	1	3.91	2.03	14.37	6.28
7770	32-39.	5557-	117.3690-	1-72-100	09/19/76	STREAM	DRY	1000	0500	1	4.48	1.28	19.50	1.34
7771	32-39.	5395-	117.3526-	1-72-100	09/19/76	STREAM	DRY	1000	0500	1	2.79	1.43	12.30	1.57
7772	32-39.	5360-	117.3049-	1-72-100	09/19/76	STREAM	DRY	1000	0500	1	5.29	1.22	17.47	1.09
7773	32-39.	5216-	117.3025-	1-72-100	09/19/76	STREAM	DRY	1000	0500	1	3.98	1.35	15.74	1.93
7774	32-39.	6779-	117.0606-	1-70-100	09/19/76	STREAM	WET	1000	0500	5	2.51	1.40	8.55	0.93
7775	32-39.	6550-	117.0163-	1-72-100	09/19/76	STREAM	DRY	1000	0500	1	3.77	1.26	12.98	0.87
7776	32-39.	6563-	117.0117-	1-70-100	09/19/76	STREAM	WET	1000	0500	5	3.16	1.38	12.88	1.14
7777	32-39.	6554-	116.9907-	1-70-100	09/19/76	STREAM	WET	1000	0500	5	3.28	1.30	10.37	1.20
7778	32-39.	7860-	117.1144-	1-72-100	09/19/76	STREAM	DRY	1000	0500	1	4.69	1.24	17.35	1.47
7779	32-39.	8184-	117.0876-	1-72-100	09/19/76	STREAM	DRY	1000	0500	1	4.15	1.24	17.15	1.19
7780	32-39.	8148-	117.1016-	1-72-100	09/19/76	STREAM	DRY	1000	0500	1	4.19	1.26	16.11	1.03
7781	32-39.	8482-	117.1005-	1-70-100	09/16/76	STREAM	WET	1000	0500	9	4.72	1.24	16.00	1.01
7782	32-39.	8455-	117.0947-	1-72-100	09/19/76	STREAM	DRY	1000	0500	1	4.43	1.26	16.14	1.65
7783	32-39.	8473-	117.0958-	1-72-100	09/19/76	STREAM	DRY	1000	0500	1	4.72	1.24	19.57	1.60
7784	32-39.	8049-	117.0853-	1-70-100	09/20/76	STREAM	WET	1000	0500	1	4.23	1.27	13.46	1.64
7785	32-39.	7662-	117.0152-	1-70-100	09/20/76	STREAM	WET	1000	0500	5	3.98	1.25	10.37	1.19
7786	32-39.	7662-	116.9907-	1-70-100	09/29/76	STREAM	WET	1000	0500	9	4.43	1.27	15.50	1.47
7787	32-39.	8176-	117.0234-	1-70-100	09/20/76	STREAM	WET	1000	0500	1	4.31	1.24	17.47	1.04
7788	32-39.	8167-	117.0129-	1-72-100	09/20/76	STREAM	DRY	1000	0500	1	3.42	1.25	8.53	1.01
7789	32-39.	8113-	117.0047-	1-72-100	09/20/76	STREAM	DRY	1000	0500	1	4.74	1.21	18.66	1.13
7790	32-39.	8086-	116.9696-	1-72-100	09/20/76	STREAM	DRY	1000	0500	1	4.29	1.23	14.67	1.34
7791	32-39.	7996-	116.9638-	1-70-100	09/20/76	STREAM	WET	1000	0500	1	5.21	1.26	14.69	1.74
7792	32-39.	8004-	116.9603-	1-70-100	09/20/76	STREAM	WET	1000	0500	1	3.46	1.29	12.23	1.24

MILLETT QUAD REPORT, LAWRENCE LIVERMORE LABORATORY
 TABLE B-1, SEDIMENT ANALYSIS: DRY AND STREAM SITES

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SITE NUMBER	ST	DOE SAMPLE NUMBER	DATE	SAMPLE TYPE	PARTICLE SIZE	POS. UPPER	POS. LOWER	CONT.	O, C, X-REF	URANIUM(CNC) PPM	URANIUM(CNC) ERR	THORIUM(NAA) PPM	THORIUM(NAA) ERR
7793	32-39,	9841-117,4978-1-70-100	09/20/76	STREAM	WET	1000	0500	1		2.87	1.34	5.24	0.96
8321	32-39,	9351-117,1492-1-72-100	09/07/76	STREAM	DRY	1000	0500	1	6324	4.48	1.30	15.25	1.61
8322	32-39,	9116-117,1509-1-72-100	09/07/76	STREAM	DRY	1000	0500	1	6325	5.21	1.22	15.20	1.31
8323	32-39,	8900-117,1532-1-72-100	09/07/76	STREAM	DRY	1000	0500	9	6329	5.31	1.20	17.72	1.29
19401	32-39,	0677-117,1977-1-72-100	07/21/77	STREAM	DRY	1000	0500	1		5.27	1.27	24.11	2.10
19402	32-39,	0713-117,1942-1-70-100	07/21/77	STREAM	WET	1000	0500	1		3.65	1.38	20.93	1.94
19456	32-39,	7873-116,1334-1-72-100	07/30/77	STREAM	DRY	1000	0500	1		4.08	1.36	9.29	2.37
19457	32-39,	7982-116,1415-1-72-100	07/30/77	STREAM	DRY	1000	0500	1		4.28	1.23	9.92	0.86
19458	32-39,	8182-116,1634-1-72-100	07/30/77	STREAM	DRY	1000	0500	1		2.96	1.35	9.90	0.94
19459	32-39,	8182-116,1681-1-72-100	07/30/77	STREAM	DRY	1000	0500	1		4.57	1.25	10.39	1.01
19460	32-39,	8102-116,1776-1-72-100	07/30/77	STREAM	DRY	1000	0500	1		4.17	1.32	16.19	1.23
19461	32-39,	7703-116,1430-1-72-100	07/30/77	STREAM	DRY	1000	0500	1		2.94	1.30	9.29	0.88
19462	32-39,	7775-116,1476-1-72-100	07/30/77	STREAM	DRY	1000	0500	1		3.42	1.31	11.53	1.01
19463	32-39,	7800-116,1172-1-72-100	07/30/77	STREAM	DRY	1000	0500	1		3.59	1.30	9.52	0.99
19464	32-39,	8051-116,1075-1-70-100	07/28/77	STREAM	WET	1000	0500	1		3.04	1.28	4.90	0.76
19465	32-39,	9320-116,0813-1-72-100	07/30/77	STREAM	DRY	1000	0500	1		1.80	1.47	3.27	0.55
19466	32-39,	9275-116,0802-1-72-100	07/30/77	STREAM	DRY	1000	0500	1		2.20	1.46	3.78	0.62
19467	32-39,	9113-116,0863-1-72-100	07/30/77	STREAM	DRY	1000	0500	1		2.25	1.33	1.42	0.31
19468	32-39,	8797-116,0855-1-72-100	07/30/77	STREAM	DRY	1000	0500	1		1.83	1.52	3.79	0.63
19469	32-39,	8214-116,1097-1-72-100	07/30/77	STREAM	DRY	1000	0500	1		1.55	1.55	3.69	0.72
19470	32-39,	8203-116,0722-1-72-100	07/30/77	STREAM	DRY	1000	0500	1		1.75	1.44	1.67	0.39
19471	32-39,	8673-116,1056-1-72-100	07/30/77	STREAM	DRY	1000	0500	1		2.09	1.40	2.59	0.45
19472	32-39,	8625-116,0764-1-72-100	07/30/77	STREAM	DRY	1000	0500	1		1.86	1.57	5.62	0.90
19473	32-39,	8641-116,0630-1-72-100	07/30/77	STREAM	DRY	1000	0500	1		1.29	1.60	2.81	0.44
19474	32-39,	9652-116,0738-1-72-100	07/30/77	STREAM	DRY	1000	0500	1		1.12	1.78	2.93	0.53
19501	32-39,	4692-117,5001-1-72-100	07/19/77	STREAM	DRY	1000	0500	1		3.00	1.31	12.40	0.85
19502	32-39,	4663-117,6138-1-72-100	07/19/77	STREAM	DRY	1000	0500	5		7.97	1.21	18.18	1.69
19503	32-39,	4655-117,6103-1-70-100	07/19/77	STREAM	WET	1000	0500	1					
19504	32-39,	4638-117,5002-1-72-100	07/19/77	STREAM	DRY	1000	0500	1		5.67	1.21	20.14	1.31
19505	32-39,	4475-117,5950-1-72-100	07/19/77	STREAM	DRY	1000	0500	5		3.72	1.26	12.79	1.05
19506	32-39,	3961-117,6050-1-72-100	07/19/77	STREAM	DRY	1000	0500	5		5.86	1.27	21.14	2.63
19507	32-39,	4105-117,6168-1-72-100	07/19/77	STREAM	DRY	1000	0500	5		5.84	1.26	25.49	1.61
19508	32-39,	3933-117,6166-1-72-100	07/19/77	STREAM	DRY	1000	0500	5		5.75	1.26	24.04	1.65
19509	32-39,	3601-117,5943-1-72-100		STREAM	DRY	1000	0500	1		5.95	1.23	24.18	1.90
19510	32-39,	3258-117,6010-1-72-100	07/19/77	STREAM	DRY	1000	0500	1		4.86	1.24	18.62	1.41
19511	32-39,	3177-117,6160-1-72-100	07/19/77	STREAM	DRY	1000	0500	1		6.54	1.25	23.37	2.51
19512	32-39,	3005-117,6193-1-72-100	07/19/77	STREAM	DRY	1000	0500	1		2.86	1.46	13.50	1.73
19513	32-39,	2816-117,6087-1-72-100	07/19/77	STREAM	DRY	1000	0500	1		4.99	1.26	20.85	1.59
19514	32-39,	2698-117,6271-1-72-100	07/19/77	STREAM	DRY	1000	0500	1		6.42	1.22	26.13	1.95
19515	32-39,	2554-117,6340-1-72-100	07/19/77	STREAM	DRY	1000	0500	5		5.32	1.33	27.77	2.25
19516	32-39,	3780-117,6188-1-72-100	07/20/77	STREAM	DRY	1000	0500	1		5.15	1.26	21.41	1.39
19517	32-39,	3770-117,6304-1-72-100	07/20/77	STREAM	DRY	1000	0500	1		5.86	1.22	22.22	1.57
19518	32-39,	3634-117,6582-1-72-100	07/20/77	STREAM	DRY	1000	0500	5		6.36	1.19	16.89	1.71
19519	32-39,	3788-117,6455-1-72-100	07/20/77	STREAM	DRY	1000	0500	1		5.95	1.20	18.37	1.39
19520	32-39,	3878-117,6456-1-70-100	07/20/77	STREAM	WET	1000	0500	1		6.33	1.22	21.75	2.06
19521	32-39,	3896-117,6468-1-72-100		STREAM	DRY	1000	0500	5		5.79	1.22	22.20	1.76
19522	32-39,	3868-117,6572-1-72-100	07/20/77	STREAM	DRY	1000	0500	5		6.42	1.24	22.42	2.39
19523	32-39,	3896-117,6814-1-70-100	07/20/77	STREAM	WET	1000	0500	5		5.59	1.26	17.43	1.55
19524	32-39,	3524-117,6905-1-72-100	07/20/77	STREAM	DRY	1000	0500	5		6.91	1.24	16.11	1.73

MILLETT QUAD REPORT, LAWRENCE LIVERMORE LABORATORY
 TABLE B-1. SEDIMENT ANALYSIS; DRY AND STREAM SITES

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SITE NUMBER	DOE ST	SAMPLE LAT.	NUMBER	DATE LONG.	SAMPLE L	PARTICLE TY	SIZE RPL	POS. MD-DA-YR	Q. C. SOURCE/COND.	URANIUM(DNC) X-RE>	THORIUM(NAA) PPM	PPM	ERR
19525	32-39.	3469-117.	7067-1-70-100	07/20/77	STREAM	WET	1000	0500	5	6.00	1.22	19.15	1.51
19526	32-39.	3469-117.	7079-1-70-100	07/20/77	STREAM	WET	1000	0500	5	6.34	1.21	24.38	1.71
19527	32-39.	3578-117.	6860-1-70-100	07/20/77	STREAM	WET	1000	0500	5	7.03	1.19	22.92	1.62
19528	32-39.	3956-117.	6956-1-70-100	07/20/77	STREAM	WET	1000	0500	5	4.08	1.26	15.08	1.13
19529	32-39.	4235-117.	6959-1-72-100	07/20/77	STREAM	DRY	1000	0500	9	4.89	1.25	16.32	1.45
19530	32-39.	4460-117.	7066-1-72-100	07/20/77	STREAM	DRY	1000	0500	5	3.54	1.30	13.93	1.06
19531	32-39.	4451-117.	7077-1-72-100	07/20/77	STREAM	DRY	1000	0500	5	4.97	1.21	16.56	1.21
19532	32-39.	4595-117.	7125-1-72-100	07/20/77	STREAM	DRY	1000	0500	5	4.69	1.18		
19533	32-39.	4675-117.	7184-1-70-100	07/20/77	STREAM	WET	1000	0500	5	4.38	1.28	15.58	1.21
19534	32-39.	5830-117.	5310-1-70-100		STREAM	WET	1000	0500	5	5.01	1.22	15.49	1.19
19535	32-39.	5830-117.	5356-1-72-100	07/21/77	STREAM	DRY	1000	0500	5	3.48	1.33	15.74	1.12
19536	32-39.	7327-117.	5088-1-72-100	07/21/77	STREAM	DRY	1000	0500	5	3.59	1.30	11.93	1.07
19537	32-39.	7406-117.	5369-1-72-100	07/21/77	STREAM	DRY	1000	0500	5	4.79	1.26	20.51	1.36
19538	32-39.	7108-117.	5495-1-72-100	07/21/77	STREAM	DRY	1000	0500	5	4.16	1.38	16.56	1.76
19539	32-39.	6840-117.	5108-1-72-100	07/21/77	STREAM	DRY	1000	0500	5	2.36	1.39	6.50	0.74
19540	32-39.	6766-117.	5410-1-72-100	07/21/77	STREAM	DRY	1000	0500	5	3.13	1.27	8.28	0.85
19541	32-39.	6514-117.	5443-1-72-100	07/21/77	STREAM	DRY	1000	0500	5	2.91	1.33	9.95	1.03
19542	32-39.	6450-117.	5548-1-72-100	07/21/77	STREAM	DRY	1000	0500	5	3.23	1.31	7.38	1.05
19543	32-39.	6360-117.	5535-1-72-100	07/21/77	STREAM	DRY	1000	0500	5	7.49	1.33	32.05	2.62
19544	32-39.	6297-117.	5710-1-72-100	07/21/77	STREAM	DRY	1000	0500	5	5.07	1.39	17.88	1.74
19545	32-39.	5793-117.	5403-1-72-100	07/21/77	STREAM	DRY	1000	0500	5	3.39	1.38	16.19	1.39
19546	32-39.	5540-117.	5727-1-72-100	07/21/77	STREAM	DRY	1000	0500	1	5.34	1.20	12.06	1.00
19547	32-39.	5512-117.	5831-1-72-100	07/21/77	STREAM	DRY	1000	0500	1	4.88	1.23	14.20	1.15
19597	32-39.	5564-116.	0991-1-72-100	07/29/77	STREAM	DRY	1000	0500	5	2.47	1.45	7.65	0.94
19598	32-39.	5541-116.	1573-1-72-100	07/29/77	STREAM	DRY	1000	0500	1	1.92	1.56	6.41	0.90
19599	32-39.	5244-116.	1670-1-72-100	07/29/77	STREAM	DRY	1000	0500	5	1.42	1.78	4.57	0.92
19600	32-39.	5065-116.	1835-1-72-100	07/29/77	STREAM	DRY	1000	0500	5	1.60	1.65	5.97	0.92
20101	32-39.	5166-116.	0732-1-72-100	07/12/77	STREAM	DRY	1000	0500	1	2.27	1.42	8.03	0.81
20102	32-39.	5463-116.	0638-1-70-100	07/12/77	STREAM	WET	1000	0500	5	4.57	1.29	18.13	1.29
20104	32-39.	5525-116.	0891-1-70-100	07/12/77	STREAM	WET	1000	0500	5	16.03	1.16	19.09	3.39
20105	32-39.	6291-116.	8275-1-72-100	07/12/77	STREAM	DRY	1000	0500	1	4.45	1.31	14.49	1.86
20106	32-39.	6354-116.	8275-1-72-100	07/12/77	STREAM	DRY	1000	0500	1	4.69	1.31	17.76	1.92
20107	32-39.	6301-116.	0899-1-72-100	07/12/77	STREAM	DRY	1000	0500	1	4.49	1.32	18.44	1.61
20108	32-39.	6483-116.	8590-1-72-100		STREAM	DRY	1000	0500	1	4.06	1.35	11.41	1.33
20109	32-39.	6346-116.	9114-1-72-100		STREAM	DRY	1000	0500	5	5.62	1.34	12.86	1.68
20110	32-39.	6004-116.	9290-1-72-100	07/12/77	STREAM	DRY	1000	0500	1	6.00	1.31	5.74	3.24
20111	32-39.	5139-117.	0070-1-72-100	07/13/77	STREAM	DRY	1000	0500	1	4.09	1.33	14.13	1.59
20112	32-39.	5193-117.	0198-1-70-100	07/13/77	STREAM	WET	1000	0500	5	3.60	1.35	10.74	1.59
20113	32-39.	5164-117.	0198-1-72-100	07/13/77	STREAM	DRY	1000	0500	5	2.57	1.50	8.13	1.51
20114	32-39.	5554-116.	9953-1-70-100	07/12/77	STREAM	WET	1000	0500	5	5.60	1.24	12.22	1.36
20115	32-39.	5743-117.	0128-1-72-100	07/13/77	STREAM	DRY	1000	0500	5	5.43	1.23	9.86	1.09
20116	32-39.	5662-117.	0128-1-72-100	07/13/77	STREAM	DRY	1000	0500	5	3.90	1.30	9.72	1.27
20117	32-39.	5491-116.	9561-1-72-100	07/13/77	STREAM	DRY	1000	0500	5	2.00	1.64	7.43	1.47
20118	32-39.	5660-116.	9325-1-72-100	07/13/77	STREAM	DRY	1000	0500	1	2.50	1.58	13.53	1.94
20119	32-39.	5734-116.	9593-1-70-100	07/13/77	STREAM	WET	1000	0500	5	5.89	1.39	19.75	2.67
20120	32-39.	5301-116.	9383-1-72-100	07/13/77	STREAM	DRY	1000	0500	1	2.15	1.46	5.37	1.13
20121	32-39.	5256-116.	9523-1-72-100	07/13/77	STREAM	DRY	1000	0500	1	1.70	1.72	7.31	1.58
20122	32-39.	4950-116.	9907-1-72-100	04/13/77	STREAM	DRY	1000	0500	1	3.04	1.39	12.55	1.49
20123	32-39.	4743-117.	0012-1-72-100	07/13/77	STREAM	DRY	1000	0500	5	4.37	1.30	13.90	1.72

MILLETT QUAD REPORT, LAWRENCE LIVERMORE LABORATORY
 TABLE B-1. SEDIMENT ANALYSIS; DRY AND STREAM SITES

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SITE NUMBER	DOE SAMPLE NUMBER	DATE	SAMPLE SOURCE/COND.	PARTICLE SIZE	POS. UPPER LOWER CONT	Q. C. X-RE>	URANIUM(DNC) PPM	ZERR	THORIUM(NAA) PPM	ERR
20124	32-39.4761-117.0035-1-72-100	07/13/77	STREAM	DRY	1000 0500	5	2.99	1.38	10.17	1.40
20125	32-39.4779-117.0058-1-72-100	07/13/77	STREAM	DRY	1000 0500	5	3.28	1.41	19.39	1.68
20126	32-39.4463-116.9768-1-72-100	07/13/77	STREAM	DRY	1000 0500	5	1.88	1.59	6.98	1.30
20127	32-39.4184-116.9826-1-72-100	07/13/77	STREAM	DRY	1000 0500	1	3.88	1.42	19.28	1.82
20128	32-39.4355-116.9802-1-72-100	07/13/77	STREAM	DRY	1000 0500	1	5.16	1.23	13.31	1.64
20129	32-39.3551-116.7957-1-72-100	07/14/77	STREAM	DRY	1000 0500	1	2.17	1.45	9.98	1.01
20130	32-39.3327-116.8236-1-72-100	07/14/77	STREAM	DRY	1000 0500	1	5.43	1.28	15.64	1.52
20131	32-39.3120-116.8759-1-72-100	07/14/77	STREAM	DRY	1000 0500	1	4.26	1.40	16.83	1.81
20132	32-39.2986-116.8434-1-72-100	07/14/77	STREAM	DRY	1000 0500	1	4.51	1.30	12.08	1.88
20133	32-39.2840-116.8296-1-72-100	07/14/77	STREAM	DRY	1000 0500	1	6.32	1.24	12.92	1.39
20134	32-39.2497-116.8053-1-72-100	07/14/77	STREAM	DRY	1000 0500	1	4.46	1.30	14.41	1.78
20135	32-39.2272-116.8065-1-72-100	07/14/77	STREAM	DRY	1000 0500	1	4.15	1.26	11.18	1.24
20136	32-39.1966-116.8008-1-72-100	07/14/77	STREAM	DRY	1000 0500	1	4.82	1.28	11.86	1.59
20137	32-39.1966-116.7985-1-72-100	07/14/77	STREAM	DRY	1000 0500	1	3.98	1.31	12.61	1.29
20138	32-39.1677-116.7650-1-72-100	07/14/77	STREAM	DRY	1000 0500	1	3.70	1.32	12.85	1.13
20139	32-39.1568-116.7674-1-72-100	07/14/77	STREAM	DRY	1000 0500	1	3.49	1.33	10.68	1.05
20140	32-39.1497-116.7013-1-72-100	07/14/77	STREAM	DRY	1000 0500	1	5.60	1.31	12.32	1.63
20141	32-39.1479-116.7813-1-72-100	07/14/77	STREAM	DRY	1000 0500	1	4.95	1.24	11.88	0.92
20142	32-39.1667-116.7361-1-72-100	07/14/77	STREAM	DRY	1000 0500	1	3.50	1.46	12.65	2.47
20143	32-39.1936-116.6827-1-72-100	07/14/77	STREAM	DRY	1000 0500	1	3.17	1.34	11.56	0.95
20144	32-39.2107-116.6896-1-72-100	07/14/77	STREAM	DRY	1000 0500	1	4.28	1.33	19.22	1.68
20145	32-39.2378-116.7045-1-72-100	07/14/77	STREAM	DRY	1000 0500	1	4.36	1.24	12.11	1.03
20146	32-39.2559-116.7172-1-72-100	07/14/77	STREAM	DRY	1000 0500	1	3.15	1.37	10.46	1.11
20147	32-39.3315-116.6879-1-72-100	07/14/77	STREAM	DRY	1000 0500	1	4.62	1.34	19.84	1.50
20148	32-39.3261-116.7030-1-72-100	07/14/77	STREAM	DRY	1000 0500	1	3.99	1.34	15.54	1.34
20149	32-39.3459-116.6960-1-72-100	07/14/77	STREAM	DRY	1000 0500	1	4.39	1.31	16.66	1.98
20150	32-39.1334-116.7374-1-72-100	07/15/77	STREAM	DRY	1000 0500	1	3.24	1.36	13.22	1.66
20151	32-39.1234-116.7039-1-72-100	07/15/77	STREAM	DRY	1000 0500	1	3.75	1.20	18.25	1.06
20152	32-39.1224-116.6888-1-72-100	07/15/77	STREAM	DRY	1000 0500	1	2.80	1.41	14.31	1.20
20153	32-39.0989-116.6901-1-72-100	07/15/77	STREAM	DRY	1000 0500	1	2.99	1.35	15.30	1.14
20154	32-39.0791-116.6786-1-72-100	07/15/77	STREAM	DRY	1000 0500	1	2.20	1.40	10.17	0.75
20155	32-39.0603-116.7030-1-72-100	07/15/77	STREAM	DRY	1000 0500	1	3.99	1.25	14.46	1.15
20156	32-39.0477-116.7250-1-70-100	07/15/77	STREAM	WET	1000 0500	5	4.35	1.31	12.04	1.31
20157	32-39.0541-116.7411-1-70-100	07/15/77	STREAM	WET	1000 0500	5	4.09	1.29	12.59	1.62
20158	32-39.0288-116.7389-1-72-100	07/15/77	STREAM	DRY	1000 0500	1	4.79	1.21	9.59	0.90
20159	32-39.0169-116.6743-1-72-100	07/15/77	STREAM	DRY	1000 0500	5	5.51	1.27	13.04	1.67
20160	32-39.0575-116.6567-1-72-100	07/15/77	STREAM	DRY	1000 0500	5	3.75	1.29	14.86	1.44
20161	32-39.0871-116.6404-1-70-100	07/15/77	STREAM	WET	1000 0500	5	2.11	1.81	9.16	1.39
20162	32-39.0664-116.6278-1-72-100	07/16/77	STREAM	DRY	1000 0500	1	7.65	1.19	22.16	1.73
20163	32-39.0059-116.5946-1-72-100	07/16/77	STREAM	DRY	1000 0500	1	3.94	1.31	20.17	1.35
20164	32-39.0157-116.5796-1-72-100	07/16/77	STREAM	DRY	1000 0500	5	3.61	1.41	16.10	2.06
20165	32-39.0246-116.5472-1-72-100	07/16/77	STREAM	DRY	1000 0500	5	3.74	1.40	20.73	2.14
20166	32-39.0173-116.5241-1-70-100	07/16/77	STREAM	WET	1000 0500	5	3.47	1.40	17.77	2.00
20167	32-39.0488-116.5077-1-70-100	07/16/77	STREAM	WET	1000 0500	5	2.70	1.40	7.80	1.05
20168	32-39.0515-116.5055-1-72-100	07/16/77	STREAM	DRY	1000 0500	5	2.98	1.39	14.49	1.24
20169	32-39.0598-116.5481-1-72-100	07/16/77	STREAM	DRY	1000 0500	1	3.47	1.32	20.20	1.47
20170	32-39.0635-116.5642-1-72-100	07/16/77	STREAM	DRY	1000 0500	1	3.55	1.31	18.45	1.26
20171	32-39.1122-116.5801-1-72-100	07/16/77	STREAM	DRY	1000 0500	5	4.99	1.27	20.93	1.57
20172	32-39.0985-116.5363-1-72-100	07/16/77	STREAM	DRY	1000 0500	5	3.96	1.34	20.18	1.65

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 TABLE B-1, SEDIMENT ANALYSIS: DRY AND STREAM SITES

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SITE	-----DOE SAMPLE NUMBER-----	DATE	SAMPLE	PARTICLE SIZE	POS.	Q. C.	URANIUM(DNC)	THORIUM(NAA)			
NUMBER	ST	LAT.	LONG.	L	TY	RPL	X-REF	PPM	PPM	XERR	ERR
20175	32-39,	0732-116,	5237-1-72-100	07/16/77	STREAM	DRY	1000	0500	1	2.79	1.45
20176	32-39,	1357-116,	6020-1-72-100	07/16/77	STREAM	DRY	1000	0500	5	6.09	1.23
20177	32-39,	1412-116,	6401-1-72-100	07/16/77	STREAM	DRY	1000	0500	1	4.27	1.36
20178	32-39,	1202-116,	5697-1-72-100	07/17/77	STREAM	DRY	1000	0500	1	3.74	1.32
20179	32-39,	1346-116,	5476-1-72-100	07/17/77	STREAM	DRY	1000	0500	5	5.52	1.28
20180	32-39,	1355-116,	5418-1-72-100	07/17/77	STREAM	DRY	1000	0500	5	3.91	1.29
20181	32-39,	1579-116,	5301-1-72-100	07/17/77	STREAM	DRY	1000	0500	5	6.51	1.26
20182	32-39,	1705-116,	5277-1-72-100	07/17/77	STREAM	DRY	1000	0500	5	3.51	1.32
20184	32-39,	1858-116,	5218-1-72-100	07/17/77	STREAM	DRY	1000	0500	5	1.96	1.54
20185	32-39,	1867-116,	5241-1-72-100	07/17/77	STREAM	DRY	1000	0500	5	3.09	1.41
20186	32-39,	2074-116,	5124-1-72-100	07/17/77	STREAM	DRY	1000	0500	5	3.97	1.35
20187	32-39,	2111-116,	5286-1-72-100	07/17/77	STREAM	DRY	1000	0500	5	3.39	1.34
20188	32-39,	2247-116,	5301-1-72-100	07/17/77	STREAM	DRY	1000	0500	5	2.89	1.67
20189	32-39,	2345-116,	5331-1-72-100	07/17/77	STREAM	DRY	1000	0500	5	2.54	1.39
20190	32-39,	2065-116,	5101-1-72-100	07/17/77	STREAM	DRY	1000	0500	5	2.47	1.43
20191	32-39,	1874-116,	4674-1-72-100	07/17/77	STREAM	DRY	1000	0500	5	3.55	1.31
20192	32-39,	1055-116,	4466-1-72-100	07/17/77	STREAM	DRY	1000	0500	5	3.46	1.37
20193	32-39,	1700-116,	4073-1-72-100	07/17/77	STREAM	DRY	1000	0500	5	3.51	1.34
20194	32-39,	1961-116,	4071-1-72-100	07/17/77	STREAM	DRY	1000	0500	5	4.20	1.25
20195	32-39,	2240-116,	3964-1-72-100	07/17/77	STREAM	DRY	1000	0500	5	5.18	1.27
20196	32-39,	5192-117,	4781-1-72-100	07/18/77	STREAM	DRY	1000	0500	1	4.57	1.36
20197	32-39,	4111-117,	4867-1-72-100	07/18/77	STREAM	DRY	1000	0500	1	4.32	1.32
20198	32-39,	4642-117,	4917-1-72-100	07/18/77	STREAM	DRY	1000	0500	1	4.96	1.38
20199	32-39,	4004-117,	4564-1-72-100	07/18/77	STREAM	DRY	1000	0500	1	4.57	1.31
20200	32-39,	3835-117,	4006-1-72-100	07/18/77	STREAM	DRY	1000	0500	1	7.20	1.20
20201	32-39,	3826-117,	3994-1-72-100	07/18/77	STREAM	DRY	1000	0500	1	5.56	1.23
20202	32-39,	3844-117,	4041-1-72-100	07/18/77	STREAM	DRY	1000	0500	1	7.11	1.25
20203	32-39,	3825-117,	4099-1-72-100	07/18/77	STREAM	DRY	1000	0500	1	5.44	1.23
20204	32-39,	3825-117,	4226-1-72-100	07/18/77	STREAM	DRY	1000	0500	1	7.32	1.16
20205	32-39,	3915-117,	4262-1-72-100	07/18/77	STREAM	DRY	1000	0500	1	6.64	1.21
20206	32-39,	4096-117,	4147-1-72-100	07/18/77	STREAM	DRY	1000	0500	1	6.78	1.21
20207	32-39,	4303-117,	4218-1-72-100	07/19/77	STREAM	DRY	1000	0500	1	5.10	1.27
20208	32-39,	4483-117,	4126-1-72-100	07/19/77	STREAM	DRY	1000	0500	1	4.24	1.34
20209	32-39,	4826-117,	4000-1-72-100	07/19/77	STREAM	DRY	1000	0500	1	8.01	1.18
20210	32-39,	3618-117,	4005-1-72-100	07/19/77	STREAM	DRY	1000	0500	1	7.56	1.19
20211	32-39,	3573-117,	4167-1-72-100	07/19/77	STREAM	DRY	1000	0500	1	4.90	1.28
20212	32-39,	3681-117,	4202-1-72-100	07/19/77	STREAM	DRY	1000	0500	1	7.38	1.21
20213	32-39,	3419-117,	4224-1-72-100	07/19/77	STREAM	DRY	1000	0500	1	7.97	1.17
20214	32-39,	3356-117,	4224-1-72-100	07/19/77	STREAM	DRY	1000	0500	1	6.38	1.26
20215	32-39,	3266-117,	4246-1-72-100	07/19/77	STREAM	DRY	1000	0500	5	5.30	1.23
20216	32-39,	2915-117,	4302-1-72-100	07/19/77	STREAM	DRY	1000	0500	1	5.91	1.14
20217	32-39,	2960-117,	4105-1-72-100	07/19/77	STREAM	DRY	1000	0500	1	4.63	1.28
20218	32-39,	2943-117,	3989-1-72-100	07/19/77	STREAM	DRY	1000	0500	1	3.01	1.44
20219	32-39,	2952-117,	3978-1-72-100	07/19/77	STREAM	DRY	1000	0500	1	4.07	1.22
20220	32-39,	2952-117,	3989-1-72-100	07/19/77	STREAM	DRY	1000	0500	1	5.73	1.23
20221	32-39,	2744-117,	4243-1-72-100	07/19/77	STREAM	DRY	1000	0500	1	6.97	1.21
20222	32-39,	2672-117,	4219-1-72-100	07/19/77	STREAM	DRY	1000	0500	1	6.04	1.24
20223	32-39,	2582-117,	3999-1-72-100	07/19/77	STREAM	DRY	1000	0500	1	4.62	1.25
20224	32-39,	2555-117,	4091-1-72-100	07/19/77	STREAM	DRY	1000	0500	1	5.74	1.24
										23.24	1.78

