

HYDROGEOCHEMICAL AND STREAM SEDIMENT RECONNAISSANCE BASIC DATA REPORT FOR LAS VEGAS NTMS QUADRANGLE, ARIZONA, CALIFORNIA, AND NEVADA

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July 1978

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SEDIMENT RECONNAISSANCE BASIC
DATA REPORT FOR LAS VEGAS NTMS
QUADRANGLE, ARIZONA, CALIFORNIA,
AND NEVADA**

B. J. Qualheim

MS. date: July 1978

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HYDROGEOCHEMICAL AND STREAM SEDIMENT RECONNAISSANCE BASIC DATA REPORT FOR LAS VEGAS NTMS QUADRANGLE, ARIZONA, CALIFORNIA, AND NEVADA

ABSTRACT

This report presents the results of the geochemical reconnaissance sampling in the Las Vegas 1° × 2° quadrangle of the National Topographic Map Series (NTMS). Wet and dry sediment samples were collected throughout the 18,770-km² arid to semiarid area and water samples at available streams, springs, and wells. Neutron activation analyses of uranium and trace elements and other measurements made in the field and laboratory are presented in tabular hardcopy and microfiche format. The report includes six fullsize overlays for use with the Las Vegas NTMS 1:250,000 quadrangle. Water sampling sites, water-sample uranium concentrations, water-sample conductivity, sediment sampling sites, and sediment-sample total uranium and thorium concentrations are shown on separate overlays. General and structural descriptions of the area are presented and the known uranium occurrences on this quadrangle are delineated.

High uranium concentrations in sediment were very sparse on the Las Vegas quadrangle. With the exception of a few isolated samples, the highest uranium concentrations were associated with Colorado plateau rocks.

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 km² in 10 western states. Other DOE laboratories are responsible for similar reconnaissance in the rest of the continental U.S. including Alaska (Fig. 1). The individual laboratories acquire a proper set of field samples in their areas, process and analyze the materials, 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.

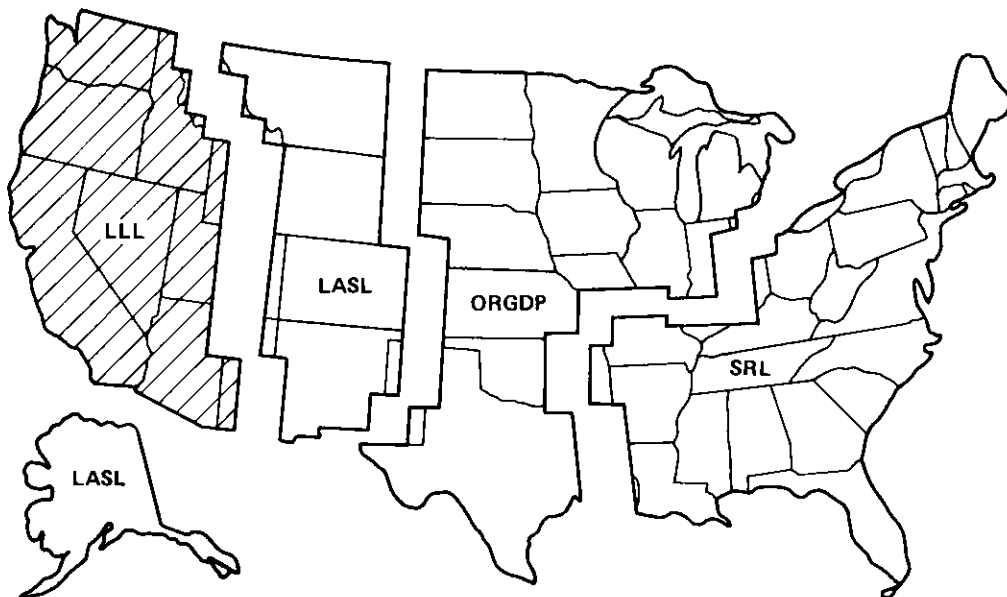


Fig. 1. Areas of responsibility for the NURE Hydrogeochemical Reconnaissance Program.

Before starting a major field reconnaissance coverage, LLL conducts one or more orientation studies in the geological province, providing a rational sediment and water sampling program sensitive to variable geological and climatic conditions that exist in the area.¹ In this way 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 for this report 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 neutron activation analysis and delayed neutron counting are performed using an automated transport and detection system described by Smith.³ Data reduction for neutron activation analytical results utilizes 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 spectrophotometric analyzer was used to obtain measurement of chloride and sulphate concentrations of water samples.

LOCATION AND GENERAL TOPOGRAPHY

The Las Vegas National Topographic Map Series Quadrangle (NTMS 1:250,000 in Fig. 2), located near the southern tip of Nevada, covers an area of approximately $18.8 \times 10^3 \text{ km}^2$ (7200 mi²).

The topographic features of the northwestern quarter of the area are characteristic of the Basin and Range physiographic province and include

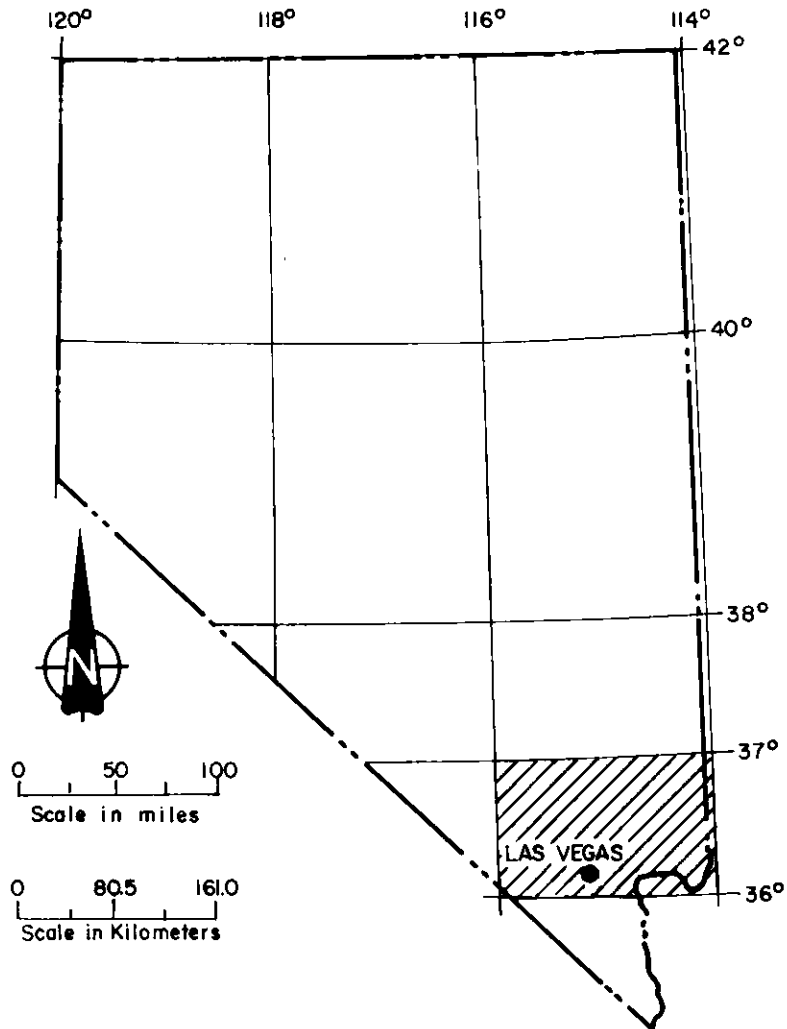


Fig. 2. Location map of Las Vegas NTMS quadrangle.

elongate north-south trending ranges separated by enclosed intermontane basins. The remaining parts of the area, however, differ in their exterior drainage to the sea via the Colorado River system. The eastern edge of the area coincides with the boundary between the Basin and Range and the Colorado Plateau physiographic provinces.

The mountain ranges in the area are steep, with gradually sloping alluvial fans extending to the basins. The basins are sites of active deposition from streams fed by heavy rainfall in the high elevations. Many alluvial fans have been cut by deep arroyos.

Ground surface elevations range from approximately 150 m along Lake Mead to 3500 m at Charleston Peak in the Spring Mountains. The valley floor

elevations range from 600 m to 900 m above sea level. The lowlands, mainly the Las Vegas Valley, are the main center of population, industry, and agriculture.

CLIMATE

The area generally has an arid to semiarid climate; the average annual rainfall is less than 25 cm (10 in.). The average rainfall is about 13 cm in the valleys and averages 50 cm at higher elevations. The area was sampled from March through June, 1977. The weather during this period was characterized by near-drought conditions with rainfall 50 to 80 percent of normal. Many of the streams and springs that normally flow during the spring and early summer were dry.

Air temperatures range from 49°C during the summer in the lowlands to -12°C at the higher elevations in winter. Strong winds are common in the lowlands, and, at times, sediment transport by wind is extensive. These winds were particularly significant in the near-drought conditions during sampling.

GEOLOGY OF THE LAS VEGAS QUADRANGLE

Structural History

The geologic record of the Las Vegas NTMS Quadrangle indicates that the area has undergone several periods of complex deformation. The first deformation of the existing rocks probably occurred during Precambrian time. These highly deformed and metamorphosed rocks were cut by younger Precambrian granitic plutons and dikes. Following deformation, the Precambrian terrain was extensively eroded and later covered by thick Paleozoic sediments.

The Paleozoic record indicates a long time interval when a thick accumulation of predominantly carbonate sediments was deposited. These sediments filled a large-scale, north-south trending sedimentary trough. The eastern part of the area is within the eastern limb of the trough where the sediments are comparatively thin and fairly uniform in thickness. The western part, however, is near the trough axis and the sedimentary sequence is considerably thicker.

The record of the Mesozoic era is marked by a widespread unconformity and short periods of deformation. The sedimentary deposits of the Colorado Plateau sequence are exposed in the southern half of the area and provide a Mesozoic sedimentary record. The Mesozoic era also contains the first record of volcanic activity in the area.

The major orogenic activity in southern Nevada, the Laramide Orogeny, began in the Cretaceous period and continued into Tertiary time. The sequence of structural activity in Southern Nevada is summarized by Longwell et al⁷:

- (1) Initiation of folds and large-scale thrust faults, accompanied by steep reverse and strike-slip faulting.
- (2) Intrusion of plutonic rocks; initiation of volcanic activity.
- (3) Dolomitization and other alterations of limestones
- (4) Large-scale normal faulting and volcanic activity.
- (5) Repeated sedimentation within structural basins.

After the Laramide Orogeny, little structural deformation other than local movement is indicated during the Cenozoic era.

The major structural feature in the area is the Las Vegas shear zone. The zone is a topographical depression trending northwesterly and is marked by a right lateral deflection in the Spring Mountains to the south and Spotted Range to the north. Bends in these ranges and displacement of rock units indicate an offset of 72 km (45 mi).

Mineralized belts in Nevada and California are associated with these wrench-fault tectonic patterns. Larson et al⁸ discusses mineralization with respect to second- and third-order fault systems associated with the major shear zone. One such system is near the Muddy Mountains north of Las Vegas where secondary uranium minerals believed to have been deposited from groundwater systems are found associated with fracture systems.

Stratigraphy

The Precambrian rocks in the Las Vegas Quadrangle consist of a complex of schist, gneiss, and coarse-grained igneous rocks. These rocks crop out in the Virgin Mountains near Canyon Point in Boulder Canyon and at the west face of Frenchman Mountain east of Las Vegas. The Precambrian Gold Butte granite located in the south Virgin Mountains reportedly contains uranium-bearing pegmatite dikes.

The Paleozoic rocks are represented by a thick sequence of marine sedimentary rocks exposed in the northern half of the area. The rocks range from Cambrian to Permian and reach a maximum thickness of 7900 m in the Spring Mountains and 2100 m in the Virgin Mountains. The Cambrian rocks include several formations of quartzites, shale, sandstone, and limestones. These formations, from oldest to youngest, include Tapeats Sandstone, Prospect Mountain Quartzite, Pioche Shale, Lyndon Limestone, Chisholm Shale, and interbedded limestones and shales of the Carrara Formation. The Ordovician rocks consist of:

- The Pogonip group, a thick section of interbedded limestone, shale, and dolomite.
- Eureka Quartzite, a very pure, white fine-to-medium-grained quartzite.
- Ely Springs Dolomite, a dark, medium crystalline dolomite.

The remaining Paleozoic rocks include dolomites and limestones from the Silurian to the Permian ages.

The Mesozoic and Cenozoic rocks of the Colorado Plateau sequence crop out along the eastern edge of the Spring Mountains and the eastern half of the area. The exposed Colorado Plateau rocks include the Coconino Sandstone, Kaibab, Toroweap, Moenkopi and Chinle Formations, and the Aztec Sandstone. The Coconino Sandstone crops out south of St. Thomas Gap in the Virgin Mountains. The Coconino Formation is thinly cross-bedded and is 6 m thick. The Kaibab and Toroweap Formation crop out in the Virgin Mountains, Muddy Mountains, and in central parts of the Spring Mountains. These formations are mainly limestones with interbedded sandstone, shale, gypsum, and chert. The Moenkopi Formation crops out in the Virgin Mountains, Valley of Fire, Frenchman Mountain, and in the Spring Mountains. The formation averages 490 m thick and is made up of interbedded limestone, dolomite, shale, sandstone, and localized tuffaceous rocks. Overlying the Moenkopi are the channel and flood-plain deposits of the Chinle Formation. The Chinle Formation crops out in the northern part of the south Virgin Mountains, in the Valley of Fire, east of Frenchman Mountain, and along the eastern base of the Spring Mountains. The Chinle contains many variations in lithology, ranging from the basal conglomerate of the Shinarump Member to variegated shale, cross-bedded sandstone, and gypsum. Anomalous uranium has been reported in the Shinarump Member and in the overlying carbonaceous sediments.

Tertiary rocks are widely distributed in the eastern half of the area from the White Basin in the Muddy Mountains to Las Vegas Wash southeast of Frenchman Mountain. These rocks are a thick sequence of limestone and dolomite, siltstone, conglomerate, and tuffaceous sediments of the Horse

Springs and Muddy Creek formations. The Horse Springs Formation is made up of two distinct members - a lower member composed of interbedded limestone and siltstone and an upper member made up of clay, silt, and sandstone. In addition, the formation contains several units of reworked volcanic ash marker beds. Uranium mineralization has been reported in the Horse Springs Formation along the east side of Tramp Ridge.

The Tertiary Muddy Creek Formation lies unconformably above the Horse Spring Formation; it consists of coarse sediments near the mountains grading into fine sandstones, siltstone, and clays toward the basins.

Quaternary sediments cover approximately 40% of the area and consist of the fluvial and lacustrine sediments of the Las Vegas Formation and recent alluvium.

A detailed stratigraphic column and geologic map of the Las Vegas Quadrangle can be found in Larson et al⁸ and Longwell.⁷

HYDROLOGY

The three main sources of large quantities of water are the Colorado River and its two main tributaries, the Muddy and Virgin Rivers, located in the eastern half of the area. Lake Mead, created by Hoover Dam and the Colorado River, is located in the southeast quarter of the area. The main sources of domestic water are wells and numerous springs found along the mountain ranges. The aquifers that supply the ground water are recharged primarily by precipitation in the mountain ranges; very little recharging occurs from rain water seeping downward in the valleys. Detailed information on the potential water supply and groundwater is provided by Winograd and Thordarson⁹ and Naff¹⁰ et al (1974).

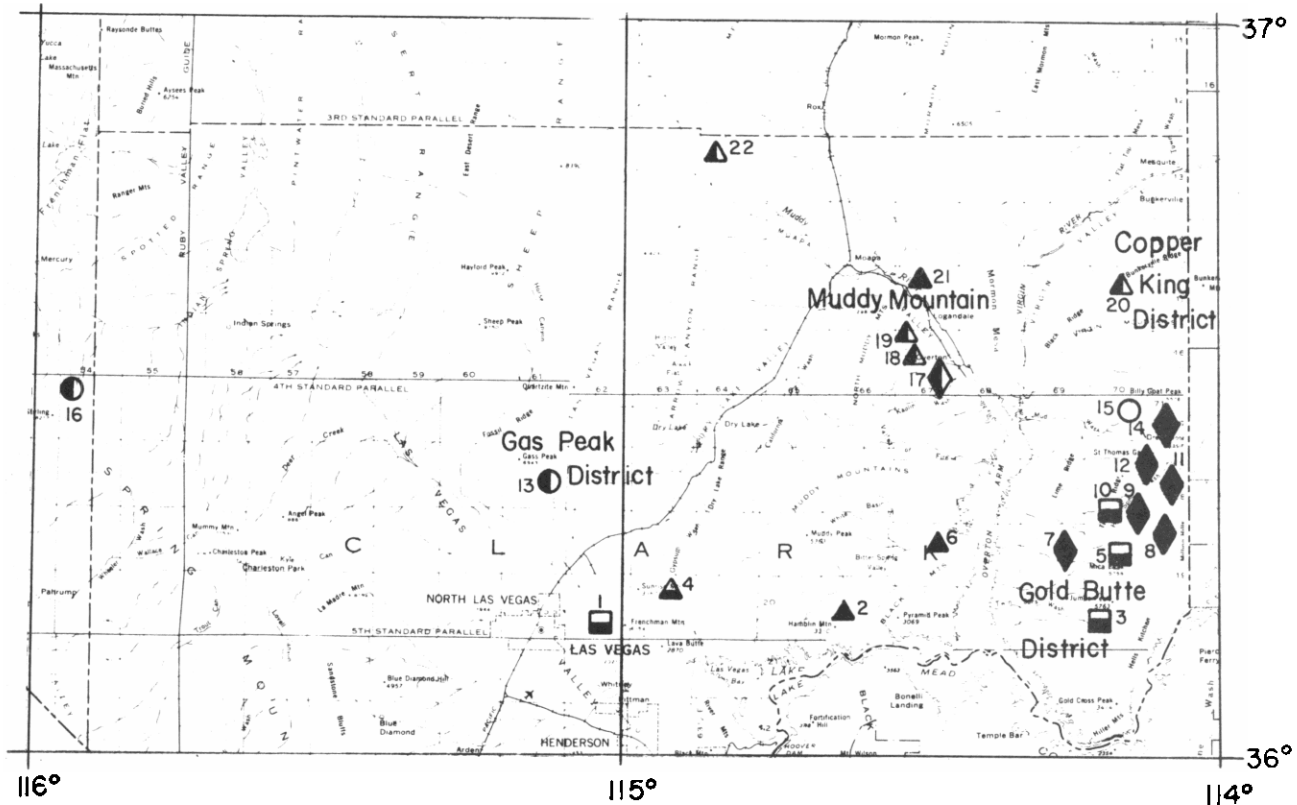
REPORTED URANIUM OCCURRENCES

The area contains three major mining districts — The Gold Butte, Copper King, and Gass Peak. These districts have produced major amounts of metallic minerals, such as zinc, lead, gold, silver, copper, and manganese. Small quantities of mercury, antimony, molybdenum, iridium, and uranium have also been reported.

Presently, there is no active uranium production. There are, however, 22 reported uranium mineral occurrences. These occurrences are shown in Fig. 3 and summarized in Table 1. The major uranium occurrences are reported in the Gold Butte and Muddy Mountain area by Lovering,¹¹ Volborth,¹² and Garside.¹³ Uranium mineralization in these areas occurs as:

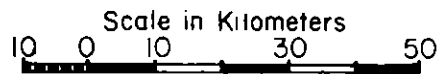
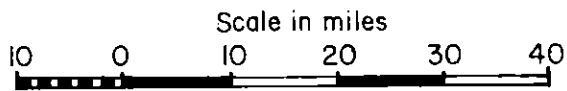
- Accessory minerals in pegmatitic granites and along granite-schist contacts.
- Secondary minerals along joints and as disseminations in sandstone, limestone, and tuffs of the Miocene Horse Springs Formation.
- Concentrations of secondary minerals in carbonaceous material of the Shinarump Member of the Chinle Formation.

In the Gold Butte district, there are 10 reported anomalous uranium occurrences (Garside¹³ and Larson et al⁸). Seven of these occurrences are found as secondary minerals in sedimentary rocks of the Tertiary Horse Springs Formation (Nos. 7, 8, 9, 11, 12, and 14 in Table 1 and Fig. 3). Two occurrences (Nos. 3 and 5) are found as samarskite or euxenite associated with pegmatite dikes that cut porphyritic granites and Precambrian gneiss. For one occurrence (No. 15), no information is available. The uranium U_3O_8 content of selected samples ranges from slightly above background to 2.1% U_3O_8 .



LEGEND

	Pre-Tertiary Rocks		Tertiary-Quaternary Rocks
	sedimentary volcanic & metamorphic (low-rank) rocks	plutonic metamorphic (high-rank) rocks	sedimentary rocks
Uranium with base, precious & ferrous metals	○		
Uranium, Th & R.E.E. in pegmatites & small plutons		■	
Uranium with other mineralization minor or absent	◇		◇
Anomalous radioactivity	▲	▲	▲



○ Minor prospect or occurrence

Fig. 3. Location of uranium occurrences — Las Vegas NTMS sheet

Table 1. Reported uranium occurrences in the Las Vegas NTMS Quadrangle.^{17,18}

Map No.	District or claim	Location	Type of Deposit
1	Little Hal	S.25 T.20S.,R.62E.	Anomalous radioactivity is associated with Pegmatite dikes in Precambrian metamorphic rocks.
2	Anomalier 4,5,6,7	S.18 T.20S.,R.66E.	Anomalous radioactivity in a shale bed in the middle section of the Tertiary Horse Springs Formation.
3	Nevada Mica Mine	S.18 T.20S.,R.70E.	Anomalous radioactivity in granite Pegmatite dike in Precambrian gneiss and schist.
4	Gypsum cave area	S.11 T.20S.,R.63E	Airborne anomaly east of Sunrise Mountain underlain by coarse crystalline granite.
5	Hilltop Mine	S.28 T.19S.,R70E.	Occurrence of samarskite or euxenite sparsely distributed in Pegmatite dike cutting a Porphyritic granite.
6	50-50 Claim	S.15 T.19S.,R67E.	Slightly high radioactivity in mudstone of the Pliocene Muddy Creek Formation.
7	Yellow Queen Prospect	S.12 T.19S.,R69E.	Uranium mineral occurs on fracture surfaces in clays, tuffs, and sandstones of the Tertiary Horse Springs Formation.
8	Horse Springs 1 and 2	S.2 T.19S.,R70E.	Carnotite in joints and fractures in steeply dipping Calcareous sediments of the Triassic Chinle Formation.
	Long Shot		Secondary uranium mineralization in porous limestone of the Tertiary Horse Springs Formation.
	Lucky Bart		Secondary minerals in conglomeratic sandstone of the Tertiary Horse Springs Formation.
9	Unnamed	S.35 T.18S.,R70E	Anomalous radioactivity in tuff of the Tertiary Horse Springs Formation.

Table 1 (continued)

Map No.	District or claim	Location	Type of Deposit
10	Old Dad Prospect	S.32 T.18S.,R70E.	Monazite and radioactive magnetite in Pegmatite dike that cuts a Precambrian gneiss.
11	South Valley No. 2 Claim	S.30 T.18S.,R70E.	Tyuyamunite occurs as disseminated streaks and as fracture coating in calcareous, tuffaceous, and arkosic sediments of the Tertiary Horse Springs Formation.
12	First Chance	S.25 T.18S.,R70E.	Secondary minerals occur as disseminations and fracture coatings in a sandstone of the Tertiary Horse Springs Formation.
13	Sampson No. 1 Marble Quarry	S.24 T.18S.,R61E.	Anomalous radioactivity occurs in a 15 ft shaft drilled in a brecciated dolomite of the Monte Cristo Limestone.
14	Blue Chip	S.13 T.18S.,R70E.	Uranium mineral occurs as small smears in Calcareous tuffs of Tertiary Horse Springs Formation.
15	J. V. Property	S.10 T.18S.,R70E.	No information
16	Bunker-Stone No. 1	S.18 T.18S.,R54E	Secondary minerals occur near intersecting fractures in the Cambrian Sterling Quartzite.
17	(a) Broken Ridge	S.16.20 T.16S.,R67E.	Fine-grained carnotite occurs with carbonaceous material along limestone sandstone contact in unnamed unit above Aztec Sandstone.
	(b) Golden Glow and Carnotite Prospects		Carnotite occurs with opal and calcite along fractures in clays, conglomerates, and tuffaceous sandstones of the Tertiary Overton conglomerate.
18	Valley of Fire	S.7 T.16S.,R67E.	Anomalous radioactivity in carbonaceous material in a shaly sandstone near the top of the Shinarump Member of the Chinle Formation.

Table 1 (continued)

Map No.	District or claim	Location	Type of Deposit
19	Last Chance Claim	S.31 T.15S.,R67E.	Anomalous radioactivity in carbonaceous material in a shaly sandstone near top of the Shinarump Member of the Chinle Formation.
20	South Valley No. 4	S.16 T.15S.,R71E.	Anomalous radioactivity occurs near a contact of mica schist and sandy shale in Precambrian metamorphic rocks.
21	R.A.H. group	S.8 T.15S.,R67E.	Anomalous radioactivity in Tertiary limestones and conglomerates.
22	Fry & Jeffers Claim	S.6,7 T.13S.,R64E.	Anomalous radioactivity in Paleozoic limestone

There is one occurrence reported in the Copper King district. The occurrence (No. 20) is found near a contact between a mica schist and a sandy shale in Precambrian metamorphic rocks. Selected samples contain up to 0.04% U_3O_8 .

In the Muddy Mountain area the uranium is found in the Shinarump Member of the Chinle Formation and is associated with carbonaceous material. The uranium content is as high as 0.07% U_3O_8 .

Other smaller occurrences are reported by Garside¹³ and Larsen et al.⁸ in the Gass Peak precious-base-metals district and other scattered localities. The uranium occurrence in the Gass Peak region is found in a brecciated zone of the Monte Cristo Limestone and is associated with oxides and carbonates of copper, zinc, and iron. Other minor occurrences are reported along fractures in Cambrian quartzites and associated with Paleozoic carbonaceous limestone.

SAMPLE SITE SELECTION AND COLLECTION

Selection of the sample site is the most important technical aspect of sample acquisition. The sites must relate to the geology and the mobility of uranium in a given environment. In addition, because the uranium is measured in parts per million, sources of contamination could mask the natural background. Therefore, sites were selected to represent the acquisition areas and minimize environmental contamination (farms, bridges, mines, etc.) and windblown and lake-bed deposits.

Sediment sampling was concentrated along the range fronts. For small drainages, a single sample site was selected at the canyon mouth. In large drainages, samples were taken up the canyons and along tributaries to obtain representative coverage. Sediment sampling on fans and the valley lowlands was conducted at a low density because of urban contamination, playa lake sediments, and relatively few active or recently active stream channels. Sampling in valleys was biased toward groundwater samples. Sediment samples were collected at all spring sites visited.

The average sampling density was one site per 13 km². Areas excluded from sampling include the Nevada Test Site, Las Vegas and large sections of Las Vegas Valley, and numerous playa lakes.

To minimize the temporal factor, available water was sampled over a short period during the summer of 1977. Because the region was at near-drought conditions, the uranium concentrations are probably at the maximum values for that year. For this reason, further sampling during a wetter period might result in uranium values lower than observed in the summer of 1977.

Site selection was performed by LLL geologists and, in the southeastern quarter of the quadrangle, by Bendix Field Engineering Corp. (BFEC). Sampling was accomplished by contract geologists and geologists from BFEC. Groundwater

site selection and sampling was conducted by the University of Nevada—Desert Research Institute.

QUALITY ASSURANCE

Field Sampling

Lawrence Livermore Laboratory observers occasionally accompanied the contract sampling crews; LLL geologists resampled approximately 5% of the project sites. More than 95% of the resampled sites were accurately located on available maps or photos. The remaining sites were plotted within 200 m of the correct location.

Samples from the site revisits are reported in the tables by quality control x-reference numbers. Analytical replicates were also run on about 10% of all samples. Comparison of the sediment replicate results with the original samples shows a 10% standard deviation in measurement values. This 10% is the natural variability of the sampling and analysis.

Laboratory Analysis

Neutron activation analysis (INAA) and delayed neutron counting (DNC) are performed using the automated transport and detection system installed at the Livermore Pool Type Reactor. Water samples are analyzed by optical emission spectrometry using an inductively coupled argon plasma (ICP) source.

The data reduction for neutron activation analytical results utilizes the GAMANAL code⁴ to interpret the gamma spectra and the NURDAC^{5,6} code to produce elemental concentration values. Not all elements can be identified in every sample. Our experience suggests that, in general, the detection limits for elements reported here are those given in column 2 of Table 2.

The error associated with a DNC uranium measurement is typically 1% of the reported value for sediments and 2% for water analyses.

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

Element	Detection limit, ^a ppm	Precision, ^b %	Accuracy ^c % bias
Ag	500.	ND	ND
Al	50.	10	-7
As	3.	6	-1
Ba	100.	13	ND
Br	5.	ND	NR
Ca	20,000.	7	ND
Ce	15.	ND	NR
Cl	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

ND = not detected.

NR = not reported for standards.

^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.

The emission spectrometer data is automatically referenced to a known laboratory standard analyzed between each group of six samples. System calibration against a second, known standard solution precedes each batch of 72 samples. Water data from the Las Vegas quadrangle region were taken from "lab acidified" samples. Unacidified, filtered (0.45 μm) water samples were collected and returned to LLL, placed in storage for several months, acidified to approximately pH 1, and allowed to stand for two weeks prior to analysis. This procedure was applied after it was noted that in several of the plastic bag-lined-bottles, the plastic bags had broken. It is uncertain if lab acidification completely reversed precipitation of certain components or exchange reactions with the polyethylene container. Therefore, the user should be aware that some analyses may not be representative of the actual water composition.

Six types of samples are routinely run for calibration of the various analytical systems and as a quality assurance measure

- Elemental standards are used to establish emission spectrometry and spectrophotometry calibration and to determine physical parameters used in the activation analysis system.

- Blanks are processed along with samples and analyzed to detect any source of contamination. No significant amount of any element reported here has been detected.

- Splits of samples are analyzed to determine whether the results of all analytical systems are reproducible. These data are included in the microfiche data tables. Reproducibility is generally found to be within the estimated standard deviations of the measurements.

- Quality control samples are run by all systems at an approximate ratio of 1:30 to check precision of the measurements and to detect long term drift. Results are summarized in Table 2, column 3. The accuracy of the measurements is generally comparable to the errors estimated from the analytical uncertainties.

- Standard reference materials are analyzed to determine the accuracy of the measurements in actual samples. Results are tabulated in Table 3. In general, the bias is comparable to the precision of the measurement.

- Interlaboratory comparison samples for uranium are distributed under the auspices of DOE to the various laboratories participating in the NURE program. Analyses of these samples are collected and reported monthly by the Ames Laboratory.¹⁴ This data is summarized in Table 4.

While care has been taken to provide reliable sampling and analyses, verification of individual analyses is beyond the scope of this report. The data should be viewed statistically because "one-point anomalies" may be misleading. Regional trends, however, should be reliable.

RELATION OF ANALYSES TO GEOLOGY

In order to provide the data as soon as possible, very limited interpretation has been performed.

A logarithmic histogram and a cumulative-probability curve for uranium concentrations are provided for water and sediment samples. An additional

Table 3. Optical emission spectrometry (ICP) 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.

Table 4. Delayed neutron assay for uranium analyses of DOE interlaboratory comparison samples.

	Water		Sediment		
	<u>A2,</u>	<u>B2,</u>	<u>R1,</u>	<u>S1,</u>	<u>T1,</u>
	ppb	ppb	ppm	ppm	ppm
Number of analyses	12	11	16	16	14
Recommended value ^a	0.98	9.98	5.23	10.8	93.7
Mean value ^b	1.06	9.70	5.24	10.4	89.6
Standard deviation of a measurement, % ^c	6	3	5	2	2
Bias, ± % ^d	+8	-3	0	-3	-5

^aRecommended values are averages of analyses by three independent laboratories.

^bMean of LLL measurements.

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

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

logarithmic histogram and cumulative probability curve is provided for thorium concentration in sediment samples. (They are included in Appendix A.)

Interpreting large data sets where individual samples must be compared with different threshold values is a problem in a large-scale drainage survey over a range of rock types. Gouett et al¹⁵ have shown that logarithmic transformations of large geochemical survey data, such as the Las Vegas quadrangle, cause enhancement of the background populations and suppression of the anomalous population in the overall statistical distribution. Therefore, population recognition and sorting is vital to the statistical interpretation.

High uranium concentration in sediment is very sparse on the Las Vegas quadrangle. None of the known uranium occurrences are indicated by uranium concentration measurements and there are no obvious regional trends in the data. If 'high values' are arbitrarily defined as greater than three standard deviations above the mean value, there are only two high uranium measurements in the Las Vegas quadrangle. The two highest values are found in Quaternary alluvium, one in Pahrump Valley and the other in Indian Springs Valley in a drainage coming off the Ely Springs Dolomite of the Pintwater Range. The remaining values are below 10 ppm with a mean of 1.6 ppm and the lowest 0.2 ppm uranium. Within this population, the higher values were associated with Colorado Plateau rocks – particularly those near Frenchman Mountain, the Spring Mountains, and the Virgin Mountains near Tramp Ridge. Examination of these three areas showed that the uranium concentrations ranged from a high of 5 ppm to a minimum of 0.5 ppm with a medium value of 2.2. ppm – only slightly higher than the mean of all samples in the quadrangle. The thorium-to-uranium ratio is as low as one in some of these samples.

It is possible that more sophisticated statistical analyses would reveal parameters which might correlate with uranium occurrence.

Other Elements

Silver in excess of 5 ppm was noted in a number of areas such as Iceberg Canyon, North Muddy Mountains, Meadow Valley Mountains and Frenchman Mountain. Values of zinc ranged as high as 1.5% in areas of sediment near the Sheep Range. Mercury in excess of 1000 ppm was observed in sediments from 12 sites in and around the Gold Butte mining district.

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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 on six vellum overlays (back cover pocket). In addition, frequency histograms and cumulative frequency plots of the logarithm of the uranium and thorium concentrations and water conductivities plotted on the overlays are included in the back of Appendix A.

Hardcopy Tables

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

Sediment analysis, dry and wet stream sites given in Table B-1

LLL sample number

DOE sample number

Sample data

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, µmho/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, µmho/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. The site number uranium concentration and thorium concentration of each sample are plotted on separate sheets for each class. 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 nearly a factor of 10^3 larger in sediments than in natural waters. The range assignments are shown below.

Water Samples

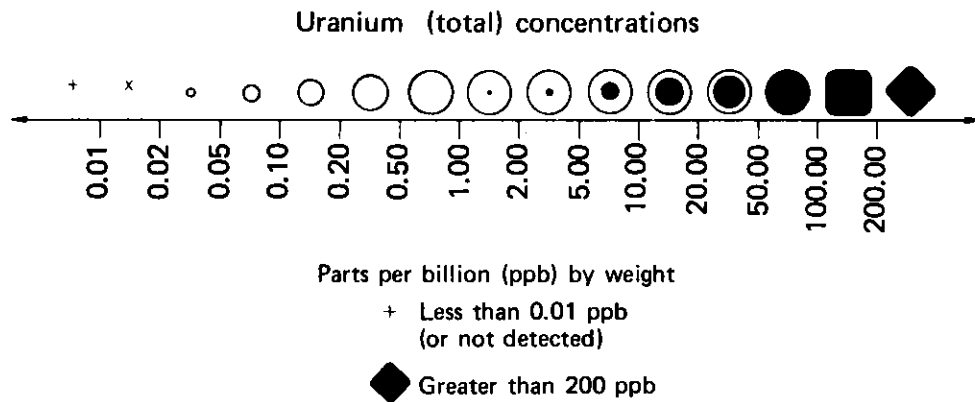


Fig. A-1. Uranium concentrations in water samples.

Sediment Samples

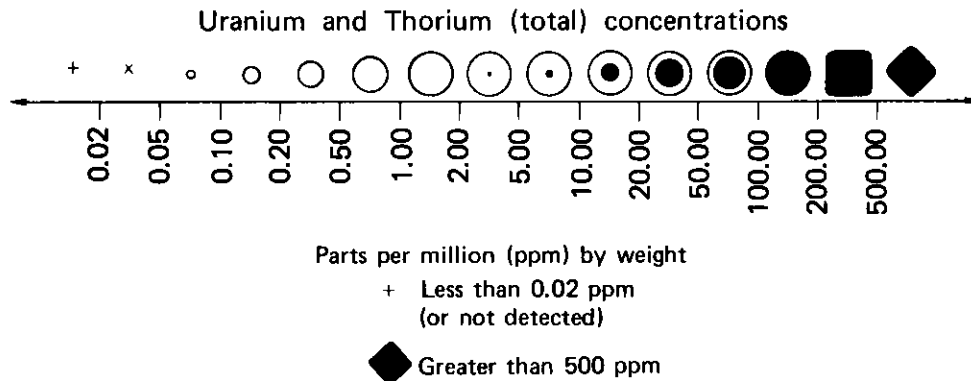


Fig. A-2. Uranium concentration in sediment samples.

(sediment samples). The histogram and cumulative frequency plot of the thorium values for sediment samples shown in overlay 2C are given in Figure A-5. The histogram and cumulative frequency plot of the water sample conductivity values shown in overlay 1C are presented in Figure A-6. These are presented as the logarithm of the element concentrations.

Overlay 1A. Site Locations, Water Samples

Overlay 1B. Total Uranium Concentrations, Water Samples

Overlay 1C. Field Conductivity, Water Samples

Overlay 2A. Site Locations, Sediment Samples

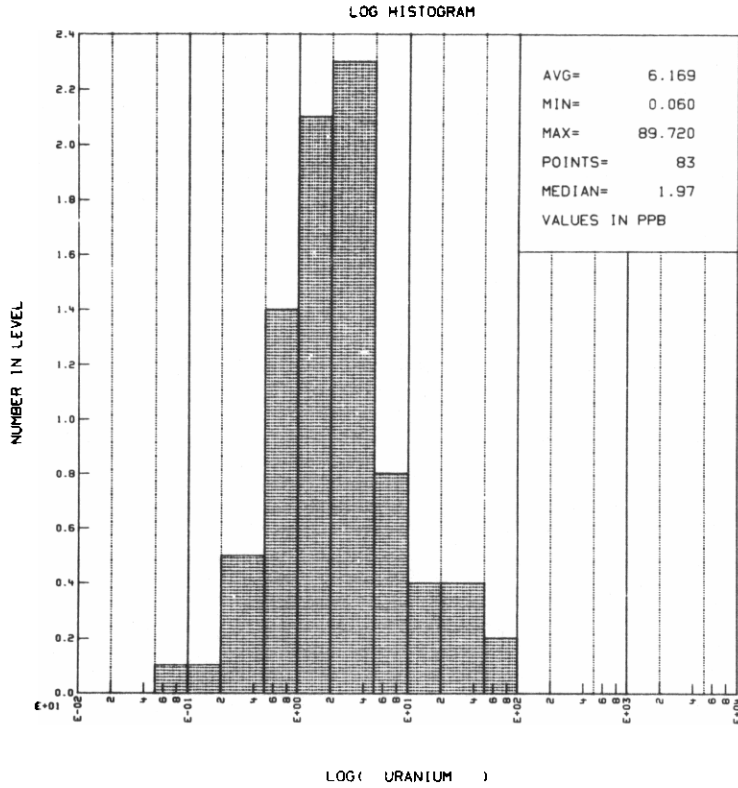
Overlay 2B. Total Uranium Concentrations, Sediment Samples

Overlay 2C. Total Thorium Concentrations, Sediment Samples

Histograms and Cumulative Frequency Plots

Histograms and cumulative frequency plots of the uranium values shown in overlays 1B and 2B are given in Fig. A-3 (water samples) and Fig. A-4 (sediment samples). The histogram and cumulative frequency plot of the thorium values for sediment samples shown in overlay 2C are given in Fig. A-5. The histogram and cumulative frequency plot of the water sample conductivity values shown in overlay 1C are presented in Fig. A-6. These are presented as the logarithm of the element concentrations.

LAS VEGAS QUADRANGLE--WATERS ONLY



LAS VEGAS QUADRANGLE--WATERS ONLY

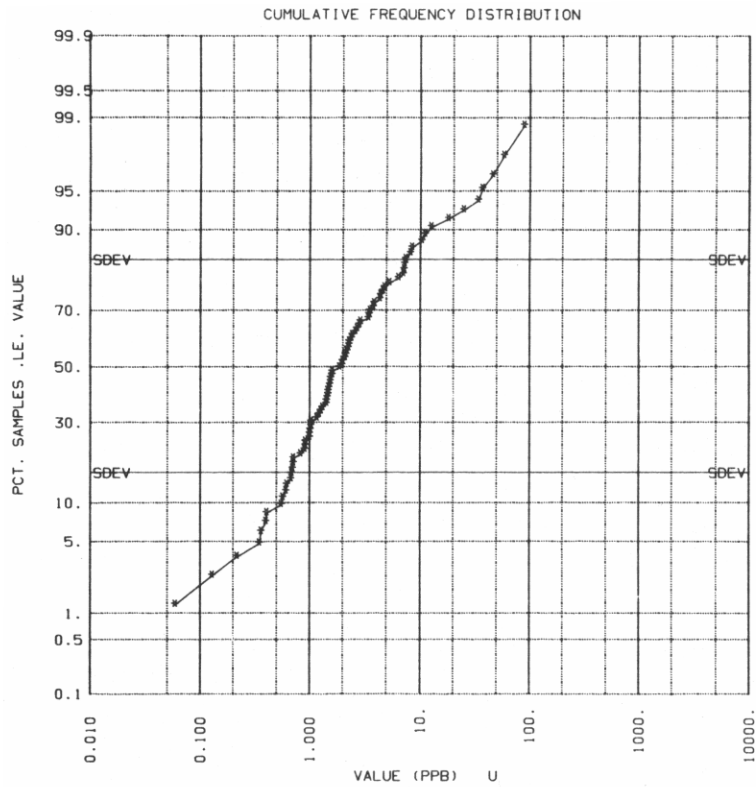
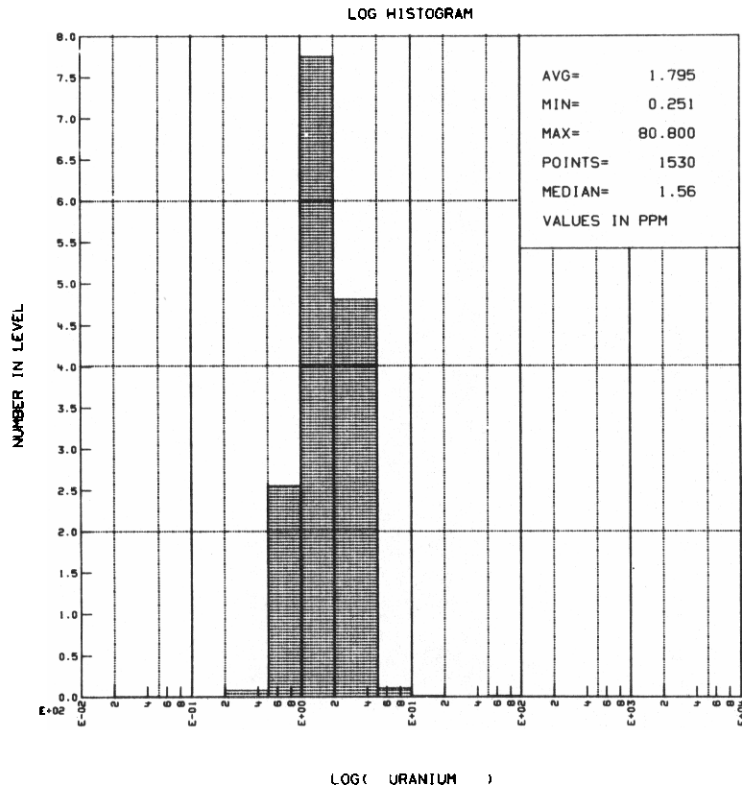


Fig. A-3. Histogram (a) and cumulative frequency distribution (b) of uranium concentration for water samples plotted on overlay 1B.

