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Uranium Hydrogeochemical and Stream Sediment Reconnaissance of the Rawlins NTMS Quadrangle, Wyoming

Thomas A. Weaver

Wayne A. Morris

Pam K. Trexler

los alamos
scientific laboratory

of the University of California

LOS ALAMOS NEW MEXICO 87545

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URANIUM HYDROGEOCHEMICAL AND STREAM SEDIMENT RECONNAISSANCE
OF THE RAWLINS NTMS QUADRANGLE, WYOMING

by

Thomas A. Weaver, Wayne A. Morris, and Pam K. Trexler

ABSTRACT

During the spring and winter of 1976 and January and June of 1977, 570 natural water and 1281 waterborne sediment samples were collected from 1369 locations in the Rawlins, Wyoming, NTMS quadrangle. The samples obtained from this 13 700-km² area were analyzed at the Los Alamos Scientific Laboratory for total uranium. The uranium concentrations in waters ranged from less than the detectable limit of 0.2 parts per billion (ppb) to 448 ppb, with a mean value of 6 ppb. The concentrations in sediments ranged from 1.2 parts per million (ppm) to 60.4 ppm, with a mean value of 4.1 ppm. Based on simple statistical analyses of these data, arbitrary anomaly thresholds were set at 50 ppb for water samples and 9 ppm for sediment samples. Eleven water and 44 sediment samples were considered anomalous; 1 anomalous water and 25 anomalous sediments could be associated with four of the five major uranium occurrences in the quadrangle. Only the Ketchum Buttes area did not show up in the data. Twelve minor reported occurrences could not be identified by the data.

Eleven anomalous samples (8 waters and 3 sediments) and 13 near-anomalous samples (10 waters and 3 sediments) outline a broad area in the northeast corner of the quadrangle (corresponding to the drainage area of the Medicine Bow River) where two airborne radiometric anomalies were discovered in an earlier study. This area, and perhaps others, may warrant further, more detailed geological, geophysical, and geochemical investigations.

I. INTRODUCTION

This report describes work done in the Rawlins, Wyoming, National Topographic Map Series (NTMS) quadrangle (US Geological Survey, 1958) by the Los Alamos Scientific Laboratory (LASL) as part of the nationwide Hydrogeochemical and Stream Sediment Reconnaissance (HSSR). The HSSR, a part of the National Uranium Resource Evaluation (NURE) program sponsored by the US Department of Energy (DOE), is designed to identify areas having higher than normal concentrations of uranium in ground waters, surface waters, and water-transported sediments. The HSSR data will ultimately be combined with data from other NURE programs (e.g., from airborne radiometric surveys and geological investigations) to prepare an improved assessment of the potential uranium resources in the US and to indicate areas favorable for uranium exploration by the private sector. The LASL is responsible for conducting the HSSR in the Rocky Mountain states of New Mexico, Colorado, Wyoming, and Montana, and in Alaska.

A total of 570 water and 1281 sediment samples were collected from 1369 locations in the Rawlins quadrangle. The majority of the area was sampled from late May to mid-July 1976 by a private contractor. The remaining area, together with several locations selected to fill in gaps in the areal coverage of the first contract, was sampled from mid-December 1976 to late January 1977 and during June 1977 by another private contractor. The sample locations were specified by the LASL and the samples were collected using maps, field equipment, and materials supplied by the LASL. Throughout the study, standardized field and analytical techniques developed by the LASL (Sharp, 1977), summarized in Appendix A, were utilized so that sample data in this report may be compared to those in other LASL HSSR reports on surrounding areas.

The plates (all at 1:250 000 scale) in the rear pocket are: a geologic map of the study area on Plate I, a sample location overlay on Plate II, a uranium concentration overlay for waters on Plate III, and a uranium concentration overlay for sediments on Plate IV.

II. DESCRIPTION OF STUDY AREA

Geographic Setting

The Rawlins NTMS quadrangle covers approximately 18 700 km² in south-central Wyoming (Fig. 1). The area is bounded by latitudes 41° and 42° north and longitudes 106° and 108° west and includes much of Carbon and parts of Sweetwater and Albany Counties. Interstate 80 traverses the area from east to west; Wyoming State Highway 789 is the major north-south arterial.

The study area includes portions of two physiographic provinces, the Wyoming basin and the Southern Rocky Mountains (Fig. 2). The Wyoming basin covers most of the northern, north-central, and western parts of the area. The Sierra Madre and the Medicine Bow Mountains, in the south-central and southeastern portions of the area, respectively, are northern extensions of the Southern Rocky Mountains. The Continental Divide traverses the quadrangle from along the Sierra Madre to the northwestern corner; near Rawlins, it separates into two branches, enclosing the Great Divide Basin.

Elevations in the study area range from 1860 m above sea level (ASL) near Baggs, Wyoming, to 3659 m ASL at Medicine Bow Peak. There are several peaks in both the Medicine Bow Mountains and the Sierra Madre Mountains which exceed 3000 m ASL. Typical elevations in the Wyoming basin range from 1900 to 2300 m ASL.

Fig. 1. Index and drainage map for the Rawlins quadrangle, Wyoming.

Fig. 2. Major structural features in the vicinity of the Rawlins quadrangle, Wyoming.

The vegetation in the area is altitudinally zoned. The basins are covered by short grasses and sagebrush, with the soil containing little organic matter. There is a zone of pinon and juniper trees on the lower slopes of the mountain ranges with a zone of yellow pine and Douglas fir above that. At the higher elevations, these grade into lodgepole pine and aspen. Just below the timberline is a zone of Englemann spruce and various firs; above it, the vegetation consists of small herbs and grasses with much of the ground bare (Hunt, 1974).

Rawlins is the largest city in the quadrangle with a 1973 population of about 8900, followed by Saratoga, Hanna, Medicine Bow, and Sinclair. Approximately 54% of the land is federally-owned, 39% is privately-owned, and 7% is held by the state (State of Wyoming, 1975, figures for Carbon County).

Climate

The climate of the Rawlins NTMS quadrangle area is semiarid, very windy, and cool. The average annual precipitation varies from above 800 mm in the higher elevations of the Sierra Madre and the Medicine Bow Mountains to less than 250 mm in the valleys and less than 180 mm in the Great Divide Basin. About half of the annual precipitation occurs in late spring and summer when the prevailing westerly winds diminish and allow northerly or southerly winds to bring moisture into the area. The large amounts of rainfall near the mountains result from thermally induced thunderstorms.

Winter temperatures average just above 0°C for highs and around -10°C for lows; summer high temperatures average about 30°C and lows are near 5°C. During both sampling contracts, the temperature was slightly warmer than average and there was normal to slightly less than average precipitation. Samplers recorded the weather conditions at each sample location; these data are included in Appendixes B and C. Additional information on the climate of the Rawlins NTMS quadrangle is provided in Becker and Alyea (1964a; 1964b) and in reports by the National Oceanic and Atmospheric Administration (1976; 1977).

III. GEOLOGY

Regional Setting

The Rawlins NTMS quadrangle is situated entirely within the Rocky Mountain system of which the Wyoming basin and Southern Rocky Mountains are parts. A geologic map (1:250 000-scale) of the study area is shown on Plate I. Other geologic maps of this area have been compiled by Welder and McGreevy (1966) and Lowry et al (1973). The geologic history of south-central Wyoming has been treated by Thomas (1949), Houston (1969), and Blackstone (1971; 1975) and is discussed only briefly below.

Structure

The Sierra Madre and the Medicine Bow Mountains are asymmetric anticlinal uplifts with Precambrian cores of granites and metasediments flanked by Paleozoic and younger strata. They were uplifted during the Laramide orogeny (late Cretaceous to early Tertiary) and were glaciated during the Pleistocene. The Rawlins uplift also took its present structural form during the Laramide orogeny, though now the area is a shallow, topographic and hydrologic basin.

The northeast-trending Mullen Creek-Nash Fork shear zone, a major tectonic lineament, cuts through the Sierra Madre and the Medicine Bow Mountains. It marks the southern edge of Precambrian units older than 2.5 b.y. and may be a boundary between two major Precambrian geologic provinces (Houston et al, 1968; Houston, 1971).

The Wyoming basin is composed of several smaller structural basins which in many cases have ill-defined topographic boundaries. The individual basins in the study area are the Great Divide (or Red Desert), Hanna, Carbon, Laramie, Saratoga, and Washakie basins (Fig. 2). These basins typically are filled with several thousand meters of sediments; the lower sequences are Paleozoic and Mesozoic marine strata deposited before the basins formed, and the upper sequences are late Cretaceous and Tertiary sediments derived from the surrounding uplifted areas.

Stratigraphy

A generalized stratigraphic column from the Rawlins area is shown on Plate I. The Wyoming Geological Association has standardized the stratigraphic nomenclature for the state and their stratigraphic columns for Rawlins and other areas in Wyoming are found in Barlow (1969). The Paleozoic and early Mesozoic strata are generally thin (a few tens to a few hundreds of meters thick). The upper Cretaceous and lower Tertiary strata are thicker (hundreds to greater than 1000 m), with the Paleocene Hanna formation exceeding 4000 m in some locations. Late Tertiary and Quaternary deposits are relatively thin (less than a few hundred meters thick).

While uranium has been found in virtually every major stratigraphic unit in Wyoming (Finnell and Parrish, 1958), currently, the most economically important deposits occur in formations of early Eocene age (Houston, 1969). Most investigators consider the principal uranium sources for these Tertiary deposits to be either Tertiary volcanic debris that once covered much of Wyoming or the Precambrian granites in the Granite, Ferris, Seminoe, Freezeout, Shirley, and Pedro Mountains just north of the study area and in the Laramie Mountains east of the study area. Formations present in the study area which have been reported to contain mineable uranium elsewhere in Wyoming are: the Mississippian Madison limestone; the Triassic Chugwater group; the Jurassic Morrison formation; the Cretaceous Cloverly, Mesaverde, Lance, and Medicine Bow formations; and the Tertiary Fort Union, Wind River, Wasatch, Green River, North Park, and Browns Park formations (Finch, 1967).

The North Park and Browns Park formations cover approximately 6000 km² in the central and south-central portions of the study area and are associated with the majority of the uranium occurrences (described below) in those areas. The North Park formation is composed of interbedded, fine- to medium-grained sandstone and siltstone, cherty limestone, marlstone, and volcanic ash. Locally, the sandstone grades to thin, dense limestone. The Browns Park formation is similar to the North Park formation but is often associated with a thick basal conglomerate. Since these two formations are so similar, their differentiation is often questionable (Stephens and Bergin, 1959; Vine and Prichard, 1959). Most uranium occurrences in the North Park and Browns Park formations are associated with silicified limestone beds.

Hydrology

The Rawlins NTMS quadrangle includes five major drainage basins. Three are east of the Continental Divide and a fourth is west of it; the fifth is the Great Divide Basin, a closed hydrologic basin in the northwest section of the quadrangle that is enclosed by the two branches of the Continental Divide. The largest part of the study area is drained by the North Platte River which flows northward through the central part of the area from Colorado. The northeast portion of the area is drained to the north by the Medicine Bow River; the southeast, to the east by tributaries of the Laramie River; and the southwest, to the west by tributaries of the Little Snake River. Many tributaries of the larger rivers which have their headwaters in the higher elevations of the Sierra Madre or the Medicine Bow Mountains are perennial streams. Other tributaries and smaller streams in the lower elevations are dry most of the year. Over the entire area, much of the precipitation, surface water, and soil moisture is lost to the atmosphere by evaporation or transpiration.

Surface waters in the mountains are of a calcium bicarbonate type with moderately low concentrations of dissolved solids. In the lower elevations,

where a significant portion of the water inflow to streams is through soils, the waters are a calcium or calcium-sodium sulfate type; at low stream flow rates, such waters have moderately high concentrations of dissolved solids.

In most parts of the study area, ground water is available in sufficient quantities from shallow wells. The slight fluctuation of water levels in wells indicates a good balance between the discharge and recharge systems of the ground water reservoirs. The main discharges are from seepage into lakes, rivers, and streams, pumpage of wells, and underflow through aquifers that extend out of the area. Recharge is mainly from precipitation and chiefly occurs in the mountainous regions. The predominant use of ground water is for watering livestock and a small number of wells are used for domestic or commercial water supplies. Some wells in the Saratoga valley are used for irrigation. Artesian wells and springs can be found throughout the area; several of each were sampled during this reconnaissance.

The ground water quality differs greatly throughout the study area, even within a given aquifer. Calcium bicarbonate waters, low in dissolved solids, are most abundant in shallow wells and springs in recharge areas. Calcium bicarbonate and calcium sulfate waters, high in dissolved solids, are more common at greater depths or at greater distances from the recharge areas. Waters that have been in the aquifers for even greater distances (typically deep aquifers) are also usually high in sodium. Summaries of the water quality and the water-producing potential of many geologic formations in the area are given in Welder and McGreevy (1966) and Lowry et al (1973).

Uranium Occurrences

In 1976, Wyoming produced 4400 tons of U_3O_8 (31% of the total US production for that year). The major producing areas in Wyoming (the Gas Hills, Crooks Gap, and Shirley Basin districts) are located just north of the study area. Present production in the state is from Tertiary arkosic sandstones of the Wind River and Battle Springs formations. A thorough review of the uranium geology, uranium districts, and areas of uranium mineralization in Wyoming is given by Elevatorski (1976). A review of the geology of uranium deposits in sandstones in the United States is given by Finch (1967).

In the Rawlins quadrangle there are one uranium district, several areas of uranium mineralization, and one area that has two radiometric anomalies for which no uranium mineral occurrence has been reported. These areas are discussed below (roughly in decreasing order of significance), listed in Table I, and mapped on Plate IV. The capital letters in parentheses following occurrence names in the text correspond with those in Table I and on Plate IV.

The majority of the occurrences in the central and southwestern portions of the study area are associated with either the North Park or the Browns Park formations, where airborne radiometric surveys have indicated numerous anomalies (Magleby and Mallory, 1954; Ormand, 1957; Stephens and Bergin, 1959; and Vine and Prichard, 1959). Four groups of anomalies--the Poison Basin uranium district (A), the Ketchum Buttes area (B), the Miller Hill area (C), and the Saratoga area (D)--are associated with uranium mineralization. A fifth area, the Crescent Group (E), was not identified as anomalous during the airborne radiometric surveys, but was found to have uranium mineralization in the basal conglomerate of the Browns Park formation.