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 TABLE B-1, SEDIMENT ANALYSIS; DRY AND STREAM SITES

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 TABLE B-1. SEDIMENT ANALYSIS: DRY AND STREAM SITES

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SITE NUMBER	DOE SAMPLE NUMBER	DATE	SAMPLE SOURCE/COND.	PARTICLE SIZE	POS. UPPER LOWER CONT	Q. C. X-RE>	URANIUM(DNC) PPM	THORIUM(NAA) PPM	ERR
20275	32-39.7307-116.1540-1-72-100	07/27/77	STREAM	DRY	1000 0500	1	3.88	1.29	10.21
20276	32-39.7020-116.1710-1-72-100	07/27/77	STREAM	DRY	1000 0500	1	4.35	1.25	12.10
20277	32-39.7257-116.2066-1-72-100	07/27/77	STREAM	DRY	1000 0500	1	5.33	1.21	12.27
20278	32-39.6534-116.1783-1-72-100	07/27/77	STREAM	DRY	1000 0500	1	4.14	1.31	12.94
20279	32-39.6626-116.2095-1-72-100	07/27/77	STREAM	DRY	1000 0500	1	4.63	1.23	11.00
20280	32-39.6113-116.2207-1-72-100	07/27/77	STREAM	DRY	1000 0500	1	2.30	1.47	13.67
20281	32-39.6179-116.1379-1-72-100	07/27/77	STREAM	DRY	1000 0500	1	3.48	1.30	8.79
20284	32-39.5939-116.1126-1-72-100	07/27/77	STREAM	DRY	1000 0500	1	2.81	1.36	12.93
20285	32-39.5815-116.0906-1-72-100	07/27/77	STREAM	DRY	1000 0500	5	3.70	1.34	8.33
20286	32-39.5732-116.0674-1-72-100	07/27/77	STREAM	DRY	1000 0500	5	4.57	1.33	14.45
20287	32-39.5782-116.2540-1-72-100	07/28/77	STREAM	DRY	1000 0500	5	3.58	1.35	19.70
20288	32-39.5700-116.2363-1-72-100	07/28/77	STREAM	DRY	1000 0500	1	1.70	1.56	6.92
20289	32-39.5380-116.1784-1-72-100	07/28/77	STREAM	DRY	1000 0500	1	3.09	1.56	15.91
20290	32-39.1738-116.4119-1-72-100	08/02/77	STREAM	DRY	1000 0500	5	6.03	1.31	36.07
20291	32-39.1403-116.4087-1-72-100	08/02/77	STREAM	DRY	1000 0500	5	3.47	1.41	16.52
20292	32-39.3540-116.4371-1-70-100	08/02/77	STREAM	WET	1000 0500	5	4.47	1.34	26.77
20293	32-39.2595-116.4599-1-72-100	08/02/77	STREAM	DRY	1000 0500	5	3.62	1.39	20.29
20294	32-39.2685-116.4737-1-72-100	08/02/77	STREAM	DRY	1000 0500	5	3.67	1.40	25.30
20295	32-39.2758-116.4841-1-72-100	08/02/77	STREAM	DRY	1000 0500	5	4.01	1.35	24.71
20296	32-39.2767-116.4922-1-72-100	08/02/77	STREAM	DRY	1000 0500	5	3.17	1.35	13.13
20297	32-39.2767-116.4899-1-72-100	08/02/77	STREAM	DRY	1000 0500	5	4.04	1.35	18.25
20298	32-39.2549-116.4576-1-72-100	08/02/77	STREAM	DRY	1000 0500	5	5.20	1.29	15.58
20299	32-39.2813-116.4991-1-72-100	08/02/77	STREAM	DRY	1000 0500	5	3.46	1.40	17.88
20300	32-39.2912-116.5095-1-72-100	08/02/77	STREAM	DRY	1000 0500	5	3.43	1.37	21.92
20301	32-39.5346-116.8697-1-72-100	07/12/77	STREAM	DRY	1000 0500	1	4.41	1.31	17.72
20302	32-39.5715-116.8661-1-72-100	09/02/77	STREAM	DRY	1000 0500	1	4.35	1.27	10.42
20303	32-39.5742-116.8638-1-72-100	07/12/77	STREAM	DRY	1000 0500	1	3.78	1.33	16.48
20304	32-39.5733-116.8626-1-72-100	07/12/77	STREAM	DRY	1000 0500	1	5.52	1.26	20.80
20305	32-39.5895-116.8696-1-72-100	07/12/77	STREAM	DRY	1000 0500	1	3.53	1.37	16.74
20306	32-39.5904-116.8672-1-72-100	07/12/77	STREAM	DRY	1000 0500	1	4.34	1.31	17.50
20307	32-39.5985-116.8218-1-70-100	07/12/77	STREAM	WET	1000 0500	1	6.06	1.24	22.40
20308	32-39.5778-116.8265-1-70-100	07/12/77	STREAM	WET	1000 0500	1	4.98	1.25	
20309	32-39.7254-116.7643-1-72-100	07/12/77	STREAM	DRY	1000 0500	1	4.72	1.26	20.34
20310	32-39.7436-116.9448-1-72-100	07/12/77	STREAM	DRY	1000 0500	1	5.40	1.24	17.96
20312	32-39.6626-116.9382-1-70-100	07/13/77	STREAM	WET	1000 0500	1	3.50	1.45	14.35
20313	32-39.6644-116.9067-1-72-100	07/13/77	STREAM	DRY	1000 0500	1	4.57	1.31	18.80
20314	32-39.7319-116.8926-1-72-100	07/13/77	STREAM	DRY	1000 0500	1	5.51	1.31	21.02
20315	32-39.7283-116.8915-1-70-100	07/13/77	STREAM	WET	1000 0500	1	5.79	1.27	24.68
20316	32-39.5073-116.7499-1-72-100	07/13/77	STREAM	DRY	1000 0500	1	4.40	1.35	25.21
20317	32-39.5335-116.7487-1-70-100	07/13/77	STREAM	WET	1000 0500	1	3.74	1.33	16.41
20318	32-39.5316-116.7079-1-72-100	07/13/77	STREAM	DRY	1000 0500	1	4.39	1.41	26.00
20319	32-39.5411-116.6881-1-72-100	07/13/77	STREAM	DRY	1000 0500	1	3.83	1.30	18.97
20320	32-39.4919-116.7104-1-72-100	07/14/77	STREAM	DRY	1000 0500	9	5.00	1.29	25.53
20321	32-39.5504-116.6753-1-72-100	07/14/77	STREAM	DRY	1000 0500	1	5.55	1.18	8.52
20322	32-39.5729-116.6600-1-72-100	07/14/77	STREAM	DRY	1000 0500	5	4.05	1.31	15.92
20323	32-39.5864-116.6448-1-72-100	07/14/77	STREAM	DRY	1000 0500	1	3.71	1.40	23.33
20324	32-39.5990-116.6564-1-72-100	07/14/77	STREAM	DRY	1000 0500	3	4.00	1.27	
20325	32-39.7078-116.5789-1-72-100	07/14/77	STREAM	DRY	1000 0500	1	3.59	1.30	7.61
20327	32-39.7491-116.5389-1-72-100	07/14/77	STREAM	DRY	1000 0500	1	7.30	1.16	15.92

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 TABLE B-1. SEDIMENT ANALYSIS; DRY AND STREAM SITES

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SITE NUMBER	DOE ST	SAMPLE LAT.	NUMBER LONG.	DATE L TY RPL	SAMPLE MO-DA-YR	PARTICLE SOURCE/COND.	SIZE UPPER	POS. LOWER	Q. C. CONT	URANIUM(DNC) X-RE> PPM	URANIUM(DNC) #ERR	THORIUM(NAA) PPM	THORIUM(NAA) ERR	
20328	32-39.	7565-	116.3930	-1-72-100	07/14/77	STREAM	DRY	1000	0500	1	3.76	1.36	5.69	0.79
20329	32-39.	7776-	116.4559	-1-72-100	07/14/77	STREAM	DRY	1000	0500	1	4.23	1.24	8.65	0.79
20330	32-39.	8487-	116.4553	-1-72-100	07/14/77	STREAM	DRY	1000	0500	1	4.97	1.18	5.28	0.65
20331	32-39.	8831-	116.4737	-1-72-100	07/14/77	STREAM	DRY	1000	0500	5	4.01	1.36	17.16	1.55
20332	32-39.	4298-	116.4748	-1-72-100	07/15/77	STREAM	DRY	1000	0500	1	3.12	1.48	22.32	1.58
20333	32-39.	4696-	116.3176	-1-72-100	07/15/77	STREAM	DRY	1000	0500	1	3.82	1.48	19.66	1.53
20334	32-39.	4712-	116.2943	-1-72-100	07/15/77	STREAM	DRY	1000	0500	1	3.68	1.46	20.65	1.65
20335	32-39.	2581-	116.3706	-1-72-100	07/15/77	STREAM	DRY	1000	0500	5	3.75	1.25		
20336	32-39.	3067-	116.3644	-1-72-100	07/15/77	STREAM	DRY	1000	0500	5	4.06	1.37	27.39	1.87
20337	32-39.	2915-	116.3738	-1-72-100	07/15/77	STREAM	DRY	1000	0500	5	3.67	1.22		
20338	32-39.	3196-	116.4165	-1-72-100	07/15/77	STREAM	DRY	1000	0500	5	4.23	1.34	26.44	1.78
20339	32-39.	3277-	116.4129	-1-72-100	07/15/77	STREAM	DRY	1000	0500	1	2.74	1.44	14.74	1.11
20340	32-39.	3304-	116.4129	-1-72-100	07/15/77	STREAM	DRY	1000	0500	1	3.31	1.40	19.77	1.40
20341	32-39.	3231-	116.3875	-1-70-100	07/15/77	STREAM	WET	1000	0500	5	2.83	1.45	18.35	1.23
20342	32-39.	3482-	116.3687	-1-72-100	07/15/77	STREAM	DRY	1000	0500	1	3.31	1.25		
20343	32-39.	3554-	116.3733	-1-72-100	07/15/77	STREAM	DRY	1000	0500	1	2.28	1.61	18.85	1.28
20344	32-39.	3591-	116.3813	-1-72-100	07/15/77	STREAM	DRY	1000	0500	1	4.21	1.24		
20345	32-39.	4535-	116.5351	-1-72-100	07/16/77	STREAM	DRY	1000	0500	5	3.28	1.41	22.67	1.59
20346	32-39.	4408-	116.5015	-1-72-100	07/16/77	STREAM	DRY	1000	0500	5	2.70	1.50	22.75	1.62
20347	32-39.	4011-	116.5018	-1-72-100	07/16/77	STREAM	DRY	1000	0500	5	2.42	1.51	21.39	1.43
20348	32-39.	4164-	116.5017	-1-72-100	07/16/77	STREAM	DRY	1000	0500	5	2.69	1.51	18.98	1.36
20349	32-39.	4193-	116.5400	-1-72-100	07/16/77	STREAM	DRY	1000	0500	5	2.21	1.51	15.02	1.14
20350	32-39.	4059-	116.5586	-1-72-100	07/16/77	STREAM	DRY	1000	0500	5	2.77	1.44	17.17	1.26
20351	32-39.	3914-	116.5564	-1-72-100	07/16/77	STREAM	DRY	1000	0500	5	3.31	1.29		
20352	32-39.	3752-	116.5449	-1-72-100	07/16/77	STREAM	DRY	1000	0500	5	2.15	1.56	19.12	1.39
20353	32-39.	3779-	116.5414	-1-72-100	07/16/77	STREAM	DRY	1000	0500	9	2.87	1.45	19.19	1.50
20354	32-39.	3824-	115.5483	-1-70-100	07/16/77	STREAM	WET	1000	0500	5	4.01	1.38	19.63	1.76
20355	32-39.	4221-	116.5771	-1-72-100	07/16/77	STREAM	DRY	1000	0500	9	3.74	1.39	18.98	1.48
20356	32-39.	3951-	116.5819	-1-72-100	07/15/77	STREAM	DRY	1000	0500	5	2.20	1.47	11.92	1.29
20357	32-39.	3347-	116.5788	-1-72-100	07/16/77	STREAM	DRY	1000	0500	5	3.27	1.36	17.99	1.34
20358	32-39.	3203-	116.5766	-1-72-100	07/16/77	STREAM	DRY	1000	0500	5	3.16	1.62	12.05	2.95
20359	32-39.	3211-	116.5418	-1-72-100	07/16/77	STREAM	DRY	1000	0500	5	3.57	1.32	16.08	1.10
20360	32-39.	3211-	116.5418	-1-72-100	07/16/77	STREAM	DRY	1000	0500	5	3.34	1.40	18.45	1.30
20361	32-39.	3247-	116.5429	-1-72-100	07/13/77	STREAM	DRY	1000	0500	5	3.04	1.45	20.23	1.60
20362	32-39.	3014-	116.5674	-1-70-100	07/16/77	STREAM	WET	1000	0500	9	4.74	1.20	22.71	1.55
20363	32-39.	2346-	116.3651	-1-72-100	07/17/77	STREAM	DRY	1000	0500	1	3.68	1.36	15.31	1.81
20364	32-39.	1878-	116.3632	-1-72-100	07/17/77	STREAM	DRY	1000	0500	5	2.55	1.48	9.83	0.99
20365	32-39.	1734-	116.3679	-1-72-100	07/17/77	STREAM	DRY	1000	0500	5	2.17	1.50	5.05	0.92
20366	32-39.	1580-	116.3634	-1-72-100	07/17/77	STREAM	DRY	1000	0500	5	1.78	1.49	5.27	0.68
20367	32-39.	1490-	116.3600	-1-72-100	07/17/77	STREAM	DRY	1000	0500	5	2.34	1.42	6.14	0.82
20368	32-39.	1156-	116.3511	-1-72-100	07/17/77	STREAM	DRY	1000	0500	1	2.79	1.44	15.87	1.27
20369	32-39.	1129-	116.3523	-1-72-100	07/17/77	STREAM	DRY	1000	0500	1	4.08	1.33	22.50	1.69
20370	32-39.	0732-	116.3353	-1-72-100	07/17/77	STREAM	DRY	1000	0500	5	2.58	1.48	13.70	1.67
20371	32-39.	0712-	116.3122	-1-72-100	07/17/77	STREAM	DRY	1000	0500	5	2.68	1.53	26.86	1.68
20372	32-39.	0470-	116.3217	-1-72-100	07/17/77	STREAM	DRY	1000	0500	5	3.26	1.37	17.36	1.60
20373	32-39.	0236-	116.3254	-1-72-100	07/17/77	STREAM	DRY	1000	0500	5	2.58	1.45	11.37	1.40
										2.29	1.49	13.45	1.19	

MILLETT QUAD REPORT, LAWRENCE LIVERMORE LABORATORY
 TABLE B-1, SEDIMENT ANALYSIS; DRY AND STREAM SITES

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SITE NUMBER	DOE SAMPLE NUMBER	DATE	SAMPLE SOURCE/COND.	PARTICLE SIZE	POS. UPPER	POS. LOWER	Q. C. X-REF	URANIUM(DNC) PPM	URANIUM(DNC) ZERR	THORIUM(NAA) PPM	THORIUM(NAA) ERR
20374	32-39.0136-116.3139-1-72-100	07/17/77	STREAM	DRY	1000	0500	5	3.24	1.40	18.79	1.72
20375	32-39.0092-116.3278-1-72-100	07/17/77	STREAM	DRY	1000	0500	5	2.62	1.44	14.33	1.34
20376	32-39.1263-116.3232-1-72-100	07/17/77	STREAM	DRY	1000	0500	5	2.94	1.38	15.29	1.29
20377	32-39.1532-116.3068-1-72-100	07/17/77	STREAM	DRY	1000	0500	5	3.02	1.36	15.48	1.21
20378	32-39.1667-116.3009-1-72-100	07/17/77	STREAM	DRY	1000	0500	5	2.08	1.48	6.48	0.78
20379	32-39.2125-116.2726-1-72-100	07/17/77	STREAM	DRY	1000	0500	5	3.19	1.36	16.25	1.27
20379	32-39.2125-116.2726-1-72-101		STREAM	DRY	1000	0500		3.25	1.39	18.31	1.22
20380	32-39.2441-116.2804-1-72-100	07/17/77	STREAM	DRY	1000	0500	5	3.78	1.40	12.99	2.11
20381	32-39.5151-117.3932-1-72-100	07/18/77	STREAM	DRY	1000	0500	5	3.41	1.31	12.38	1.55
20382	32-39.5366-117.4166-1-72-100	07/18/77	STREAM	DRY	1000	0500	1	3.20	1.36	13.07	1.44
20383	32-39.5465-117.4248-1-72-100	07/18/77	STREAM	DRY	1000	0500	1	3.41	1.43	14.22	2.12
20384	32-39.5709-117.3947-1-72-100		STREAM	DRY	1000	0500	1	2.45	1.46	9.83	1.45
20385	32-39.5781-117.3877-1-72-100	07/18/77	STREAM	DRY	1000	0500	1	3.22	1.41	8.91	2.04
20386	32-39.5735-117.4203-1-72-100	07/18/77	STREAM	DRY	1000	0500	1	2.65	1.39	10.14	1.06
20387	32-39.5970-117.4169-1-72-100	07/18/77	STREAM	DRY	1000	0500	1	4.09	1.25	12.98	1.02
20388	32-39.6123-117.4205-1-72-100	07/18/77	STREAM	DRY	1000	0500	5	4.79	1.28	21.01	1.67
20389	32-39.6105-117.4042-1-72-100	07/18/77	STREAM	DRY	1000	0500	5	4.23	1.31	18.32	1.72
20390	32-39.6105-117.4042-1-72-101		STREAM	DRY	1000	0500		4.03	1.29	16.89	1.28
20390	32-39.5892-117.4471-1-72-100	07/18/77	STREAM	DRY	1000	0500	6	3.34	1.37	11.93	1.90
20391	32-39.5843-117.4448-1-72-100	07/18/77	STREAM	DRY	1000	0500	5	4.62	1.29	18.17	1.87
20393	32-39.5833-117.4565-1-72-100	07/18/77	STREAM	DRY	1000	0500	5	3.60	1.33	16.47	1.41
20394	32-39.5860-117.4681-1-72-100	07/18/77	STREAM	DRY	1000	0500	1	3.12	1.35	12.95	1.18
20395	32-39.5705-117.5053-1-72-100	07/18/77	STREAM	DRY	1000	0500	5	3.26	1.34	8.94	1.45
20396	32-39.5696-117.4948-1-72-100		STREAM	DRY	1000	0500	5	3.24	1.43	10.56	1.66
20397	32-39.5624-117.5110-1-72-100	07/18/77	STREAM	DRY	1000	0500	1	1.50	1.61	5.93	1.11
20398	32-39.5364-117.4620-1-72-100	07/18/77	STREAM	DRY	1000	0500	1	3.18	1.33	13.42	1.01
20399	32-39.5108-117.5618-1-72-100	07/19/77	STREAM	DRY	1000	0500	5	5.74	1.24	27.77	1.89
20400	32-39.5108-117.5618-1-72-101		STREAM	DRY	1000	0500		7.81	1.20	36.51	2.11
20400	32-39.4864-117.5663-1-72-100	07/19/77	STREAM	DRY	1000	0500	5	3.15	1.30	12.85	0.99
20400	32-39.4864-117.5663-1-72-110		STREAM	DRY	1000	0500		3.51	1.32	13.91	1.28
20401	32-39.5183-116.8597-1-72-100		STREAM	DRY	1000	0500	1	4.94	1.27	22.96	1.56
20402	32-39.6074-116.7577-1-70-100	07/12/77	STREAM	WET	1000	0500	1	4.09	1.23		
20403	32-39.6073-116.7356-1-72-100	07/12/77	STREAM	DRY	1000	0500	9	2.96	1.43	14.89	1.76
20404	32-39.6516-116.7809-1-70-100	07/12/77	STREAM	WET	1000	0500	9	4.34	1.33	23.07	1.81
20405	32-39.6768-116.7890-1-72-100	07/12/77	STREAM	DRY	1000	0500	9	3.35	1.37	15.39	1.23
20406	32-39.6660-116.8041-1-72-100	07/12/77	STREAM	DRY	1000	0500	9	4.61	1.24	15.84	1.37
20407	32-39.6130-116.9115-1-72-100	07/12/77	STREAM	DRY	1000	0500	1	5.29	1.26	14.67	1.52
20408	32-39.4355-116.9245-1-72-100	07/13/77	STREAM	DRY	1000	0500	1	4.48	1.30	20.45	1.85
20409	32-39.4625-116.8907-1-72-100	07/13/77	STREAM	DRY	1000	0500	3	2.93	1.43	16.40	1.35
20409	32-39.4625-116.8907-1-72-101		STREAM	DRY	1000	0500		2.94	1.43	16.73	1.37
20410	32-39.4760-116.8721-1-72-100	07/13/77	STREAM	DRY	1000	0500	1	3.74	1.36	18.02	1.57
20411	32-39.4823-116.8488-1-72-100	07/13/77	STREAM	DRY	1000	0500	1	4.55	1.36	26.72	2.10
20412	32-39.4904-116.8302-1-72-100	07/13/77	STREAM	DRY	1000	0500	1	4.08	1.29	19.28	1.39
20413	32-39.4904-116.8232-1-72-100	07/13/77	STREAM	DRY	1000	0500	1	4.26	1.34	17.46	1.78
20414	32-39.5030-116.8186-1-72-100	07/13/77	STREAM	DRY	1000	0500	1	4.26	1.34	26.33	1.74
20415	32-39.4931-116.8626-1-72-100	07/13/77	STREAM	DRY	1000	0500	1	5.56	1.26	17.20	1.98
20416	32-39.5003-116.8721-1-72-100	07/13/77	STREAM	DRY	1000	0500	1	4.11	1.32	10.72	1.71
20417	32-39.3866-116.8746-1-72-100		STREAM	DRY	1000	0500	2	3.11	1.38	10.63	1.24
20418	32-39.3006-116.8560-1-72-100	07/13/77	STREAM	DRY	1000	0500	1	2.80	1.43	12.57	1.49

MILLETT QUAD REPORT, LAWRENCE LIVERMORE LABORATORY
 TABLE B-1, SEDIMENT ANALYSIS: DRY AND STREAM SITES

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SITE	-----DOE SAMPLE NUMBER-----	DATE	SAMPLE	PARTICLE SIZE	POS.	Q. C.	URANIUM(DNC)	THORIUM(NAA)									
NUMBER	ST	LAT.	LONG.	L	TY	RPL	MO-DA-YR	SOURCE/COND.	UPPER	LOWER	CONT	X-REF	PPM	XERR	PPM	ERR	
20419	32-39	4110	-116	8130	-1	-72	-100	07/13/77	STREAM	DRY	1000	0500	1	3.91	1.37	15.49	1.62
20419	32-39	4110	-116	8130	-1	-72	-100		STREAM	DRY	1000	0500		3.73	1.32	15.05	1.29
20420	32-39	4146	-116	7758	-1	-72	-100	07/13/77	STREAM	DRY	1000	0500	1	4.39	1.32	19.05	1.66
20421	32-39	4227	-116	7630	-1	-72	-100	07/13/77	STREAM	DRY	1000	0500	1	5.13	1.26	23.66	1.55
20421	32-39	4227	-116	7630	-1	-72	-100		STREAM	DRY	1000	0500		5.03	1.29	22.95	1.86
20422	32-39	4236	-116	7584	-1	-72	-100	07/13/77	STREAM	DRY	1000	0500	9	2.38	1.45	11.04	1.13
20423	32-39	5969	-116	5751	-1	-72	-100	07/14/77	STREAM	DRY	1000	0500	1	3.87	1.41	16.88	2.25
20424	32-39	5113	-116	5597	-1	-72	-100	07/14/77	STREAM	DRY	1000	0500	1	4.24	1.33	20.92	1.69
20425	32-39	6618	-116	5710	-1	-72	-100	07/14/77	STREAM	DRY	1000	0500	1	4.19	1.33	15.74	1.42
20426	32-39	7078	-116	5754	-1	-72	-100	07/14/77	STREAM	DRY	1000	0500	1	5.25	1.23	19.45	1.42
20427	32-39	5960	-116	5650	-1	-72	-100	07/14/77	STREAM	DRY	1000	0500	1	5.64	1.29	31.93	2.09
20428	32-39	7580	-116	5179	-1	-72	-100	07/14/77	STREAM	DRY	1000	0500	1	4.38	1.23	6.04	0.70
20429	32-39	7743	-116	5271	-1	-70	-100	07/14/77	STREAM	WET	1000	0500	1	4.47	1.33	10.04	2.29
20429	32-39	7743	-116	5271	-1	-70	-101		STREAM	WET	1000	0500		4.32	1.28	3.90	1.48
20430	32-39	8193	-116	5163	-1	-72	-100	07/14/77	STREAM	DRY	1000	0500	1	8.71	1.23	48.16	3.68
20431	32-39	8067	-116	5245	-1	-72	-100	07/14/77	STREAM	DRY	1000	0500	1	7.49	1.17	23.29	1.53
20432	32-39	4289	-116	4760	-1	-72	-100	07/15/77	STREAM	DRY	1000	0500	1	2.91	1.48	18.54	1.39
20433	32-39	4603	-116	4479	-1	-72	-100	07/15/77	STREAM	DRY	1000	0500	1	2.59	1.53	22.22	1.68
20434	32-39	4538	-116	4026	-1	-72	-100	07/15/77	STREAM	DRY	1000	0500	1	2.96	1.47	20.56	1.76
20435	32-39	4098	-116	3985	-1	-72	-100	07/15/77	STREAM	DRY	1000	0500	1	3.42	1.36	10.25	1.38
20436	32-39	4364	-116	3493	-1	-72	-100	07/15/77	STREAM	DRY	1000	0500	1	3.14	1.27		
20437	32-39	4064	-116	3043	-1	-72	-100	07/15/77	STREAM	DRY	1000	0500	1	3.42	1.40	21.39	1.70
20438	32-39	4105	-116	3995	-1	-72	-100	07/15/77	STREAM	DRY	1000	0500	1	2.96	1.47	22.00	1.57
20439	32-39	3752	-117	0070	-1	-70	-100	07/16/77	STREAM	WET	1000	0500	1	3.52	1.27	5.02	0.83
20439	32-39	3752	-117	0070	-1	-70	-101		STREAM	WET	1000	0500		3.15	1.30	9.93	0.80
20440	32-39	3986	-117	0465	-1	-70	-100	07/16/77	STREAM	WET	1000	0500	1	3.38	1.32	8.69	1.36
20440	32-39	3986	-117	0465	-1	-70	-110		STREAM	WET	1000	0500		3.15	1.34	9.40	1.08
20441	32-39	4031	-117	0360	-1	-70	-100	07/16/77	STREAM	WET	1000	0500	1	3.51	1.34	10.72	1.45
20442	32-39	4067	-117	0441	-1	-70	-100	07/16/77	STREAM	WET	1000	0500	1	3.98	1.36	15.42	1.51
20443	32-39	4148	-117	0499	-1	-70	-100	07/16/77	STREAM	WET	1000	0500	1	6.09	1.21	9.48	1.14
20444	32-39	4211	-117	0441	-1	-70	-100	07/16/77	STREAM	WET	1000	0500	1	4.39	1.34	17.51	1.81
20445	32-39	4040	-117	0499	-1	-70	-100	07/16/77	STREAM	WET	1000	0500	1	3.21	1.40	15.00	1.25
20446	32-39	3914	-116	9675	-1	-72	-100	07/17/77	STREAM	DRY	1000	0500	1	3.04	1.36	12.99	1.08
20447	32-39	3923	-116	9849	-1	-72	-100	07/17/77	STREAM	DRY	1000	0500	1	3.04	1.33	13.93	0.97
20448	32-39	3069	-116	9814	-1	-72	-100	07/17/77	STREAM	DRY	1000	0500	1	3.09	1.44	18.56	1.39
20449	32-39	3006	-116	9837	-1	-72	-100	07/17/77	STREAM	DRY	1000	0500	1	3.30	1.36	9.33	1.32
20449	32-39	3006	-116	9837	-1	-72	-101		STREAM	DRY	1000	0500		3.23	1.36	13.90	1.01
20450	32-39	0632	-117	2034	-1	-72	-100	07/17/77	STREAM	DRY	1000	0500	1	3.47	1.32	13.91	1.20
20451	32-39	3706	-117	0116	-1	-72	-100	07/17/77	STREAM	DRY	1000	0500	2	4.38	1.26	11.80	1.11
20452	32-39	3670	-117	0163	-1	-72	-100	07/17/77	STREAM	DRY	1000	0500	1	2.77	1.41	10.58	1.11
20453	32-39	3634	-117	0302	-1	-70	-100		STREAM	WET	1000	0500	1	7.29	1.19	10.18	1.03
20454	32-39	3553	-117	0429	-1	-70	-100	07/17/77	STREAM	WET	1000	0500	1	1.87	1.66	11.68	1.36
20455	32-39	3392	-117	0418	-1	-70	-100	07/17/77	STREAM	WET	1000	0500	1	2.45	1.52	7.92	1.32
20456	32-39	3238	-117	0429	-1	-70	-100	07/17/77	STREAM	WET	1000	0500	1	1.97	1.65	14.06	1.40
20457	32-39	3103	-117	0499	-1	-70	-100	07/17/77	STREAM	WET	1000	0500	1	3.48	1.43	13.16	2.03
20458	32-39	2967	-117	0475	-1	-72	-100	07/17/77	STREAM	DRY	1000	0500	1	3.40	1.36	13.67	1.36
20459	32-39	2904	-117	0464	-1	-70	-100	07/17/77	STREAM	WET	1000	0500	1	4.44	1.23	5.16	0.91
20460	32-39	2850	-117	0533	-1	-72	-100	07/18/77	STREAM	DRY	1000	0500	1	4.39	1.25	11.26	1.05
20460	32-39	2850	-117	0533	-1	-72	-100		STREAM	DRY	1000	0500		2.73	1.45	8.17	1.24