LAS VEGAS QUADRANGLE--SEDIMENTS ONLY



LAS VEGAS QUADRANGLE--SEDIMENTS ONLY

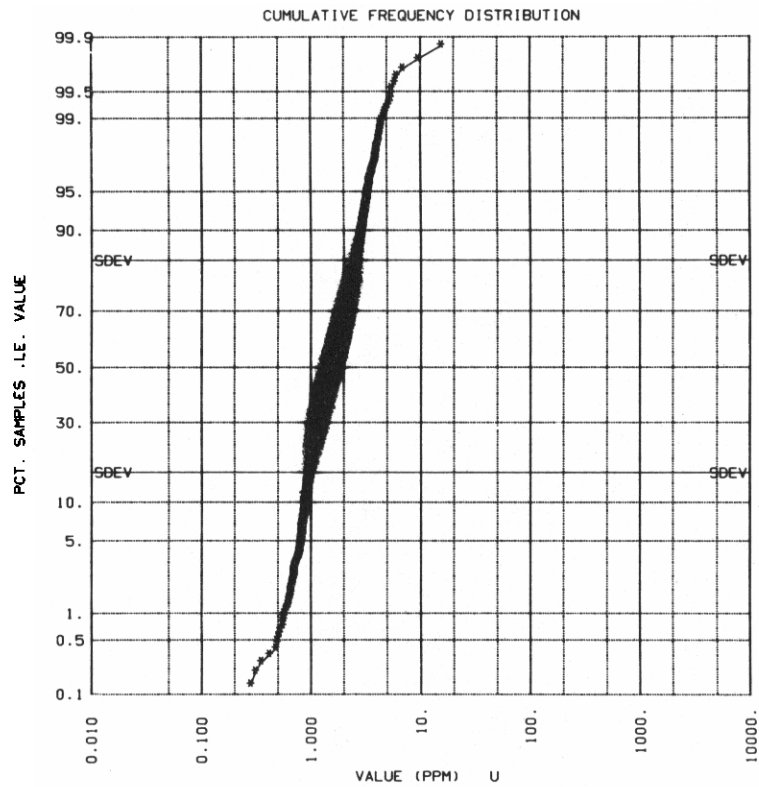
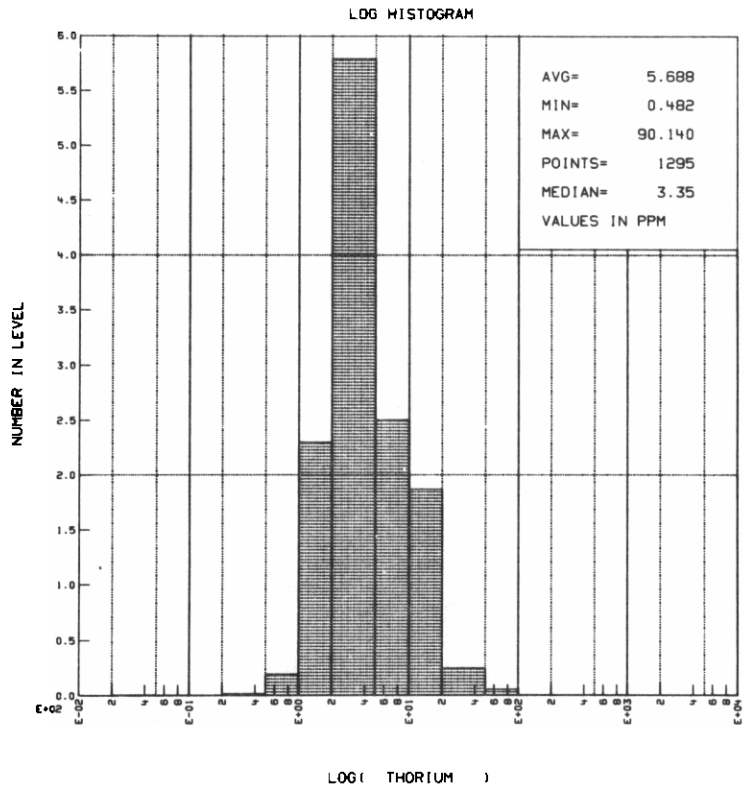


Fig. A-4. Histogram (a) and cumulative frequency distribution (b) of uranium concentration for sediment samples plotted on overlay 2B.

LAS VEGAS QUADRANGLE--SEDIMENTS ONLY



LAS VEGAS QUADRANGLE--SEDIMENTS ONLY

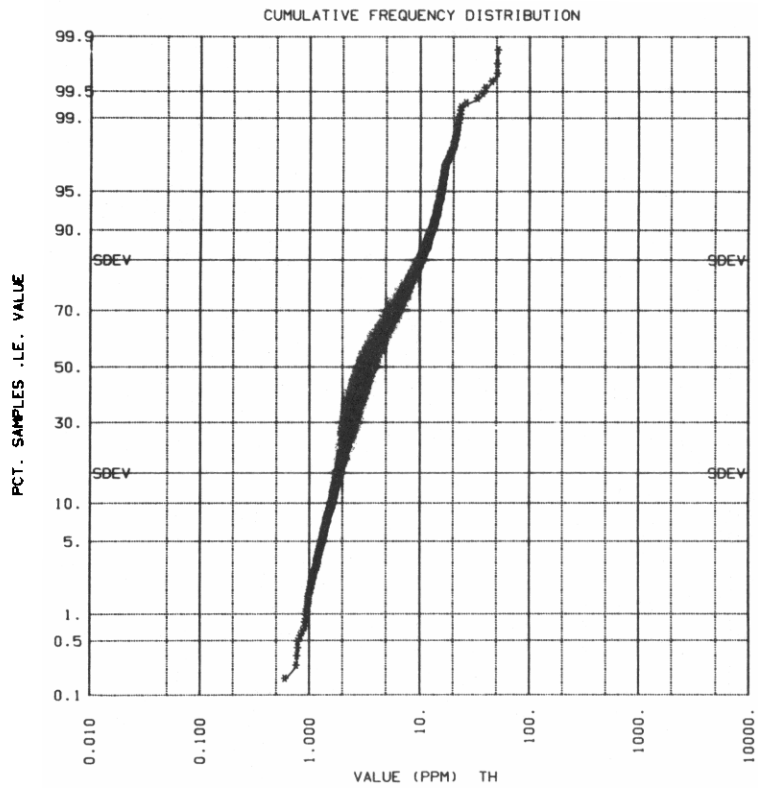
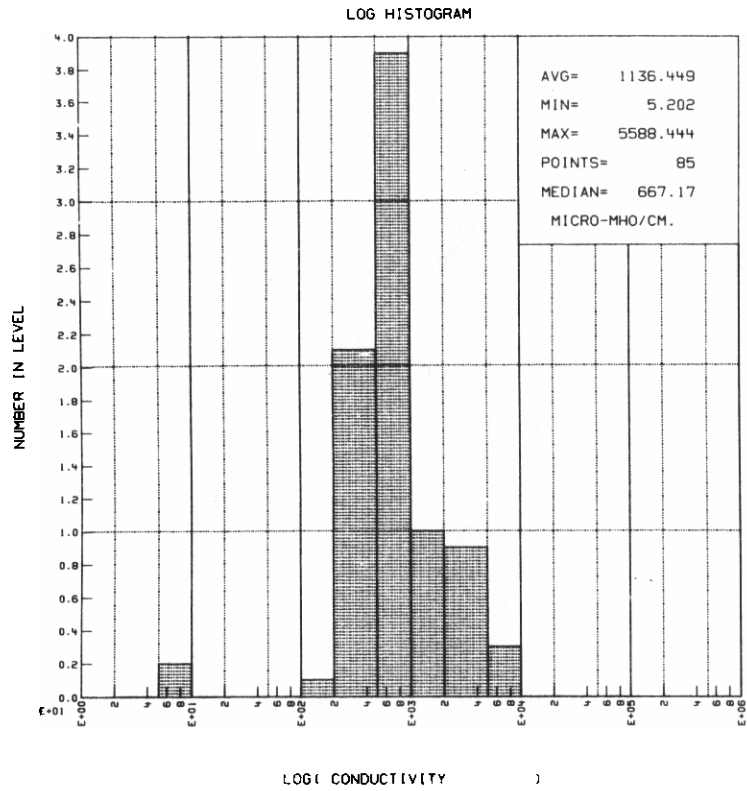


Fig. A-5. Histogram (a) and cumulative frequency distribution (b) of thorium concentration for sediment samples plotted on overlay 2C.

LAS VEGAS QUADRANGLE--WATERS ONLY



LAS VEGAS QUADRANGLE--WATERS ONLY

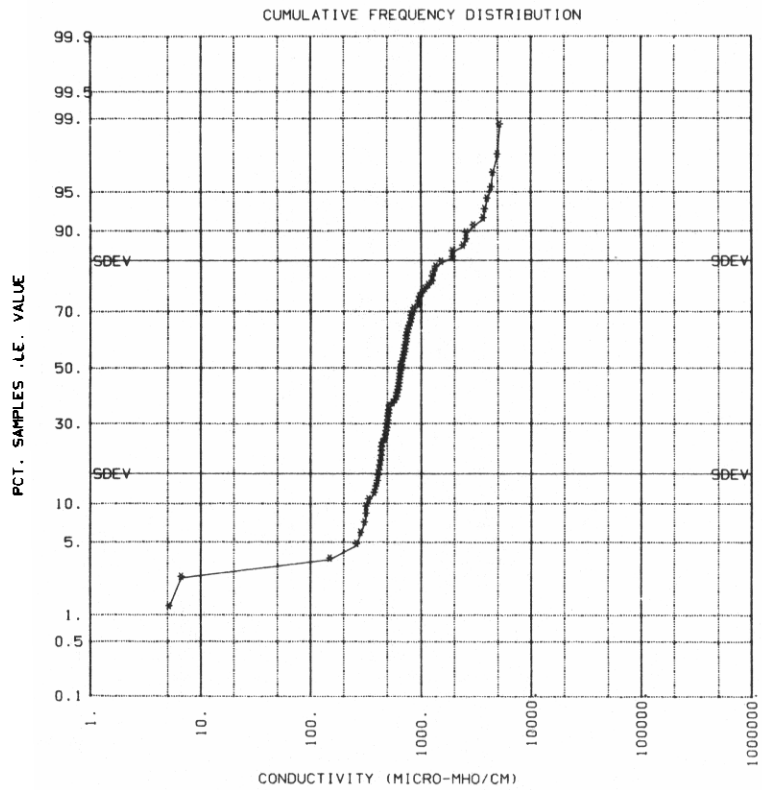


Fig. A-6. Histogram (a) and cumulative frequency distribution (b) of conductivity for water samples plotted on overlay 1C.

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 limits for INAA determinations are given in the text. Emission spectrometry detection limits are indicated in the data tables by the "less than" sign (<).

DOE SAMPLE NUMBER

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

<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</u> sample <u>untreated</u> .
02	<u>River</u> or <u>stream water</u> sample <u>untreated</u> .
03	<u>Well water</u> sample <u>untreated</u> .
04	<u>Lake</u> or <u>reservoir water</u> sample <u>untreated</u> .
06	<u>Spring water</u> sample <u>filtered</u> through a 0.45 μm membrane filter <u>and acidified</u> to a pH of 1 with high purity nitric acid (HNO_3).
07	<u>River</u> or <u>stream water</u> sample <u>filtered</u> through a 0.45 μm membrane filter <u>and acidified</u> to a pH of 1 with high purity nitric acid (HNO_3).
08	<u>Well water</u> sample <u>filtered</u> through a 0.45 μm membrane filter <u>and acidified</u> to a pH of 1 with high purity nitric acid (HNO_3).
09	<u>Lake</u> or <u>reservoir water</u> sample <u>filtered</u> through a 0.45 μm membrane filter <u>and acidified</u> to a pH of 1 with high purity nitric acid (HNO_3).
21	<u>Spring water</u> sample <u>filtered</u> through a 0.45 μm membrane filter.
22	<u>River</u> or <u>stream water</u> sample <u>filtered</u> through a 0.45 μm membrane filter.
23	<u>Well water</u> sample <u>filtered</u> through a 0.45 μm membrane filter.
24	<u>Lake</u> or <u>reservoir water</u> sample <u>filtered</u> through 0.45 μm membrane filter.
70	<u>Wet sediment</u> sample <u>dried</u> at 110 ^o C <u>and sieved</u> to the reported particle size range.
71	<u>Lake</u> or <u>reservoir sediment</u> sample <u>dried</u> at 110 ^o C <u>and sieved</u> to the reported particle size range.
72	<u>Dry sediment</u> sample <u>dried</u> at 110 ^o C <u>and sieved</u> to the reported particle size range.

- 73 Playa sediment sample taken by hand auger over the reported depth, dried at 100°C, and crushed to a fine powder.
- 74 Rock sample crushed and sieved to less than 250 µm.

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 (µmho/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 CaCO₃ 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 CaCO₃ 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. Where DNC values are not available, INAA determinations have been substituted and flagged with an asterisk (*). The error column contains a statistical estimate of measurement uncertainty expressed as a percentage of the concentration.

OTHER ELEMENTS

The trace element concentration of each element in the sample is given in parts-per-billion (PPB) by weight for waters and in parts-per-million (PPM) by weight for sediments. The error column (ERR) gives a numerical estimate (expressed in trace element concentration units) of the uncertainties associated with quantization of the elemental concentration.

APPENDIX B
NUMERICAL RESULTS OF RECONNAISSANCE SURVEY

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

SITE NUMBER	-----DOE SAMPLE NUMBER-----			DATE MO-DA-YR	SAMPLE SOURCE/COND,	PARTICLE SIZE		POS. CONT	Q. C. X-REF	URANIUM(DNC)		THORIUM(NAA)	
	ST	LAT, LONG,	L TY RPL			UPPER	LOWER			PPM	%ERR	PPM	ERR
9602	32-36,0084-114,9074-1-72-100	03/10/77	STREAM	DRY	1000	0500	1			1,95	2,14	15,56	2,89
9603	32-36,0202-114,9126-1-72-100	03/10/77	STREAM	DRY	1000	0500	1			2,02	1,93	11,88	2,43
9604	32-36,0138-114,8584-1-72-100	03/10/77	STREAM	DRY	1000	0500	1			3,05	1,63	16,29	2,80
9605	32-36,0056-114,8553-1-72-100	03/10/77	STREAM	DRY	1000	0500	1			2,87	1,63	15,15	2,77
9606	32-36,0228-114,9059-1-72-100	03/10/77	STREAM	DRY	1000	0500	9			3,01	1,52	15,79	2,27
9610	32-36,0640-114,8415-1-72-100	03/10/77	STREAM	DRY	1000	0500	1			2,72	1,56	16,01	2,15
9611	32-36,0773-114,8278-1-72-100	03/10/77	STREAM	DRY	1000	0500	1			2,68	1,53	16,15	2,07
9613	32-36,0302-114,8169-1-72-100	03/11/77	STREAM	DRY	1000	0500	1			2,58	1,76	14,37	2,82
9614	32-36,0384-114,8256-1-72-100	03/11/77	STREAM	DRY	1000	0500	1			2,53	1,64	12,52	2,14
10740	32-36,0073-114,7022-1-72-100	04/18/77	STREAM	DRY	1000	0500	1			1,50	1,50		
10741	32-36,0324-114,6959-1-72-100	04/19/77	STREAM	DRY	1000	0500	5			2,41	1,78	9,75	2,77
10742	32-36,0248-114,6750-1-72-100	04/19/77	STREAM	DRY	1000	0500	5			3,27	1,59	13,92	2,86
10748	32-36,0016-114,7356-1-72-100	04/19/77	STREAM	DRY	1000	0500	1			1,51	2,40	10,72	2,78
11103	32-36,0773-114,8278-1-72-100	03/30/77	STREAM	DRY	1000	0500	9		9611	3,44	1,43	14,41	2,40
11812	32-36,0166-115,0237-1-72-100	06/07/77	STREAM	DRY	1000	0500	1		13580	3,48	1,37	21,88	1,56
11815	32-36,1595-115,4825-1-72-100	06/07/77	STREAM	DRY	1000	0500	9		14003	1,01	1,71	2,12	0,40
11876	32-36,2619-115,8601-1-72-100	05/31/77	STREAM	DRY	1000	0500	1		12969	1,09	1,52	1,65	0,32
11877	32-36,3296-115,7722-1-72-100	05/31/77	STREAM	DRY	1000	0500	1		12705	0,97	1,60	1,63	0,28
11878	32-36,2316-115,8928-1-72-100	05/31/77	STREAM	DRY	1000	0500	1		13507	1,58	1,39		
11879	32-36,1230-115,8488-1-72-100	05/31/77	STREAM	DRY	1000	0500	1		13492	1,24	1,48	1,80	0,25
11879	32-36,1230-115,8488-1-72-101		STREAM	DRY	1000	0500				1,33	1,60	2,27	0,46
11880	32-36,1852-115,6755-1-72-100	06/01/77	STREAM	DRY	1000	0500	1		13848	2,14	1,39	3,29	0,67
11881	32-36,1906-115,6787-1-72-100	06/01/77	STREAM	DRY	1000	0500	1		13847	2,77	1,24	1,99	0,42
11882	32-36,1652-115,6581-1-72-100	06/01/77	STREAM	DRY	1000	0500	1		13852	2,72	1,25		
11883	32-36,2735-115,5204-1-72-100	06/07/77	STREAM	DRY	1000	0500	1		12768	1,70	1,38		
11884	32-36,2841-115,5781-1-72-100	06/07/77	STREAM	DRY	1000	0500	1		12764	1,70	1,41	2,18	0,50
11885	32-36,2625-115,6531-1-72-100	06/07/77	STREAM	DRY	1000	0500	1		12763	2,62	1,25		
11886	32-36,3033-115,6791-1-72-100	06/07/77	STREAM	DRY	1000	0500	1		12755	3,21	1,20		
11887	32-36,4692-115,4575-1-72-100	06/07/77	STREAM	DRY	1000	0500	7		13535	1,39	1,57	3,29	0,51
11888	32-36,5347-115,6506-1-72-100	06/07/77	STREAM	DRY	1000	0500	1		12747	1,80	1,39	1,99	0,45
11889	32-36,6734-114,6132-1-72-100	06/18/77	STREAM	DRY	1000	0500	9		14517	4,27	1,26	21,27	1,49
11889	32-36,6734-114,6132-1-72-101		STREAM	DRY	1000	0500				4,18	1,27	21,09	1,46
11890	32-36,8621-114,6712-1-72-100	06/08/77	STREAM	DRY	1000	0500	1		13979	2,54	1,33	9,83	0,88
11892	32-36,9918-114,6235-1-72-100	06/08/77	STREAM	DRY	1000	0500	1		13997	2,44	1,35	11,44	0,84
11894	32-36,7354-114,7389-1-72-100	06/08/77	STREAM	DRY	1000	0500	9		14525	2,96	1,31	12,79	0,92
11897	32-36,8300-114,2653-1-72-100	06/09/77	STREAM	DRY	1000	0500	1		13018	1,73	1,41		
11898	32-36,9099-114,2927-1-72-100	06/09/77	STREAM	DRY	1000	0500	1		13030	1,77	1,33		
11899	32-36,8173-114,1872-1-72-100	06/09/77	STREAM	DRY	1000	0500	1		14562	2,47	1,35	11,86	0,94
11899	32-36,8173-114,1872-1-72-101		STREAM	DRY	1000	0500				2,41	1,39	10,96	0,90
11902	32-36,8093-114,4700-1-72-100	06/09/77	STREAM	DRY	1000	0500	1		14547	1,60	1,43	1,66	0,48
12125	32-36,1262-115,1087-1-72-100	05/12/77	STREAM	DRY	1000	0500	9			2,94	1,63	5,59	1,16
12126	32-36,1594-115,0457-1-70-100	05/12/77	STREAM	WET	1000	0500	1			2,76	1,39	6,20	0,78
12128	32-36,1615-115,4980-1-70-100	05/13/77	STREAM	WET	1000	0500	1			0,94	2,22	2,52	1,07
12129	32-36,1738-115,4789-1-70-100	05/13/77	STREAM	WET	1000	0500	1			1,05	2,34	4,05	1,06
12130	32-36,1442-115,4172-1-70-100	05/13/77	STREAM	WET	1000	0500	1			0,25	2,83	0,48	0,15
12165	32-36,0414-115,8966-1-72-100		STREAM	DRY	1000	0500	9			1,60	1,75	3,62	0,73
12166	32-36,0875-115,9126-1-72-100		STREAM	DRY	1000	0500	9			80,80	1,03		
12174	32-36,4838-115,9718-1-70-100	05/30/77	STREAM	WET	1000	0500	1			2,32	1,73	5,81	0,87
12175	32-36,4446-115,9266-1-70-100	05/30/77	STREAM	WET	1000	0500	1			2,27	1,74	12,87	1,61

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

SITE NUMBER	-----DOE SAMPLE NUMBER-----				DATE MO-DA-YR	SAMPLE SOURCE/COND.	PARTICLE SIZE		POS. CONT	Q, C, X-REF	URANIUM(DNC)		THORIUM(NAA)	
	ST	LAT, LONG, L	TY RPL				UPPER	LOWER			PPM	%ERR	PPM	ERR
12176	32-36,5655-115,6679-1-70-100	05/30/77	STREAM	WET	1000	0500	1	1,93	1,35					
12177	32-36,4169-115,7630-1-70-100	05/30/77	STREAM	WET	1000	0500	1	9,58	1,24					
12178	32-36,3824-115,7435-1-70-100	05/30/77	STREAM	WET	1000	0500	1	3,98	1,45	20,50	2,72			
12179	32-36,9549-114,2889-1-72-100	05/31/77	STREAM	DRY	1000	0500	9	2,58	1,59	6,30	1,21			
12223	32-36,0651-115,0635-1-70-100	05/12/77	STREAM	WET	1000	0500	1	3,17	1,34	11,92	1,23			
12224	32-36,0913-115,0718-1-70-100	05/12/77	STREAM	WET	1000	0500	1	4,20	1,42					
12226	32-36,3422-115,7754-1-70-100	05/14/77	STREAM	WET	1000	0500	1	2,54	1,61	8,72	1,08			
12227	32-36,3764-115,7737-1-70-100	05/14/77	STREAM	WET	1000	0500	1	5,34	1,25	10,90	1,28			
12262	32-36,0522-115,4157-1-70-100	05/27/77	STREAM	WET	1000	0500	1	0,94	2,09	2,78	0,60			
12263	32-36,0628-115,4688-1-70-100	05/27/77	STREAM	WET	1000	0500	1	0,94	1,74					
12264	32-36,1428-115,5918-1-72-100	05/27/77	STREAM	DRY	1000	0500	1	2,47	1,85	10,93	1,46			
12265	32-36,1663-115,5980-1-70-100	05/27/77	STREAM	WET	1000	0500	1	4,75	1,30	13,66	1,54			
12266	32-36,1620-115,6192-1-70-100	05/27/77	STREAM	WET	1000	0500	1	3,44	1,32	10,99	1,12			
12267	32-36,2231-115,6849-1-70-100	05/28/77	STREAM	WET	1000	0500	1	3,26	1,38	5,81	0,99			
12268	32-36,1641-115,7248-1-70-100	05/28/77	STREAM	WET	1000	0500	1	1,50	1,53					
12271	32-36,0317-115,5793-1-70-100	05/29/77	STREAM	WET	1000	0500	1	2,18	1,69	4,87	1,17			
12272	32-36,1217-115,4921-1-70-100	05/29/77	STREAM	WET	1000	0500	1	0,83	1,77	1,80	0,30			
12274	32-36,2456-115,5231-1-70-100	05/30/77	STREAM	WET	1000	0500	1	2,05	1,54	5,01	0,88			
12275	32-36,3011-115,4898-1-70-100	05/30/77	STREAM	WET	1000	0500	1	1,76	1,61	4,98	1,05			
12277	32-36,3529-115,6771-1-70-100	05/30/77	STREAM	WET	1000	0500	1	6,11	1,41	5,30	1,54			
12281	32-36,9659-114,5018-1-70-100		STREAM	WET	1000	0500	1	1,14	1,77	1,42	0,53			
12658	32-36,6018-115,9658-1-72-100	05/07/77	STREAM	DRY	1000	0500	9	1,91	1,38					
12659	32-36,5362-115,9823-1-72-100	05/07/77	STREAM	DRY	1000	0500	1	3,53	1,21					
12659	32-36,5362-115,9823-1-72-101		STREAM	DRY	1000	0500	1	3,48	1,29	15,08	1,20			
12660	32-36,5215-115,9546-1-72-100	05/07/77	STREAM	DRY	1000	0500	1	1,55	1,59	8,24	0,83			
12661	32-36,5187-115,9479-1-72-100	05/07/77	STREAM	DRY	1000	0500	1	1,82	1,50	9,31	0,89			
12662	32-36,5222-115,9356-1-72-100	05/07/77	STREAM	DRY	1000	0500	1	1,13	1,78	3,69	0,59			
12663	32-36,5199-115,9769-1-72-100	05/07/77	STREAM	DRY	1000	0500	1	3,62	1,33	15,89	1,46			
12664	32-36,5073-115,9771-1-72-100	05/07/77	STREAM	DRY	1000	0500	1	4,38	1,16					
12665	32-36,4856-115,9752-1-72-100	05/07/77	STREAM	DRY	1000	0500	1	2,44	1,55	13,12	1,56			
12666	32-36,4602-115,9532-1-72-100	05/07/77	STREAM	DRY	1000	0500	1	2,19	1,59	9,43	1,79			
12667	32-36,4482-115,9266-1-72-100	05/07/77	STREAM	DRY	1000	0500	5	3,30	1,40	18,70	1,86			
12668	32-36,4481-115,9154-1-72-100	05/07/77	STREAM	DRY	1000	0500	1	2,25	1,43	10,18	0,95			
12669	32-36,4569-115,8907-1-72-100	05/07/77	STREAM	DRY	1000	0500	1	0,98	1,68	1,91	0,34			
12669	32-36,4569-115,8907-1-72-101		STREAM	DRY	1000	0500	1	0,90	1,78	1,80	0,51			
12670	32-36,4905-115,9126-1-72-100	05/07/77	STREAM	DRY	1000	0500	1	1,54	1,55	5,42	0,80			
12671	32-36,4976-115,8991-1-72-100	05/07/77	STREAM	DRY	1000	0500	1	1,06	1,68	1,78	0,51			
12672	32-36,5516-115,8894-1-72-100	05/07/77	STREAM	DRY	1000	0500	1	1,62	1,57	6,97	0,80			
12681	32-36,4397-115,9836-1-70-100	05/09/77	STREAM	WET	1000	0500	5	2,22	1,43	8,30	0,98			
12683	32-36,4261-115,9737-1-70-100	05/09/77	STREAM	WET	1000	0500	5	2,52	1,37	8,81	0,91			
12684	32-36,3981-115,9707-1-70-100	05/09/77	STREAM	WET	1000	0500	5	1,97	1,45	8,35	0,85			
12685	32-36,3972-115,9696-1-70-100	05/09/77	STREAM	WET	1000	0500	5	1,71	1,53	7,51	0,83			
12686	32-36,3995-115,9161-1-70-100	05/09/77	STREAM	WET	1000	0500	5	1,27	1,56	2,92	0,47			
12687	32-36,3907-115,9418-1-70-100	05/09/77	STREAM	WET	1000	0500	5	1,74	1,40					
12688	32-36,3771-115,9387-1-70-100	05/09/77	STREAM	WET	1000	0500	5	1,54	1,55	6,47	0,80			
12689	32-36,3572-115,9245-1-70-100	05/09/77	STREAM	WET	1000	0500	5	1,92	1,38					
12689	32-36,3572-115,9245-1-70-101		STREAM	WET	1000	0500	1	1,77	1,49	9,69	0,90			
12690	32-36,3952-115,9462-1-70-100	05/09/77	STREAM	WET	1000	0500	5	1,81	1,46	7,72	0,82			
12691	32-36,3391-115,9180-1-70-100	05/10/77	STREAM	WET	1000	0500	5	1,46	1,59	6,34	0,73			

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

SITE NUMBER	DOE ST	SAMPLE NUMBER			DATE MO-DA-YR	SAMPLE SOURCE/COND.	PARTICLE SIZE		POS. CONT	Q. C. X-REF	URANIUM(DNC)		THORIUM(NAA)	
		LAT,	LONG,	L TY RPL			UPPER	LOWER			PPM	%ERR	PPM	ERR
12692	32-36	3282-115,9104-1-70-100	05/09/77	STREAM	WET	1000	0500	5		1.48	1.66	6.74	0.89	
12693	32-36	3129-115,9095-1-70-100	05/10/77	STREAM	WET	1000	0500	5		1.86	1.45	7.16	0.79	
12694	32-36	2998-115,8607-1-70-100	05/10/77	STREAM	WET	1000	0500	5		1.97	1.44	8.83	0.81	
12695	32-36	2952-115,8518-1-70-100	05/10/77	STREAM	WET	1000	0500	5		1.64	1.56	5.93	0.64	
12696	32-36	2610-115,8601-1-70-100	05/10/77	STREAM	WET	1000	0500	5		1.12	1.56	1.64	0.39	
12697	32-36	2673-115,7687-1-70-100	05/10/77	STREAM	WET	1000	0500	1		1.11	1.88	1.80	0.81	
12698	32-36	2718-115,7664-1-70-100	05/10/77	STREAM	WET	1000	0500	5		1.50	1.67	2.42	0.53	
12699	32-36	2729-115,7831-1-70-100	05/10/77	STREAM	WET	1000	0500	5		0.91	1.75			
12699	32-36	2729-115,7831-1-70-101		STREAM	WET	1000	0500			0.90	1.79	1.98	0.48	
12700	32-36	2892-115,7907-1-70-100	05/10/77	STREAM	WET	1000	0500	5		0.92	1.92	2.21	0.43	
12701	32-36	2781-115,8532-1-70-100	05/10/77	STREAM	WET	1000	0500	5		2.07	1.34	1.99	0.42	
12702	32-36	2887-115,8330-1-70-100	05/10/77	STREAM	WET	1000	0500	5		3.44	1.22	1.96	0.41	
12703	32-36	3172-115,7958-1-70-100	05/10/77	STREAM	WET	1000	0500	5		0.94	1.90	3.08	0.38	
12704	32-36	3212-115,7490-1-70-100	05/10/77	STREAM	WET	1000	0500	5		1.01	1.96	5.21	0.61	
12705	32-36	3296-115,7722-1-70-100	05/10/77	STREAM	WET	1000	0500	5		1.23	1.55	2.49	0.66	
12706	32-36	3255-115,8135-1-70-100	05/10/77	STREAM	WET	1000	0500	5		1.88	1.49	2.02	0.46	
12707	32-36	3368-115,7777-1-70-100	05/11/77	STREAM	WET	1000	0500	5		1.39	1.48	1.81	0.39	
12708	32-36	3247-115,8247-1-70-100	05/11/77	STREAM	WET	1000	0500	5		2.20	1.42	4.65	0.76	
12709	32-36	3363-115,8145-1-70-100	05/11/77	STREAM	WET	1000	0500	5		1.61	1.51	7.36	0.76	
12709	32-36	3363-115,8145-1-70-101		STREAM	WET	1000	0500			1.62	1.59	7.93	0.84	
12710	32-36	3426-115,8188-1-70-100	05/11/77	STREAM	WET	1000	0500	5		1.66	1.61	7.86	0.86	
12711	32-36	3491-115,8310-1-70-100	05/11/77	STREAM	WET	1000	0500	5		1.11	1.78	4.40	0.65	
12712	32-36	3735-115,8384-1-70-100	05/11/77	STREAM	WET	1000	0500	5		1.95	1.76	13.58	1.28	
12713	32-36	3743-115,8284-1-70-100	05/11/77	STREAM	WET	1000	0500	5		0.72	1.94	2.44	0.41	
12714	32-36	3989-115,8559-1-70-100	05/11/77	STREAM	WET	1000	0500	5		2.21	1.68	15.25	1.40	
12715	32-36	4088-115,8546-1-70-100	05/11/77	STREAM	WET	1000	0500	5		1.10	1.86	6.41	0.75	
12716	32-36	4196-115,8533-1-70-100	05/11/77	STREAM	WET	1000	0500	5		1.31	1.64	6.84	0.70	
12717	32-36	4187-115,8556-1-70-100	05/11/77	STREAM	WET	1000	0500	5		1.02	1.71	2.73	0.40	
12718	32-36	4224-115,8578-1-70-100	05/11/77	STREAM	WET	1000	0500	5		0.97	1.70	1.17	0.37	
12719	32-36	4575-115,8606-1-70-100	05/11/77	STREAM	WET	1000	0500	5		1.01	1.69	2.40	0.41	
12719	32-36	4575-115,8606-1-70-101		STREAM	WET	1000	0500			1.10	1.61	2.56	0.59	
12720	32-36	4745-115,8425-1-70-100	05/11/77	STREAM	WET	1000	0500	9		1.07	1.66	2.66	0.42	
12721	32-36	4549-115,6955-1-72-100	05/11/77	STREAM	DRY	1000	0500	1		0.93	1.80	2.17	0.50	
12722	32-36	4050-115,7420-1-72-100	05/11/77	STREAM	DRY	1000	0500	1		3.32	1.30	5.56	0.92	
12723	32-36	4232-115,7629-1-70-100	05/11/77	STREAM	WET	1000	0500	1		2.58	1.61	7.82	1.09	
12724	32-36	4071-115,7721-1-72-100	05/11/77	STREAM	DRY	1000	0500	1		2.86	1.31	2.86	0.60	
12725	32-36	4251-115,7729-1-72-100	05/11/77	STREAM	DRY	1000	0500	5		2.20	1.44	10.42	1.13	
12726	32-36	4531-115,7792-1-72-100	05/12/77	STREAM	DRY	1000	0500	5		1.88	1.46	8.13	0.84	
12727	32-36	4776-115,7956-1-72-100	05/12/77	STREAM	DRY	1000	0500	5		1.00	1.66	1.59	0.34	
12728	32-36	4697-115,8147-1-72-100	05/12/77	STREAM	DRY	1000	0500	5		1.19	1.68	3.23	0.50	
12729	32-36	4121-115,7319-1-72-100	05/12/77	STREAM	DRY	1000	0500	1		0.96	1.71	1.69	0.36	
12730	32-36	4215-115,6860-1-72-100	05/12/77	STREAM	DRY	1000	0500	1		1.67	1.48	2.32	0.50	
12731	32-36	4061-115,6840-1-72-100	05/12/77	STREAM	DRY	1000	0500	1		1.34	1.50			
12732	32-36	3821-115,7090-1-72-100	05/12/77	STREAM	DRY	1000	0500	1		0.96	1.88	2.29	0.51	
12733	32-36	3875-115,7133-1-72-100	05/12/77	STREAM	DRY	1000	0500	1		1.10	1.75	2.76	0.48	
12734	32-36	4523-115,6208-1-72-100	05/12/77	STREAM	DRY	1000	0500	1		1.56	1.53	2.58	0.71	
12735	32-36	4576-115,6129-1-72-100	05/12/77	STREAM	DRY	1000	0500	1		1.53	1.47	2.11	0.48	
12736	32-36	4136-115,5467-1-72-100	05/12/77	STREAM	DRY	1000	0500	1		1.01	1.59			
12737	32-36	3471-115,5691-1-70-100	05/13/77	STREAM	WET	1000	0500	1		2.06	1.67	6.03	0.86	

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

SITE NUMBER	-----DOE SAMPLE NUMBER-----			DATE MO-DA-YR	SAMPLE SOURCE/COND.	PARTICLE SIZE		POS. CONT	Q. C. X-REF	URANIUM(DNC)		THORIUM(NAA)		
	ST	LAT.	LONG.			L	TY			RPL	UPPER	LOWER	PPM	%ERR
12738	32-36	3642	-115,5666	-1-70-100	05/13/77	STREAM	WET	1000	0500	1	1.46	1.58	2.95	0.61
12739	32-36	3796	-115,5674	-1-70-100	05/13/77	STREAM	WET	1000	0500	1	1.52	1.47	1.74	0.34
12740	32-36	3922	-115,5650	-1-70-100	05/13/77	STREAM	WET	1000	0500	5	1.07	1.71	1.22	0.33
12741	32-36	4767	-115,5456	-1-70-100	05/13/77	STREAM	WET	1000	0500	5	1.11	1.64	2.97	0.43
12742	32-36	4444	-115,5607	-1-70-100	05/13/77	STREAM	WET	1000	0500	5	0.98	1.65		
12743	32-36	5542	-115,6994	-1-70-100	05/13/77	STREAM	WET	1000	0500	1	2.47	1.35	3.65	0.57
12744	32-36	5291	-115,7132	-1-70-100	05/13/77	STREAM	WET	1000	0500	1	1.67	1.41	1.60	0.41
12745	32-36	5434	-115,7074	-1-70-100	05/13/77	STREAM	WET	1000	0500	1	2.46	1.43	3.32	0.62
12746	32-36	5483	-115,6582	-1-70-100	05/13/77	STREAM	WET	1000	0500	1	2.58	1.30	3.28	0.58
12747	32-36	5347	-115,6506	-1-70-100	05/13/77	STREAM	WET	1000	0500	1	2.00	1.38	2.04	0.51
12748	32-36	5017	-115,6880	-1-70-100	05/13/77	STREAM	WET	1000	0500	1	1.37	1.50	2.60	0.47
12749	32-36	5068	-115,6578	-1-70-100	05/13/77	STREAM	WET	1000	0500	1	1.68	1.45	2.10	0.44
12749	32-36	5068	-115,6578	-1-70-101		STREAM	WET	1000	0500		1.59	1.42		
12750	32-36	5573	-115,6558	-1-70-100	05/13/77	STREAM	WET	1000	0500	1	1.54	1.52	2.87	0.56
12751	32-36	3571	-115,6503	-1-70-100	05/14/77	STREAM	WET	1000	0500	1	0.87	1.79	4.62	0.47
12752	32-36	3453	-115,6449	-1-70-100	05/14/77	STREAM	WET	1000	0500	1	0.87	1.73	2.00	0.43
12753	32-36	3373	-115,6562	-1-70-100	05/14/77	STREAM	WET	1000	0500	1	1.43	1.63	5.22	0.61
12754	32-36	3257	-115,6664	-1-70-100	05/14/77	STREAM	WET	1000	0500	1	1.18	2.04	6.59	0.86
12755	32-36	3033	-115,6791	-1-70-100	05/14/77	STREAM	WET	1000	0500	1	3.29	1.27	1.65	0.41
12756	32-36	3195	-115,6743	-1-70-100	05/14/77	STREAM	WET	1000	0500	1	1.79	1.61	8.53	0.94
12757	32-36	3194	-115,6699	-1-70-100	05/14/77	STREAM	WET	1000	0500	1	1.24	1.80	1.81	0.53
12758	32-36	3353	-115,6351	-1-70-100	05/14/77	STREAM	WET	1000	0500	1	1.14	1.86	2.46	0.51
12759	32-36	3126	-115,6199	-1-70-100	05/14/77	STREAM	WET	1000	0500	1	1.39	2.01	4.65	0.72
12760	32-36	3216	-115,6231	-1-70-100	05/14/77	STREAM	WET	1000	0500	1	1.10	1.70	1.73	0.39
12761	32-36	2679	-115,6574	-1-70-100	05/14/77	STREAM	WET	1000	0500	1	2.28	1.29		
12762	32-36	2716	-115,6674	-1-70-100	05/14/77	STREAM	WET	1000	0500	1	2.53	1.27	1.83	0.47
12763	32-36	2625	-115,6531	-1-70-100	05/14/77	STREAM	WET	1000	0500	1	2.61	1.30	2.04	0.53
12764	32-36	2841	-115,5792	-1-70-100	05/14/77	STREAM	WET	1000	0500	1	1.57	1.51	2.05	0.47
12765	32-36	2859	-115,5747	-1-72-100	05/14/77	STREAM	DRY	1000	0500	1			1.73	0.36
12766	32-36	2756	-115,5437	-1-70-100	05/14/77	STREAM	WET	1000	0500	1	2.72	1.28		
12767	32-36	2788	-115,5092	-1-70-100	05/14/77	STREAM	WET	1000	0500	1	1.72	1.41	1.70	0.42
12768	32-36	2735	-115,5204	-1-70-100	05/14/77	STREAM	WET	1000	0500	1	1.84	1.56	1.83	0.47
12769	32-36	2538	-115,5274	-1-72-100	05/14/77	STREAM	DRY	1000	0500	1	2.10	1.45	2.87	0.57
12770	32-36	4905	-115,9115	-1-72-100	05/14/77	STREAM	DRY	1000	0500	1	2.07	1.40	2.30	0.58
12771	32-36	2414	-115,5444	-1-72-100	05/14/77	STREAM	DRY	1000	0500	1	1.85	1.35	1.83	0.40
12772	32-36	2387	-115,5444	-1-72-100	05/14/77	STREAM	DRY	1000	0500	1	2.94	1.28	3.14	0.64
12773	32-36	2392	-115,5188	-1-72-100	05/14/77	STREAM	DRY	1000	0500	1	2.19	1.39	4.87	0.83
12774	32-36	2193	-115,5069	-1-72-100	05/14/77	STREAM	DRY	1000	0500	1	3.01	1.24		
12775	32-36	2335	-115,4911	-1-72-100	05/14/77	STREAM	DRY	1000	0500	1	2.94	1.28	2.51	0.61
12776	32-36	2490	-115,4329	-1-72-100	05/15/77	STREAM	DRY	1000	0500	1	1.93	1.31		
12777	32-36	2491	-115,4452	-1-72-100	05/15/77	STREAM	DRY	1000	0500	1	3.22	1.24	1.87	0.47
12778	32-36	3420	-115,5180	-1-72-100	05/15/77	STREAM	DRY	1000	0500	5	2.18	1.31	1.72	0.40
12779	32-36	3402	-115,5158	-1-72-100	05/15/77	STREAM	DRY	1000	0500	5	2.32	1.36	3.45	0.68
12780	32-36	3573	-115,5155	-1-72-100	05/15/77	STREAM	DRY	1000	0500	5	1.40	1.42		
12781	32-36	2420	-115,3173	-1-72-100	05/15/77	STREAM	DRY	1000	0500	1	0.93	1.72	1.92	0.42
12782	32-36	2374	-115,3119	-1-72-100	05/15/77	STREAM	DRY	1000	0500	1	1.35	1.46		
12783	32-36	2305	-115,3332	-1-72-100	05/15/77	STREAM	DRY	1000	0500	1	1.67	1.37		
12784	32-36	2188	-115,3379	-1-72-100	05/15/77	STREAM	DRY	1000	0500	1	0.83	1.69	1.38	0.33
12785	32-36	2414	-115,3418	-1-72-100	05/15/77	STREAM	DRY	1000	0500	1	1.24	1.51	1.58	0.40