In the Poison Basin district, the uranium occurs in the Browns Park formation in both an upper, oxidized zone and a lower, unoxidized zone. The uranium minerals in the oxidized zone are uranophane, meta-autunite, schroederite, and uranyl vanadates; those in the unoxidized zone are coffinite

TABLE I

REPORTED URANIUM OCCURRENCES IN THE RAWLINS QUADRANGLE

<u>ID</u> ^a	<u>Name</u>	<u>Latitude</u>	<u>Longitude</u>	<u>County</u>	<u>Comments</u>
A.	Poison Basin District	41°03'N	107°47'W	Carbon	Uranophane, meta-autunite, schroëckingerite, coffinite, and uraninite in Browns Park fm. Past production.
B.	Ketchum Buttes Area	41°15'N	107°24'W	Carbon	Uranophane associated with the silicic limestone members of North Park fm. Past production.
C.	Miller Hill Area	41°25'N	107°15'W	Carbon	Same as above.
D.	Saratoga Area	41°25'N	106°52'W	Carbon	Carnotite coatings in sandstones and limestones of North Park and Browns Park fms.
E.	Crescent Group	41°04'N	107°22'W	Carbon	Uranium mineralization in basal conglomerate of Browns Park fm.
F.	Great Divide Basin Area	41°50'N	107°52'W	Sweetwater	Uranium in low-grade coals of Wasatch and Battle Springs fms.
G.	Doane-Rambler Mine	41°09'N	107°01'W	Carbon	Uranium mineralization in malachite-bearing quartzite.
H.	Big Creek Area	41°07'N	106°29'W	Carbon	Precambrian pegmatites containing copper, rare earth and thorium minerals and associated uranium oxide.
I.	Lake Resort Area	41°07'N	106°14'W	Albany	Uranium in Precambrian granodiorite.
J.	Keystone Area	41°11'N	106°08'W	Albany	Uranium mineralization in Precambrian quartz monzonite and paragneiss.
K.	Libby Creek Area	41°19'N	106°10'W	Albany	Uranium mineralization in Precambrian biotite schist.
L.	Rock Creek Area	41°35'N	106°14'W	Carbon	Uranium in quartz monzonite and orthogneiss.
M.	Unnamed	41°15'N	107°06'W	Carbon	Uranium in weathered Precambrian conglomerates.
N.	Unnamed	41°34'N	106°12'W	Carbon	Same as above.
O.	Unnamed	41°34'N	106°11'W	Carbon	Same as above.
P.	Sunset No. 1 Claim	41°47'N	107°24'W	Carbon	Uranium mineralization in arkosic sandstone of Fort Union fm.
Q.	Lucky Annie Claim	41°50'N	106°47'W	Carbon	Uranium mineralization in sandstone (?) of Medicine Bow fm.
R.	Unnamed	41°53'N	106°02'W	Albany	Airborne radiometric anomaly--no uranium mineralization reported.
S.	Unnamed	41°59'N	106°08'W	Carbon	Same as above.

^aOccurrence IDs correspond to those in text and on Plate IV.

and uraninite. Ore from this area ranges in grade from 0.004% to 3.2% U_3O_8 ; estimated reserves in the district are 540 metric tons (1.2 million pounds) of U_3O_8 . Significant amounts of selenium, vanadium, and molybdenum are also present in the Poison Basin area (Elevatorski, 1976). In the Ketchum Buttes and Miller Hill areas, uranophane commonly is found disseminated in the freshwater limestone members of the North Park formation, coating fractures and filling vugs (Vine and Prichard, 1959). In the Saratoga area, carnotite occurs at numerous claims as a coating on limestone and sandstone grains in both the North Park and Browns Park formations and also as a coating on Quaternary gravels (Stephens and Bergin, 1959).

In the Great Divide Basin area (F), low-grade uranium concentrations are found in coal, lignite, and carbonaceous shales of the Tertiary Wasatch and Battle Springs formations (Wyant et al, 1956; Masursky and Pipiringos, 1959; Masursky, 1962). The average uranium content of the carbonaceous material in this area is approximately 0.03% U_3O_8 ; concentrations as high as 0.05% U_3O_8 are reported for impure coals from Creston Ridge (Masursky, 1962).

Elevatorski (1976) reports several uranium occurrences in the Precambrian rocks of the Sierra Madre and the Medicine Bow Mountains. A sample from the dump at the Doane-Rambler mine (G) had uranium in a malachite-bearing quartzite. The Big Creek area (H), on the western flank of the Medicine Bow Mountains, has Precambrian pegmatites which have been mined for copper and rare earth minerals since 1956. Uranium oxide and thorium in monazite have been found in these pegmatites (Wilson, 1960; Houston, 1961). Uranium has also been found in the Medicine Bow Mountains in: granodiorites in the Lake Resort area (I), quartz monzonite and paragneiss in the Keystone area (J), biotite schist in the Libby Creek area (K), and quartz monzonite-orthogneiss in the Rock Creek area (L). Graff and Houston (1977) report one unnamed location in the northwestern Sierra Madre (M) and two unnamed locations in the eastern Medicine Bow Mountains (N and O) where weathered Precambrian conglomerates have >100 parts per million (ppm) uranium, but no mention is made of the form of the uranium at any of these three locations.

Uranium mineralization has also been reported at the Sunset No. 1 claim (P) and at the Lucky Annie claim (Q), both in the northern part of the study area. The host rocks for the uranium at these two claims are an arkosic sandstone of the Fort Union formation and a sandstone (?) of the Medicine Bow formation, respectively (Elevatorski, 1976).

Two localities (R) and (S), in the northeastern portion of the Rawlins quadrangle, were identified as airborne radiometric anomalies by Shannon and Ruzycki (1957). Their follow-up ground investigations of these anomalies found no areas of uranium mineralization.

In addition to the Poison Basin district, which was mined intermittently from 1954 to 1963, minor uranium production has been reported for the Ketchum Buttes, Miller Hill, and Big Creek areas. In December 1975, Urangesellschaft USA announced plans to further develop the reserves in the Poison Basin area (Elevatorski, 1976).

IV. ANALYTICAL AND STATISTICAL DATA FOR URANIUM CONCENTRATIONS IN WATER AND SEDIMENT SAMPLES

During this reconnaissance, 570 water samples and 1281 sediment samples were collected and analyzed using the standard procedures outlined in Appendix A. Listings of field data and measured uranium concentrations for water

samples are given in Appendix B; similar listings for sediment samples are given in Appendix C. All uranium concentrations in waters are reported as parts per billion (ppb) in this report and all uranium concentrations in sediments are reported as ppm. Appendix D gives an explanation of the code used in the data listings and a key to the sample types. The sample location overlay is presented on Plate II; uranium concentration overlays for water and sediment samples are shown on Plates III and IV, respectively. All overlays are plotted at 1:250 000 scale and may be used with both the Rawlins NTMS map sheet and the geologic map of the Rawlins quadrangle (Plate I). The LASL sample location numbers printed on Plate II differ from those used in the text and in Appendixes B and C only in that the leading two alphanumeric characters and any subsequent leading zeros have been dropped from the location numbers printed on the plate (e.g., location W20038 in the Appendixes would appear as 38 on Plate II). The numbers printed next to the symbols for the two largest concentration intervals on the concentration overlays are the measured uranium concentrations (in the appropriate units) for those samples, truncated to integer value.

Uranium Concentrations in Water Samples

A histogram of frequency versus uranium concentration for all water samples is given in Fig. 3. Table II presents the number of samples, maximum and minimum values, mean value ($\bar{x}$), and standard deviation (σ) for uranium concentrations in all water samples; for comparison only, Table II also contains the same information for each water sample type. Three distinct groups of water sample types, in order of decreasing uranium content, are: natural ponds, ground waters (wells and springs), and other surface waters

Fig. 3. Histogram of the uranium concentrations in waters from the Rawlins quadrangle, Wyoming.

TABLE II

SUMMARY OF URANIUM DATA FOR WATER SAMPLES COLLECTED
IN THE RAWLINS QUADRANGLE

<u>Sample Type</u>	<u>Number of Samples</u>	<u>Minimum (ppb)</u>	<u>Maximum (ppb)</u>	<u>Mean (ppb)</u>	<u>Standard Deviation</u>
All Waters	570	0.10	448.2	6.01	23.42
All Waters ^a	569	0.10	153.3	5.23	14.30
Streams	385	0.10	135.8	3.23	9.54
Springs	83	0.10	153.3	7.19	18.38
Artificial Ponds	50	0.10	38.7	5.80	8.71
Natural Ponds	35	0.10	448.2	32.37	78.89
Natural Pond ^a	34	0.10	123.2	20.14	31.90
Wells	17	0.19	81.8	9.58	20.06

^a For statistical comparison, the one water sample from a natural pond with 448.2 ppb uranium has been excluded in these compilations only.

(artificial ponds and streams). However, due to the limited charter for statistical analysis and interpretation in this program, only the statistics for the total water population will be considered below.

An arbitrary anomaly threshold for waters has been set at 50 ppb uranium, which corresponds to roughly $\bar{x} + 2\sigma$ for all water samples taken from the Rawlins quadrangle during this study. This threshold value is subjective, as the elimination of only one water value, 448.2 ppb uranium from a natural pond, would lower the $\bar{x} + 2\sigma$ to approximately 34 ppb (Table II). In view of this subjectivity, all water samples with uranium concentrations ≥ 20 ppb have been examined and are discussed below, particularly with respect to their relationship to the "anomalous" samples. Table III provides relevant data for the 11 water samples with uranium concentrations above the anomaly threshold. Of these 11, only one corresponds to a known uranium occurrence (well sample W21100 from the Great Divide Basin area). Of the remaining 10, 8 cluster in the very northeastern corner of the quadrangle (Plate III), in the drainage area of the Medicine Bow River. The other two are along the edge of the Rawlins uplift, north and west of Rawlins.

Twenty-six samples are in the uranium concentration interval directly below the arbitrarily chosen anomaly threshold (>20 ppb and ≤ 50 ppb) on Plate III. Ten (three natural ponds, two artificial ponds, two streams, two springs, and one well) are from the Medicine Bow River drainage area. Another seven are from the Saratoga and Miller Hill occurrence areas (six samples and one sample, respectively), which are underlain by the Browns Park/North Park formations. The remaining nine samples in this subanomalous interval are scattered throughout the quadrangle.

TABLE III

RELEVANT DATA FOR WATER SAMPLES WITH URANIUM CONCENTRATIONS
ABOVE AN ARBITRARY ANOMALY THRESHOLD OF 50 PPB

<u>LASL Location Number</u>	<u>Sample Type</u>	<u>Total Uranium (ppb)</u>	<u>pH</u>	<u>Specific Conductance (μmhos/cm)</u>	<u>Sample Location Description</u>
W20349	Stream	53.7	6.9	27000	East of the town of Elk Mountain in drainage from an area where the Mesaverde fm. crops out
W21204	Natural Pond	61.8	7.5	4400	Separation Lake
W21151	Stream	70.6	8.1	75	Muddy Creek; drainage from an area where the Morrison and Chugwater fms. crop out
W20530	Natural Pond	73.1	8.6	50000	Southwest of Nelson Ranch
W21100	Well	81.8	7.3	2100	Great Divide Basin area
W21190	Natural Pond	95.5	8.6	5000	Como Lake
W21155	Natural Pond	96.1	9.0	5000	Pynchin Lake
W20353	Natural Pond	123.2	8.1	50000	Willow Springs Draw
W20812	Stream	135.8	7.6	1155	Little Medicine Bow River
W21218	Spring	153.3	9.5	1200	Along Cherokee Creek
W21166	Natural Pond	448.2	8.9	5000	South of Sand Creek

The broad cluster of eight anomalous and ten near-anomalous water samples from the Medicine Bow River drainage area in the northeastern corner of the quadrangle is associated with no known uranium mineral occurrences; however, two airborne radiometric anomalies found by Shannon and Ruzycki (1957) occur in this general area. This cluster is underlain by moderately complex geology with numerous dissected anticlines that expose Paleozoic through upper Cenozoic strata (Plate I), and there is no clear correlation between specific stratigraphic units and uranium concentration. All anomalous water samples and most water samples with uranium concentrations >20 ppb in this area are from ponds and streams. Fix (1956) points out that evaporation in arid climates and other factors can increase the uranium content of still waters by two or more orders of magnitude. For this reason, pond waters containing high uranium concentrations should be evaluated with caution. However, eight samples (one from a well, two from springs, and five from streams) from the area have uranium concentrations in excess of 20 ppb, indicating that both surface waters and ground waters in the Medicine Bow drainage area contain uranium concentrations significantly higher than the mean for waters in the Rawlins quadrangle.

Again, it should be noted that the arbitrary anomaly threshold for water samples has been set at a rather high level (>50 ppb uranium). This was done for convenience of data presentation. The further detailed evaluation of data from water samples containing considerably less uranium than this arbitrary anomaly threshold may be beneficial to a uranium resource assessment program.

Uranium Concentrations in Sediment Samples

A frequency versus uranium concentration histogram for all 1281 sediment samples from the Rawlins quadrangle is given in Fig. 4. Table IV is a summary of uranium statistical data for all sediments and for each sediment sample type. Sediments from natural ponds contain significantly more uranium than any other sediment sample type; however, only the statistics for the total sediment population will be considered below. The 22 samples designated "other," indicated by a 99 in the Sample Type field in Appendix C, are dry-spring sediments that have been dried and sieved to -100 mesh.

An arbitrary anomaly threshold for sediments has been set at 9 ppm uranium, approximately $\bar{x} + 2\sigma$ for all sediment samples. Relevant data for the 44 anomalous sediment samples are shown in Table V. Of these, 25 can be associated with known uranium mineral occurrences: 14, with the Great Divide Basin; 5, with the Poison Basin district; 4, with the Saratoga area; and 2, with the Miller Hill area. The majority of the sediment samples in the vicinity of the Great Divide Basin and Poison Basin anomalous sample clusters have uranium concentrations that are significantly above background for their respective areas. On the other hand, only a few samples from the Saratoga and Miller Hill areas are anomalous or well above the background.