MILLETT QUAD REPORT, LAWRENCE LIVERMORE LABORATORY
 TABLE B-1, SEDIMENT ANALYSIS; DRY AND STREAM SITES

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SITE NUMBER	DOE SAMPLE NUMBER			DATE	SAMPLE SOURCE/COND.	PARTICLE SIZE	POS. UPPER LOWER CONT	O. C. X-REF	URANIUM(DNC)		THORIUM(NAA)	
	ST	LAT.	LONG.						PPM	XERR	PPM	ERR
20461	32-39	2814-117	0603-1-70-100	07/18/77	STREAM	WET	1000 0500	1	3.81	1.44	15.57	2.05
20462	32-39	2670-117	0638-1-72-100	07/18/77	STREAM	DRY	1000 0500	1			7.29	0.95
20463	32-39	2499-117	0730-1-70-100	07/18/77	STREAM	WET	1000 0500	1	2.02	1.57	14.64	1.23
20464	32-39	2472-117	0742-1-70-100	07/18/77	STREAM	WET	1000 0500	1	2.41	1.55	16.19	1.37
20465	32-39	2237-117	0985-1-70-100	07/18/77	STREAM	WET	1000 0500	1	3.82	1.59	8.85	1.91
20466	32-39	2111-117	1077-1-70-100	07/18/77	STREAM	WET	1000 0500	1	3.64	1.35	7.53	1.03
20467	32-39	2237-117	1344-1-70-100	07/18/77	STREAM	WET	1000 0500	2	2.72	1.56	11.38	1.42
20468	32-39	2831-117	1542-1-72-100	07/19/77	STREAM	DRY	1000 0500	9	5.01	1.23	10.33	1.29
20469	32-39	2795-117	1577-1-72-100	07/19/77	STREAM	DRY	1000 0500	9	5.12	1.22	12.78	1.10
20470	32-39	2795-117	1577-1-72-101		STREAM	DRY	1000 0500	9	4.95	1.18	11.35	0.73
20470	32-39	2561-117	1484-1-72-100	07/19/77	STREAM	DRY	1000 0500	9	2.28	1.43	4.00	0.81
20471	32-39	2886-117	1299-1-70-100	07/19/77	STREAM	WET	1000 0500	9	2.48	1.50	14.75	1.51
20472	32-39	2940-117	1276-1-70-100	07/19/77	STREAM	WET	1000 0500	7	6.37	1.17	9.39	1.59
20473	32-39	2913-117	1264-1-70-100	07/19/77	STREAM	WET	1000 0500	9	6.93	1.19	9.58	1.24
20474	32-39	2832-117	1380-1-70-100	07/19/77	STREAM	WET	1000 0500	9	2.65	1.62	9.98	2.12
20475	32-39	2813-117	1472-1-72-100	07/19/77	STREAM	DRY	1000 0500	1	3.20	1.35	10.63	1.04
20476	32-39	2696-117	1553-1-70-100	07/19/77	STREAM	WET	1000 0500	9	4.07	1.27	6.16	0.84
20477	32-39	2633-117	1588-1-72-100	07/19/77	STREAM	DRY	1000 0500	9	4.38	1.30	11.76	1.09
20478	32-39	2633-117	1646-1-72-100	07/19/77	STREAM	DRY	1000 0500	9	3.69	1.31	10.51	0.95
20479	32-39	2462-117	1692-1-72-100	07/19/77	STREAM	DRY	1000 0500	3	3.96	1.27	12.02	1.08
20479	32-39	2462-117	1692-1-72-101		STREAM	DRY	1000 0500		3.82	1.27	6.79	0.84
20480	32-39	2426-117	1715-1-72-100	07/19/77	STREAM	DRY	1000 0500	1	5.61	1.20	9.67	1.17
20480	32-39	2426-117	1715-1-72-110		STREAM	DRY	1000 0500		6.06	1.18	11.79	1.08
20481	32-39	2327-117	1599-1-72-100	07/19/77	STREAM	DRY	1000 0500	1	4.03	1.31	11.69	1.32
20482	32-39	2282-117	1495-1-72-100	07/19/77	STREAM	DRY	1000 0500	1	3.49	1.36	8.78	1.42
20483	32-39	2174-117	1332-1-72-100	07/19/77	STREAM	DRY	1000 0500	1	3.50	1.38	5.08	0.92
20484	32-39	2122-117	1309-1-72-100	07/19/77	STREAM	DRY	1000 0500	1	2.78	1.43	6.48	1.16
20485	32-39	1733-117	1088-1-70-100	07/20/77	STREAM	WET	1000 0500	1	2.23	1.48	6.72	1.17
20486	32-39	1714-117	1088-1-70-100	07/20/77	STREAM	WET	1000 0500	1	2.43	1.46	11.26	1.07
20487	32-39	1372-117	1215-1-70-100	07/20/77	STREAM	WET	1000 0500	1	4.44	1.25	17.49	1.43
20488	32-39	1182-117	1585-1-70-100	07/20/77	STREAM	WET	1000 0500	1	6.04	1.15	8.62	1.30
20489	32-39	1227-117	1585-1-70-100	07/20/77	STREAM	WET	1000 0500	1	4.33	1.23	9.90	0.92
20489	32-39	1227-117	1585-1-70-101		STREAM	WET	1000 0500		4.62	1.25	6.27	1.25
20490	32-39	1083-117	1689-1-72-100	07/20/77	STREAM	DRY	1000 0500	1	3.74	1.18		
20491	32-39	0986-117	1642-1-72-100	07/20/77	STREAM	DRY	1000 0500	1	2.35	1.53	21.95	1.65
20492	32-39	0867-117	1757-1-70-100	07/20/77	STREAM	WET	1000 0500	1	6.08	1.18	9.81	1.53
20493	32-39	0280-117	2276-1-70-100	07/20/77	STREAM	WET	1000 0500	1	4.04	1.31	17.30	2.07
20494	32-39	0046-117	2229-1-70-100	07/20/77	STREAM	WET	1000 0500	1	1.61	1.66	13.86	1.07
20495	32-39	0226-117	2206-1-72-100	07/20/77	STREAM	DRY	1000 0500	1	4.24	1.33	25.42	1.89
20496	32-39	0406-117	2230-1-72-100	07/21/77	STREAM	DRY	1000 0500	1	3.22	1.52	21.64	2.29
20497	32-39	0334-117	2276-1-72-100	07/21/77	STREAM	DRY	1000 0500	9	3.35	1.37	10.39	1.93
20498	32-39	0460-117	2219-1-70-100	07/21/77	STREAM	WET	1000 0500	1	3.92	1.28	12.90	1.29
20499	32-39	0551-117	2103-1-72-100	07/21/77	STREAM	DRY	1000 0500	1	2.44	1.38	10.57	1.11
20499	32-39	0551-117	2103-1-72-101		STREAM	DRY	1000 0500		2.40	1.48	10.30	1.33
20501	32-39	2939-116	5141-1-72-100	08/02/77	STREAM	DRY	1000 0500	5	3.73	1.34	22.17	1.52
20502	32-39	3003-116	5176-1-72-100	08/02/77	STREAM	DRY	1000 0500	5	3.94	1.33	22.99	1.58
20503	32-39	2759-116	5212-1-72-100	08/02/77	STREAM	DRY	1000 0500	5	6.05	1.24	13.47	1.47
20504	32-39	3210-116	5244-1-72-100	08/02/77	STREAM	DRY	1000 0500	5	4.31	1.31	19.57	1.60
20505	32-39	2726-116	5861-1-72-100	08/02/77	STREAM	DRY	1000 0500	5	3.01	1.36	13.09	1.33

MILLETT QUAD REPORT, LAWRENCE LIVERMORE LABORATORY
 TABLE B-1, SEDIMENT ANALYSIS: DRY AND STREAM SITES

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SITE NUMBER	ST	DOE SAMPLE NUMBER	DATE	SAMPLE SOURCE/COND.	PARTICLE SIZE	POS. UPPER	POS. LOWER	CONT.	Q. C. X-REF	URANIUM(DNC) PPM	THORIUM(NAA) PPM	ERR	
20506	32-39,	2689-116,5734-1-72-100	08/02/77	STREAM	DRY	1000	0500	5		2.30	1.44	11.87	1.11
20507	32-39,	5902-116,2849-1-72-100	08/03/77	STREAM	DRY	1000	0500	1		2.85	1.35	12.46	0.99
20508	32-39,	6411-116,2205-1-72-100	08/03/77	STREAM	DRY	1000	0500	1		4.25	1.44	18.28	1.64
20509	32-39,	7332-116,2648-1-72-100	08/03/77	STREAM	DRY	1000	0500	5		5.64	1.18	8.91	0.99
20510	32-39,	7521-116,2576-1-72-100	08/03/77	STREAM	DRY	1000	0500	5		6.01	1.18	6.39	1.78
20511	32-39,	7704-116,2983-1-72-100	08/03/77	STREAM	DRY	1000	0500	5		2.85	1.43	10.33	1.45
20512	32-39,	7649-116,2870-1-72-100	08/03/77	STREAM	DRY	1000	0500	5		4.09	1.27	13.80	1.33
20513	32-39,	7713-116,2983-1-72-100	08/03/77	STREAM	DRY	1000	0500	5		2.87	1.37	10.57	1.20
20514	32-39,	8092-116,3084-1-70-100	08/03/77	STREAM	WET	1000	0500	5		3.38	1.30	6.29	0.96
20515	32-39,	8255-116,3164-1-70-100	07/03/77	STREAM	WET	1000	0500	5		2.36	1.48	4.90	1.08
20516	32-39,	8065-116,3084-1-70-100	08/03/77	STREAM	WET	1000	0500	5		3.80	1.29	11.42	0.98
20517	32-39,	7902-116,3016-1-72-100	08/03/77	STREAM	DRY	1000	0500	5		3.22	1.40	11.01	1.30
20518	32-39,	7326-116,3115-1-72-100	08/03/77	STREAM	DRY	1000	0500	5		5.55	1.21	12.03	1.44
20519	32-39,	7140-116,3504-1-72-100	08/03/77	STREAM	DRY	1000	0500	5		7.64	1.14	8.02	1.30
20519	32-39,	7140-116,3504-1-72-101		STREAM	DRY	1000	0500			7.92	1.16	7.83	1.79
20520	32-39,	7379-116,4445-1-72-100	08/03/77	STREAM	DRY	1000	0500	5		4.52	1.35	17.84	1.53
20520	32-39,	7379-116,4445-1-72-110		STREAM	DRY	1000	0500			4.58	1.40	18.93	1.62
20521	32-39,	7531-116,4315-1-72-100	08/03/77	STREAM	DRY	1000	0500	5		4.93	1.18	10.03	1.04
20522	32-39,	7749-116,4629-1-72-100	08/04/77	STREAM	DRY	1000	0500	5		9.94	1.22	19.87	2.12
20523	32-39,	8488-116,4635-1-72-100	08/04/77	STREAM	DRY	1000	0500	5		3.80	1.35	16.18	1.90
20524	32-39,	8686-116,4563-1-72-100	08/04/77	STREAM	DRY	1000	0500	5		4.52	1.22	10.41	0.91
20525	32-39,	9012-116,5052-1-70-100	08/04/77	STREAM	WET	1000	0500	5		3.86	1.34	17.01	1.48
20526	32-39,	9156-116,5004-1-70-100	08/04/77	STREAM	WET	1000	0500	5		3.64	1.38	15.40	1.39
20527	32-39,	9201-116,5086-1-72-100	08/04/77	STREAM	DRY	1000	0500	5		4.09	1.28	19.46	1.42
20528	32-39,	9373-116,5143-1-72-100	08/04/77	STREAM	DRY	1000	0500	5		3.10	1.41	16.23	1.56
20529	32-39,	9410-116,5224-1-72-100	08/04/77	STREAM	DRY	1000	0500	5		5.20	1.20	12.75	1.05
20529	32-39,	9410-116,5224-1-72-101		STREAM	DRY	1000	0500			5.06	1.22	7.80	0.86
20530	32-39,	9427-116,5259-1-70-100	08/04/77	STREAM	WET	1000	0500	5		3.25	1.36	15.79	1.44
20531	32-39,	9455-116,5271-1-72-100	08/04/77	STREAM	DRY	1000	0500	5		3.15	1.41	13.13	1.83
20532	32-39,	9510-116,5505-1-72-100	08/04/77	STREAM	DRY	1000	0500	5		3.60	1.30	15.59	1.23
20533	32-39,	9672-116,5527-1-72-100	08/04/77	STREAM	DRY	1000	0500	5		4.31	1.23	13.04	1.22
20534	32-39,	9699-116,5527-1-72-100	08/04/77	STREAM	DRY	1000	0500	5		2.97	1.39	15.03	1.38
20535	32-39,	9843-116,5444-1-72-100	08/04/77	STREAM	DRY	1000	0500	5		4.12	1.26	17.72	1.43
20545	32-39,	9838-116,5665-1-72-100	08/09/77	STREAM	DRY	1000	0500	5		2.95	1.33	6.60	0.99
20546	32-39,	9950-116,6956-1-72-100	08/09/77	STREAM	DRY	1000	0500	5		3.64	1.29	11.51	1.25
20547	32-39,	9524-116,7097-1-72-100	08/09/77	STREAM	DRY	1000	0500	5		2.93	1.31	8.54	0.96
20548	32-39,	9488-116,7284-1-72-100	08/09/77	STREAM	DRY	1000	0500	5		3.41	1.27	9.54	1.16
20549	32-39,	9453-116,7612-1-72-100	08/09/77	STREAM	DRY	1000	0500	5		2.93	1.26	5.87	0.64
20549	32-39,	9453-116,7612-1-72-101		STREAM	DRY	1000	0500			3.09	1.35	12.09	1.11
20550	32-39,	9615-116,7729-1-72-100	08/09/77	STREAM	DRY	1000	0500	5		3.02	1.29	9.62	0.81
20551	32-39,	9624-116,7740-1-72-100	08/09/77	STREAM	DRY	1000	0500	5		4.27	1.26	13.13	1.13
20552	32-39,	9661-116,8033-1-72-100	08/09/77	STREAM	DRY	1000	0500	5		4.71	1.29	16.34	1.44
20557	32-39,	9877-116,7962-1-72-100	08/09/77	STREAM	DRY	1000	0500	5		3.49	1.32	12.62	1.34
20558	32-39,	9155-116,7555-1-72-100	08/09/77	STREAM	DRY	1000	0500	5		2.73	1.39	11.99	1.29
20559	32-39,	9471-116,7717-1-72-100	08/09/77	STREAM	DRY	1000	0500	5		4.44	1.25	15.87	1.19
20569	32-39,	9471-116,7717-1-72-101		STREAM	DRY	1000	0500			4.16	1.31	16.15	1.09
20560	32-39,	8930-116,7707-1-72-100	08/09/77	STREAM	DRY	1000	0500	5		3.45	1.33	15.65	1.47
20560	32-39,	8930-116,7707-1-72-110		STREAM	DRY	1000	0500			4.73	1.35	20.81	2.16

MILLETT QUAD REPORT, LAWRENCE LIVERMORE LABORATORY
 TABLE B-1, SEDIMENT ANALYSIS; DRY AND STREAM SITES

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SITE NUMBER	DOE ST	SAMPLE LAT.	SAMPLE LONG.	NUMBER	DATE L TY	SOURCE/COND.	PARTICLE RPL	SIZE MO-DA-YR	POS. UPPER	LOWER	CONT.	Q. C. X-REF	URANIUM(DNC) PPM	ZERR	THORIUM(NAA) PPM	ERR
20561	32-39.	8760-116.	7977-1-72-100	08/09/77	STREAM	DRY	1000	0500	5				3.18	1.41	13.15	1.51
20562	32-39.	6506-116.	7238-1-72-100	08/10/77	STREAM	WET	1000	0500	5				2.87	1.36	13.64	1.22
20563	32-39.	6757-116.	6968-1-72-100	08/10/77	STREAM	DRY	1000	0500	5				4.33	1.34	26.51	2.40
20564	32-39.	7081-116.	6675-1-72-100	08/10/77	STREAM	DRY	1000	0500	5				4.02	1.30	20.95	1.57
20565	32-39.	7117-116.	6640-1-72-100	08/10/77	STREAM	DRY	1000	0500	5				4.30	1.30	23.31	1.73
20566	32-39.	7621-116.	6451-1-72-100	08/10/77	STREAM	DRY	1000	0500	5				3.98	1.29	20.53	1.48
20567	32-39.	7459-116.	6650-1-72-100	08/10/77	STREAM	DRY	1000	0500	5				5.13	1.30	36.94	2.29
20568	32-39.	7720-116.	6369-1-72-100	08/10/77	STREAM	DRY	1000	0500	5				4.63	1.15	8.65	0.94
20569	32-39.	9249-116.	5600-1-72-100	08/11/77	STREAM	DRY	1000	0500	9				4.95	1.30	22.45	1.87
20570	32-39.	9114-116.	5741-1-72-100	08/11/77	STREAM	DRY	1000	0500	5				5.14	1.32	22.39	1.95
20571	32-39.	8808-116.	5837-1-72-100	08/11/77	STREAM	DRY	1000	0500	5				3.39	1.31	9.46	0.95
20572	32-39.	8600-116.	3768-1-72-100	08/11/77	STREAM	DRY	1000	0500	5				3.64	1.27	6.98	0.78
20573	32-39.	8493-116.	5815-1-72-100	08/11/77	STREAM	DRY	1000	0500	5				3.31	1.32	5.98	1.28
20574	32-39.	8411-116.	5804-1-72-100	08/11/77	STREAM	DRY	1000	0500	5				5.69	1.17	10.07	1.07
20575	32-39.	8277-116.	5933-1-72-100	08/12/77	STREAM	DRY	1000	0500	5				5.66	1.18	14.52	1.12
20576	32-39.	8106-116.	6075-1-70-100	08/12/77	STREAM	WET	1000	0500	5				4.69	1.21	8.95	1.26
20577	32-39.	7036-116.	6041-1-72-100	08/12/77	STREAM	DRY	1000	0500	5				8.02	1.11	10.80	0.97
20578	32-39.	7839-116.	6041-1-72-100	08/12/77	STREAM	DRY	1000	0500	5				5.27	1.21	17.01	1.29
20579	32-39.	7863-116.	6064-1-70-100	08/12/77	STREAM	WET	1000	0500	5				5.22	1.18	11.25	1.13
20579	52-39.	7863-116.	6064-1-70-101		STREAM	WET	1000	0500					5.24	1.21	13.19	0.94
20580	32-39.	7962-116.	6262-1-72-100	08/12/77	STREAM	DRY	1000	0500	5				6.32	1.16	13.73	1.09
20580	32-39.	7962-116.	6262-1-72-110		STREAM	DRY	1000	0500					5.17	1.19	12.86	1.04
20581	32-39.	8056-116.	7664-1-72-100	08/12/77	STREAM	DRY	1000	0500	5				3.04	1.32	12.73	1.15
20582	32-39.	8246-116.	7827-1-72-100	08/12/77	STREAM	DRY	1000	0500	5				3.75	1.30	12.97	1.37
20583	32-39.	8318-116.	8095-1-72-100	08/12/77	STREAM	DRY	1000	0500	5				4.67	1.24	20.02	1.28
20584	32-39.	8372-116.	8153-1-72-100	08/12/77	STREAM	DRY	1000	0500	9				3.58	1.26	13.72	1.00
20585	32-39.	8489-116.	8083-1-72-100	08/12/77	STREAM	DRY	1000	0500	5				2.62	1.45	10.50	1.54
20586	32-39.	7533-117.	5301-1-72-100	08/13/77	STREAM	DRY	1000	0500	5				5.07	1.26	20.86	2.11
20587	32-39.	7606-117.	5209-1-72-100	08/13/77	STREAM	DRY	1000	0500	5				4.65	1.30	20.79	1.68
20588	32-39.	8220-117.	5013-1-72-100	08/13/77	STREAM	DRY	1000	0500	5				3.65	1.32	17.00	1.21
20589	32-39.	7840-117.	5022-1-72-100	08/13/77	STREAM	DRY	1000	0500	5				4.56	1.30	21.64	1.56
20589	32-39.	7840-117.	5022-1-72-101		STREAM	DRY	1000	0500					5.33	1.27	22.91	2.07
20590	32-39.	8082-117.	5315-1-72-100	08/13/77	STREAM	DRY	1000	0500	5				2.62	1.34	9.86	0.83
20591	32-39.	8082-117.	5304-1-72-100	08/13/77	STREAM	DRY	1000	0500	5				4.65	1.23	17.29	1.17
20592	32-39.	8164-117.	5269-1-72-100	08/13/77	STREAM	DRY	1000	0500	5				3.83	1.29	15.68	1.26
20593	32-39.	8371-117.	5329-1-72-100	08/13/77	STREAM	DRY	1000	0500	5				3.94	1.27	16.34	1.30
20594	32-39.	8425-117.	5353-1-72-100	08/13/77	STREAM	DRY	1000	0500	5				4.57	1.17		
20595	32-39.	8578-117.	5366-1-72-100	08/13/77	STREAM	DRY	1000	0500	5				4.11	1.25	11.25	1.43
20596	32-39.	8713-117.	5437-1-72-100	08/13/77	STREAM	DRY	1000	0500	5				4.80	1.30	17.43	1.61
20597	32-39.	8830-117.	5439-1-72-100	08/13/77	STREAM	DRY	1000	0500	1				3.81	1.30	12.39	1.69
20598	32-39.	8795-117.	5192-1-72-100	08/13/77	STREAM	DRY	1000	0500	1				3.24	1.49	17.45	1.65
20599	32-39.	8786-117.	5180-1-72-100	08/13/77	STREAM	DRY	1000	0500	1				3.71	1.25	10.77	1.00
20599	32-39.	8786-117.	5180-1-72-101		STREAM	DRY	1000	0500					4.08	1.27	11.85	1.10
20600	32-39.	8517-117.	4898-1-72-100	08/13/77	STREAM	DRY	1000	0500	5				4.30	1.30	15.38	1.83
26501	32-39.	4938-116.	1720-1-72-100	07/29/77	STREAM	DRY	1000	0500	5				1.93	1.53	8.92	0.97
26502	32-39.	4759-116.	1792-1-72-100	07/29/77	STREAM	DRY	1000	0500	5				1.53	1.50	4.44	0.53
26503	32-39.	4531-116.	1492-1-72-100	07/29/77	STREAM	DRY	1000	0500	5				2.29	1.50	7.02	0.77
26504	32-39.	4549-116.	1469-1-72-100	07/29/77	STREAM	DRY	1000	0500	5				2.93	1.35	10.81	0.98

MILLETT QUAD REPORT, LAWRENCE LIVERMORE LABORATORY
 TABLE 8-1, SEDIMENT ANALYSIS; DRY AND STREAM SITES

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SITE NUMBER	DOE ST	SAMPLE LAT.	SAMPLE LONG.	NUMBER TY	DATE RPL	SOURCE/COND.	PARTICLE MO-DA-YR	SIZE UPPER	POS. LOWER	Q, C, X-REF	URANIUM(DNC) PPM	THORIUM(NAAI) PPM	URANIUM ERR	THORIUM ERR
26505	32-39,	4498-116,	1888-1-72-100	07/29/77	STREAM	DRY	1000	0500	5		1.65	1.51	3.20	0.86
26506	32-39,	4156-116,	1950-1-72-100	07/29/77	STREAM	DRY	1000	0500	5		1.61	1.50	3.76	0.80
26507	32-39,	3513-116,	1520-1-72-100	07/29/77	STREAM	DRY	1000	0500	5		1.58	1.48	4.93	0.57
26508	32-39,	3540-116,	1493-1-72-100	07/29/77	STREAM	DRY	1000	0500	5		1.08	1.77	7.85	0.76
26509	32-39,	3434-116,	1703-1-72-100	07/29/77	STREAM	DRY	1000	0500	5		1.37	1.66	5.46	0.70
26509	32-39,	3434-116,	1703-1-72-101		STREAM	DRY	1000	0500			1.41	1.82	6.45	0.92
26510	32-39,	3309-116,	1867-1-72-100	07/29/77	STREAM	DRY	1000	0500	5		1.44	1.54	5.10	0.56
26511	32-39,	3058-116,	2125-1-72-100	07/29/77	STREAM	DRY	1000	0500	5		2.18	1.39	9.00	0.70
26512	32-39,	2895-116,	1953-1-72-100	07/29/77	STREAM	DRY	1000	0500	5		2.29	1.30		
26513	32-39,	2885-116,	1895-1-72-100	07/29/77	STREAM	DRY	1000	0500	5		2.10	1.53	10.10	1.18
26514	32-39,	2712-116,	1561-1-72-100	07/29/77	STREAM	DRY	1000	0500	5		1.28	1.73	7.36	0.84
26515	32-39,	2703-116,	1607-1-72-100	07/29/77	STREAM	DRY	1000	0500	5		2.96	1.46	18.44	1.77
26516	32-39,	2694-116,	1561-1-72-100	07/29/77	STREAM	DRY	1000	0500	5		3.15	1.48	17.16	1.71
26517	32-39,	2934-116,	1210-1-72-100	07/29/77	STREAM	DRY	1000	0500	1		1.76	1.60	7.07	0.67
26518	32-39,	5444-116,	0655-1-72-100	07/30/77	STREAM	DRY	1000	0500	5		3.00	1.39	12.91	1.18
26519	32-39,	5371-116,	0528-1-72-100	07/30/77	STREAM	DRY	1000	0500	1		2.51	1.38	5.52	1.05
26519	32-39,	5371-116,	0528-1-72-101		STREAM	DRY	1000	0500			2.54	1.40	5.43	0.93
26520	32-39,	4927-116,	0266-1-72-100	07/30/77	STREAM	DRY	1000	0500	1		1.77	1.70	5.69	1.38
26520	32-39,	4927-116,	0266-1-72-110		STREAM	DRY	1000	0500			1.01	1.68	1.37	0.43
26521	32-39,	4053-116,	0047-1-72-100	07/30/77	STREAM	DRY	1000	0500	5		1.49	1.40		
26522	32-39,	4525-116,	0656-1-72-100	07/30/77	STREAM	DRY	1000	0500	5		2.22	1.47	6.76	1.30
26523	32-39,	4741-116,	0688-1-72-100	07/30/77	STREAM	DRY	1000	0500	5		2.56	1.46	11.48	1.07
26524	32-39,	4300-116,	0717-1-72-100	07/30/77	STREAM	DRY	1000	0500	5		1.09	1.68	2.97	0.50
26525	32-39,	4104-116,	0917-1-72-100	07/30/77	STREAM	DRY	1000	0500	5		0.05	17.64	6.90	0.63
26526	32-39,	4158-116,	1009-1-72-100	07/30/77	STREAM	DRY	1000	0500	5		2.93	1.46	14.81	1.30
26527	32-39,	3862-116,	1175-1-72-100	07/30/77	STREAM	DRY	1000	0500	1		2.83	1.44	13.12	1.24
26528	32-39,	3673-116,	1154-1-72-100	07/30/77	STREAM	DRY	1000	0500	5		1.63	1.51	4.61	0.70
26529	32-39,	3583-116,	1190-1-72-100	07/30/77	STREAM	DRY	1000	0500	5		1.63	1.61	5.58	0.80
26529	32-39,	3583-116,	1190-1-72-101		STREAM	DRY	1000	0500			1.40	1.64	5.92	0.76
26530	32-39,	3812-116,	0572-1-72-100	07/30/77	STREAM	DRY	1000	0500	5		1.17	1.54	1.12	0.29
26531	32-39,	3649-116,	0389-1-72-100	07/30/77	STREAM	DRY	1000	0500	5		1.18	1.54	1.71	0.38
26532	32-39,	3450-116,	0368-1-72-100	07/30/77	STREAM	DRY	1000	0500	5		1.34	1.47		
26533	32-39,	3655-116,	0029-1-72-100	07/30/77	STREAM	DRY	1000	0500	5		1.64	1.59	6.10	1.13
26534	32-39,	3334-116,	0486-1-72-100	07/30/77	STREAM	DRY	1000	0500	5		1.26	1.69	5.62	0.74
26535	32-39,	3117-116,	0384-1-72-100	07/30/77	STREAM	DRY	1000	0500	5		1.72	1.59	7.84	0.86
26536	32-39,	2955-116,	0375-1-72-100	07/30/77	STREAM	DRY	1000	0500	5		1.17	1.66	4.20	0.66
26537	32-39,	2533-116,	0543-1-72-100	07/30/77	STREAM	DRY	1000	0500	5		1.19	1.67	5.33	0.54
26538	32-39,	2072-116,	0433-1-72-100	07/31/77	STREAM	DRY	1000	0500	5		1.98	1.37	5.56	0.61
26539	32-39,	2067-116,	0966-1-72-100	07/31/77	STREAM	DRY	1000	0500	5		2.79	1.33	7.84	0.92
26539	32-39,	2067-116,	0966-1-72-101		STREAM	DRY	1000	0500			2.64	1.40	7.08	0.83
26540	32-39,	1859-116,	0876-1-72-100	07/31/77	STREAM	DRY	1000	0500	5		2.06	1.45	4.81	0.75
26541	32-39,	1642-116,	0763-1-72-100	07/31/77	STREAM	DRY	1000	0500	5		5.10	1.34	15.84	1.45
26542	32-39,	1520-116,	1228-1-72-100	07/31/77	STREAM	DRY	1000	0500	5		2.85	1.39	16.09	1.40
26543	32-39,	1547-116,	1239-1-72-100	07/31/77	STREAM	DRY	1000	0500	5		3.38	1.35	21.38	1.56
26544	32-39,	1682-116,	1284-1-72-100	07/31/77	STREAM	DRY	1000	0500	5		3.22	1.34	15.35	1.20
26545	32-39,	1664-116,	1261-1-72-100	07/31/77	STREAM	DRY	1000	0500	5		2.56	1.42	8.26	0.99
26546	32-39,	1447-116,	1078-1-72-100	07/31/77	STREAM	DRY	1000	0500	5		3.11	1.37	16.77	1.28
26547	32-39,	1131-116,	1094-1-72-100	07/31/77	STREAM	DRY	1000	0500	5		2.53	1.35	7.47	0.70
26548	32-39,	1051-116,	1176-1-72-100	07/31/77	STREAM	DRY	1000	0500	5		3.48	1.38	22.79	1.66