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

SITE NUMBER	-----DOE SAMPLE NUMBER-----			DATE MO-DA-YR	SAMPLE SOURCE/COND.	PARTICLE SIZE		POS. CONT	Q. C. X-REF	URANIUM(DNC)		THORIUM(NAA)		
	ST	LAT, LONG,	L TY RPL			UPPER	LOWER			PPM	%ERR	PPM	ERR	
12786	32-36	2444-115,3618-1	-72-100	05/15/77	STREAM	DRY	1000	0500	1		0.62	1.83		
12787	32-36	2365-115,3764-1	-72-100	05/15/77	STREAM	DRY	1000	0500	1		1.01	1.56	1.44	0.34
12788	32-36	2375-115,3820-1	-72-100	05/15/77	STREAM	DRY	1000	0500	1		0.92	1.64	1.02	0.27
12789	32-36	2172-115,2867-1	-72-100	05/15/77	STREAM	DRY	1000	0500	1		1.07	1.64	2.04	0.47
12789	32-36	2172-115,2867-1	-72-101		STREAM	DRY	1000	0500			0.97	1.66	1.61	0.41
12790	32-36	1855-115,2774-1	-72-100	05/15/77	STREAM	DRY	1000	0500	1		1.42	1.48	3.00	0.44
12791	32-36	1728-115,2721-1	-72-100	05/15/77	STREAM	DRY	1000	0500	1		1.05	1.58	1.27	0.33
12792	32-36	2110-115,3592-1	-72-100	05/17/77	STREAM	DRY	1000	0500	1		1.32	1.45	1.41	0.33
12794	32-36	2123-115,3892-1	-72-100	05/17/77	STREAM	DRY	1000	0500	1		0.88	1.63	1.09	0.31
12795	32-36	2089-115,4059-1	-72-100	05/17/77	STREAM	DRY	1000	0500	1		0.63	1.89	0.92	0.29
12796	32-36	2099-115,4081-1	-72-100	05/17/77	STREAM	DRY	1000	0500	1		0.81	1.68	0.92	0.27
12797	32-36	1851-115,3775-1	-72-100	05/17/77	STREAM	DRY	1000	0500	1		0.81	1.77	1.34	0.34
12798	32-36	1877-115,4386-1	-72-100	05/17/77	STREAM	DRY	1000	0500	1		0.89	1.54		
12799	32-36	1849-115,4286-1	-72-100	05/17/77	STREAM	DRY	1000	0500	1		0.77	1.71	0.94	0.30
12799	32-36	1849-115,4286-1	-72-101		STREAM	DRY	1000	0500			0.80	1.91	1.04	0.36
12800	32-36	1531-115,4115-1	-72-100	05/17/77	STREAM	DRY	1000	0500	1		2.50	1.34	10.57	0.92
12971	32-36	5895-114,9421-1	-72-100	05/17/77	STREAM	DRY	1000	0500	1		2.29	1.32		
12972	32-36	5997-114,9072-1	-72-100	05/17/77	STREAM	DRY	1000	0500	1		0.91	1.70		
12973	32-36	6248-114,9009-1	-72-100	05/17/77	STREAM	DRY	1000	0500	1		1.17	1.61		
12974	32-36	6302-114,9555-1	-72-100	05/17/77	STREAM	DRY	1000	0500	1		1.03	1.71		
12975	32-36	6306-114,9253-1	-72-100	05/17/77	STREAM	DRY	1000	0500	1		1.05	1.70		
12976	32-36	6251-114,9177-1	-72-100	05/17/77	STREAM	DRY	1000	0500	1		0.86	1.88	2.27	0.48
12977	32-36	6471-114,9372-1	-72-100	05/17/77	STREAM	DRY	1000	0500	1		0.84	1.74		
12978	32-36	6527-114,9494-1	-72-100	05/17/77	STREAM	DRY	1000	0500	1		1.37	1.41		
12979	32-36	6671-114,9490-1	-72-100	05/17/77	STREAM	DRY	1000	0500	1		1.81	1.42	1.69	0.51
12979	32-36	6671-114,9490-1	-72-101		STREAM	DRY	1000	0500			1.87	1.35		
12980	32-36	6743-114,9488-1	-72-100	05/17/77	STREAM	DRY	1000	0500	1		2.27	1.34		
12981	32-36	6906-114,9562-1	-72-100	05/17/77	STREAM	DRY	1000	0500	1		2.29	1.31		
12982	32-36	7073-114,9311-1	-72-100	05/17/77	STREAM	DRY	1000	0500	1		2.20	1.37	2.21	0.58
12983	32-36	7417-114,8888-1	-72-100	05/17/77	STREAM	DRY	1000	0500	1		0.89	1.80	1.92	0.38
12984	32-36	7088-114,9635-1	-72-100	05/18/77	STREAM	DRY	1000	0500	1		0.93	1.76	1.45	0.37
12985	32-36	6932-114,8946-1	-72-100	05/17/77	STREAM	DRY	1000	0500	1		0.99	1.61		
12986	32-36	6905-114,8958-1	-72-100	05/17/77	STREAM	DRY	1000	0500	1		0.98	1.73	2.35	0.47
12987	32-36	6636-114,9054-1	-72-100	05/17/77	STREAM	DRY	1000	0500	1		1.08	1.73	2.46	0.45
12988	32-36	6400-114,8960-1	-72-100	05/17/77	STREAM	DRY	1000	0500	1		1.17	1.69	2.76	0.64
12989	32-36	5096-114,9096-1	-72-100	05/18/77	STREAM	DRY	1000	0500	1		2.70	1.31	3.28	0.56
12989	32-36	5096-114,9096-1	-72-101		STREAM	DRY	1000	0500			2.55	1.30	2.80	0.65
12990	32-36	5453-114,8919-1	-72-100	05/18/77	STREAM	DRY	1000	0500	1		1.56	1.42		
12991	32-36	5440-114,8707-1	-72-100	05/18/77	STREAM	DRY	1000	0500	1		1.39	1.53		
12992	32-36	5565-114,8603-1	-72-100	05/18/77	STREAM	DRY	1000	0500	1		0.96	1.94	2.45	0.51
12993	32-36	5745-114,8620-1	-72-100	05/18/77	STREAM	DRY	1000	0500	1		0.86	1.87	0.95	0.33
12994	32-36	5747-114,8699-1	-72-100	05/18/77	STREAM	DRY	1000	0500	1		1.18	1.50		
12995	32-36	5856-114,8763-1	-72-100	05/18/77	STREAM	DRY	1000	0500	1		0.78	2.01	1.83	0.57
12996	32-36	5811-114,8753-1	-72-100	05/18/77	STREAM	DRY	1000	0500	1		0.83	1.87	1.29	0.46
12997	32-36	5969-114,8558-1	-72-100	05/18/77	STREAM	DRY	1000	0500	1		0.80	1.83		
12998	32-36	6123-114,8576-1	-72-100	05/18/77	STREAM	DRY	1000	0500	1		1.11	1.93	3.99	0.72
12999	32-36	6305-114,8650-1	-72-100	05/18/77	STREAM	DRY	1000	0500	1		0.90	1.74	1.35	0.34
12999	32-36	6305-114,8650-1	-72-101		STREAM	DRY	1000	0500			0.87	1.77	1.30	0.36
13000	32-36	5750-114,7905-1	-72-100	05/18/77	STREAM	DRY	1000	0500	1		2.01	1.58	5.35	1.08

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

SITE NUMBER	-----DOE SAMPLE NUMBER-----			DATE MO-DA-YR	SAMPLE SOURCE/COND.	PARTICLE SIZE		POS. CONT	Q, C, X-REF	URANIUM(DNC)		THORIUM(NAA)		
	ST	LAT.	LONG.			L	TY			RPL	UPPER	LOWER	PPM	%ERR
13001	32-36	5975-114	7876-1-72-100	05/18/77	STREAM	DRY	1000	0500	1		0.85	1.76		
13002	32-36	6343-114	7776-1-72-100	05/19/77	STREAM	DRY	1000	0500	1		1.11	1.81	2.72	0.91
13003	32-36	6726-114	7564-1-72-100	05/19/77	STREAM	DRY	1000	0500	1		0.83	1.75		
13004	32-36	6358-114	8100-1-72-100	05/19/77	STREAM	DRY	1000	0500	1		0.95	1.80	1.53	0.42
13005	32-36	6646-114	8070-1-72-100	05/19/77	STREAM	DRY	1000	0500	1		0.77	1.88		
13006	32-36	6726-114	8056-1-72-100	05/19/77	STREAM	DRY	1000	0500	1		1.11	1.88	3.05	0.74
13007	32-36	6418-114	8423-1-72-100	05/19/77	STREAM	DRY	1000	0500	1		0.95	1.77		
13008	32-36	6689-114	8460-1-72-100	05/19/77	STREAM	DRY	1000	0500	1		0.96	1.67		
13009	32-36	6853-114	8545-1-72-100	05/19/77	STREAM	DRY	1000	0500	1		1.05	1.66		
13009	32-36	6853-114	8545-1-72-101		STREAM	DRY	1000	0500	1		1.05	1.61	1.71	0.39
13010	32-36	6952-114	8576-1-72-100	05/19/77	STREAM	DRY	1000	0500	1		0.89	1.78	1.41	0.36
13011	32-36	7134-114	8660-1-72-100	05/19/77	STREAM	DRY	1000	0500	1		1.12	1.71	3.85	0.55
13012	32-36	7115-114	8112-1-72-100	05/20/77	STREAM	DRY	1000	0500	1		0.94	1.68		
13013	32-36	6893-114	7783-1-72-100	05/20/77	STREAM	DRY	1000	0500	1		2.08	1.38		
13014	32-36	7343-114	7792-1-72-100	05/20/77	STREAM	DRY	1000	0500	1		1.23	1.58	2.10	0.44
13015	32-36	7418-114	7936-1-72-100	05/20/77	STREAM	DRY	1000	0500	1		2.69	1.39	12.24	1.00
13016	32-36	7487-114	8718-1-72-100	05/20/77	STREAM	DRY	1000	0500	1		1.69	1.48	1.98	0.49
13017	32-36	7253-114	8747-1-72-100	05/20/77	STREAM	DRY	1000	0500	1		1.15	1.61		
13018	32-36	8291-114	2653-1-72-100	05/20/77	STREAM	DRY	1000	0500	1		1.87	1.47	4.33	0.77
13019	32-36	8406-114	2581-1-72-100	05/20/77	STREAM	DRY	1000	0500	1		1.80	1.43	1.88	0.51
13019	32-36	8406-114	2581-1-72-101		STREAM	DRY	1000	0500	1		1.79	1.41	1.63	0.40
13020	32-36	8504-114	2892-1-72-100	05/20/77	STREAM	DRY	1000	0500	1		1.88	1.51	2.18	0.73
13021	32-36	8465-114	2781-1-72-100	05/20/77	STREAM	DRY	1000	0500	1		1.99	1.52	2.48	1.04
13022	32-36	8616-114	2697-1-72-100	05/20/77	STREAM	DRY	1000	0500	1		1.36	1.58		
13023	32-36	8656-114	2864-1-72-100	05/20/77	STREAM	DRY	1000	0500	1		1.82	1.48	2.69	0.52
13024	32-36	7947-114	3001-1-72-100	05/21/77	STREAM	DRY	1000	0500	1		1.11	1.76	3.08	0.55
13025	32-36	8351-114	2909-1-72-100	05/21/77	STREAM	DRY	1000	0500	1		1.95	1.50	3.09	0.61
13026	32-36	8604-114	2967-1-72-100	05/21/77	STREAM	DRY	1000	0500	1		2.33	1.46	3.80	0.73
13027	32-36	8909-114	2889-1-72-100	05/21/77	STREAM	DRY	1000	0500	1		1.71	1.56	2.62	0.67
13028	32-36	8852-114	3138-1-72-100	05/21/77	STREAM	DRY	1000	0500	1		1.25	1.56	1.30	0.32
13029	32-36	9030-114	3042-1-72-100	05/21/77	STREAM	DRY	1000	0500	1		1.16	1.62		
13029	32-36	9030-114	3042-1-72-101		STREAM	DRY	1000	0500	1		1.10	1.62	1.41	0.38
13030	32-36	9099-114	2927-1-72-100	05/21/77	STREAM	DRY	1000	0500	1		1.84	1.48		
13031	32-36	9206-114	2867-1-72-100	05/21/77	STREAM	DRY	1000	0500	1		2.37	1.45	2.82	1.37
13032	32-36	9605-114	2988-1-72-100	05/21/77	STREAM	DRY	1000	0500	1		3.49	1.26	2.88	0.73
13033	32-36	9724-114	3051-1-72-100	05/21/77	STREAM	DRY	1000	0500	1		1.15	1.59	1.51	0.36
13034	32-36	9884-114	2955-1-72-100	05/21/77	STREAM	DRY	1000	0500	1		1.11	1.70	2.14	0.45
13035	32-36	7782-114	3657-1-72-100	05/21/77	STREAM	DRY	1000	0500	1		0.95	1.63	1.54	0.25
13036	32-36	8661-114	3481-1-72-100	05/22/77	STREAM	DRY	1000	0500	1		1.35	1.81	3.83	0.86
13037	32-36	8364-114	3480-1-72-100	05/22/77	STREAM	DRY	1000	0500	1		1.06	1.71	3.48	0.60
13038	32-36	8186-114	3598-1-72-100	05/22/77	STREAM	DRY	1000	0500	1		1.09	1.72	2.77	0.56
13039	32-36	8648-114	4098-1-72-100	05/22/77	STREAM	DRY	1000	0500	1		1.22	1.58	1.57	0.37
13039	32-36	8648-114	4098-1-72-101		STREAM	DRY	1000	0500	1		1.17	1.62	1.95	0.43
13040	32-36	8559-114	4157-1-72-100	05/22/77	STREAM	DRY	1000	0500	1		1.61	1.50	1.48	0.43
13041	32-36	8507-114	4260-1-72-100	05/22/77	STREAM	DRY	1000	0500	1		0.88	1.87	2.02	0.38
13042	32-36	8518-114	4349-1-72-100	05/22/77	STREAM	DRY	1000	0500	1		2.00	1.40	1.36	0.49
13043	32-36	8722-114	4208-1-72-100	05/22/77	STREAM	DRY	1000	0500	1		0.98	1.72	1.81	0.39
13044	32-36	9141-114	4396-1-72-100	05/22/77	STREAM	DRY	1000	0500	1		2.41	1.43	10.36	1.17
13045	32-36	9099-114	4117-1-72-100	05/22/77	STREAM	DRY	1000	0500	1		0.74	1.85	1.11	0.32

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

SITE NUMBER	-----DOE SAMPLE NUMBER-----			DATE MO-DA-YR	SAMPLE SOURCE/COND.	PARTICLE SIZE		POS. CONT	Q. C. X-REF	URANIUM(DNC)		THORIUM(NAA)	
	ST	LAT, LONG,	L TY RPL			UPPER	LOWER			PPM	%ERR	PPM	ERR
13046	32-36,9057-114,3849-1-72-100	05/22/77	STREAM	DRY	1000	0500	1			0.82	1.82		
13047	32-36,8963-114,3706-1-72-100	05/22/77	STREAM	DRY	1000	0500	1			1.04	1.56		
13048	32-36,9099-114,3701-1-72-100	05/25/77	STREAM	DRY	1000	0500	1			0.98	1.78	1.32	0.41
13049	32-36,9161-114,3261-1-72-100	05/25/77	STREAM	DRY	1000	0500	1			1.27	1.61	1.49	0.51
13049	32-36,9161-114,3261-1-72-101		STREAM	DRY	1000	0500				1.19	1.48		
13050	32-36,9376-114,3198-1-72-100	05/25/77	STREAM	DRY	1000	0500	1			1.70	1.45	2.49	0.51
13051	32-36,9360-114,3704-1-72-100	05/25/77	STREAM	DRY	1000	0500	1			1.46	1.73	5.93	0.73
13052	32-36,9370-114,3771-1-72-100	05/25/77	STREAM	DRY	1000	0500	1			1.30	1.84	3.90	0.61
13053	32-36,9529-114,3585-1-72-100	05/25/77	STREAM	DRY	1000	0500	1			1.07	1.61		
13054	32-36,9674-114,3648-1-72-100	05/25/77	STREAM	DRY	1000	0500	1			1.32	1.73		
13055	32-36,9914-114,3471-1-72-100	05/25/77	STREAM	DRY	1000	0500	1			1.09	1.84		
13056	32-36,9759-114,4218-1-72-100	05/25/77	STREAM	DRY	1000	0500	1			1.14	1.52		
13057	32-36,9786-114,4251-1-72-100	05/25/77	STREAM	DRY	1000	0500	1			1.08	1.59		
13058	32-36,9877-114,4247-1-72-100	05/25/77	STREAM	DRY	1000	0500	1			0.92	1.83	2.22	0.55
13059	32-36,9973-114,4548-1-72-100	05/25/77	STREAM	DRY	1000	0500	1			2.11	1.31		
13059	32-36,9973-114,4548-1-72-101		STREAM	DRY	1000	0500				1.96	1.45	7.36	0.93
13060	32-36,9589-114,4302-1-72-100	05/26/77	STREAM	DRY	1000	0500	1			1.19	1.88		
13061	32-36,9637-114,4435-1-72-100	05/26/77	STREAM	DRY	1000	0500	5			1.40	1.83	5.53	0.94
13062	32-36,9489-114,4227-1-72-100	05/26/77	STREAM	DRY	1000	0500	1			1.25	1.79	3.25	0.61
13063	32-36,9555-114,3944-1-72-100	05/26/77	STREAM	DRY	1000	0500	1			1.18	1.53		
13064	32-36,9733-114,5566-1-72-100	05/27/77	STREAM	DRY	1000	0500	1			1.36	1.64		
13065	32-36,9817-114,5272-1-72-100	05/27/77	STREAM	DRY	1000	0500	1			1.24	1.60	2.21	0.51
13066	32-36,9826-114,5271-1-72-100	05/27/77	STREAM	DRY	1000	0500	1			1.76	1.42		
13067	32-36,9979-114,5266-1-72-100	05/27/77	STREAM	DRY	1000	0500	1			1.36	1.45		
13068	32-36,9933-114,5616-1-72-100	05/27/77	STREAM	DRY	1000	0500	1			1.57	1.42		
13492	32-36,1230-115,8438-1-72-100	05/09/77	STREAM	DRY	1000	0500	1			1.28	1.56		
13493	32-36,0717-115,7662-1-72-100	05/09/77	STREAM	DRY	1000	0500	1			1.70	1.44		
13494	32-36,0845-115,7860-1-72-100	05/09/77	STREAM	DRY	1000	0500	1			1.90	1.47	1.85	0.42
13495	32-36,0170-115,7959-1-72-100	05/09/77	STREAM	DRY	1000	0500	1			1.36	1.52	6.22	0.72
13496	32-36,0123-115,7760-1-72-100	05/09/77	STREAM	DRY	1000	0500	1			1.86	1.50	9.85	0.98
13507	32-36,2316-115,8928-1-72-100	05/10/77	STREAM	DRY	1000	0500	1			1.57	1.55		
13508	32-36,2369-115,8805-1-72-100	05/10/77	STREAM	DRY	1000	0500	1			2.79	1.42	2.40	0.65
13509	32-36,2342-115,8816-1-72-100	05/10/77	STREAM	DRY	1000	0500	1			2.62	1.28	2.39	0.46
13509	32-36,2342-115,8816-1-72-101		STREAM	DRY	1000	0500				2.43	1.29	1.78	0.40
13510	32-36,2512-115,8669-1-72-100	05/10/77	STREAM	DRY	1000	0500	1			2.16	1.37	2.60	0.66
13511	32-36,2053-115,8809-1-72-100	05/10/77	STREAM	DRY	1000	0500	1			2.30	1.30		
13513	32-36,1762-115,8547-1-72-100	05/11/77	STREAM	DRY	1000	0500	1			1.03	1.55		
13514	32-36,1798-115,8546-1-72-100	05/04/77	STREAM	DRY	1000	0500	1			1.27	1.50		
13515	32-36,1925-115,8644-1-72-100	05/11/77	STREAM	DRY	1000	0500	1			0.94	1.69		
13516	32-36,1949-115,8322-1-72-100	05/11/77	STREAM	DRY	1000	0500	1			2.39	1.27		
13517	32-36,1975-115,8221-1-72-100	05/11/77	STREAM	DRY	1000	0500	1			2.66	1.28	3.96	0.75
13518	32-36,2128-115,8152-1-72-100		STREAM	DRY	1000	0500	1			2.80	1.29	4.16	0.83
13519	32-36,2163-115,8051-1-72-100	05/11/77	STREAM	DRY	1000	0500	1			1.10	1.73	2.13	0.65
13519	32-36,2163-115,8051-1-72-101		STREAM	DRY	1000	0500				1.09	1.65	2.61	0.46
13520	32-36,2297-115,7916-1-72-100	05/11/77	STREAM	DRY	1000	0500	1			0.86	2.05	2.43	0.62
13521	32-36,2430-115,7736-1-72-100	05/11/77	STREAM	DRY	1000	0500	1			0.94	1.68		
13522	32-36,2450-115,7902-1-72-100	05/11/77	STREAM	DRY	1000	0500	1			1.04	1.58	1.05	0.19
13523	32-36,2296-115,7816-1-72-100	05/11/77	STREAM	DRY	1000	0500	1			1.26	1.53		
13524	32-36,2249-115,7694-1-72-100	05/11/77	STREAM	DRY	1000	0500	1			0.97	1.77	1.45	0.46

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

SITE NUMBER	DOE SAMPLE NUMBER				DATE MO-DA-YR	SAMPLE SOURCE/COND.	PARTICLE SIZE		POS. CONT	Q. C. X-REF	URANIUM(DNC)		THORIUM(NAA)	
	ST	LAT.	LONG.	L TY RPL			UPPER	LOWER			PPM	%ERR	PPM	ERR
13525	32-36	2140	-115,7607	-1-72-100	05/11/77	STREAM	DRY	1000	0500	1	1.29	1.59	2.07	0.41
13526	32-36	0312	-115,8657	-1-72-100	05/11/77	STREAM	DRY	1000	0500	1	2.18	1.44	3.33	0.76
13527	32-36	0482	-115,8543	-1-72-100	05/11/77	STREAM	DRY	1000	0500	1	2.24	1.46	3.95	1.07
13528	32-36	0881	-115,8826	-1-72-100	05/11/77	STREAM	DRY	1000	0500	1	3.69	1.43	10.22	2.37
13529	32-36	1799	-115,7723	-1-72-100	05/12/77	STREAM	DRY	1000	0500	1	1.07	1.55		
13530	32-36	1664	-115,7725	-1-72-100	05/12/77	STREAM	DRY	1000	0500	1	1.53	1.49	1.61	0.44
13531	32-36	1628	-115,7748	-1-72-100	05/12/77	STREAM	DRY	1000	0500	1	1.74	1.51		
13532	32-36	1574	-115,7782	-1-72-100	05/12/77	STREAM	DRY	1000	0500	1	1.94	1.46		
13533	32-36	1419	-115,7607	-1-72-100	05/12/77	STREAM	DRY	1000	0500	1	2.04	1.36		
13534	32-36	3212	-115,3078	-1-72-100	05/12/77	STREAM	DRY	1000	0500	1	2.09	1.37	1.77	0.43
13536	32-36	2779	-115,3689	-1-72-100	05/12/77	STREAM	DRY	1000	0500	1	0.83	1.76	1.20	0.34
13537	32-36	2651	-115,4237	-1-72-100	05/12/77	STREAM	DRY	1000	0500	1	1.01	1.61		
13538	32-36	2725	-115,4402	-1-72-100	05/12/77	STREAM	DRY	1000	0500	1	4.03	1.21	2.75	0.50
13539	32-36	2768	-115,4914	-1-72-100	05/12/77	STREAM	DRY	1000	0500	1	1.70	1.40		
13540	32-36	2966	-115,4910	-1-72-100	05/12/77	STREAM	DRY	1000	0500	1	2.27	1.29		
13541	32-36	3318	-115,4246	-1-72-100	05/13/77	STREAM	DRY	1000	0500	1	1.52	1.46		
13542	32-36	3043	-115,4619	-1-72-100	05/13/77	STREAM	DRY	1000	0500	1	1.99	1.50	6.34	0.92
13543	32-36	3377	-115,4657	-1-72-100	05/13/77	STREAM	DRY	1000	0500	1	1.86	1.41	2.26	0.53
13544	32-36	3458	-115,4588	-1-72-100	05/13/77	STREAM	DRY	1000	0500	1	2.54	1.29	2.40	0.45
13545	32-36	3528	-115,4453	-1-72-100	05/13/77	STREAM	DRY	1000	0500	1	2.48	1.28		
13546	32-36	3699	-115,4450	-1-72-100	05/13/77	STREAM	DRY	1000	0500	1	1.50	1.44		
13547	32-36	3844	-115,4503	-1-72-100	05/13/77	STREAM	DRY	1000	0500	1	0.73	1.79		
13548	32-36	3853	-115,4525	-1-72-100	05/13/77	STREAM	DRY	1000	0500	1	0.88	1.79	1.64	0.36
13549	32-36	3978	-115,4377	-1-72-100	05/13/77	STREAM	DRY	1000	0500	1	0.85	1.81		
13550	32-36	4032	-115,4421	-1-72-100	05/13/77	STREAM	DRY	1000	0500	1	1.07	1.73	3.06	0.63
13551	32-36	3802	-115,4749	-1-72-100	05/13/77	STREAM	DRY	1000	0500	1	0.52	2.15		
13552	32-36	4030	-115,4912	-1-72-100	05/13/77	STREAM	DRY	1000	0500	1	3.26	1.25		
13553	32-36	4137	-115,4865	-1-72-100	05/13/77	STREAM	DRY	1000	0500	1	2.14	1.37	3.56	0.58
13554	32-36	4162	-115,4675	-1-72-100	05/13/77	STREAM	DRY	1000	0500	1	1.64	1.41		
13555	32-36	4683	-115,4575	-1-72-100	05/13/77	STREAM	DRY	1000	0500	7	1.41	1.47		
13556	32-36	4537	-115,4422	-1-72-100	05/13/77	STREAM	DRY	1000	0500	1	1.17	1.65	2.24	0.54
13557	32-36	3899	-115,3877	-1-72-100	05/13/77	STREAM	DRY	1000	0500	1	1.41	1.53		
13558	32-36	3532	-115,3428	-1-72-100	05/13/77	STREAM	DRY	1000	0500	1	1.82	1.37	0.94	0.27
13559	32-36	1089	-115,2135	-1-72-100	05/14/77	STREAM	DRY	1000	0500	7	1.37	1.48		
13560	32-36	1571	-115,2436	-1-72-100	05/14/77	STREAM	DRY	1000	0500	6	1.26	1.53		
13561	32-36	2213	-115,1387	-1-72-100	05/14/77	STREAM	DRY	1000	0500	6	1.54	1.51	1.76	0.44
13562	32-36	2348	-115,1384	-1-72-100	05/14/77	STREAM	DRY	1000	0500	1	1.14	1.73	2.81	0.58
13563	32-36	2433	-115,1649	-1-72-100	05/14/77	STREAM	DRY	1000	0500	6	3.88	1.39	5.76	1.22
13564	32-36	0411	-115,1418	-1-72-100	05/14/77	STREAM	DRY	1000	0500	9	2.23	1.34		
13565	32-36	2074	-115,0033	-1-72-100	05/15/77	STREAM	DRY	1000	0500	7	2.67	1.28		
13566	32-36	2137	-115,0054	-1-72-100	05/15/77	STREAM	DRY	1000	0500	1	2.20	1.44	2.27	0.70
13567	32-36	1931	-115,0126	-1-72-100	05/15/77	STREAM	DRY	1000	0500	6	3.95	1.18		
13568	32-36	1860	-115,0161	-1-72-100	05/15/77	STREAM	DRY	1000	0500	6	2.94	1.54		
13569	32-36	1859	-115,0139	-1-72-100	05/15/77	STREAM	DRY	1000	0500	6	1.92	1.37		
13570	32-36	1805	-115,0107	-1-72-100	05/15/77	STREAM	DRY	1000	0500	6	2.25	1.34		
13571	32-36	1786	-115,0085	-1-72-100	05/15/77	STREAM	DRY	1000	0500	6	2.11	1.33		
13572	32-36	1706	-115,0088	-1-72-100	05/15/77	STREAM	DRY	1000	0500	1	2.10	1.38		
13573	32-36	1678	-115,0088	-1-72-100	05/15/77	STREAM	DRY	1000	0500	1	2.36	1.28		
13574	32-36	1606	-115,0067	-1-72-100	05/15/77	STREAM	DRY	1000	0500	6	2.25	1.33	2.47	0.41

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

SITE NUMBER	-----DOE ST	SAMPLE NUMBER-----			DATE MO-DA-YR	SAMPLE SOURCE/COND.	PARTICLE SIZE		POS. CONT	Q, C, X-REF	URANIUM(DNC)		THORIUM(NAA)	
		LAT, LONG,	L	TY			RPL	UPPER			LOWER	PPM	%ERR	PPM
13575	32-36,1569-115,0046-1-72-100	05/15/77	STREAM	DRY	1000	0500	6	1.77	1.52					
13576	32-36,1488-115,0015-1-72-100	05/15/77	STREAM	DRY	1000	0500	6	2.27	1.35					
13577	32-36,1239-115,0210-1-72-100	05/15/77	STREAM	DRY	1000	0500	9	1.80	1.47	1.75	0.49			
13578	32-36,1209-115,0066-1-72-100	05/15/77	STREAM	DRY	1000	0500	4	2.48	1.30					
13579	32-36,0210-115,0158-1-72-100	05/15/77	STREAM	DRY	1000	0500	1	3.63	1.54	15.31	2.94			
13580	32-36,0166-115,0237-1-72-100	05/15/77	STREAM	DRY	1000	0500	1	3.31	1.43	17.06	1.98			
13581	32-36,0168-115,0336-1-72-100	05/15/77	STREAM	DRY	1000	0500	1	3.01	1.58	13.65	2.50			
13582	32-36,0159-115,0348-1-72-100	05/15/77	STREAM	DRY	1000	0500	1	3.15	1.51	13.12	2.23			
13583	32-36,0097-115,0383-1-72-100	05/15/77	STREAM	DRY	1000	0500	1	2.85	1.58	12.17	2.21			
13584	32-36,0026-115,0462-1-72-100	05/15/77	STREAM	DRY	1000	0500	1	3.17	1.47	12.57	2.15			
13585	32-36,0071-115,0494-1-72-100	05/15/77	STREAM	DRY	1000	0500	1	3.82	1.45	16.55	2.77			
13586	32-36,0028-115,0573-1-72-100	05/15/77	STREAM	DRY	1000	0500	1	3.66	1.51	17.07	2.78			
13587	32-36,0222-115,0901-1-72-100	05/15/77	STREAM	DRY	1000	0500	9	3.40	1.52	16.47	2.73			
13588	32-36,0289-115,1121-1-72-100	05/15/77	STREAM	DRY	1000	0500	6	3.24	1.47	13.74	2.32			
13589	32-36,0777-115,0621-1-72-100	05/15/77	STREAM	DRY	1000	0500	6	2.62	1.44	9.64	1.23			
13590	32-36,4643-114,9510-1-72-100	05/17/77	STREAM	DRY	1000	0500	1	2.85	1.31					
13591	32-36,4799-114,9640-1-72-100	05/17/77	STREAM	DRY	1000	0500	1	2.61	1.30	3.70	0.80			
13592	32-36,4991-114,9813-1-72-100	05/17/77	STREAM	DRY	1000	0500	1	2.62	1.30	1.42	0.49			
13593	32-36,4204-114,9131-1-72-100	05/17/77	STREAM	DRY	1000	0500	2	1.69	1.44	2.35	0.54			
13594	32-36,4149-114,9088-1-72-100	05/17/77	STREAM	DRY	1000	0500	2	1.81	1.50	2.97	0.62			
13595	32-36,4332-114,9250-1-72-100	05/17/77	STREAM	DRY	1000	0500	1	1.97	1.55	2.30	0.87			
13596	32-36,4570-114,9456-1-72-100	05/17/77	STREAM	DRY	1000	0500	1	2.72	1.41	5.96	1.46			
13597	32-36,4515-114,9413-1-72-100	05/17/77	STREAM	DRY	1000	0500	1	2.87	1.33	2.73	0.67			
13598	32-36,4479-114,9391-1-72-100	05/17/77	STREAM	DRY	1000	0500	1	3.05	1.29	2.84	0.74			
13599	32-36,4561-114,9467-1-72-100	05/17/77	STREAM	DRY	1000	0500	1	2.72	1.31					
13599	32-36,4561-114,9467-1-72-101		STREAM	DRY	1000	0500		2.74	1.33					
13600	32-36,4900-114,9771-1-72-100	05/17/77	STREAM	DRY	1000	0500	1	1.54	1.50	2.81	0.51			
13843	32-36,1514-115,7239-1-72-100	05/07/77	STREAM	DRY	1000	0500	1	2.47	1.27	1.40	0.38			
13844	32-36,1669-115,7325-1-72-100	05/07/77	STREAM	DRY	1000	0500	1	1.10	1.51					
13845	32-36,1669-115,7370-1-72-100	05/07/77	STREAM	DRY	1000	0500	1	1.17	1.57	1.69	0.48			
13846	32-36,1544-115,7427-1-72-100	05/07/77	STREAM	DRY	1000	0500	1	2.13	1.30					
13847	32-36,1906-115,6776-1-72-100	05/07/77	STREAM	DRY	1000	0500	1	2.73	1.29	2.03	0.48			
13848	32-36,1852-115,6755-1-72-100	05/07/77	STREAM	DRY	1000	0500	1	1.90	1.51	4.74	0.68			
13849	32-36,1855-115,7000-1-72-100	05/07/77	STREAM	DRY	1000	0500	1	2.17	1.29					
13849	32-36,1855-115,7000-1-72-101		STREAM	DRY	1000	0500		2.20	1.34					
13850	32-36,1881-115,6910-1-72-100	05/07/77	STREAM	DRY	1000	0500	1	3.16	1.22					
13851	32-36,1632-115,6459-1-72-100	05/08/77	STREAM	DRY	1000	0500	1	2.01	1.33					
13852	32-36,1652-115,6581-1-72-100	05/08/77	STREAM	DRY	1000	0500	1	2.98	1.22					
13853	32-36,1651-115,6558-1-72-100	05/08/77	STREAM	DRY	1000	0500	1	2.01	1.34					
13854	32-36,1464-115,6773-1-72-100	05/08/77	STREAM	DRY	1000	0500	1	2.07	1.33					
13855	32-36,1041-115,6813-1-72-100	05/08/77	STREAM	DRY	1000	0500	1	2.61	1.39	8.93	1.24			
13856	32-36,1087-115,6912-1-72-100	05/08/77	STREAM	DRY	1000	0500	1	2.51	1.28					
13857	32-36,1252-115,7121-1-72-100	05/08/77	STREAM	DRY	1000	0500	1	2.73	1.26					
13858	32-36,1163-115,7289-1-72-100	05/08/77	STREAM	DRY	1000	0500	1	1.26	1.47					
13859	32-36,1262-115,7187-1-72-100	05/08/77	STREAM	DRY	1000	0500	1	2.55	1.29					
13859	32-36,1262-115,7187-1-72-101		STREAM	DRY	1000	0500		2.44	1.46	5.24	0.97			
13860	32-36,0560-115,7365-1-72-100	05/08/77	STREAM	DRY	1000	0500	9	1.77	1.38					
13861	32-36,0230-115,6838-1-72-100	05/08/77	STREAM	DRY	1000	0500	9	1.25	1.58	2.78	0.63			
13862	32-36,0131-115,5286-1-70-100	05/09/77	STREAM	WET	1000	0500	1	0.94	1.62					

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

SITE NUMBER	DOE SAMPLE NUMBER			DATE MO-DA-YR	SAMPLE SOURCE/COND.	PARTICLE SIZE		POS. CONT	Q. C. X-REF	URANIUM(DNC)		THORIUM(NAA)		
	ST	LAT.	LONG.			L	TY			RPL	UPPER	LOWER	PPM	%ERR
13863	32-36	0323	-115,5538	-1-70-100	05/09/77	STREAM	WET	1000	0500	1	1.37	1.47		
13864	32-36	0399	-115,5137	-1-70-100	05/09/77	STREAM	WET	1000	0500	1	0.83	1.76	1.24	0.33
13865	32-36	0581	-115,5233	-1-70-100	05/09/77	STREAM	WET	1000	0500	1	0.70	1.76		
13866	32-36	0690	-115,5298	-1-70-100	05/09/77	STREAM	WET	1000	0500	1	0.83	1.89	2.35	0.47
13867	32-36	0708	-115,5320	-1-70-100	05/09/77	STREAM	WET	1000	0500	1	1.26	1.61	2.57	0.58
13868	32-36	0891	-115,5505	-1-70-100	05/10/77	STREAM	WET	1000	0500	1	1.38	1.42		
13869	32-36	1036	-115,5602	-1-70-100	05/10/77	STREAM	WET	1000	0500	1	2.54	1.29		
13869	32-36	1036	-115,5602	-1-70-101		STREAM	WET	1000	0500		2.45	1.31		
13870	32-36	1181	-115,5622	-1-70-100	05/10/77	STREAM	WET	1000	0500	1	1.16	1.55		
13871	32-36	1317	-115,5675	-1-70-100	05/10/77	STREAM	WET	1000	0500	1	2.58	1.29		
13872	32-36	1425	-115,5662	-1-70-100	05/10/77	STREAM	WET	1000	0500	1	3.62	1.18		
13873	32-36	1515	-115,5671	-1-70-100	05/10/77	STREAM	WET	1000	0500	1	3.98	1.20	1.59	0.44
13874	32-36	1596	-115,5637	-1-70-100	05/10/77	STREAM	WET	1000	0500	1	2.38	1.32	3.73	0.49
13875	32-36	1705	-115,5735	-1-70-100	05/10/77	STREAM	WET	1000	0500	1	2.05	1.53	6.52	1.24
13876	32-36	1733	-115,5823	-1-70-100	05/10/77	STREAM	WET	1000	0500	7	2.28	1.43	7.27	1.10
13877	32-36	1996	-115,5996	-1-70-100	05/10/77	STREAM	WET	1000	0500	1	2.45	1.31	2.85	0.53
13878	32-36	0040	-115,5953	-1-72-100	05/10/77	STREAM	DRY	1000	0500	1	1.09	1.53	1.19	0.30
13879	32-36	0210	-115,5839	-1-72-100		STREAM	DRY	1000	0500	1	2.35	1.37	3.96	0.74
13880	32-36	0426	-115,5802	-1-72-100	05/10/77	STREAM	DRY	1000	0500	1	1.54	1.54	3.10	0.67
13881	32-36	0599	-115,5999	-1-70-100	05/11/77	STREAM	WET	1000	0500	1	2.02	1.38	2.01	0.52
13882	32-36	0469	-115,6445	-1-70-100	05/11/77	STREAM	WET	1000	0500	1	1.41	1.50	3.83	0.54
13883	32-36	0568	-115,6466	-1-70-100	05/11/77	STREAM	WET	1000	0500	1	2.85	1.23		
13884	32-36	0787	-115,6662	-1-70-100	05/11/77	STREAM	WET	1000	0500	1	2.94	1.33	11.31	1.12
13885	32-36	0946	-115,6393	-1-70-100	05/11/77	STREAM	WET	1000	0500	1	2.53	1.47	10.50	1.75
13886	32-36	0866	-115,6461	-1-72-100	05/11/77	STREAM	DRY	1000	0500	1	2.60	1.40	10.44	1.38
13887	32-36	0774	-115,6273	-1-72-100	05/11/77	STREAM	DRY	1000	0500	1	2.23	1.43	8.90	0.98
13888	32-36	0818	-115,6184	-1-72-100	05/11/77	STREAM	DRY	1000	0500	1	1.93	1.48	5.39	0.90
13889	32-36	1068	-115,6035	-1-72-100	05/11/77	STREAM	DRY	1000	0500	1	2.81	1.32	6.76	0.90
13889	32-36	1068	-115,6035	-1-72-101		STREAM	DRY	1000	0500		2.75	1.37	6.52	1.12
13890	32-36	1113	-115,5979	-1-72-100	05/11/77	STREAM	DRY	1000	0500	1	2.16	1.44	5.16	1.15
13891	32-36	0063	-115,6375	-1-72-100	05/11/77	STREAM	DRY	1000	0500	1	1.50	1.45	2.13	0.54
13922	32-36	0149	-115,4575	-1-72-100	09/15/77	STREAM	DRY	1000	0500	1	1.08	1.59	2.30	0.36
13923	32-36	0357	-115,4616	-1-72-100	05/15/77	STREAM	DRY	1000	0500	1	0.99	1.65	2.47	0.45
13924	32-36	0584	-115,4090	-1-72-100	05/15/77	STREAM	DRY	1000	0500	1	1.91	1.35	2.14	0.37
13928	32-36	0649	-115,4188	-1-72-100	05/15/77	STREAM	DRY	1000	0500	2	1.68	1.42	2.78	0.63
13929	32-36	0723	-115,4342	-1-72-100	05/15/77	STREAM	DRY	1000	0500	1	2.19	1.32	2.73	0.48
13929	32-36	0723	-115,4342	-1-72-101		STREAM	DRY	1000	0500		2.02	1.39	3.03	0.57
13930	32-36	0628	-115,4699	-1-72-100	05/15/77	STREAM	DRY	1000	0500	1	0.73	1.80	0.87	0.31
13931	32-36	0806	-115,4474	-1-72-100	05/15/77	STREAM	DRY	1000	0500	9	1.28	1.60	3.12	0.69
13932	32-36	0791	-115,4752	-1-72-100	05/15/77	STREAM	DRY	1000	0500	7	0.91	1.82	2.70	0.57
13933	32-36	0832	-115,4418	-1-72-100	05/15/77	STREAM	DRY	1000	0500	1	1.39	1.58	3.10	0.48
13934	32-36	1018	-115,4836	-1-72-100	05/15/77	STREAM	DRY	1000	0500	1	0.84	1.80	1.71	0.40
13935	32-36	1208	-115,4921	-1-70-100	05/15/77	STREAM	WET	1000	0500	1	0.82	1.82	1.43	0.42
13936	32-36	1135	-115,4878	-1-72-100	05/15/77	STREAM	DRY	1000	0500	1	0.67	2.01	1.35	0.40
13937	32-36	1279	-115,4865	-1-72-100	05/16/77	STREAM	DRY	1000	0500	1	0.49	2.46	1.93	0.46
13938	32-36	1182	-115,4278	-1-72-100	05/16/77	STREAM	DRY	1000	0500	1	1.07	1.73	2.81	0.62
13939	32-36	1217	-115,4199	-1-72-100	05/16/77	STREAM	DRY	1000	0500	1	1.84	1.61	4.33	0.98
13939	32-36	1217	-115,4199	-1-72-101		STREAM	DRY	1000	0500		1.75	1.50	3.37	0.60
13940	32-36	1224	-115,4077	-1-72-100	05/16/77	STREAM	DRY	1000	0500	1	1.80	1.49	4.46	0.84