The 14 anomalous samples from the Great Divide Basin form a broad cluster, as does the Great Divide Basin occurrence area itself. Associated with these anomalous samples are 23 subanomalous samples with uranium concentrations in the interval from 7 to 9 ppm. This entire area is underlain by the Battle Springs and Wasatch formations, both of which contain uraniferous, low-grade coal.

Fig. 4. Histogram of the uranium concentrations in sediments from the Rawlins quadrangle, Wyoming.

TABLE IV

SUMMARY OF URANIUM DATA FOR SEDIMENT SAMPLES COLLECTED
IN THE RAWLINS QUADRANGLE

<u>Sample Type</u>	<u>Number of Samples</u>	<u>Minimum (ppm)</u>	<u>Maximum (ppm)</u>	<u>Mean (ppm)</u>	<u>Standard Deviation</u>
All Sediments	1281	1.2	60.4	4.11	2.85
Dry Streams	663	1.2	32.3	3.96	2.23
Wet Streams	327	1.5	22.4	4.01	2.22
Wet Springs	74	1.6	12.5	4.25	2.27
Dry Natural Ponds	63	1.2	24.3	5.17	3.80
Dry Artificial Ponds	51	1.9	10.7	3.95	1.64
Wet Artificial Ponds	49	1.8	7.8	3.83	1.49
Wet Natural Ponds	32	2.1	60.4	6.80	10.69
Other (Dry Springs)	22	1.9	13.2	3.76	2.27

None of the five anomalous samples associated with the Poison Basin district and only one of the four from the Saratoga area fall within the areal boundaries defined by the known uranium occurrences. The five Poison Basin anomalous samples are from dry streams that drain the Poison Basin to the west; the sample with the highest uranium concentration (32 ppm in sediment sample W20951) was taken from a dry wash just outside the occurrence area (see Plate IV). Three of the Saratoga area anomalous samples are from just outside the area defined by the known uranium occurrences. Two of these are from wet streams south of the occurrence area which flow into, not out of, the occurrence area (W20121 with 18 ppm and W21364 with 20 ppm uranium).

Three of the remaining anomalous sediment samples are from the Medicine Bow River drainage area discussed in the previous section. Also associated with this area are six subanomalous samples with uranium contents in the interval 7 to 9 ppm; however, the majority of the sediment samples in this area have uranium contents of <5 ppm.

Three other anomaly clusters are worthy of note: a cluster of three anomalous samples from along the Encampment River and its tributary, Miner Creek, in the Sierra Madre; a cluster of three anomalous samples from Mullen Creek and Savage Run Creek in the Medicine Bow Mountains; and a small cluster of two anomalous samples from Gramm Creek in the Medicine Bow Mountains. The area around the Encampment River/Miner Creek cluster also contains six sub-anomalous samples with uranium contents in the interval 7 to 9 ppm. The Mullen Creek/Savage Run Creek samples are from an area along the Mullen Creek-Nash Fork shear zone. There are no other samples in the vicinity of Gramm Creek. All three clusters are along drainages from areas where Precambrian gneisses and granites crop out; however, no uranium mineral occurrences are known in these drainage areas.

The remaining eight anomalous samples, not discussed above, are widely scattered over the Rawlins quadrangle and may or may not be significant.

TABLE V

RELEVANT DATA FOR SEDIMENT SAMPLES WITH URANIUM CONCENTRATIONS
ABOVE AN ARBITRARY ANOMALY THRESHOLD OF 9 PPM

<u>LASL Location Number</u>	<u>Sample Type</u>	<u>Total Uranium (ppm)</u>	<u>Sample Location Description</u>
W20671	Wet Spring	9.3	Cottonwood Rim
W20249	Wet Stream	9.4	Mullen Creek; along Mullen Creek-Nash Fork shear zone in the Medicine Bow Mountains
W21119	Dry Natural Pond	9.5	Great Divide Basin area
W20140	Dry Stream	9.6	Savage Run Creek; drainage from an area in the Medicine Bow Mountains where Precambrian gneisses and granites crop out
W21115	Dry Stream	9.6	Great Divide Basin area
W21116	Dry Natural Pond	9.6	Great Divide Basin area
W21033	Dry Stream	9.7	Near the town of New Jelms; drainage from an area in the Medicine Bow Mountains where Precambrian gneisses and granites crop out
W20654	Wet Spring	9.7	Along Dutch Joe Creek
W20129	Wet Stream	9.9	Gramm Creek; drainage from an area in the Medicine Bow Mountains where Precambrian gneisses and granites crop out
W20840	Wet Natural Pond	10.2	Foote Creek Lake
W20953	Dry Stream	10.2	Poison Basin area
W21052	Dry Natural Pond	10.4	Great Divide Basin area
W20139	Wet Stream	10.5	Mullen Creek; along Mullen Creek-Nash Fork shear zone in Medicine Bow Mountains
W20404	Dry Artificial Pond	10.7	Saratoga area
W21051	Dry Natural Pond	10.7	Great Divide Basin area
W20748	Dry Stream	11.0	Near the town of Rawlins
W20998	Dry Stream	11.2	Blue Gap Draw
W21322	Wet Spring	11.2	Along Encampment River in the Sierra Madre Mountains
W20508	Wet Stream	11.3	South Fork of Miner Creek in the Sierra Madre Mountains
W21099	Dry Stream	11.3	Great Divide Basin area
W21206	Wet Spring	11.5	Miller Hill area
W21105	Dry Natural Pond	12.1	Great Divide Basin area
W21117	Dry Natural Pond	12.4	Great Divide Basin area
W21127	Dry Stream	12.4	Great Divide Basin area
W21101	Dry Stream	12.5	Great Divide Basin area
W21323	Wet Spring	12.6	Along Encampment River in the Sierra Madre Mountains
W20760	Wet Stream	12.8	Buckeye Creek
W20902	Dry Spring	13.2	Miller Hill area
W20978	Dry Stream	13.2	Poison Basin area
W20001	Dry Stream	13.8	South of Doty Mountain; other sediment samples in the immediate area are much lower in uranium content
W20256	Dry Stream	14.4	Fingerle Hollow
W21096	Wet Natural Pond	14.5	Great Divide Basin area
W21172	Dry Natural Pond	15.9	Kinney Reservoir
W20837	Dry Stream	17.0	Headwaters of Foote Creek
W20121	Wet Stream	18.4	Saratoga area
W20981	Dry Stream	18.5	Poison Basin area
W21088	Wet Natural Pond	18.5	Great Divide Basin area
W20954	Dry Stream	18.9	Poison Basin area
W21090	Wet Natural Pond	19.1	Great Divide Basin area
W21364	Wet Stream	19.9	Saratoga area
W20130	Wet Stream	22.4	Gramm Creek; drainage from an area in the Medicine Bow Mountains where Precambrian gneisses and granites crop out
W21093	Dry Natural Pond	24.3	Great Divide Basin area
W20951	Dry Stream	32.3	Poison Basin area
W20418	Wet Natural Pond	60.4	Saratoga area

V. SUMMARY AND CONCLUSIONS

A total of 570 natural water samples and 1281 waterborne sediment samples from 1361 locations in the Rawlins NTMS quadrangle were collected and analyzed for total uranium content. An arbitrary anomaly threshold was selected for both the water and the sediment uranium content distributions; in each case, the threshold was set at approximately the mean plus two standard deviations for their respective total population. This resulted in 11 water anomalies and 44 sediment anomalies (1.9% and 3.4% of the total water sample and sediment sample populations, respectively).

The Rawlins quadrangle contains 17 areas of known uranium mineral occurrence and two additional areas that have been identified from the literature as airborne radiometric anomalies for which no corresponding uranium mineralization is known. Only one anomalous water sample can be associated with a known uranium occurrence (a well water sample from the Great Divide Basin). However, eight anomalous water samples can be associated with the Medicine Bow River drainage area in the northeastern part of the quadrangle, which also contains two airborne radiometric anomalies. Samples from the concentration interval immediately below the arbitrarily chosen anomaly threshold can be associated with two other uranium occurrence areas, the Saratoga and Miller Hill areas. In addition, 10 water samples from this interval are from the Medicine Bow River drainage area.

Of the 44 anomalous sediment samples, 25 could be associated with four areas of known uranium occurrence: 14, with the Great Divide Basin; 5, with the Poison Basin District; 4, with the Saratoga area; and 2, with the Miller Hill area. Other clusters of anomalous sediment samples indicated areas where the uranium content of sediments is significantly higher than background and where no uranium mineral occurrences are known: a cluster of three anomalous samples along the Encampment River and Miner Creek in the Sierra Madre Mountains; three along the Mullen Creek-Nash Fork shear zone in the Medicine Bow Mountains; two along Gramm Creek in the Medicine Bow Mountains; and three in the Medicine Bow River drainage area.

With the water and sediment samples taken during this reconnaissance, and with the limited statistical analysis used in this report, four of the five major known uranium occurrence areas in the quadrangle could be identified. The one exception is the Ketchum Buttes area, which is similar in topography, geology, and climate to both the Miller Hill and Saratoga areas. Not only are there no anomalous samples which can be associated with the Ketchum Buttes area, there are no samples in the concentration interval directly below the anomaly threshold which can be associated with this area. However, careful examination of the water data reveals a hint of elevated uranium concentrations in samples from the Ketchum Buttes area. Since there is very little information in the open literature on the remaining 13 uranium occurrence areas, most are probably minor, both in areal extent and uranium content, and probably would not be confirmed by this type of reconnaissance.

Based on the correlation of the uranium content of samples taken from the Rawlins quadrangle during this study with the known major uranium occurrences, geology, and topography, it is concluded that the data presented in Appendixes B and C are valid. Furthermore, the sampling density used in this study appears to be adequate for identifying the major occurrences in this part of the country. One of the areas examined that, based on data in this report, possibly warrants further investigation is the Medicine Bow River drainage area in the northeastern portion of the quadrangle. If such a study

is made, geochemical emphasis on ground water samples (wells and springs) and stream waters, in addition to geological and geophysical investigations, is recommended. The predominantly negative results obtained from sediments in this particular area during this study suggest further sediment sampling might be of little use.

The statistical treatment of the uranium data in this report is limited and not intended to examine them in depth. Rather, it is intended to locate and delineate those few percent of the water and sediment samples (the actual percentage is arbitrarily chosen) that have the highest uranium concentrations in their respective total populations. In fact, each total population may contain several individual populations (perhaps corresponding to exposures of the various rock types, geomorphic provinces, topography, sample source type, etc.), each of which could have its own "anomaly threshold." To allow a more complete analysis of the uranium data, a magnetic tape of the data in Appendixes B and C can be obtained from the National Technical Information Service, Oak Ridge National Laboratory, Oak Ridge, Tennessee, or the data in the Appendixes may be used.

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APPENDIX A

SUMMARY OF STANDARD LASL HSSR FIELD AND ANALYTICAL PROCEDURES

APPENDIX A

SUMMARY OF STANDARD LASL HSSR FIELD AND ANALYTICAL PROCEDURES

I. FIELD PROCEDURES

Water Sampling

Water samples are taken directly from the source wherever possible, filtered through a 0.45- μ membrane filter into one each, prewashed and sealed, 41-ml reactor "rabbit" and 25-ml vial (both polyethylene), and both are then acidified to a pH of ≤ 1 with 8N, reagent-grade, HNO_3 . All sample containers are doubly labeled with preprinted, adhesive labels carrying the same sample location number preprinted on the field data form. Springs are sampled as near to their point of emergence as possible; stream waters are taken from fast-flowing current away from the bank; ponds (including small lakes and reservoirs) are sampled from just below the surface, away from the bank; and well waters are taken near the wellhead if the well is pumping or from a holding tank if not.

Sediment Sampling (Wet or Dry)

Enough fine-grained, organic-rich, water-transported sediment to yield a composite sample of 25 g after processing (as indicated below) is taken from beneath the water level (where water exists) at three closely adjacent spots at each location. This is done with a polyethylene scoop, after the water sample (if any) is taken. The sediment is put into a new, clean, and originally sealed, rip-top polyethylene bag and properly double-labeled for delivery (with the field data form) to the contractor's drying facility. After drying at $\leq 100^\circ\text{C}$, each sample is sieved through stainless steel sieves to -100 mesh. The -100 mesh fraction is put into a prewashed, 25-ml polyethylene vial, appropriately double-labeled (using labels from the data form), and sealed for shipment to the LASL.

Field Measurements

The air temperature, taken in the shade at the time of sampling, is recorded to the nearest whole degree Celsius. The water temperature is measured in the source water and recorded to the nearest one-tenth degree Celsius. All temperature measurements are made with quality, precalibrated thermometers. The pH of the source water is measured with a calibrated, portable pH meter or multi-range pH paper, and recorded to the nearest one-tenth of a pH unit. The specific conductance ($\mu\text{mho/cm}$) of the source water is measured with a calibrated, temperature compensated (25°C) portable meter after the attached sample cup has first been rinsed three times in the source water. The scintillometer readings, taken on a flat, dry spot within a few meters of the sample location, are measured with a portable scintillometer. Two readings are recorded, the first with a radiation shield in place (blocking out ground radiation), and the second with the shield removed. The readings (in counts/s) are converted by computer (using calibration factors obtained from testing of the scintillometers on a calibration block) to give the equivalent uranium (eU) value set forth in the data listing.

Field Observations

These represent the best subjective judgment of the field sampler on location, and include very general descriptions of the local bedrock, sediment, water, vegetation, terrain, weather, possible contaminants, and water well configuration, if applicable.

Sample Location Verification

Each contractor is supplied field maps with the desired sample types and locations symbolically premarked at the LASL. The maps are normally USGS Quadrangles (either 7.5' or 15'), but where not available, Forest Service, State Highway, or other reasonably detailed maps are provided. As each location is sampled, a unique sample location number, preprinted on transparent adhesive labels provided with the identically numbered field data forms, is pasted over the precisely marked site on the field map. The latitude and longitude of each location is computed by the sampling contractor. Every location is later checked (and corrected if necessary) at the LASL by overlaying computer-produced location plots on the field maps used. The latitudes and/or longitudes are corrected if the overlay locations are displaced by more than 100 m from the locations marked on the field maps. When a desired location cannot be sampled as specified, an alternate sample type or location as near as possible to the original one is picked, and the new sample type and/or location is/are marked on the field map and properly labeled as above.