MILLETT QUAD REPORT, LAWRENCE LIVERMORE LABORATORY
 TABLE B-1, SEDIMENT ANALYSIS; DRY AND STREAM SITES

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SITE NUMBER	DOE SAMPLE NUMBER	DATE	SAMPLE SOURCE/COND.	PARTICLE SIZE	POS. UPPER	POS. LOWER	Q, C, X-REF	URANIUM(DNC) PPM	URANIUM(DNC) ERR	THORIUM(NAA) PPM	THORIUM(NAA) ERR
26549	32-39,0882-116,1467-1-72-100	07/31/77	STREAM	DRY	1000	0500	5	3.83	1.44	25.14	2.66
26549	32-39,0882-116,1467-1-72-101		STREAM	DRY	1000	0500		3.55	1.42	23.24	1.85
26552	32-39,1011-116,1905-1-72-100	07/31/77	STREAM	DRY	1000	0500	5	3.09	1.49	27.91	1.97
26553	32-39,0697-116,2070-1-70-100	07/31/77	STREAM	WET	1000	0500	5	3.28	1.39	23.29	1.81
26554	32-39,0688-116,2082-1-70-100	07/31/77	STREAM	WET	1000	0500	5	3.18	1.23		
26644	32-39,0168-116,0078-1-72-100	08/10/77	STREAM	DRY	1000	0500	5	3.43	1.37	22.44	1.50
26645	32-39,0213-116,0069-1-72-100	08/10/77	STREAM	DRY	1000	0500	1	3.73	1.37	21.73	1.83
26646	32-39,0466-116,0132-1-72-100	08/10/77	STREAM	DRY	1000	0500	1	3.36	1.39	18.94	1.29
26647	32-39,0547-116,0153-1-72-100	08/10/77	STREAM	DRY	1000	0500		2.64	1.75	13.60	2.90
26648	32-39,0710-116,0197-1-72-100	08/10/77	STREAM	DRY	1000	0500		2.79	1.37	14.94	1.03
26649	32-39,0417-116,2050-1-72-100	08/01/77	STREAM	DRY	1000	0500	1	3.21	1.42	20.49	1.51
26649	32-39,0417-116,2050-1-72-101		STREAM	DRY	1000	0500		2.99	1.45	19.96	1.65
26651	32-39,0219-116,2099-1-72-100	08/11/77	STREAM	DRY	1000	0500	1	3.04	1.53	27.35	1.92
26652	32-39,0380-116,1809-1-72-100	08/11/77	STREAM	DRY	1000	0500	1	4.05	1.32	21.35	1.50
26653	32-39,0055-116,1812-1-72-100	08/11/77	STREAM	DRY	1000	0500	1	3.36	1.36	21.43	1.37
26901	32-39,3068-117,7806-1-70-100	09/26/77	STREAM	WET	1000	0500	1	7.11	1.24	17.24	1.45
26902	32-39,2860-117,7780-1-72-100	08/26/77	STREAM	DRY	1000	0500		4.77	1.23	12.71	1.03
26903	32-39,2765-117,0475-1-72-100	08/26/77	STREAM	DRY	1000	0500	5	6.30	1.21	19.44	1.65
26904	32-39,2652-117,7987-1-72-100	08/26/77	STREAM	DRY	1000	0500	5	5.76	1.28	17.28	1.84
26905	32-39,2657-117,0520-1-72-100	08/26/77	STREAM	DRY	1000	0500	5	4.28	1.26	14.03	1.63
26906	32-39,2666-117,0508-1-72-100	08/26/77	STREAM	DRY	1000	0500	5	4.14	1.31	11.61	1.80
26907	32-39,2685-117,0393-1-72-100	08/26/77	STREAM	DRY	1000	0500	5	5.46	1.22	19.59	1.44
26908	32-39,3061-117,0780-1-70-100	08/27/77	STREAM	WET	1000	0500	1	4.61	1.25	13.81	1.40
26909	32-39,3014-117,8953-1-72-100	08/27/77	STREAM	DRY	1000	0500	5	6.21	1.23	21.16	1.62
26909	32-39,3014-117,8953-1-72-101		STREAM	DRY	1000	0500		6.42	1.25	17.60	2.48
26910	32-39,2905-1-17,9045-1-72-100	08/27/77	STREAM	DRY	1000	0500	1	5.89	1.22	20.47	1.46
26911	32-39,2735-117,8926-1-72-100	08/27/77	STREAM	DRY	1000	0500		5.80	1.21	18.37	1.49
26912	32-39,2752-117,9089-1-72-100	08/27/77	STREAM	DRY	1000	0500		5.64	1.21	15.93	1.21
26913	32-39,2840-117,9310-1-72-100	08/27/77	STREAM	DRY	1000	0500	1	5.75	1.23	19.10	1.47
26914	32-39,3074-117,9314-1-72-100	08/27/77	STREAM	DRY	1000	0500	1	5.42	1.21	17.67	1.38
26915	32-39,2946-117,9613-1-72-100	08/27/77	STREAM	DRY	1000	0500	1	5.41	1.24	17.85	1.39
26916	32-39,2950-117,8406-1-70-100	08/27/77	STREAM	WET	1000	0500	1	3.24	1.51	12.69	1.45
26917	32-39,2992-117,8434-1-72-100	08/27/77	STREAM	DRY	1000	0500	1	2.53	1.70	8.36	2.36
26918	32-39,9746-117,8806-1-72-100	08/27/77	STREAM	DRY	1000	0500	5	1.24	1.76	4.53	0.84
26919	32-39,9456-117,9083-1-72-100	08/27/77	STREAM	DRY	1000	0500	1	1.77	1.62	5.31	1.01
26919	32-39,9456-1-17,9083-1-72-101		STREAM	DRY	1000	0500		1.68	1.44		
26920	32-39,9472-117,9236-1-72-100	08/27/77	STREAM	DRY	1000	0500	1	1.91	1.43	5.89	0.78
26920	32-39,9472-117,9236-1-72-110		STREAM	DRY	1000	0500		2.11	1.47	6.88	0.92
26921	32-39,9445-1-17,9294-1-72-100	08/27/77	STREAM	DRY	1000	0500	1	1.84	1.57	5.87	1.04
26922	32-39,9373-117,9305-1-72-100	08/27/77	STREAM	DRY	1000	0500	1				
26923	32-39,9236-117,9513-1-72-100	08/27/77	STREAM	DRY	1000	0500	1	1.41	1.06	4.23	1.47
26924	32-39,9227-117,9537-1-72-100	08/27/77	STREAM	DRY	1000	0500	1	1.85	1.55	5.50	1.27
26925	32-39,9180-117,9583-1-72-100	08/27/77	STREAM	DRY	1000	0500	1	1.48	2.00	6.66	1.85
26926	32-39,9171-117,9700-1-72-100	08/27/77	STREAM	DRY	1000	0500	1	1.91	1.66	6.14	1.23
27030	32-39,0165-116,9457-1-72-100	08/26/77	STREAM	DRY	1000	0500	1	6.26	1.17	19.43	1.32
27060	32-39,8945-117,7392-1-72-100	09/09/77	STREAM	DRY	1000	0500	1	3.97	1.28	16.02	1.26
27060	32-39,8945-117,7392-1-72-110		STREAM	DRY	1000	0500		4.15	1.26	17.02	1.13
27061	32-39,8735-117,7776-1-72-100	09/08/77	STREAM	DRY	1000	0500	1	0.84	1.73		

MILLETT QUAD REPORT, LAWRENCE LIVERMORE LABORATORY
TABLE B-1, SEDIMENT ANALYSIS: DRY AND STREAM SITES

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SITE NUMBER	ST	DOE SAMPLE NUMBER	DATE	SAMPLE SOURCE/COND.	PARTICLE SIZE UPPER	POS. LOWER	Q, C, X-REF	URANIUM(DNC) PPM	THORIUM(NAA) PPM	
27062	32-39.	8581-117, 7903-1-72-100	09/08/77	STREAM	DRY	1000	0500	1	4.65	1.24
27063	32-39.	8380-117, 8310-1-72-100	09/08/77	STREAM	DRY	1000	0500	1	3.73	1.34
27064	32-39.	7860-117, 7953-1-72-100	09/08/77	STREAM	DRY	1000	0500	1	3.66	1.31
27065	32-39.	7688-117, 8021-1-72-100	09/08/77	STREAM	DRY	1000	0500	5	3.26	1.33
27066	32-39.	7679-117, 8033-1-72-100	09/08/77	STREAM	DRY	1000	0500	5	3.26	1.41
27067	32-39.	7534-117, 8171-1-72-100	09/08/77	STREAM	DRY	1000	0500	5	3.45	1.34
27069	32-39.	7201-117, 8132-1-70-100	09/08/77	STREAM	WET	1000	0500	5	4.41	1.44
27069	32-39.	7201-117, 8132-1-70-101		STREAM	WET	1000	0500		4.21	1.43
27070	32-39.	7210-117, 8097-1-72-100	09/18/77	STREAM	DRY	1000	0500	5	3.98	1.26
27071	32-39.	7509-117, 9198-1-72-100	09/08/77	STREAM	DRY	1000	0500	5	2.25	1.42
27072	32-39.	7426-117, 9325-1-72-100	09/08/77	STREAM	DRY	1000	0500	5	5.08	1.22
27073	32-39.	7216-117, 9672-1-72-100	09/08/77	STREAM	DRY	1000	0500	5	5.03	1.25
27074	32-39.	6700-117, 3872-1-72-100	09/08/77	STREAM	DRY	1000	0500	5	5.54	1.23
27075	32-39.	6646-117, 8918-1-72-100	09/08/77	STREAM	DRY	1000	0500	5	5.02	1.20
27076	32-39.	6815-117, 9119-1-72-100	09/08/77	STREAM	DRY	1000	0500	5	4.56	1.25
27077	32-39.	6828-117, 9795-1-72-100	09/08/77	STREAM	DRY	1000	0500	5	5.05	1.17
27078	32-39.	6555-117, 9966-1-72-100	09/08/77	STREAM	DRY	1000	0500	5	7.50	1.20
27079	32-39.	6448-118, 0000-1-72-100	09/10/77	STREAM	DRY	1000	0500	1	7.65	1.18
27079	32-39.	6448-118, 0000-1-72-101		STREAM	DRY	1000	0500		7.63	1.20
27101	32-39.	3499-117, 9180-1-72-100	08/16/77	STREAM	DRY	1000	0500	1	4.84	1.25
27102	32-39.	3191-117, 9350-1-72-100	08/16/77	STREAM	DRY	1000	0500	1	5.33	1.29
27103	32-39.	3473-117, 9110-1-72-100	08/16/77	STREAM	DRY	1000	0500	1	5.54	1.21
27104	32-39.	3464-117, 9029-1-72-100	08/16/77	STREAM	DRY	1000	0500	1	5.45	1.21
27105	32-39.	3655-117, 8822-1-72-100	08/16/77	STREAM	DRY	1000	0500	9	5.69	1.21
27106	32-39.	3593-117, 8705-1-72-100	08/16/77	STREAM	DRY	1000	0500	9	6.55	1.22
27107	32-39.	3522-117, 8507-1-72-100	08/16/77	STREAM	DRY	1000	0500	1	5.85	1.24
27108	32-39.	3466-117, 8541-1-72-100	08/16/77	STREAM	DRY	1000	0500	9	6.29	1.21
27109	32-39.	3313-117, 8760-1-72-100	08/16/77	STREAM	DRY	1000	0500	5	6.78	1.21
27109	32-39.	3313-117, 8760-1-72-101		STREAM	DRY	1000	0500		6.92	1.22
27209	32-39.	9024-115, 8698-1-72-101		STREAM	DRY	1000	0500		2.99	1.63
27259	32-39.	0132-116, 3994-1-72-100	08/14/77	STREAM	DRY	1000	0500	1	2.96	1.41
27259	32-39.	0132-116, 3994-1-72-101		STREAM	DRY	1000	0500		3.97	1.41
27260	32-39.	0131-116, 3971-1-72-100	08/14/77	STREAM	DRY	1000	0500	1	3.19	1.28
27261	32-39.	0115-116, 4213-1-72-100	08/14/77	STREAM	DRY	1000	0500	1	2.11	1.58
27296	32-39.	3511-117, 9923-1-72-100	08/16/77	STREAM	DRY	1000	0500	1	5.06	1.24
27297	32-39.	3249-117, 9942-1-72-100	08/16/77	STREAM	DRY	1000	0500	1	5.39	1.24
27298	32-39.	3025-117, 9981-1-72-100	08/16/77	STREAM	DRY	1000	0500	1	4.18	1.30
27299	32-39.	3044-117, 9707-1-72-100	08/16/77	STREAM	DRY	1000	0500	1	4.19	1.33
27299	32-39.	3044-117, 9707-1-72-101		STREAM	DRY	1000	0500		4.08	1.34
27300	32-39.	2835-117, 9890-1-72-100		STREAM	DRY	1000	0500	1	4.27	1.26
27300	32-39.	2835-117, 9890-1-72-110		STREAM	DRY	1000	0500		4.63	1.26
28709	32-39.	6320-115, 8825-1-70-101		STREAM	WET	1000	0500		3.70	1.34
28714	32-39.	8760-116, 0669-1-70-100	09/12/77	STREAM	WET	1000	0500	1	2.63	1.61
28717	32-39.	9436-116, 0730-1-70-100	09/12/77	STREAM	WET	1000	0500	1	2.54	1.72
28719	32-40.	0317-116, 0436-1-70-101		STREAM	WET	1000	0500		2.12	1.73
28722	32-39.	6563-116, 0873-1-70-100	09/13/77	STREAM	WET	1000	0500	1	5.65	1.26
28723	32-39.	7107-116, 1133-1-72-100	09/13/77	STREAM	DRY	1000	0500	1	3.71	1.31
28724	32-39.	8127-116, 1600-1-70-100	09/13/77	STREAM	WET	1000	0500	1	3.35	1.29
28725	32-39.	8004-116, 1846-1-70-100	09/13/77	STREAM	WET	1000	0500	1	2.81	1.53
									12.14	1.34

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 TABLE B-1, SEDIMENT ANALYSIS; DRY AND STREAM SITES

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SITE NUMBER	DOE SAMPLE NUMBER		DATE	SAMPLE SOURCE/COND.	PARTICLE SIZE	POS.	Q, C, X-REF	URANIUM(DNC)		THORIUM(NAA)	
	ST	LAT.	LONG.	L	TY	RPL	MO-DA-YR	PPM	%ERR	PPM	%ERR
28726	32-39,	8218-116,	1704-1-70-100	09/13/77	STREAM	WET	1000	0500	1	4.25	1.30
28727	32-39,	7951-116,	2104-1-70-100	09/13/77	STREAM	WET	1000	0500	1	5.45	1.26
28728	32-39,	8586-116,	2045-1-70-100	09/13/77	STREAM	WET	1000	0500	1	4.50	1.35
28729	32-39,	8443-116,	3034-1-70-100	09/13/77	STREAM	WET	1000	0500	1	2.89	1.68
28729	32-39,	8443-116,	3034-1-70-101		STREAM	WET	1000	0500		3.80	1.78
28730	32-39,	8498-116,	3209-1-70-100	09/13/77	STREAM	WET	1000	0500	1	3.42	1.58
28731	32-39,	8326-116,	3105-1-70-100	09/13/77	STREAM	WET	1000	0500	1	1.13	1.66
28732	32-39,	7855-116,	2504-1-70-100	09/14/77	STREAM	WET	1000	0500	1	6.45	1.16
28733	32-39,	8191-116,	3071-1-70-100	09/14/77	STREAM	WET	1000	0500	1	2.57	1.55
28734	32-39,	7601-116,	3906-1-70-100	09/14/77	STREAM	WET	1000	0500	1	4.25	1.34
28735	32-39,	7659-116,	4711-1-70-100	09/14/77	STREAM	WET	1000	0500	1	6.05	1.21
28736	32-39,	8432-116,	4273-1-71-100	09/14/77	LAKE	WET	1000	0500	1	5.09	1.25
28737	32-39,	8451-116,	4425-1-70-100	09/14/77	STREAM	WET	1000	0500	1	2.60	1.49
28738	32-39,	8604-116,	4529-1-70-100	09/14/77	STREAM	WET	1000	0500	1	3.59	1.34
28739	32-39,	2084-116,	2055-1-70-100	09/15/77	STREAM	WET	1000	0500	1	2.29	2.95
28739	32-39,	2084-116,	2055-1-70-101		STREAM	WET	1000	0500		1.93	2.38
28740	32-39,	2121-116,	2077-1-70-100	09/15/77	STREAM	WET	1000	0500	1	2.36	1.71
28742	32-39,	5267-116,	3892-1-70-100	09/16/77	STREAM	WET	1000	0500	1	2.63	1.44
28743	32-39,	5294-116,	3066-1-70-100	09/16/77	STREAM	WET	1000	0500	1	2.66	1.49
28745	32-39,	1138-116,	2042-1-70-100	09/15/77	STREAM	WET	1000	0500	1	7.60	1.20
28746	32-39,	1319-116,	2202-1-70-100	09/15/77	STREAM	WET	1000	0500	1	5.39	1.23
28747	32-39,	1606-116,	1910-1-72-100	09/15/77	STREAM	DRY	1000	0500	9	3.91	1.40
28748	32-39,	5829-116,	1465-1-72-100	09/16/77	STREAM	DRY	1000	0500	9	2.87	1.44
28749	32-39,	5140-116,	3730-1-70-100	09/16/77	STREAM	WET	1000	0500	1	3.48	1.77
28750	32-39,	4614-116,	4885-1-70-100	09/22/77	STREAM	WET	1000	0500	1	4.16	1.38
28759	32-40,	1135-115,	8348-1-70-101		STREAM	WET	1000	0500		3.08	1.40
28767	32-39,	6342-116,	2810-1-70-100	09/16/77	STREAM	WET	1000	0500	1	6.76	1.39
28770	32-39,	5675-116,	6577-1-70-100	09/20/77	STREAM	WET	1000	0500	1	3.04	1.43
28771	32-39,	5803-116,	6786-1-70-100	09/20/77	STREAM	WET	1000	0500	1	5.05	1.30
28774	32-39,	7337-116,	5169-1-70-100	09/21/77	STREAM	WET	1000	0500	1	7.65	1.22
28775	32-39,	6619-116,	5934-1-70-100	09/21/77	STREAM	WET	1000	0500	1	4.88	1.33
28776	32-39,	5927-116,	6413-1-70-100	09/21/77	STREAM	WET	1000	0500	1	5.59	1.41
28782	32-39,	5991-116,	6785-1-70-100	09/22/77	STREAM	WET	1000	0500	1	1.48	1.51
28783	32-39,	6378-116,	65702-1-70-100	09/22/77	STREAM	WET	1000	0500	1	6.19	1.23
28784	32-39,	6378-116,	6679-1-70-100	09/22/77	STREAM	WET	1000	0500	1	13.10	1.11
28785	32-39,	4614-116,	7629-1-70-100	09/23/77	STREAM	WET	1000	0500	1	5.52	1.24
28785	32-39,	4319-116,	9303-1-70-100	09/23/77	STREAM	WET	1000	0500	1	3.38	1.32
28796	32-39,	4506-116,	0367-1-70-100	09/13/77	STREAM	WET	1000	0500	1	2.32	1.58
28797	32-39,	4166-116,	0811-1-72-100	09/13/77	STREAM	DRY	1000	0500	9	4.41	1.35
28798	32-39,	3661-116,	0760-1-70-100	09/14/77	STREAM	WET	1000	0500	9	5.47	1.27
28799	32-39,	2729-116,	0343-1-70-100	09/04/77	STREAM	WET	1000	0500	1	28.81	1.07
28799	32-39,	2729-116,	0343-1-70-101		STREAM	WET	1000	0500		26.23	1.07
28800	32-39,	0868-116,	1805-1-70-100	09/15/77	STREAM	WET	1000	0500	9	4.16	1.45
28801	32-39,	5195-116,	3927-1-70-100	09/20/77	STREAM	WET	1000	0500	1	4.19	1.34
28802	32-39,	5590-116,	3598-1-70-100	09/20/77	STREAM	WET	1000	0500	1	1.05	2.21
28804	32-39,	4247-116,	0845-1-70-100	09/21/77	STREAM	WET	1000	0500	1	3.75	1.44
28805	32-39,	3464-116,	0925-1-72-100	09/21/77	STREAM	DRY	1000	0500	1	10.12	1.16
28808	32-39,	4040-116,	3473-1-70-100	09/21/77	STREAM	WET	1000	0500	1	3.40	1.45
28810	32-39,	3132-116,	3876-1-70-100	09/21/77	STREAM	WET	1000	0500	1	4.66	1.35

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SITE NUMBER	DOE SAMPLE NUMBER	DATE	SAMPLE SOURCE/COND.	PARTICLE SIZE	POS. UPPER LOWER CONT	Q. C. X-RE>	URANIUM(DNC) PPM	URANIUM(DNC) ERR	THORIUM(NAA) PPM	THORIUM(NAA) ERR
28811	32-39.3050-116.3841-1-70-100	09/21/77	STREAM	WET	1000 0500	1	4.84	1.37	23.09	2.16
28812	32-39.3222-116.3852-1-70-100	09/22/77	STREAM	WET	1000 0500	1	5.87	1.26	23.01	1.71
28813	32-39.3081-116.4491-1-70-100	09/22/77	STREAM	WET	1000 0500	1	3.88	1.34	8.60	1.25
28814	32-39.3009-116.4607-1-70-100	09/22/77	STREAM	WET	1000 0500	1	5.30	1.37	23.35	1.75
28815	32-39.2901-116.4608-1-70-100	09/22/77	STREAM	WET	1000 0500	1	6.50	1.36	22.43	2.83
28816	32-39.2586-116.4599-1-70-100	09/22/77	STREAM	WET	1000 0500	1	4.85	1.35	16.21	1.70
28817	32-39.2694-116.4760-1-70-100	09/22/77	STREAM	WET	1000 0500	1	5.81	1.40	16.04	1.66
28818	32-39.3201-116.5232-1-70-100	09/22/77	STREAM	WET	1000 0500	1	8.67	1.23	23.76	1.87
28819	32-39.3009-116.5686-1-70-100	09/22/77	STREAM	WET	1000 0500	1	3.23	1.39	18.01	1.20
28820	32-39.4049-116.9919-1-70-100	09/26/77	STREAM	WET	1000 0500	1	3.66	1.43	16.95	2.11
28821	32-39.4472-116.9861-1-70-100	09/26/77	STREAM	WET	1000 0500	1	4.87	1.23	12.23	1.00
28823	32-39.4274-116.9686-1-70-100	09/26/77	STREAM	WET	1000 0500	1	37.91	1.04	9.38	1.61
28829	32-39.9415-116.6805-1-70-100	09/27/77	STREAM	WET	1000 0500	1	0.43	3.11		
28829	32-39.9415-116.6805-1-70-101		STREAM	WET	1000 0500		0.40	3.11		
28831	32-39.9823-116.7962-1-70-100	09/29/77	STREAM	WET	1000 0500	1	4.53	1.31	12.59	1.17
28832	32-39.8886-116.7895-1-70-100	09/29/77	STREAM	WET	1000 0500	1	5.82	1.48	12.56	1.67
28833	32-39.8543-116.8036-1-70-100	09/29/77	STREAM	WET	1000 0500	1	7.08	1.29	17.08	1.88
28839	32-39.5040-117.0384-1-70-100	10/11/77	STREAM	WET	1000 0500	1	11.09	1.13	19.61	1.51
28840	32-39.5830-117.5286-1-70-100	10/12/77	STREAM	WET	1000 0500	1	64.29	1.04	11.35	3.00
28842	32-39.6794-117.6938-1-70-100	10/12/77	STREAM	WET	1000 0500	1	3.19	1.52	9.41	1.58
28843	32-39.6397-117.7039-1-70-100	10/12/77	STREAM	WET	1000 0500	1	10.58	1.16	15.30	1.64
28845	32-39.6617-117.7904-1-70-100	10/12/77	STREAM	WET	1000 0500	1	8.79	1.24	6.70	1.63
28846	32-39.5967-117.8106-1-70-100	10/12/77	STREAM	WET	1000 0500	1	19.05	1.11	15.67	2.68
28847	32-39.5588-117.9312-1-70-100	10/13/77	STREAM	WET	1000 0500	1	6.79	1.24	21.31	1.74
28848	32-39.5723-117.9419-1-70-100	10/13/77	STREAM	WET	1000 0500	1	6.98	1.23	13.41	1.45
28849	32-39.5813-117.9443-1-70-100	10/13/77	STREAM	WET	1000 0500	1	7.51	1.18	23.97	1.88
28849	32-39.5813-117.9443-1-70-101		STREAM	WET	1000 0500		7.77	1.19	27.61	1.94
28850	32-39.5895-117.9246-1-70-100	10/13/77	STREAM	WET	1000 0500	1	17.15	1.09	21.62	1.80
28851	32-39.1631-116.2963-1-70-100	09/22/77	STREAM	WET	1000 0500	1	4.53	1.56	16.48	1.86
28852	32-39.1173-116.3268-1-70-100	09/22/77	STREAM	WET	1000 0500	1	23.41	1.13	13.99	1.78
28853	32-39.1093-116.3477-1-70-100	09/22/77	STREAM	WET	1000 0500	1	2.67	1.47	14.37	1.34
28854	32-39.0750-116.3364-1-70-100	09/22/77	STREAM	WET	1000 0500	9	3.38	1.49	14.21	1.48
28855	32-39.0580-116.3533-1-70-100	09/22/77	STREAM	WET	1000 0500	1	5.08	1.35	31.28	2.00
28856	32-39.0857-116.3213-1-70-100	09/22/77	STREAM	WET	1000 0500	1	4.18	1.36	17.05	1.61
28857	32-39.1439-116.4007-1-70-100	09/22/77	STREAM	WET	1000 0500	1	7.16	1.36	15.87	1.82
28859	32-39.1575-116.4317-1-70-100	09/23/77	STREAM	WET	1000 0500	1	6.84	1.24	31.35	2.10
28859	32-39.1791-116.4339-1-70-100	09/23/77	STREAM	WET	1000 0500	9	7.66	1.39	20.05	2.96
28859	32-39.1791-116.4339-1-70-101		STREAM	WET	1000 0500		7.21	1.36	20.45	2.32
28860	32-39.1930-116.4836-1-72-100	09/23/77	STREAM	DRY	1000 0500	9	5.09	1.29	19.64	1.32
28862	32-39.2355-116.5446-1-70-100	09/23/77	STREAM	WET	1000 0500	1	13.47	1.20	8.50	4.20
28863	32-39.1075-116.5362-1-70-100	09/23/77	STREAM	WET	1000 0500	1	7.02	1.19	19.40	1.43
28864	32-39.1411-116.5996-1-70-100	09/23/77	STREAM	WET	1000 0500	1	7.62	1.27	20.44	1.98
28865	32-39.0109-116.8040-1-70-100	09/24/77	STREAM	WET	1000 0500	1	5.32	1.28	10.08	1.25
28866	32-39.0649-116.7619-1-70-100	09/24/77	STREAM	WET	1000 0500	9	3.58	1.34	14.04	1.31
28867	32-39.0514-116.7827-1-70-100	09/24/77	STREAM	WET	1000 0500	1	6.04	1.26	14.27	1.30
28868	32-39.1145-116.7664-1-70-100	09/24/77	STREAM	WET	1000 0500	9	2.97	1.39	12.64	1.09
28869	32-39.1477-116.7615-1-70-100	09/24/77	STREAM	WET	1000 0500	1	4.49	1.28	11.71	1.14
28869	32-39.1677-116.7615-1-70-101		STREAM	WET	1000 0500		4.48	1.30	13.78	1.47

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 TABLE B-1, SEDIMENT ANALYSIS: DRY AND STREAM SITES

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SITE NUMBER	DOE SAMPLE NUMBER	DATE	SAMPLE SOURCE/COND.	PARTICLE SIZE	POS. UPPER LOWER CONT	Q. C. X-REF	URANIUM(DNC) PPM	URANIUM(DNC) %ERR	THORIUM(NAA) PPM	THORIUM(NAA) ERR
20071	32-39,1713-116,7812-1-70-100	09/24/77	STREAM	WET	1000 0500	1	5.25	1.41	10.24	1.56
20072	32-39,2181-116,7695-1-70-100	09/25/77	STREAM	WET	1000 0500	1	25.53	1.11	21.65	2.19
20073	32-39,2164-116,8077-1-70-100	09/25/77	STREAM	WET	1000 0500	1	4.20	1.40	17.52	1.42
20074	32-39,1525-116,8300-1-70-100	09/25/77	STREAM	WET	1000 0500	1	10.40	1.19	15.71	1.70
20075	32-39,1426-116,8473-1-70-100	09/25/77	STREAM	WET	1000 0500	1	15.55	1.16	15.81	1.54
20076	32-39,1254-116,8242-1-70-100	09/25/77	STREAM	WET	1000 0500	1	22.62	1.14	18.27	1.85
20077	32-39,1317-116,8288-1-70-100	09/25/77	STREAM	WET	1000 0500	1	8.26	1.13		
20078	32-39,0686-116,7966-1-70-100	09/25/77	STREAM	WET	1000 0500	1	9.11	1.16	12.54	1.37
20079	32-39,0497-116,7978-1-70-100	09/25/77	STREAM	WET	1000 0500	1	5.54	1.33	8.21	2.69
20080	32-39,0497-116,7978-1-70-101		STREAM	WET	1000 0500		5.30	1.29	12.59	1.71
20081	32-39,0570-116,8879-1-70-100	09/26/77	STREAM	WET	1000 0500	1	29.37	1.07	23.69	2.95
20082	32-39,0543-116,8775-1-70-100	09/26/77	STREAM	WET	1000 0500	1	5.18	1.39	8.45	3.39
20083	32-39,4977-116,3477-1-70-100	09/27/77	STREAM	WET	1000 0500		48.64	1.06		
20084	32-39,5824-116,9674-1-70-100	09/27/77	STREAM	WET	1000 0500		4.16	1.33	13.93	1.18
20085	32-39,6220-116,9045-1-70-100	09/27/77	STREAM	WET	1000 0500		4.49	1.65	13.22	2.34
20086	32-39,6346-116,9114-1-70-100	09/27/77	STREAM	WET	1000 0500		4.06	1.40	12.53	1.40
20087	32-39,6797-116,9277-1-72-100	09/27/77	STREAM	DRY	1000 0500	9	5.32	1.28	15.98	1.77
20088	32-39,6495-116,6670-1-70-100	09/27/77	STREAM	WET	1000 0500	1	9.83	1.16	28.59	1.89
20089	32-39,7603-116,6428-1-70-100	09/27/77	STREAM	WET	1000 0500	1	3.99	1.29	13.49	1.12
20090	32-39,7827-116,6321-1-70-100	09/28/77	STREAM	WET	1000 0500	1	4.40	1.24	13.26	0.93
20091	32-39,7890-116,6099-1-70-100	09/28/77	STREAM	WET	1000 0500	1	3.98	1.30	6.00	0.81
20092	32-39,0600-116,5756-1-70-100	09/28/77	STREAM	WET	1000 0500	1	6.48	1.16	9.21	0.81
20093	32-39,0809-116,5778-1-70-100	09/28/77	STREAM	WET	1000 0500	1	3.44	1.34	8.32	0.90
20094	32-39,9021-116,5040-1-70-100	09/28/77	STREAM	WET	1000 0500	1	4.34	1.35	9.78	2.04
20095	32-39,0995-116,5192-1-72-100	09/28/77	STREAM	DRY	1000 0500	9	3.76	1.29	10.27	1.15
20096	32-39,4270-115,9276-1-70-101		STREAM	WET	1000 0500		3.96	1.43	17.31	2.08
20097	32-39,4724-116,9047-1-70-100	09/23/77	STREAM	WET	1000 0500	1	9.25	1.16	10.91	1.42
20098	32-39,0295-116,6673-1-70-100	09/24/77	STREAM	WET	1000 0500	1	5.40	1.33	19.43	1.68
20099	32-39,0412-116,6626-1-70-100	09/24/77	STREAM	WET	1000 0500	1	0.40	3.72		
20100	32-39,0423-116,7561-1-70-100	09/24/77	STREAM	WET	1000 0500	1	1.48	2.30		
20101	32-39,0495-116,5192-1-72-100	09/24/77	STREAM	DRY	1000 0500	9	3.93	1.40	2.52	0.78
20102	32-39,0995-116,5192-1-72-100	09/24/77	STREAM	WET	1000 0500	1	3.96	1.43	17.31	2.08
20103	32-39,1081-116,7109-1-70-101		STREAM	WET	1000 0500		39.82	1.05	15.12	1.68
20104	32-39,0880-116,6369-1-70-100	09/24/77	STREAM	WET	1000 0500	1	9.11	1.25	8.44	1.61
20105	32-39,0799-116,6381-1-70-100	09/24/77	STREAM	WET	1000 0500	1	5.18	1.34	18.50	1.64
20106	32-39,0488-116,5031-1-70-100	09/24/77	STREAM	WET	1000 0500	1	11.43	1.16	14.51	1.47
20107	32-39,0410-117,1836-1-70-100	09/25/77	STREAM	WET	1000 0500	1	2.41	1.47	6.58	0.80
20108	32-39,0074-117,1790-1-70-100	09/25/77	STREAM	WET	1000 0500	1	9.27	1.31	9.41	1.53
20109	32-39,0533-117,1745-1-70-100	09/25/77	STREAM	WET	1000 0500	1	3.86	1.32	14.73	1.23
20110	32-39,0732-117,1607-1-70-100	09/25/77	STREAM	WET	1000 0500	1	1.61	1.58	5.37	0.72
20111	32-39,0759-117,1364-1-70-100	09/25/77	STREAM	WET	1000 0500	1	5.81	1.30	10.17	1.08
20112	32-39,1570-117,0903-1-70-100	09/25/77	STREAM	WET	1000 0500	1	2.93	1.50	14.15	1.34
20113	32-39,3273-116,8573-1-70-100	09/23/77	STREAM	WET	1000 0500	1	1.89	2.05	7.23	1.76
20114	32-39,4562-116,9768-1-70-100	09/26/77	STREAM	WET	1000 0500	1	3.77	1.31	10.89	1.13
20115	32-39,0895-116,6992-1-70-100	09/26/77	STREAM	WET	1000 0500	1	170.07	1.02	12.29	3.16
20116	32-39,1580-116,9819-1-70-100	09/27/77	STREAM	WET	1000 0500	1	5.50	1.22	10.46	1.29
20117	32-39,1102-117,1133-1-70-100		STREAM	WET	1000 0500		1.01	1.55	13.94	1.03
20118	32-39,2552-117,1565-1-70-100	09/27/77	STREAM	WET	1000 0500	1	3.77	1.54	13.20	1.32
20119	32-39,2561-117,1646-1-70-100	09/27/77	STREAM	WET	1000 0500	1	3.55	1.38	9.96	1.00