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

SITE NUMBER	DOE ST	SAMPLE NUMBER			DATE MO-DA-YR	SAMPLE SOURCE/COND.	PARTICLE SIZE		POS. CONT	Q. C. X-REF	URANIUM(DNC)		THORIUM(NA)	
		LAT,	LONG,	L TY RPL			UPPER	LOWER			PPM	%ERR	PPM	ERR
13941	32-36,	1085-115,	3757-1-72-100	05/16/77	STREAM	DRY	1000	0500	1		1.88	1.43	3.55	0.73
13942	32-36,	1219-115,	3655-1-72-100	05/16/77	STREAM	DRY	1000	0500	1		2.59	1.35	3.63	0.74
13943	32-36,	0954-115,	3427-1-72-100	05/16/77	STREAM	DRY	1000	0500	1		1.61	1.44	2.61	0.54
13944	32-36,	0759-115,	3653-1-72-100	05/16/77	STREAM	DRY	1000	0500	2		1.79	1.45	3.09	0.69
13945	32-36,	0449-115,	3393-1-72-100	05/16/77	STREAM	DRY	1000	0500	1		1.64	1.50	3.41	0.65
13946	32-36,	0402-115,	3272-1-72-100	05/16/77	STREAM	DRY	1000	0500	1		1.32	1.63	2.86	0.67
13947	32-36,	0374-115,	3184-1-72-100	05/16/77	STREAM	DRY	1000	0500	1		1.36	1.70	2.21	1.01
13948	32-36,	0346-115,	3162-1-72-100	05/16/77	STREAM	DRY	1000	0500	2		1.30	1.63	1.77	0.49
13949	32-36,	0526-115,	3114-1-72-100	05/16/77	STREAM	DRY	1000	0500	2		1.43	1.63	2.82	0.86
13949	32-36,	0526-115,	3114-1-72-101		STREAM	DRY	1000	0500			1.40	1.63	3.24	0.74
13950	32-36,	0599-115,	3201-1-72-100	05/16/77	STREAM	DRY	1000	0500	1		4.41	1.20	4.67	0.80
13951	32-36,	0735-115,	3232-1-72-100	05/16/77	STREAM	DRY	1000	0500	1		2.01	1.41	3.58	0.56
13952	32-36,	0799-115,	3266-1-72-100	05/16/77	STREAM	DRY	1000	0500	1		1.54	1.45	2.09	0.38
13953	32-36,	0846-115,	2796-1-72-100	05/16/77	STREAM	DRY	1000	0500	1		1.30	1.51	2.24	0.46
13954	32-36,	0933-115,	2572-1-72-100	05/16/77	STREAM	DRY	1000	0500	2		1.18	1.56	2.12	0.42
13955	32-36,	7542-114,	5927-1-72-100	05/17/77	STREAM	DRY	1000	0500	9		1.71	1.47	6.66	0.72
13956	32-36,	7598-114,	6060-1-72-100	05/17/77	STREAM	DRY	1000	0500	9		2.33	1.40	9.82	1.04
13957	32-36,	7716-114,	6101-1-72-100	05/17/77	STREAM	DRY	1000	0500	9		2.74	1.34	12.93	1.00
13958	32-36,	7920-114,	5904-1-72-100	05/18/77	STREAM	DRY	1000	0500	9		3.31	1.28	13.63	0.99
13959	32-36,	7920-114,	5927-1-72-100	05/18/77	STREAM	DRY	1000	0500	9		2.31	1.41	10.53	1.21
13960	32-36,	8210-114,	5985-1-72-100	05/18/77	STREAM	DRY	1000	0500	9		1.91	1.54	8.85	1.37
13961	32-36,	8318-114,	6015-1-72-100	05/18/77	STREAM	DRY	1000	0500	9		2.23	1.40	8.62	0.97
13962	32-36,	8382-114,	6036-1-72-100	05/18/77	STREAM	DRY	1000	0500	9		1.82	1.44	7.14	0.69
13963	32-36,	8518-114,	6099-1-72-100	05/18/77	STREAM	DRY	1000	0500	9		3.03	1.33	12.25	1.34
13964	32-36,	8346-114,	6519-1-72-100	05/18/77	STREAM	DRY	1000	0500	9		3.06	1.30	11.23	1.03
13965	32-36,	8114-114,	6627-1-72-100	05/18/77	STREAM	DRY	1000	0500	1		3.09	1.31	10.76	1.08
13966	32-36,	8174-114,	6905-1-72-100	05/18/77	STREAM	DRY	1000	0500	1		2.73	1.34	9.43	0.93
13967	32-36,	8228-114,	7374-1-72-100	05/18/77	STREAM	DRY	1000	0500	1		2.04	1.41	3.24	0.74
13968	32-36,	8447-114,	7525-1-72-100	05/15/77	STREAM	DRY	1000	0500	1		2.02	1.34	2.73	0.45
13969	32-36,	8769-114,	7852-1-72-100	05/18/77	STREAM	DRY	1000	0500	1		2.23	1.39	5.23	1.01
13970	32-36,	8663-114,	7519-1-72-100	05/18/77	STREAM	DRY	1000	0500	1		2.06	1.35	2.47	0.58
13971	32-36,	9277-114,	7545-1-72-100	05/19/77	STREAM	DRY	1000	0500	1		1.81	1.36		
13972	32-36,	9422-114,	7609-1-72-100	05/19/77	STREAM	DRY	1000	0500	1		2.36	1.31	2.79	0.54
13973	32-36,	9812-114,	7732-1-72-100	05/19/77	STREAM	DRY	1000	0500	1		0.70	1.81	1.33	0.26
13974	32-36,	7966-114,	6441-1-72-100	05/20/77	STREAM	DRY	1000	0500	1		3.15	1.32	14.62	1.31
13975	32-36,	8074-114,	6393-1-72-100	05/20/77	STREAM	DRY	1000	0500	9		3.59	1.30	15.64	1.35
13976	32-36,	8386-114,	6697-1-72-100	05/20/77	STREAM	DRY	1000	0500	9		1.91	1.44	7.22	0.88
13977	32-36,	8532-114,	6771-1-72-100	05/20/77	STREAM	DRY	1000	0500	1		1.89	1.47	7.15	0.96
13978	32-36,	8549-114,	6759-1-72-100	05/20/77	STREAM	DRY	1000	0500	1		1.88	1.47	8.98	0.94
13979	32-36,	8621-114,	6712-1-72-100	05/20/77	STREAM	DRY	1000	0500	1		2.34	1.31		
13979	32-36,	8621-114,	6712-1-72-101		STREAM	DRY	1000	0500			2.04	1.47	7.61	0.94
13980	32-36,	8842-114,	6526-1-72-100	05/20/77	STREAM	DRY	1000	0500	1		3.43	1.32	16.59	1.34
13981	32-36,	8994-114,	6465-1-72-100	05/20/77	STREAM	DRY	1000	0500	1		3.64	1.30	19.12	1.51
13982	32-36,	9064-114,	6789-1-72-100	05/20/77	STREAM	DRY	1000	0500	1		2.83	1.31	11.97	0.80
13983	32-36,	9017-114,	7149-1-72-100	05/20/77	STREAM	DRY	1000	0500	1		1.76	1.45	2.74	0.51
13984	32-36,	9025-114,	7138-1-72-100	05/20/77	STREAM	DRY	1000	0500	1		1.73	1.47	1.93	0.44
13985	32-36,	8897-114,	7040-1-72-100	05/20/77	STREAM	DRY	1000	0500	1		2.01	1.38	2.39	0.45
13986	32-36,	8907-114,	7051-1-72-100	05/20/77	STREAM	DRY	1000	0500	1		2.12	1.38	2.38	0.55
13987	32-36,	9254-114,	7310-1-72-100	05/20/77	STREAM	DRY	1000	0500	1		1.55	1.50	2.43	0.55

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

SITE NUMBER	-----DOE SAMPLE NUMBER-----				DATE MO-DA-YR	SAMPLE SOURCE/COND.	PARTICLE SIZE		POS. CONT	Q, C, X-REF	URANIUM(DNC)		THORIUM(NAA)	
	ST	LAT, LONG,	L	TY RPL			UPPER	LOWER			PPM	%ERR	PPM	ERR
13988	32-36	9245-114	7299-1-72-100	05/20/77	STREAM	DRY	1000	0500	1		1.77	1.48	2.59	0.61
13989	32-36	9162-114	6752-1-72-100		STREAM	DRY	1000	0500	1		3.30	1.19		
13989	32-36	9162-114	6752-1-72-101		STREAM	DRY	1000	0500			3.04	1.33	11.98	1.31
13990	32-36	9252-114	6727-1-72-100	05/20/77	STREAM	DRY	1000	0500	1		2.90	1.36	13.26	1.30
13991	32-36	9597-114	6885-1-72-100	05/20/77	STREAM	DRY	1000	0500	1		1.58	1.53	6.64	0.74
13992	32-36	9606-114	6851-1-72-100	05/20/77	STREAM	DRY	1000	0500	1		1.88	1.60	9.12	1.41
13993	32-36	9433-114	6328-1-72-100	05/21/77	STREAM	DRY	1000	0500	1		2.56	1.41	11.01	1.24
13994	32-36	9627-114	6547-1-72-100	05/21/77	STREAM	DRY	1000	0500	1		3.60	1.30	15.26	1.38
13995	32-36	9705-114	6421-1-72-100	05/21/77	STREAM	DRY	1000	0500	1		3.13	1.36	15.41	1.61
13996	32-36	9476-114	6664-1-72-100	05/21/77	STREAM	DRY	1000	0500	1		3.92	1.26	17.52	1.31
13997	32-36	9918-114	6235-1-72-100	05/21/77	STREAM	DRY	1000	0500	1		2.24	1.42	8.08	1.07
14007	32-36	1426-115	3695-1-72-100	05/18/77	STREAM	DRY	1000	0500	1		1.30	1.65	3.54	0.72
14008	32-36	1417-115	3639-1-72-100	05/18/77	STREAM	DRY	1000	0500	1		1.38	1.56	2.18	0.54
14009	32-36	1534-115	3626-1-72-100	05/18/77	STREAM	DRY	1000	0500	1		1.05	1.70	2.43	0.62
14009	32-36	1534-115	3626-1-72-101		STREAM	DRY	1000	0500			1.03	1.74	2.66	0.50
14010	32-36	1496-115	3538-1-72-100	05/18/77	STREAM	DRY	1000	0500	1		1.15	1.89	1.95	1.16
14011	32-36	1325-115	3497-1-72-100	05/18/77	STREAM	DRY	1000	0500	1		1.90	1.32		
14012	32-36	8167-114	9495-1-72-100	05/18/77	STREAM	DRY	1000	0500	1		1.19	1.66	3.00	0.55
14013	32-36	7879-114	8998-1-72-100	05/18/77	STREAM	DRY	1000	0500	9		2.18	1.44	11.74	1.10
14014	32-36	7643-114	8893-1-72-100	05/18/77	STREAM	DRY	1000	0500	1		0.97	1.72	1.93	0.37
14015	32-36	7544-114	8895-1-72-100	05/18/77	STREAM	DRY	1000	0500	1		1.01	1.72	2.16	0.39
14016	32-36	7740-114	8789-1-72-100	05/18/77	STREAM	DRY	1000	0500	5		1.47	1.54	2.09	0.72
14017	32-36	7795-114	8821-1-72-100	05/18/77	STREAM	DRY	1000	0500	1		1.42	1.56	2.53	0.66
14018	32-36	8173-114	7836-1-72-100	05/19/77	STREAM	DRY	1000	0500	1		1.43	1.50	3.55	0.73
14019	32-36	8127-114	7781-1-72-100	05/19/77	STREAM	DRY	1000	0500	1		1.57	1.45	1.74	0.51
14020	32-36	7996-114	8009-1-72-100	05/19/77	STREAM	DRY	1000	0500	1		0.91	1.74		
14021	32-36	8078-114	8006-1-72-100	05/19/77	STREAM	DRY	1000	0500	1		1.03	1.65	3.23	0.52
14022	32-36	8538-114	8027-1-72-100	05/19/77	STREAM	DRY	1000	0500	1		0.95	1.71	1.71	0.44
14023	32-36	8528-114	8016-1-72-100	05/19/77	STREAM	DRY	1000	0500	1		1.04	1.72	2.36	0.43
14024	32-36	8051-114	8512-1-72-100	05/19/77	STREAM	DRY	1000	0500	1		1.92	1.40	6.72	0.64
14025	32-36	8219-114	8372-1-72-100	05/19/77	STREAM	DRY	1000	0500	1		1.62	1.41		
14026	32-36	8264-114	8371-1-72-100	05/19/77	STREAM	DRY	1000	0500	1		1.63	1.46	5.26	0.60
14027	32-36	8920-114	8252-1-72-100	05/19/77	STREAM	DRY	1000	0500	1		1.95	1.39	6.95	0.75
14028	32-36	9441-114	8125-1-72-100	05/19/77	STREAM	DRY	1000	0500	1		1.74	1.45	6.74	0.77
14029	32-36	9502-114	8044-1-72-100	05/19/77	STREAM	DRY	1000	0500	1		0.70	1.85	1.79	0.40
14030	32-36	8359-114	8604-1-72-100	05/20/77	STREAM	DRY	1000	0500	1		1.06	1.65	2.94	0.53
14031	32-36	8467-114	8623-1-72-100	05/20/77	STREAM	DRY	1000	0500	1		1.31	1.56	4.05	0.62
14032	32-36	8585-114	8665-1-72-100	05/20/77	STREAM	DRY	1000	0500	1		1.33	1.61	4.90	0.78
14033	32-36	8667-114	8707-1-72-100	05/20/77	STREAM	DRY	1000	0500	1		1.07	1.56		
14034	32-36	8784-114	8693-1-72-100	05/20/77	STREAM	DRY	1000	0500	1		1.08	1.54		
14035	32-36	8985-114	8844-1-72-100	05/20/77	STREAM	DRY	1000	0500	1		1.17	1.56	2.20	0.45
14036	32-36	9222-114	8512-1-72-100	05/20/77	STREAM	DRY	1000	0500	1		1.39	1.66	5.99	1.04
14037	32-36	9241-114	8523-1-72-100	05/20/77	STREAM	DRY	1000	0500	1		1.64	1.57	7.73	0.91
14038	32-36	9251-114	8579-1-72-100	05/20/77	STREAM	DRY	1000	0500	1		1.25	1.55	3.81	0.47
14039	32-36	9003-114	8855-1-72-100	05/20/77	STREAM	DRY	1000	0500	1		1.69	1.59	9.21	0.89
14040	32-36	9061-114	9078-1-72-100	05/20/77	STREAM	DRY	1000	0500	1		2.87	1.35	12.07	1.10
14041	32-36	9267-114	9016-1-72-100	05/20/77	STREAM	DRY	1000	0500	1		1.66	1.59	8.67	1.06
14042	32-36	9601-114	8535-1-72-100	05/20/77	STREAM	DRY	1000	0500	1		1.16	1.68	2.41	0.42
14043	32-36	9574-114	8536-1-72-100	05/20/77	STREAM	DRY	1000	0500	1		1.53	1.55	6.55	0.76

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

SITE NUMBER	-----DOE SAMPLE NUMBER-----			DATE MO-DA-YR	SAMPLE SOURCE/COND.	PARTICLE SIZE		POS. CONT	Q. C. X-REF	URANIUM(DNC)		THORIUM(NAA)		
	ST	LAT, LONG,	L TY RPL			UPPER	LOWER			PPM	%ERR	PPM	ERR	
14044	32-36	8084-114	8858-1-72-100	05/21/77	STREAM	DRY	1000	0500	1		2.49	1.36	11.79	1.04
14045	32-36	8310-114	8886-1-72-100	05/21/77	STREAM	DRY	1000	0500	5		2.90	1.35	14.68	1.28
14046	32-36	8304-114	9054-1-72-100	05/21/77	STREAM	DRY	1000	0500	5		2.61	1.35	11.73	1.03
14047	32-36	8656-114	9089-1-72-100	05/21/77	STREAM	DRY	1000	0500	5		2.82	1.42	16.24	1.48
14048	32-36	8828-114	9152-1-72-100	05/21/77	STREAM	DRY	1000	0500	5		2.79	1.41	13.58	1.44
14049	32-36	9057-114	9325-1-72-100	05/21/77	STREAM	DRY	1000	0500	5		2.97	1.55	15.51	2.55
14050	32-36	9312-114	9498-1-72-100	05/21/77	STREAM	DRY	1000	0500	1		4.29	1.31	21.16	1.60
14051	32-36	9504-114	9639-1-72-100	05/21/77	STREAM	DRY	1000	0500	1		2.77	1.44	14.01	1.72
14052	32-36	9999-114	9652-1-72-100	05/21/77	STREAM	DRY	1000	0500	1		0.84	2.15	2.77	1.00
14053	32-36	8927-114	9632-1-72-100	05/21/77	STREAM	DRY	1000	0500	1		0.80	1.79	2.93	0.41
14054	32-36	9062-114	9662-1-72-100	05/21/77	STREAM	DRY	1000	0500	1		0.84	1.89	2.32	0.68
14055	32-36	9741-114	9801-1-72-100	05/21/77	STREAM	DRY	1000	0500	1		2.29	1.49	14.89	1.37
14056	32-36	9842-114	9394-1-72-100	05/21/77	STREAM	DRY	1000	0500	1		2.74	1.45	16.54	1.72
14057	32-36	9644-114	8894-1-72-100	05/22/77	STREAM	DRY	1000	0500	1		1.13	1.83	5.67	0.96
14058	32-36	9825-114	8439-1-72-100	05/22/77	STREAM	DRY	1000	0500	1		0.74	1.71		
14093	32-36	9391-114	5577-1-72-100	05/27/77	STREAM	DRY	1000	0500	1		1.72	1.55	7.64	0.88
14094	32-36	9314-114	5322-1-72-100	05/27/77	STREAM	DRY	1000	0500	1		1.08	1.54		
14095	32-36	9395-114	5341-1-72-100	05/27/77	STREAM	DRY	1000	0500	1		1.24	1.57	1.91	0.48
14096	32-36	9429-114	5228-1-72-100	05/27/77	STREAM	DRY	1000	0500	1		1.61	1.47	2.99	0.75
14097	32-36	9500-114	5203-1-72-100	05/27/77	STREAM	DRY	1000	0500	1		1.24	1.54	1.69	0.36
14098	32-36	9570-114	5089-1-72-100	05/27/77	STREAM	DRY	1000	0500	1		1.49	1.49	2.62	0.42
14099	32-36	9604-114	4987-1-72-100	05/27/77	STREAM	DRY	1000	0500	1		1.81	1.43	5.50	0.63
14099	32-36	9604-114	4987-1-72-101		STREAM	DRY	1000	0500			1.71	1.48	5.14	0.57
14437	32-36	7936-114	7204-1-72-100	05/27/77	STREAM	DRY	1000	0500	1		1.83	1.43	3.42	0.52
14438	32-36	7927-114	7204-1-72-100	05/27/77	STREAM	DRY	1000	0500	1		2.15	1.34	3.20	0.66
14439	32-36	7810-114	7207-1-72-100	05/27/77	STREAM	DRY	1000	0500	2		2.85	1.30	4.71	0.78
14439	32-36	7810-114	7207-1-72-101		STREAM	DRY	1000	0500			2.83	1.34	3.87	0.90
14440	32-36	7721-114	7266-1-72-100	05/27/77	STREAM	DRY	1000	0500	1		2.34	1.40	3.46	0.71
14441	32-36	7667-114	7290-1-72-100	05/27/77	STREAM	DRY	1000	0500	1		2.59	1.29	4.11	0.55
14442	32-36	7543-114	7394-1-72-100	05/27/77	STREAM	DRY	1000	0500	1		2.36	1.27	2.24	0.38
14501	32-36	4946-114	9803-1-72-100	05/17/77	STREAM	DRY	1000	0500	1		1.68	1.46	2.32	0.48
14502	32-36	4946-114	9803-1-72-100	05/17/77	STREAM	DRY	1000	0500	1		1.84	1.39		
14503	32-36	4479-114	9414-1-72-100	05/17/77	STREAM	DRY	1000	0500	1		2.44	1.38	3.74	0.61
14504	32-36	4434-114	9382-1-72-100	05/17/77	STREAM	DRY	1000	0500	1		3.06	1.29	3.47	0.54
14505	32-36	4333-114	9295-1-72-100	05/17/77	STREAM	DRY	1000	0500	1		2.42	1.36	2.74	0.88
14506	32-36	4378-114	9316-1-72-100	05/17/77	STREAM	DRY	1000	0500	1		2.95	1.25	2.68	0.49
14507	32-36	4287-114	9252-1-72-100	05/17/77	STREAM	DRY	1000	0500	1		2.23	1.38	2.66	0.50
14508	32-36	4306-114	9273-1-72-100	05/17/77	STREAM	DRY	1000	0500	1		2.92	1.30	2.87	0.68
14509	32-36	4287-114	9263-1-72-100	05/17/77	STREAM	DRY	1000	0500	1		3.22	1.24	1.99	0.44
14509	32-36	4287-114	9263-1-72-101		STREAM	DRY	1000	0500			3.06	1.27	2.01	0.43
14510	32-36	4122-114	9111-1-72-100	05/17/77	STREAM	DRY	1000	0500	1		2.67	1.30	3.12	0.55
14511	32-36	5801-114	7233-1-72-100	05/18/77	STREAM	DRY	1000	0500	4		0.88	1.82	2.36	0.50
14512	32-36	5589-114	7016-1-72-100	05/18/77	STREAM	DRY	1000	0500	4		1.91	1.40	3.54	0.40
14513	32-36	5491-114	7041-1-72-100	05/18/77	STREAM	DRY	1000	0500	3		1.35	1.55	2.08	0.55
14514	32-36	6069-114	6666-1-72-100	05/18/77	STREAM	DRY	1000	0500	4		1.81	1.39	2.12	0.62
14515	32-36	6193-114	6528-1-72-100	05/18/77	STREAM	DRY	1000	0500	4		2.52	1.37	2.01	0.52
14516	32-36	6508-114	6060-1-72-100	05/18/77	STREAM	DRY	1000	0500	9		1.91	1.41	3.83	0.65
14517	32-36	6734-114	6132-1-72-100	05/18/77	STREAM	DRY	1000	0500	9		3.37	1.33	17.10	1.25
14518	32-36	6347-114	7038-1-72-100	05/18/77	STREAM	DRY	1000	0500	1		2.01	1.50	4.75	1.14

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

SITE NUMBER	-----DOE SAMPLE NUMBER-----				DATE MO-DA-YR	SAMPLE SOURCE/COND.	PARTICLE UPPER	SIZE LOWER	POS. CONT	Q, C, X-REF	URANIUM(DNC)		THORIUM(NAA)	
	ST	LAT, LONG,	L	TY RPL							PPM	%ERR	PPM	ERR
14519	32-36,6499-114,7470-1-72-100	05/18/77	STREAM	DRY	1000	0500	1				2,33	1,30		
14519	32-36,6499-114,7470-1-72-101		STREAM	DRY	1000	0500					2,40	1,34	3,26	0,64
14520	32-36,6504-114,7246-1-72-100	05/18/77	STREAM	DRY	1000	0500	1				2,10	1,35		
14521	32-36,6658-114,7309-1-72-100	05/18/77	STREAM	DRY	1000	0500	1				2,44	1,40	3,48	0,96
14522	32-36,6860-114,7459-1-72-100	05/18/77	STREAM	DRY	1000	0500	1				3,93	1,27	2,63	0,67
14523	32-36,6864-114,7213-1-72-100	05/18/77	STREAM	DRY	1000	0500	1				3,16	1,24	2,14	0,54
14524	32-36,6819-114,7203-1-72-100	05/18/77	STREAM	DRY	1000	0500	1				2,53	1,31	2,25	0,49
14525	32-36,7354-114,7400-1-72-100	05/19/77	STREAM	DRY	1000	0500	6				2,29	1,39	9,82	0,92
14526	32-36,7156-114,7417-1-72-100	05/19/77	STREAM	DRY	1000	0500	1				2,93	1,28		
14527	32-36,7028-114,7331-1-72-100	05/19/77	STREAM	DRY	1000	0500	1				2,26	1,30		
14528	32-36,7044-114,7208-1-72-100	05/19/77	STREAM	DRY	1000	0500	1				2,10	1,35		
14529	32-36,7204-114,5748-1-72-100	05/20/77	STREAM	DRY	1000	0500	9				2,74	1,38	9,80	1,01
14530	32-36,7068-114,5674-1-72-100	05/20/77	STREAM	DRY	1000	0500	9				1,83	1,51	7,02	0,76
14531	32-36,6921-114,5544-1-72-100	05/20/77	STREAM	DRY	1000	0500	9				1,94	1,46	6,69	0,67
14532	32-36,6752-114,5236-1-72-100	05/20/77	STREAM	DRY	1000	0500	9				1,74	1,40		
14533	32-36,6692-114,5361-1-72-100	05/20/77	STREAM	DRY	1000	0500	9				2,19	1,44	7,56	0,84
14534	32-36,6905-114,5220-1-72-100	05/20/77	STREAM	DRY	1000	0500	9				1,95	1,44	3,34	0,68
14535	32-36,7009-114,5429-1-72-100	05/20/77	STREAM	DRY	1000	0500	9				2,00	1,43	7,96	0,68
14536	32-36,7186-114,5278-1-72-100	05/20/77	STREAM	DRY	1000	0500	9				1,89	1,44	4,23	0,56
14537	32-36,7240-114,5287-1-72-100	05/20/77	STREAM	DRY	1000	0500	9				1,44	1,57	3,93	0,61
14538	32-36,7206-114,5378-1-72-100	05/20/77	STREAM	DRY	1000	0500	9				2,72	1,33	9,29	1,00
14539	32-36,7367-114,5306-1-72-100	05/20/77	STREAM	DRY	1000	0500	9				2,24	1,41	7,43	0,81
14539	32-36,7367-114,5306-1-72-101		STREAM	DRY	1000	0500					2,23	1,39	6,26	0,75
14540	32-36,7568-114,5008-1-72-100	05/20/77	STREAM	DRY	1000	0500	1				1,63	1,54	2,53	0,58
14541	32-36,7632-114,5084-1-72-100	05/20/77	STREAM	DRY	1000	0500	1				1,48	1,55	3,30	0,65
14542	32-36,7748-114,5002-1-72-100	05/20/77	STREAM	DRY	1000	0500	1				1,44	1,59	4,18	0,63
14543	32-36,8111-114,5136-1-72-100	05/20/77	STREAM	DRY	1000	0500	1				2,43	1,34	6,70	0,85
14544	32-36,8342-114,4961-1-72-100	05/20/77	STREAM	DRY	1000	0500	1				2,21	1,37	1,84	0,54
14545	32-36,8664-114,4871-1-72-100	05/20/77	STREAM	DRY	1000	0500	1				1,20	1,57	1,50	0,37
14546	32-36,8385-114,4455-1-72-100	05/20/77	STREAM	DRY	1000	0500	1				2,23	1,35		
14547	32-36,8093-114,4700-1-72-100	05/20/77	STREAM	DRY	1000	0500	1				1,82	1,40		
14548	32-36,7690-114,4836-1-72-100	05/20/77	STREAM	DRY	1000	0500	1				2,46	1,34	3,10	0,59
14549	32-36,7738-114,4106-1-72-100	05/20/77	STREAM	DRY	1000	0500	4				1,49	1,55	2,25	0,60
14549	32-36,7738-114,4106-1-72-101		STREAM	DRY	1000	0500					1,50	1,53	2,46	0,48
14550	32-36,7392-114,4387-1-72-100	05/20/77	STREAM	DRY	1000	0500	1				1,06	1,77	3,24	0,49
14551	32-36,8345-114,0028-1-72-100	05/21/77	STREAM	DRY	1000	0500	9				2,62	1,40	11,94	1,05
14552	32-36,8217-114,0672-1-72-100	05/21/77	STREAM	DRY	1000	0500	6				1,51	1,59	5,41	0,65
14553	32-36,8262-114,0670-1-72-100	05/21/77	STREAM	DRY	1000	0500	1				2,23	1,39	5,64	0,77
14554	32-36,8434-114,0731-1-72-100	05/21/77	STREAM	DRY	1000	0500	9				1,47	1,47		
14555	32-36,8587-114,0725-1-72-100	05/21/77	STREAM	DRY	1000	0500	9				1,85	1,50	5,90	0,92
14556	32-36,8606-114,0758-1-72-100	05/21/77	STREAM	DRY	1000	0500	9				1,61	1,51	4,82	0,68
14557	32-36,8722-114,0697-1-72-100	05/21/77	STREAM	DRY	1000	0500	9				2,36	1,48	8,23	0,92
14558	32-36,8739-114,0652-1-72-100	05/21/77	STREAM	DRY	1000	0500	9				2,78	1,31	10,33	0,78
14559	32-36,8748-114,0662-1-72-100	05/21/77	STREAM	DRY	1000	0500	9				1,73	1,51	6,65	0,85
14559	32-36,8748-114,0662-1-72-101		STREAM	DRY	1000	0500					1,84	1,43	6,27	0,70
14560	32-36,8214-114,0929-1-72-100	05/21/77	STREAM	DRY	1000	0500	9				1,64	1,54	5,98	0,64
14561	32-36,8067-114,1170-1-72-100	05/21/77	STREAM	DRY	1000	0500	9				1,45	1,71	5,58	0,91
14562	32-36,8147-114,1156-1-72-100	05/21/77	STREAM	DRY	1000	0500	9				1,81	1,62	7,78	0,79
14563	32-36,7805-114,1539-1-72-100	05/21/77	STREAM	DRY	1000	0500	9				1,74	1,50	5,68	0,74

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

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SITE NUMBER	DOE ST	SAMPLE NUMBER			DATE MO-DA-YR	SAMPLE SOURCE/COND.	PARTICLE SIZE		POS. CONT	Q. C. X-REF	URANIUM(DNC)		THORIUM(NAA)	
		LAT.	LONG.	L TY RPL			UPPER	LOWER			PPM	%ERR	PPM	ERR
14564	32-36	7841-114	1515-1-72-100	05/21/77	STREAM	DRY	1000	0500	9		1.29	1.62	4.02	0.65
14565	32-36	7806-114	2345-1-72-100	05/21/77	STREAM	DRY	1000	0500	9		1.03	1.59		
14566	32-36	7869-114	1951-1-72-100	05/21/77	STREAM	DRY	1000	0500	9		1.69	1.41		
14567	32-36	8173-114	1872-1-72-100	05/22/77	STREAM	DRY	1000	0500	1		2.37	1.45	11.10	1.08
14568	32-36	8214-114	1703-1-72-100	05/22/77	STREAM	DRY	1000	0500	9		1.60	1.63	6.32	1.10
14569	32-36	8965-114	1810-1-72-100	05/22/77	STREAM	DRY	1000	0500	1		3.21	1.35	17.30	1.20
14570	32-36	9780-114	2341-1-72-100	05/22/77	STREAM	DRY	1000	0500	1		2.88	1.43	16.64	1.56
14571	32-36	9151-114	2443-1-72-100	05/22/77	STREAM	DRY	1000	0500	1		1.87	1.47	5.35	0.89
14572	32-36	9233-114	2092-1-72-100	05/22/77	STREAM	DRY	1000	0500	1		2.88	1.37	15.04	1.18
14573	32-36	9045-114	2143-1-72-100	05/22/77	STREAM	DRY	1000	0500	9		1.98	1.49	5.31	1.02
14574	32-36	8942-114	1990-1-72-100	05/22/77	STREAM	DRY	1000	0500	9		3.40	1.30	14.74	1.09
14575	32-36	9686-114	1828-1-72-100	05/22/77	STREAM	DRY	1000	0500	1		1.04	1.84	3.87	0.62
14576	32-36	9768-114	1466-1-72-100	05/22/77	STREAM	DRY	1000	0500	1		1.45	1.66	4.19	0.74
14577	32-36	9642-114	1470-1-72-100	05/22/77	STREAM	DRY	1000	0500	9		1.94	1.52	6.53	0.79
14578	32-36	9440-114	1310-1-72-100	05/22/77	STREAM	DRY	1000	0500	9		3.10	1.25		
14579	32-36	9337-114	1167-1-72-100	05/22/77	STREAM	DRY	1000	0500	9		2.68	1.37	12.22	1.13
14579	32-36	9337-114	1167-1-72-101		STREAM	DRY	1000	0500			2.36	1.41	10.52	1.01
14580	32-36	9713-114	1052-1-72-100	05/22/77	STREAM	DRY	1000	0500	9		2.97	1.24		
14581	32-36	9418-114	0446-1-72-100	05/22/77	STREAM	DRY	1000	0500	9		2.60	1.47	13.40	1.56
14582	32-36	9684-114	0604-1-72-100	05/22/77	STREAM	DRY	1000	0500	9		2.35	1.45	11.58	0.95
14583	32-36	8693-114	1360-1-72-100	05/22/77	STREAM	DRY	1000	0500	9		1.94	1.46	6.69	0.68
14584	32-36	9071-114	1323-1-72-100	05/22/77	STREAM	DRY	1000	0500	9		3.08	1.31	13.59	0.96
14585	32-36	8283-114	2294-1-72-100	05/23/77	STREAM	DRY	1000	0500	9		1.53	1.48	2.50	0.56
14586	32-36	8323-114	2080-1-72-100	05/23/77	STREAM	DRY	1000	0500	9		2.37	1.57	15.30	1.74
14587	32-36	8714-114	2234-1-72-100	05/23/77	STREAM	DRY	1000	0500	1		2.25	1.44	8.57	1.03
14626	32-36	8900-114	4931-1-72-100	05/27/77	STREAM	DRY	1000	0500	1		1.08	1.72	2.87	0.55
14627	32-36	9149-114	4788-1-72-100	05/27/77	STREAM	DRY	1000	0500	1		1.04	1.72	2.71	0.55
14628	32-36	9060-114	5240-1-72-100	05/27/77	STREAM	DRY	1000	0500	1		0.87	1.63		
14629	32-36	9421-114	4880-1-72-100	05/22/77	STREAM	DRY	1000	0500	1		1.55	1.57	3.51	0.84
14629	32-36	9421-114	4880-1-72-101		STREAM	DRY	1000	0500			1.49	1.56	4.81	0.75
15101	4-36	2077-114	9132-1-70-100	08/18/77	STREAM	WET	1000	0500	1		2.90	1.42	2.54	0.54
15102	4-36	0771-115	0832-1-72-100	09/02/77	STREAM	DRY	1000	0500	9		2.36	1.51	6.24	0.87
15103	4-36	1077-114	9686-1-72-100	09/02/77	STREAM	DRY	1000	0500	1		1.26	1.61	4.19	0.65
15104	4-36	0170-115	1047-1-72-100	09/06/77	STREAM	DRY	1000	0500	6		3.42	1.35	20.35	1.62
15105	4-36	0559-115	1098-1-72-100	09/06/77	STREAM	DRY	1000	0500	9		2.21	1.56	6.37	0.92
15106	4-36	0455-115	0796-1-72-100	09/06/77	STREAM	DRY	1000	0500	1		2.55	1.42	13.19	1.06
15107	4-36	0465-115	0595-1-72-100	09/06/77	STREAM	DRY	1000	0500	1		2.98	1.49	6.74	0.99
15108	4-36	0424-115	0535-1-70-100	09/07/77	STREAM	WET	1000	0500	4		3.91	1.37	22.07	2.33
15109	4-36	1599-115	0473-1-70-100	09/07/77	STREAM	WET	1000	0500	3		2.48	1.60	6.07	1.70
15110	4-36	1575-115	0374-1-72-100	09/07/77	STREAM	DRY	1000	0500	4		2.51	1.53	7.99	0.96
15111	4-36	1692-115	0399-1-72-100	09/07/77	STREAM	DRY	1000	0500	6		1.93	1.54	6.33	0.81
15112	4-36	1543-115	0369-1-72-100	09/07/77	STREAM	DRY	1000	0500	1		1.94	1.63	7.99	0.82
15115	4-36	5023-114	7112-1-72-100	09/12/77	STREAM	DRY	1000	0500	1		2.75	1.46	7.43	1.59
15116	4-36	4239-114	7591-1-72-100	09/12/77	STREAM	DRY	1000	0500	1		0.94	2.06	1.96	0.54
15117	4-36	3603-114	7799-1-72-100	09/12/77	STREAM	DRY	1000	0500	1		2.28	1.43	8.62	0.83
15118	32-36	2821-114	1888-1-72-100	09/20/77	STREAM	DRY	1000	0500	1		5.90	1.36	39.29	3.52
15119	4-36	2392-114	1692-1-70-100	09/20/77	STREAM	WET	1000	0500	5		1.52	1.97	14.62	2.03
15120	4-36	1754-114	2137-1-72-100	09/21/77	STREAM	DRY	1000	0500	1		3.75	1.45	20.60	2.71
15121	4-36	1832-114	2379-1-72-100	09/21/77	STREAM	DRY	1000	0500	1		0.83	2.22	11.02	1.07

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

SITE NUMBER	-----DOE SAMPLE NUMBER-----				DATE MO-DA-YR	SAMPLE SOURCE/COND.	PARTICLE SIZE		POS. CONT	Q. C. X-REF	URANIUM(DNC)		THORIUM(NAA)	
	ST	LAT,	LONG,	L TY RPL			UPPER	LOWER			PPM	%ERR	PPM	ERR
15122	32-36	1921-114	2721-1-72-100	09/21/77	STREAM	DRY	1000	0500	1		1.07	1.93	11.17	1.10
15123	32-36	2183-114	2745-1-72-100	09/21/77	STREAM	DRY	1000	0500	1		0.70	2.46	7.23	1.11
15124	32-36	2452-114	3091-1-70-100	09/21/77	STREAM	WET	1000	0500	5		0.99	2.54	22.02	1.73
15125	32-36	3144-114	2221-1-72-100	09/21/77	STREAM	DRY	1000	0500	1		1.31	1.52	2.53	0.41
15126	4-36	3337-114	5701-1-72-100	09/06/77	STREAM	DRY	1000	0500	2		1.89	1.46	6.04	0.64
15127	4-36	2754-114	5407-1-72-100	09/06/77	STREAM	DRY	1000	0500	1		1.55	1.41	2.18	0.46
15128	4-36	2848-114	5137-1-70-100	09/06/77	STREAM	WET	1000	0500	9		1.68	1.39	2.24	0.33
15129	4-36	2035-114	6422-1-72-100	09/09/77	STREAM	DRY	1000	0500	1		2.05	1.38	3.62	0.68
15130	4-36	2117-114	5539-1-70-100	09/09/77	STREAM	WET	1000	0500	5		0.68	2.29	2.82	0.76
15132	32-36	4428-114	4027-1-72-100	09/09/77	STREAM	DRY	1000	0500	2		2.14	1.47		
15133	32-36	4067-114	4429-1-72-100	09/09/77	STREAM	DRY	1000	0500	5		0.86	1.61	1.54	0.30
15134	32-36	2787-114	1978-1-72-100	09/22/77	STREAM	DRY	1000	0500	2		3.27	1.26		
15135	32-36	2958-114	1582-1-72-100	09/22/77	STREAM	DRY	1000	0500	2		0.98	2.22	10.68	1.22
15136	32-36	3499-114	1240-1-70-100	09/22/77	STREAM	WET	1000	0500	1		5.38	1.21	19.18	1.47
15138	32-36	4599-114	2002-1-70-100	09/22/77	STREAM	WET	1000	0500	5		2.97	1.27	2.46	0.59
15140	4-36	5808-114	0573-1-70-100	09/23/77	STREAM	WET	1000	0500	5		5.52	1.20	14.32	1.25
15141	4-36	5248-114	0505-1-70-100	09/23/77	STREAM	WET	1000	0500	1		1.67	1.47	4.28	0.58
15142	4-36	6360-114	2565-1-72-100	10/27/77	STREAM	DRY	1000	0500	1		2.55	1.46	8.28	1.05
15143	4-36	6187-114	1721-1-72-100	11/02/77	STREAM	DRY	1000	0500	5		7.00	1.18	22.79	2.01
15144	4-36	6258-114	1674-1-72-100	11/02/77	STREAM	DRY	1000	0500	5		1.99	1.81	8.36	2.35
15145	4-36	5511-114	0238-1-70-100	09/23/77	STREAM	WET	1000	0500	5		0.99	2.29	2.80	0.80
15147	4-36	5390-114	0790-1-72-100	09/23/77	STREAM	DRY	1000	0500	5		3.92	1.27	11.80	0.98
15148	4-36	6482-114	1241-1-70-100	11/02/77	STREAM	WET	1000	0500	5		1.93	1.41	7.44	0.70
15149	4-36	6451-114	1812-1-72-100	11/02/77	STREAM	DRY	1000	0500	5		1.71	1.63	5.45	0.84
15151	4-36	2433-114	1879-1-72-100	09/21/77	STREAM	DRY	1000	0500	2		0.77	2.17	5.47	0.99
15152	4-36	1857-114	1911-1-72-100	09/21/77	STREAM	DRY	1000	0500	5		1.00	1.98	8.41	1.07
15153	4-36	1697-114	2384-1-72-100	09/21/77	STREAM	DRY	1000	0500	5		2.39	1.52	16.74	1.57
15154	4-36	1929-114	2320-1-72-100	09/21/77	STREAM	DRY	1000	0500	1		0.95	2.27	11.93	1.37
15155	32-36	2613-114	3041-1-70-100	09/21/77	STREAM	WET	1000	0500	5		1.71	1.80	12.85	1.79
15156	32-36	2628-114	2918-1-72-100	09/21/77	STREAM	DRY	1000	0500	5		1.64	1.67	7.36	1.01
15157	32-36	2660-114	2739-1-72-100	09/21/77	STREAM	DRY	1000	0500	5		1.25	1.89	14.97	1.28
15158	32-36	3026-114	1424-1-72-100	09/22/77	STREAM	DRY	1000	0500	5		0.50	2.10		
15159	4-36	2474-114	0977-1-72-100	09/22/77	STREAM	DRY	1000	0500	5		2.64	1.33	4.64	1.08
15161	4-36	2467-114	1044-1-70-100	09/22/77	STREAM	WET	1000	0500	5		1.27	1.46		
15162	32-36	2893-114	1128-1-72-100	09/22/77	STREAM	DRY	1000	0500	5		2.29	1.48	4.81	1.38
20695	32-36	0624-114	5718-1-72-100	08/04/77	STREAM	DRY	1000	0500	1		1.87	1.53	11.14	1.02
20695	32-36	0624-114	5718-1-72-110		STREAM	DRY	1000	0500			1.94	1.90	14.21	2.42
20696	32-36	0725-114	5782-1-72-100	08/04/77	STREAM	DRY	1000	0500	1		2.57	1.41	8.94	1.08
20697	32-36	1140-114	5835-1-72-100	08/04/77	STREAM	DRY	1000	0500	1		3.32	1.47	16.66	2.50
20698	32-36	1141-114	5869-1-72-100	08/04/77	STREAM	DRY	1000	0500	1		2.43	1.45	12.66	1.29
20699	32-36	1113-114	5825-1-72-100	08/04/77	STREAM	DRY	1000	0500	1		2.48	1.43	13.16	1.30
20700	32-36	0922-114	6164-1-72-100	08/04/77	STREAM	DRY	1000	0500	1		2.07	1.71	13.33	2.08
20701	32-36	1839-114	2701-1-72-100	07/20/77	STREAM	DRY	1000	0500	1		1.23	2.35	23.56	2.05
20702	32-36	1759-114	3149-1-72-100	07/20/77	STREAM	DRY	1000	0500	1		1.37	2.29	23.60	2.23
20703	32-36	1647-114	2975-1-72-100	07/20/77	STREAM	DRY	1000	0500	1		0.91	2.51	8.98	1.66
20704	32-36	1989-114	2562-1-72-100	07/20/77	STREAM	DRY	1000	0500	1		0.66	3.09	20.26	1.46
20705	32-36	2205-114	2555-1-72-100	07/20/77	STREAM	DRY	1000	0500	1		0.81	3.04	14.30	1.91
20706	32-36	2368-114	2583-1-72-100	07/20/77	STREAM	DRY	1000	0500	1		0.83	2.09	4.98	0.91
20707	32-36	2415-114	2659-1-72-100	07/20/77	STREAM	DRY	1000	0500	1		1.24	2.34	15.92	2.13