II. ANALYTICAL PROCEDURES

Water Samples Analyzed for Uranium by Fluorometry

In a controlled laboratory environment, a NaF (98%)-LiF (2%) flux pellet is prepared and placed on a platinum dish. The 25-ml water vial is vigorously shaken and a 0.20-ml aliquot of water is withdrawn and dropped onto a flux pellet, then evaporated under a heat lamp. The sample flux is then heated until fused. After it cools, it is excited with ultra-violet radiation in the fluorometer, and the measured fluorescence is read, recorded, and put through a computer routine using standards and blanks run at the same time to obtain the uranium concentration. All fluorometer analyses are done in duplicate and the average value for the two splits of a sample is reported herein. If an analysis indicates that the total uranium content of a given split is less than the lower detection limit of the method, 0.20 parts per billion (ppb) uranium, an arbitrary value of 0.10 ppb is assigned to that split and the 0.10 ppb is averaged with the duplicate split to obtain the reported value. If one split has a total uranium content less than the lower detection limit and one split is at or just above said limit, uranium contents between 0.10 and 0.20 ppb can result; if both splits have uranium contents below the lower detection limit, the reported value for the sample will be 0.10 ppb. Water samples which either have uranium concentrations in excess of 10 ppb or have elemental interference are generally reanalyzed using the delayed-neutron counting (DNC) technique described below. Analytical precision at the lower limit of detection is ~30%; however, it improves to ~10% one order of magnitude above the lower limit.

Water Samples Analyzed for Uranium by DNC

Waters with >10 ppb uranium and those containing high enough concentrations of certain elements to interfere with fluorometric analysis are assayed

using DNC. The exteriors of the field-returned, 41-ml rabbits containing water samples are thoroughly cleaned before analysis. Samples received in 25-ml vials (used exclusively in some of the early work) are transferred to clean, labeled, 41-ml rabbits before being analyzed. Each water sample is weighed, and its weight (less that of the rabbit) and location number are recorded. The rabbits are then loaded into a 25-sample transfer clip. The reactor pneumatic transfer system and background radiation levels are checked, and the system is calibrated using four standards. The transfer clip is installed on the pneumatic feed line, and the count control is set (typically, a 50-s irradiation, a 30-s delay, and a 50-s count are used, but this can be changed to accommodate abnormally high or low uranium concentrations). The samples are cycled through the system and the uranium concentration is automatically measured, computed in ppb, and entered into the data base. Statistical treatments of uranium concentrations obtained on the same suites of samples both by fluorometry and DNC have shown that there is no significant difference between results of the two analytical methods as used at the LASL. This analytical comparability is rechecked periodically. Uranium concentration for those water samples assayed by DNC are denoted by asterisks following the uranium concentrations in Appendix B.

Uranium Analysis of Sediment Samples

All sediment samples are analyzed for total uranium by DNC. A split of each sample (dried and sieved as described) is transferred to a clean 4-ml rabbit, weighed (less the tare), and recorded along with the appropriate location number. The readied rabbits are loaded into a 50-sample transfer clip. The reactor pneumatic transfer system and background radiation levels are checked, and the system is calibrated as above. The transfer clip is installed and the count control is set (typically, a 20-s irradiation, a 10-s delay, and a 20-s count are used). The samples are cycled through the system and the uranium concentration is automatically measured, computed in parts per million (ppm), and entered into the data base. The lower limit of detection for uranium in sediment analyzed by the DNC method is 0.5 ppb (not ppm); this is so low that it has never been reached while analyzing a natural sediment sample. The precision of the DNC method is 4% or better for all analyses.

APPENDIX B

LISTINGS OF FIELD DATA AND URANIUM CONCENTRATIONS FOR WATER SAMPLES

(See Appendix D for Code to Listings)

APPENDIX B. Field Data and Uranium Concentrations for Water Samples

[illegible]

APPENDIX B (continued). Field Data and Uranium Concentrations for Water Samples

DOE SAMPLE NUMBER										LASI SAMPLE LOCATION NUMBER AND FIELD DATA										U CONCENTRATION									
DATE	TIME	DOE LAB	REF. LAB	DATE	TIME	DOE LAB	REF. LAB	DATE	TIME	DOE LAB	REF. LAB	DATE	TIME	DOE LAB	REF. LAB	DATE	TIME	DOE LAB	REF. LAB	DOE LAB	REF. LAB	DOE LAB	REF. LAB	DOE LAB	REF. LAB	DOE LAB	REF. LAB		
56-41.2383	106.3550-2-07	0-W20139	07/06/74	13	38-13.6-C	6.6	725	11-3-1	4-6-3	1-2-7-4-4-1	8	0.22																	
56-41.1647	106.3069-2-06	0-W20142	07/06/74	15	29-10.6-C	7.2	540	22-3-1	5-6-2-3	1-2-7-4-4-1	8	0.49																	
56-41.1503	106.3550-2-07	0-W20143	07/06/74	14	30-14.2-C	6.6	250	16-3-1	4-6-3	1-2-7-4-4-1	8	0.18																	
56-41.1286	106.3192-2-07	0-W20144	07/06/74	15	30-13.6-C	7.1	200	13-3-4	4-6-3	1-2-7-4-4-1	8	0.25																	
56-41.0142	106.2472-2-07	0-W20145	07/06/74	16	24-10.2	6.2	89	22-3-4	4-6-3	1-3-3-3-2-2	3	0.16																	
56-41.0014	106.1492-2-07	0-W20146	07/06/74	17	23-10.4	6.6	148	16-3-4	4-6-3	1-3-3-3-2-2	3	0.48																	
56-41.0125	106.2061-2-07	0-W20147	07/06/74	17	23-10.7	6.3	120	27-3-1	2-4-2-3	3-3-3-3-2-2	3	0.22																	
56-41.0781	106.2114-2-07	0-W20148	07/06/74	17	22-10.2	5.9	73	11-3-4	4-6-3	1-2-4-4-2-2	3	0.16																	
56-41.6522	106.0514-2-08	0-W20150	07/13/74	15	29-10.5	6.8	170	27-2	1-3	1-1-3	1-1	1.99																	
56-41.7253	106.0569-2-10	0-W20152	07/13/74	17	23-24.1	6.8	140	4-2-1	5-6-2	4-2-2-2-2	3	1.88																	
56-41.8708	106.2097-2-09	0-W20153	07/14/74	9	16-10.6	6.9	140	8-4	4-6-3	3-3-2-2-1	3	7.20																	
56-41.7406	106.1392-2-09	0-W20155	07/14/74	12	26-10.2	5.6	210	4-4	5-6-3	3-3-2-2-1	3	5.95																	
56-41.7100	106.1989-2-07	0-W20156	07/14/74	13	24-10.4	5.2	180	4-2-1	5-6-2	4-4-3-2-1	3	8.07																	
56-41.6833	106.2103-2-07	0-W20157	07/14/74	13	24-10.3	5.6	580	4-2-1	5-6-2	4-4-3-2-1	3	7.76																	
56-41.6806	106.2319-2-06	0-W20158	07/14/74	13	24-10.1	6.9	750	4-4	4-6-3	4-4-3-2-1	3	6.48																	
56-41.6806	106.2319-2-08	0-W20159	07/14/74	14	26-10.7	6.9	120	4-4	4-6-3	4-4-3-2-1	3	6.09																	
56-41.6428	106.2469-2-10	0-W20160	07/14/74	14	26-10.6	5.9	170	4-2-1	5-6-2	4-4-3-2-1	3	6.67																	
56-41.6347	106.2142-2-09	0-W20161	07/14/74	15	26-10.6	5.9	310	4-4	5-6-2	4-4-3-2-1	3	7.57																	
56-41.7122	106.1625-2-09	0-W20163	07/14/74	16	22-10.6	6.8	100	4-2-1	5-6-2	4-4-3-2-1	3	6.31																	
56-41.6822	106.1408-2-07	0-W20163	07/14/74	16	24-10.3	6.8	100	4-2-1	5-6-2	3-3-2-2-1	3	11.60																	
56-41.6849	106.1481-2-09	0-W20165	07/14/74	16	22-10.7	6.8	240	4-4	5-6-2	4-4-3-2-1	3	24.95																	
56-41.9042	106.0111-2-10	0-W20165	07/14/74	16	25-10.4	7.2	300	4-4	5-6-2	4-4-3-2-1	3	38.70																	
56-41.9049	106.0531-2-06	0-W20170	07/13/74	14	28-13.8	7.6	230	16-4	5-1	2-2-2-4-2-2	3	36.70																	
56-41.8939	106.0804-2-08	0-W20172	07/14/74	16	10-15.6-C	7.6	90	16-1	5-5	1-2-2-3-3-3-2	3	31.20																	
56-41.8939	106.1861-2-07	0-W20173	07/14/74	15	10-8.6-C	7.1	40	16-1	5-5	1-1-1-1-1-1	3	12.10																	
56-41.5767	106.1917-2-07	0-W20175	07/14/74	14	10-9.6-C	7.0	120	16-4	5-5	1-1-1-1-1-1	3	0.48																	
56-41.5664	106.1461-2-07	0-W20175	07/14/74	9	24-13.6	6.2	240	16-4	5-5	2-1-2-2-3-4-1	3	0.10																	
56-41.5767	106.1917-2-07	0-W20176	07/14/74	10	25-11.9-C	6.9	1120	16-4	5-6-3	2-1-2-2-3-4-1	3	0.10																	
56-41.5461	106.1655-2-10	0-W20177	07/14/74	10	26-14.2-C	6.1	200	16-4	5-6-3	2-1-2-2-3-4-1	3	0.10																	
56-41.5664	106.2192-2-10	0-W20178	07/14/74	11	27-11.6	7.1	200	16-4	5-6-3	2-1-2-2-3-4-1	3	0.43																	
56-41.5861	106.2208-2-07	0-W20179	07/14/74	11	28-11.6-C	7.1	200	16-4	5-6-3	2-1-2-2-3-4-1	3	0.10																	
56-41.4067	106.0211-2-09	0-W20182	07/14/74	15	11-15.0	6.1	210	16-4	5-6-3	2-1-2-2-3-4-1	3	1.25																	
56-41.5717	106.5058-2-07	0-W20202	07/20/74	13	26-11.3-C	6.6	180	16-4	5-6-3	2-1-2-2-3-4-1	3	0.10																	
56-41.5719	106.5442-2-07	0-W20203	07/20/74	13	26-14.6-C	7.0	240	16-4	5-6-3	2-1-2-2-3-4-1	3	0.10																	
56-41.5842	106.5580-2-07	0-W20213	07/20/74	14	26-14.3	7.2	420	16-4	5-6-3	2-1-2-2-3-4-1	3	0.10																	
56-41.5978	106.6004-2-08	0-W20219	07/20/74	15	27	-	-	16-4	5-6-3	2-1-2-2-3-4-1	3	2.00																	
56-41.5472	106.5600-2-07	0-W20217	07/20/74	14	28-12.6-C	6.6	100	22-3	1-5-6-3	2-1-2-2-3-4-1	3	3.22																	
56-41.5472	106.5600-2-07	0-W20218	07/20/74	15	28-11.4	6.6	100	11-3	4-6-3	2-1-2-2-3-4-1	3	7.52																	
56-41.5472	106.5308-2-07	0-W20233	07/20/74	13	19-13.5	5.2	180	6-1	4-4-7	2-1-2-2-3-4-1	3	0.18																	
56-41.4433	106.3556-2-07	0-W20223	07/20/74	14	19-14.2	5.1	47	8-1	4-4-7	2-1-2-2-3-4-1	3	0.10																	
56-41.5111	106.3669-2-07	0-W20225	07/20/74	15	19-13.5	5.2	38	16-4	5-6-3	2-1-2-2-3-4-1	3	0.10																	
56-41.5139	106.3467-2-07	0-W20226	07/20/74	15	19-13.0	5.4	45	8-4	5-6-2	2-1-2-2-3-4-1	3	0.10																	
56-41.5224	106.3369-2-08	0-W20226	07/20/74	15	19-13.6	5.5	44	4-4	5-6-3	2-1-2-2-3-4-1	3	0.10																	
56-41.5478	106.3225-2-07	0-W20227	07/20/74	14	19-13.0	5.7	59	9-4	4-6-3	2-1-2-2-3-4-1	3	0.18																	
56-41.5213	106.4028-2-07	0-W20228	07/20/74	17	18-14.5-C	5.2	59	9-4	4-6-3	2-1-2-2-3-4-1	3	5.19																	
56-41.5303	106.4104-2-09	0-W20229	07/20/74	18	17-12.8	5.2	59	9-4	4-6-3	2-1-2-2-3-4-1	3	0.28																	
56-41.5444	106.4569-2-07	0-W20230	07/20/74	19	15-21.2	6.6	750	4-2	1-3-6-4	2-1-2-2-3-4-1	3	0.10																	
56-41.4911	106.4575-2-07	0-W20232	07/21/74	11	19-9.3-C	5.6	22	4-2	1-3-6-4	2-1-2-2-3-4-1	3	0.10																	
56-41.5017	106.4575-2-07	0-W20233	07/21/74	12	20-11.4-C	5.0	43	9-2	1-3-6-4	2-1-2-2-3-4-1	3	0.63																	
56-41.4447	106.4954-2-07	0-W20235	07/21/74	13	20-13.4-C	5.2	72	1-2	1-3-6-4	2-1-2-2-3-4-1	3	0.10																	
56-41.4766	106.4900-2-07	0-W20236	07/21/74	14	20-13.0-C	5.0	28	4-2	1-3-6-4	2-1-2-2-3-4-1	3	1.11																	

APPENDIX B (continued). Field Data and Uranium Concentrations for Water Samples

[illegible]

APPENDIX B (continued): Field Data and Uranium Concentrations for Water Samples

[illegible]

APPENDIX B (continued). Field Data and Uranium Concentrations for Water Samples

DOE SAMPLE NUMBER				LASI SAMPLE LOCATION NUMBER AND FIELD DATA														U CONCENTRATION																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
STATE	ADVIS	CONC	DATE	DOE AB	DOE F	DOE T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE F T	DOE