MILLETT QUAD REPORT, LAWRENCE LIVERMORE LABORATORY
 TABLE B-1. SEDIMENT ANALYSIS: DRY AND STREAM SITES

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SITE	-----DOE SAMPLE NUMBER-----	DATE	SAMPLE	PARTICLE SIZE	POS.	Q. C.	URANIUM(DNC)	THORIUM(NAA)						
NUMBER	ST	LAT.	LONG.	L T Y RPL	MO-DA-YR	SOURCE/COND.	UPPER	LOWER	CONT	X-REF	PPM	%ERR	PPM	ERR
28933	32-39.2904-117.0475-1-70-100	09/27/77	STREAM	WET	1000	0500	1	5.11	1.48	10.91	1.50			
28934	32-39.8125-116.6367-1-70-100	09/28/77	STREAM	WET	1000	0500	1	11.06	1.25	13.68	1.86			
28935	32-39.8331-116.5910-1-70-100	09/28/77	STREAM	WET	1000	0500	1	4.22	1.28	7.94	1.06			
28936	32-39.8718-116.5954-1-70-100	09/28/77	STREAM	WET	1000	0500	1	19.86	1.21	11.11	2.02			
28937	32-39.9006-116.5824-1-70-100	09/28/77	STREAM	WET	1000	0500	1	2.11	1.52	3.25	0.63			
28939	32-39.9602-116.6136-1-70-100	09/28/77	STREAM	WET	1000	0500	1	3.19	1.50	11.97	1.31			
28939	32-39.9602-116.6136-1-70-101		STREAM	WET	1000	0500	1	3.24	1.50	12.82	1.72			
28940	32-39.5121-117.0165-1-70-100	10/11/77	STREAM	WET	1000	0500	1	28.64	1.08	18.30	1.68			
28941	32-39.4977-117.0361-1-70-100	10/11/77	STREAM	WET	1000	0500	1	4.97	1.26	16.48	1.63			
28942	32-39.5582-117.4307-1-70-100	10/12/77	STREAM	WET	1000	0500	1	3.99	1.36	14.83	1.53			
28943	32-39.6240-117.4276-1-72-100	10/12/77	STREAM	DRY	1000	0500	1	5.86	1.31	20.80	1.90			
28944	32-39.6014-117.4449-1-70-100	10/12/77	STREAM	WET	1000	0500	1	5.56	1.30					
28946	32-39.6004-117.4671-1-70-100	10/12/77	STREAM	WET	1000	0500	1	6.35	1.35	19.69	1.61			
28947	32-39.4152-117.5669-1-70-100	10/12/77	STREAM	WET	1000	0500	1	5.79	1.31	14.05	1.39			
28948	32-39.4663-117.6184-1-72-100	10/12/77	STREAM	DRY	1000	0500	1	7.59	1.21	24.89	1.70			
28949	32-39.4655-117.6103-1-70-100	10/12/77	STREAM	WET	1000	0500	1	6.05	1.28	19.84	1.49			
28949	32-39.4655-117.6103-1-70-101		STREAM	WET	1000	0500	1	5.53	1.28	17.75	1.78			
28950	32-39.4791-117.5906-1-70-100	10/12/77	STREAM	WET	1000	0500	1	33.48	1.15	9.14	2.37			
28951	32-39.9080-117.9874-1-70-100	10/08/77	STREAM	WET	1000	0500	1	2.63	1.50	7.89	1.40			
28960	32-39.4932-117.6477-1-70-100	10/13/77	STREAM	WET	1000	0500	1	9.60	1.19	17.50	1.40			
28961	32-39.4493-117.7531-1-72-100	10/13/77	STREAM	DRY	1000	0500	1	5.51	1.31	12.54	2.04			
28962	32-39.4312-117.7668-1-70-100	10/13/77	STREAM	WET	1000	0500	1	6.41	1.42	15.93	1.87			
28963	32-39.4177-117.7644-1-70-100	10/13/77	STREAM	WET	1000	0500	1	7.02	1.20					
28964	32-39.4090-117.7213-1-70-100	10/13/77	STREAM	WET	1000	0500	1	6.11	1.35	20.93	1.63			
28965	32-39.4408-117.6624-1-70-100	10/13/77	STREAM	WET	1000	0500	1	33.13	1.07	19.67	1.99			
28966	32-39.4517-117.6497-1-70-100	10/13/77	STREAM	WET	1000	0500	1							
28967	32-39.2145-117.6904-1-70-100	10/18/77	STREAM	WET	1000	0500	1	9.04	1.43	11.89	1.79			
28968	32-39.2091-117.6961-1-70-100	10/18/77	STREAM	WET	1000	0500	1	14.48	1.17	19.77	1.97			
28969	32-39.1323-117.5542-1-70-100	10/18/77	STREAM	WET	1000	0500	1	1.51	1.75	4.01	1.26			
28969	32-39.1323-117.5542-1-70-101		STREAM	WET	1000	0500	1	1.49	1.80	4.11	1.09			
28970	32-39.5870-117.9036-1-70-100	10/13/77	STREAM	WET	1000	0500	1	5.93	1.31	16.86	1.58			
28971	32-39.5962-117.8805-1-70-100	10/13/77	STREAM	WET	1000	0500	1	4.19	1.53	8.69	1.51			
28972	32-39.6053-117.8654-1-70-100	10/13/77	STREAM	WET	1000	0500	1	12.87	1.17	6.50	1.11			
28973	32-39.5819-117.8593-1-72-100	10/13/77	STREAM	DRY	1000	0500	1	7.53	1.18	17.28	1.33			
28974	32-39.3047-117.9429-1-70-100	10/13/77	STREAM	WET	1000	0500	1	7.13	1.22	15.35	1.34			
28975	32-39.2813-117.6713-1-70-100	10/17/77	STREAM	WET	1000	0500	1	5.32	1.40	17.01	1.47			
28977	32-39.2659-117.6827-1-70-100	10/17/77	STREAM	WET	1000	0500	1	248.22	1.01	16.98	2.30			
28978	32-39.2522-117.7174-1-70-100	10/17/77	STREAM	WET	1000	0500	1	8.49	1.17	16.08	1.42			
28979	32-39.2612-117.7140-1-70-100	10/17/77	STREAM	WET	1000	0500	1	6.17	1.22	17.15	2.06			
28979	32-39.2612-117.7140-1-70-101		STREAM	WET	1000	0500	1	6.03	1.22	14.55	1.94			
28980	32-39.2758-117.6956-1-70-100	10/18/77	STREAM	WET	1000	0500	1	19.62	1.12	11.36	1.50			
28981	32-39.2768-117.6968-1-70-100	10/18/77	STREAM	WET	1000	0500	1	6.35	1.19	18.65	1.48			
28982	32-39.3206-117.7285-1-70-100	10/18/77	STREAM	WET	1000	0500	1	7.10	1.25	20.07	1.70			
28983	32-39.3279-117.7205-1-70-100	10/18/77	STREAM	WET	1000	0500	1	7.03	1.19	16.93	1.20			
28984	32-39.3479-117.6905-1-70-100	10/18/77	STREAM	WET	1000	0500	1	6.38	1.23	15.80	1.44			
28985	32-39.3263-117.6868-1-70-100	10/18/77	STREAM	WET	1000	0500	1	5.64	1.30	15.39	1.34			
28986	32-39.3580-117.6558-1-70-100	10/18/77	STREAM	WET	1000	0500	1	11.21	1.10	14.98	1.27			
28987	32-39.3445-117.6522-1-70-100	10/18/77	STREAM	WET	1000	0500	1	15.51	1.11	19.44	1.53			
28988	32-39.3153-117.5463-1-70-100	10/19/77	STREAM	WET	1000	0500	1	1.63	1.05	9.23	1.15			

MILLETT QUAD REPORT, LAWRENCE LIVERMORE LABORATORY
 TABLE B-1. SEDIMENT ANALYSIS; DRY AND STREAM SITES

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SITE NUMBER	DOE ST	SAMPLE LAT.	NUMBER LONG.	DATE L TY RPL	SAMPLE MO-DA-YR	PARTICLE SOURCE/COND.	SIZE UPPER	POS. LOWER	O. C. X-RE>	URANIUM(DNC) PPM	THORIUM(NAA) PPM	ERR	ERR	
28989	32-39.	3126-	117.5498-	1-70-100	10/19/77	STREAM	WET	1000	0500	1	3.08	1.45	8.64	1.27
28990	32-39.	3126-	117.5498-	1-70-101		STREAM	WET	1000	0500		2.92	1.67	13.21	2.02
28990	32-39.	3962-	117.5795-	1-70-100	10/19/77	STREAM	WET	1000	0500	1	7.42	1.15	17.86	1.38
28991	32-39.	2023-	117.4216-	1-70-100	10/19/77	STREAM	WET	1000	0500	1	8.77	1.19	15.17	1.63
28999	32-40.	0339-	117.6271-	1-70-101		STREAM	WET	1000	0500		2.70	1.55	8.38	1.39
29295	32-39.	0027-	116.7599-	1-72-100	08/24/77	STREAM	DRY	1000	0500	1	3.63	1.30	6.59	0.53
29300	32-39.	8706-	117.4956-	1-72-100	08/13/77	STREAM	DRY	1000	0500	2	3.82	1.33	14.67	1.24
29301	32-39.	8733-	117.4853-	1-72-100	08/13/77	STREAM	DRY	1000	0500	1	3.88	1.28	13.17	1.22
29302	32-39.	8895-	117.4924-	1-72-100	08/13/77	STREAM	DRY	1000	0500	5	4.23	1.27	17.14	1.25
29303	32-39.	9030-	117.4890-	1-72-100	08/13/77	STREAM	DRY	1000	0500	1	4.32	1.24	17.10	1.16
29304	32-39.	9129-	117.4881-	1-72-100	08/13/77	STREAM	DRY	1000	0500	1	6.84	1.20	33.17	2.19
29305	32-39.	9229-	117.4903-	1-72-100	08/13/77	STREAM	DRY	1000	0500	1	6.19	1.24	41.68	2.40
29306	32-39.	9229-	117.4881-	1-72-100	08/13/77	STREAM	DRY	1000	0500	1	7.41	1.17	24.50	1.72
29307	32-39.	8981-	117.5743-	1-72-100		STREAM	DRY	1000	0500	5	2.71	1.27	7.11	0.61
29308	32-39.	8981-	117.5849-	1-72-100	08/13/77	STREAM	DRY	1000	0500	5	4.48	1.24	19.21	1.21
29309	32-39.	9017-	117.5931-	1-72-100	08/13/77	STREAM	DRY	1000	0500	1	4.05	1.24	16.21	1.09
29309	32-39.	9017-	117.5931-	1-72-101		STREAM	DRY	1000	0500		3.38	1.33	15.17	1.42
29310	32-39.	9052-	117.5956-	1-72-100	08/13/77	STREAM	DRY	1000	0500	1	3.47	1.32	15.82	1.26
29311	32-39.	9132-	117.6178-	1-72-100	08/13/77	STREAM	DRY	1000	0500	1	3.51	1.29	14.58	1.16
29312	32-39.	9141-	117.6224-	1-72-100	08/13/77	STREAM	DRY	1000	0500	1	4.51	1.23	19.74	1.25
29313	32-39.	9150-	117.6225-	1-72-100	08/13/77	STREAM	DRY	1000	0500	1	3.67	1.27	7.75	1.24
29314	32-39.	9168-	117.6272-	1-72-100	08/13/77	STREAM	DRY	1000	0500	1	4.01	1.27	13.61	1.17
29315	32-39.	9239-	117.6401-	1-72-100	08/13/77	STREAM	DRY	1000	0500	1	4.14	1.26	14.65	1.34
29316	32-39.	9257-	117.6424-	1-72-100	08/13/77	STREAM	DRY	1000	L500	1	2.65	1.35	8.90	0.97
29317	32-39.	9283-	117.6624-	1-72-100	08/13/77	STREAM	DRY	1000	0.00	1	3.55	1.26	13.32	1.07
29318	32-39.	9757-	117.7190-	1-72-100	08/13/77	STREAM	DRY	1000	0500	1	3.05	1.31	11.36	1.01
29319	32-39.	9199-	117.7173-	1-72-100	08/13/77	STREAM	DRY	1000	0500	1	2.34	1.38	10.36	0.87
29319	32-39.	9199-	117.7173-	1-72-101		STREAM	DRY	1000	0500		2.55	1.42	6.39	1.01
29320	32-39.	9073-	117.7171-	1-72-100	08/13/77	STREAM	DRY	1000	0500	1	2.61	1.35	11.57	0.99
29320	32-39.	9073-	117.7171-	1-72-110		STREAM	DRY	1000	0500		2.61	1.31	9.97	0.93
29321	32-39.	8640-	117.7167-	1-72-100	08/14/77	STREAM	DRY	1000	0500	1	4.16	1.28	16.21	1.60
29322	32-39.	8514-	117.7084-	1-72-100	08/14/77	STREAM	DRY	1000	0500	1	4.28	1.24	15.96	1.09
29323	32-39.	8317-	117.6907-	1-72-100	08/14/77	STREAM	DRY	1000	0500	1	3.09	1.22		
29324	32-39.	8309-	117.6825-	1-72-100	08/14/77	STREAM	DRY	1000	0500	1	4.40	1.26	15.01	1.41
29325	32-39.	8552-	117.6827-	1-72-100	08/14/77	STREAM	DRY	1000	0500	1	3.52	1.28	10.70	1.21
29326	32-39.	8300-	117.6836-	1-72-100	08/14/77	STREAM	DRY	1000	0500	1	5.04	1.22	19.59	1.37
29327	32-39.	8210-	117.6754-	1-72-100	08/14/77	STREAM	DRY	1000	0500	1	6.07	1.20	21.20	1.46
29328	32-39.	8058-	117.6589-	1-72-100	08/14/77	STREAM	DRY	1000	0500	1	3.73	1.26	13.74	1.27
29329	32-39.	7976-	117.6726-	1-72-100	08/14/77	STREAM	DRY	1000	0500	1	4.01	1.23	14.04	1.04
29329	32-39.	7976-	117.6726-	1-72-101		STREAM	DRY	1000	0500		4.08	1.26	13.77	1.19
29330	32-39.	7869-	117.6540-	1-72-100	08/14/77	STREAM	DRY	1000	0600	1	5.99	1.20	15.47	1.14
29331	32-39.	7662-	117.6468-	1-72-100	08/14/77	STREAM	DRY	1000	0500	1	4.08	1.28	16.36	1.17
29332	32-39.	7609-	117.6339-	1-72-100	08/14/77	STREAM	DRY	1000	0500	1	4.87	1.22	18.91	1.27
29333	32-39.	7078-	117.6194-	1-72-100	08/14/77	STREAM	DRY	1000	0500	1	4.11	1.28	9.42	1.87
29334	32-39.	7205-	117.6404-	1-72-100	08/14/77	STREAM	DRY	1000	0500	1	3.66	1.26	13.16	0.96
29335	32-39.	6923-	117.6531-	1-72-100	08/14/77	STREAM	DRY	1000	0500	5	4.50	1.26	18.57	1.31
29336	32-39.	6814-	117.6647-	1-72-100	08/14/77	STREAM	DRY	1000	0500	1	3.20	1.28	9.63	1.01
29337	32-39.	6694-	117.7170-	1-72-100	08/14/77	STREAM	DRY	1000	0500	1	4.01	1.25	13.44	1.08
29338	32-39.	6803-	117.6950-	1-72-100	08/15/77	STREAM	DRY	1000	0500	2	2.29	1.47	5.51	1.42

MILLETT QUAD REPORT, LAWRENCE LIVERMORE LABORATORY
 TABLE 8-1. SEDIMENT ANALYSIS; DRY AND STREAM SITES

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SITE NUMBER	DOE ST	SAMPLE LAT.	SOURCE LONG.	NUMBER	DATE L	TY	RPL	MO-DA-YR	SAMPLE COND.	PARTICLE SIZE	POS. UPPER	POS. LOWER	CONT.	Q. C. X-RE>	URANIUM(DNC) PPM	URANIUM(DNC) ZERR	THORIUM(NAA) PPM	THORIUM(NAA) ERR
29339	32-39.	6558-117.	7320-1-70-100	08/15/77	STREAM	WET			1000	0500	1			3.07	1.36	13.50	1.15	
29339	32-39.	6558-117.	7320-1-70-101		STREAM	WET			1000	0500				3.27	1.50	10.53	2.34	
29340	32-39.	6440-117.	7412-1-72-100	08/15/77	STREAM	DRY			1000	0500	1			3.51	1.20			
29341	32-39.	6277-117.	7562-1-72-100	08/15/77	STREAM	DRY			1000	0500	1			3.35	1.31	16.22	1.19	
29342	32-39.	6572-117.	7857-1-70-100	08/15/77	STREAM	WET			1000	0500	5			3.42	1.32	14.71	1.31	
29343	32-39.	6160-117.	7514-1-72-100	08/15/77	STREAM	DRY			1000	0500	1			3.36	1.30	11.87	1.04	
29344	32-39.	5997-117.	7617-1-72-100	08/15/77	STREAM	DRY			1000	0500	1			4.97	1.24	20.07	1.72	
29345	32-39.	5922-117.	8036-1-72-100	08/15/77	STREAM	DRY			1000	0500	1			4.74	1.21	14.35	1.37	
29346	32-39.	5687-117.	8242-1-72-100	08/15/77	STREAM	DRY			1000	0500	1			10.58	1.14	26.06	1.66	
29347	32-39.	5596-117.	8300-1-72-100	08/15/77	STREAM	DRY			1000	0500	5			5.53	1.22	15.75	1.39	
29348	32-39.	5828-117.	8605-1-72-100	08/15/77	STREAM	DRY			1000	0500	5			5.50	1.22	17.14	1.27	
29349	32-39.	5837-117.	8582-1-72-100	08/15/77	STREAM	DRY			1000	0500	5			4.27	1.28	12.20	1.31	
29349	32-39.	5837-117.	8582-1-72-101		STREAM	DRY			1000	0500				4.82	1.25	13.95	1.38	
29350	32-39.	5721-117.	8511-1-70-100	08/15/77	STREAM	WET			1000	0500	5			5.02	1.21	16.59	1.16	
29351	32-39.	5682-117.	8929-1-72-100	08/16/77	STREAM	DRY			1000	0500	1			6.04	1.18	19.83	1.38	
29352	32-39.	5469-117.	8461-1-72-100	08/16/77	STREAM	DRY			1000	0500	1			4.46	1.24	15.48	1.18	
29353	32-39.	5433-117.	8426-1-70-100	08/16/77	STREAM	WET			1000	0500	5			4.67	1.23	16.19	1.24	
29354	32-39.	5217-117.	8330-1-72-100	08/16/77	STREAM	DRY			1000	0500	1			6.12	1.11			
29355	32-39.	5049-117.	8595-1-72-100	08/16/77	STREAM	DRY			1000	0500	2			6.16	1.21	21.27	1.52	
29356	32-39.	4875-117.	8326-1-72-100	08/16/77	STREAM	DRY			1000	0500	1			5.69	1.18	15.52	1.06	
29357	32-39.	4659-117.	8265-1-72-100	08/16/77	STREAM	DRY			1000	0500	1			5.07	1.18	12.26	0.89	
29358	32-39.	4729-117.	8522-1-72-100	08/25/77	STREAM	DRY			1000	0500	1			5.83	1.20	23.32	1.62	
29359	32-39.	5203-117.	6259-1-72-100	08/24/77	STREAM	DRY			1000	0500	5			5.50	1.23	16.84	1.27	
29359	32-39.	5203-117.	6259-1-72-101		STREAM	DRY			1000	0500				5.89	1.22	19.35	1.44	
29360	32-39.	5103-117.	6526-1-72-100	08/24/77	STREAM	DRY			1000	0500	5			5.38	1.25	16.65	1.39	
29360	32-39.	5103-117.	6526-1-72-110		STREAM	DRY			1000	0500				5.70	1.27	17.26	2.12	
29361	32-39.	4977-117.	6490-1-72-100	08/24/77	STREAM	DRY			1000	0500	1			5.09	1.25	18.36	1.44	
29362	32-39.	4647-117.	7416-1-72-100	08/24/77	STREAM	DRY			1000	0500	5			5.54	1.31	14.70	1.75	
29363	32-39.	4952-117.	7617-1-72-100	08/24/77	STREAM	DRY			1000	0500	1			5.46	1.14			
29364	32-39.	4870-117.	7721-1-72-100	08/24/77	STREAM	DRY			1000	0500	1			5.12	1.27	20.24	1.52	
29365	32-39.	4833-117.	7860-1-72-100	08/24/77	STREAM	DRY			1000	0500	1			4.57	1.27	17.47	1.15	
29366	32-39.	4542-117.	8275-1-72-100	08/24/77	STREAM	DRY			1000	0500	1			5.41	1.24	22.72	1.69	
29367	32-39.	4434-117.	8321-1-72-100	08/24/77	STREAM	DRY			1000	0500	1			6.08	1.21	22.73	1.61	
29368	32-39.	4289-117.	8342-1-72-100	08/24/77	STREAM	DRY			1000	0500	3			5.41	1.23	22.47	1.58	
29369	32-39.	4218-117.	8260-1-72-100	08/24/77	STREAM	DRY			1000	0500	1			4.56	1.26	16.48	1.14	
29369	32-39.	4218-117.	8260-1-72-101		STREAM	DRY			1000	0500				4.80	1.22	17.37	1.13	
29370	32-39.	4155-117.	8259-1-72-100	08/24/77	STREAM	DRY			1000	0500	1			6.01	1.21	21.60	1.46	
29371	32-39.	4065-117.	8247-1-72-100	08/24/77	STREAM	DRY			1000	0500	2			5.14	1.26	19.83	1.46	
29372	32-39.	3921-117.	8210-1-72-100	08/24/77	STREAM	DRY			1000	0500	1			6.40	1.20	13.92	1.15	
29373	32-39.	3849-117.	8116-1-72-100	08/24/77	STREAM	DRY			1000	0500	5			6.45	1.21	23.02	1.66	
29374	32-39.	4558-117.	8543-1-72-100	08/25/77	STREAM	DRY			1000	0500	5			5.50	1.24	22.04	1.61	
29375	32-39.	4280-117.	8435-1-72-100	08/25/77	STREAM	DRY			1000	0500	5			6.04	1.24	24.61	1.85	
29376	32-39.	3880-117.	8790-1-72-100	08/25/77	STREAM	DRY			1000	0500	5			5.38	1.23	19.72	1.29	
29377	32-39.	4051-117.	8897-1-72-100	08/25/77	STREAM	DRY			1000	0500	1			5.29	1.21	12.55	0.92	
29378	32-39.	4251-117.	8655-1-72-100	08/25/77	STREAM	DRY			1000	0500	5			5.62	1.16			
29379	32-39.	4205-117.	8806-1-72-100	08/25/77	STREAM	DRY			1000	0500	1			5.29	1.26	20.70	1.49	
29379	32-39.	4205-117.	8806-1-72-101		STREAM	DRY			1000	0500				5.79	1.20	23.54	1.71	
29380	32-39.	4347-117.	8817-1-72-100	08/25/77	STREAM	DRY			1000	0500	1			5.62	1.25	21.89	1.45	

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 TABLE 8-1, SEDIMENT ANALYSIS: DRY AND STREAM SITES

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SITE NUMBER	DOE ST	SAMPLE NUMBER	DATE LAT. LONG.	SAMPLE L TY RPL	PARTICLE MO-DA-YR SOURCE/COND.	SIZE UPPER	POS. LOWER CONT	O. C. X-REF	URANIUM(DNC) PPM	THORIUM(NAA) PPM	ERR	
29380	32-39	4347-117.9017-1-72-110		STREAM	DRY	1000	0500		5.13	1.24	20.02	1.35
29381	32-39	4401-117.9017-1-72-100	08/25/77	STREAM	DRY	1000	0500	1	5.49	1.22	15.57	2.08
29382	32-39	4382-117.9230-1-72-100	08/25/77	STREAM	DRY	1000	0500		5.36	1.27	20.17	1.96
29383	32-39	4381-117.9273-1-72-100	08/25/77	STREAM	DRY	1000	0500		5.74	1.23	20.75	1.62
29384	32-39	4104-117.9224-1-72-100	08/25/77	STREAM	DRY	1000	0500	1	4.81	1.25	20.73	1.36
29385	32-39	4220-117.9166-1-72-100	08/25/77	STREAM	DRY	1000	0500	1	5.84	1.24	21.82	1.68
29386	32-39	4274-117.9132-1-72-100	08/25/77	STREAM	DRY	1000	0500	1	5.76	1.24	22.46	1.47
29387	32-39	3900-117.8596-1-72-100	08/25/77	STREAM	DRY	1000	0500	5	6.44	1.22	24.14	1.86
29388	32-39	3836-117.9835-1-72-100	08/25/77	STREAM	DRY	1000	0500	5	5.40	1.18	16.32	1.08
29389	32-39	4079-117.9886-1-72-100	08/25/77	STREAM	DRY	1000	0500	1	4.96	1.22	17.39	1.20
29390	32-39	4313-117.9889-1-72-100	08/25/77	STREAM	DRY	1000	0500	5	5.46	1.20	20.14	1.50
29391	32-39	4594-117.9752-1-72-100	08/25/77	STREAM	DRY	1000	0500	5	5.74	1.19	21.80	1.40
29392	32-39	4783-117.3720-1-70-100	08/25/77	STREAM	WET	1000	0500	5	6.70	1.22	27.95	2.28
29393	32-39	4809-117.9995-1-72-100	08/25/77	STREAM	DRY	1000	0500	5	4.90	1.27	27.87	1.97
29394	32-39	3688-117.8045-1-70-100	08/26/77	STREAM	WET	1000	0500	5	6.54	1.17	21.53	1.78
29395	32-39	2964-117.8466-1-72-100	08/26/77	STREAM	DRY	1000	0500	5	5.95	1.19	20.30	1.36
29396	32-39	3328-117.7913-1-70-100	08/26/77	STREAM	WET	1000	0500	1	6.54	1.19	16.16	2.29
29397	32-39	3184-117.7877-1-70-100	08/26/77	STREAM	WET	1000	0500	1	6.72	1.16	18.61	1.18
29398	32-39	2928-117.8453-1-72-100	08/26/77	STREAM	DRY	1000	0500	1	6.03	1.23	19.94	1.48
29399	32-39	2885-117.8163-1-72-100	08/26/77	STREAM	DRY	1000	0500	1	4.30	1.34	18.22	1.66
29442	32-39	0510-117.9927-1-72-100	08/23/77	STREAM	DRY	1000	0500	9	3.92	1.24	11.82	0.86
29443	32-39	0511-117.9811-1-72-100	08/23/77	STREAM	DRY	1000	0500	9	4.25	1.25	15.16	1.23
29444	32-39	0348-117.9913-1-72-100	08/23/77	STREAM	DRY	1000	0500	2	4.48	1.24	15.65	1.04
29445	32-39	0015-117.9862-1-72-100	08/23/77	STREAM	DRY	1000	0500	5	6.03	1.26	21.29	1.66
29446	32-39	0118-117.9402-1-72-100	08/23/77	STREAM	DRY	1000	0500	1	4.25	1.22	13.92	1.04
29447	32-39	0288-117.9589-1-72-100	08/24/77	STREAM	DRY	1000	0500	5	3.97	1.23	14.59	1.05
29448	32-39	0317-117.9300-1-72-100	08/24/77	STREAM	DRY	1000	0500	2	4.38	1.22	13.06	1.10
29449	32-39	0301-117.9069-1-72-100	08/24/77	STREAM	DRY	1000	0500	5	3.36	1.28	9.40	0.98
29450	32-39	0266-117.8884-1-72-100	08/24/77	STREAM	DRY	1000	0500	9	3.22	1.24		
29451	32-39	0106-117.8665-1-72-100	08/24/77	STREAM	DRY	1000	0500	1	3.55	1.24	11.65	0.94
29452	32-39	0006-117.8765-1-72-100	08/24/77	STREAM	DRY	1000	0500	5	3.66	1.23	6.23	0.81
29453	32-39	0099-117.8362-1-72-100	08/24/77	STREAM	DRY	1000	0500	5	4.30	1.23	17.00	1.15
29454	32-39	0368-117.8296-1-72-100	08/24/77	STREAM	DRY	1000	0500	5	3.56	1.28	13.45	0.98
29455	32-39	0456-117.8550-1-72-100	08/24/77	STREAM	DRY	1000	0500	5	3.91	1.21	8.91	0.71
29456	32-39	0547-117.8691-1-72-100	08/24/77	STREAM	DRY	1000	0500	5	3.68	1.29	12.96	1.10
29457	32-39	0412-117.8724-1-72-100	08/24/77	STREAM	DRY	1000	0500	5	5.45	1.19	19.17	1.28
29458	32-39	0473-117.8956-1-72-100	08/24/77	STREAM	DRY	1000	0500	5	6.33	1.19	22.27	1.70
29459	32-39	0515-117.9384-1-72-100	08/24/77	STREAM	DRY	1000	0500	5	4.09	1.26	14.43	1.20
29460	32-39	0774-117.9653-1-72-100	08/25/77	STREAM	DRY	1000	0500	2	4.59	1.17		
29461	32-39	0810-117.9665-1-72-100	08/25/77	STREAM	DRY	1000	0500	5	4.60	1.24	15.00	1.30
29462	32-39	0937-117.9528-1-72-100	08/25/77	STREAM	DRY	1000	0500	5	5.05	1.23	18.75	1.26
29463	32-39	0957-117.9309-1-72-100	08/25/77	STREAM	DRY	1000	0500	5	4.36	1.24	15.60	1.20
29463	32-39	0957-117.9309-1-72-110		STREAM	DRY	1000	0500		4.34	1.22	11.13	0.79
29464	32-39	1004-117.9078-1-72-100	08/25/77	STREAM	DRY	1000	0500	5	4.98	1.19	10.32	0.77
29465	32-39	0741-117.9283-1-72-100	08/25/77	STREAM	DRY	1000	0500	5	2.57	1.29	0.78	0.17
29466	32-39	0604-117.9379-1-72-100	08/25/77	STREAM	DRY	1000	0500	5	4.10	1.28	16.41	1.15
29467	32-39	0136-117.8178-1-72-100	08/25/77	STREAM	DRY	1000	0500	5	5.00	1.22	20.18	1.32
29468	32-39	0056-117.8038-1-72-100	08/25/77	STREAM	DRY	1000	0500	5	5.53	1.18	11.17	1.17
29469	32-39	0237-117.7971-1-72-100	08/25/77	STREAM	DRY	1000	0500	5	4.88	1.22	20.03	1.27