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

SITE NUMBER	DOE SAMPLE NUMBER			DATE MO-DA-YR	SAMPLE SOURCE/COND.	PARTICLE SIZE		POS. CONT	Q. C. X-REF	URANIUM(DNC)		THORIUM(NAA)	
	ST	LAT, LONG,	L TY RPL			UPPER	LOWER			PPM	%ERR	PPM	ERR
20708	32-36	2454-114	3180-1-72-100	07/20/77	STREAM	DRY	1000	0500	1	1.19	1.83	7.99	1.15
20709	32-36	2034-114	2961-1-72-100	07/20/77	STREAM	DRY	1000	0500	1	0.66	2.54	9.73	1.04
20709	32-36	2034-114	2961-1-72-101		STREAM	DRY	1000	0500		0.78	3.21	22.95	1.89
20710	32-36	2132-114	2913-1-72-100	07/20/77	STREAM	DRY	1000	0500	1	1.59	1.49	3.56	0.84
20711	32-36	6139-114	1600-1-72-100	07/21/77	STREAM	DRY	1000	0500	2	1.54	1.44		
20712	32-36	6263-114	1484-1-72-100	07/21/77	STREAM	DRY	1000	0500	1	0.57	2.38	4.39	0.74
20713	32-36	6274-114	1562-1-72-100	07/21/77	STREAM	DRY	1000	0500	1	0.60	2.37	5.96	0.70
20714	32-36	6416-114	1489-1-72-100	07/21/77	STREAM	DRY	1000	0500	1	1.42	1.62	6.40	0.78
20715	32-36	6482-114	1230-1-72-100	07/21/77	STREAM	DRY	1000	0500	1	0.88	2.24	11.72	1.17
20716	32-36	6547-114	1294-1-72-100	07/21/77	STREAM	DRY	1000	0500	1	1.28	1.87	15.56	1.19
20717	32-36	6650-114	1492-1-72-100	07/21/77	STREAM	DRY	1000	0500	1	1.48	1.76	14.93	1.34
20718	32-36	6615-114	1124-1-72-100	07/21/77	STREAM	DRY	1000	0500	1	2.03	1.83	26.43	2.20
20719	32-36	6612-114	1012-1-72-100	07/21/77	STREAM	DRY	1000	0500	1	1.56	1.81	17.15	1.57
20719	32-36	6612-114	1012-1-72-101		STREAM	DRY	1000	0500		1.54	1.93	14.45	1.73
20720	32-36	6705-114	0774-1-72-100	07/21/77	STREAM	DRY	1000	0500	1	1.54	1.73	12.22	1.34
20721	32-36	6687-114	0763-1-72-100	07/21/77	STREAM	DRY	1000	0500	1	1.87	1.77	22.63	1.85
20722	32-36	6694-114	0696-1-72-100	07/21/77	STREAM	DRY	1000	0500	1	4.09	1.33	13.58	1.83
20723	32-36	6757-114	0671-1-72-100	07/21/77	STREAM	DRY	1000	0500	1	1.87	1.52	12.77	1.06
20724	32-36	6997-114	0561-1-72-100	07/21/77	STREAM	DRY	1000	0500	1	1.52	1.53	7.78	0.72
20725	32-36	7422-114	0612-1-72-100	07/21/77	STREAM	DRY	1000	0500	1	1.78	1.36		
20726	32-36	1642-114	1963-1-72-100	07/22/77	STREAM	DRY	1000	0500	2	0.91	2.17	14.37	1.03
20727	32-36	1787-114	2014-1-72-100	07/22/77	STREAM	DRY	1000	0500	1	0.89	2.34	15.59	1.27
20728	32-36	1836-114	2179-1-72-100	07/22/77	STREAM	DRY	1000	0500	1	1.11	2.34	22.71	1.74
20729	32-36	1753-114	2482-1-72-100	07/22/77	STREAM	DRY	1000	0500	1	1.58	1.69	14.15	1.21
20729	32-36	1753-114	2482-1-72-101		STREAM	DRY	1000	0500		1.30	1.96	8.70	1.54
20729	32-36	1753-114	2482-1-72-110		STREAM	DRY	1000	0500		1.91	2.06	35.70	2.60
20729	32-36	1753-114	2482-1-72-111		STREAM	DRY	1000	0500		2.01	1.69	20.01	1.63
20730	32-36	1736-114	2516-1-72-100	07/22/77	STREAM	DRY	1000	0500	1	2.49	2.74	90.14	5.41
20731	32-36	2151-114	2168-1-72-100	07/22/77	STREAM	DRY	1000	0500	1	1.00	1.57		
20732	32-36	2187-114	2177-1-72-100	07/22/77	STREAM	DRY	1000	0500	1	1.10	2.15	15.76	1.41
20733	32-36	2629-114	2173-1-72-100	07/22/77	STREAM	DRY	1000	0500	1	1.68	1.62	11.66	1.29
20734	4-36	2442-114	1901-1-72-100	07/22/77	STREAM	DRY	1000	0500	1	1.35	1.69	7.88	0.94
20736	32-36	2910-114	1105-1-72-100	07/22/77	STREAM	DRY	1000	0500	1	0.76	1.72		
20737	32-36	1646-114	1018-1-72-100	07/23/77	STREAM	DRY	1000	0500	1	1.88	1.42	6.00	0.76
20738	32-36	1801-114	1079-1-72-100	07/23/77	STREAM	DRY	1000	0500	2	1.42	1.68	4.85	1.23
20739	32-36	1766-114	1125-1-72-100	07/23/77	STREAM	DRY	1000	0500	1	2.11	1.48	10.51	1.23
20739	32-36	1766-114	1125-1-72-101		STREAM	DRY	1000	0500		4.13	1.57	29.93	3.86
20740	32-36	1903-114	1198-1-72-100	07/23/77	STREAM	DRY	1000	0500	1	5.53	1.35	50.69	3.29
20741	32-36	2226-114	1153-1-72-100	07/23/77	STREAM	DRY	1000	0500	1	1.80	2.38	50.64	2.99
20742	32-36	2226-114	1131-1-72-100	07/23/77	STREAM	DRY	1000	0500	1	1.93	1.65	7.26	1.74
20743	32-36	2648-114	1093-1-72-100	07/23/77	STREAM	DRY	1000	0500	1	1.23	1.79	7.25	1.04
20744	32-36	3190-114	0772-1-72-100	07/23/77	STREAM	DRY	1000	0500	2	0.90	1.95	4.02	0.95
20745	32-36	3201-114	0838-1-72-100	07/23/77	STREAM	DRY	1000	0500	1	0.94	1.63		
20746	32-36	3107-114	1042-1-72-100	07/23/77	STREAM	DRY	1000	0500	1	0.88	2.03	5.11	0.76
20747	32-36	3051-114	1323-1-72-100	07/23/77	STREAM	DRY	1000	0500	1	0.42	3.69	4.19	1.17
20748	32-36	3018-114	2215-1-72-100	07/23/77	STREAM	DRY	1000	0500	1	1.33	2.28	3.43	2.33
20749	32-36	3063-114	2213-1-72-100	07/23/77	STREAM	DRY	1000	0500	1	0.99	2.49	8.43	1.67
20749	32-36	3063-114	2213-1-72-101		STREAM	DRY	1000	0500		1.07	2.04	8.76	1.21
20750	32-36	3102-114	2345-1-72-100	07/23/77	STREAM	DRY	1000	0500	1	2.19	2.01	6.78	3.31

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

SITE NUMBER	-----DOE SAMPLE NUMBER-----			DATE MO-DA-YR	SAMPLE SOURCE/COND.	PARTICLE SIZE		POS. CONT	Q, C, X-REF	URANIUM(DNC)		THORIUM(NAA)	
	ST	LAT, LONG, L	TY RPL			UPPER	LOWER			PPM	%ERR	PPM	ERR
20751	32-36,3200-114,2297-1-72-100	07/23/77	STREAM	DRY	1000	0500	1			0,90	2,10	6,62	0,96
20752	32-36,6436-114,2338-1-72-100	07/24/77	STREAM	DRY	1000	0500	1			4,31	1,25	16,26	1,43
20753	32-36,6165-114,2303-1-72-100	07/24/77	STREAM	DRY	1000	0500	1			1,32	1,69	6,34	1,00
20754	32-36,5487-114,2607-1-72-100	07/24/77	STREAM	DRY	1000	0500	1			1,29	1,66	6,08	0,84
20755	32-36,5291-114,2714-1-72-100	07/24/77	STREAM	DRY	1000	0500	9			1,26	1,50	2,18	0,39
20756	32-36,5010-114,3014-1-72-100	07/24/77	STREAM	DRY	1000	0500	9			2,14	1,42	4,33	0,58
20757	32-36,5771-114,2027-1-72-100	07/24/77	STREAM	DRY	1000	0500	1			1,45	1,45	2,42	0,37
20758	32-36,5554-114,1621-1-72-100	07/24/77	STREAM	DRY	1000	0500	1			2,68	1,24		
20759	32-36,5456-114,1659-1-72-100	07/24/77	STREAM	DRY	1000	0500	1			2,22	1,28	0,98	0,27
20759	32-36,5456-114,1659-1-72-101		STREAM	DRY	1000	0500				2,49	1,28		
20760	32-36,5299-114,1508-1-72-100	07/24/77	STREAM	DRY	1000	0500	1			2,80	1,27	1,56	0,29
20760	32-36,5299-114,1508-1-72-110		STREAM	DRY	1000	0500				2,84	1,25		
20761	32-36,5308-114,1128-1-72-100	07/24/77	STREAM	DRY	1000	0500	1			2,29	1,33	1,27	0,32
20762	32-36,5486-114,1032-1-72-100	07/24/77	STREAM	DRY	1000	0500	1			1,27	1,49		
20763	32-36,5372-114,0813-1-72-100	07/24/77	STREAM	DRY	1000	0500	1			1,72	1,49	5,21	0,60
20764	32-36,5323-114,1016-1-72-100	07/24/77	STREAM	DRY	1000	0500	1			1,71	1,49	8,82	0,71
20765	32-36,5013-114,1987-1-72-100	07/24/77	STREAM	DRY	1000	0500	1			1,69	1,53	3,03	0,53
20766	32-36,5093-114,1951-1-72-100	07/24/77	STREAM	DRY	1000	0500	1			1,99	1,33	1,54	0,44
20767	32-36,4755-114,1372-1-72-100	07/25/77	STREAM	DRY	1000	0500	1			1,00	1,61		
20768	32-36,4782-114,1382-1-72-100	07/25/77	STREAM	DRY	1000	0500	9			1,18	1,65	4,87	0,76
20769	32-36,4331-114,1343-1-72-100	07/25/77	STREAM	DRY	1000	0500	9			1,37	1,60	6,23	0,71
20770	32-36,4027-114,1443-1-72-100	07/25/77	STREAM	DRY	1000	0500	1			2,16	1,35	1,62	0,32
20771	32-36,3990-114,1411-1-72-100	07/25/77	STREAM	DRY	1000	0500	1			2,17	1,31	0,99	0,29
20772	32-36,3934-114,1692-1-72-100	07/25/77	STREAM	DRY	1000	0500	1			1,52	1,48	2,55	0,45
20773	32-36,4178-114,1727-1-72-100	07/25/77	STREAM	DRY	1000	0500	1			1,30	1,51	1,46	0,46
20774	32-36,4260-114,1758-1-72-100	07/25/77	STREAM	DRY	1000	0500	9			2,17	1,31		
20775	32-36,4411-114,1685-1-72-100	07/25/77	STREAM	DRY	1000	0500	9			1,23	1,56	3,13	0,51
20776	32-36,4467-114,1762-1-72-100	07/25/77	STREAM	DRY	1000	0500	1			1,04	1,68	2,76	0,50
20777	32-36,4319-114,2001-1-72-100	07/25/77	STREAM	DRY	1000	0500	1			1,32	1,55	3,62	0,51
20778	32-36,4563-114,2003-1-72-100	07/25/77	STREAM	DRY	1000	0500	9			0,96	2,15	4,01	1,05
20779	32-36,4591-114,2047-1-72-100	07/25/77	STREAM	DRY	1000	0500	1			3,76	1,21	3,01	0,50
20779	32-36,4591-114,2047-1-72-101		STREAM	DRY	1000	0500				3,57	1,25	3,20	0,93
20780	32-36,4659-114,2246-1-72-100	07/25/77	STREAM	DRY	1000	0500	1			2,38	1,42	7,71	0,94
20781	32-36,4538-114,2484-1-72-100	07/26/77	STREAM	DRY	1000	0500	9			1,11	1,79	5,17	0,84
20782	32-36,4425-114,2265-1-72-100	07/26/77	STREAM	DRY	1000	0500	1			1,19	1,53	2,17	0,38
20783	32-36,4279-114,2203-1-72-100	07/26/77	STREAM	DRY	1000	0500	1			0,81	1,93	3,63	0,67
20784	32-36,4090-114,2210-1-72-100	07/26/77	STREAM	DRY	1000	0500	1			0,96	1,91	5,77	0,83
20785	32-36,4045-114,2200-1-72-100	07/26/77	STREAM	DRY	1000	0500	1			1,17	1,65	7,28	0,65
20786	32-36,3846-114,2196-1-72-100	07/26/77	STREAM	DRY	1000	0500	1			1,34	1,74	4,12	1,16
20787	32-36,3723-114,2323-1-72-100	07/26/77	STREAM	DRY	1000	0500	1			0,88	1,84	6,38	0,54
20788	32-36,3606-114,2316-1-72-100	07/26/77	STREAM	DRY	1000	0500	1			0,82	2,00	5,27	0,82
20789	32-36,3554-114,2441-1-72-100	07/26/77	STREAM	DRY	1000	0500	1			1,75	1,44	3,23	0,52
20789	32-36,3554-114,2441-1-72-101		STREAM	DRY	1000	0500				1,81	1,47	2,59	0,48
20790	32-36,3471-114,2332-1-72-100	07/26/77	STREAM	DRY	1000	0500	1			1,91	1,39	2,39	0,42
20791	32-36,3489-114,2321-1-72-100	07/26/77	STREAM	DRY	1000	0500	1			1,36	1,53	5,59	0,60
20792	32-36,3380-114,2302-1-72-100	07/26/77	STREAM	DRY	1000	0500	1			1,64	1,47	5,70	0,73
20793	32-36,3103-114,2401-1-72-100	07/26/77	STREAM	DRY	1000	0500	1			1,22	1,57	2,04	0,36
20794	32-36,3225-114,1439-1-72-100	07/26/77	STREAM	DRY	1000	0500	1			2,10	1,39	5,53	0,76
20795	32-36,3342-114,1457-1-72-100	07/26/77	STREAM	DRY	1000	0500	9			1,21	1,48		

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

SITE NUMBER	-----DOE SAMPLE NUMBER-----			DATE MO-DA-YR	SAMPLE SOURCE/COND.	PARTICLE SIZE		POS. CONT	Q, C. X-REF	URANIUM(DNC)		THORIUM(NAA)		
	ST	LAT, LONG,	L TY RPL			UPPER	LOWER			PPM	%ERR	PPM	ERR	
20796	32-36	3333-114	1435-1-72-100	07/26/77	STREAM	DRY	1000	0500	1		0.70	2.11	4.92	0.73
20797	32-36	3491-114	1262-1-72-100	07/26/77	STREAM	DRY	1000	0500	1		1.41	1.59	5.55	0.86
20798	32-36	3534-114	1171-1-72-100	07/26/77	STREAM	DRY	1000	0500	1		2.72	1.30	5.18	0.71
20799	32-36	3530-114	1383-1-72-100	07/26/77	STREAM	DRY	1000	0500	1		2.17	1.44	5.32	0.88
20799	32-36	3530-114	1383-1-72-101		STREAM	DRY	1000	0500	1		2.34	1.37	5.57	0.64
20800	32-36	3734-114	1253-1-72-100	07/26/77	STREAM	DRY	1000	0500	1		1.88	1.46	3.80	0.61
20801	32-36	4119-114	1139-1-72-100	07/26/77	STREAM	DRY	1000	0500	1		1.48	1.61	2.55	0.71
20802	32-36	4003-114	0820-1-72-100	07/26/77	STREAM	DRY	1000	0500	1		2.39	1.29		
20803	32-36	4018-114	0730-1-72-100	07/26/77	STREAM	DRY	1000	0500	1		1.32	1.62	3.92	0.73
20804	32-36	3932-114	0532-1-72-100	07/26/77	STREAM	DRY	1000	0500	1		1.28	1.61	8.41	0.61
20805	32-36	7244-114	0339-1-72-100	07/27/77	STREAM	DRY	1000	0500	1		1.95	1.46	7.29	0.97
20806	32-36	6786-114	0402-1-72-100	07/27/77	STREAM	DRY	1000	0500	1		2.39	1.47	10.73	1.44
20807	32-36	6825-114	0165-1-72-100	07/27/77	STREAM	DRY	1000	0500	1		1.30	1.67	5.77	0.72
20808	32-36	6447-114	0169-1-72-100	07/27/77	STREAM	DRY	1000	0500	1		1.07	1.69	2.25	0.54
20809	32-36	6528-114	0165-1-72-100	07/27/77	STREAM	DRY	1000	0500	1		2.28	1.93	37.36	2.85
20809	32-36	6528-114	0165-1-72-101		STREAM	DRY	1000	0500	1		1.25	1.65	3.75	0.82
20810	32-36	6504-114	0658-1-72-100	07/27/77	STREAM	DRY	1000	0500	1		3.47	1.31	11.51	1.33
20811	32-36	7152-114	1742-1-72-100	07/27/77	STREAM	DRY	1000	0500	1		1.35	1.75	8.63	1.14
20812	32-36	6937-114	1806-1-72-100	07/27/77	STREAM	DRY	1000	0500	1		1.60	1.53	7.30	0.79
20813	32-36	6713-114	1847-1-72-100	07/27/77	STREAM	DRY	1000	0500	1		1.36	1.60	8.21	0.66
20814	32-36	7318-114	2284-1-72-100	07/27/77	STREAM	DRY	1000	0500	1		1.31	1.52	3.71	0.44
20814	32-36	7318-114	2284-1-72-110		STREAM	DRY	1000	0500	1		0.90	1.72	3.05	0.48
20815	32-36	2543-114	0084-1-72-100	08/04/77	STREAM	DRY	1000	0500	1		1.07	1.63	2.83	0.51
20816	32-36	2660-114	0080-1-72-100	08/04/77	STREAM	DRY	1000	0500	1		2.76	1.56	33.66	2.05
20816	32-36	2660-114	0080-1-72-110		STREAM	DRY	1000	0500	1		2.99	2.20	48.54	5.04
20817	32-36	2758-114	0043-1-72-100	08/04/77	STREAM	DRY	1000	0500	1		0.76	2.39	9.25	1.11
20818	32-36	3295-114	0267-1-72-100	08/04/77	STREAM	DRY	1000	0500	1		1.16	1.78	5.74	1.07
20819	32-36	3322-114	0255-1-72-100	08/04/77	STREAM	DRY	1000	0500	1		1.14	1.66	2.86	0.71
20819	32-36	3322-114	0255-1-72-101		STREAM	DRY	1000	0500	1		1.10	1.55		
20820	32-36	3600-114	0189-1-72-100	08/04/77	STREAM	DRY	1000	0500	1		1.06	1.69	5.43	0.57
20821	32-36	3779-114	0159-1-72-100	08/04/77	STREAM	DRY	1000	0500	1		1.76	1.35	1.70	0.36
20822	32-36	3887-114	0133-1-72-100	08/04/77	STREAM	DRY	1000	0500	1		1.75	1.55	6.80	1.25
20823	32-36	3865-114	0357-1-72-100	08/04/77	STREAM	DRY	1000	0500	1		1.35	1.71	4.11	1.11
20824	32-36	4263-114	0788-1-72-100	08/04/77	STREAM	DRY	1000	0500	1		2.05	1.35	2.19	0.55
20825	32-36	4207-114	0712-1-72-100	08/04/77	STREAM	DRY	1000	0500	1		1.83	1.41	2.92	0.64
20826	32-36	4274-114	0508-1-72-100	08/04/77	STREAM	DRY	1000	0500	9		1.65	1.43	2.39	0.50
20827	32-36	4201-114	1191-1-72-100	08/04/77	STREAM	DRY	1000	0500	9		1.93	1.41	4.57	0.56
20828	32-36	2692-114	2571-1-72-100	08/05/77	STREAM	DRY	1000	0500	1		2.83	1.37	16.17	1.38
20829	32-36	4990-114	1397-1-72-100	08/05/77	STREAM	DRY	1000	0500	9		1.57	1.43	2.82	0.44
20829	32-36	4990-114	1397-1-72-101		STREAM	DRY	1000	0500	9		1.74	1.43	4.59	0.57
20830	32-36	5134-114	1402-1-72-100	08/05/77	STREAM	DRY	1000	0500	9		1.72	1.47	4.08	0.45
20831	32-36	6188-114	2526-1-72-100	08/05/77	STREAM	DRY	1000	0500	1		1.78	2.75	51.58	3.90
20832	32-36	6254-114	2669-1-72-100	08/05/77	STREAM	DRY	1000	0500	1		2.26	1.58	23.66	1.81
20833	32-36	6481-114	2739-1-72-100	08/05/77	STREAM	DRY	1000	0500	1		1.38	1.73	12.68	1.07
20834	32-36	6716-114	2765-1-72-100	08/05/77	STREAM	DRY	1000	0500	9		1.30	1.57	5.82	0.52
20835	32-36	6820-114	2560-1-72-100	08/05/77	STREAM	DRY	1000	0500	9		1.77	1.43	7.46	0.63
20835	32-36	6820-114	2560-1-72-110		STREAM	DRY	1000	0500	9		1.61	1.49	5.70	0.77
20836	32-36	7041-114	2395-1-72-100	08/05/77	STREAM	DRY	1000	0500	9		1.62	1.46	6.27	0.50
20837	32-36	7279-114	2140-1-72-100	08/05/77	STREAM	DRY	1000	0500	9		1.17	1.72	8.65	0.80

SITE NUMBER	DOE SAMPLE NUMBER			DATE MO-DA-YR	SAMPLE SOURCE/COND.	PARTICLE SIZE		POS. CONT	Q, C, X-REF	URANIUM(DNC)		THORIUM(NAA)	
	ST	LAT, LONG, L TY RPL				UPPER	LOWER			PPM	%ERR	PPM	ERR
20838	32-36,5249-114,0583-1-72-100	08/06/77	STREAM	DRY	1000	0500	5			0,85	2,12	11,34	0,89
20839	32-36,5292-114,0492-1-72-100	08/06/77	STREAM	DRY	1000	0500	1			1,35	1,62	3,06	0,51
20839	32-36,5292-114,0492-1-72-101		STREAM	DRY	1000	0500				1,20	1,64	2,19	0,59
20840	32-36,5404-114,0287-1-72-100	08/06/77	STREAM	DRY	1000	0500	1			0,83	1,91	1,91	0,58
20841	32-36,5694-114,0320-1-72-100	08/06/77	STREAM	DRY	1000	0500	1			2,86	1,40	11,62	1,60
20842	32-36,5768-114,0396-1-72-100	08/06/77	STREAM	DRY	1000	0500	1			4,30	1,51	51,44	3,28
20843	32-36,5887-114,0481-1-72-100	08/06/77	STREAM	DRY	1000	0500	1			3,25	1,64	45,19	2,96
20844	32-36,5539-114,0248-1-72-100	08/06/77	STREAM	DRY	1000	0500	1			2,35	1,35	8,67	0,75
20845	32-36,5614-114,0022-1-72-100	08/06/77	STREAM	DRY	1000	0500	1			2,26	1,49	12,08	1,28
20846	32-36,6030-114,0442-1-72-100	08/06/77	STREAM	DRY	1000	0500	1			2,10	1,51	8,63	1,38
20847	32-36,5869-114,0124-1-72-100	08/06/77	STREAM	DRY	1000	0500	1			2,11	1,39	6,42	0,70
20848	4-36,7787-114,0778-1-72-100	08/07/77	STREAM	DRY	1000	0500	1			1,70	1,52	10,98	0,87
20849	4-36,7654-114,0536-1-72-100	08/07/77	STREAM	DRY	1000	0500	1			1,92	1,50	12,00	0,94
20849	4-36,7654-114,0536-1-72-101		STREAM	DRY	1000	0500				1,75	1,52	9,46	0,86
20850	4-36,7968-114,0479-1-72-100	08/07/77	STREAM	DRY	1000	0500	1			2,90	1,23		
21001	32-36,3404-114,5443-1-72-100	08/04/77	STREAM	DRY	1000	0500	2			4,17	1,20	2,42	0,57
21002	32-36,3380-114,5611-1-72-100	08/04/77	STREAM	DRY	1000	0500	2			3,26	1,25	3,47	0,61
21003	32-36,3430-114,5854-1-72-100	08/05/77	STREAM	DRY	1000	0500	2			1,25	1,53	2,47	0,44
21004	32-36,3575-114,6329-1-72-100	08/05/77	STREAM	DRY	1000	0500	1			0,86	1,68	1,39	0,36
21005	32-36,3353-114,6525-1-72-100	08/05/77	STREAM	DRY	1000	0500	1			1,13	1,53	2,17	0,33
21006	32-36,3245-114,6506-1-72-100	08/05/77	STREAM	DRY	1000	0500	1			0,83	1,86	2,10	0,37
21007	32-36,3204-114,6240-1-72-100	08/05/77	STREAM	DRY	1000	0500	1			1,40	1,48	1,98	0,41
21008	32-36,3161-114,5929-1-72-100	08/05/77	STREAM	DRY	1000	0500	1			1,33	1,49	2,12	0,41
21009	32-36,3008-114,5934-1-72-100	08/05/77	STREAM	DRY	1000	0500	1			1,50	1,52	3,40	0,50
21009	32-36,3008-114,5934-1-72-101		STREAM	DRY	1000	0500				1,47	1,46	1,61	0,38
21010	32-36,3689-114,4854-1-72-100	08/05/77	STREAM	DRY	1000	0500	1			1,42	1,47	1,78	0,35
21010	32-36,3689-114,4854-1-72-110		STREAM	DRY	1000	0500				1,52	1,41		
21011	32-36,3557-114,5026-1-72-100	08/05/77	STREAM	DRY	1000	0500	1			1,49	1,44	1,57	0,31
21012	32-36,3738-114,4619-1-72-100	08/05/77	STREAM	DRY	1000	0500	5			1,04	1,69	1,77	0,42
21013	32-36,3834-114,4471-1-72-100	08/05/77	STREAM	DRY	1000	0500	1			1,47	1,43		
21014	32-36,4299-114,4723-1-72-100	08/05/77	STREAM	DRY	1000	0500	1			1,86	1,41		
21015	32-36,4220-114,4804-1-72-100	08/06/77	STREAM	DRY	1000	0500	1			1,20	1,57	2,95	0,46
21016	32-36,4264-114,5204-1-72-100	08/06/77	STREAM	DRY	1000	0500	1			1,36	1,52	3,06	0,61
21017	32-36,4979-114,5348-1-72-100	08/06/77	STREAM	DRY	1000	0500	1			0,31	2,58	1,10	0,26
21018	32-36,4807-114,5287-1-72-100	08/06/77	STREAM	DRY	1000	0500	1			0,55	2,12	1,35	0,28
21019	32-36,4661-114,5236-1-72-100	08/06/77	STREAM	DRY	1000	0500	1			0,35	2,33	0,79	0,17
21019	32-36,4661-114,5236-1-72-101		STREAM	DRY	1000	0500				0,33	2,41	0,67	0,17
21020	32-36,4597-114,5182-1-72-100	08/06/77	STREAM	DRY	1000	0500	1			0,28	2,71	0,76	0,19
21021	32-36,4362-114,5167-1-72-100	08/06/77	STREAM	DRY	1000	0500	7			0,47	2,53	1,45	0,33
21021	32-36,4362-114,5167-1-72-110		STREAM	DRY	1000	0500				0,45	2,65	1,91	0,42
21022	32-36,4030-114,5635-1-72-100	08/06/77	STREAM	DRY	1000	0500	1			0,90	1,67		
21023	32-36,4171-114,5965-1-72-100	08/06/77	STREAM	DRY	1000	0500	1			1,54	1,52	2,87	0,61
21024	32-36,4128-114,6067-1-72-100		STREAM	DRY	1000	0500	1			1,16	1,58	1,72	0,33
21025	32-36,4670-114,6586-1-72-100	08/06/77	STREAM	DRY	1000	0500	1			1,42	1,49	1,59	0,43
21026	32-36,4345-114,4365-1-72-100		STREAM	DRY	1000	0500	1			1,87	1,52	4,18	0,73
21027	32-36,4416-114,4284-1-72-100	08/06/77	STREAM	DRY	1000	0500	1			0,89	1,77	1,79	0,46
21028	32-36,4636-114,4489-1-72-100		STREAM	DRY	1000	0500	1			0,84	1,78	1,57	0,34
21029	32-36,4677-114,4700-1-72-100	08/06/77	STREAM	DRY	1000	0500	2			1,39	1,47	1,27	0,29
21030	32-36,4856-114,4660-1-72-100	08/06/77	STREAM	DRY	1000	0500	2			0,61	1,86	1,09	0,21

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

SITE NUMBER	DOE ST	SAMPLE NUMBER			DATE MO-DA-YR	SAMPLE SOURCE/COND.	PARTICLE SIZE		POS. CONT	Q. C. X-REF	URANIUM(DNC)		THORIUM(NAA)	
		LAT,	LONG,	L TY RPL			UPPER	LOWER			PPM	%ERR	PPM	ERR
21031	32-36,3066	-114,4373	-1-72-100	08/07/77	STREAM	DRY	1000	0500	5		2.10	1.61	10.66	1.72
21033	32-36,4062	-114,4196	-1-72-100	08/07/77	STREAM	DRY	1000	0500	1		1.09	1.56	1.62	0.37
21034	32-36,0666	-114,8359	-1-72-100	08/07/77	STREAM	DRY	1000	0500	5		2.79	1.27		
21035	32-36,1648	-114,9888	-1-72-100	08/07/77	STREAM	DRY	1000	0500	5		2.15	1.38	1.99	0.87
21101	32-36,0350	-114,9389	-1-72-100	07/20/77	STREAM	DRY	1000	0500	1		2.46	1.46	14.07	1.32
21101	32-36,0350	-114,9389	-1-72-110		STREAM	DRY	1000	0500			2.48	1.52	12.99	1.83
21102	32-36,0233	-114,9392	-1-72-100	07/20/77	STREAM	DRY	1000	0500	1		2.53	1.53	11.92	1.81
21103	32-36,0202	-114,9148	-1-72-100	07/20/77	STREAM	DRY	1000	0500	1		1.81	1.65	10.22	1.37
21104	32-36,0272	-114,9013	-1-72-100	07/20/77	STREAM	DRY	1000	0500	1		1.95	1.55	11.80	1.11
21105	32-36,0190	-114,8993	-1-72-100	07/20/77	STREAM	DRY	1000	0500	1		2.03	1.56	11.77	1.23
21106	32-36,0329	-114,9178	-1-72-100	07/20/77	STREAM	DRY	1000	0500	1		2.46	1.55	12.68	1.85
21107	32-36,0384	-114,9221	-1-72-100	07/20/77	STREAM	DRY	1000	0500	1		2.43	1.49	15.22	1.40
21108	32-36,0362	-114,9044	-1-72-100	07/20/77	STREAM	DRY	1000	0500	1		2.55	1.47	14.99	1.60
21109	32-36,0247	-114,8637	-1-72-100	07/20/77	STREAM	DRY	1000	0500	1		5.13	1.25	14.53	1.93
21109	32-36,0247	-114,8627	-1-72-101		STREAM	DRY	1000	0500			5.00	1.22	15.81	1.32
21110	32-36,0185	-114,8672	-1-72-100	07/20/77	STREAM	DRY	1000	0500	1		3.34	1.43	21.42	2.12
21111	32-36,0561	-114,9072	-1-72-100	07/20/77	STREAM	DRY	1000	0500	1		2.26	1.49	13.65	1.31
21112	32-36,1174	-114,9589	-1-72-100	07/20/77	STREAM	DRY	1000	0500	1		2.64	1.46	5.20	0.81
21113	32-36,1088	-114,9825	-1-72-100	07/20/77	STREAM	DRY	1000	0500	1		1.68	1.48	3.59	0.64
21114	32-36,1250	-114,9810	-1-72-100	07/20/77	STREAM	DRY	1000	0500	1		1.39	1.62	3.71	0.51
21115	32-36,0940	-114,9073	-1-72-100	07/21/77	STREAM	DRY	1000	0500	1		2.63	1.46	16.81	1.27
21115	32-36,0940	-114,9073	-1-72-110		STREAM	DRY	1000	0500			2.57	1.44	12.55	1.30
21116	32-36,0748	-114,8945	-1-72-100	07/21/77	STREAM	DRY	1000	0500	1		2.62	1.44	16.21	1.30
21117	32-36,1080	-114,8859	-1-72-100	07/21/77	STREAM	DRY	1000	0500	1		2.75	1.40	13.90	1.21
21118	32-36,1383	-114,9151	-1-72-100	07/21/77	STREAM	DRY	1000	0500	1		2.40	1.35	5.47	0.84
21119	32-36,1304	-114,9264	-1-72-100	07/21/77	STREAM	DRY	1000	0500	1		4.62	1.19	5.43	1.01
21120	32-36,1398	-114,8972	-1-72-100	07/21/77	STREAM	DRY	1000	0500	1		1.99	1.39	6.03	0.58
21121	32-36,1662	-114,9121	-1-72-100	07/21/77	STREAM	DRY	1000	0500	1		1.75	1.49	2.18	1.02
21122	32-36,1862	-114,9249	-1-72-100	07/21/77	STREAM	DRY	1000	0500	1		1.46	1.55	3.02	0.53
21123	32-36,2183	-114,9530	-1-72-100	07/21/77	STREAM	DRY	1000	0500	1		2.84	1.27		
21124	32-36,2067	-114,9622	-1-72-100	07/21/77	STREAM	DRY	1000	0500	1		1.64	1.44		
21125	32-36,2176	-114,9652	-1-72-100	07/22/77	STREAM	DRY	1000	0500	1		3.01	1.22		
21125	32-36,2176	-114,9652	-1-72-110		STREAM	DRY	1000	0500			2.97	1.23		
21126	32-36,2091	-114,9966	-1-72-100	07/22/77	STREAM	DRY	1000	0500	1		2.53	1.32	1.95	0.54
21127	32-36,1970	-114,9724	-1-72-100	07/22/77	STREAM	DRY	1000	0500	1		2.51	1.30		
21128	32-36,2365	-114,9113	-1-72-100	07/22/77	STREAM	DRY	1000	0500	1		4.05	1.19	2.07	0.71
21129	32-36,2094	-114,9109	-1-72-100	07/22/77	STREAM	DRY	1000	0500	1		2.04	1.43	2.07	0.45
21129	32-36,2094	-114,9109	-1-72-101		STREAM	DRY	1000	0500			2.00	1.37	1.88	0.51
21130	32-36,1884	-114,9482	-1-72-100	07/22/77	STREAM	DRY	1000	0500	1		1.53	1.48	1.36	0.37
21131	32-36,1796	-114,9573	-1-72-100	07/22/77	STREAM	DRY	1000	0500	1		2.01	1.47	3.80	0.74
21132	32-36,1578	-114,9512	-1-72-100	07/22/77	STREAM	DRY	1000	0500	1		1.58	1.48	1.24	0.34
21133	32-36,0089	-114,7853	-1-72-100	02/23/77	STREAM	DRY	1000	0500	1		2.91	1.42	13.86	1.39
21134	32-36,0141	-114,8251	-1-72-100	07/23/77	STREAM	DRY	1000	0500	1		2.78	1.49	14.70	1.98
21135	32-36,0270	-114,8392	-1-72-100	07/23/77	STREAM	DRY	1000	0500	1		2.63	1.43	14.51	1.36
21136	32-36,0311	-114,8158	-1-72-100	07/23/77	STREAM	DRY	1000	0500	1		2.68	1.57	14.54	2.15
21137	32-36,0382	-114,8123	-1-72-100	07/23/77	STREAM	DRY	1000	0500	1		2.38	1.47	15.50	1.21
21138	32-36,0493	-114,8275	-1-72-100	07/23/77	STREAM	DRY	1000	0500	1		1.92	1.59	11.44	1.20
21139	32-36,0781	-114,8256	-1-72-100	07/23/77	STREAM	DRY	1000	0500	1		2.77	1.53	16.86	2.08
21139	32-36,0781	-114,8256	-1-72-101		STREAM	DRY	1000	0500			3.04	1.43	17.46	1.44

SITE NUMBER	-----DOE SAMPLE NUMBER-----			DATE MO-DA-YR	SAMPLE SOURCE/COND.	PARTICLE SIZE		POS. CONT	Q, C, X-REF	URANIUM(DNC)		THORIUM(NAA)		
	ST	LAT.	LONG.			L TY RPL	UPPER			LOWER	PPM	%ERR	PPM	ERR
21140	32-36	0958-114	8551-1-72-100	07/23/77	STREAM	DRY	1000	0500	1		2,32	1,51	13,53	1,54
21141	32-36	0832-114	8565-1-72-100	07/23/77	STREAM	DRY	1000	0500	1		3,98	1,33	21,45	1,75
21142	32-36	1103-114	8625-1-72-100	07/23/77	STREAM	DRY	1000	0500	1		3,86	1,35	16,89	1,54
21143	32-36	1838-114	8405-1-72-100	07/23/77	STREAM	DRY	1000	0500	1		1,82	1,44	2,76	0,51
21144	32-36	1514-114	8414-1-72-100	07/23/77	STREAM	DRY	1000	0500	1		1,81	1,50	5,16	0,98
21145	32-36	1716-114	7652-1-72-100	07/23/77	STREAM	DRY	1000	0500	1		2,17	1,37	5,02	0,67
21146	32-36	1909-114	7369-1-72-100	07/23/77	STREAM	DRY	1000	0500	1		1,33	1,46		
21147	32-36	2097-114	7274-1-72-100	07/23/77	STREAM	DRY	1000	0500	1		1,62	1,40	0,96	0,28
21148	32-36	2282-114	7547-1-72-100	07/24/77	STREAM	DRY	1000	0500	1		1,32	1,37		
21149	32-36	2329-114	7646-1-72-100	07/24/77	STREAM	DRY	1000	0500	1		1,30	1,54	1,59	0,46
21150	32-36	2252-114	7837-1-72-100	07/24/77	STREAM	DRY	1000	0500	1		1,51	1,44	1,17	0,30
21151	32-36	2193-114	8095-1-72-100	07/24/77	STREAM	DRY	1000	0500	1		1,56	1,39	1,69	0,32
21152	32-36	2169-114	8262-1-72-100	07/24/77	STREAM	DRY	1000	0500	1		1,45	1,41		
21153	32-36	2397-114	8367-1-72-100	07/24/77	STREAM	DRY	1000	0500	1		1,35	1,41		
21154	32-36	1779-114	8084-1-72-100	07/24/77	STREAM	DRY	1000	0500	1		1,71	1,42	2,62	0,46
21155	32-36	1759-114	8007-1-72-100	07/24/77	STREAM	DRY	1000	0500	1		1,98	1,41	2,79	0,74
21156	32-36	1801-114	7850-1-72-100	07/24/77	STREAM	DRY	1000	0500	1		1,59	1,35		
21157	32-36	1818-114	7771-1-72-100	07/24/77	STREAM	DRY	1000	0500	1		1,65	1,48	2,64	0,73
21158	32-36	1879-114	7670-1-72-100	07/25/77	STREAM	DRY	1000	0500	1		1,57	1,52	3,54	0,74
21159	32-36	2018-114	6943-1-72-100	07/25/77	STREAM	DRY	1000	0500	1		1,87	1,52	3,35	0,84
21159	32-36	2018-114	6943-1-72-101		STREAM	DRY	1000	0500			2,05	1,50	3,33	0,82
21160	32-36	2129-114	7051-1-72-100	07/25/77	STREAM	DRY	1000	0500	1		0,79	1,71		
21161	32-36	2131-114	6684-1-72-100	07/25/77	STREAM	DRY	1000	0500	1		1,19	1,60	1,66	0,51
21162	32-36	2218-114	6525-1-72-100	07/25/77	STREAM	DRY	1000	0500	1		1,48	1,43	1,08	0,26
21163	32-36	1721-114	6952-1-72-100	07/25/77	STREAM	DRY	1000	0500	1		1,41	1,47	2,06	0,47
21164	32-36	1643-114	7098-1-72-100	07/25/77	STREAM	DRY	1000	0500	1		1,56	1,55	4,46	0,85
21165	32-36	2017-114	6398-1-72-100	07/25/77	STREAM	DRY	1000	0500	1		1,95	1,42	5,47	0,78
21166	32-36	2288-114	5967-1-72-100	07/25/77	STREAM	DRY	1000	0500	1		1,42	1,64	2,52	0,85
21167	32-36	2276-114	5856-1-72-100	07/25/77	STREAM	DRY	1000	0500	1		2,99	1,24	2,14	0,47
21168	32-36	2426-114	5229-1-72-100	07/25/77	STREAM	DRY	1000	0500	1		2,12	1,45	7,35	1,19
21169	32-36	2403-114	5407-1-72-100	07/25/77	STREAM	DRY	1000	0500	1		3,13	1,40	11,78	1,67
21169	32-36	2403-114	5407-1-72-101		STREAM	DRY	1000	0500			2,67	1,39	9,02	1,26
21170	32-36	2189-114	5525-1-72-100	07/25/77	STREAM	DRY	1000	0500	1		2,57	1,35	9,77	0,84
21171	32-36	1977-114	5754-1-72-100	07/25/77	STREAM	DRY	1000	0500	1		2,10	1,38	6,93	0,77
21172	32-36	3810-114	8796-1-72-100	07/27/77	STREAM	DRY	1000	0500	1		2,62	1,35	3,95	0,63
21173	32-36	3996-114	8590-1-72-100	07/27/77	STREAM	DRY	1000	0500	1		1,77	1,55	4,21	0,79
21174	32-36	4597-114	7436-1-72-100	07/27/77	STREAM	DRY	1000	0500	1		0,97	1,63		
21175	32-36	4383-114	6650-1-72-100	07/27/77	STREAM	DRY	1000	0500	1		1,59	1,47	2,58	0,49
21176	32-36	4348-114	6696-1-72-100	07/27/77	STREAM	DRY	1000	0500	1		2,70	1,29		
21177	32-36	4286-114	6731-1-72-100	07/27/77	STREAM	DRY	1000	0500	1		2,01	1,42		
21178	32-36	4097-114	6781-1-72-100	07/27/77	STREAM	DRY	1000	0500	1		1,12	1,64	2,08	0,50
21179	32-36	3956-114	6941-1-72-100	07/27/77	STREAM	DRY	1000	0500	1		0,77	1,67		
21179	32-36	3956-114	6941-1-72-101		STREAM	DRY	1000	0500			0,87	1,73		
21180	32-36	3851-114	7067-1-72-100	07/27/77	STREAM	DRY	1000	0500	1		0,82	1,64		
21181	32-36	3725-114	7115-1-72-100	07/27/77	STREAM	DRY	1000	0500	1		1,04	1,59	1,66	0,50
21182	32-36	3624-114	7007-1-72-100	07/27/77	STREAM	DRY	1000	0500	1		0,97	1,62	1,38	0,30
21183	32-36	4117-114	7349-1-72-100	07/27/77	STREAM	DRY	1000	0500	1		0,91	1,59	1,22	0,29
21184	32-36	3558-114	7778-1-72-100	07/27/77	STREAM	DRY	1000	0500	1		1,83	1,47	2,97	0,52
21185	32-36	3682-114	7696-1-72-100	07/27/77	STREAM	DRY	1000	0500	1		1,53	1,43	1,85	0,33