APPENDIX B (continued). Field Data and Uranium Concentrations for Water Samples

DOE SAMPLE NUMBER										LAST SAMPLE LOCATION NUMBER AND FIELD DATA										U CONCENTRATION										
STATE	LATITUDE	CONTOUR	DOE LAB	SAMPLE TYPE	REPLICATES	LAST SAMPLE LOCATION NUMBER	TIME SAMPLED		DATE	HOLD	AP TEMPERATURE	WIND DIRECTION	WIND SPEED	SEA STATE	WAVE PERIOD	WAVE HEIGHT	WAVE PERIOD	WAVE HEIGHT	WAVE PERIOD	WAVE HEIGHT	WAVE PERIOD	WAVE HEIGHT	WAVE PERIOD	WAVE HEIGHT	WAVE PERIOD	WAVE HEIGHT	WAVE PERIOD	WAVE HEIGHT	WAVE PERIOD	WAVE HEIGHT
56-1.3017-107.3992-2-07	0-W20653-07/27/76-18	25-17.4	-	6.8	730	7-1-15-8-1-3-1-3-2-2-2-3	3-2-1-5-1-1-3-2-3-2-2-2-3	0.71	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
56-1.0578-107.4414-2-06	0-W20654-07/26/76-14	31-30.9	-	9.0	340	3-2-1-5-1-1-3-2-3-2-2-2-3	3-2-1-5-1-1-3-2-3-2-2-2-3	8.38	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
56-1.0947-107.4583-2-06	0-W20657-07/26/76-15	24-29.9	-	7.5	730	3-2-1-5-1-1-3-2-3-2-2-2-3	3-2-1-5-1-1-3-2-3-2-2-2-3	0.46	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
56-1.1125-107.4150-2-06	0-W20658-07/26/76-16	25-14.1	-	6.9	730	3-2-1-5-1-1-3-2-3-2-2-2-3	3-2-1-5-1-1-3-2-3-2-2-2-3	0.56	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
56-1.0989-107.3753-2-07	0-W20661-07/26/76-18	22-22.1	-	6.5	730	3-2-1-5-1-1-3-2-3-2-2-2-3	3-2-1-5-1-1-3-2-3-2-2-2-3	0.58	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
56-1.1239-107.3622-2-07	0-W20662-07/26/76-18	18-20.8	-	6.4	730	3-2-1-5-1-1-3-2-3-2-2-2-3	3-2-1-5-1-1-3-2-3-2-2-2-3	0.47	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
56-1.0956-107.3515-2-07	0-W20663-07/26/76-19	19-17.9	-	6.6	730	3-2-1-5-1-1-3-2-3-2-2-2-3	3-2-1-5-1-1-3-2-3-2-2-2-3	0.47	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
56-1.0772-107.3289-2-07	0-W20666-07/26/76-20	17-16.5	-	5.9	71	3-2-1-5-1-1-3-2-3-2-2-2-3	3-2-1-5-1-1-3-2-3-2-2-2-3	0.91	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
56-1.0544-107.2322-2-07	0-W20667-07/28/76-18	23-22.2	-	5.9	71	3-2-1-5-1-1-3-2-3-2-2-2-3	3-2-1-5-1-1-3-2-3-2-2-2-3	0.27	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
56-1.0717-107.2175-2-07	0-W20669-07/28/76-19	23-22.1	-	5.9	68	3-2-1-5-1-1-3-2-3-2-2-2-3	3-2-1-5-1-1-3-2-3-2-2-2-3	7.38	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
56-1.0714-107.2175-2-07	0-W20670-07/28/76-19	22-21.6	-	5.9	70	3-2-1-5-1-1-3-2-3-2-2-2-3	3-2-1-5-1-1-3-2-3-2-2-2-3	0.14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
56-1.0542-107.1672-2-06	0-W20671-07/28/76-21	18-23.1	-	7.0	190	3-2-1-5-1-1-3-2-3-2-2-2-3	3-2-1-5-1-1-3-2-3-2-2-2-3	1.11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
56-1.0947-107.2403-2-06	0-W20672-07/29/76-11	23-16.2	-	6.6	111	3-2-1-5-1-1-3-2-3-2-2-2-3	3-2-1-5-1-1-3-2-3-2-2-2-3	0.22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
56-1.0856-107.2683-2-07	0-W20673-07/29/76-11	24-18.0	-	6.6	111	3-2-1-5-1-1-3-2-3-2-2-2-3	3-2-1-5-1-1-3-2-3-2-2-2-3	0.41	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
56-1.4964-107.3072-2-07	0-W20674-07/27/76-13	20-21.3	-	6.9	319	3-2-1-5-1-1-3-2-3-2-2-2-3	3-2-1-5-1-1-3-2-3-2-2-2-3	7.17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
56-1.4769-107.1914-2-07	0-W20675-07/27/76-13	30-21.3	-	6.9	319	3-2-1-5-1-1-3-2-3-2-2-2-3	3-2-1-5-1-1-3-2-3-2-2-2-3	8.39	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
56-1.4814-107.1911-2-07	0-W20676-07/27/76-14	30-21.3	-	6.8	345	3-2-1-5-1-1-3-2-3-2-2-2-3	3-2-1-5-1-1-3-2-3-2-2-2-3	7.40	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
56-1.4836-107.1828-2-07	0-W20678-07/27/76-14	30-19.4	-	6.4	530	3-2-1-5-1-1-3-2-3-2-2-2-3	3-2-1-5-1-1-3-2-3-2-2-2-3	3.21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
56-1.4344-107.1978-2-07	0-W20680-07/27/76-15	29-19.2	-	6.3	271	3-2-1-5-1-1-3-2-3-2-2-2-3	3-2-1-5-1-1-3-2-3-2-2-2-3	4.43	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
56-1.3744-107.2277-2-07	0-W20681-07/27/76-13	30-14.5	-	6.3	210	3-2-1-5-1-1-3-2-3-2-2-2-3	3-2-1-5-1-1-3-2-3-2-2-2-3	3.72	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
56-1.3453-107.2261-2-07	0-W20682-07/27/76-16	30-18.6	-	6.5	244	3-2-1-5-1-1-3-2-3-2-2-2-3	3-2-1-5-1-1-3-2-3-2-2-2-3	0.80	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
56-1.3533-107.2262-2-07	0-W20683-07/27/76-16	30-22.8	-	6.5	273	3-2-1-5-1-1-3-2-3-2-2-2-3	3-2-1-5-1-1-3-2-3-2-2-2-3	1.93	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
56-1.3156-107.2522-2-07	0-W20684-07/27/76-16	28-18.9	-	6.3	310	3-2-1-5-1-1-3-2-3-2-2-2-3	3-2-1-5-1-1-3-2-3-2-2-2-3	0.80	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
56-1.2892-107.2558-2-07	0-W20685-07/27/76-16	28-20.9	-	6.6	329	3-2-1-5-1-1-3-2-3-2-2-2-3	3-2-1-5-1-1-3-2-3-2-2-2-3	1.33	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
56-1.2242-107.2254-2-07	0-W20686-07/27/76-16	28-20.1	-	6.4	40	3-2-1-5-1-1-3-2-3-2-2-2-3	3-2-1-5-1-1-3-2-3-2-2-2-3	0.10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
56-1.1906-107.2247-2-07	0-W20687-07/27/76-17	27-21.9	-	6.2	68	3-2-1-5-1-1-3-2-3-2-2-2-3	3-2-1-5-1-1-3-2-3-2-2-2-3	0.10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
56-1.1717-107.2122-2-07	0-W20688-07/27/76-17	26-18.7	-	5.7	68	3-2-1-5-1-1-3-2-3-2-2-2-3	3-2-1-5-1-1-3-2-3-2-2-2-3	0.10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
56-1.1533-107.1867-2-07	0-W20690-07/27/76-18	24-22.1	-	6.1	75	3-2-1-5-1-1-3-2-3-2-2-2-3	3-2-1-5-1-1-3-2-3-2-2-2-3	0.41	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
56-1.2472-107.2400-2-07	0-W20695-07/27/76-18	23-19.3	-	6.7	111	3-2-1-5-1-1-3-2-3-2-2-2-3	3-2-1-5-1-1-3-2-3-2-2-2-3	1.80	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
56-1.1081-107.0889-2-07	0-W20696-07/28/76-9	21-11.6	-	7.0	28	3-2-1-5-1-1-3-2-3-2-2-2-3	3-2-1-5-1-1-3-2-3-2-2-2-3	0.10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
56-1.0869-107.0653-2-07	0-W20697-07/28/76-10	28-9.8	-	6.8	165	3-2-1-5-1-1-3-2-3-2-2-2-3	3-2-1-5-1-1-3-2-3-2-2-2-3	0.10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
56-1.0042-107.0781-2-07	0-W20698-07/28/76-11	28-14.8	-	6.8	165	3-2-1-5-1-1-3-2-3-2-2-2-3	3-2-1-5-1-1-3-2-3-2-2-2-3	0.10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
56-1.0469-107.0781-2-07	0-W20699-07/28/76-11	26-18.6	-	7.1	40	3-2-1-5-1-1-3-2-3-2-2-2-3	3-2-1-5-1-1-3-2-3-2-2-2-3	0.10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
56-1.0686-106.9344-2-07	0-W20700-07/28/76-12	30-11.6	-	7.0	158	3-2-1-5-1-1-3-2-3-2-2-2-3	3-2-1-5-1-1-3-2-3-2-2-2-3	0.10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
56-1.0447-106.9558-2-07	0-W20701-07/28/76-13	30-19.2	-	6.8	164	3-2-1-5-1-1-3-2-3-2-2-2-3	3-2-1-5-1-1-3-2-3-2-2-2-3	0.61	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
56-1.0436-106.9542-2-07	0-W20702-07/28/76-14	30-20.1	-	7.1	164	3-2-1-5-1-1-3-2-3-2-2-2-3	3-2-1-5-1-1-3-2-3-2-2-2-3	0.10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
56-1.0356-106.8894-2-07	0-W20703-07/28/76-14	30-17.8	-	6.6	102	3-2-1-5-1-1-3-2-3-2-2-2-3	3-2-1-5-1-1-3-2-3-2-2-2-3	0.32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
56-1.0394-106.8819-2-07	0-W20704-07/28/76-14	28-18.4	-	7.8	10	3-2-1-5-1-1-3-2-3-2-2-2-3	3-2-1-5-1-1-3-2-3-2-2-2-3	0.74	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
56-1.0381-106.8764-2-07	0-W20705-07/28/76-15	30-24.1	-	6.4	66	3-2-1-5-1-1-3-2-3-2-2-2-3	3-2-1-5-1-1-3-2-3-2-2-2-3	0.21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
56-1.1019-106.8603-2-07	0-W20706-07/28/76-15	28-19.4	-	7.0	90	3-2-1-5-1-1-3-2-3-2-2-2-3	3-2-1-5-1-1-3-2-3-2-2-2-3	0.49	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
56-1.1072-106.8292-2-07	0-W20707-07/28/76-16	22-19.1	-	7.6																										

APPENDIX B (continued). Field Data and Uranium Concentrations for Water Samples

[illegible]

APPENDIX B (continued). Field Data and Uranium Concentrations for Water Samples

DOE SAMPLE NUMBER						LAST SAMPLE LOCATION NUMBER AND FIELD DATA																				U CONCENTRATION																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
STATE	LATITUDE	LONGITUDE	DOE AB	SAMPLE TYPE	REF. DATE	TIME SAMPLED		AS. TEMPERATURE	AS. TEMPERATURE	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	DOE AB	