MILLETT QUAD REPORT, LAWRENCE LIVERMORE LABORATORY
 TABLE B-1. SEDIMENT ANALYSIS: DRY AND STREAM SITES

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SITE NUMBER	ST	DOE SAMPLE NUMBER	DATE	SAMPLE SOURCE/COND.	PARTICLE SIZE	POS. UPPER LOWER CONT	Q. C. X-RE>	URANIUM(DNC) PPM	THORIUM(NAA) PPM	ERR	
29470	32-39	0309-117.8029-1-72-100	08/25/77	STREAM	DRY	1000 0500	5	5.35	1.22	22.11	1.69
29471	32-39	0507-117.7962-1-72-100	08/25/77	STREAM	DRY	1000 0500	5	3.31	1.28	11.15	0.91
29472	32-39	0615-117.7964-1-72-100	08/25/77	STREAM	DRY	1000 0500	9	4.20	1.23	13.65	0.96
29473	32-39	0786-117.8023-1-72-100		STREAM	DRY	1000 0500	9	3.39	1.28	12.45	1.00
29474	32-39	0829-117.8359-1-72-100	08/26/77	STREAM	DRY	1000 0500	1	3.24	1.27	10.94	0.92
29475	32-39	0929-117.8233-1-72-100	08/26/77	STREAM	DRY	1000 0500	1	3.51	1.22		
29476	32-39	0857-117.8209-1-72-100	08/26/77	STREAM	DRY	1000 0500	5	3.00	1.30	9.73	0.81
29477	32-39	1009-117.8373-1-72-100	08/26/77	STREAM	DRY	1000 0500	2	1.96	1.32		
29478	32-39	1045-117.8396-1-72-100	08/26/77	STREAM	DRY	1000 0500	5	3.60	1.23	7.82	0.97
29480	32-39	1261-117.8399-1-72-100	08/26/77	STREAM	DRY	1000 0500	5	4.28	1.27	12.35	1.18
29480	32-39	1261-117.8399-1-72-110		STREAM	DRY	1000 0500		4.32	1.26	13.96	1.57
29481	32-39	1370-117.8365-1-72-100	08/26/77	STREAM	DRY	1000 0500	5	3.99	1.28	15.15	1.17
29482	32-39	1496-117.8274-1-72-100	08/26/77	STREAM	DRY	1000 0500	5	3.12	1.33	10.36	0.94
29483	32-39	1767-117.8208-1-72-100	08/26/77	STREAM	DRY	1000 0500	5	3.74	1.28	12.25	1.00
29484	32-39	1867-117.8163-1-72-100	08/26/77	STREAM	DRY	1000 0500	1	2.51	1.40	8.05	1.14
29485	32-39	1608-117.8009-1-72-100	08/26/77	STREAM	DRY	1000 0500	9	2.53	1.40	8.90	1.07
29486	32-39	1482-117.7800-1-72-100	08/26/77	STREAM	DRY	1000 0500	5	4.34	1.24	15.43	1.24
29487	32-39	1527-117.7754-1-72-100	08/26/77	STREAM	DRY	1000 0500	5	2.94	1.37	10.80	1.10
29488	32-39	1663-117.7559-1-72-100	08/26/77	STREAM	DRY	1000 0500	5	3.11	1.34	11.54	1.02
29489	32-39	1546-117.7615-1-72-100	08/26/77	STREAM	DRY	1000 0500	5	2.49	1.40	8.99	1.07
29490	32-39	1402-117.7556-1-72-100	08/26/77	STREAM	DRY	1000 0500	5	2.87	1.42	8.19	1.46
29491	32-39	1311-117.7763-1-72-100	08/26/77	STREAM	DRY	1000 0500	5	4.71	1.24	16.14	1.21
29492	32-39	1068-117.7691-1-72-100	08/26/77	STREAM	DRY	1000 0500	5	4.08	1.27	15.81	1.27
29493	32-39	0977-117.7806-1-72-100	08/26/77	STREAM	DRY	1000 0500	5	3.03	1.41	9.26	1.75
29494	32-39	0876-117.8105-1-72-100	08/26/77	STREAM	DRY	1000 0500	9	3.38	1.27	9.41	1.06
29495	32-39	0627-117.7582-1-72-100	08/27/77	STREAM	DRY	1000 0500	9	3.85	1.34	17.21	1.53
29496	32-39	0536-117.7674-1-72-100	08/27/77	STREAM	DRY	1000 0500	9	4.65	1.25	19.29	1.43
29497	32-39	0375-117.7568-1-72-100	08/27/77	STREAM	DRY	1000 0500	9	4.36	1.29	16.09	1.77
29498	32-39	0258-117.7555-1-72-100		STREAM	DRY	1000 0500	5	4.43	1.29	16.59	1.64
29499	32-39	0050-117.7692-1-72-100	08/27/77	STREAM	DRY	1000 0500	1	6.23	1.17	17.88	1.63
29500	32-39	2056-117.8096-1-72-100	08/27/77	STREAM	DRY	1000 0500	5	3.47	1.31	12.29	1.28
29500	32-39	2056-117.8096-1-72-110		STREAM	DRY	1000 0500		3.15	1.32	10.70	1.25
29501	32-39	1923-117.7862-1-72-100	08/27/77	STREAM	DRY	1000 0500	5	2.27	1.38	9.02	0.76
29502	32-39	1932-117.7815-1-70-100	08/27/77	STREAM	WET	1000 0500	1	3.36	1.33	12.29	1.05
29503	32-39	2173-117.8155-1-72-100	08/27/77	STREAM	DRY	1000 0500	5	4.62	1.22	12.52	1.15
29504	32-39	2120-117.8050-1-72-100	08/27/77	STREAM	DRY	1000 0500	5	4.78	1.23	15.33	1.13
29505	32-39	2057-117.7980-1-72-100	08/27/77	STREAM	DRY	1000 0500	5	4.54	1.25	13.62	1.42
29506	32-39	2173-117.8224-1-72-100	08/27/77	STREAM	DRY	1000 0500	5	2.89	1.41	9.63	1.53
29507	32-39	2190-117.8248-1-72-100	08/27/77	STREAM	DRY	1000 0500	5	3.39	1.29	11.61	1.17
29508	32-39	1991-117.8396-1-72-100	08/27/77	STREAM	DRY	1000 0500	5	3.29	1.36	12.92	1.57
29509	32-39	1991-117.8396-1-72-100	08/27/77	STREAM	DRY	1000 0500	5	6.09	1.37	20.95	1.84
29510	32-39	2343-117.8365-1-72-100	08/27/77	STREAM	DRY	1000 0500	5	4.75	1.23	15.19	1.62
29511	32-39	2352-117.8377-1-72-100	08/27/77	STREAM	DRY	1000 0500	5	4.18	1.26	14.71	1.10
29512	32-39	2406-117.8378-1-72-100	08/27/77	STREAM	DRY	1000 0500	5	5.11	1.23	16.00	1.51
29513	32-39	2415-117.8378-1-72-100	08/27/77	STREAM	DRY	1000 0500	5	4.74	1.21	15.25	1.17
29514	32-39	1297-117.8446-1-72-100	08/27/77	STREAM	DRY	1000 0500	5	3.61	1.29	11.47	0.99
29515	32-39	1338-117.8585-1-72-100	08/27/77	STREAM	DRY	1000 0500	5	4.44	1.28	13.78	1.40
29516	32-39	1323-117.8536-1-72-100	08/27/77	STREAM	DRY	1000 0500	5	4.48	1.29	17.25	1.78
29517	32-39	1348-117.8686-1-72-100	08/28/77	STREAM	DRY	1000 0500	5	4.71	1.24	14.37	1.42

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 TABLE B-1, SEDIMENT ANALYSIS; DRY AND STREAM SITES

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SITE NUMBER	ST	DOE SAMPLE NUMBER	DATE	SAMPLE SOURCE/COND.	PARTICLE SIZE UPPER	POS. LOWER CONT	D. C. X-REF	URANIUM(DNC) PPM	THORIUM(NAA) PPM
29618	32-39.	1437-117.8979-1-72-100	08/28/77	STREAM	DRY	1000 0500	5	4.31	1.19
29619	32-39.	1391-117.9152-1-72-100	08/28/77	STREAM	DRY	1000 0500	5	3.85	1.24
29620	32-39.	1462-117.9038-1-72-100	08/28/77	STREAM	DRY	1000 0500	5	3.76	1.27
29621	32-39.	1805-117.9204-1-72-100	08/28/77	STREAM	DRY	1000 0500	5	3.94	1.28
29622	32-39.	1677-117.9446-1-72-100	08/28/77	STREAM	DRY	1000 0500	5	3.92	1.32
29623	32-39.	1339-117.9973-1-72-100	08/28/77	STREAM	DRY	1000 0500	5	4.42	1.31
29624	32-39.	1376-117.9835-1-72-100	08/28/77	STREAM	DRY	1000 0500	5	4.80	1.27
29625	32-39.	1367-117.9823-1-72-100	08/28/77	STREAM	DRY	1000 0500	5	4.92	1.22
29626	32-39.	1424-117.9546-1-72-100	08/28/77	STREAM	DRY	1000 0500	5	4.43	1.29
29627	32-39.	1432-117.9616-1-72-100	08/28/77	STREAM	DRY	1000 0500	5	4.03	1.28
29628	32-39.	1520-117.9918-1-72-100	08/28/77	STREAM	DRY	1000 0500	5	3.72	1.30
29629	32-39.	2440-117.8668-1-72-100	08/28/77	STREAM	DRY	1000 0500	5	6.33	1.19
29630	32-39.	2331-117.3759-1-72-100	08/28/77	STREAM	DRY	1000 0500	2	5.88	1.20
29631	32-39.	2479-117.8158-1-72-100	08/28/77	STREAM	DRY	1000 0500	5	5.71	1.20
29632	32-39.	2401-117.7798-1-72-100	08/28/77	STREAM	DRY	1000 0500	5	4.93	1.24
29633	32-39.	2393-117.7662-1-72-100	08/28/77	STREAM	DRY	1000 0500	5	5.16	1.23
29634	32-39.	2387-117.9687-1-72-100	08/29/77	STREAM	DRY	1000 0500	5	3.90	1.26
29635	32-39.	2387-117.9687-1-72-100	08/29/77	STREAM	DRY	1000 0500	5	4.10	1.31
29636	32-39.	2315-117.9466-1-72-100	08/29/77	STREAM	DRY	1000 0500	5	4.32	1.27
29637	32-39.	2335-117.9431-1-72-100	08/29/77	STREAM	DRY	1000 0500	5	4.06	1.26
29638	32-39.	2323-117.9698-1-72-100	08/29/77	STREAM	DRY	1000 0500	5	5.08	1.28
29639	32-39.	2206-117.9684-1-72-100	08/29/77	STREAM	DRY	1000 0500	5	3.68	1.30
29640	32-39.	2080-117.9683-1-72-100	08/29/77	STREAM	DRY	1000 0500	5	3.88	1.33
29641	32-39.	2089-117.9671-1-72-100	08/29/77	STREAM	DRY	1000 0500	5	5.42	1.18
29642	32-39.	1982-117.9600-1-72-100	08/29/77	STREAM	DRY	1000 0500	5	4.63	1.26
29643	32-39.	1901-117.9553-1-72-100	08/29/77	STREAM	DRY	1000 0500	5	4.44	1.22
29644	32-39.	1901-117.9541-1-72-100	08/29/77	STREAM	DRY	1000 0500	5	4.34	1.28
44101	32-39.	1305-117.5669-1-70-100	10/18/77	STREAM	WET	1000 0500	1	5.52	1.30
44102	32-39.	1314-117.5704-1-70-100	10/18/77	STREAM	WET	1000 0500	1	6.40	1.21
44103	32-39.	1266-117.6143-1-70-100	10/18/77	STREAM	WET	1000 0500	1	6.69	1.18
44104	32-39.	1016-117.5748-1-70-100	10/18/77	STREAM	WET	1000 0500	1	11.31	1.14
44105	32-39.	0870-117.5024-1-70-100	10/18/77	STREAM	WET	1000 0500	1	7.65	1.20
44106	32-39.	0340-117.5858-1-70-100	10/18/77	STREAM	WET	1000 0500	1	25.40	1.06
44107	32-39.	0373-117.6309-1-70-100	10/18/77	STREAM	WET	1000 0500	1	4.53	1.33
44109	32-39.	0583-117.7478-1-70-100	10/19/77	STREAM	WET	1000 0500	1	4.03	1.34
44110	32-39.	1732-117.9249-1-72-100	10/19/77	STREAM	DRY	1000 0500	1	4.03	1.34
44117	32-39.	8156-117.6553-1-70-100	10/21/77	STREAM	WET	1000 0500	1	5.99	1.19
44118	32-39.	9284-117.6542-1-70-100	10/21/77	STREAM	WET	1000 0500	1	4.11	1.29
44119	32-39.	7718-117.7659-1-70-100	10/21/77	STREAM	WET	1000 0500	1	3.18	1.36
44120	32-39.	7344-117.8309-1-70-100	10/21/77	STREAM	WET	1000 0500	1	3.23	1.32

MILLETT QUAD REPORT, LAWRENCE LIVERMORE LABORATORY
TABLE B-2, WATER ANALYSIS; RIVERS, STREAMS & LAKES

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SITE NUMBER	DOE SAMPLE NUMBER	DATE ST LONG, L TY RPL MO-DA-YR	SAMPLE SOURCE	TEMP C.	PH METR	SPEC COND UMHO/CM	AKTOTL MG/LITER	AKPHEN POS. MG/LITER	URANIUM(DNC) PPB	Q. C. #ERR	X-REF
6538	32-39.0359-117.3339-1-22-200	09/08/76	STREAM	15.0	8.4	309.	120.	20.	1	1.94	9.43
6540	32-39.0927-117.3168-1-22-200	09/08/76	STREAM	15.0	8.5	219.	80.	20.	1	1.15	4.71
6541	32-39.0626-117.4080-1-22-200	09/08/76	STREAM	16.0	8.3	80.			1	7.30	5.89
6567	32-39.4398-117.2266-1-22-200	09/10/76	STREAM	16.0	7.5	438.	120.	20.	9	3.94	5.22
6568	32-39.1495-117.2858-1-22-200	09/12/76	STREAM	9.0	8.3	269.	80.		1	1.09	10.65
6569	32-39.1171-117.2765-1-22-200	09/12/76	STREAM	9.0	7.7	132.	40.		1	0.52	48.78
6570	32-39.1198-117.2707-1-22-200		STREAM	10.0	8.3	255.	80.		1	0.90	3.77
6571	32-39.1721-117.2848-1-22-200	09/12/76	STREAM	14.0	8.4	318.	120.	20.	1	4.48	2.99
6572	32-39.2460-117.3036-1-22-200	09/12/76	STREAM	17.0	8.7	377.	120.	20.	1	4.56	4.06
6574	32-39.3372-117.1242-1-22-200	09/12/76	STREAM	15.0		463.	180.	40.	1	5.64	4.95
6597	32-39.5246-117.1617-1-22-200	09/13/76	STREAM	24.0	9.2	614.	140.	40.	1	4.19	1.90
6612	32-39.6310-117.3385-1-22-200	09/14/76	STREAM	15.0	8.1	412.	120.	20.	1		
6613	32-39.6615-117.0711-1-22-200	09/14/76	STREAM	14.0	8.0	769.	180.		1		
6867	32-39.8710-116.2376-1-22-200	08/09/76	STREAM	12.5	8.5	478.	180.	20.	1	2.22	2.44
6869	32-39.8364-116.2018-1-22-200	08/09/76	STREAM	19.5	8.9	295.	140.	20.	1	0.99	3.57
6875	32-39.9350-116.4125-1-22-200	08/10/76	STREAM	11.0	8.5	595.	240.		1		
7774	32-39.6779-117.0606-1-22-200	09/19/76	STREAM	20.1	8.5	623.	40.		6	2.61	2.26
7776	32-39.6563-117.0117-1-22-200	09/19/76	STREAM	31.0	8.1	529.	260.	20.	5	4.26	2.07
7777	32-39.6554-116.9907-1-22-200	09/19/76	STREAM	21.1	7.9	630.	280.	20.	5		
7781	32-39.8482-117.1005-1-22-200	09/16/76	STREAM	21.6	9.1	1417.	200.	60.	9	8.92	1.44
7784	32-39.8049-117.0853-1-22-200	09/20/76	STREAM	7.4	7.8	867.	280.	20.	1	4.92	4.75
7784	32-39.8049-117.0853-1-22-201		STREAM								
7785	32-39.7662-117.0152-1-22-200	09/20/76	STREAM	7.1	8.3	424.	160.	20.	5		
7786	32-39.7662-116.9907-1-22-200	09/29/76	STREAM	7.5	7.7	377.	160.	20.	9	1.48	2.83
7787	32-39.8176-117.0234-1-22-200	09/20/76	STREAM	13.7	8.6	441.	120.	20.	1		
7791	32-39.7986-116.9638-1-22-200	09/20/76	STREAM	15.0	7.6	393.	140.				
7792	32-39.8004-116.9603-1-22-200	09/20/76	STREAM	17.0	7.8	548.	160.		1	1.24	3.19
7793	32-39.9841-117.4978-1-22-200	09/20/76	STREAM	23.3	8.7	447.	120.	20.	1	1.38	2.89
19402	32-39.0713-117.1942-1-22-200	07/21/77	STREAM	20.0	8.1	60.			1	1.32	2.76
19520	32-39.3879-117.6456-1-22-200	07/20/77	STREAM	16.5	7.6	167.	60.		1		
19523	32-39.3896-117.6814-1-22-200	07/20/77	STREAM	22.0	7.5	190.	60.		5		
19525	32-39.3469-117.7067-1-22-200	07/20/77	STREAM	16.5	7.4	121.	40.		5	0.06	21.43
19526	32-39.3469-117.7079-1-22-200	07/20/77	STREAM	18.0	7.7	83.	40.		5	0.07	20.36
19527	32-39.3578-117.5880-1-22-200	07/20/77	STREAM	17.0		99.	20.		5	0.11	13.86
19528	32-39.3956-117.6956-1-22-200	07/20/77	STREAM	19.0		104.	40.				
19533	32-39.4675-1-7.7184-1-22-200	07/20/77	STREAM	21.0	8.7	234.	100.	20.	5	0.23	7.90
19534	32-39.5830-117.5310-1-22-200		STREAM	14.0	7.5	413.	100.		5	4.37	1.63
20102	32-39.5463-116.9638-1-22-200	07/12/77	STREAM	18.0		433.	140.	20.	5	1.97	2.27
20104	32-39.5525-116.9091-1-22-200	07/12/77	STREAM	18.0	7.4	166.	60.		5		
20112	32-39.5193-117.0198-1-22-200	07/13/77	STREAM	14.8	7.5	906.	440.		5		
20114	32-39.5554-116.9953-1-22-200	07/12/77	STREAM	19.0	7.4	254.	100.		5	1.66	2.48
20119	32-39.5734-116.9593-1-22-200	07/13/77	STREAM	26.0	7.5	783.	100.		5		
20156	32-39.0477-116.7250-1-22-200	07/15/77	STREAM	26.0	8.3	978.	120.	20.	5	2.48	2.11
20157	32-39.0541-116.7411-1-22-200	07/15/77	STREAM	8.2		600.	120.	20.	5	2.48	2.10
20161	32-39.0871-116.6404-1-22-200	07/15/77	STREAM	31.0	8.0	485.	120.	20.	5	0.12	14.19
20166	32-39.0173-116.5241-1-22-200	07/16/77	STREAM	21.0		220.	80.	20.	5	0.48	4.89
20167	32-39.0488-116.5077-1-22-200	07/16/77	STREAM	18.0	7.8	711.	80.		5	2.19	2.07
20236	32-39.1983-117.5153-1-22-200	07/20/77	STREAM	13.0	6.7	150.	60.		1	0.20	9.68
20237	32-39.1740-117.5024-1-22-200	07/20/77	STREAM	13.0	6.9	150.	80.		1	0.34	5.99

MILLETT QUAD REPORT, LAWRENCE LIVERMORE LABORATORY
TABLE B-2, WATER ANALYSIS; RIVERS, STREAMS & LAKES

PAGE B-32

SITE NUMBER	DOE SAMPLE NUMBER	DATE	SAMPLE	TEMP C.	PH	SPEC COND UMHO/CM	AKTOTL MG/LITER	AKPHEN POS, MG/LITER	URANIUM(DNC) PPB	O. C. #ERR	X-REF
ST	LAT. LONG.	YR	RPL	MO-DA				CONT			
20243	32-39,0419-117,6102-1-22-200	07/20/77	STREAM	27.0	8.9	148.	60.	20.	5	0.74	3.71
20245	32-39,0104-117,6133-1-22-200	07/20/77	STREAM	18.0	7.9	1.	100.		5	4.50	1.67
20254	32-39,2408-117,6663-1-22-200	07/21/77	STREAM	16.5	7.5	295.	100.		5	0.27	6.96
20260	32-39,2686-117,6909-1-22-200	07/21/77	STREAM	26.1	8.0	205.	60.	20.	5	0.70	3.86
20261	32-39,2973-117,7086-1-22-200	07/21/77	STREAM	23.5	8.5	116.	40.	20.	5	0.17	9.68
20292	32-39,3540-116,4371-1-22-200	08/02/77	STREAM	15.5	7.4	126.	60.		5	1.85	2.41
20308	32-39,5778-116,8265-1-22-200	07/12/77	STREAM	16.5	7.4	333.	100.		1		
20312	32-39,6626-116,9382-1-22-200	07/13/77	STREAM	15.0	9.0	277.	140.		1		
20313	32-39,7283-116,8915-1-22-200	07/13/77	STREAM	22.0	8.1	184.	80.		1		
20317	32-39,5335-116,7487-1-22-200	07/13/77	STREAM	20.0	8.1	124.	40.		1	0.24	6.89
20341	32-39,3231-116,3875-1-22-200	07/15/77	STREAM	23.0	8.2	236.	100.		5	1.17	3.01
20354	32-39,3824-116,5483-1-22-200	07/16/77	STREAM	14.0	7.3	199.	40.		5	0.26	7.29
20361	32-39,3014-116,5674-1-22-200	07/16/77	STREAM	24.0	8.7	246.	80.	20.	9	0.48	5.27
20402	32-39,6074-116,7577-1-22-200	07/12/77	STREAM	17.0	6.7	158.	60.		1		
20404	32-39,6516-116,7809-1-22-200	07/12/77	STREAM	17.0	6.5	219.	80.		9		
20429	32-39,7743-116,5271-1-22-200	07/14/77	STREAM	15.0		422.	120.		1	0.67	3.88
20439	32-39,3752-117,0070-1-22-200	07/16/77	STREAM	16.0	8.0	469.	160.	20.	1	10.21	1.30
20440	32-39,3986-117,0465-1-22-200	07/16/77	STREAM	20.0	8.5	551.	160.	20.	1	5.22	2.56
20441	32-39,4031-117,0360-1-22-200	07/16/77	STREAM	27.0	9.2	474.	140.	60.	1	7.09	1.41
20442	32-39,4067-117,0461-1-22-200	07/16/77	STREAM	24.0	8.8	440.	140.	20.	1	4.29	1.63
20443	32-39,4148-117,0499-1-22-200	07/16/77	STREAM	16.0	8.4	550.	160.	20.	1	5.25	1.67
20444	32-39,4211-117,0441-1-22-200	07/16/77	STREAM	22.0	8.2	3.	60.		1	0.30	6.57
20445	32-39,4040-117,0499-1-22-200	07/16/77	STREAM	22.0	8.1	525.	180.		1	5.68	1.61
20453	32-39,3634-117,0302-1-22-200		STREAM	10.0	7.7	511.	120.		1	9.94	1.35
20454	32-39,3553-117,0429-1-22-200	07/17/77	STREAM	11.0	8.1	46.	160.		1	1.23	3.01
20455	32-39,3362-117,0418-1-22-200	07/17/77	STREAM	17.0	87.0	426.	160.	20.	1	4.21	1.79
20456	32-39,3238-117,0429-1-22-200	07/17/77	STREAM	19.0	7.6	433.	160.		1	2.12	2.48
20457	32-39,3103-117,0499-1-22-200	07/17/77	STREAM	10.0	8.0	41.	120.		1	1.35	2.69
20459	32-39,2904-117,0464-1-22-200	07/17/77	STREAM	12.0	8.0	324.	120.		1	1.73	2.42
20461	32-39,2814-117,0603-1-22-200	07/18/77	STREAM	12.0	8.2	366.	140.		1	1.52	2.56
20463	32-39,2499-117,0730-1-22-200	07/18/77	STREAM	16.0	8.3	375.	140.	20.	1	2.05	2.66
20464	32-39,2472-117,0742-1-22-200	07/18/77	STREAM	12.0	8.8	366.	120.	20.	1		
20465	32-39,2237-117,0985-1-22-200	07/18/77	STREAM	13.0	8.2	389.	120.	20.	1	2.17	2.25
20466	32-39,2111-117,1077-1-22-200	07/18/77	STREAM	12.0	8.6	465.	160.	20.	1	5.23	1.60
20467	32-39,2237-117,1344-1-22-200	07/18/77	STREAM	20.0	8.3	326.	160.	20.	2	2.63	2.03
20471	32-39,2886-117,1299-1-22-200	07/19/77	STREAM	10.0	8.5	346.	140.	20.	9		
20472	32-39,2940-117,1276-1-22-200	07/19/77	STREAM	10.0	8.0	361.	120.		7	7.46	1.41
20473	32-39,2913-117,1264-1-22-200	07/19/77	STREAM	10.0	7.8	631.	220.	20.	9	11.86	1.28
20474	32-39,2832-117,1380-1-22-200	07/19/77	STREAM	12.0	8.7	451.	160.		9	4.26	1.70
20476	32-39,2696-117,1553-1-22-200	07/19/77	STREAM	9.0	7.9	482.	140.		9	3.31	2.03
20485	32-39,1733-117,1088-1-22-200	07/20/77	STREAM	10.0	8.3	376.	160.	20.	1	1.95	2.16
20486	32-39,1714-117,1088-1-22-200	07/20/77	STREAM	10.0	7.7	331.	140.	20.	1	2.62	1.99
20487	32-39,1372-117,1215-1-22-200	07/20/77	STREAM	14.0	7.8	166.	80.		1	1.96	3.59
20488	32-39,1182-117,1585-1-22-200	07/20/77	STREAM	14.0	9.0	126.	40.		1	2.22	2.19
20489	32-39,1227-117,1585-1-22-200	07/20/77	STREAM	14.0	8.0	179.	80.		1	4.41	1.66
20492	32-39,0667-117,1757-1-22-200	07/20/77	STREAM	20.0	8.3	203.	80.	6.	1	3.31	1.87
20493	32-39,0280-117,2276-1-22-200	07/20/77	STREAM	14.0	7.8	265.			1	3.45	1.78
20494	32-39,0046-117,2229-1-22-200	07/20/77	STREAM	14.0	8.1	350.	120.	20.	1	4.48	1.99
20498	32-39,0460-117,2219-1-22-200	07/21/77	STREAM	15.0	7.8	579.	160.		1	8.52	1.37

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MILLETT QUAD REPORT, LAWRENCE LIVERMORE LABORATORY
TABLE B-2, WATER ANALYSIS; RIVERS, STREAMS & LAKES

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SITE	-----DOE SAMPLE NUMBER-----	DATE	SAMPLE	TEMP	PH	SPEC COND	AKTOTL	AKPHEN POS.	URANIUM(DNC)	Q, C,	
NUMBER	ST	LAT.	LONG.	L	TY	RPL	MO-DA-YR	SOURCE	PPB	XERR	X-REF
20514	32-39,8092-116,3084-1-22-200	08/03/77	STREAM	16.5	8.0	463.	180.	2.	5	1.74	2,40
20515	32-39,8255-116,3164-1-22-200	07/03/77	STREAM	21.0	8.2	373.	140.	20.	5	1.52	2,63
20516	32-39,8065-116,3084-1-22-200	08/03/77	STREAM	25.0	8.3	440.	140.	20.	5	2.35	2,15
20525	32-39,9012-116,5052-1-22-200	08/04/77	STREAM	19.0	7.6	485.	120.		5	1.32	2,72
20526	32-39,9156-116,5004-1-22-200	08/04/77	STREAM	23.0	8.2	743.	200.	20.	5	5.07	1,57
20530	32-39,9427-116,5259-1-22-200	08/04/77	STREAM	17.5	8.0	624.	140.	20.	5	1.59	2,56
20562	32-39,6506-116,7238-1-22-200	08/10/77	STREAM	22.0	8.0	322.	80.	20.	5	0.89	3,32
20576	32-39,8106-116,6075-1-22-200	08/12/77	STREAM	21.2	8.0	765.	160.	20.	5	3.93	1,74
20579	32-39,7863-116,8064-1-22-200	08/12/77	STREAM	13.0	7.8	655.	140.		5		
26551	32-39,0688-116,2082-1-22-200	07/31/77	STREAM	20.0	7.8	281.	100.		5	0.24	8,61
26901	32-39,3068-117,7806-1-22-200	09/26/77	STREAM	14.0	7.4	133.	40.		1	0.14	11,59
26908	32-39,3061-117,3780-1-22-200	08/27/77	STREAM	11.4	7.6	385.	80.		1	1.83	2,67
27069	32-39,7201-117,8132-1-22-200	09/08/77	STREAM	17.0	3.0	481.	140.		5	1.10	2,98
28800	32-39,0668-116,1805-1-22-200	09/15/77	STREAM	13.8	8.5	310.	100.	20.	9	0.88	3,41
28866	32-39,0649-116,7619-1-22-200	09/24/77	STREAM	11.5	7.8	386.	140.		9	2.82	1,95
28868	32-39,1145-116,7664-1-22-200	09/24/77	STREAM	10.8	7.9	12.	40.		9		
28868	32-39,1145-116,7664-1-07-201		STREAM								
29339	32-39,6558-117,7320-1-22-200	08/15/77	STREAM	21.5	7.8	52.	160.	20.	1	1.08	3,08
29342	32-39,6572-117,7057-1-22-200	08/15/77	STREAM	27.0	8.4	381.	120.	20.	5	0.52	4,55
29350	32-39,5721-117,8511-1-22-200	08/15/77	STREAM	24.2	8.7	315.	80.	20.	5	4.46	1,70
29353	32-39,5433-117,8426-1-22-200	08/16/77	STREAM	12.2	6.8	155.	60.		5	0.09	18,72
29394	32-39,3688-117,8045-1-22-200	08/26/77	STREAM	11.0	7.2	145.	40.		5	0.15	10,65
29396	32-39,3328-117,7913-1-22-200	08/26/77	STREAM	11.0	6.9	147.	40.		1	0.18	10,57
29397	32-39,3104-117,7977-1-22-200	08/26/77	STREAM	11.0	7.1	110.	40.		1	0.10	16,57

MILLETT QUAD REPORT, LAWRENCE LIVERMORE LABORATORY
 TABLE B-3, WATER ANALYSIS: SPRING AND WELL SITES

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SITE NUMBER	DOE ST	SAMPLE LAT.	SOURCE	NUMBER	DATE LONG.	TYPE	TEMP L	WELL TY	DEPTH C.	WELL CASING	PH METR	SPEC COND UMHO/CH	AKTOTL MG/LITER	
7481	32-39,	9026-116,	1343-1-21-200	09/08/76	SPRING	12.0					7.4	591.	260.	
7488	32-39,	8982-116,	2806-1-21-200	09/10/76	SPRING	8.0					7.6	403.	180.	
7489	32-39,	8622-116,	2922-1-21-200	09/10/76	SPRING	7.0					7.7	301.	140.	
7502	32-39,	4490-117,	0651-1-21-200	09/28/76	SPRING	10.5					6.9	236.	60.	
7503	32-39,	4544-117,	0907-1-23-200	09/28/76	WELL	12.0				IRON	6.9	620.	100.	
7508	32-39,	1099-117,	2799-1-21-200	09/29/76	SPRING	6.0					7.0	156.	40.	
7509	32-39,	5070-117,	3757-1-21-200	09/30/76	SPRING	13.0					7.4	355.	120.	
7510	32-39,	7447-117,	4237-1-21-200	09/30/76	SPRING	15.0					7.5	644.	280.	
7511	32-39,	8282-117,	2068-1-21-200	10/02/76	SPRING	9.0					7.2	233.	60.	
7512	32-39,	8940-117,	1625-1-21-200	10/02/76	SPRING	13.0					7.3	614.	120.	
7513	32-39,	9878-117,	0668-1-21-200	10/02/76	SPRING	12.5					7.8	971.	180.	
7620	32-39,	8990-116,	4140-1-21-200	09/10/76	SPRING	13.0					7.6	423.	180.	
7646	32-39,	0693-117,	3456-1-21-200	09/29/76	SPRING	8.5					7.3	222.	100.	
				NEV										
7647	32-39,	0994-117,	4660-1-21-200	09/29/76	SPRING	8.5					7.3	142.	60.	
7648	32-39,	1734-117,	4399-1-21-200	09/29/76	SPRING	10.5					7.6	133.	40.	
7649	32-39,	5022-117,	0562-1-21-200	09/30/76	SPRING	10.0					7.6	676.	240.	
7650	32-39,	7309-117,	1867-1-23-200	09/30/76	WELL	14.0	30.0	FARM/LIVESTOCK	GALVANIZED	IRON	7.7	2253.	320.	
7651	32-39,	6652-117,	0140-1-21-200	09/30/76	SPRING	11.5					7.4	630.	300.	
7652	32-39,	6554-116,	9848-1-21-200	09/30/76	SPRING	11.0					7.4	611.	320.	
7653	32-39,	7096-117,	1133-1-23-200	09/30/76	WELL	14.5				FARM/LIVESTOCK	IRON	7.8	914.	180.
7654	32-39,	8174-117,	2220-1-21-200	10/02/76	SPRING	9.5					7.1	252.	80.	
7655	32-39,	9841-117,	5048-1-21-200	10/03/76	SPRING	18.0					7.6	486.	180.	
19503	32-39,	4655-117,	6103-1-21-200	07/19/77	SPRING	10.0					6.7	237.	60.	
19562	32-39,	2775-116,	0377-1-21-200	07/27/77	SPRING	17.0					7.6	569.	260.	
20311	32-39,	7418-116,	8424-1-21-200	07/12/77	SPRING	33.5					9.8	285.	80.	
20392	32-39,	5582-117,	4295-1-23-200	07/18/77	WELL	30.0				FARM/LIVESTOCK	IRON	7.6	423.	140.
26550	32-39,	1328-116,	2202-1-21-200	07/31/77	SPRING	7.0					7.1	267.	60.	
26551	32-39,	1138-116,	2042-1-21-200	07/31/77	SPRING	29.0					7.6	303.	120.	
26553	32-39,	0697-116,	2070-1-21-200	07/31/77	SPRING	9.0					7.0	319.	100.	
26650	32-39,	0391-116,	2155-1-21-200	08/11/77	SPRING	13.5					7.8	289.	80.	
27068	32-39,	7344-117,	8309-1-21-200	09/08/77	SPRING	15.0					7.7	515.	120.	
28714	32-39,	8760-116,	0669-1-21-200	09/12/77	SPRING	15.0					7.2	515.	220.	
28715	32-39,	8913-116,	0713-1-23-200	09/12/77	WELL	18.5				FARM/LIVESTOCK	IRON	7.2	468.	220.
28716	32-39,	9120-116,	0675-1-21-200	09/12/77	SPRING	13.0					7.3	628.	240.	
28716	32-39,	9120-116,	0675-1-06-201		SPRING									
28717	32-39,	9436-116,	0730-1-21-200	09/12/77	SPRING	38.5					7.2	538.	200.	
28717	32-39,	9436-116,	0730-1-06-201		SPRING									
28718	32-39,	9884-116,	0454-1-23-200	09/12/77	WELL	26.0				DOMESTIC FARM/LIVESTOCK IRRIGATION	IRON	7.3	430.	180.
28722	32-39,	6563-116,	0873-1-21-200	09/13/77	SPRING	11.5					7.2	444.	140.	
28722	32-39,	6563-116,	0873-1-06-201		SPRING									
28724	32-39,	8127-116,	1600-1-21-200	09/13/77	SPRING	17.5					7.4	1561.	280.	
28729	32-39,	8443-116,	3034-1-21-200	09/13/77	SPRING	9.5					7.2	527.	200.	
28729	32-39,	8443-116,	3034-1-06-201		SPRING									
28730	32-39,	8498-116,	3209-1-21-200	09/13/77	SPRING	8.0					7.2	483.	180.	
28731	32-39,	8326-116,	3105-1-21-200	09/13/77	SPRING	10.0					7.3	541.	160.	