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

SITE NUMBER	-----DOE SAMPLE NUMBER-----			DATE MO-DA-YR	SAMPLE SOURCE/COND.	PARTICLE SIZE		POS. CONT	Q. C. X-REF	URANIUM(DNC)		THORIUM(NAA)	
	ST	LAT, LONG,	L TY RPL			UPPER	LOWER			PPM	%ERR	PPM	ERR
21186	4-36	3435-114	7993-1-72-100	07/27/77	STREAM DRY	1000	0500	1		1.55	1.40	1.97	0.46
21187	32-36	3487-114	8326-1-72-100	07/27/77	STREAM DRY	1000	0500	1		1.82	1.42	3.79	0.51
21188	32-36	3174-114	8490-1-72-100		STREAM DRY	1000	0500	1		1.79	1.41	1.77	0.54
21189	32-36	3247-114	8533-1-72-100	07/27/77	STREAM DRY	1000	0500	1		1.98	1.39	2.85	0.64
21189	32-36	3247-114	8533-1-72-101		STREAM DRY	1000	0500			1.85	1.41	2.86	0.60
21190	32-36	3035-114	8784-1-72-100	07/27/77	STREAM DRY	1000	0500	1		1.67	1.44	2.70	0.58
21191	32-36	2905-114	9077-1-72-100	07/27/77	STREAM DRY	1000	0500	1		2.36	1.31	3.24	0.47
21192	32-36	2518-114	5304-1-72-100	08/04/77	STREAM DRY	1000	0500	5		2.05	1.57	7.39	1.64
21193	32-36	2560-114	5169-1-72-100	08/04/77	STREAM DRY	1000	0500	1		1.71	1.44	1.90	0.41
21194	32-36	3009-114	5121-1-72-100	08/04/77	STREAM DRY	1000	0500	5		1.96	1.44	2.59	0.63
21195	32-36	2753-114	5363-1-72-100	08/04/77	STREAM DRY	1000	0500	1		1.46	1.42		
21196	32-36	2763-114	6320-1-72-100	08/04/77	STREAM DRY	1000	0500	1		1.16	1.47		
21197	32-36	2701-114	5888-1-72-100	08/04/77	STREAM DRY	1000	0500	1		1.09	1.51		
21198	32-36	2606-114	5646-1-72-100	08/04/77	STREAM DRY	1000	0500	1		1.14	1.49		
21199	32-36	3016-114	5421-1-72-100	08/04/77	STREAM DRY	1000	0500	1		2.49	1.26		
21199	32-36	3016-114	5421-1-72-101		STREAM DRY	1000	0500			2.92	1.31	1.63	0.56
21200	4-36	3063-114	5531-1-72-100	08/04/77	STREAM DRY	1000	0500	5		2.16	1.34	3.61	0.57
21200	4-36	3063-114	5531-1-72-110		STREAM DRY	1000	0500			2.05	1.38	3.14	0.60
21201	32-36	0769-114	6213-1-72-100	08/04/77	STREAM DRY	1000	0500	1		2.69	1.41	14.45	1.32
21202	32-36	0785-114	6080-1-72-100	08/04/77	STREAM DRY	1000	0500	1		2.17	1.43	10.24	0.95
21203	32-36	0642-114	6150-1-72-100	08/04/77	STREAM DRY	1000	0500	1		2.15	1.63	13.39	1.86
21204	32-36	0492-114	5878-1-72-100	08/04/77	STREAM DRY	1000	0500	1		1.80	1.83	18.64	1.95
21205	32-36	0554-114	5809-1-72-100	08/04/77	STREAM DRY	1000	0500	1		2.14	1.57	14.54	1.45
21206	32-36	0576-114	5109-1-72-100	08/04/77	STREAM DRY	1000	0500	1		1.65	2.10	13.77	2.42
21207	32-36	0540-114	5121-1-72-100	08/04/77	STREAM DRY	1000	0500	1		1.40	1.84	9.90	1.40
21208	32-36	1005-114	5373-1-72-100	08/05/77	STREAM DRY	1000	0500	1		1.94	1.73	18.25	1.90
21209	32-36	0718-114	5438-1-72-100	08/05/77	STREAM DRY	1000	0500	1		2.19	1.58	11.95	1.53
21210	32-36	0870-114	5411-1-72-100	08/05/77	STREAM DRY	1000	0500	1		1.51	2.19	8.40	2.33
21211	32-36	0708-114	4983-1-72-100	08/05/77	STREAM DRY	1000	0500	1		1.35	1.76	10.63	1.11
21212	32-36	0615-114	4830-1-72-100	08/05/77	STREAM DRY	1000	0500	1		1.47	1.63	10.45	0.97
21213	32-36	0271-114	5185-1-72-100	08/05/77	STREAM DRY	1000	0500	1		1.07	2.07	7.79	1.34
21214	32-36	0253-114	5175-1-72-100	08/05/77	STREAM DRY	1000	0500	5		2.37	1.52	15.99	1.65
21215	32-36	0044-114	5104-1-72-100	08/05/77	STREAM DRY	1000	0500	5		2.16	1.50	12.34	1.36
21216	32-36	0159-114	4590-1-72-100	08/05/77	STREAM DRY	1000	0500	9		3.12	1.31	9.77	1.30
21217	32-36	0160-114	3403-1-72-100	08/05/77	STREAM DRY	1000	0500	7		1.72	1.48	6.59	0.84
21220	32-36	0516-114	4401-1-72-100	08/06/77	STREAM DRY	1000	0500	1		1.98	1.47	7.12	0.93
21221	32-36	0401-114	4537-1-72-100	08/06/77	STREAM DRY	1000	0500	7		3.27	1.26	6.43	0.78
21222	32-36	0332-114	4651-1-72-100	08/06/77	STREAM DRY	1000	0500	1		2.36	1.55	20.26	1.73
21223	32-36	0235-114	3123-1-72-100	08/06/77	STREAM DRY	1000	0500	7		1.56	1.53	7.56	0.83
21240	32-36	1262-114	0055-1-72-100	08/08/77	STREAM DRY	1000	0500	1		1.48	1.59	5.19	0.81
21241	32-36	1280-114	0054-1-72-100	08/08/77	STREAM DRY	1000	0500	1		1.50	2.00	9.98	1.99
21242	32-36	1081-114	0040-1-72-100	08/08/77	STREAM DRY	1000	0500	1		1.38	1.60	6.67	0.76
21243	32-36	1100-114	0050-1-72-100	08/08/77	STREAM DRY	1000	0500	1		1.77	1.59	15.54	1.22
21244	4-36	1191-114	0091-1-72-100	08/08/77	STREAM DRY	1000	0500	7		1.58	1.64	4.58	1.25
21256	32-36	0119-114	1208-1-72-100	08/09/77	STREAM DRY	1000	0500	7		3.16	1.33	12.43	1.36
21271	32-36	1012-114	0875-1-72-100	08/10/77	STREAM DRY	1000	0500	5		1.45	1.57	5.08	0.84
21272	32-36	0976-114	0877-1-72-100	08/10/77	STREAM DRY	1000	0500	5		1.48	1.53	4.13	0.73
21273	32-36	0825-114	0982-1-72-100	08/10/77	STREAM DRY	1000	0500	9		1.42	1.63	7.08	0.91
21274	32-36	0906-114	0957-1-72-100	08/10/77	STREAM DRY	1000	0500	9		1.39	1.72	12.41	1.09

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

SITE NUMBER	-----DOE SAMPLE NUMBER-----			DATE MO-DA-YR	SAMPLE SOURCE/COND.	PARTICLE SIZE		POS. CONT	Q. C. X-REF	URANIUM(DNC)		THORIUM(NAA)		
	ST	LAT.	LONG.			L	TY			RPL	UPPER	LOWER	PPM	%ERR
21275	32-36	0777-114	0495-1-72-100	08/10/77	STREAM	DRY	1000	0500	1		1.35	1.65	3.53	0.75
21276	32-36	0560-114	0448-1-72-100	08/10/77	STREAM	DRY	1000	0500	5		1.67	2.08	20.80	2.38
22001	32-36	6534-114	5120-1-72-100	08/04/77	STREAM	DRY	1000	0500	1		1.73	1.68	8.38	1.55
22002	32-36	6701-114	5361-1-72-100	08/04/77	STREAM	DRY	1000	0500	1		2.06	1.55	7.43	1.03
22003	32-36	6593-114	5398-1-72-100	08/04/77	STREAM	DRY	1000	0500	1		1.51	1.59	5.46	0.71
22004	32-36	6489-114	5580-1-72-100	08/04/77	STREAM	DRY	1000	0500	9		1.86	1.58	7.40	0.87
22005	32-36	6424-114	5504-1-72-100	08/04/77	STREAM	DRY	1000	0500	9		2.69	1.50	14.02	1.59
22006	32-36	6369-114	5438-1-72-100	08/04/77	STREAM	DRY	1000	0500	9		2.62	1.35	8.14	0.85
22007	32-36	6344-114	6009-1-72-100	08/04/77	STREAM	DRY	1000	0500	9		1.62	1.50	2.83	0.55
22008	32-36	5384-114	7122-1-72-100	08/04/77	STREAM	DRY	1000	0500	1		4.22	1.28	4.96	0.88
22009	32-36	5354-114	6989-1-72-100	08/04/77	STREAM	DRY	1000	0500	9		1.72	1.38	2.90	0.40
22010	32-36	5243-114	6847-1-72-100	08/04/77	STREAM	DRY	1000	0500	9		1.69	1.44		
22011	32-36	5110-114	6494-1-72-100	08/04/77	STREAM	DRY	1000	0500	9		1.54	1.47	4.63	0.53
22012	32-36	5560-114	6883-1-72-100	08/04/77	STREAM	DRY	1000	0500	9		2.90	1.37	8.23	0.90
22013	32-36	5586-114	6837-1-72-100	08/04/77	STREAM	DRY	1000	0500	9		2.01	1.36	4.29	0.53
22014	32-36	5634-114	4356-1-72-100	08/05/77	STREAM	DRY	1000	0500	9		1.39	1.52	4.32	0.61
22015	32-36	5930-114	3463-1-72-100	08/05/77	STREAM	DRY	1000	0500	9		1.67	1.50	7.87	0.66
22016	32-36	5956-114	3417-1-72-100	08/05/77	STREAM	DRY	1000	0500	9		1.91	1.47	8.05	0.78
22017	32-36	6403-114	3257-1-72-100	08/05/77	STREAM	DRY	1000	0500	9		2.12	1.42	7.39	0.66
22018	32-36	6691-114	3247-1-72-100	08/05/77	STREAM	DRY	1000	0500	9		1.85	1.47	8.38	0.76
22019	32-36	5552-114	4325-1-72-101	08/05/77	STREAM	DRY	1000	0500	9		1.98	1.44	7.73	0.69
22020	32-36	5792-114	4160-1-72-100	08/05/77	STREAM	DRY	1000	0500	9		1.97	1.43	8.81	0.63
22021	32-36	5846-114	4147-1-72-100	08/05/77	STREAM	DRY	1000	0500	9		2.12	1.40	7.59	0.76
22022	32-36	5846-114	4147-1-72-100	08/05/77	STREAM	DRY	1000	0500	9		2.01	1.39	7.05	0.72
22023	32-36	5946-114	4636-1-72-100	08/05/77	STREAM	DRY	1000	0500	9		1.33	1.52	2.25	0.38
22024	32-36	5541-114	4236-1-72-100	08/05/77	STREAM	DRY	1000	0500	9		1.27	1.58	4.25	0.68
22025	32-36	5132-114	4484-1-72-100	08/05/77	STREAM	DRY	1000	0500	9		0.52	1.95	1.14	0.24
22026	32-36	5342-114	4622-1-72-100	08/05/77	STREAM	DRY	1000	0500	9		2.09	1.33	2.21	0.40
22027	32-36	5891-114	5420-1-72-100	08/06/77	STREAM	DRY	1000	0500	9		1.77	1.47	3.66	0.73
22028	32-36	5685-114	5493-1-72-100	08/06/77	STREAM	DRY	1000	0500	9		1.15	1.68	2.66	0.57
22029	32-36	6045-114	5046-1-72-100	08/06/77	STREAM	DRY	1000	0500	9		1.43	1.49	2.54	0.49
22030	32-36	5936-114	4971-1-72-100	08/06/77	STREAM	DRY	1000	0500	9		1.45	1.44		
22031	32-36	5936-114	4971-1-72-101	08/06/77	STREAM	DRY	1000	0500	9		1.20	1.61	2.14	0.69
22032	32-36	5605-114	4681-1-72-100	08/06/77	STREAM	DRY	1000	0500	6		1.10	1.63	2.32	0.29
22033	32-36	5665-114	6276-1-72-100	08/06/77	STREAM	DRY	1000	0500	9		1.39	1.52	1.14	0.37
22034	32-36	5637-114	6244-1-72-100	08/06/77	STREAM	DRY	1000	0500	9		1.34	1.68	3.72	0.63
22035	32-36	5789-114	6183-1-72-100	08/06/77	STREAM	DRY	1000	0500	9		1.82	1.50	2.49	0.70
22036	32-36	6067-114	6096-1-72-100	08/06/77	STREAM	DRY	1000	0500	9		1.32	1.54	2.27	0.42
22037	32-36	5063-114	4609-1-72-100	08/06/77	STREAM	DRY	1000	0500	2		1.42	1.64	2.80	0.65
22038	32-36	3527-114	9060-1-72-100	08/07/77	STREAM	DRY	1000	0500	9		1.50	1.54	3.07	0.62
40501	32-36	5458-115	3834-1-72-100	10/04/77	STREAM	DRY	1000	0500	1	41001	1.24	1.60	2.24	0.43
40502	32-36	6735-115	3628-1-72-100	10/04/77	STREAM	DRY	1000	0500	1	40808	1.50	1.58	3.42	0.52
40503	32-36	6363-115	2797-1-72-100	10/04/77	STREAM	DRY	1000	0500	1		1.00	1.76	3.15	0.57
40504	32-36	7657-115	2555-1-72-100	11/01/77	STREAM	DRY	1000	0500	1	40743	0.91	1.70	3.24	0.49
40505	32-36	7704-115	2061-1-72-100	11/01/77	STREAM	DRY	1000	0500	1	40781	1.09	1.61	3.20	0.45
40506	32-36	8728-115	2918-1-72-100	11/01/77	STREAM	DRY	1000	0500	1	40790	0.96	1.70	2.75	0.62
40507	32-36	9140-115	2892-1-72-100	11/01/77	STREAM	DRY	1000	0500	1	40795	1.10	1.59	2.28	0.43
40512	32-36	8419-114	9993-1-72-100	11/02/77	STREAM	DRY	1000	0500	1		3.36	1.29	1.86	0.62
40513	32-36	7786-114	9863-1-72-100	11/03/77	STREAM	DRY	1000	0500	1		3.76	1.20	2.44	0.50

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

SITE NUMBER	-----DOE SAMPLE NUMBER-----			DATE MO-DA-YR	SAMPLE SOURCE/COND.	PARTICLE SIZE		POS. CONT	Q. C. X-REF	URANIUM(DNC)		THORIUM(NAA)		
	ST	LAT, LONG,	L TY RPL			UPPER	LOWER			PPM	%ERR	PPM	ERR	
40514	32-36,7669	-114,9855	-1-72-100	11/03/77	STREAM	DRY	1000	0500	1		4.43	1.18	2.89	0.51
40515	32-36,6957	-115,0960	-1-72-100	11/03/77	STREAM	DRY	1000	0500	1	40851	0.97	1.80	3.45	0.56
40516	32-36,5308	-115,1000	-1-72-100	11/03/77	STREAM	DRY	1000	0500	1	41032	3.00	1.21		
40517	32-36,4020	-115,1043	-1-72-100	11/04/77	STREAM	DRY	1000	0500	1	40710	3.02	1.23		
40518	32-36,4317	-115,1058	-1-72-100	11/04/77	STREAM	DRY	1000	0500	1		2.16	1.39	2.32	0.61
40519	32-36,4488	-115,1600	-1-72-100	11/04/77	STREAM	DRY	1000	0500	1	41018	1.17	1.66	3.24	0.50
40551	32-36,4254	-115,2253	-1-72-100	01/11/78	STREAM	DRY	1000	0500	1		3.08	1.58	8.90	1.35
40552	32-36,4282	-115,2297	-1-70-100	01/11/78	STREAM	WET	1000	0500	1		2.92	1.48	9.29	1.30
40553	32-36,4255	-115,1673	-1-72-100	01/11/78	STREAM	DRY	1000	0500	9		2.62	1.48	14.48	1.25
40568	32-36,8499	-115,0989	-1-70-100	01/14/78	STREAM	WET	1000	0500	1		1.26	2.88	7.27	1.29
40570	32-36,8492	-115,1135	-1-72-100	01/14/78	STREAM	DRY	1000	0500	1		0.96	2.03	3.55	0.57
40571	32-36,7078	-115,2378	-1-70-100	01/15/78	STREAM	WET	1000	0500	1		2.74	1.66	5.48	1.47
40601	32-36,9409	-115,5491	-1-72-100	09/28/77	STREAM	DRY	1000	0500	1		0.88	1.87	2.50	0.49
40602	32-36,9488	-115,5321	-1-72-100	09/28/77	STREAM	DRY	1000	0500	1		1.03	1.83	2.51	0.47
40603	32-36,9110	-115,5340	-1-72-100	09/28/77	STREAM	DRY	1000	0500	1		1.42	1.61	4.19	0.59
40604	32-36,9967	-115,5357	-1-72-100		STREAM	DRY	1000	0500	9		0.90	1.84	2.75	0.75
40605	32-36,9785	-115,5259	-1-72-100		STREAM	DRY	1000	0500	1		1.16	1.74	3.75	0.68
40606	32-36,9639	-115,5858	-1-72-100	09/29/77	STREAM	DRY	1000	0500	1		1.34	1.65	3.16	0.59
40607	32-36,9879	-115,4157	-1-72-100	09/29/77	STREAM	DRY	1000	0500	1		1.08	1.74	2.56	0.63
40608	32-36,3688	-115,1719	-1-72-100	09/30/77	STREAM	DRY	1000	0500	2		4.91	1.17		
40609	32-36,3727	-115,1941	-1-72-100	09/30/77	STREAM	DRY	1000	0500	1		4.11	1.23	1.66	0.90
40610	32-36,3745	-115,1974	-1-72-100	09/30/77	STREAM	DRY	1000	0500	1		2.94	1.27	2.19	0.40
40611	32-36,3811	-115,2151	-1-72-100	09/30/77	STREAM	DRY	1000	0500	1		3.51	1.25	1.79	0.41
40612	32-36,3630	-115,1464	-1-72-100	09/30/77	STREAM	DRY	1000	0500	1		3.04	1.29	1.90	0.52
40613	32-36,3556	-115,1377	-1-72-100	09/30/77	STREAM	DRY	1000	0500	1		1.92	1.48	1.93	0.55
40625	32-36,5127	-115,6230	-1-72-100	10/03/77	STREAM	DRY	1000	0500	1		0.82	1.92	2.80	0.48
40626	32-36,6362	-115,9788	-1-72-100	10/03/77	STREAM	DRY	1000	0500	1		1.08	1.70	2.89	0.50
40627	32-36,6585	-115,9527	-1-72-100	10/03/77	STREAM	DRY	1000	0500	1		1.07	1.76	2.65	0.73
40628	32-36,6451	-115,9608	-1-72-100	10/03/77	STREAM	DRY	1000	0500	1		0.83	1.86	1.49	0.38
40629	32-36,6289	-115,9699	-1-72-100	10/03/77	STREAM	DRY	1000	0500	1		1.18	1.69	2.61	0.52
40630	32-36,6315	-115,9553	-1-72-100	10/03/77	STREAM	DRY	1000	0500	1		1.05	1.76	2.54	0.55
40631	32-36,2636	-115,1354	-1-72-100	10/04/77	STREAM	DRY	1000	0500	9		2.74	1.38	2.90	0.56
40632	32-36,3175	-115,1832	-1-72-100	10/04/77	STREAM	DRY	1000	0500	1		2.12	1.48	4.62	0.63
40633	32-36,3508	-115,1167	-1-72-100	10/04/77	STREAM	DRY	1000	0500	1		2.83	1.30	2.29	0.52
40634	32-36,3873	-115,1448	-1-72-100	10/04/77	STREAM	DRY	1000	0500	1		3.41	1.26	2.63	0.55
40635	32-36,3850	-115,0612	-1-72-100	10/04/77	STREAM	DRY	1000	0500	1		1.87	1.42	2.10	0.37
40636	32-36,3422	-115,0333	-1-72-100	10/04/77	STREAM	DRY	1000	0500	1		3.05	1.27	2.42	0.61
40642	32-36,9778	-115,0968	-1-72-100	10/05/77	STREAM	DRY	1000	0500	1		0.63	2.07	1.91	0.35
40643	32-36,9490	-115,1020	-1-72-100	10/05/77	STREAM	DRY	1000	0500	1		1.01	1.79	4.15	0.50
40644	32-36,8795	-115,0914	-1-72-100	10/05/77	STREAM	DRY	1000	0500	1		0.96	1.84	4.60	0.56
40645	32-36,8095	-115,0573	-1-72-100	10/05/77	STREAM	DRY	1000	0500	1		1.05	1.83	2.51	0.43
40646	32-36,7819	-115,0759	-1-72-100	10/05/77	STREAM	DRY	1000	0500	1		0.87	1.80	1.79	0.25
40647	32-36,7623	-115,0943	-1-72-100	10/05/77	STREAM	DRY	1000	0500	1		0.69	2.02	2.59	0.49
40648	32-36,3162	-114,9861	-1-72-100	10/06/77	STREAM	DRY	1000	0500	1		2.38	1.29		
40649	32-36,3213	-114,9681	-1-72-100	10/06/77	STREAM	DRY	1000	0500	1		3.23	1.28	4.92	0.82
40650	32-36,3238	-114,9558	-1-72-100	10/06/77	STREAM	DRY	1000	0500	1		2.66	1.35	3.68	0.69
40651	32-36,4696	-115,1662	-1-72-100	10/07/77	STREAM	DRY	1000	0500	1		1.56	1.39		
40652	32-36,4803	-115,1571	-1-72-100	10/07/77	STREAM	DRY	1000	0500	1		1.40	1.46	3.77	0.52
40653	32-36,5748	-115,2084	-1-72-100	10/07/77	STREAM	DRY	1000	0500	1		1.32	1.70	7.21	0.66

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

SITE NUMBER	DOE SAMPLE NUMBER			DATE MO-DA-YR	SAMPLE SOURCE/COND.	PARTICLE SIZE		POS. CONT	Q, C, X-REF	URANIUM(DNC)		THORIUM(NAA)		
	ST	LAT, LONG, L TY RPL				UPPER	LOWER			PPM	%ERR	PPM	ERR	
40654	32-36,5773	-115,1905	-1-72-100	10/07/77	STREAM	DRY	1000	0500	1		2,82	1,38	10,85	1,00
40655	32-36,5714	-115,2208	-1-72-100	10/07/77	STREAM	DRY	1000	0500	1		1,49	1,42		
40656	32-36,5318	-115,2217	-1-72-100	10/07/77	STREAM	DRY	1000	0500	1		0,80	1,71	0,95	0,29
40657	32-36,5220	-115,2298	-1-72-100	10/07/77	STREAM	DRY	1000	0500	1		0,91	1,79	3,06	0,56
40658	32-36,5928	-115,6104	-1-72-100	10/08/77	STREAM	DRY	1000	0500	1		1,77	1,36	2,12	0,39
40659	32-36,5946	-115,6082	-1-72-100	10/08/77	STREAM	DRY	1000	0500	1		1,88	1,43	2,79	0,56
40660	32-36,6038	-115,6225	-1-72-100	10/08/77	STREAM	DRY	1000	0500	1		1,69	1,46	3,13	0,56
40661	32-36,6053	-115,6002	-1-72-100	10/08/77	STREAM	DRY	1000	0500	1		15,76	1,05	3,79	0,99
40662	32-36,6311	-115,5728	-1-72-100	10/08/77	STREAM	DRY	1000	0500	1		1,17	1,71	2,79	0,67
40663	32-36,6668	-115,5431	-1-72-100	10/08/77	STREAM	DRY	1000	0500	1		1,68	1,40	3,86	0,49
40664	32-36,6387	-115,5313	-1-72-100	10/08/77	STREAM	DRY	1000	0500	1		1,46	1,57	1,02	0,28
40665	32-36,7063	-115,5244	-1-72-100	10/08/77	STREAM	DRY	1000	0500	1		1,50	1,56	5,42	0,71
40666	32-36,7234	-115,5252	-1-72-100	10/08/77	STREAM	DRY	1000	0500	1		1,04	1,62	3,14	0,47
40667	32-36,7386	-115,5171	-1-72-100	10/08/77	STREAM	DRY	1000	0500	1		0,88	1,87	1,97	0,41
40668	32-36,9752	-115,4114	-1-72-100	10/09/77	STREAM	DRY	1000	0500	1		1,31	1,61	2,06	0,53
40669	32-36,9652	-115,4038	-1-72-100	10/09/77	STREAM	DRY	1000	0500	1		1,48	1,46		
40670	32-36,9568	-115,3837	-1-72-100	10/09/77	STREAM	DRY	1000	0500	1		1,07	1,79		
40671	32-36,9382	-115,4077	-1-72-100	10/09/77	STREAM	DRY	1000	0500	1		2,34	1,43	10,21	1,10
40672	32-36,9317	-115,3910	-1-72-100	10/09/77	STREAM	DRY	1000	0500	1		3,06	1,32	12,31	1,01
40673	32-36,9155	-115,3958	-1-72-100	10/09/77	STREAM	DRY	1000	0500	1		2,10	1,51	9,02	1,25
40674	32-36,8929	-115,3862	-1-72-100	10/09/77	STREAM	DRY	1000	0500	1		2,13	1,46	6,71	1,15
40675	32-36,8828	-115,3786	-1-72-100	10/09/77	STREAM	DRY	1000	0500	1		2,33	1,39	9,13	0,95
40676	32-36,8694	-115,3878	-1-72-100	10/09/77	STREAM	DRY	1000	0500	1		2,20	1,40	9,48	0,94
40677	32-36,7223	-115,7391	-1-72-100	10/10/77	STREAM	DRY	1000	0500	1		0,83	1,98	1,45	0,43
40678	32-36,7329	-115,7188	-1-72-100	10/10/77	STREAM	DRY	1000	0500	1		1,18	1,60	1,04	0,64
40679	32-36,7417	-115,7041	-1-72-100	10/10/77	STREAM	DRY	1000	0500	1		1,15	1,81	1,92	0,46
40680	32-36,7632	-115,6914	-1-72-100	10/10/77	STREAM	DRY	1000	0500	1		1,11	1,69		
40681	32-36,7693	-115,6711	-1-72-100	10/10/77	STREAM	DRY	1000	0500	1		1,19	1,65	1,29	0,38
40682	32-36,7774	-115,6699	-1-72-100	10/10/77	STREAM	DRY	1000	0500	1		1,13	1,60	1,79	0,43
40683	32-36,7366	-115,3660	-1-72-100	10/10/77	STREAM	DRY	1000	0500	1		2,11	1,38		
40684	32-36,5611	-115,3160	-1-72-100	10/12/77	STREAM	DRY	1000	0500	1		1,19	1,56	2,32	0,59
40685	32-36,5751	-115,2856	-1-72-100	10/13/77	STREAM	DRY	1000	0500	1		1,15	1,84	3,60	0,68
40686	32-36,5543	-115,2860	-1-72-100	10/13/77	STREAM	DRY	1000	0500	2		1,33	1,62	2,21	0,51
40687	32-36,5145	-115,2757	-1-72-100	10/13/77	STREAM	DRY	1000	0500	1		1,18	1,53		
40688	32-36,4979	-115,3096	-1-72-100	10/13/77	STREAM	DRY	1000	0500	1		1,33	1,46		
40689	32-36,4843	-115,3076	-1-72-100	10/13/77	STREAM	DRY	1000	0500	1		1,29	1,55	1,38	0,34
40690	32-36,8502	-115,8200	-1-72-100	10/16/77	STREAM	DRY	1000	0500	1		1,53	1,48	5,25	0,61
40691	32-36,8639	-115,8366	-1-72-100	10/16/77	STREAM	DRY	1000	0500	1		1,26	1,63	3,54	0,49
40692	32-36,8764	-115,8308	-1-72-100	10/16/77	STREAM	DRY	1000	0500	1		1,14	1,69	3,35	0,49
40693	32-36,8936	-115,8306	-1-72-100	10/16/77	STREAM	DRY	1000	0500	1		1,09	1,81	2,29	0,58
40694	32-36,9017	-115,8327	-1-72-100	10/16/77	STREAM	DRY	1000	0500	1		1,01	1,72	2,35	0,46
40695	32-36,9241	-115,8223	-1-72-100	10/16/77	STREAM	DRY	1000	0500	1		1,15	1,73	3,52	0,56
40696	32-36,9313	-115,8210	-1-72-100	10/16/77	STREAM	DRY	1000	0500	1		1,25	1,60	1,70	0,51
40697	32-36,8957	-115,7767	-1-72-100	10/16/77	STREAM	DRY	1000	0500	1		0,97	1,85	3,11	0,63
40698	32-36,8759	-115,7826	-1-72-100	10/16/77	STREAM	DRY	1000	0500	1		1,03	1,65	2,31	0,56
40699	32-36,8480	-115,7786	-1-72-100	10/16/77	STREAM	DRY	1000	0500	1		1,23	1,57	2,42	0,57
40700	32-36,8162	-115,7544	-1-72-100	10/16/77	STREAM	DRY	1000	0500	1		1,21	1,79	8,34	0,77
40701	32-36,6369	-115,4609	-1-72-100	10/01/77	STREAM	DRY	1000	0500	1		1,14	1,83	2,33	0,59
40702	32-36,5930	-115,6272	-1-72-100	10/02/77	STREAM	DRY	1000	0500	1		1,77	1,34	2,29	0,35

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

SITE NUMBER	-----DOE SAMPLE NUMBER-----			DATE MO-DA-YR	SAMPLE SOURCE/COND.	PARTICLE SIZE		POS. CONT	Q. C. X-REF	URANIUM(DNC)		THORIUM(NAA)		
	ST	LAT, LONG,	L TY RPL			UPPER	LOWER			PPM	%ERR	PPM	ERR	
40703	32-36,5997	-115,7434	-1-72-100	10/02/77	STREAM	DRY	1000	0500	1		0.97	1.74	3.49	0.42
40704	32-36,5541	-115,6983	-1-72-100	10/02/77	STREAM	DRY	1000	0500	1		2.57	1.34	3.15	0.56
40705	32-36,5469	-115,6951	-1-72-100	10/02/77	STREAM	DRY	1000	0500	1		1.88	1.42	2.89	0.54
40706	32-36,5084	-115,7180	-1-72-100	10/02/77	STREAM	DRY	1000	0500	1		1.84	1.42	1.33	0.30
40707	32-36,5711	-115,0856	-1-72-100	10/03/77	STREAM	DRY	1000	0500	1		1.04	1.83	5.94	0.68
40708	32-36,5922	-115,1074	-1-72-100	10/03/77	STREAM	DRY	1000	0500	1		0.96	1.86	5.24	0.65
40709	32-36,6462	-115,1005	-1-72-100	10/03/77	STREAM	DRY	1000	0500	1		0.65	2.33	3.92	0.62
40710	32-36,4040	-115,1221	-1-72-100	10/04/77	STREAM	DRY	1000	0500	1		2.46	1.35	2.74	0.56
40711	32-36,3838	-115,0947	-1-72-100	10/04/77	STREAM	DRY	1000	0500	1		1.77	1.49	3.16	0.46
40712	32-36,3582	-115,0541	-1-72-100	10/04/77	STREAM	DRY	1000	0500	1		2.13	1.40	3.67	0.49
40714	32-36,9777	-115,0912	-1-72-100	10/05/77	STREAM	DRY	1000	0500	1		0.56	1.99	1.50	0.30
40715	32-36,9874	-115,0775	-1-72-100	10/05/77	STREAM	DRY	1000	0500	1		0.66	1.87	1.83	0.30
40716	32-36,9038	-115,0930	-1-72-100	10/05/77	STREAM	DRY	1000	0500	1		0.81	1.80	3.33	0.40
40717	32-36,8284	-115,0557	-1-72-100	10/05/77	STREAM	DRY	1000	0500	1		0.98	1.80	6.27	0.68
40718	32-36,7964	-115,0800	-1-72-100	10/05/77	STREAM	DRY	1000	0500	1		1.72	1.40	2.77	0.44
40719	32-36,3549	-114,9839	-1-72-100	10/06/77	STREAM	DRY	1000	0500	1		0.82	1.86	2.49	0.59
40720	32-36,5804	-114,9949	-1-72-100	10/06/77	STREAM	DRY	1000	0500	1		2.10	1.33	2.69	0.52
40721	32-36,5826	-115,8364	-1-72-100	10/07/77	STREAM	DRY	1000	0500	1		0.89	1.70	1.41	0.39
40722	32-36,5927	-115,8497	-1-72-100	10/07/77	STREAM	DRY	1000	0500	1		1.25	1.66	3.47	0.62
40723	32-36,5800	-115,8499	-1-72-100	10/07/77	STREAM	DRY	1000	0500	1		1.07	1.80	3.72	0.62
40724	32-36,5956	-115,8697	-1-72-100	10/07/77	STREAM	DRY	1000	0500	1		1.15	1.80	2.60	0.46
40725	32-36,5923	-115,8128	-1-72-100	10/07/77	STREAM	DRY	1000	0500	1		1.08	1.64	2.15	0.56
40726	32-36,5930	-115,7915	-1-72-100		STREAM	DRY	1000	0500	1		1.08	1.73	3.43	0.48
40727	32-36,5973	-115,7725	-1-72-100	10/07/77	STREAM	DRY	1000	0500	1		0.94	1.78	1.20	0.31
40736	32-36,5336	-115,2831	-1-72-100	10/12/77	STREAM	DRY	1000	0500	1		1.34	1.43	2.15	0.38
40737	32-36,5305	-115,3212	-1-72-100	10/12/77	STREAM	DRY	1000	0500	1		1.19	1.52	0.99	0.37
40738	32-36,7446	-115,8048	-1-72-100	10/16/77	STREAM	DRY	1000	0500	1		1.15	1.54	2.08	0.45
40739	32-36,6480	-115,8902	-1-72-100	10/16/77	STREAM	DRY	1000	0500	1		0.83	1.67	1.76	0.37
40740	32-36,6409	-115,9015	-1-72-100	10/16/77	STREAM	DRY	1000	0500	1		0.97	1.61	0.78	0.41
40741	32-36,6329	-115,9139	-1-72-100	10/16/77	STREAM	DRY	1000	0500	1		1.45	1.49	2.79	0.63
40742	32-36,6276	-115,9263	-1-72-100	10/16/77	STREAM	DRY	1000	0500	1		1.01	1.64	2.63	0.45
40743	32-36,7657	-115,2555	-1-72-100	10/17/77	STREAM	DRY	1000	0500	1		0.93	1.68	3.14	0.44
40744	32-36,7665	-115,2443	-1-72-100	10/17/77	STREAM	DRY	1000	0500	1		0.91	1.70	2.34	0.46
40745	32-36,7455	-115,2291	-1-72-100	10/17/77	STREAM	DRY	1000	0500	1		0.93	1.83	3.05	0.52
40746	32-36,7321	-115,2384	-1-72-100	10/17/77	STREAM	DRY	1000	0500	1		0.72	1.86	2.62	0.55
40747	32-36,7088	-115,2479	-1-72-100	10/17/77	STREAM	DRY	1000	0500	1		1.57	1.56	7.56	0.74
40748	32-36,6986	-115,2246	-1-72-100	10/17/77	STREAM	DRY	1000	0500	1		0.83	1.73	3.89	0.44
40749	32-36,6834	-115,2384	-1-72-100	10/17/77	STREAM	DRY	1000	0500	1		0.83	1.68	2.50	0.41
40750	32-36,6510	-115,2391	-1-72-100	10/17/77	STREAM	DRY	1000	0500	1		0.95	1.60	2.91	0.37
40751	32-36,5897	-115,1790	-1-72-100	10/17/77	STREAM	DRY	1000	0500	1		0.91	1.63	0.79	0.24
40752	32-36,7117	-115,1963	-1-72-100	10/17/77	STREAM	DRY	1000	0500	1		0.86	1.69	1.22	0.36
40753	32-36,7221	-115,1692	-1-72-100	10/17/77	STREAM	DRY	1000	0500	1		0.92	1.63	2.43	0.38
40754	32-36,7355	-115,1644	-1-72-100	10/17/77	STREAM	DRY	1000	0500	1		1.14	1.61	2.28	0.44
40755	32-36,7569	-115,1460	-1-72-100	10/17/77	STREAM	DRY	1000	0500	1		1.02	1.67	4.72	0.51
40756	32-36,7676	-115,1435	-1-72-100	10/17/77	STREAM	DRY	1000	0500	1		0.71	1.85	2.01	0.40
40757	32-36,7784	-115,1376	-1-72-100	10/17/77	STREAM	DRY	1000	0500	1		0.98	1.85	4.59	0.63
40758	32-36,7972	-115,1304	-1-72-100	10/17/77	STREAM	DRY	1000	0500	1		0.97	2.28	4.50	0.84
40759	32-36,8151	-115,1244	-1-72-100	10/17/77	STREAM	DRY	1000	0500	1		0.90	2.11	5.27	0.91
40760	32-36,8483	-115,1157	-1-72-100	10/17/77	STREAM	DRY	1000	0500	1		0.79	1.96	3.43	0.51

SITE NUMBER	DOE SAMPLE NUMBER			DATE MO-DA-YR	SAMPLE SOURCE/COND.	PARTICLE SIZE		POS. CONT	Q. C. X-REF	URANIUM(DNC)		THORIUM(NAA)	
	ST	LAT. LONG.	L TY RPL			UPPER	LOWER			PPM	%ERR	PPM	ERR
40761	32-36,8638	-115,1243	-1-72-100	10/17/77	STREAM	DRY	1000	0500	1	1.03	1.88	5.79	0.70
40762	32-36,8800	-115,1273	-1-72-100	10/17/77	STREAM	DRY	1000	0500	1	0.85	2.04	3.86	0.80
40763	32-36,9678	-115,1465	-1-72-100	10/17/77	STREAM	DRY	1000	0500	1	0.80	1.89	2.29	0.54
40764	32-36,9289	-115,1384	-1-72-100	10/17/77	STREAM	DRY	1000	0500	1	1.01	1.76	3.68	0.57
40765	32-36,9399	-115,1483	-1-72-100	10/17/77	STREAM	DRY	1000	0500	1	0.94	1.77	2.55	0.50
40766	32-36,9939	-115,1459	-1-72-100	10/17/77	STREAM	DRY	1000	0500	1	0.88	1.86	4.29	0.57
40768	32-36,9861	-115,1629	-1-72-100	10/17/77	STREAM	DRY	1000	0500	1	1.14	1.64	2.44	0.30
40769	32-36,9804	-115,1484	-1-72-100	10/17/77	STREAM	DRY	1000	0500	1	0.75	1.92	2.43	0.43
40770	32-36,9479	-115,1436	-1-72-100	10/17/77	STREAM	DRY	1000	0500	1	0.91	1.76	3.11	0.45
40771	32-36,9296	-115,2473	-1-72-100	10/17/77	STREAM	DRY	1000	0500	1	1.12	1.65	3.56	0.56
40772	32-36,8908	-115,2392	-1-72-100	10/17/77	STREAM	DRY	1000	0500	1	1.16	2.11	5.95	1.54
40773	32-36,9095	-115,2265	-1-72-100	10/17/77	STREAM	DRY	1000	0500	1	1.45	1.58	4.63	0.58
40774	32-36,8878	-115,2214	-1-72-100	10/17/77	STREAM	DRY	1000	0500	1	1.10	1.71	2.58	0.56
40775	32-36,8492	-115,2335	-1-72-100	10/17/77	STREAM	DRY	1000	0500	1	1.11	1.69	2.99	0.56
40776	32-36,8259	-115,2407	-1-72-100	10/17/77	STREAM	DRY	1000	0500	1	0.81	1.81	1.44	0.32
40777	32-36,8384	-115,1754	-1-72-100	10/17/77	STREAM	DRY	1000	0500	1	0.57	2.09	1.20	0.34
40778	32-36,8133	-115,1850	-1-72-100	10/17/77	STREAM	DRY	1000	0500	1	1.57	1.77	8.72	1.33
40779	32-36,7936	-115,1877	-1-72-100	10/17/77	STREAM	DRY	1000	0500	1	0.78	2.05	4.45	0.68
40780	32-36,7674	-115,1883	-1-72-100	10/17/77	STREAM	DRY	1000	0500	1	0.79	1.84	1.79	0.47
40781	32-36,7704	-115,2061	-1-72-100	10/17/77	STREAM	DRY	1000	0500	1	1.10	1.74	3.60	0.57
40782	32-36,7997	-115,2346	-1-72-100	10/17/77	STREAM	DRY	1000	0500	1	0.91	1.80	2.76	0.51
40783	32-36,8141	-115,2343	-1-72-100	10/17/77	STREAM	DRY	1000	0500	1	1.03	1.65		
40784	32-36,8407	-115,2662	-1-72-100	10/17/77	STREAM	DRY	1000	0500	1	0.95	1.66	0.61	0.18
40785	32-36,8173	-115,2723	-1-72-100	10/17/77	STREAM	DRY	1000	0500	1	1.17	1.87	3.73	1.02
40786	32-36,7966	-115,2705	-1-72-100	10/17/77	STREAM	DRY	1000	0500	1	1.09	1.67	3.38	0.44
40787	32-36,8349	-115,3000	-1-72-100	10/17/77	STREAM	DRY	1000	0500	1	0.94	1.74	1.63	0.36
40788	32-36,8526	-115,2783	-1-72-100	10/17/77	STREAM	DRY	1000	0500	1	0.89	1.87	3.46	0.54
40789	32-36,8627	-115,2937	-1-72-100	10/17/77	STREAM	DRY	1000	0500	1	0.87	1.83	2.20	0.39
40790	32-36,8717	-115,2924	-1-72-100	10/17/77	STREAM	DRY	1000	0500	1	0.97	1.98	3.25	0.81
40791	32-36,8696	-115,2689	-1-72-100	10/17/77	STREAM	DRY	1000	0500	1	1.14	1.71	3.97	0.62
40792	32-36,8804	-115,2675	-1-72-100	10/17/77	STREAM	DRY	1000	0500	1	1.00	1.76	2.53	0.51
40793	32-36,8905	-115,2808	-1-72-100	10/17/77	STREAM	DRY	1000	0500	1	1.04	1.74	1.94	0.47
40794	32-36,8881	-115,3044	-1-72-100	10/17/77	STREAM	DRY	1000	0500	1	1.06	1.66	1.73	0.26
40795	32-36,9131	-115,2892	-1-72-100	10/17/77	STREAM	DRY	1000	0500	1	1.13	1.77	2.50	0.63
40796	32-36,9147	-115,2701	-1-72-100	10/17/77	STREAM	DRY	1000	0500	1	1.17	1.67	3.75	0.55
40797	32-36,9145	-115,2578	-1-72-100	10/17/77	STREAM	DRY	1000	0500	1	1.05	1.75	2.24	0.45
40798	32-36,9809	-115,3652	-1-72-100	10/17/77	STREAM	DRY	1000	0500	1	1.16	1.70	2.76	0.54
40799	32-36,9591	-115,3545	-1-72-100	10/17/77	STREAM	DRY	1000	0500	1	0.98	1.81	2.48	0.49
40800	32-36,9453	-115,3346	-1-72-100	10/17/77	STREAM	DRY	1000	0500	1	1.14	1.72	3.04	0.46
40801	32-36,5447	-115,4359	-1-72-100	09/27/77	STREAM	DRY	1000	0500	1	1.42	1.66	3.47	0.58
40802	32-36,5713	-115,4052	-1-72-100	09/27/77	STREAM	DRY	1000	0500	1	1.12	1.68	2.49	0.43
40803	32-36,5784	-115,3928	-1-72-100	09/27/77	STREAM	DRY	1000	0500	1	1.35	1.55	1.80	0.40
40804	32-36,5945	-115,3846	-1-72-100	09/27/77	STREAM	DRY	1000	0500	1	1.01	1.68	1.38	0.34
40805	32-36,6148	-115,4233	-1-72-100	09/28/77	STREAM	DRY	1000	0500	1	1.13	1.78	4.13	0.66
40806	32-36,6318	-115,4107	-1-72-100	09/28/77	STREAM	DRY	1000	0500	1	1.18	1.70	2.44	0.46
40807	32-36,6636	-115,3653	-1-72-100	09/28/77	STREAM	DRY	1000	0500	1	1.18	1.61	1.74	0.37
40808	32-36,6735	-115,3628	-1-72-100	09/28/77	STREAM	DRY	1000	0500	1	1.53	1.58	3.47	0.91
40809	32-36,6851	-115,3559	-1-72-100	09/28/77	STREAM	DRY	1000	0500	1	1.44	1.69	4.26	0.78
40810	32-36,7227	-115,3327	-1-72-100	09/28/77	STREAM	DRY	1000	0500	1	1.27	1.63	2.39	0.47