APPENDIX B (continued). Field Data and Uranium Concentrations for Water Samples

DOE SAMPLE NUMBER				LAST SAMPLE LOCATION NUMBER AND FIELD DATA										U CONCENTRATION	
STATE	LOCALITY	SOURCE	DATE	TIME SAMPLED	DATE	TIME	COORDINATES	DEPTH	WIND DIRECTION	WIND SPEED	WAVE HEIGHT	WAVE PERIOD	WAVE DIRECTION	WAVE DURATION	WAVE PERIOD
56-41	0081-107.7222-2-08	0-W20997-01/23/77-17	4	4.0-C	8.4	2000	6-1-4-4-6	-2	-2	-2	-2	-2	-2	-2	0.12
56-41	2225-107.7381-2-10	0-W20997-01/23/77-17	4	4.0-C	8.4	2000	6-1-4-4-6	-2	-2	-2	-2	-2	-2	-2	0.99
56-41	3768-106.0267-2-07	0-W21006-12/14/76-15	9	2.0	7.4	550	1-1-1-5-6	-2	-1	-3	-3	-2	-1	-1	3.77
56-41	3800-106.0256-2-07	0-W21007-12/14/76-15	6	2.0	7.1	240	1-1-1-5-6	-2	-1	-3	-3	-2	-1	-1	1.59
56-41	6708-107.3617-2-10	0-W21011-01/14/77-10	1	1.0	7.4	40	1-1-1-4-4-6	-1	-1	-3	-3	-2	-1	-1	0.90
56-41	6250-107.4903-2-06	0-W21012-01/14/77-11	2	1.0-C	8.4	2300	1-1-1-4-4-6	-1	-1	-3	-3	-2	-1	-1	1.01
56-41	6317-107.4603-2-10	0-W21014-01/14/77-13	3	1.0-C	7.2	130	1-1-1-4-4-6	-1	-1	-3	-3	-2	-1	-1	1.68
56-41	6555-107.4125-2-10	0-W21015-01/14/77-13	3	1.0-C	7.6	250	1-1-1-4-4-6	-1	-1	-3	-3	-2	-1	-1	2.65
56-41	6669-107.3061-2-06	0-W21018-01/14/77-13	3	1.0	8.6	900	1-1-1-4-4-6	-1	-1	-3	-3	-2	-1	-1	2.26
56-41	5992-107.3714-2-06	0-W21020-01/14/77-15	2	1.0	8.8	900	1-1-1-4-4-6	-1	-1	-3	-3	-2	-1	-1	10.00
56-41	7236-107.2639-2-06	0-W21022-01/15/77-10	3	1.0-C	8.6	1350	1-1-1-4-4-6	-1	-1	-3	-3	-2	-1	-1	28.50
56-41	7232-107.2675-2-10	0-W21023-01/15/77-10	3	1.0-C	7.8	600	1-1-1-4-4-6	-1	-1	-3	-3	-2	-1	-1	5.95
56-41	5931-107.2994-2-10	0-W21024-01/15/77-11	3	1.0	8.1	2000	1-1-1-4-4-6	-1	-1	-3	-3	-2	-1	-1	0.95
56-41	3497-107.7700-2-08	0-W21028-01/20/77-11	10	1.0-C	7.8	120	1-1-1-4-4-6	-2	-1	-3	-3	-2	-1	-1	1.11
56-41	0097-107.5367-2-10	0-W21032-01/25/77-11	3	1.0	9.0	500	1-1-1-4-4-6	-2	-1	-3	-3	-2	-1	-1	2.58
56-41	2756-107.9283-2-10	0-W21047-01/24/77-11	3	1.0	8.4	600	1-1-1-4-4-6	-1	-1	-3	-3	-2	-1	-1	6.46
56-41	8911-107.7164-2-10	0-W21053-01/26/77-13	2	1.0	8.3	950	1-1-1-4-4-6	-1	-1	-3	-3	-2	-1	-1	7.32
56-41	9411-107.6403-2-08	0-W21053-01/26/77-13	2	1.0	8.3	950	1-1-1-4-4-6	-1	-1	-3	-3	-2	-1	-1	4.74
56-41	9669-107.8553-2-09	0-W21090-01/27/77-12	2	1.0	9.4	1900	1-1-1-4-4-6	-2	-1	-3	-3	-2	-1	-1	1.7
56-41	9722-107.8183-2-09	0-W21090-01/27/77-12	2	1.0	9.4	5000	1-1-1-4-4-6	-1	-1	-3	-3	-2	-1	-1	1.15
56-41	9714-107.9286-2-09	0-W21096-01/27/77-15	2	8.0-C	9.4	350	1-1-1-4-4-6	-1	-1	-3	-3	-2	-1	-1	1.27
56-41	9600-107.9250-2-08	0-W21097-01/27/77-15	2	8.0-C	7.3	2100	1-1-1-4-4-6	-1	-1	-3	-3	-2	-1	-1	5.83
56-41	9250-107.9954-2-08	0-W21100-01/27/77-15	2	1.0	7.4	34	1-1-1-4-4-6	-1	-1	-3	-3	-2	-1	-1	9.91
56-41	8394-107.9289-2-08	0-W21106-01/27/77-10	2	1.0	7.9	5000	1-1-1-4-4-6	-1	-1	-3	-3	-2	-1	-1	31.20
56-41	7532-107.9139-2-08	0-W21112-01/28/77-11	1	1.0	7.9	5000	1-1-1-4-4-6	-1	-1	-3	-3	-2	-1	-1	1.97
56-41	9737-106.5192-2-07	0-W21141-01/31/77-11	2	1.0	7.1	3200	1-1-1-4-4-6	-1	-1	-3	-3	-2	-1	-1	0.82
56-41	9382-106.5172-2-07	0-W21143-01/31/77-12	2	4.0	8.5	300	1-1-1-4-4-6	-1	-1	-3	-3	-2	-1	-1	1.19
56-41	9384-106.4525-2-06	0-W21145-01/31/77-15	2	1.0	8.7	800	1-1-1-4-4-6	-1	-1	-3	-3	-2	-1	-1	70.80
56-41	9225-106.4042-2-09	0-W21148-01/31/77-15	2	1.0	8.7	800	1-1-1-4-4-6	-1	-1	-3	-3	-2	-1	-1	48.90
56-41	8831-106.4869-2-06	0-W21149-01/31/77-15	2	1.0	7.3	300	1-1-1-4-4-6	-1	-1	-3	-3	-2	-1	-1	36.10
56-41	9431-106.1297-2-07	0-W21151-06/09/77-15	2	19.0	7.2	120	1-1-1-4-4-6	-1	-1	-3	-3	-2	-1	-1	6.44
56-41	9431-106.2083-2-06	0-W21152-06/09/77-15	2	19.0	7.2	120	1-1-1-4-4-6	-1	-1	-3	-3	-2	-1	-1	4.80
56-41	8940-106.3306-2-09	0-W21155-06/09/77-17	2	20.0	9.0	5000	1-1-1-4-4-6	-1	-1	-3	-3	-2	-1	-1	8.02
56-41	7881-106.2033-2-09	0-W21157-06/10/77-10	2	20.0	8.6	300	1-1-1-4-4-6	-1	-1	-3	-3	-2	-1	-1	95.50
56-41	7821-106.3217-2-06	0-W21163-06/10/77-13	2	12.0-C	7.0	800	1-1-1-4-4-6	-1	-1	-3	-3	-2	-1	-1	22.90
56-41	8549-106.2558-2-09	0-W21166-06/10/77-15	2	17.0	8.9	5000	1-1-1-4-4-6	-1	-1	-3	-3	-2	-1	-1	1.86
56-41	7525-106.4336-2-09	0-W21170-06/11/77-10	2	17.0	8.3	500	1-1-1-4-4-6	-1	-1	-3	-3	-2	-1	-1	2.29
56-41	9100-106.4650-2-09	0-W21190-06/09/77-15	2	18.5	8.6	5000	1-1-1-4-4-6	-1	-1	-3	-3	-2	-1	-1	1.10
56-41	8833-106.4803-2-06	0-W21194-06/09/77-16	2	18.5	6.8	450	1-1-1-4-4-6	-1	-1	-3	-3	-2	-1	-1	1.21
56-41	9717-106.5317-2-07	0-W21195-06/10/77-16	2	18.5	7.4	39	1-1-1-4-4-6	-1	-1	-3	-3	-2	-1	-1	0.70
56-41	6036-107.2700-2-07	0-W21198-06/10/77-16	2	18.0	7.4	170	1-1-1-4-4-6	-1	-1	-3	-3	-2	-1	-1	1.25
56-41	9722-107.3108-2-06	0-W21200-06/14/77-13	2	12.0	6.6	15	1-1-1-4-4-6	-1	-1	-3	-3	-2	-1	-1	2.33
56-41	9503-107.2756-2-06	0-W21201-06/14/77-15	2	12.0	6.9	300	1-1-1-4-4-6	-1	-1	-3	-3	-2	-1	-1	2.04
56-41	9499-107.2684-2-06	0-W21203-06/14/77-15	2	13.0	6.9	300	1-1-1-4-4-6	-1	-1	-3	-3	-2	-1	-1	
56-41	9914-107.2644-2-07	0-W21204-06/14/77-15	2	11.0	7.5	4400	1-1-1-4-4-6	-1	-1	-3	-3	-2	-1	-1	
56-41	5000-107.3342-2-07	0-W21205-06/15/77-10	2	11.0	6.8	500	1-1-1-4-4-6	-1	-1	-3	-3	-2	-1	-1	
56-41	5000-107.3361-2-06	0-W21206-06/14/77-11	2	13.0	6.9	300	1-1-1-4-4-6	-1	-1	-3	-3	-2	-1	-1	
56-41	5119-107.3911-2-06	0-W21207-06/14/77-13	2	13.0	7.6	300	1-1-1-4-4-6	-1	-1	-3	-3	-2	-1	-1	
56-41	5300-107.4061-2-06	0-W21208-06/14/77-13	2	12.0	7.4	600	1-1-1-4-4-6	-1	-1	-3	-3	-2	-1	-1	
56-41	5422-107.4003-2-06	0-W21209-06/14/77-15	2	14.0	7.1	170	1-1-1-4-4-6	-1	-1	-3	-3	-2	-1	-1	

APPENDIX B (continued). Field Data and Uranium Concentrations for Water Samples

[illegible]

APPENDIX B (continued). Field Data and Uranium Concentrations for Water Samples

DOE SAMPLE NUMBER					AS SAMPLE LOCATION NUMBER AND FIELD DATA															CONCENTRATION	
WELL	STATE	COUNTY	SECTION	TOWNSHIP	WELL NAME	DATE	TIME	WIND	WAVE	TEMP	WIND	WAVE	TEMP	WIND	WAVE	TEMP	WIND	WAVE	TEMP	WATER SAMPLES ANALYZED BY FLUORIMETER OR OTHER METHOD	DATE
76-41.1169	-106.4894	-2-00-	0-W21354	06/26/77	13	26-13.0	-	6.8	755	45-3-4-8-6-2-3-1	-	3-3-4-1	-	2-	-	-	-	-	-	1.25	
76-41.1750	-106.3856	-2-07-	0-W21356	06/26/77	17	25-17.0	-	7.2	780	4-3-4-8-6-3-3-1-2-1-4-4-1	-	2-	-	-	-	-	-	-	0.96		
56-41.1344	-106.4117	-2-07-	0-W21357	06/26/77	19	26-17.0	-	7.5	950	6-3-4-3-6-3-3-1-2-2-1-4-1	-	1-	-	-	-	-	-	-	1.57		
56-41.1272	-106.4378	-2-07-	0-W21358	06/26/77	20	23-	-	6.8	255	9-3-4-3-6-3-3-1-	-	2-3-4-1	-	1-	-	-	-	-	-	0.50	
56-41.2550	-106.4778	-2-07-	0-W21359	06/27/77	11	25-16.0	-	6.9	95	9-3-4-3-6-3-3-1-2-1-3-4-1	-	1-	-	-	-	-	-	-	0.67		
56-41.2556	-106.4792	-2-07-	0-W21360	06/27/77	11	25-16.5	-	6.4	70	9-3-4-4-6-3-2-1-2-1-3-4-1	-	1-	-	-	-	-	-	-	0.67		
56-41.3411	-106.4764	-2-07-	0-W21364	06/27/77	15	27-16.0	-	6.4	224	4-3-4-5-6-2-2-1-2-2-1-3-2-	-	1-	-	-	-	-	-	-	1.34		
56-41.5494	-106.4675	-2-07-	0-W21367	06/28/77	16	26-15.0	-	7.9	420	4-1-4-3-6-3-3-1-2-2-1-3-1-	-	1-	-	-	-	-	-	-	2.68		

APPENDIX C

LISTINGS OF FIELD DATA AND URANIUM CONCENTRATIONS FOR SEDIMENT SAMPLES

(See Appendix D for Code to Listings)

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[illegible]

APPENDIX C (continued): Field Data and Uranium Concentrations for Sediment Samples

[illegible]

APPENDIX C (continued). Field Data and Uranium Concentrations for Sediment Samples

[illegible]

APPENDIX C (continued). Field Data and Uranium Concentrations for Sediment Samples

[illegible]

APPENDIX C (continued). Field Data and Uranium Concentrations for Sediment Samples

[illegible]

APPENDIX C (continued). Field Data and Uranium Concentrations for Sediment Samples

DOE SAMPLE NUMBER										LAST SAMPLE LOCATION NUMBER AND FIELD DATA																								U CONCENTRATION																																																																																																																																																																																																																																																																																																																																																																																																		
STATE	CONT	DOE	DOE AB	SAMPLE #	SITE	LAST SAMPLE LOCATION	TIME SAMPLED		DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME	DOE TIME

APPENDIX C (continued). Field Data and Uranium Concentrations for Sediment Samples

DOE SAMPLE NUMBER										LAW SAMPLE LOCATION NUMBER AND FIELD DATA										U CONCENTRATION																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	LAST SAMPLE LOCATION NUMBER	TIME SAMPLED		AIR TEMPERATURE	WATER TEMPERATURE	COMMENTS	SPECIAL MEASUREMENTS	pH	SPECIFIC CONDUCTANCE (UMH/CM)	ANALYZED	ROCK TYPE	ROCK COLOR	SEDIMENT TYPE	SEDIMENT COLOR	WATER FLOW	WATER LEVEL	WATER COLOR	STREAM CHANNEL	VEGETATION TYPE	VEGETATION DENSITY	RELIEF	WEATHER	OWNERSHIP	CONTAMINANTS	WELL TYPE	WELL DIA. INCHES	WELL DEPTH FEET	WATER DEPTH FEET	ANALYZED BY (NAME)	ANALYZED DATE	CONCENTRATION UNITS IN PPM																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
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56-41	7264-106.3806-2-13-	0-W20348-07/20/74-18-	22-25.9	6.6	205	6-1-15-7-1-3-4-	-4-3-2-2-	-3-	3.70																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							

APPENDIX C (continued). Field Data and Uranium Concentrations for Sediment Samples

[illegible]

APPENDIX C (continued). Field Data and Uranium Concentrations for Sediment Samples