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 TABLE B-3. WATER ANALYSIS: SPRING AND WELL SITES

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SITE	DOE SAMPLE NUMBER				DATE	SAMPLE	TEMP	WELL	WELL TYPE	WFLL	PH	SPEC COND	AKTOTL
NUMBER	ST	LAT.	LONG.	L	TY	RPL	HO-DA-YR	SOURCE	C.	DEPTH	METR	UMHO/CM	MG/LITER
28809	32-39	4058-116	3473-1	-23	200	09/21/77	WELL	25.5			9.4	297.	120.
28810	32-39	3132-116	3876-1	-21	200	09/21/77	SPRING	12.0			7.4	253.	80.
28811	32-39	3050-116	3841-1	-21	200	09/21/77	SPRING	14.5			7.0	235.	80.
28812	32-39	3222-116	3852-1	-21	200	09/22/77	SPRING	9.0			6.9	264.	80.
28813	32-39	3081-116	4491-1	-21	200	09/22/77	SPRING	9.0			7.0	202.	60.
28815	32-39	2901-116	4608-1	-21	200	09/22/77	SPRING	9.0			7.1	295.	80.
28817	32-39	2694-116	4760-1	-21	200	09/22/77	SPRING	9.5			7.1	688.	260.
28819	32-39	3009-116	5686-1	-21	200	09/22/77	SPRING	10.0			7.2	263.	80.
28819	32-39	3009-116	5686-1	-06	201		SPRING						
28821	32-39	4436-116	9465-1	-21	200	09/26/77	SPRING	19.0			7.2	693.	180.
28822	32-39	4472-116	9861-1	-21	200	09/26/77	SPRING	10.5			7.8	887.	290.
28822	32-39	4472-116	9861-1	-06	201		SPRING						
28829	32-39	9115-116	3805-1	-21	200	09/27/77	SPRING	63.0			7.0	920.	320.
28839	32-39	5040-117	0384-1	-21	200	10/11/77	SPRING	9.0			7.0	280.	100.
28839	32-39	5040-117	0384-1	-06	201		SPRING						
28840	32-39	5830-117	5286-1	-21	200	10/12/77	SPRING	11.5			7.5	429.	100.
28841	32-39	6815-117	6448-1	-23	200	10/12/77	WELL	12.5	FARM/LIVESTOCK	IRON	7.4	464.	100.
28842	32-39	6794-117	6938-1	-21	200	10/12/77	SPRING	16.0			7.2	751.	260.
28844	32-39	6181-117	7130-1	-23	200	10/12/77	WELL	13.0	FARM/LIVESTOCK	IRON	7.3	519.	140.
28845	32-39	6617-117	7904-1	-21	200	10/12/77	SPRING	11.0			7.3	494.	140.
28845	32-39	6617-117	7904-1	-06	201		SPRING						
28847	32-39	5568-117	9312-1	-21	200	10/13/77	SPRING	7.5			6.7	139.	40.
28847	32-39	5568-117	9312-1	-06	201		SPRING						
28851	32-39	1631-116	2963-1	-21	200	09/22/77	SPRING	9.5			7.7	382.	100.
28852	32-39	1173-116	3268-1	-21	200	09/22/77	SPRING	15.5			7.4	216.	60.
28853	32-39	1093-116	3477-1	-21	200	09/22/77	SPRING	15.5			7.8	305.	120.
28853	32-39	1093-116	3477-1	-06	201		SPRING						
28855	32-39	0580-116	3539-1	-21	200	09/22/77	SPRING	10.8			7.0	191.	60.
28856	32-39	0857-116	3213-1	-21	200	09/22/77	SPRING	14.8			7.4	232.	80.
28856	32-39	0857-116	3213-1	-06	201		SPRING						
28857	32-39	1439-116	4087-1	-21	200	09/22/77	SPRING	9.3			7.8	231.	60.
28856	32-39	1575-116	4317-1	-21	200	09/23/77	SPRING	7.8			7.9	263.	80.
28861	32-39	2245-116	5065-1	-21	200	09/23/77	SPRING	11.5			7.2	183.	60.
28862	32-39	2355-116	5446-1	-21	200	09/23/77	SPRING	11.5			7.6	220.	60.
28863	32-39	1075-116	5362-1	-21	200	09/23/77	SPRING	16.5			7.4	247.	80.
28864	32-39	1411-116	5996-1	-21	200	09/23/77	SPRING	11.3			7.9	260.	80.
28865	32-39	0109-116	8048-1	-21	200	09/24/77	SPRING	9.5			7.5	501.	160.
28867	32-39	0514-116	7827-1	-21	200	09/24/77	SPRING	7.5			7.8	312.	80.
28867	32-39	0514-116	7827-1	-06	201		SPRING						
28869	32-39	1677-116	7615-1	-21	200	09/24/77	SPRING	9.8			7.5	924.	240.
28870	32-39	1497-116	7848-1	-21	200	09/24/77	SPRING	14.0			7.4	702.	160.
28871	32-39	1713-116	7812-1	-21	200	09/24/77	SPRING	10.0			7.4	658.	220.
28872	32-39	2101-116	7695-1	-21	200	09/25/77	SPRING	9.3			7.7	416.	100.
28873	32-39	2164-116	8077-1	-21	200	09/25/77	SPRING	12.3			7.8	908.	200.
28874	32-39	1525-116	8380-1	-21	200	09/25/77	SPRING	8.5			7.1	237.	60.
28875	32-39	1426-116	8473-1	-21	200	09/25/77	SPRING	9.8			7.0	124.	40.
28876	32-39	1254-116	8242-1	-21	200	09/25/77	SPRING	9.0			7.7	152.	40.
28876	32-39	1254-116	8242-1	-06	201		SPRING						

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SITE NUMBER	DOE SAMPLE NUMBER	DATE	SAMPLE L	TEMP C.	WELL DEPTH	WELL TYPE	WELL CASING	PH	SPEC COND UMHO/CM	AKTOTL MG/LITER	
ST	LAT.	LONG.	TY	RPL	MO-DA-YR	SOURCE	METR				
28877	32-39.1317-116.8288-1-21-200	09/25/77	SPRING	13.5				7.3	195.	60.	
28878	32-39.0686-116.7966-1-21-200	09/25/77	SPRING	8.0				6.3	81.	40.	
28879	32-39.0497-116.7978-1-21-200	09/25/77	SPRING	8.0				8.1	205.	60.	
28880	32-39.0570-116.8879-1-21-200	09/26/77	SPRING	11.3				6.9	421.	80.	
28881	32-39.0543-116.8775-1-21-200	09/26/77	SPRING	9.0				6.9	393.	80.	
28882	32-39.4977-116.9477-1-21-200	09/27/77	SPRING	8.5				7.6	759.	200.	
28883	32-39.5824-116.9674-1-21-200	09/27/77	SPRING	14.5				7.2	653.	60.	
28884	32-39.5815-116.9022-1-23-200	09/27/77	WELL	16.8		>ARM/LIVESTOCK	IRON	7.1	674.	80.	
28885	32-39.6220-116.9045-1-21-200	09/27/77	SPRING	15.8				6.9	195.	60.	
28886	32-39.6346-116.9114-1-21-200	09/27/77	SPRING	17.8				4.4	570.		
28887	32-39.6346-116.9114-1-06-201		SPRING								
28888	32-39.6495-116.6678-1-21-200	09/27/77	SPRING	12.3				7.3	267.	90.	
28889	32-39.6495-116.6678-1-06-201		SPRING								
28890	32-39.7603-116.6428-1-21-200	09/27/77	SPRING	10.3				7.5	525.	120.	
28891	32-39.7827-116.6321-1-21-200	09/28/77	SPRING	12.5				7.7	679.	180.	
28892	32-39.7890-116.6099-1-21-200	09/28/77	SPRING	9.0				7.1	637.	160.	
28893	32-39.8008-116.5778-1-21-200	09/28/77	SPRING	15.5				7.4	381.	100.	
28894	32-39.8021-116.5040-1-21-200	09/28/77	SPRING	14.3				7.9	789.	220.	
28895	32-39.8021-116.5040-1-21-200	09/28/77	SPRING	14.0				7.8	477.	100.	
28896	32-39.4634-116.8919-1-23-200	09/23/77	WELL	12.0	50.0	DOMESTIC	IRON	7.1	986.	240.	
28897	32-39.4126-116.6968-1-23-200	09/23/77	WELL	16.0		>ARM/LIVESTOCK	IRON	7.5	544.	120.	
28898	32-39.4126-116.6968-1-08-201		WELL								
28899	32-39.3315-116.6925-1-23-200	09/23/77	WELL	11.0		>ARM/LIVESTOCK	IRON	7.4	538.	100.	
28900	32-39.2512-116.6697-1-23-200	09/23/77	WELL	12.0		>ARM/LIVESTOCK	IRON	7.6	415.	100.	
28901	32-39.0295-116.6673-1-21-200	09/24/77	SPRING	51.0				7.2	554.	180.	
28902	32-39.0412-116.6626-1-21-200	09/24/77	SPRING	39.0				7.1	628.	220.	
28903	32-39.0423-116.7261-1-21-200	09/24/77	SPRING	15.0				7.8	476.	140.	
28904	32-39.1081-116.7109-1-21-200	09/24/77	SPRING	14.0				7.3	351.	80.	
28905	32-39.0980-116.6369-1-21-200	09/24/77	SPRING	12.0				7.5	299.	80.	
28906	32-39.0799-116.6381-1-21-200	09/24/77	SPRING	45.0				6.8	571.	220.	
28907	32-39.0488-116.5031-1-21-200	09/24/77	SPRING	13.0				7.3	341.	120.	
28908	32-39.1899-116.6387-1-23-200	09/24/77	WELL	11.0		>ARM/LIVESTOCK	IRON	7.1	1323.	200.	
28909	32-39.0010-117.1836-1-21-200	09/25/77	SPRING	16.0				7.3	325.	100.	
28910	32-39.0732-117.1607-1-21-200	09/25/77	SPRING	15.0				7.3	212.	80.	
28911	32-39.0759-117.1364-1-21-200	09/25/77	SPRING	20.0				9.2	198.	60.	
28912	32-39.0948-117.1307-1-23-200	09/25/77	WELL	18.0	19.0	DOMESTIC	IRON	7.6	261.	60.	
28913	32-39.1154-117.1504-1-21-200	09/25/77	SPRING	20.0				7.5	113.	40.	
28914	32-39.1570-117.0903-1-21-200	09/25/77	SPRING	12.0				7.2	408.	120.	
28915	32-39.3273-116.0573-1-21-200	09/23/77	SPRING	51.0				6.7	1139.	420.	
28916	32-39.3246-116.0492-1-23-200	09/26/77	WELL	72.0				IRON	6.6	806.	446.
28917	32-39.4562-116.9768-1-21-200	09/26/77	SPRING	15.0				8.1	560.	140.	
28918	32-39.0895-116.8982-1-21-200	09/26/77	SPRING	20.0					383.	100.	
28919	32-39.0895-116.8982-1-06-201		SPRING								
28920	32-39.1976-116.9757-1-23-200	09/27/77	WELL	13.0		>ARM/LIVESTOCK	IRON	7.6	273.	140.	
28921	32-39.1502-117.1133-1-06-200	09/27/77	SPRING	12.0				7.0	1549.	300.	
28922	32-39.1102-117.1133-1-06-200		SPRING								
28923	32-39.1102-117.1133-1-06-200		SPRING								
28924	32-39.1102-117.1133-1-06-200		SPRING								
28925	32-39.1102-117.1133-1-06-200		SPRING								
28926	32-39.1102-117.1133-1-06-200		SPRING								
28927	32-39.1102-117.1133-1-06-200		SPRING								
28928	32-39.1102-117.1133-1-06-200		SPRING								
28929	32-39.1102-117.1133-1-06-200		SPRING								

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 TABLE B-3, WATER ANALYSIS; SPRING AND WELL SITES

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SITE NUMBER	DOE ST	SAMPLE LAT.	NUMBER LONG.	DATE L	SAMPLE TY	TEMP RPL	WELL MO-DA-YR	DEPTH C.	WELL TYPE	WELL CASING	PH METR	SPEC COND UMHO/CM	AKTOTL MG/LITER
28929	32-39,	0461-	117,1491-	1-23-200	09/27/77	WELL	19.0		DOMESTIC FARM/LIVESTOCK IRRIGATION		8.0	173.	60.
28929	32-39,	0461-	117,1491-	1-23-200	09/27/77	WELL	19.0		DOMESTIC FARM/LIVESTOCK IRRIGATION		8.0	173.	60.
28930	32-39,	2552-	117,1565-	1-21-200	09/27/77	SPRING	14.0				7.9	345.	180.
28931	32-39,	2561-	117,1646-	1-21-200	09/27/77	SPRING	8.0				7.6	290.	120.
28932	32-39,	2084-	117,1042-	1-21-200	09/27/77	SPRING	14.0				7.4	364.	160.
28933	32-39,	2904-	117,0475-	1-21-200	09/27/77	SPRING	12.0				7.8	253.	120.
28934	32-39,	8125-	116,6367-	1-21-200	09/28/77	SPRING	15.0				8.0	1577.	560.
28935	32-39,	8331-	116,5910-	1-21-200	09/28/77	SPRING	13.0				6.9	416.	140.
28936	32-39,	8718-	116,5954-	1-21-200	09/28/77	SPRING	13.0				7.4	819.	260.
28937	32-39,	9006-	116,5824-	1-21-200	09/28/77	SPRING	70.0				6.9	499.	220.
28938	32-39,	9824-	116,5397-	1-21-200	09/28/77	SPRING							
28939	32-39,	9602-	116,6136-	1-23-200	09/28/77	WELL	17.0	5.0	FARM/LIVESTOCK		9.2	4260.	1080.
28941	32-39,	4977-	117,0361-	1-21-200	10/11/77	SPRING	8.0				7.3	322.	100.
28941	32-39,	4977-	117,0361-	1-06-201		SPRING							
28942	32-39,	5582-	117,4307-	1-21-200	10/12/77	SPRING	30.0				7.6	441.	140.
28945	32-39,	6085-	117,4671-	1-23-200	10/12/77	WELL	23.0				7.6	408.	160.
28946	32-39,	6004-	117,4671-	1-21-200	10/12/77	SPRING	12.0				7.3	324.	80.
28947	32-39,	4152-	117,5669-	1-21-200	10/12/77	SPRING	18.0				7.6	267.	60.
28949	32-39,	4655-	117,6103-	1-21-200	10/12/77	SPRING	10.0				6.7	233.	60.
28950	32-39,	4791-	117,5906-	1-21-200	10/12/77	SPRING	12.0				6.8	296.	60.
28951	32-39,	9080-	117,9874-	1-21-200	10/08/77	SPRING	19.0				7.6	2540.	120.
28952	32-39,	4312-	117,7668-	1-21-200	10/13/77	SPRING	12.0				7.2	99.	40.
28955	32-39,	4408-	117,6624-	1-21-200	10/13/77	SPRING	10.0				7.2	195.	60.
28965	32-39,	4408-	117,6624-	1-06-201		SPRING							
28966	32-39,	4517-	117,6497-	1-21-200	10/13/77	SPRING	12.0				7.1	127.	40.
28967	32-39,	2145-	117,6904-	1-21-200	10/18/77	SPRING	12.0				7.1	239.	80.
28967	32-39,	2145-	117,6904-	1-06-201		SPRING							
28968	32-39,	2091-	117,6961-	1-21-200	10/18/77	SPRING	15.0				7.3	283.	80.
28968	32-39,	2091-	117,6961-	1-06-201		SPRING							
28969	32-39,	1323-	117,5542-	1-21-200	10/18/77	SPRING	11.0				7.5	371.	140.
28970	32-39,	5870-	117,9036-	1-21-200	10/13/77	SPRING	13.0				7.2	177.	60.
28972	32-39,	6053-	117,6854-	1-21-200	10/13/77	SPRING	13.0				7.3	335.	100.
28975	32-39,	2370-	117,6377-	1-23-200	10/17/77	WELL	16.0				7.4	525.	120.
28976	32-39,	2613-	117,6713-	1-21-200	10/77/77	SPRING	10.0				6.8	218.	60.
28977	32-39,	2659-	117,6827-	1-21-200	10/17/77	SPRING	18.0				7.2	261.	80.
28981	32-39,	2766-	117,6968-	1-21-200	10/18/77	SPRING	12.0				6.9	169.	60.
28982	32-39,	3206-	117,7285-	1-21-200	10/18/77	SPRING	8.0				6.7	105.	20.
28986	32-39,	3580-	117,6550-	1-21-200	10/18/77	SPRING	12.0				6.9	373.	120.
28986	32-39,	3580-	117,6550-	1-06-201		SPRING							
28987	32-39,	3445-	117,6522-	1-21-200	10/18/77	SPRING	11.0				7.1	327.	100.
28988	32-39,	3153-	117,5463-	1-21-200	10/19/77	SPRING	91.5				7.6	765.	200.
28989	32-39,	3126-	117,5490-	1-21-200	10/19/77	SPRING	84.0				7.8	734.	200.
28990	32-39,	3962-	117,5795-	1-21-200	10/19/77	SPRING	10.0				7.3	296.	80.
28990	32-39,	3962-	117,5795-	1-06-201		SPRING							

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 TABLE B-3, WATER ANALYSIS: SPRING AND WELL SITES

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SITE NUMBER	DOE ST	SAMPLE NUMBER	DATE	SAMPLE L	TEMP C.	WELL TYPE	WELL CASING	PH	SPEC COND UMHO/CM	AKTOTL MG/LITER
				TY	DEPTH		METR			
28991	32-39.	2023-117.4216-1-21-200	10/19/77	SPRING	7.5			6.8	180.	40.
28992	32-39.	2230-117.4252-1-21-200	10/19/77	SPRING	11.0			6.8	262.	60.
44104	32-39.	1016-117.5748-1-21-200	10/18/77	SPRING	10.0			7.5	195.	60.
44108	32-39.	1205-117.7322-1-23-200	10/19/77	WELL	12.0	FARM/LIVESTOCK	IRON	7.8	296.	80.
44108	32-39.	1205-117.7322-1-08-201		WELL						
44109	32-39.	0563-117.7476-1-23-200	10/19/77	WELL	12.0	FARM/LIVESTOCK	IRON	7.8	338.	80.
44109	32-39.	0563-117.7476-1-08-201		WELL						
44117	32-39.	8156-117.6753-1-21-200	10/21/77	SPRING	16.0			8.8	1001.	180.
44118	32-39.	9284-117.6542-1-21-200	10/21/77	SPRING	19.0			7.1	1963.	340.
44120	32-39.	7344-117.8309-1-21-200	10/21/77	SPRING	15.0			7.7	502.	140.

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SITE NUMBER	RPL	TPTR	AKPHEN	POS. CONT	URANIUM(DNC) PPB	Q, C, X-REF	DISSOLVED O2(PPM)	EH MV
7481	200	WSFO		1	2.66	2.16	5.20	50.00
7488	200	WSFO		1	1.07	3.51	7.30	110.00
7489	200	WSFO		1	0.52	5.33	7.60	210.00
7502	200	WSFO		1	0.18	39.87	6.20	225.00
7503	200	WWFO		1			0.50	30.00
7508	200	WSFO		1	0.82	3.79	7.60	210.00
7509	200	WSFO		1	7.50	1.48		210.00
7510	200	WSFO		1	0.84	5.31		210.00
7511	200	WSFO		1	2.36	2.34	8.80	210.00
7512	200	WSFO		1	4.25	1.84	5.40	180.00
7513	200	WSFO		1	22.08	1.20	8.70	60.00
7620	200	WSFO		1	1.54	3.09	4.70	150.00
7646	200	WSFO		1			8.10	150.00
7647	200	WSFO		1			8.10	160.00
7648	200	WSFO		1			7.10	150.00
7649	200	WSFO		1	94.42	1.05	6.90	150.00
7650	200	WWFO		1			5.90	120.00
7651	200	WSFO		1	4.28	1.84	4.10	140.00
7652	200	WSFO		1	3.03	2.06	3.60	150.00
7653	200	WWFO		1	8.10	1.59	7.80	130.00
7654	200	WSFO		1	0.78	3.96	8.90	150.00
7655	200	WSFO		1	1.28	3.20	7.00	150.00
19503	200	WSFO		1	0.38	5.80		
19562	200	WSFO		1	1.05	3.26		
20311	200	WSFO	60.	1				
20392	200	WWFO		1	0.90	3.54		
26550	200	WSFO		1	0.84	3.74		
26551	200	WSFO		1	6.07	1.47		
26553	200	WSFO		5	0.89	3.39		
26650	200	WSFO		1	0.31	8.73		
27068	200	WSFO		1	1.38	2.75		
28714	200	WSFO		1	1.95	2.51	2.50	80.00
28715	200	WWFO		1	0.71	3.88	0.40	80.00
28716	200	WSFO		1	1.38	2.72	6.40	80.00
28716	201	WSFA						
28717	200	WSFO		1	0.59	4.35		90.00
28717	201	WSFA						
28718	200	WWFO		1	0.77	3.74	3.30	90.00
28722	200	WSFO		1	6.60	1.55	4.30	80.00
28722	201	WSFA						
28724	200	WSFO		1	6.62	1.48	6.90	75.00
28729	200	WSFO		1	0.63	3.58	7.70	80.00
28729	201	WSFA						
28730	200	WSFO		1	0.98	3.19	7.50	80.00
28731	200	WSFO		1	1.85	2.41	6.20	80.00
28732	200	WSFO		1	4.00	1.71	8.20	80.00
28733	200	WSFO		1	2.16	2.19	6.90	75.00
28737	200	WSFO		1	1.70	2.65	4.40	80.00
28739	200	WSFO		1	0.07	3.85	7.60	80.00

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TABLE B-3, WATER ANALYSIS; SPRING AND WELL SITES

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SITE NUMBER	RPL	TPTN	AKPHEN	POS, CONT	URANIUM(DNC) PPB	±ERR	Q. C. X-REF	DISSOLVED O2(PPM)	EH MV
28740	200	WSFO		1	0.68	4.33		7.60	80.00
28741	200	WWFO	20.	1	0.59	4.21		1.70	75.00
28743	200	WSFO	20.	1	0.33	6.20		4.50	70.00
28743	201	WSFA							
28744	200	WWFO		1	0.86	3.70		6.60	165.00
28744	201	WWFA							
28745	200	WSFO		1	3.93	1.81		6.20	175.00
28746	200	WSFO		1	1.19	2.91		8.15	185.00
28749	200	WSFO		1	0.22	8.18		1.40	150.00
28749	201	WSFA							
28750	200	WSFO		1	6.84	1.46		9.10	70.00
28765	200	WWFO		1	4.29	1.75		6.00	160.00
28766	200	WSFO		1	3.90	1.76		5.90	160.00
28767	200	WSFO		1	2.30	2.11		9.50	160.00
28768	200	WWFO		1	3.85	1.74		3.40	140.00
28769	200	WWFO		1	0.62	4.22		8.30	160.00
28771	200	WSFO		1	3.81	1.86		6.00	150.00
28772	200	WWFO		1	1.46	2.60		6.40	30.00
28773	200	WSFO		1	8.09	1.40	10.30	170.00	
28775	200	WSFO		1	0.57	4.22		8.60	170.00
28777	200	WSFO		1	2.38	2.13		6.50	170.00
28777	201	WSFA							
28778	200	WWFO		1	0.78	3.65		8.90	80.00
28778	201	WWFA							
28779	200	WWFO		1				8.60	70.00
28779	201	WWFA							
28780	200	WWFO		1	1.18	2.98		7.20	70.00
28791	200	WWFO		1	1.92	2.47		7.70	70.00
28792	200	WSFO		1	2.88	1.97		9.20	70.00
28795	200	WSFO		1	11.31	1.31		4.80	60.00
28786	200	WSFO		1	44.41	1.09		8.40	65.00
28786	200	WWFO		1	3.65	1.78		7.30	170.00
28789	200	WSFO		1	9.70	1.33		4.20	200.00
28789	201	WSFA							
28796	200	WSFO		1	0.13	10.96		1.20	155.00
28799	200	WSFO		1	0.97	3.31		5.70	185.00
28801	200	WSFO	20.	1	0.55	4.33			90.00
28801	201	WSFA							
28802	200	WWFO		1	0.08	18.56			100.00
28803	200	WWFO		1	0.04	30.49		1.40	90.00
28803	201	WWFA							
28806	200	WWFO		1	2.10	2.39		4.80	80.00
28807	200	WWFO		1	1.47	2.76		6.00	75.00
28808	200	WSFO	40.	1	0.05	27.00			65.00
28808	201	WSFA							
28809	200	WWFO	40.	1	0.08	19.23			75.00
28810	200	WSFO		1	2.26	2.13		6.30	
28811	200	WSFO		1	2.40	2.11			6.20
28812	200	WSFO		1	1.69	2.47		5.70	70.00

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TABLE B-3, WATER ANALYSIS: SPRING AND WELL SITES

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SITE NUMBER	RPL	TPTN	AKPHEN	POS.	URANIUM(DNC)	Q. C.	DISSOLVED	EH
			MG/LITER	CONT	PPB	%ERR	X-REF O2(PPM)	MV
28813	200	WSFO		I	0.48	4.75	8.40	70.00
28815	200	WSFO		I	1.67	2.56	7.50	70.00
28817	200	WSFO		I	4.50	1.82	4.40	70.00
28819	200	WSFO		I	6.80	3.56	7.90	55.00
28819	201	WSFA						
28821	200	WSFO		I	51.43	1.07		200.00
28822	200	WSFO		I	111.40	1.03	7.70	200.00
28822	201	WSFA						
28829	200	WSFO		I	0.16	11.39		50.00
28839	200	WSFO		I	8.93	1.40	7.70	120.00
28839	201	WSFA						
28840	200	WSFO		I			9.00	110.00
28841	200	WHFO		I	1.90	2.37	3.00	130.00
28842	200	WSFO		I	2.44	2.10	3.60	130.00
28844	200	WHFO		I	1.12	3.02	5.30	130.00
28845	200	WSFO		I	0.76	3.67	8.20	130.00
28845	201	WSFA						
28847	200	WSFO		I	0.03	38.99	7.70	120.00
28847	201	WSFA						
28851	200	WSFO		I	0.98	3.39	6.15	135.00
28852	200	WSFO		I	2.14	2.20	4.45	130.00
28853	200	WSFO		I	0.94	3.30	3.85	110.00
28853	201	WSFA						
28855	200	WSFO		I	3.51	1.80	6.10	110.00
28856	200	WSFO		I			4.70	90.00
28856	201	WSFA						
28857	200	WSFO		I	2.33	2.10	5.60	135.00
28858	200	WSFO		I	2.71	2.03	7.20	100.00
28861	200	WSFO		I	0.80	3.69	6.15	135.00
28862	200	WSFO		I	2.68	2.03	6.20	120.00
28863	200	WSFO		I			5.30	130.00
28864	200	WSFO		I	4.15	1.72	4.15	110.00
28865	200	WSFO		I	1.67	2.75	5.80	150.00
28867	200	WSFO		I	3.65	1.82	5.85	170.00
28867	201	WSFA						
28869	200	WSFO		I	4.84	1.63	6.70	120.00
28870	200	WSFO		I			8.65	150.00
28871	200	WSFO		I	3.45	1.79	7.15	140.00
28872	200	WSFO		I	10.71	1.32	4.80	140.00
28873	200	WSFO		I	7.57	1.53	8.70	150.00
28874	200	WSFO		I			6.40	145.00
28875	200	WSFO		I	0.98	3.06	9.00	170.00
28875	201	WSFA						
28876	200	WSFO		I	2.56	2.13	6.40	125.00
28876	201	WSFA						
28877	200	WSFO		I	4.72	1.64	5.65	155.00
28878	200	WSFO		I			8.60	150.00
28879	200	WSFO		I	1.11	3.04	10.80	170.00
28880	200	WSFO		I			5.70	140.00