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

SITE NUMBER	-----DOE SAMPLE NUMBER-----			DATE MO-DA-YR	SAMPLE SOURCE/COND.	PARTICLE SIZE		POS. CONT	Q. C. X-REF	URANIUM(DNC)		THORIUM(NAA)	
	ST	LAT, LONG,	L TY RPL			UPPER	LOWER			PPM	%ERR	PPM	ERR
40811	32-36,5801-115,4576-1-72-100	09/29/77	STREAM	DRY	1000	0500	1			1.58	1.44	1.95	0.29
40812	32-36,5655-115,4400-1-72-100	09/29/77	STREAM	DRY	1000	0500	1			1.30	1.52	1.94	0.44
40813	32-36,5807-115,4296-1-72-100	09/28/77	STREAM	DRY	1000	0500	1			1.31	1.53	2.40	0.38
40814	32-36,5923-115,4260-1-72-100	09/29/77	STREAM	DRY	1000	0500	1			1.24	1.55	2.90	0.47
40815	32-36,6732-115,4076-1-72-100	09/29/77	STREAM	DRY	1000	0500	1			0.98	1.71	1.46	0.40
40816	32-36,6552-115,4057-1-72-100	09/29/77	STREAM	DRY	1000	0500	1			1.35	1.57	2.90	0.50
40817	32-36,6444-115,4126-1-72-100	09/29/77	STREAM	DRY	1000	0500	1			1.34	1.52	2.69	0.64
40818	32-36,4650-115,2768-1-72-100	09/30/77	STREAM	DRY	1000	0500	1			0.87	1.64		
40819	32-36,4650-115,2824-1-72-100		STREAM	DRY	1000	0500	1			0.88	1.80	0.99	0.40
40820	32-36,4743-115,2989-1-72-100	09/30/77	STREAM	DRY	1000	0500	1			1.05	1.53		
40821	32-36,4724-115,2956-1-72-100	09/30/77	STREAM	DRY	1000	0500	1			0.94	1.67	1.00	0.33
40822	32-36,4672-115,2478-1-72-100	09/30/77	STREAM	DRY	1000	0500	1			0.87	1.87	1.17	0.31
40823	32-36,4780-115,2419-1-72-100		STREAM	DRY	1000	0500	1			1.67	1.38		
40824	32-36,3916-115,2528-1-72-100	09/30/77	STREAM	DRY	1000	0500	1			3.40	1.22		
40825	32-36,6705-115,7075-1-72-100	10/01/77	STREAM	DRY	1000	0500	4			1.26	1.67	2.50	0.44
40827	32-36,6880-115,7430-1-72-100	10/01/77	STREAM	DRY	1000	0500	1			1.02	1.68	1.50	0.48
40828	32-36,6997-115,7373-1-72-100	10/01/77	STREAM	DRY	1000	0500	1			1.17	1.53	1.06	0.29
40829	32-36,6439-115,7438-1-72-100	10/02/77	STREAM	DRY	1000	0500	1			1.60	1.57	1.66	0.35
40830	32-36,7999-115,6661-1-72-100	10/02/77	STREAM	DRY	1000	0500	1			1.29	1.65	1.93	0.59
40831	32-36,8170-115,6669-1-72-100	10/02/77	STREAM	DRY	1000	0500	1			0.89	1.71	1.17	0.31
40832	32-36,8376-115,6565-1-72-100	10/02/77	STREAM	DRY	1000	0500	1			0.91	1.64	0.83	0.21
40833	32-36,7417-114,9884-1-72-100	10/03/77	STREAM	DRY	1000	0500	1			1.41	1.52	2.14	0.42
40834	32-36,6177-115,0699-1-72-100		STREAM	DRY	1000	0500	1			0.93	2.13	3.58	1.01
40835	32-36,6319-115,1109-1-72-100	10/03/77	STREAM	DRY	1000	0500	1			0.69	2.40	4.37	0.72
40840	32-36,9776-115,0845-1-72-100	10/05/77	STREAM	DRY	1000	0500	1			0.68	1.98	1.58	0.39
40841	32-36,9757-115,0227-1-72-100	10/05/77	STREAM	DRY	1000	0500	1			0.67	2.07	1.95	0.47
40842	32-36,8890-115,0698-1-72-100	10/05/77	STREAM	DRY	1000	0500	1			0.82	1.94	3.86	0.72
40843	32-36,8140-115,0560-1-72-100	10/05/77	STREAM	DRY	1000	0500	1			0.83	1.70	2.06	0.35
40844	32-36,7990-115,0732-1-72-100		STREAM	DRY	1000	0500	1			0.92	1.78	4.93	0.58
40845	32-36,3848-114,9899-1-72-100	10/06/77	STREAM	DRY	1000	0500	1			1.96	1.60	3.03	1.08
40846	32-36,5434-114,9913-1-72-100	10/06/77	STREAM	DRY	1000	0500	1			1.81	1.46	3.36	0.68
40847	32-36,5524-114,9878-1-72-100	10/06/77	STREAM	DRY	1000	0500	1			2.36	1.30	2.31	0.40
40848	32-36,7290-114,9843-1-72-100	10/07/77	STREAM	DRY	1000	0500	1			3.04	1.24	1.47	0.38
40849	32-36,6735-115,0629-1-72-100	10/07/77	STREAM	DRY	1000	0500	1			1.43	1.65	6.49	0.68
40850	32-36,6881-115,0760-1-72-100	10/07/77	STREAM	DRY	1000	0500	1			1.39	1.67	7.49	0.84
40851	32-36,6957-115,0948-1-72-100	10/07/77	STREAM	DRY	1000	0500	1			1.04	1.86	4.13	0.64
40852	32-36,6743-115,1110-1-72-100	10/07/77	STREAM	DRY	1000	0500	1			1.46	1.75	9.74	1.07
40862	32-36,9337-115,3438-1-72-100	10/17/77	STREAM	DRY	1000	0500	1			0.88	1.72	2.23	0.44
40863	32-36,9032-115,3523-1-72-100	10/17/77	STREAM	DRY	1000	0500	1			1.11	1.67	1.48	0.46
40864	32-36,8093-115,3420-1-72-100	10/17/77	STREAM	DRY	1000	0500	1			2.68	1.40	12.51	1.23
40865	32-36,7932-115,3468-1-72-100	10/17/77	STREAM	DRY	1000	0500	1			2.10	1.40	7.91	0.90
40866	32-36,7574-115,3680-1-72-100	10/17/77	STREAM	DRY	1000	0500	1			2.17	1.38	9.49	0.92
40867	32-36,3573-115,0173-1-72-100	10/19/77	STREAM	DRY	1000	0500	1			1.64	1.51	3.34	0.56
40868	32-36,3758-115,0503-1-72-100	10/19/77	STREAM	DRY	1000	0500	1			1.66	1.45	1.46	0.37
40869	32-36,3800-115,0268-1-72-100	10/19/77	STREAM	DRY	1000	0500	1			1.76	1.47	1.84	0.58
40870	32-36,3986-115,0096-1-72-100	10/19/77	STREAM	DRY	1000	0500	1			1.63	1.51	2.57	0.76
40871	32-36,4011-114,9984-1-72-100	10/19/77	STREAM	DRY	1000	0500	1			1.71	1.50	2.29	0.43
40872	32-36,3888-115,0165-1-72-100	10/19/77	STREAM	DRY	1000	0500	1			1.75	1.40	2.34	0.37
40873	32-36,4132-115,0226-1-72-100	10/19/77	STREAM	DRY	1000	0500	1			1.85	1.40	2.80	0.44

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

SITE NUMBER	-----DOE SAMPLE NUMBER-----			DATE MO-DA-YR	SAMPLE SOURCE/COND,	PARTICLE SIZE		POS. CONT	Q, C, X-REF	URANIUM(DNC)		THORIUM(NAA)	
	ST	LAT, LONG,	L TY RPL			UPPER	LOWER			PPM	%ERR	PPM	ERR
40874	32-36	4252-115,0357-1-72-100	10/19/77	STREAM	DRY	1000	0500	1		1.93	1.38	2.47	0.42
40875	32-36	4486-115,0351-1-72-100	10/19/77	STREAM	DRY	1000	0500	1		2.16	1.29	1.97	0.36
40876	32-36	4577-115,0415-1-72-100	10/19/77	STREAM	DRY	1000	0500	1		1.88	1.44		
40877	32-36	4749-115,0456-1-72-100	10/19/77	STREAM	DRY	1000	0500	1		2.00	1.41	2.48	0.51
40878	32-36	4884-115,0430-1-72-100	10/19/77	STREAM	DRY	1000	0500	1		2.08	1.38	2.76	0.51
40879	32-36	4896-115,0095-1-72-100	10/19/77	STREAM	DRY	1000	0500	1		3.10	1.28	1.70	0.48
40880	32-36	5249-115,0142-1-72-100	10/19/77	STREAM	DRY	1000	0500	1		2.23	1.31	1.73	0.46
40881	32-36	5441-115,0338-1-72-100	10/19/77	STREAM	DRY	1000	0500	1		2.51	1.33	1.64	0.39
40882	32-36	5571-115,0022-1-72-100	10/19/77	STREAM	DRY	1000	0500	1		2.47	1.31	2.46	0.46
40883	32-36	5743-115,0073-1-72-100	10/19/77	STREAM	DRY	1000	0500	1		2.66	1.26	2.35	0.37
40884	32-36	5909-115,0270-1-72-100	10/19/77	STREAM	DRY	1000	0500	1		2.38	1.31	2.14	0.50
40885	32-36	6038-115,0434-1-72-100	10/19/77	STREAM	DRY	1000	0500	1		3.26	1.25	1.87	0.47
40886	32-36	6244-115,0384-1-72-100	10/19/77	STREAM	DRY	1000	0500	1		1.85	1.40	3.22	0.50
40887	32-36	6504-115,0266-1-72-100	10/19/77	STREAM	DRY	1000	0500	1		2.12	1.42	3.11	0.49
40888	32-36	6593-115,0241-1-72-100	10/19/77	STREAM	DRY	1000	0500	1		2.17	1.35	2.15	0.50
40889	32-36	6905-115,0021-1-72-100	10/19/77	STREAM	DRY	1000	0500	1		3.31	1.25	2.10	0.41
40890	32-36	7131-115,0026-1-72-100	10/19/77	STREAM	DRY	1000	0500	1		3.36	1.26	2.33	0.57
40891	32-36	7294-115,0660-1-72-100	10/19/77	STREAM	DRY	1000	0500	1		0.70	2.15	3.86	0.59
40892	32-36	7444-115,1015-1-72-100	10/19/77	STREAM	DRY	1000	0500	1		1.02	1.69	4.05	0.48
40893	32-36	7247-115,1087-1-72-100	10/19/77	STREAM	DRY	1000	0500	1		0.94	1.87	4.65	0.64
40894	32-36	7204-115,1177-1-72-100	10/19/77	STREAM	DRY	1000	0500	1		0.79	1.93	4.25	0.52
40895	32-36	7224-115,1334-1-72-100	10/19/77	STREAM	DRY	1000	0500	1		0.93	1.82	2.30	0.39
40896	32-36	6456-115,0681-1-72-100	10/19/77	STREAM	DRY	1000	0500	2		1.26	1.70	7.26	0.77
40897	32-36	6367-115,0717-1-72-100	10/19/77	STREAM	DRY	1000	0500	1		1.96	1.50	10.43	1.12
40898	32-36	6295-115,0708-1-72-100	10/19/77	STREAM	DRY	1000	0500	1		1.13	1.73	4.51	0.91
40899	32-36	5283-115,0587-1-72-100	10/19/77	STREAM	DRY	1000	0500	1		2.01	1.42	2.36	0.38
40900	32-36	5203-115,0623-1-72-100	10/19/77	STREAM	DRY	1000	0500	1		1.78	1.49	2.58	0.64
40901	32-36	3884-115,3432-1-72-100	09/27/77	STREAM	DRY	1000	0500	1		2.83	1.49	10.85	1.18
40902	32-36	4083-115,3461-1-72-100	09/27/77	STREAM	DRY	1000	0500	1		0.88	1.69	1.71	0.37
40903	32-36	4824-115,3646-1-72-100	09/29/77	STREAM	DRY	1000	0500	1		1.16	1.54	1.86	0.39
40904	32-36	4431-115,2583-1-72-100	09/29/77	STREAM	DRY	1000	0500	1		1.58	1.55	3.81	0.61
40905	32-36	4549-115,2648-1-72-100	09/29/77	STREAM	DRY	1000	0500	1		1.09	1.59	1.31	0.31
40906	32-36	4593-115,2580-1-72-100	09/29/77	STREAM	DRY	1000	0500	1		1.13	1.52		
40907	32-36	4377-115,2629-1-72-100	09/29/77	STREAM	DRY	1000	0500	1		0.82	1.99	2.44	0.60
40919	32-36	9968-115,1031-1-72-100	10/05/77	STREAM	DRY	1000	0500	1		0.63	1.85		
40920	32-36	9959-115,1031-1-72-100	10/05/77	STREAM	DRY	1000	0500	1		0.72	1.91	1.35	0.32
40921	32-36	9599-115,1029-1-72-100	10/05/77	STREAM	DRY	1000	0500	1		0.70	1.87	2.30	0.37
40923	32-36	8609-115,0593-1-72-100	10/05/77	STREAM	DRY	1000	0500	1		0.96	1.85	4.78	0.67
40924	32-36	7695-115,0897-1-72-100	10/05/77	STREAM	DRY	1000	0500	1		0.96	1.85	4.50	0.56
40932	32-36	4880-115,0765-1-72-100	10/19/77	STREAM	DRY	1000	0500	1		2.12	1.44	3.30	0.54
40933	32-36	4710-115,0814-1-72-100	10/19/77	STREAM	DRY	1000	0500	1		2.09	1.42	3.60	0.62
40934	32-36	4531-115,0896-1-72-100	10/19/77	STREAM	DRY	1000	0500	1		2.23	1.40	3.38	0.56
40935	32-36	4445-115,0586-1-72-100	10/19/77	STREAM	DRY	1000	0500	1		3.96	1.26	3.05	0.75
40936	32-36	4312-115,0734-1-72-100	10/19/77	STREAM	DRY	1000	0500	1		3.09	1.25	2.09	0.45
40937	32-36	4206-115,0871-1-72-100	10/19/77	STREAM	DRY	1000	0500	1		2.44	1.30	2.77	0.53
40938	32-36	4064-115,2201-1-72-100	10/19/77	STREAM	DRY	1000	0500	1		1.64	1.45	3.01	0.49
40939	32-36	7524-115,7767-1-72-100	10/23/77	STREAM	DRY	1000	0500	1		1.36	1.54	3.44	0.64
40940	32-36	7694-115,7697-1-72-100	10/23/77	STREAM	DRY	1000	0500	1		0.91	1.72	2.47	0.32
40941	32-36	7679-115,7989-1-72-100	10/23/77	STREAM	DRY	1000	0500	1		0.94	1.78	1.96	0.40

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

SITE NUMBER	-----DOE ST LAT,	SAMPLE NUMBER----- LONG, L TY RPL	DATE MO-DA-YR	SAMPLE SOURCE/COND,	PARTICLE SIZE		POS. CONT	Q, C, X-REF	URANIUM(DNC)		THORIUM(NAA)		
					UPPER	LOWER			PPM	%ERR	PPM	ERR	
40942	32-36,7663	-115,8146	-1-72-100	10/23/77	STREAM	DRY	1000	0500	1	0.84	1.78	1.88	0.34
40943	32-36,7656	-115,8348	-1-72-100	10/23/77	STREAM	DRY	1000	0500	1	1.48	1.47	2.35	0.55
40944	32-36,7710	-115,8380	-1-72-100	10/23/77	STREAM	DRY	1000	0500	1	1.04	1.63	1.69	0.41
40945	32-36,7622	-115,8595	-1-72-100	10/23/77	STREAM	DRY	1000	0500	1	1.75	1.40	2.41	0.35
40946	32-36,7894	-115,8759	-1-72-100	10/23/77	STREAM	DRY	1000	0500	1	1.44	1.54	3.16	0.48
40947	32-36,7886	-115,8826	-1-72-100	10/23/77	STREAM	DRY	1000	0500	1	1.35	1.64	4.22	0.65
40948	32-36,7786	-115,8794	-1-72-100	10/23/77	STREAM	DRY	1000	0500	1	1.10	1.67	2.67	0.42
40949	32-36,7751	-115,8817	-1-72-100	10/23/77	STREAM	DRY	1000	0500	1	1.26	1.54	1.31	0.43
40950	32-36,7707	-115,8930	-1-72-100	10/23/77	STREAM	DRY	1000	0500	1	1.16	1.59	1.72	0.41
40951	32-36,7681	-115,9098	-1-72-100	10/23/77	STREAM	DRY	1000	0500	1	0.89	1.82	2.30	0.45
40952	32-36,7591	-115,9077	-1-72-100	10/23/77	STREAM	DRY	1000	0500	1	1.10	1.72	1.96	0.64
40953	32-36,7328	-115,8946	-1-72-100	10/23/77	STREAM	DRY	1000	0500	1	1.36	1.49	1.46	0.49
40954	32-36,7137	-115,8781	-1-72-100	10/23/77	STREAM	DRY	1000	0500	1	1.22	1.64	2.80	0.47
40955	32-36,7396	-115,8486	-1-72-100	10/23/77	STREAM	DRY	1000	0500	1	1.12	1.62	2.96	0.46
40956	32-36,7125	-115,8400	-1-72-100	10/23/77	STREAM	DRY	1000	0500	1	0.89	2.00	3.28	0.53
40957	32-36,6398	-115,8792	-1-72-100	10/23/77	STREAM	DRY	1000	0500	1	1.43	1.48	2.07	0.35
40958	32-36,6406	-115,8713	-1-72-100	10/23/77	STREAM	DRY	1000	0500	1	1.23	1.49	1.65	0.31
40959	32-36,6676	-115,4648	-1-72-100	10/23/77	STREAM	DRY	1000	0500	1	1.62	1.44	1.68	0.38
40960	32-36,6884	-115,4655	-1-72-100	10/23/77	STREAM	DRY	1000	0500	1	1.59	1.62	8.14	0.76
40961	32-36,7355	-115,4813	-1-72-100	10/23/77	STREAM	DRY	1000	0500	1	1.06	1.67	1.56	0.37
40962	32-36,7097	-115,4404	-1-72-100	10/23/77	STREAM	DRY	1000	0500	1	1.57	1.45	1.01	0.41
40963	32-36,6856	-115,3928	-1-72-100	10/23/77	STREAM	DRY	1000	0500	1	1.11	1.67	2.74	0.59
40964	32-36,7027	-115,3868	-1-72-100	10/23/77	STREAM	DRY	1000	0500	1	1.40	1.58	2.48	0.53
40965	32-36,7215	-115,3820	-1-72-100	10/23/77	STREAM	DRY	1000	0500	1	1.19	1.66	3.06	0.66
40966	32-36,8262	-115,3887	-1-72-100	10/23/77	STREAM	DRY	1000	0500	1	3.35	1.29	11.98	0.82
40967	32-36,8316	-115,3875	-1-72-100	10/23/77	STREAM	DRY	1000	0500	1	2.05	1.45	9.08	1.06
40968	32-36,8568	-115,3892	-1-72-100	10/23/77	STREAM	DRY	1000	0500	1	1.84	1.53	7.58	0.82
40969	32-36,8479	-115,3916	-1-72-100	10/23/77	STREAM	DRY	1000	0500	1	2.23	1.37	9.83	0.82
40970	32-36,8190	-115,5312	-1-72-100	10/23/77	STREAM	DRY	1000	0500	1	1.12	1.65	3.01	0.55
40971	32-36,7966	-115,5406	-1-72-100	10/23/77	STREAM	DRY	1000	0500	1	1.02	1.64	1.89	0.36
40972	32-36,7839	-115,5375	-1-72-100	10/23/77	STREAM	DRY	1000	0500	1	1.19	1.67	2.59	0.66
40973	32-36,7569	-115,5403	-1-72-100	10/23/77	STREAM	DRY	1000	0500	1	1.10	1.62	2.35	0.50
40974	32-36,7824	-115,5588	-1-72-100	10/23/77	STREAM	DRY	1000	0500	1	1.61	1.46	2.50	0.43
40975	32-36,8061	-115,5775	-1-72-100	10/23/77	STREAM	DRY	1000	0500	1	1.23	1.81	3.36	0.57
40976	32-36,8214	-115,5749	-1-72-100	10/23/77	STREAM	DRY	1000	0500	1	1.10	1.50		
40977	32-36,8413	-115,5813	-1-72-100	10/23/77	STREAM	DRY	1000	0500	1	1.34	1.56	4.95	0.60
40978	32-36,8540	-115,5923	-1-72-100	10/23/77	STREAM	DRY	1000	0500	1	1.08	1.59	1.07	0.29
40979	32-36,8658	-115,5954	-1-72-100	10/23/77	STREAM	DRY	1000	0500	1	1.24	1.51	1.59	0.32
40980	32-36,7939	-115,6180	-1-72-100	10/23/77	STREAM	DRY	1000	0500	9	1.44	1.53	2.51	0.50
40981	32-36,7437	-115,5663	-1-72-100	10/23/77	STREAM	DRY	1000	0500	1	1.18	1.61	2.54	0.53
40982	32-36,7358	-115,5810	-1-72-100	10/23/77	STREAM	DRY	1000	0500	1	1.11	1.77	1.75	0.50
40983	32-36,7179	-115,5892	-1-72-100	10/23/77	STREAM	DRY	1000	0500	1	1.03	1.65	2.95	0.46
40984	32-36,7026	-115,5917	-1-72-100	10/23/77	STREAM	DRY	1000	0500	1	1.05	1.72	3.16	0.45
41001	32-36,5458	-115,3834	-1-72-100	09/27/77	STREAM	DRY	1000	0500	1	1.05	1.69	2.69	0.41
41002	32-36,5957	-115,2795	-1-72-100	09/27/77	STREAM	DRY	1000	0500	1	0.91	1.67		
41003	32-36,5869	-115,3568	-1-72-100	09/28/77	STREAM	DRY	1000	0500	1	0.95	1.78	2.38	0.49
41004	32-36,6166	-115,2913	-1-72-100	09/28/77	STREAM	DRY	1000	0500	1	0.80	1.78	1.29	0.32
41005	32-36,6067	-115,2949	-1-72-100	09/28/77	STREAM	DRY	1000	0500	1	1.00	1.63	1.24	0.33
41006	32-36,6223	-115,2521	-1-72-100		STREAM	DRY	1000	0500	1	0.93	1.79	2.35	0.46

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

SITE NUMBER	-----DOE SAMPLE NUMBER-----				DATE MO-DA-YR	SAMPLE SOURCE/COND.	PARTICLE SIZE		POS. CONT	Q. C. X-REF	URANIUM(DNC)		THORIUM(NAA)	
	ST	LAT.	LONG.	L TY RPL			UPPER	LOWER			PPM	%ERR	PPM	ERR
41007	32-36	3991	-115,1545	-1-72-100	09/30/77	STREAM	DRY	1000	0500	1	3.21	1.29	2.00	0.63
41008	32-36	4099	-115,1531	-1-72-100	09/30/77	STREAM	DRY	1000	0500	1	2.43	1.33		
41009	32-36	9857	-115,5988	-1-72-100	10/01/77	STREAM	DRY	1000	0500	1	1.06	1.84	4.78	0.77
41010	32-36	9008	-115,5858	-1-72-100	10/02/77	STREAM	DRY	1000	0500	1	1.04	1.76	3.09	0.48
41011	32-36	9152	-115,5833	-1-72-100	10/02/77	STREAM	DRY	1000	0500	1	1.11	1.70	3.14	0.55
41012	32-36	8855	-115,5872	-1-72-100	10/02/77	STREAM	DRY	1000	0500	1	1.19	1.53		
41013	32-36	9323	-115,5796	-1-72-100	10/02/77	STREAM	DRY	1000	0500	1	1.14	1.64	1.58	0.39
41014	32-36	5853	-115,3077	-1-72-100	10/03/77	STREAM	DRY	1000	0500	1	1.01	1.63		
41015	32-36	4862	-115,1279	-1-72-100	10/04/77	STREAM	DRY	1000	0500	1	1.88	1.53	9.79	0.95
41016	32-36	4764	-115,1371	-1-72-100	10/04/77	STREAM	DRY	1000	0500	1	1.05	2.24	5.97	1.15
41017	32-36	4535	-115,1175	-1-72-100	10/04/77	STREAM	DRY	1000	0500	1	1.81	1.40	1.83	0.38
41018	32-36	4479	-115,1600	-1-72-100	10/04/77	STREAM	DRY	1000	0500	1	1.01	1.77	2.65	0.46
41024	32-36	9541	-115,0828	-1-72-100	10/05/77	STREAM	DRY	1000	0500	1	0.78	1.78		
41025	32-36	9344	-115,0867	-1-72-100	10/05/77	STREAM	DRY	1000	0500	1	1.17	1.80	6.28	0.83
41026	32-36	8618	-115,0593	-1-72-100	10/05/77	STREAM	DRY	1000	0500	1	0.88	1.92	5.31	0.64
41027	32-36	7712	-115,0874	-1-72-100	10/05/77	STREAM	DRY	1000	0500	1	1.20	1.69	4.19	0.57
41028	32-36	3371	-114,9978	-1-72-100	10/06/77	STREAM	DRY	1000	0500	1	2.25	1.40	3.08	0.64
41029	32-36	3550	-114,9884	-1-72-100	10/06/77	STREAM	DRY	1000	0500	1	1.79	1.50	2.45	0.63
41030	32-36	4782	-115,1984	-1-72-100	10/07/77	STREAM	DRY	1000	0500	1	1.19	1.71	3.95	0.58
41031	32-36	4956	-115,1533	-1-72-100	10/07/77	STREAM	DRY	1000	0500	1	1.19	1.67	2.97	0.54
41032	32-36	5308	-115,1000	-1-72-100	10/07/77	STREAM	DRY	1000	0500	1	2.98	1.38	14.36	1.12
41033	32-36	5365	-115,1177	-1-72-100	10/07/77	STREAM	DRY	1000	0500	1	1.05	1.72	2.95	0.48
41034	32-36	5059	-115,1207	-1-72-100	10/07/77	STREAM	DRY	1000	0500	1	2.01	1.55	9.71	1.17
41035	32-36	5173	-115,1573	-1-72-100	10/07/77	STREAM	DRY	1000	0500	1	0.70	1.90		
41036	32-36	5957	-115,1577	-1-72-100		STREAM	DRY	1000	0500	1	0.59	1.99	1.15	0.27
41037	32-36	6073	-115,1496	-1-72-100	10/07/77	STREAM	DRY	1000	0500	1	0.65	2.04	1.37	0.37
41038	32-36	6138	-115,1651	-1-72-100	10/07/77	STREAM	DRY	1000	0500	1	0.64	2.04	1.65	0.38
41039	32-36	6174	-115,1639	-1-72-100	10/07/77	STREAM	DRY	1000	0500	1	0.56	2.09		
41040	32-36	5773	-115,5951	-1-72-100	10/08/77	STREAM	DRY	1000	0500	1	1.76	1.44	2.24	0.51
41041	32-36	6005	-115,5723	-1-72-100	10/08/77	STREAM	DRY	1000	0500	1	1.62	1.47	2.18	0.41
41042	32-36	6121	-115,5631	-1-72-100	10/08/77	STREAM	DRY	1000	0500	1	1.49	1.55	1.23	0.41
41043	32-36	6165	-115,5575	-1-72-100	10/08/77	STREAM	DRY	1000	0500	1	1.45	1.50	1.02	0.29
41044	32-36	6200	-115,5507	-1-72-100	10/08/77	STREAM	DRY	1000	0500	1	1.69	1.43	1.32	0.35
41045	32-36	6172	-115,5418	-1-72-100	10/08/77	STREAM	DRY	1000	0500	1	1.46	1.48	1.61	0.32
41046	32-36	6180	-115,5328	-1-72-100	10/08/77	STREAM	DRY	1000	0500	1	2.15	1.54	3.41	0.75
41047	32-36	6267	-115,5436	-1-72-100	10/08/77	STREAM	DRY	1000	0500	1	1.26	1.56	1.34	0.32
41048	32-36	7508	-115,4788	-1-72-100	10/09/77	STREAM	DRY	1000	0500	1	1.35	1.71	7.52	0.73
41049	32-36	7634	-115,4819	-1-72-100	10/09/77	STREAM	DRY	1000	0500	1	0.98	1.78	2.47	0.47
41050	32-36	7708	-115,4941	-1-72-100	10/09/77	STREAM	DRY	1000	0500	1	0.84	1.83	1.41	0.30
41051	32-36	7670	-115,4124	-1-72-100	10/09/77	STREAM	DRY	1000	0500	1	1.48	1.61	4.17	0.73
41052	32-36	8537	-115,4947	-1-72-100	10/09/77	STREAM	DRY	1000	0500	1	1.16	1.75	3.76	0.79
41053	32-36	8575	-115,5058	-1-72-100	10/09/77	STREAM	DRY	1000	0500	1	1.24	1.70	3.77	0.69
41054	32-36	6501	-115,5781	-1-72-100	10/10/77	STREAM	DRY	1000	0500	1	1.78	1.46	3.17	0.50
41055	32-36	6845	-115,5887	-1-72-100	10/10/77	STREAM	DRY	1000	0500	1	1.07	1.66	1.99	0.41
41056	32-36	7372	-115,2808	-1-72-100	10/12/77	STREAM	DRY	1000	0500	1	0.70	2.00	1.90	0.43
41057	32-36	7300	-115,2788	-1-72-100	10/12/77	STREAM	DRY	1000	0500	1	0.85	1.77	2.21	0.41
41058	32-36	6786	-115,2765	-1-72-100	10/12/77	STREAM	DRY	1000	0500	1	0.88	1.74	1.77	0.37
41059	32-36	6867	-115,2730	-1-72-100	10/12/77	STREAM	DRY	1000	0500	1	1.24	1.69	2.26	0.86
41060	32-36	6363	-115,2797	-1-72-100	10/13/77	STREAM	DRY	1000	0500	1	0.99	1.64	1.16	0.42

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

SITE NUMBER	-----DOE SAMPLE NUMBER-----			DATE MO-DA-YR	SAMPLE SOURCE/COND.	PARTICLE SIZE		POS. CONT	Q. C. X-REF	URANIUM(DNC)		THORIUM(NAA)	
	ST	LAT, LONG,	L TY RPL			UPPER	LOWER			PPM	%ERR	PPM	ERR
41061	32-36	6507-115,2772-1-72-100	10/13/77	STREAM	DRY	1000	0500	1		0.88	1.74	2.13	0.39
41062	32-36	4093-115,1721-1-72-100	10/13/77	STREAM	DRY	1000	0500	1		1.39	1.67	6.51	0.73
41063	32-36	4071-115,2045-1-72-100	10/13/77	STREAM	DRY	1000	0500	1		1.91	1.43	3.74	0.53
41064	32-36	8551-115,6831-1-72-100	10/16/77	STREAM	DRY	1000	0500	1		1.05	1.59		
41065	32-36	8585-115,6662-1-72-100	10/16/77	STREAM	DRY	1000	0500	1		0.92	1.70		
41066	32-36	8864-115,6646-1-72-100	10/16/77	STREAM	DRY	1000	0500	1		1.19	1.77	3.94	0.57
41067	32-36	8858-115,6893-1-72-100	10/16/77	STREAM	DRY	1000	0500	1		2.81	1.31	5.18	0.77
41068	32-36	8976-115,6947-1-72-100	10/16/77	STREAM	DRY	1000	0500	1		4.83	1.22	6.69	1.38
41069	32-36	9176-115,7123-1-72-100	10/16/77	STREAM	DRY	1000	0500	1		2.74	1.40	9.87	1.10
41070	32-36	9257-115,7156-1-72-100	10/16/77	STREAM	DRY	1000	0500	1		1.04	1.69	2.04	0.43
41071	32-36	9564-115,7151-1-72-100	10/16/77	STREAM	DRY	1000	0500	1		1.06	1.74	3.21	0.58
41072	32-36	9806-115,7045-1-72-100	10/16/77	STREAM	DRY	1000	0500	1		1.14	1.67	2.69	0.52
41073	32-36	9793-115,8427-1-72-100	10/16/77	STREAM	DRY	1000	0500	1		1.32	1.55	3.19	0.52
41074	32-36	9704-115,8530-1-72-100	10/16/77	STREAM	DRY	1000	0500	1		1.75	1.64	6.61	1.21
41075	32-36	9552-115,8622-1-72-100	10/16/77	STREAM	DRY	1000	0500	1		1.35	1.80	5.46	1.15
41076	32-36	9389-115,8613-1-72-100	10/16/77	STREAM	DRY	1000	0500	1		1.23	1.92	4.07	1.40
41077	32-36	9236-115,8593-1-72-100	10/16/77	STREAM	DRY	1000	0500	1		1.35	1.61	4.00	0.52
41078	32-36	9809-115,9113-1-72-100	10/16/77	STREAM	DRY	1000	0500	1		2.40	1.55	15.26	1.56
41079	32-36	9647-115,9205-1-72-100	10/16/77	STREAM	DRY	1000	0500	1		2.02	1.54	9.31	1.04
41080	32-36	9673-115,9092-1-72-100	10/16/77	STREAM	DRY	1000	0500	1		2.82	1.44	12.14	1.08
41081	32-36	9511-115,9117-1-72-100	10/16/77	STREAM	DRY	1000	0500	1		2.05	1.63	10.20	1.65
41082	32-36	9502-115,9151-1-72-100	10/16/77	STREAM	DRY	1000	0500	1		3.18	1.54	15.38	2.08
41083	32-36	9395-115,9242-1-72-100	10/16/77	STREAM	DRY	1000	0500	1		3.12	1.48	16.63	1.66
41084	32-36	9206-115,9222-1-72-100	10/16/77	STREAM	DRY	1000	0500	1		3.14	1.44	18.63	1.57
41085	32-36	8799-115,9082-1-72-100	10/16/77	STREAM	DRY	1000	0500	1		2.88	1.38	13.03	1.03
41086	32-36	6059-115,8170-1-72-100	10/16/77	STREAM	DRY	1000	0500	1		1.08	1.73	2.67	0.53
41087	32-36	6280-115,7809-1-72-100	10/16/77	STREAM	DRY	1000	0500	1		1.05	1.71	3.06	0.40
41088	32-36	6546-115,8185-1-72-100	10/16/77	STREAM	DRY	1000	0500	1		0.99	1.61		
41089	32-36	6510-115,8231-1-72-100	10/16/77	STREAM	DRY	1000	0500	1		1.09	1.65	1.19	0.31
41090	32-36	6457-115,8366-1-72-100	10/16/77	STREAM	DRY	1000	0500	1		1.01	1.66	1.38	0.31
41091	32-36	6718-115,8306-1-72-100	10/16/77	STREAM	DRY	1000	0500	1		1.11	1.74	4.21	0.53
41092	32-36	6669-115,7926-1-72-100	10/16/77	STREAM	DRY	1000	0500	1		0.68	2.01	1.73	0.38
41093	32-36	7040-115,8021-1-72-100	10/16/77	STREAM	DRY	1000	0500	1		1.18	1.75	3.00	0.57
41094	32-36	6847-115,7655-1-72-100	10/16/77	STREAM	DRY	1000	0500	1		0.91	1.77	1.96	0.36
41095	32-36	6954-115,7597-1-72-100	10/16/77	STREAM	DRY	1000	0500	1		0.93	1.85	3.25	0.41
41096	32-36	7143-115,7560-1-72-100	10/16/77	STREAM	DRY	1000	0500	1		0.95	1.77	2.32	0.46
41097	32-36	7270-115,7648-1-72-100	10/16/77	STREAM	DRY	1000	0500	1		0.82	1.87	1.99	0.30
41098	32-36	7290-115,7838-1-72-100	10/16/77	STREAM	DRY	1000	0500	1		0.98	1.81	1.09	0.42
41099	32-36	7111-115,7953-1-72-100	10/16/77	STREAM	DRY	1000	0500	1		1.19	1.71	3.30	0.61
41100	32-36	7447-115,8138-1-72-100	10/16/77	STREAM	DRY	1000	0500	1		1.04	1.71	1.93	0.40
49605	32-36	9501-115,8982-1-72-100	10/25/77	STREAM	DRY	1000	0500	1		2.71	1.53	13.01	1.55
49606	32-36	9646-115,9126-1-72-100	10/25/77	STREAM	DRY	1000	0500	1		3.71	1.39	19.20	1.80

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

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	C,	METR	UMHO/CM	MG/LITER	MG/LITER	CONT	PPB	%ERR	X-REF

(NO SITES WERE VISITED IN THIS PHASE OF THE PROGRAM
WHICH LEAD TO THE ACQUISITION OF THE SAMPLE TYPE(S)
REPORTED IN THIS TABLE,
THIS PAGE IS RETAINED IN ORDER TO MAINTAIN
CONSISTANCY IN THE REPORT FORMAT.)

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

SITE NUMBER	ST	LAT,	LONG,	DOE SAMPLE NUMBER L TY RPL	DATE MO-DA-YR	SAMPLE SOURCE	TEMP C.	WELL DEPTH	WELL TYPE	WELL CASING	PH METR	SPEC COND UMHO/CM	AKTTL MG/LITER
8997	32-36	3740	-114,4697	-1-23-200	04/20/77	WELL	26.5				7.2	3725.	120.
9161	32-36	2222	-115,6827	-1-23-200	04/28/77	WELL	8.0				7.7	322.	120.
9161	32-36	2222	-115,6827	-1-23-201		WELL							
12126	32-36	1594	-115,0457	-1-23-200	05/12/77	WELL	19.5	210.0	FARM/LIVESTOCK	IRON	7.6	1938.	180.
12127	32-36	1583	-115,0323	-1-23-200	05/12/77	WELL	23.0		DOMESTIC	IRON	7.7	2407.	80.
12128	32-36	1615	-115,4980	-1-21-200	05/13/77	SPRING	12.0				9.4	310.	80.
12129	32-36	1738	-115,4789	-1-21-200	05/13/77	SPRING	16.5				7.0	555.	120.
12130	32-36	1442	-115,4172	-1-21-200	05/13/77	SPRING	19.0				7.2	381.	160.
12161	32-36	1559	-115,8972	-1-23-200		WELL	22.5		FARM/LIVESTOCK IRRIGATION	IRON	7.4	339.	140.
12161	32-36	1559	-115,8972	-1-23-201		WELL							
12164	32-36	0149	-115,8637	-1-23-200		WELL	21.0		DOMESTIC	IRON	7.4	406.	140.
12167	32-36	1041	-115,9546	-1-23-200		WELL	18.0	180.0	FARM/LIVESTOCK DOMESTIC	IRON	7.4	409.	120.
12169	32-36	1603	-115,9950	-1-23-200		WELL	23.0	200.0	DOMESTIC	IRON	7.5	450.	160.
12169	32-36	1603	-115,9950	-1-23-201		WELL							
12172	32-36	0840	-115,6528	-1-21-200	05/29/77	SPRING					7.8	700.	160.
12173	32-36	0218	-115,5085	-1-23-200	05/29/77	WELL	15.5		DOMESTIC	IRON	7.4	698.	300.
12174	32-36	4838	-115,9718	-1-21-200	05/30/77	SPRING					7.7	260.	80.
12175	32-36	4446	-115,9266	-1-21-200	05/30/77	SPRING	13.5				7.6	444.	160.
12177	32-36	4169	-115,7630	-1-21-200	05/30/77	SPRING	12.0				7.5	437.	200.
12178	32-36	3824	-115,7435	-1-21-200	05/30/77	SPRING	6.5				7.4	443.	180.
12180	32-36	9585	-114,2910	-1-21-200	05/31/77	SPRING	29.5				7.1	391.	120.
12222	32-36	0566	-115,0449	-1-23-200	05/11/77	WELL	26.0			IRON	8.2	1174.	200.
12223	32-36	0651	-115,0635	-1-21-200	05/12/77	SPRING	20.0				7.6	5290.	220.
12223	32-36	0651	-115,0635	-1-21-201		SPRING							
12224	32-36	0913	-115,0718	-1-21-200	05/12/77	SPRING	20.0				7.0	2589.	
12225	32-36	0677	-115,0579	-1-23-200	05/12/77	WELL	19.0	112.0		IRON	7.6	1270.	100.
12226	32-36	3422	-115,7754	-1-21-200	05/14/77	SPRING	10.0				7.2	667.	300.
12226	32-36	3422	-115,7754	-1-21-201		SPRING							
12227	32-36	3764	-115,7737	-1-21-200	05/14/77	SPRING	5.5				7.3	637.	200.
12261	32-36	0122	-115,2579	-1-23-200	05/27/77	WELL	24.0	530.0	DOMESTIC	IRON		1023.	140.
12262	32-36	0522	-115,4157	-1-21-200	05/27/77	SPRING	18.5					819.	200.
12263	32-36	0628	-115,4688	-1-21-200	05/27/77	SPRING	17.0					487.	160.
12267	32-36	2231	-115,6849	-1-21-200	05/28/77	SPRING	8.0					322.	140.
12268	32-36	1641	-115,7248	-1-21-200	05/28/77	SPRING	16.0					813.	240.
12270	32-36	4288	-115,9703	-1-21-200	05/29/77	SPRING	13.5					498.	200.
12271	32-36	0317	-115,5793	-1-21-200	05/29/77	SPRING	16.0					475.	
12272	32-36	1217	-115,4921	-1-21-200	05/29/77	SPRING	16.0					500.	
12273	32-36	0458	-115,4048	-1-21-200	05/29/77	SPRING	20.0				7.7	957.	100.
12274	32-36	2456	-115,5231	-1-21-200	05/30/77	SPRING	21.0					2580.	180.
12276	32-36	2544	-115,6576	-1-21-200	05/30/77	SPRING	11.5					286.	140.
12276	32-36	2544	-115,6576	-1-21-201		SPRING							
12277	32-36	3529	-115,6771	-1-21-200	05/30/77	SPRING	11.0					523.	220.
12278	32-36	6680	-114,5675	-1-23-200		WELL	19.5		IRRIGATION	IRON	7.1	5015.	200.
12279	32-36	9185	-114,4372	-1-21-200	05/31/77	SPRING	10.2					776.	260.
12280	32-36	9413	-114,4465	-1-21-200	05/31/77	SPRING	30.0				8.4	675.	240.
12281	32-36	9659	-114,5018	-1-21-200		SPRING	14.5				6.9	718.	280.