DOE SAMPLE NUMBER				LAST SAMPLE LOCATION NUMBER AND FIELD DATA														U CONCENTRATION SEDIMENT SAMPLES ANALYZED BY DELAYED NEUTRON COUNTING (DNC) UNITS IN ppm
STATE	ATL. CODE	LONG. CODE	DOE LAB	SAMPLE REF	REF. DATE	LAST SAMPLE LOCATION NUMBER	TIME SAMPLED	DATE	TIME	AP. NUMBER	DATE	TIME	DATE	TIME	DATE	TIME	DATE	
56-41	8636	106.6542	-2-15	0-W20456	06/09/76	19	26	-	-	-	-	-	-	-	-	-	-	2.70
56-41	8736	106.6779	-2-15	0-W20457	06/09/76	19	26	-	-	-	-	-	-	-	-	-	-	4.50
56-41	8833	106.6806	-2-15	0-W20458	06/10/76	10	26	-	-	-	-	-	-	-	-	-	-	3.20
56-41	8792	106.6528	-2-15	0-W20459	06/10/76	11	25	-	-	-	-	-	-	-	-	-	-	2.80
56-41	8106	106.6514	-2-15	0-W20460	06/10/76	11	26	-	-	-	-	-	-	-	-	-	-	3.20
56-41	8764	106.6513	-2-15	0-W20461	06/10/76	11	26	-	-	-	-	-	-	-	-	-	-	5.50
56-41	8061	106.4486	-2-15	0-W20462	06/10/76	12	27	-	-	-	-	-	-	-	-	-	-	2.30
56-41	8061	106.4794	-2-15	0-W20463	06/10/76	12	27	-	-	-	-	-	-	-	-	-	-	3.10
56-41	7950	106.5003	-2-15	0-W20464	06/10/76	12	27	-	-	-	-	-	-	-	-	-	-	3.10
56-41	8011	106.4794	-2-14	0-W20465	06/10/76	13	27-19.0	-	6.9	2100	-	-	-	-	-	-	-	3.40
56-41	7822	106.4408	-2-15	0-W20466	06/10/76	13	26	-	-	-	-	-	-	-	-	-	-	2.80
56-41	7869	106.4419	-2-15	0-W20467	06/10/76	13	27	-	-	-	-	-	-	-	-	-	-	2.50
56-41	2950	107.5097	-2-12	0-W20468	05/27/76	18	16-20.2	-	7.1	1610	-	-	-	-	-	-	-	2.90
56-41	3072	107.4967	-2-12	0-W20469	05/27/76	19	14-18.0	-	7.0	1590	-	-	-	-	-	-	-	2.70
56-41	2844	107.5503	-2-12	0-W20470	05/27/76	20	11-18.2	-	7.0	1570	-	-	-	-	-	-	-	2.70
56-41	3500	107.6750	-2-15	0-W20471	05/28/76	13	26	-	-	-	-	-	-	-	-	-	-	2.80
56-41	3522	107.6661	-2-12	0-W20472	05/28/76	14	23-23.1	-	8.4	4330	-	-	-	-	-	-	-	4.20
56-41	3344	107.6172	-2-11	0-W20473	05/28/76	15	23-22.0	-	8.2	2330	-	-	-	-	-	-	-	4.10
56-41	3478	107.5958	-2-15	0-W20474	05/28/76	16	22	-	-	-	-	-	-	-	-	-	-	2.70
56-41	3272	107.6233	-2-12	0-W20475	05/28/76	17	21-17.1	-	7.7	1610	-	-	-	-	-	-	-	2.80
56-41	3272	107.6086	-2-12	0-W20476	05/28/76	18	20-17.2	-	7.2	1540	-	-	-	-	-	-	-	2.80
56-41	3067	107.6378	-2-12	0-W20477	05/28/76	19	18-17.2	-	7.1	1640	-	-	-	-	-	-	-	3.00
56-41	3536	106.8578	-2-12	0-W20478	05/28/76	19	18-17.2	-	7.1	1640	-	-	-	-	-	-	-	2.70
56-41	2814	106.9214	-2-12	0-W20479	06/01/76	11	21-12.8	-	6.5	241	-	-	-	-	-	-	-	2.40
56-41	2875	106.9236	-2-12	0-W20480	06/01/76	15	19-9.1	-	6.7	42	-	-	-	-	-	-	-	3.10
56-41	3097	106.7781	-2-12	0-W20481	06/01/76	15	20-15.9	-	6.4	113	-	-	-	-	-	-	-	5.00
56-41	2747	106.8156	-2-12	0-W20482	06/02/76	10	20-14.2	-	6.5	382	-	-	-	-	-	-	-	2.90
56-41	2797	106.8253	-2-14	0-W20483	06/02/76	10	23-12.2	-	6.1	110	-	-	-	-	-	-	-	3.50
56-41	2564	106.8475	-2-14	0-W20484	05/02/76	11	21-18.1	-	6.5	-	-	-	-	-	-	-	-	2.90
56-41	3408	106.7803	-2-15	0-W20485	06/02/76	12	20-16.3	-	6.0	76	-	-	-	-	-	-	-	4.70
56-41	3269	106.7803	-2-15	0-W20486	06/02/76	14	26	-	-	-	-	-	-	-	-	-	-	4.80
56-41	2900	106.8472	-2-14	0-W20487	06/02/76	14	26	-	-	-	-	-	-	-	-	-	-	7.80
56-41	2711	106.9167	-2-12	0-W20488	06/02/76	16	18-17.0	-	6.7	570	-	-	-	-	-	-	-	3.70
56-41	2625	106.9544	-2-12	0-W20489	06/02/76	17	19-11.2	-	5.7	26	-	-	-	-	-	-	-	3.00
56-41	2625	106.8847	-2-12	0-W20490	06/02/76	18	16-10.0	-	5.5	39	-	-	-	-	-	-	-	4.80
56-41	3033	106.9328	-2-12	0-W20491	06/03/76	11	19-12.2	-	5.7	45	-	-	-	-	-	-	-	4.40
56-41	2967	106.9247	-2-15	0-W20492	06/03/76	13	22-12.0	-	5.6	59	-	-	-	-	-	-	-	2.40
56-41	2386	106.7892	-2-14	0-W20493	06/03/76	14	20	-	-	-	-	-	-	-	-	-	-	3.10
56-41	2061	106.7700	-2-12	0-W20494	06/03/76	17	19-16.5	-	6.7	437	-	-	-	-	-	-	-	2.30
56-41	2167	106.8067	-2-12	0-W20495	06/04/76	10	17-5.2	-	5.5	74	-	-	-	-	-	-	-	7.20
56-41	2361	106.8458	-2-12	0-W20496	06/04/76	10	19-5.4	-	5.8	59	-	-	-	-	-	-	-	4.30
56-41	1836	106.8431	-2-12	0-W20497	06/04/76	12	18-11.5	-	5.7	58	-	-	-	-	-	-	-	4.00
56-41	1614	106.8881	-2-12	0-W20498	06/04/76	14	20-10.2	-	5.7	55	-	-	-	-	-	-	-	5.20
56-41	1611	106.8889	-2-12	0-W20499	06/04/76	16	18-15.0	-	5.7	52	-	-	-	-	-	-	-	5.70
56-41	1628	106.8889	-2-12	0-W20500	06/04/76	16	18-15.0	-	5.4	23	-	-	-	-	-	-	-	3.90
56-41	1389	106.9364	-2-12	0-W20501	06/04/76	16	18-13.2	-	5.4	26	-	-	-	-	-	-	-	3.90
56-41	1386	106.9339	-2-12	0-W20502	06/04/76	17	17-8.5	-	5.4	47	-	-	-	-	-	-	-	5.50
56-41	1649	106.8797	-2-12	0-W20503	06/04/76	17	15-3.2	-	5.2	17	-	-	-	-	-	-	-	3.70
56-41	1386	106.8617	-2-12	0-W20504	06/04/76	19	11-7.1	-	5.5	45	-	-	-	-	-	-	-	6.00
56-41	1394	106.8633	-2-15	0-W20505	06/08/76	9	16-3.0	-	5.5	22	-	-	-	-	-	-	-	7.20
56-41	1483	106.8306	-2-12	0-W20506	06/08/76	9	16	-	-	-	-	-	-	-	-	-	-	8.00
56-41	1483	106.8306	-2-12	0-W20507	06/08/76	10	20-5.2	-	5.9	43	-	-	-	-	-	-	-	

APPENDIX C (continued). Field Data and Uranium Concentrations for Sediment Samples

DOE SAMPLE NUMBER				LASE SAMPLE LOCATION NUMBER AND FIELD DATA																				U CONCENTRATION	
DATE	TIME	DOE	DOE	TIME SAMPLED	DATE	TIME	DOE	DOE	DOE	DOE	DOE	DOE	DOE	DOE	DOE	DOE	DOE	DOE	DOE	DOE	DOE	DOE	DOE	DOE	DOE
56-41.1403-106.8258-2-12-	0-W20508-06/08/76-11-	20-	5.9-	-	5.5-	23-	7-2-3-4-6-4-4-1-2-3-4-4-1-	1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11.30
56-41.1294-106.7989-2-12-	0-W20509-06/08/76-11-	20-	6.7-	-	5.7-	16-	7-3-5-6-6-5-4-1-2-1-4-5-1-	3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.40
56-41.1267-106.7806-2-12-	0-W20510-06/08/76-12-	24-	9.2-	-	6.0-	90-	5-2-4-4-7-4-3-1-2-2-3-5-1-	3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.00
56-41.7253-106.9425-2-15-	0-W20511-06/08/76-18-	23-	-	-	-	-	7-4-5-6-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.50
56-41.7228-106.9403-2-15-	0-W20512-06/08/76-14-	23-	-	-	-	-	5-4-5-6-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.00
56-41.6922-106.9806-2-15-	0-W20513-06/08/76-19-	24-	-	-	-	-	4-4-5-6-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.00
56-41.6053-106.9283-2-15-	0-W20514-06/08/76-15-	26-	-	-	-	-	6-4-5-6-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.70
56-41.7064-107.6958-2-14-	0-W20515-06/09/76-9-	20-18.0-	-	-	7.0-	200-	4-4-1-7-1-2-4-1-1-7-3-3-1-	1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.90
56-41.6672-107.7172-2-15-	0-W20516-06/09/76-10-	24-	-	-	-	-	1-1-5-5-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.10
56-41.6881-107.6967-2-15-	0-W20517-06/09/76-10-	25-	-	-	-	-	1-1-4-7-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.00
56-41.6719-107.6542-2-96-	0-W20518-06/09/76-11-	23-	-	-	-	-	4-4-5-6-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.10
56-41.6706-107.6639-2-96-	0-W20519-06/09/76-11-	25-	-	-	-	-	3-4-5-6-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.40
56-41.6525-107.6944-2-15-	0-W20520-06/09/76-11-	25-	-	-	-	-	3-4-5-6-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.30
56-41.7861-107.3081-2-15-	0-W20521-06/09/76-11-	24-	-	-	-	-	4-4-5-6-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.00
56-41.7828-107.3242-2-15-	0-W20522-06/09/76-13-	30-	-	-	-	-	2-4-5-6-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.90
56-41.8019-107.3528-2-15-	0-W20523-06/09/76-14-	31-	-	-	-	-	2-4-5-6-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.70
56-41.6911-106.9803-2-15-	0-W20524-06/08/76-19-	23-	-	-	-	-	5-4-5-6-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.70
56-41.6914-106.9756-2-15-	0-W20525-06/08/76-19-	23-	-	-	-	-	6-1-4-5-6-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.00
56-41.6958-106.9456-2-14-	0-W20526-06/08/76-20-	20-14.2-	-	-	6.9-	429-	5-4-5-6-1-2-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.30
56-41.8011-106.5714-2-15-	0-W20527-06/09/76-11-	24-	-	-	-	-	4-4-5-6-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.40
56-41.7772-106.7774-2-15-	0-W20528-06/09/76-9-	22-	-	-	-	-	8-1-1-5-6-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.00
56-41.8106-106.6575-2-15-	0-W20529-06/09/76-10-	23-	-	-	-	-	7-4-5-6-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.30
56-41.8103-106.6650-2-13-	0-W20530-06/09/76-10-	24-19.0-	-	-	8.6-50001-	-	3-4-5-6-1-2-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.00
56-41.8203-106.6531-2-12-	0-W20531-06/09/76-10-	26-19.2-	-	-	7.7-	2780-	7-4-5-6-1-2-1-1-4-3-1-1-	3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.80
56-41.8050-106.5544-2-15-	0-W20532-06/09/76-11-	24-	-	-	-	-	3-4-5-6-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.80
56-41.8436-106.5369-2-15-	0-W20533-06/09/76-12-	28-	-	-	-	-	3-1-4-5-6-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.80
56-41.8592-106.5586-2-15-	0-W20534-06/09/76-12-	30-	-	-	-	-	6-1-4-5-7-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.20
56-41.8631-106.5767-2-15-	0-W20535-06/09/76-12-	28-	-	-	-	-	5-1-4-4-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.90
56-41.8800-106.5747-2-15-	0-W20536-06/09/76-13-	24-	-	-	-	-	9-1-4-5-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.20
56-41.8494-106.6058-2-15-	0-W20537-06/09/76-13-	24-	-	-	-	-	10-1-1-4-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.90
56-41.7886-106.8642-2-15-	0-W20538-06/09/76-9-	31-	-	-	-	-	4-4-5-6-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.50
56-41.7678-106.8475-2-14-	0-W20539-06/09/76-9-	32-	-	-	7.2-	960-	4-1-4-5-6-1-2-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.60
56-41.8275-106.8442-2-97-	0-W20540-06/09/76-10-	32-	-	-	-	-	4-1-4-5-6-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.20
56-41.8544-106.8653-2-15-	0-W20541-06/09/76-11-	34-	-	-	-	-	3-1-4-5-6-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.70
56-41.8494-106.8731-2-15-	0-W20542-06/09/76-12-	34-	-	-	-	-	3-1-4-5-6-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.10
56-41.8492-106.8783-2-15-	0-W20543-06/09/76-12-	34-	-	-	-	-	6-1-4-5-6-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.80
56-41.8522-106.9033-2-96-	0-W20544-06/09/76-11-	34-	-	-	-	-	4-4-5-6-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.70
56-41.8619-106.9408-2-97-	0-W20545-06/09/76-12-	35-	-	-	-	-	8-1-4-5-7-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.60
56-41.8978-106.8242-2-15-	0-W20546-06/09/76-16-	35-	-	-	-	-	4-1-4-5-6-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.80
56-41.9122-106.8128-2-96-	0-W20547-06/09/76-16-	35-	-	-	-	-	4-4-5-6-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.50
56-41.9253-106.8419-2-15-	0-W20548-06/09/76-17-	34-	-	-	-	-	6-1-4-5-6-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.30
56-41.9339-106.7972-2-15-	0-W20549-06/09/76-16-	35-	-	-	-	-	6-4-5-6-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.90
56-41.9458-106.7986-2-15-	0-W20550-06/09/76-17-	35-	-	-	-	-	10-1-4-4-4-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.90
56-41.8847-106.9044-2-96-	0-W20551-06/09/76-18-	33-	-	-	-	-	4-4-5-6-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.90
56-41.7000-106.8601-2-12-	0-W20552-06/10/76-18-	32-	-	-	7.4-	980-	3-4-5-6-4-4-3-2-4-4-2-1-	3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.00
56-41.8300-106.7831-2-96-	0-W20553-06/10/76-11-	33-	-	-	-	-	6-4-5-6-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.00
56-41.8511-106.8306-2-97-	0-W20554-06/10/76-11-	34-	-	-	-	-	4-4-5-6-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.10
56-41.8267-106.8400-2-97-	0-W20555-06/10/76-12-	34-	-	-	-	-	9-1-4-5-6-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.50
56-41.8681-106.7609-2-15-	0-W20556-06/10/76-12-	35-	-	-	-	-	9-1-5-6-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.60
56-41.8600-106.7536-2-15-	0-W20557-06/10/76-12-	34-	-	-	-	-	9-4-5-6-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.00
56-41.6339-106.7511-2-15-	0-W20558-06/10/76-13-	35-	-	-	-	-	3-1-4-5-6-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.30

APPENDIX C (continued). Field Data and Uranium Concentrations for Sediment Samples

[illegible]

APPENDIX C (continued). Field Data and Uranium Concentrations for Sediment Samples