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SITE NUMBER	RPL	TPTN	AKPHEN	POS.	URANIUM(DNC)	O. C.	DISSOLVED O2(PPM)	EH MV
			MG/LITER	CONT	PPB	XERR	X-REF	
28881	200	WSFO		1	18.86	1.19	7.90	140.00
28882	200	WSFO		1	23.88	1.16	5.10	120.00
28883	200	WSFO		1	0.71	3.47	6.25	90.00
28884	200	WWFO		1	0.57	4.28	5.95	65.00
28885	200	WSFO		1	0.13	11.97	8.10	105.00
28886	200	WSFO		1	0.12	12.32	7.10	145.00
28886	201	WSFA						
28888	200	WSFO		1			5.95	140.00
28888	201	WSFA						
28889	200	WSFO		1	2.85	2.06	8.10	125.00
28890	200	WSFO		1			10.05	105.00
28891	200	WSFO		1	3.73	3.92	7.30	110.00
28892	200	WSFO		1			4.25	105.00
28893	200	WSFO		1	2.70	2.05	6.65	110.00
28894	200	WSFO		1	1.31	2.88	6.55	90.00
28901	200	WWFO		1	20.01	1.18	2.60	60.00
28903	200	WWFO		1	4.21	1.72	7.30	70.00
28903	201	WWFA						
28904	200	WWFO		1	3.94	1.74	7.70	70.00
28905	200	WWFO		1	2.34	2.15	1.50	70.00
28906	200	WSFO		1	0.09	16.45		
28907	200	WSFO		1	0.11	15.02	0.80	65.00
28908	200	WSFO		1	3.45	1.82	7.70	70.00
28909	200	WSFO		1	5.90	1.56	7.30	60.00
28910	200	WSFO		1	1.72	2.51	5.20	75.00
28911	200	WSFO		1	0.16	10.21	0.40	60.00
28912	200	WSFO		1	12.31	1.29	9.30	80.00
28913	200	WWFO		1	14.96	1.24	6.80	80.00
28914	200	WSFO		1	4.34	1.69	8.20	70.00
28917	200	WSFO		1	1.33	2.98	7.60	70.00
28918	200	WSFO	40.	1	1.73	2.41	13.50	-100.00
28919	200	WWFO		1	2.74	2.07	6.80	70.00
28920	200	WSFO		1	2.47	2.09	7.00	80.00
28921	200	WSFO		1			8.30	75.00
28922	200	WSFO		1	0.25	7.42		60.00
28923	200	WWFO		1	0.19	9.62		70.00
28924	200	WSFO	20.	1	53.97	1.07	12.10	50.00
28925	200	WSFO		1	6.63	1.48	8.50	65.00
28925	201	WSFA						
28926	200	WWFO		1	2.69	1.98	2.60	160.00
28927	200	WSFO		1	179.10	1.02	1.80	-110.00
28928	200	WSFA		1	1.98	2.34		
28928	200	WSFA		1	1.98	2.34		
28928	201	WSFA						
28929	200	WWFO	20.	1	1.95	2.31	4.30	120.00
28929	200	WWFO	20.	1	1.95	2.31	4.30	120.00
28930	200	WSFO		1	0.72	3.77	7.40	120.00
28931	200	WSFO		1	1.40	2.68	8.30	160.00
28932	200	WSFO		1	3.08	1.94	7.40	170.00

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 TABLE B-3, WATER ANALYSIS: SPRING AND WELL SITES

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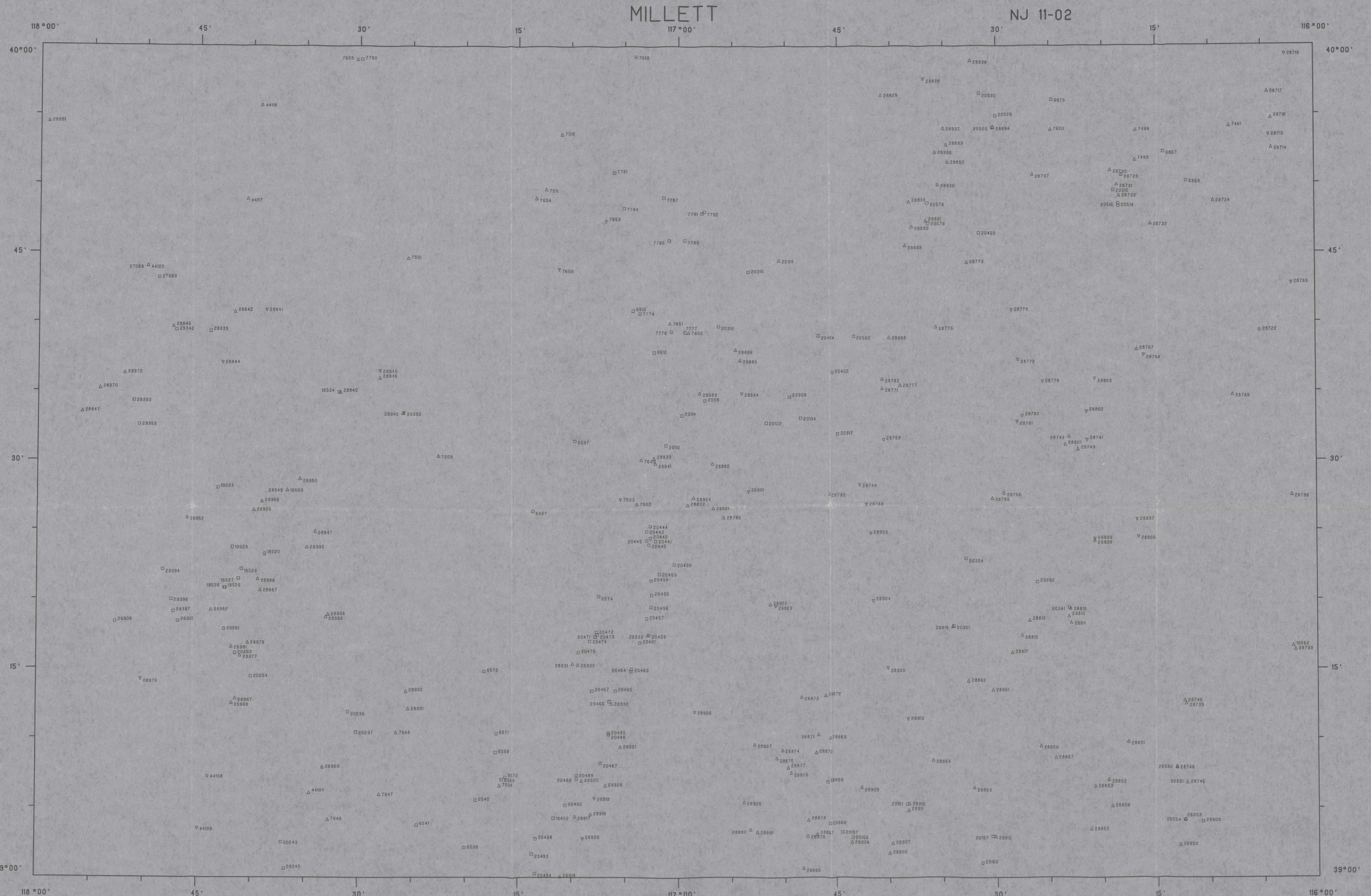
SITE NUMBER	RPL	TPTN	AIPHEN MG/LITER	POS, CONT	URANIUM(DNC) PPB	Q, C, X-REF	DISSOLVED O2(PPM)	EH MV
28933	200	WSFO			1.99	2.29	6.90	140.00
28934	200	WSFO			5.50	1.56	4.40	130.00
28935	200	WSFO			0.05	24.60	2.90	15.00
28936	200	WSFO			2.59	2.02	7.00	135.00
28936	201	WSFA						
28937	200	WSFO			0.27	7.29		180.00
28938	200	WSFO			4.80	1.65		
28939	200	WWFO	240.		11.79	1.31	7.90	
28941	200	WSFO			13.77	1.25	7.10	140.00
28941	201	WSFA						
28942	200	WSFO			0.06	3.43	1.60	40.00
28945	200	WWFO			1.01	3.33	7.00	150.00
28946	200	WSFO			8.17	1.44	7.80	160.00
28947	200	WSFO			1.37	2.91	5.80	135.00
28949	200	WSFO					6.50	190.00
28950	200	WSFO			1.92	2.38	6.00	185.00
28951	200	WSFO			1.59	2.50	6.75	110.00
28962	200	WSFO			0.24	8.18	8.50	190.00
28965	200	WSFO			3.23	2.00	5.80	185.00
28965	201	WSFA						
28966	200	WSFO			0.72	3.62	6.90	195.00
28967	200	WSFO			8.76	1.42	6.90	180.00
28967	201	WSFA						
28968	200	WSFO			9.70	1.35	5.20	140.00
28968	201	WSFA						
28969	200	WSFO					7.60	190.00
28970	200	WSFO			0.42	5.53	8.20	120.00
28972	200	WSFO			4.45	1.68	8.00	130.00
28975	200	WWFO			3.72	1.81	5.70	120.00
28976	200	WSFO			0.67	4.10	7.90	110.00
28977	200	WSFO			17.76	1.20	5.50	110.00
28981	200	WSFO					8.30	120.00
28982	200	WSFO			0.13	12.14	7.90	110.00
28986	200	WSFO			5.33	1.58	6.40	120.00
28986	201	WSFA						
28987	200	WSFO					6.40	120.00
28988	200	WSFO						80.00
28989	200	WSFO						80.00
28990	200	WSFO			3.90	1.73	7.30	20.00
28990	201	WSFA						
28991	200	WSFO			0.36	5.76	8.10	110.00
28992	200	WSFO			1.34	2.67	8.00	110.00
44104	200	WSFO			0.89	3.37	8.30	170.00
44108	200	WWFO			2.11	2.27	6.10	165.00
44108	201	WNFA						
44109	200	WWFO	40.		1.08	3.02	5.00	165.00
44109	201	WNFA						
44117	200	WSFO	40.		2.28	2.21	7.90	150.00
44118	200	WSFO			2.18	2.28	4.80	120.00

1

MILLETT QUAD REPORT, LAWRENCE LIVERMORE LABORATORY
TABLE B-3, WATER ANALYSIS; SPRING AND WELL SITES

PAGE B-45

SITE NUMBER	APL MG/LITER	TPTR CONT	AKPHEN PPB	POS. ZERR	URANIUM(DNC) X-REF O2(PPM)	Q, C, DISSOLVED X-REF O2(PPM)	EH MV
44120 200 WSFO		1			0,00	170,00	



SYMBOL EXPLANATION

- SITE TYPES, WATER SAMPLES
- RIVER/STREAM
- △ SPRING
- ▽ WELL
- ◇ LAKE/RESERVOIR



SER NO. LLL-NURE-HSSR 13:03:32 U 10/12/78

OVERLAY 1A

SITE LOCATIONS, WATER SAMPLES
GEOCHEMICAL
RECONNAISSANCE STUDY
MILLETT
(NTMS QUAD)

SYMBOL EXPLANATION

URANIUM(TOTAL) CONCENTRATION

PARTS PER BILLION(PPB) BY WEIGHT

+ LESS THAN 0.05 PPB
(OR NOT DETECTED)

◆ GREATER THAN 100. PPB



LAWRENCE
LIVERMORE
LABORATORY
UNIVERSITY OF CALIFORNIA

SER NO. LLL, NURE : HSSR 12:29:31 U 11/13/78

URANIUM(TOTAL) CONCENTRATIONS(PPB)
WATER SAMPLES

SCALE 1:250000

5 10 15 20 STATE

10 15 20 25 30 KILOMETERS

CONCENTRATIONS (PPB)

ER SAMPLES

OVERLAY 1B
URANIUM(TOTAL)
CONCENTRATIONS(PPB)
(WATER SAMPLES)
GEOCHEMICAL
RECONNAISSANCE STUDY
MILLETT
(NTMS QUAD)

MILLETT

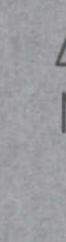
NJ 11-02

OVERLAY 1C

CONDUCTIVITY ($\mu\text{MHO}/\text{CM}$)
(WATER SAMPLES)
GEOCHEMICAL
RECONNAISSANCE STUDY
MILLETT
(NTMS QUAD)

CONDUCTIVITY ($\mu\text{MHO}/\text{CM}$)
WATER SAMPLES

SCALE 1:250000
5 0 5 10 15 20 25 30 STATUTE MILES
5 0 5 10 15 20 25 30 KILOMETERS



SYMBOL EXPLANATION

CONDUCTIVITY ($\mu\text{MHO}/\text{CM}$)
20.0
50.0
100.
200.
500.
1000.
2000.
4000.

+ LESS THAN 20.0 $\mu\text{MHO}/\text{CM}$
● GREATER THAN 4000. $\mu\text{MHO}/\text{CM}$

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LIVERMORE
LABORATORY
UNIVERSITY OF CALIFORNIA

SER NO. LLL-NURE-HSSR 15:06:44 R 12/21/78

CONDUCTIVITY (µMHO\CM)
WATER SAMPLES

GEOCHEMICAL

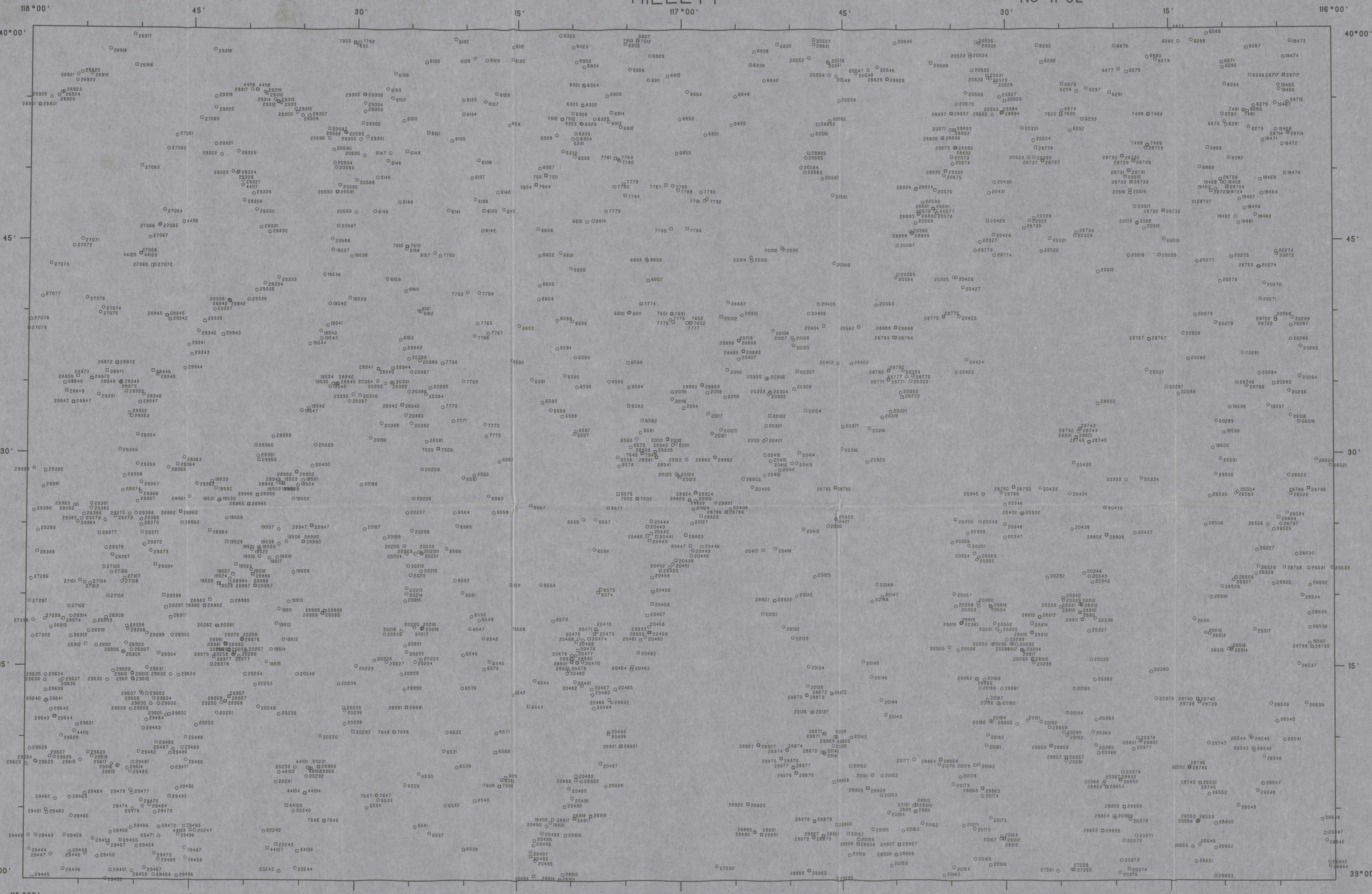
MASSAGE STUDY MILLETT

CONDUCITIVITY (KMOLES)

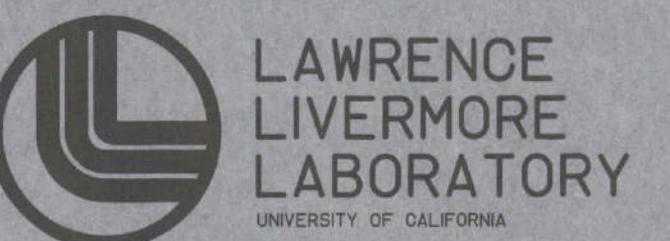
CONDUCITIVITY (µMHO/cm)

MILLETT

NJ 11-02



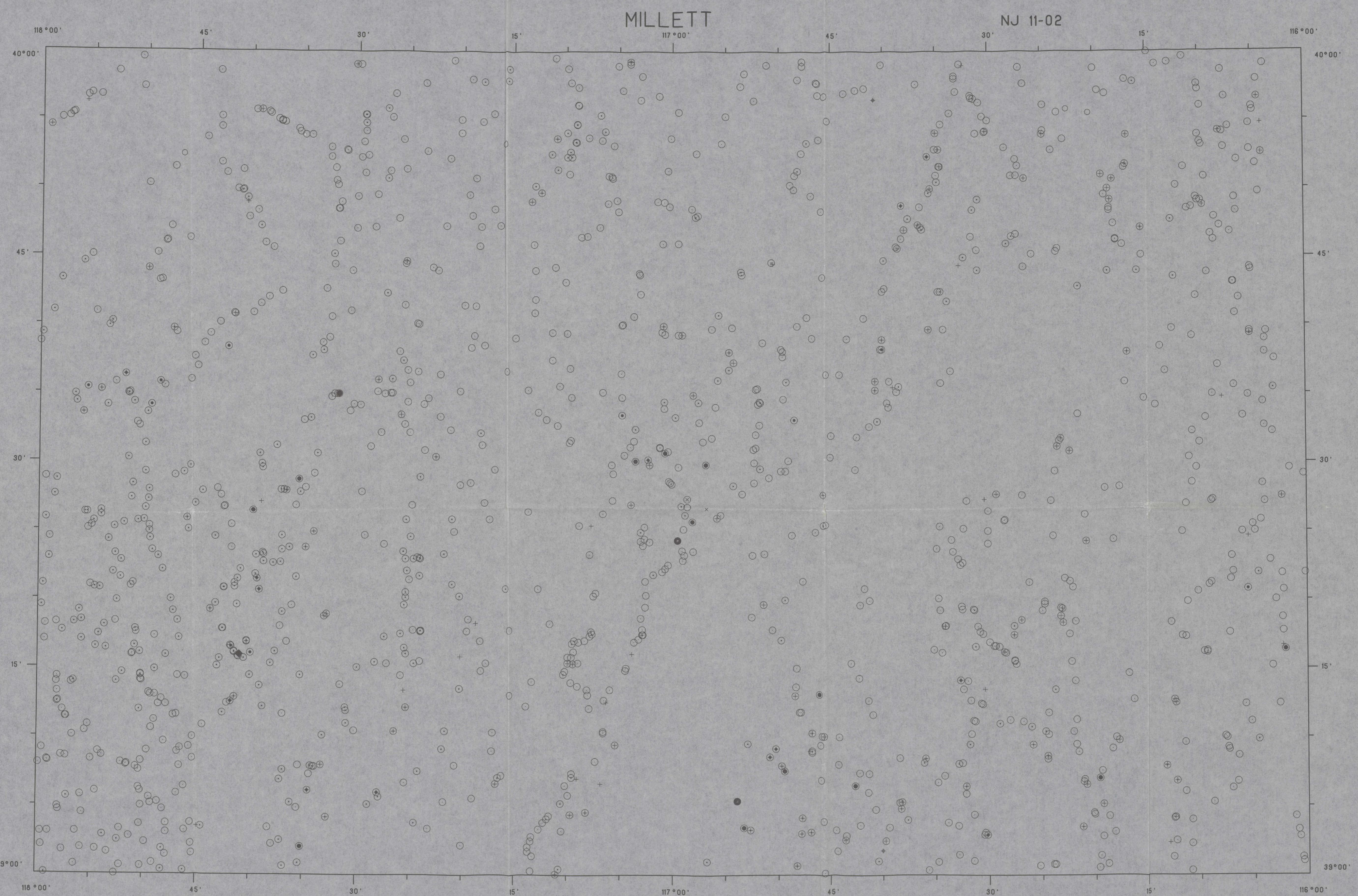
SYMBOL EXPLANATION



OVERLAY 2A

SITE LOCATIONS. SEDIMENT SAMPLES

SITE LOCATIONS. SEDIMENT SAMPLES
GEOCHEMICAL
RECONNAISSANCE STUDY
MILLETT
(NTMS QUAD)



SER NO. LLL-NURE-HSSR 09.32.34R 11/10/78

OVERLAY 2B
URANIUM(TOTAL)
CONCENTRATIONS(PPM)
(SEDIMENT SAMPLES)
GEOCHEMICAL
RECONNAISSANCE STUDY
MILLETT
(NTMS QUAD)

MILLETT
RECONNAISSANCE STUDY
GEODEMICAL
CONCENTRATIONS (PPM)
(SEDIMENT SAMPLES)

URANIUM (TOTAL) CONCENTRATIONS (PPM) SEDIMENT SAMPLES

200
150
100
50
0
50 KILOMETRES
100
150
200

50 STATIONE MILES

100
150
200

250

300

350

400

450

500

550

600

650

700

750

800

850

900

950

1000

1050

1100

1150

1200

1250

1300

1350

1400

1450

1500

1550

1600

1650

1700

1750

1800

1850

1900

1950

2000

2050

2100

2150

2200

2250

2300

2350

2400

2450

2500

2550

2600

2650

2700

2750

2800

2850

2900

2950

3000

3050

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3400

3450

3500

3550

3600

3650

3700

3750

3800

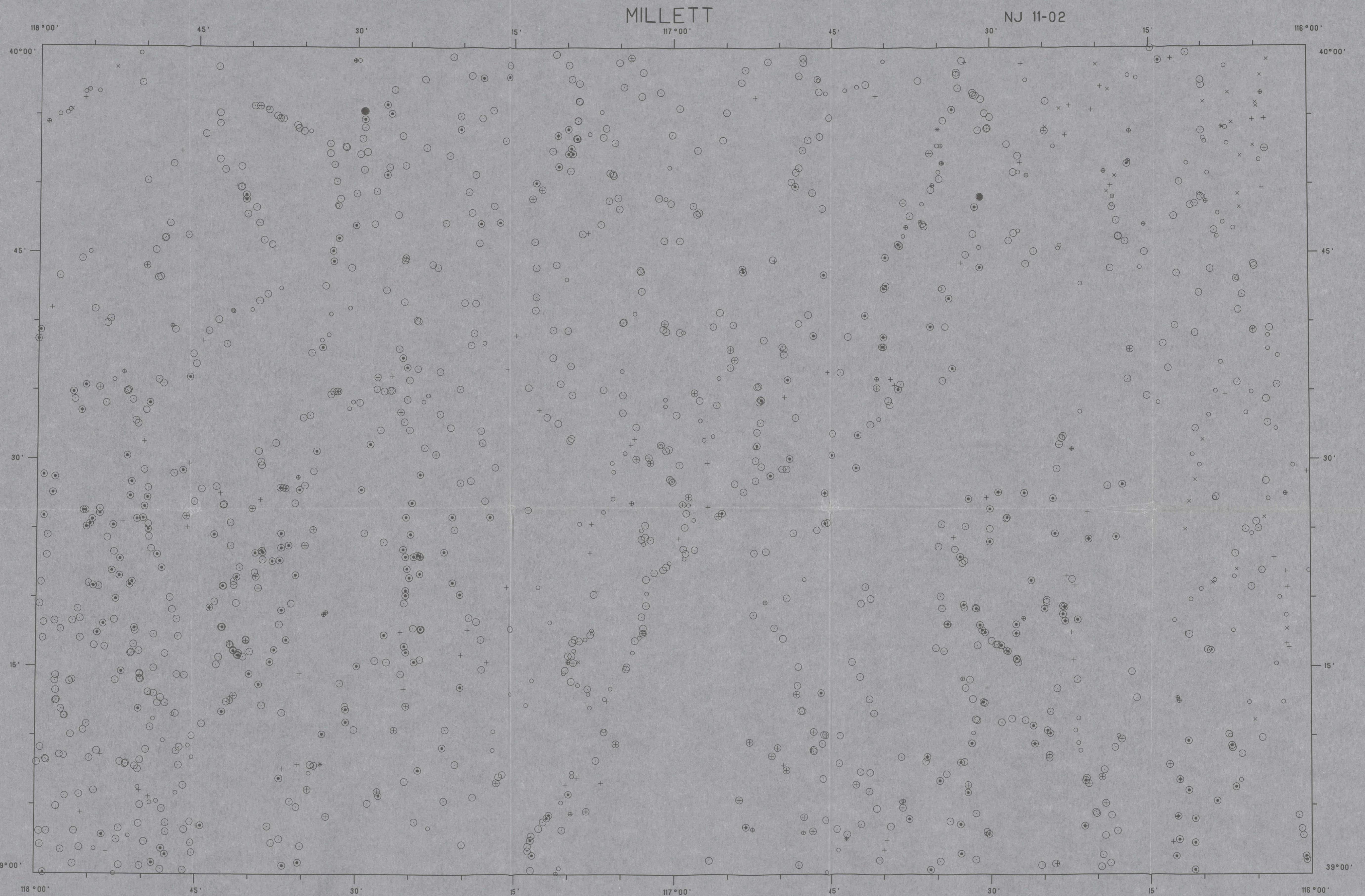
3850

3900

3950

4000

SYMBOL EXPLANATION
GREATER THAN 500 PPM
LESS THAN 500 PPM
FOR NOT DECODED
LESS THAN 1000 PPM
BETWEEN 1000 AND 1500 PPM
BETWEEN 1500 AND 2000 PPM
BETWEEN 2000 AND 2500 PPM
BETWEEN 2500 AND 3000 PPM
BETWEEN 3000 AND 3500 PPM
BETWEEN 3500 AND 4000 PPM
BETWEEN 4000 AND 4500 PPM
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BETWEEN 116500 AND



MILLETT
[NTMS QWAD]
RECONNAISSANCE STUDY
GEOCHEMICAL
CONCENTRATIONS (PPM)
THORIUM (TOTAL)
OVERLAY SC

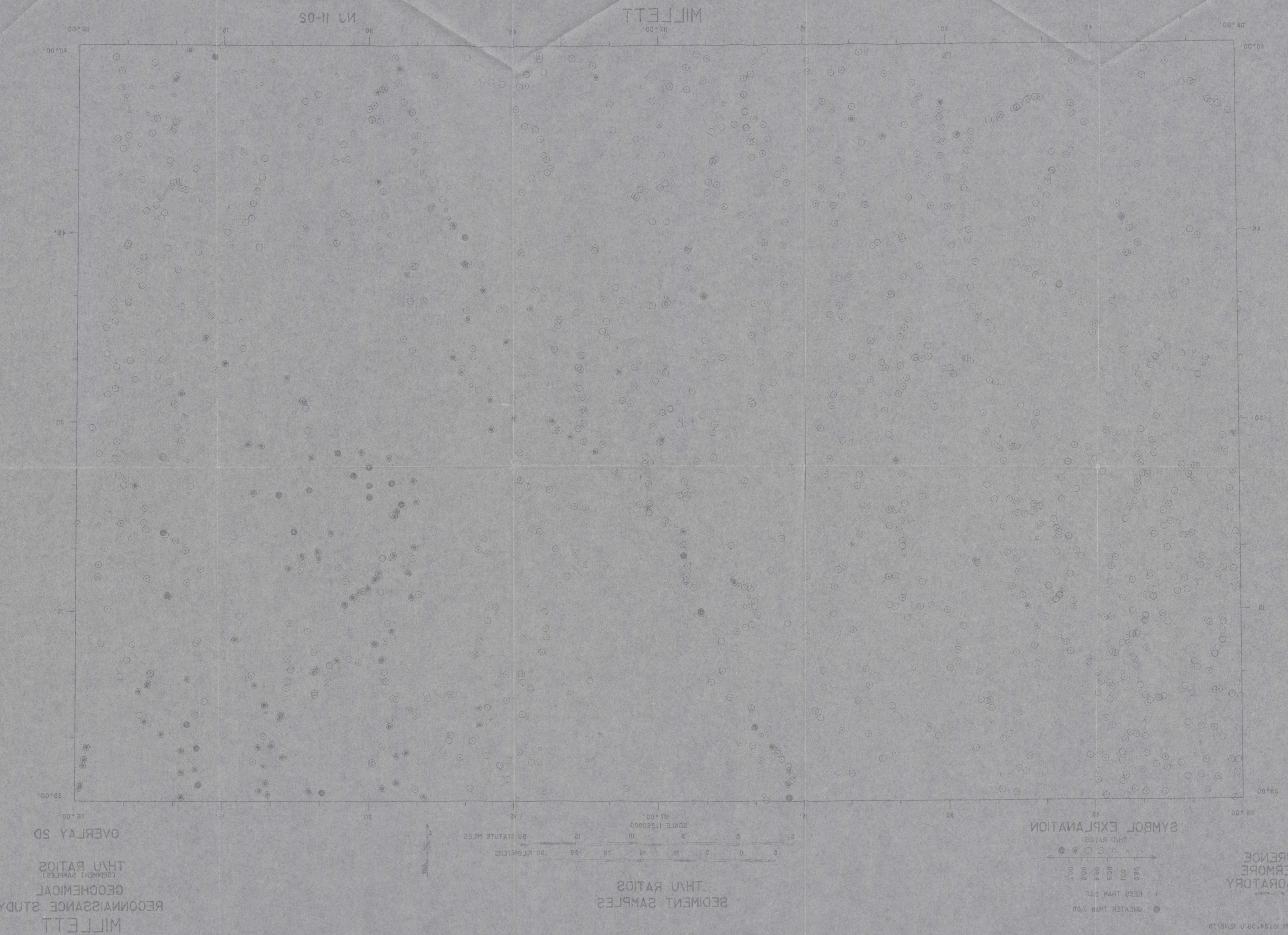
THORIUM (TOTAL)
CONCENTRATIONS (PPM)
(SEDIMENT SAMPLES)

GEOCHEMICAL

RECOGNISANCE STUDY

SYMBOL EXPANSION

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Technical Information Department
LAWRENCE LIVERMORE LABORATORY
University of California | Livermore, California | 94550