SITE NUMBER	ST	LAT.	LONG.	DOE SAMPLE NUMBER L TY RPL	DATE MO-DA-YR	SAMPLE SOURCE	TEMP C.	WELL DEPTH	WELL TYPE	WELL CASING	PH METR	SPEC COND UMHO/CM	AKTOTL MG/LITER
12282	32-36	8998-114	6633-1-23-200	06/01/77	WELL	25.5		DOMESTIC	IRON	7.4	1286.	180.	
12283	32-36	7088-114	7128-1-21-200	06/01/77	SPRING	31.5				7.3	873.	160.	
12287	32-36	2704-115	6407-1-21-200	06/02/77	SPRING	8.5				7.7	665.	260.	
12288	32-36	2713-115	6407-1-21-200	06/02/77	SPRING	7.5				7.5	738.	280.	
15101	4-36	2077-114	9132-1-21-200	08/18/77	SPRING	27.5				7.4	5588.	260.	
15104	4-36	0170-115	1047-1-23-200	09/06/77	WELL	29.0	215.0	DOMESTIC	IRON	7.5	1102.	100.	
15105	4-36	0559-115	1098-1-23-200	09/06/77	WELL	24.5	200.0	DOMESTIC	IRON	7.3	1365.	160.	
15108	4-36	0424-115	0535-1-23-200	09/07/77	WELL	26.0			IRON	7.5	1321.	120.	
15110	4-36	1575-115	0374-1-23-200	09/07/77	WELL	34.5	240.0		IRON	7.7	970.	160.	
15111	4-36	1692-115	0399-1-23-200	09/07/77	WELL	34.0	150.0	DOMESTIC	IRON	7.3	3040.	40.	
15113	32-36	3876-114	4324-1-21-200	09/09/77	SPRING	30.0				7.2	3824.	120.	
15113	32-36	3876-114	4324-1-06-201		SPRING								
15114	32-36	4865-114	4649-1-21-200	09/09/77	SPRING	24.5				8.3	506.	180.	
15114	32-36	4865-114	4649-1-06-201		SPRING								
15119	4-36	2392-114	1692-1-21-200	09/20/77	SPRING	20.5				9.7	150.	120.	
15119	4-36	2392-114	1692-1-06-201		SPRING								
15124	32-36	2452-114	3091-1-21-200	09/21/77	SPRING	24.5				7.7	607.	160.	
15124	32-36	2452-114	3091-1-06-201		SPRING								
15128	4-36	2848-114	5137-1-21-200	09/06/77	SPRING	32.5				7.7	4027.	120.	
15130	4-36	2117-114	5539-1-21-200	09/09/77	SPRING	24.0				7.3	1534.	160.	
15131	32-36	3710-114	4597-1-21-200	09/09/77	SPRING	26.0				7.5	4402.	200.	
15131	32-36	3710-114	4597-1-06-201		SPRING								
15134	32-36	2787-114	1978-1-23-200	09/22/77	WELL	18.5				8.0	819.	400.	
15134	32-36	2787-114	1978-1-08-201		WELL								
15136	32-36	3499-114	1240-1-21-200	09/22/77	SPRING	18.0				8.0	1955.	80.	
15136	32-36	3499-114	1240-1-06-201		SPRING								
15138	32-36	4599-114	2002-1-21-200	09/22/77	SPRING	19.5				7.9	4502.	320.	
15138	32-36	4599-114	2002-1-06-201		SPRING								
15139	4-36	5842-114	0482-1-21-200	09/23/77	SPRING	28.5				7.5	603.	340.	
15139	4-36	5842-114	0482-1-06-201		SPRING								
15140	4-36	5808-114	0573-1-21-200	09/23/77	SPRING	19.5				7.5	513.	460.	
15140	4-36	5808-114	0573-1-06-201		SPRING								
15141	4-36	5248-114	0505-1-21-200	09/23/77	SPRING	17.0				7.1	669.	640.	
15141	4-36	5248-114	0505-1-06-201		SPRING								
15143	4-36	6187-114	1721-1-21-200	11/02/77	SPRING	15.5				7.4	660.	280.	
15144	4-36	6258-114	1674-1-21-200	11/02/77	SPRING	14.5				8.3	653.	260.	
15145	4-36	5511-114	0238-1-21-200	09/23/77	SPRING	17.0				8.1	438.	160.	
15145	4-36	5511-114	0238-1-06-201		SPRING								
15148	4-36	6482-114	1241-1-21-200	11/02/77	SPRING	14.0				7.9	954.	400.	
15149	4-36	6451-114	1812-1-21-200	11/02/77	SPRING	20.0				8.0	642.	240.	
15155	32-36	2613-114	3041-1-21-200	09/21/77	SPRING	23.0				8.2	628.	140.	
15155	32-36	2613-114	3041-1-06-201		SPRING								
15158	32-36	3026-114	1424-1-23-200	09/22/77	WELL	16.5				9.3	740.	240.	
15158	32-36	3026-114	1424-1-08-201		WELL								
15161	4-36	2467-114	1044-1-21-200	09/22/77	SPRING	23.5				7.4	724.	260.	
15161	4-36	2467-114	1044-1-06-201		SPRING								
40554	32-36	4445-115	9155-1-21-200	01/11/78	SPRING	21.0				7.6	426.	160.	
40557	32-36	6807-115	1758-1-21-200	01/12/78	SPRING	1.0				7.0	850.	300.	
40558	32-36	6182-115	2734-1-21-200	01/13/78	SPRING	5.5				7.4	743.	300.	

SITE NUMBER	-----DOE ST LAT,	SAMPLE LONG, L	NUMBER----- L TY RPL	DATE MO-DA-YR	SAMPLE SOURCE	TEMP WELL C, DEPTH	WELL TYPE	WELL CASING	PH METR	SPEC COND UMHO/CM	AKTOL MG/LITER
40559	32-36,6218	-115,2745	-1-21-200	01/13/78	SPRING	6,0			7,4	503,	220,
40560	32-36,5835	-115,3055	-1-21-200	01/12/78	SPRING	3,3			7,5	592,	160,
40561	32-36,5798	-115,3044	-1-21-200	01/12/78	SPRING	6,5			8,5	477,	120,
40562	32-36,5928	-115,2650	-1-21-200	01/13/78	SPRING	4,5			8,1	648,	220,
40563	32-36,6420	-115,0682	-1-21-200	01/12/78	SPRING	3,0			7,3	520,	160,
40564	32-36,6443	-115,0939	-1-21-200	01/12/78	SPRING	5,0			7,5	722,	220,
40565	32-36,6334	-115,2071	-1-21-200	01/13/78	SPRING	1,0			7,0	753,	260,
40566	32-36,6473	-115,2325	-1-21-200	01/15/78	SPRING	4,5			7,3	783,	260,
40567	32-36,8952	-115,1146	-1-21-200	01/14/78	SPRING	13,0			7,8	416,	180,
40569	32-36,8598	-115,1009	-1-21-200	01/14/78	SPRING	6,5			7,5	630,	200,
40571	32-36,7078	-115,2378	-1-21-200	01/15/78	SPRING	9,0			7,4	513,	160,

SITE NUMBER	RPL	TPTR	AKPHEN MG/LITER	POS. CONT	URANIUM(DNC) PPB	%ERR	Q. C. X-REF
8997	200	WWFO		1	2.50	2.03	
9161	200	WWFO		1	3.49	1.82	
9161	201	WWFO					
12126	200	WWFO		1	11.24	1.31	
12127	200	WWFO		1	10.37	1.36	
12128	200	WSFO	20,	1	0.22	8.61	
12129	200	WSFO		1	1.04	3.30	
12130	200	WSFO		1	0.63	4.37	
12161	200	WWFO		1	1.46	2.85	
12161	201	WWFO					
12164	200	WWFO		1	2.43	2.15	
12167	200	WWFO		1	1.60	2.49	
12169	200	WWFO		1	2.82	2.03	
12169	201	WWFO					
12172	200	WSFO		1	2.12	2.36	
12173	200	WWFO		1	2.15	2.20	
12174	200	WSFO		1	0.07	21.20	
12175	200	WSFO		1	0.92	3.26	
12177	200	WSFO		1	2.91	2.00	
12178	200	WSFO		1	1.52	2.66	
12180	200	WSFO		1	1.02	3.41	
12222	200	WWFO	20,	1	8.25	1.45	
12223	200	WSFO		1	37.07	1.11	
12223	201	WSFO					
12224	200	WSFO		1	7.36	1.45	
12225	200	WWFO		1	2.25	2.21	
12226	200	WSFO		1	1.57	2.60	
12226	201	WSFO					
12227	200	WSFO		1	3.86	1.81	
12261	200	WWFO		1	3.81	1.79	
12262	200	WSFO		1	1.85	2.46	
12263	200	WSFO		1	1.56	2.79	
12267	200	WSFO	2,	1	2.30	2.26	
12268	200	WSFO		1	2.28	2.29	
12270	200	WSFO		1	1.62	2.61	
12271	200	WSFO		1	1.23	2.95	
12272	200	WSFO		1	0.42	5.13	
12273	200	WSFO		1	2.01	2.32	
12274	200	WSFO		1	4.31	1.75	
12276	200	WSFO		1	1.04	3.07	
12276	201	WSFO					
12277	200	WSFO		1	1.43	2.73	
12278	200	WWFO		1	24.99	1.14	
12279	200	WSFO		1	0.92	3.47	
12280	200	WSFO	20,	1	0.90	3.49	
12281	200	WSFO		1	0.99	3.20	
12282	200	WWFO		1	8.51	1.37	
12283	200	WSFO		1	4.41	1.70	
12287	200	WSFO		1	0.70	3.77	

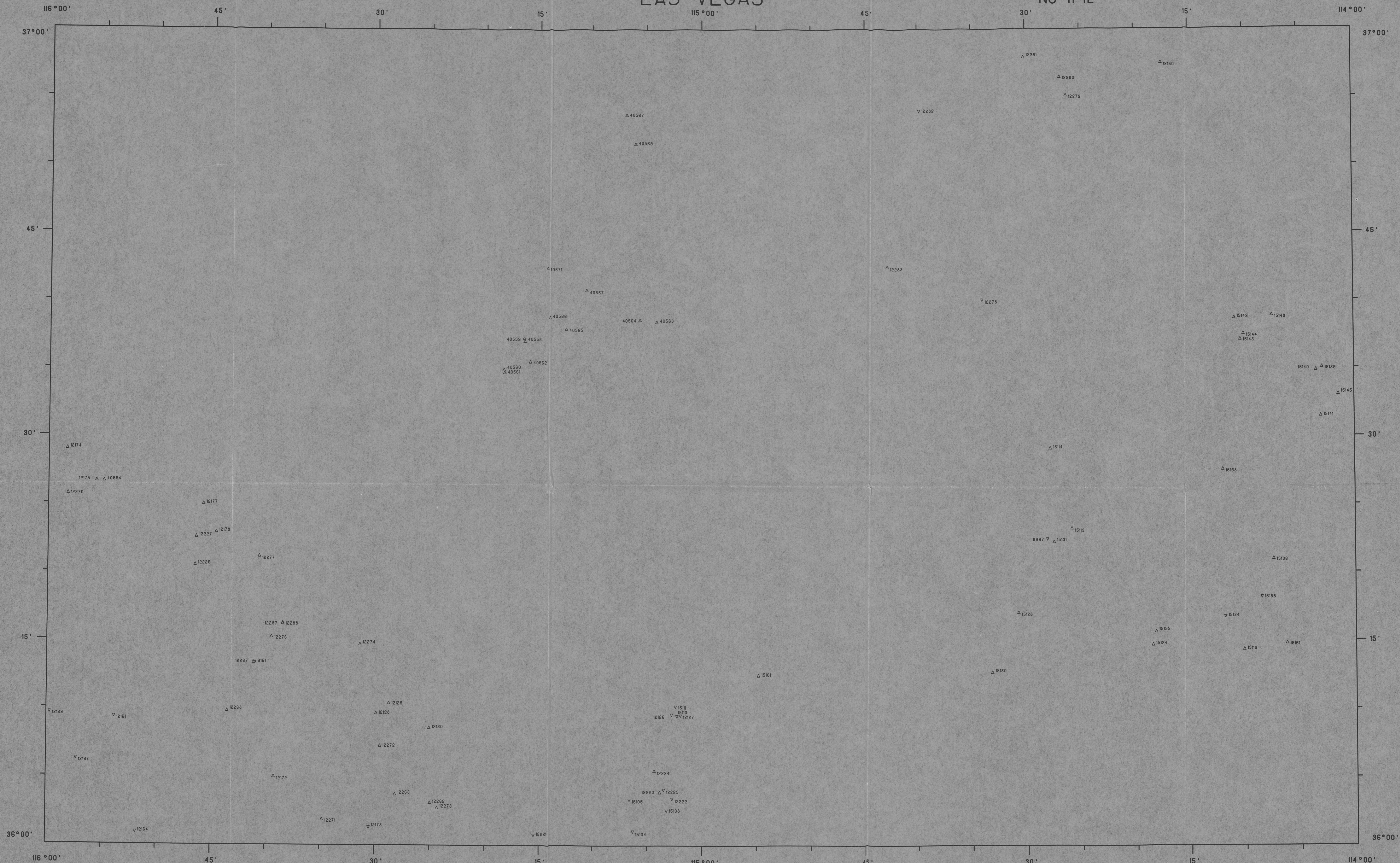
LAS VEGAS QUAD REPORT, LAWRENCE LIVERMORE LABORATORY
 TABLE B-3. WATER ANALYSIS; SPRING AND WELL SITES

SITE NUMBER	RPL	TPTR	AKPHEN MG/LITER	POS. CONT	URANIUM(DNC) PPB	%ERR	Q. C. X-REF
12288	200	WSFO		1			
15101	200	WSFO		1	12.85	1.28	
15104	200	WWFO		6	5.29	1.59	
15105	200	WWFO		9	2.72	2.13	
15108	200	WWFO		4	2.16	2.25	
15110	200	WWFO		4	4.84	1.62	
15111	200	WWFO		6	0.71	4.11	
15113	200	WSFO		1	0.40	5.06	
15113	201	WSFA					
15114	200	WSFO		1	3.53	1.76	
15114	201	WSFA					
15119	200	WSFO	60,	5	1.43	2.56	
15119	201	WSFA					
15124	200	WSFO		5	1.47	2.52	
15124	201	WSFA					
15128	200	WSFO		9	7.43	1.48	
15130	200	WSFO		5	7.04	1.48	
15131	200	WSFO		7	2.61	1.97	
15131	201	WSFA					
15134	200	WWFO		2	4.65	1.61	
15134	201	WWFA					
15136	200	WSFO		1	6.41	1.46	
15136	201	WSFA					
15138	200	WSFO		5	0.14	10.57	
15138	201	WSFA					
15139	200	WSFO		5	45.77	1.08	
15139	201	WSFA					
15140	200	WSFO		5	89.72	1.04	
15140	201	WSFA					
15141	200	WSFO		1	0.35	5.50	
15141	201	WSFA					
15143	200	WSFO		5	18.26	1.22	
15144	200	WSFO		5	34.14	1.11	
15145	200	WSFO		5	0.37	5.37	
15145	201	WSFA					
15148	200	WSFO		5	58.58	1.07	
15149	200	WSFO		5	7.17	1.52	
15155	200	WSFO		5	3.41	1.78	
15155	201	WSFA					
15158	200	WWFO		5	0.72	3.61	
15158	201	WWFA					
15161	200	WSFO		5			
15161	201	WSFA					
40554	200	WSFO		1	1.30	2.88	
40557	200	WSFO		1	0.55	4.35	
40558	200	WSFO		1	1.49	2.71	
40559	200	WSFO		1	1.27	2.97	
40560	200	WSFO		1	1.97	2.32	
40561	200	WSFO	20,	1	1.50	2.61	

SITE NUMBER	RPL	TPTR	AKPHEN MG/LITER	POS. CONT	URANIUM(DNC) PPB	Q. C. XERR	X-REF
40562	200	WSFO		1	0,83	3,57	
40563	200	WSFO		1	0,57	4,79	
40564	200	WSFO		1	1,17	3,08	
40565	200	WSFO		1	0,62	4,46	
40566	200	WSFO		1	1,00	3,24	
40567	200	WSFO		1	0,68	3,91	
40569	200	WSFO		1	0,71	4,09	
40571	200	WSFO		1	2,44	2,24	

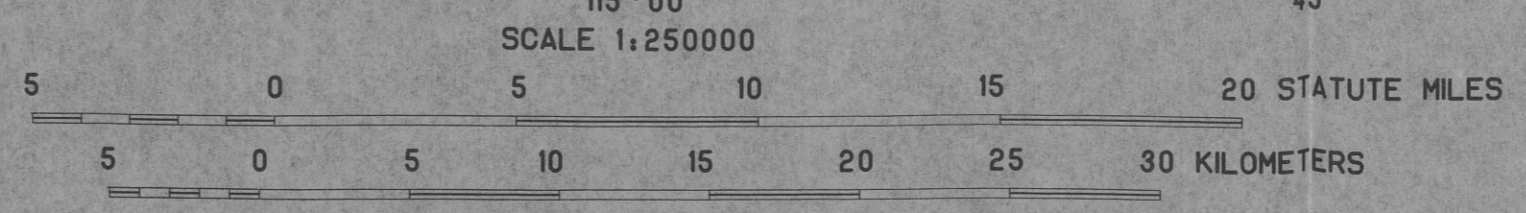
LAS VEGAS

NJ 11-12



SYMBOL EXPLANATION

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

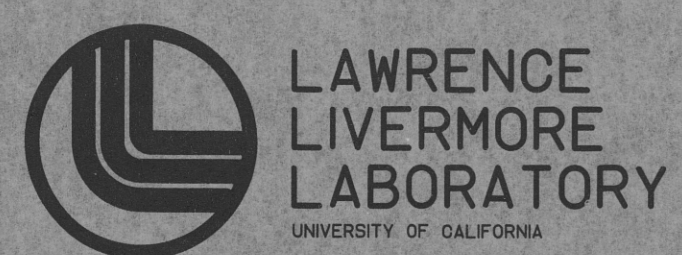


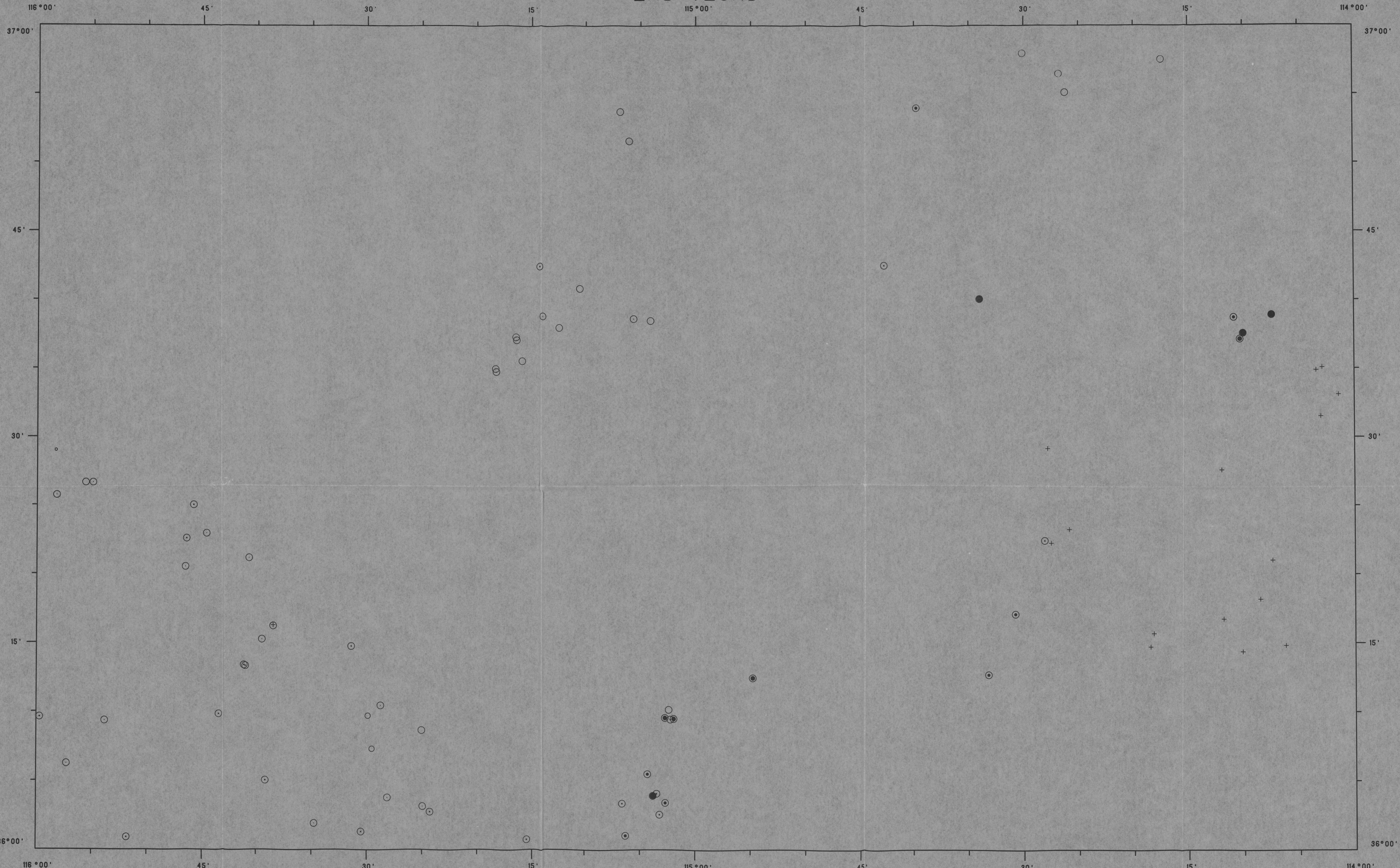
SITE LOCATIONS, WATER SAMPLES



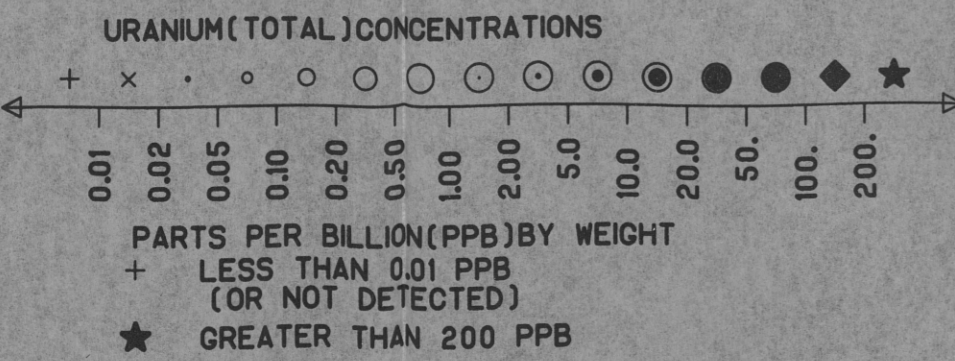
OVERLAY 1A SITE LOCATIONS, WATER SAMPLES

GEOCHEMICAL RECONNAISSANCE STUDY LAS VEGAS (NTMS QUAD)

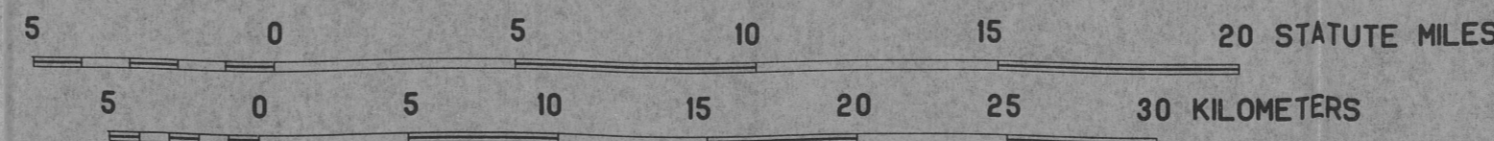




SYMBOL EXPLANATION

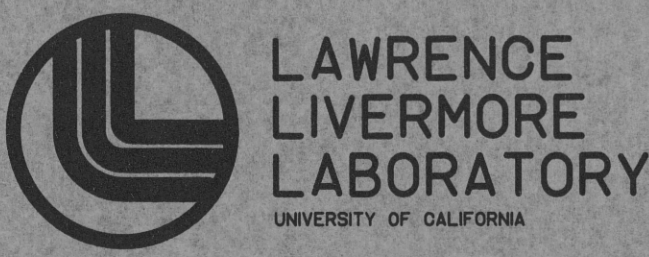


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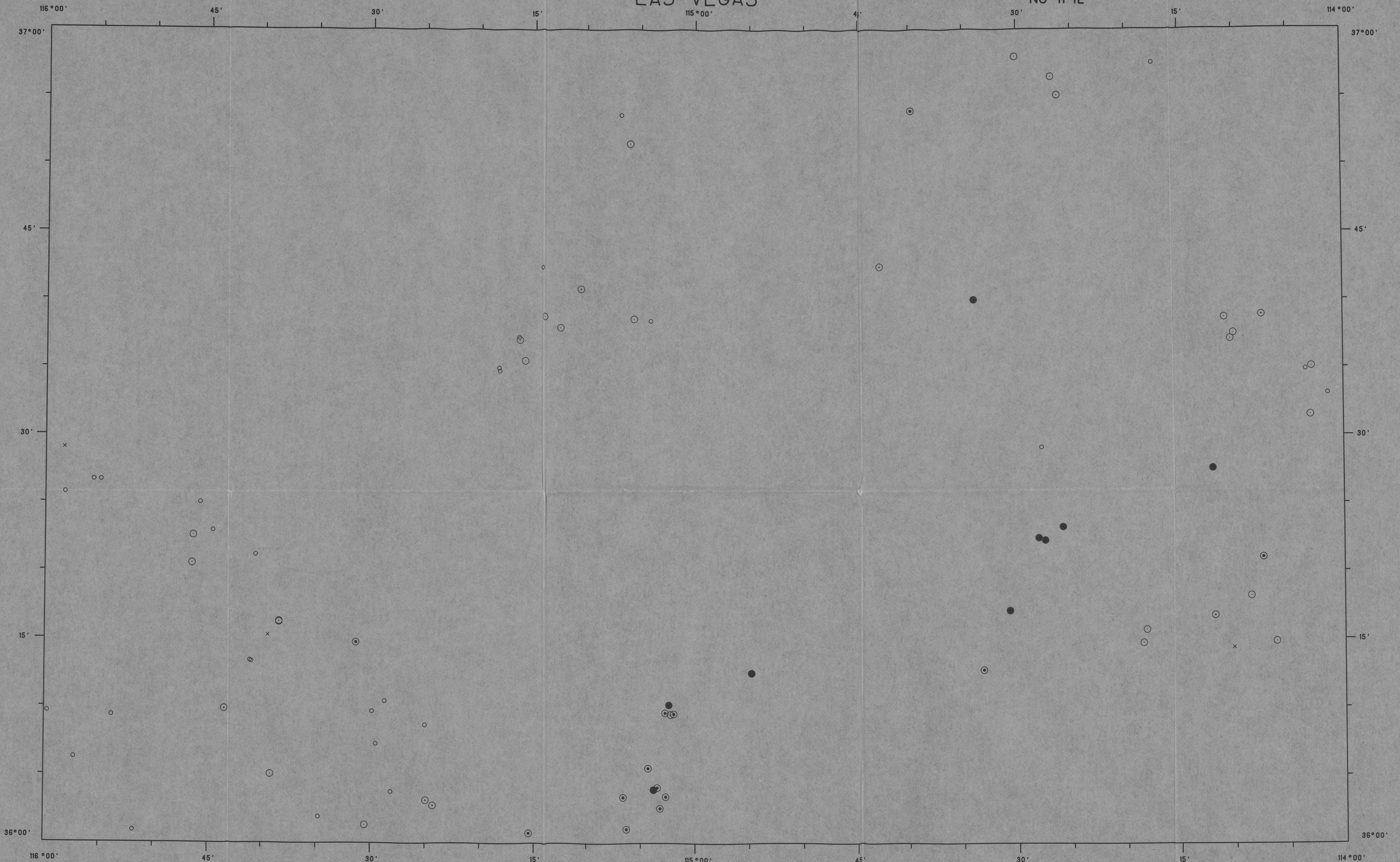
URANIUM (TOTAL) CONCENTRATIONS (PPB)
WATER SAMPLES

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

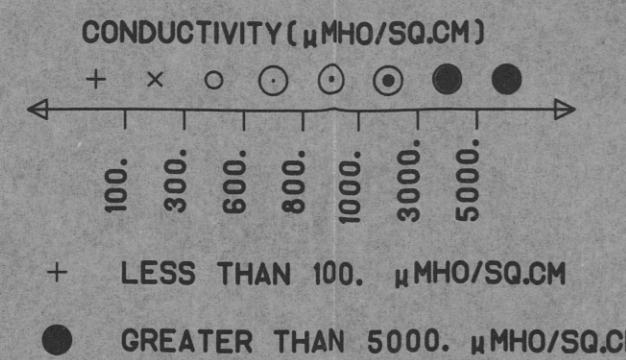


LAS VEGAS

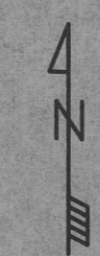
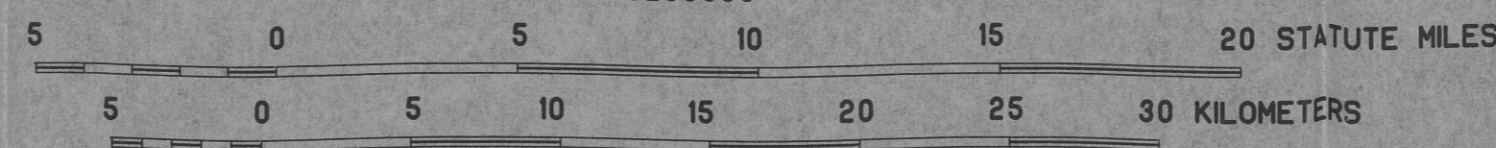
NJ 11-12



SYMBOL EXPLANATION



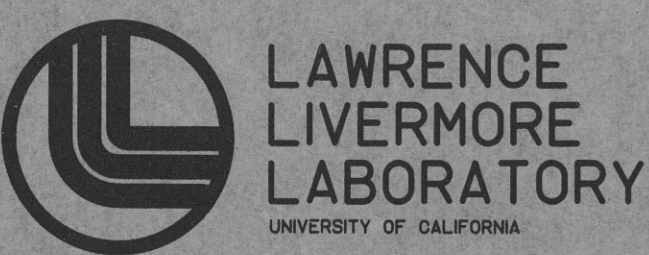
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CONDUCTIVITY (μMHO/SQ.CM)
WATER SAMPLES

OVERLAY 1C

CONDUCTIVITY (μMHO/SQ.CM)
(WATER SAMPLES)
GEOCHEMICAL
RECONNAISSANCE STUDY
LAS VEGAS
(NTMS QUAD)



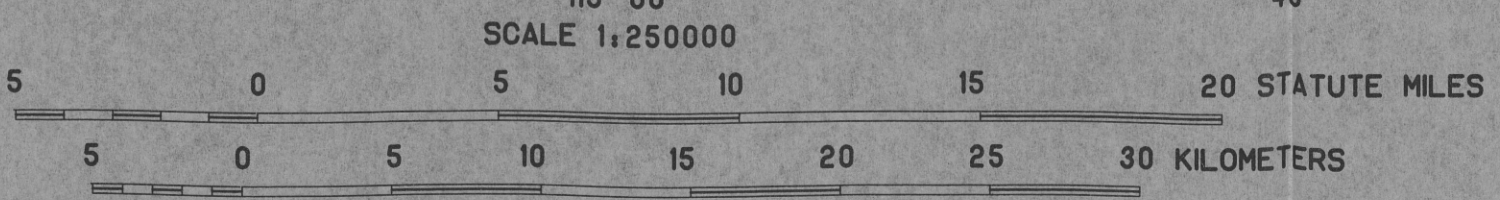
LAWRENCE
LIVERMORE
LABORATORY
UNIVERSITY OF CALIFORNIA



SYMBOL EXPLANATION

SITE TYPES, SEDIMENT SAMPLES

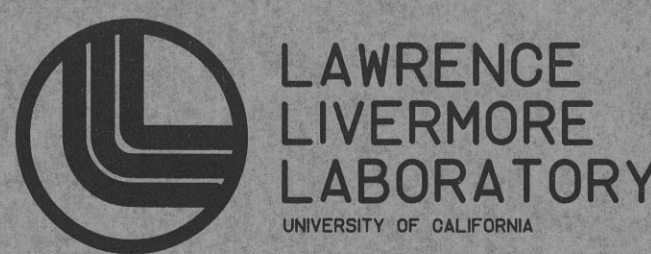
- WET
- DRY
- ◇ SPRING



SITE LOCATIONS, SEDIMENT SAMPLES

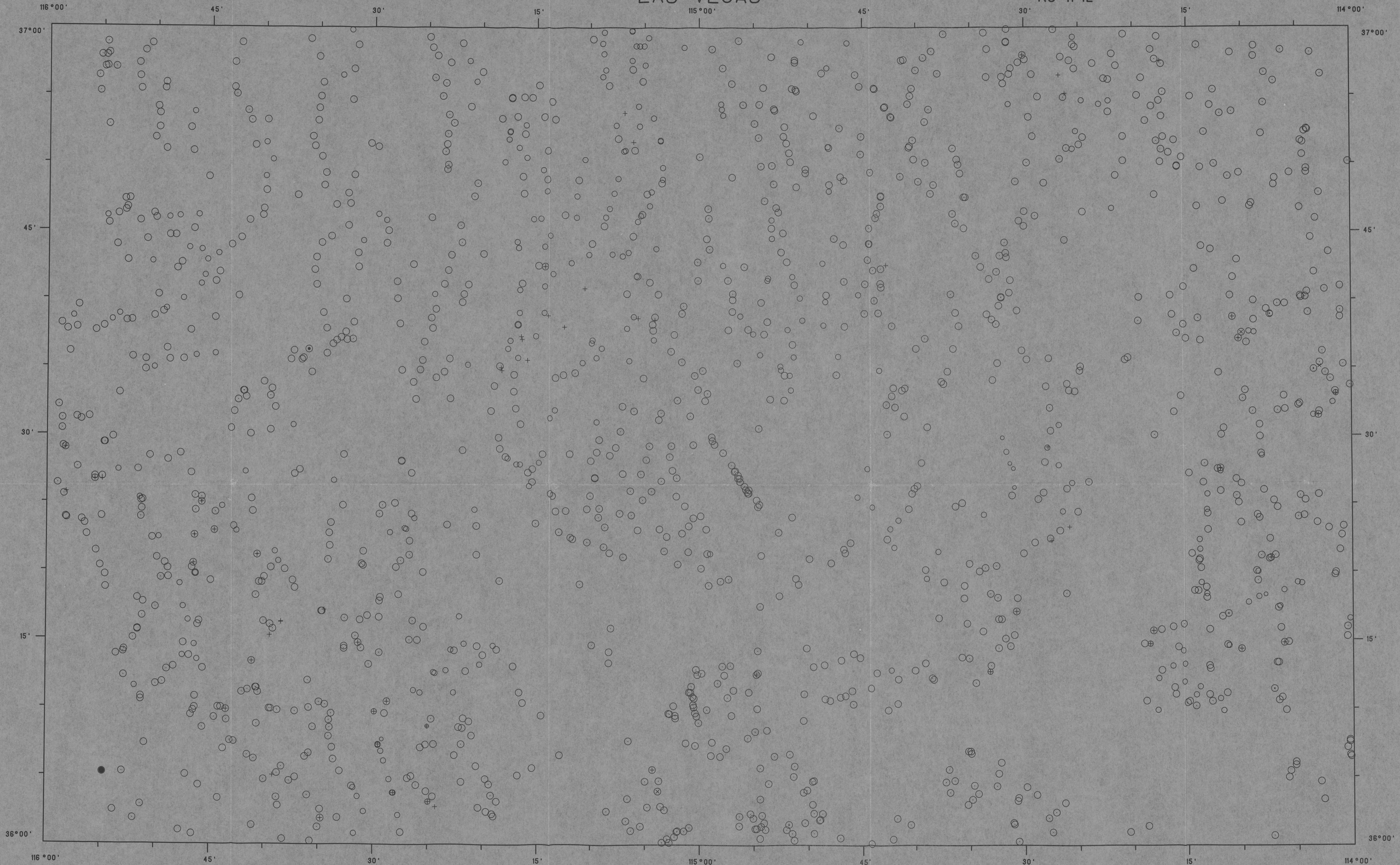
OVERLAY 2A
SITE LOCATIONS, SEDIMENT SAMPLES

GEOCHEMICAL
RECONNAISSANCE STUDY
LAS VEGAS
(NTMS QUAD)

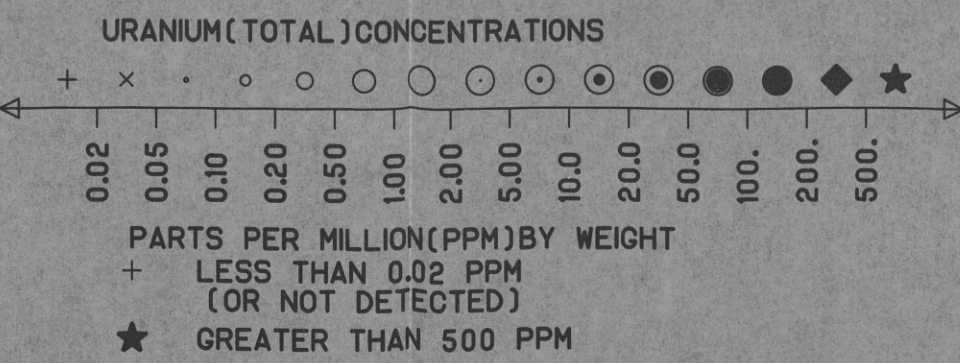


LAS VEGAS

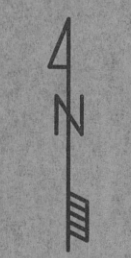
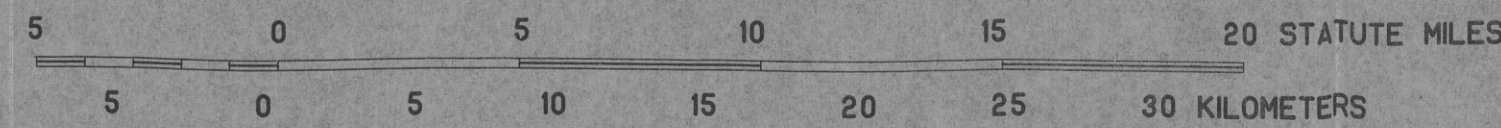
NJ 11-12



SYMBOL EXPLANATION



SCALE 1:250000



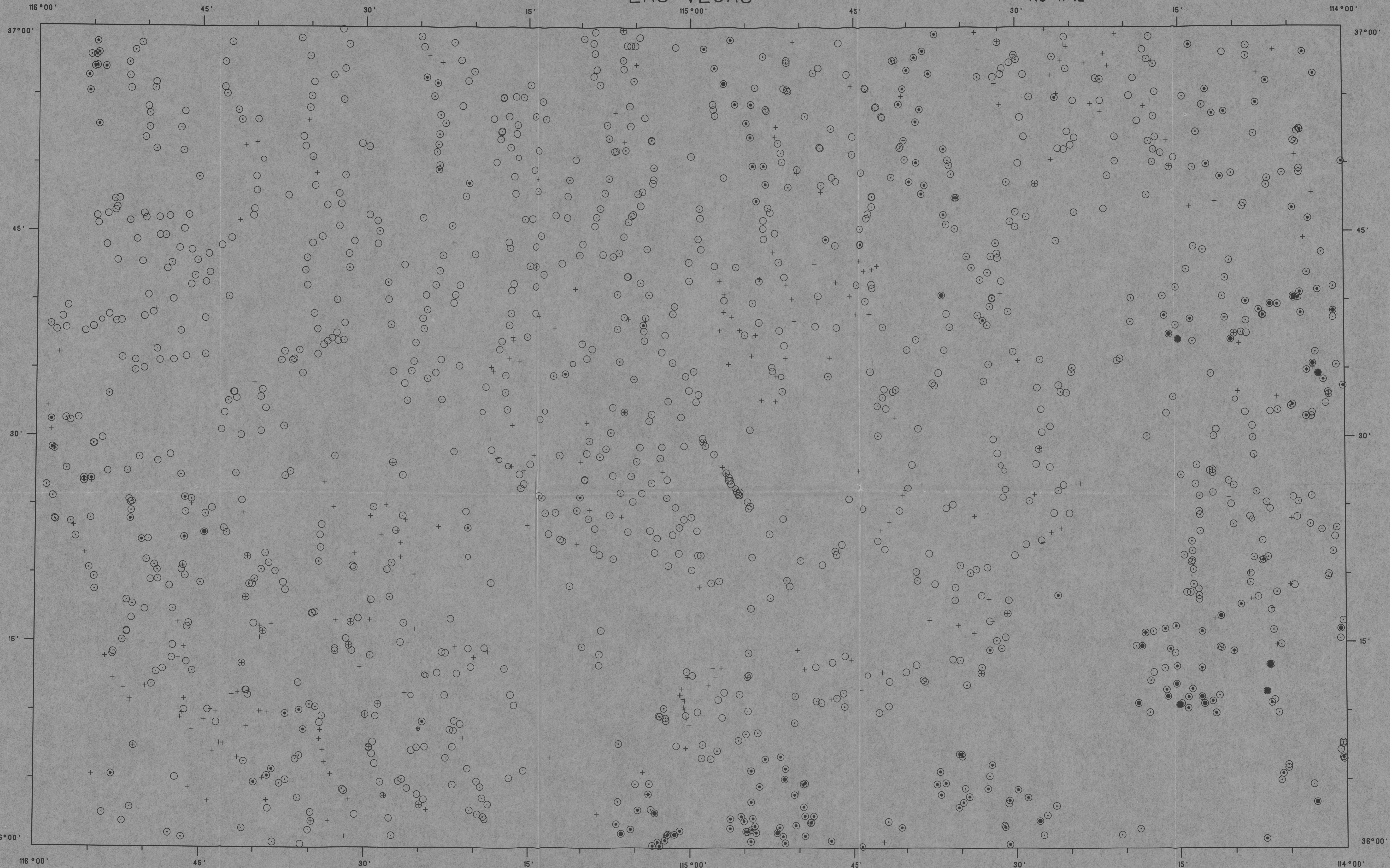
URANIUM (TOTAL) CONCENTRATIONS (PPM)
SEDIMENT SAMPLES

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

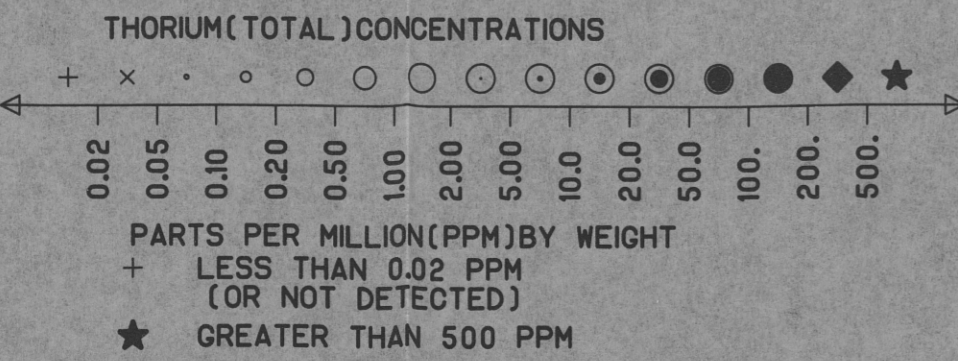


LAS VEGAS

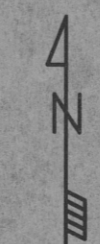
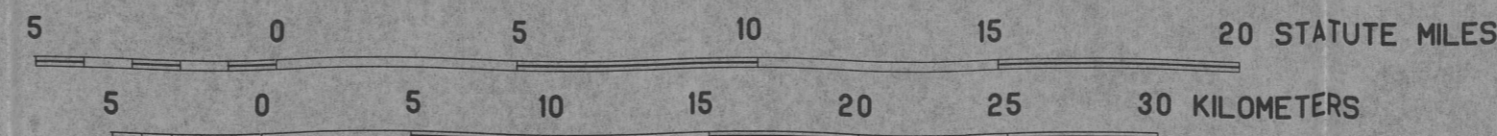
NJ 11-12



SYMBOL EXPLANATION

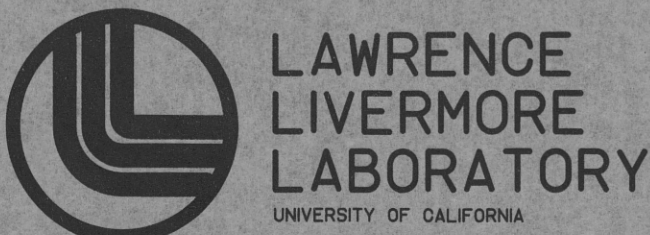


SCALE 1:250000



THORIUM (TOTAL) CONCENTRATIONS (PPM)
SEDIMENT SAMPLES

OVERLAY 2C
THORIUM (TOTAL) CONCENTRATIONS (PPM)
(SEDIMENT SAMPLES)
GEOCHEMICAL RECONNAISSANCE STUDY
LAS VEGAS
(NTMS QUAD)



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