DOE SAMPLE NUMBER		TIME SAMPLED		LAB. SAMPLE NUMBER		DATE		ANALYSIS		RESULTS		COMMENTS		ANALYST		REMARKS		CONCENTRATION	
DATE	TIME	LAB. SAMPLE	DATE	TIME	LAB. SAMPLE	DATE	TIME	ANALYSIS	RESULTS	ANALYSIS	RESULTS	ANALYSIS	RESULTS	ANALYSIS	RESULTS	ANALYSIS	RESULTS	ANALYSIS	RESULTS
50-41	0772	107.3280-2-12	07/28/76	17-16.5	5.9	1.8	3-4	5-7	2-4	1-1	2-70	2.70							
50-41	0772	107.3280-2-12	07/28/76	17-16.5	5.9	1.8	3-4	5-7	2-4	1-1	2-70	2.70							
50-41	0772	107.3280-2-12	07/28/76	17-16.5	5.9	1.8	3-4	5-7	2-4	1-1	2-70	2.70							
50-41	0772	107.3280-2-12	07/28/76	17-16.5	5.9	1.8	3-4	5-7	2-4	1-1	2-70	2.70							
50-41	0772	107.3280-2-12	07/28/76	17-16.5	5.9	1.8	3-4	5-7	2-4	1-1	2-70	2.70							
50-41	0772	107.3280-2-12	07/28/76	17-16.5	5.9	1.8	3-4	5-7	2-4	1-1	2-70	2.70							
50-41	0772	107.3280-2-12	07/28/76	17-16.5	5.9	1.8	3-4	5-7	2-4	1-1	2-70	2.70							
50-41	0772	107.3280-2-12	07/28/76	17-16.5	5.9	1.8	3-4	5-7	2-4	1-1	2-70	2.70							
50-41	0772	107.3280-2-12	07/28/76	17-16.5	5.9	1.8	3-4	5-7	2-4	1-1	2-70	2.70							
50-41	0772	107.3280-2-12	07/28/76	17-16.5	5.9	1.8	3-4	5-7	2-4	1-1	2-70	2.70							
50-41	0772	107.3280-2-12	07/28/76	17-16.5	5.9	1.8	3-4	5-7	2-4	1-1	2-70	2.70							
50-41	0772	107.3280-2-12	07/28/76	17-16.5	5.9	1.8	3-4	5-7	2-4	1-1	2-70	2.70							
50-41	0772	107.3280-2-12	07/28/76	17-16.5	5.9	1.8	3-4	5-7	2-4	1-1	2-70	2.70							
50-41	0772	107.3280-2-12	07/28/76	17-16.5	5.9	1.8	3-4	5-7	2-4	1-1	2-70	2.70							
50-41	0772	107.3280-2-12	07/28/76	17-16.5	5.9	1.8	3-4	5-7	2-4	1-1	2-70	2.70							
50-41	0772	107.3280-2-12	07/28/76	17-16.5	5.9	1.8	3-4	5-7	2-4	1-1	2-70	2.70							
50-41	0772	107.3280-2-12	07/28/76	17-16.5	5.9	1.8	3-4	5-7	2-4	1-1	2-70	2.70							
50-41	0772	107.3280-2-12	07/28/76	17-16.5	5.9	1.8	3-4	5-7	2-4	1-1	2-70	2.70							
50-41	0772	107.3280-2-12	07/28/76	17-16.5	5.9	1.8	3-4	5-7	2-4	1-1	2-70	2.70							
50-41	0772	107.3280-2-12	07/28/76	17-16.5	5.9	1.8	3-4	5-7	2-4	1-1	2-70	2.70							
50-41	0772	107.3280-2-12	07/28/76	17-16.5	5.9	1.8	3-4	5-7	2-4	1-1	2-70	2.70							
50-41	0772	107.3280-2-12	07/28/76	17-16.5	5.9	1.8	3-4	5-7	2-4	1-1	2-70	2.70							
50-41	0772	107.3280-2-12	07/28/76	17-16.5	5.9	1.8	3-4	5-7	2-4	1-1	2-70	2.70							
50-41	0772	107.3280-2-12	07/28/76	17-16.5	5.9	1.8	3-4	5-7	2-4	1-1	2-70	2.70							
50-41	0772	107.3280-2-12	07/28/76	17-16.5	5.9	1.8	3-4	5-7	2-4	1-1	2-70	2.70							
50-41	0772	107.3280-2-12	07/28/76	17-16.5	5.9	1.8	3-4	5-7	2-4	1-1	2-70	2.70							
50-41	0772	107.3280-2-12	07/28/76	17-16.5	5.9	1.8	3-4	5-7	2-4	1-1	2-70	2.70							
50-41	0772	107.3280-2-12	07/28/76	17-16.5	5.9	1.8	3-4	5-7	2-4	1-1	2-70	2.70							
50-41	0772	107.3280-2-12	07/28/76	17-16.5	5.9	1.8	3-4	5-7	2-4	1-1	2-70	2.70							
50-41	0772	107.3280-2-12	07/28/76	17-16.5	5.9	1.8	3-4	5-7	2-4	1-1	2-70	2.70							
50-41	0772	107.3280-2-12	07/28/76	17-16.5	5.9	1.8	3-4	5-7	2-4	1-1	2-70	2.70							
50-41	0772	107.3280-2-12	07/28/76	17-16.5	5.9	1.8	3-4	5-7	2-4	1-1	2-70	2.70							
50-41	0772	107.3280-2-12	07/28/76	17-16.5	5.9	1.8	3-4	5-7	2-4	1-1	2-70	2.70							
50-41	0772	107.3280-2-12	07/28/76	17-16.5	5.9	1.8	3-4	5-7	2-4	1-1	2-70	2.70							
50-41	0772	107.3280-2-12	07/28/76	17-16.5	5.9	1.8	3-4	5-7	2-4	1-1	2-70	2.70							
50-41	0772	107.3280-2-12	07/28/76	17-16.5	5.9	1.8	3-4	5-7	2-4	1-1	2-70	2.70							
50-41	0772	107.3280-2-12	07/28/76	17-16.5	5.9	1.8	3-4	5-7	2-4	1-1	2-70	2.70							
50-41	0772	107.3280-2-12	07/28/76	17-16.5	5.9	1.8	3-4	5-7	2-4	1-1	2-70	2.70							
50-41	0772	107.3280-2-12	07/28/76	17-16.5	5.9	1.8	3-4	5-7	2-4	1-1	2-70	2.70							
50-41	0772	107.3280-2-12	07/28/76	17-16.5	5.9	1.8	3-4	5-7	2-4	1-1	2-70	2.70							
50-41	0772	107.3280-2-12	07/28/76	17-16.5	5.9	1.8	3-4	5-7	2-4	1-1	2-70	2.70							
50-41	0772	107.3280-2-12	07/28/76	17-16.5	5.9	1.8	3-4	5-7	2-4	1-1	2-70	2.70							
50-41	0772	107.3280-2-12	07/28/76	17-16.5	5.9	1.8	3-4	5-7	2-4	1-1	2-70	2.70							
50-41	0772	107.3280-2-12	07/28/76	17-16.5	5.9	1.8	3-4	5-7	2-4	1-1	2-70	2.70							
50-41	0772	107.3280-2-12	07/28/76	17-16.5	5.9	1.8	3-4	5-7	2-4	1-1	2-70	2.70							
50-41	0772	107.3280-2-12	07/28/76	17-16.5	5.9	1.8	3-4	5-7	2-4	1-1	2-70	2.70							
50-41	0772	107.3280-2-12	07/28/76	17-16.5	5.9	1.8	3-4	5-7	2-4	1-1	2-70	2.70							
50-41	0772	107.3280-2-12	07/28/76	17-16.5	5.9	1.8	3-4	5-7	2-4	1-1	2-70	2.70							
50-41	0772	107.3280-2-12	07/28/76	17-16.5	5.9	1.8	3-4	5-7	2-4	1-1	2-70	2.70							
50-41	0772	107.3280-2-12	07/28/76	17-16.5	5.9	1.8	3-4	5-7	2-4	1-1	2-70	2.70							
50-41	0772	107.3280-2-12	07/28/76	17-16.5	5.9	1.8	3-4	5-7	2-4	1-1	2-70	2.70							
50-41	0772	107.3280-2-12	07/28/76	17-16.5	5.9	1.8	3-4	5-7	2-4	1-1	2-70	2.70							
50-41	0772	107.3280-2-12	07/28/76	17-16.5	5.9	1.8	3-4	5-7	2-4	1-1	2-70	2.70							
50-41	0772	107.3280-2-12	07/28/76	17-16.5	5.9	1.8	3-4	5-7	2-4	1-1	2-70	2.70							
50-41	0772	107.3280-2-12	07/28/76	17-16.5	5.9	1.8	3-4	5-7	2-4	1-1	2-70	2.70							
50-41	0772	107.3280-2-12	07/28/76	17-16.5	5.9	1.8	3-4	5-7	2-4	1-1	2-70	2.70							
50-41	0772	107.3280-2-12	07/28/76	17-16.5	5.9	1.8	3-4	5-7	2-4	1-1	2-70	2.70							
50-41	0772	107.3280-2-12	07/28/76	17-16.5	5.9	1.8	3-4	5-7	2-4	1-1	2-70	2.70							
50-41	0772	107.3280-2-12	07/28/76	17-16.5	5.9	1.8	3-4	5-7	2-4	1-1	2-70	2.70							
50-41	0772	107.3280-2-12	07/28/76	17-16.5	5.9	1.8	3-4	5-7	2-4	1-1	2-70	2.70							
50-41	0772	107.3280-2-12	07/28/76	17-16.5	5.9	1.8	3-4	5-7	2-4	1-1	2-70	2.70							
50-41	0772	107.3280-2-12	07/28/76	17-16.5	5.9	1.8	3-4	5-7	2-4	1-1	2-70	2.70							
50-41	0772	107.3280-2-12	07/28/76	17-16.5	5.9	1.8	3-4	5-7	2-4	1-1	2-70	2.70							
50-41	0772	107.3280-2-12	07/28/76	17-16.5	5.9	1.8	3-4	5-7	2-4	1-1	2-70	2.70							
50-41	0772	107.3280-2-12	07/28/76	17-16.5	5.9	1.8	3-4	5-7	2-4	1-1	2-70	2.70							
50-41	0772	107.3280-2-12	07/28/76	17-16.5	5.9	1.8	3-4	5-7	2-4	1-1	2-70	2.70							
50-41	0772	107.3280-2-12	07/28/76	17-16.5	5.9	1.8	3-4	5-7	2-4	1-1	2-70	2.70							
50-41	0772	107.3280-2-12	07/28/76	17-16.5	5.9	1.8	3-4	5-7	2-4	1-1	2-70	2.70							
50-41	0772	107.3280-2-12	07/28/76	17-16.5	5.9	1.8	3-4	5-7	2-4	1-1	2-70	2.70							
50-41	0772	107.3280-2-12	07/28/76	17-16.5	5.9	1.8	3-4	5-7	2-4	1-1	2-70	2.70							
50-41	0772	107.3280-2-12	07/28/76	17-16.5	5.9	1.8	3-4	5-7	2-4	1-1	2-70	2.70							
50-41	0772	107.3280-2-12	07/28/76	17-16.5	5.9	1.8	3-4	5-7	2-4	1-1	2-70	2.70							
50-41	0772	107.3280-2-12	07/28/76	17-16.5	5.9	1.8	3-4	5-7	2-4	1-1	2-70	2.70							
50-41	0772	107.3280-2-12	07/28/76	17-16.5	5.9	1.8	3-4	5-7	2-4	1-1	2-70	2.70							
50-41	0772	107.3280-2-12	07/28/76	17-16.5	5.9	1.8	3-4	5-7	2-4	1-1	2-70	2.70							
50-41	0772	107.3280-2-12	07/28/76	17-16.5	5.9	1.8	3-4	5-7	2-4	1-1	2-70	2.70							

APPENDIX C (continued). Field Data and Uranium Concentrations for Sediment Samples

STATE	DOE SAMPLE NUMBER	SAMPLER	DATE	TIME SAMPLED	LATITUDE	LONGITUDE	WATER DEPTH (M)	WIND DIRECTION	WIND SPEED (KNOTS)	LAST SAMPLE LOCATION NUMBER AND FIELD DATA										ANALYTICAL TECHNIQUE	CONCENTRATION OF SEDIMENT SAMPLES (PPM)
AL	56-41.8925-107.0553-2-15-	0-420728-06/10/74-17-	30-	-	-	-	-	-	-	9-1-4-4-6	-	-	-	-	-	-	-	-	-	-	4.40
AL	56-41.8949-107.0467-2-15-	0-420729-06/10/76-17-	30-	-	-	-	-	-	-	6-1-4-3-9	-	-	-	-	-	-	-	-	-	-	2.90
AL	56-41.9031-107.0436-2-15-	0-420730-06/10/74-17-	29-	-	-	-	-	-	-	9-1-4-4-6	-	-	-	-	-	-	-	-	-	-	3.40
AL	56-41.9183-107.0366-2-15-	0-420731-06/10/74-18-	28-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.80
AL	56-41.9383-107.0356-2-15-	0-420732-06/10/74-18-	28-	-	-	-	-	-	-	6-1-4-4-6	-	-	-	-	-	-	-	-	-	-	3.60
AL	56-41.8811-107.0939-2-15-	0-420733-06/11/74-9-	19-	-	-	-	-	-	-	9-1-4-4-6	-	-	-	-	-	-	-	-	-	-	3.60
AL	56-41.8136-107.1247-2-15-	0-420734-06/11/74-9-	20-	-	-	-	-	-	-	12-1-4-4-6	-	-	-	-	-	-	-	-	-	-	2.80
AL	56-41.8158-107.0750-2-13-	0-420735-06/11/74-10-	19-13.2-C-	8.2-	3A00-	-	-	-	-	12-1-4-4-6	-	-	-	-	-	-	-	-	-	-	4.40
AL	56-41.8983-107.0283-2-96-	0-420736-06/11/74-11-	21-	-	-	-	-	-	-	9-1-4-5-6	-	-	-	-	-	-	-	-	-	-	3.10
AL	56-41.9736-107.0097-2-15-	0-420737-06/12/74-11-	15-	-	-	-	-	-	-	12-1-4-5-6	-	-	-	-	-	-	-	-	-	-	3.10
AL	56-41.9958-107.0347-2-15-	0-420738-06/12/74-12-	14-	-	-	-	-	-	-	9-1-4-4-6	-	-	-	-	-	-	-	-	-	-	2.90
AL	56-41.9928-107.0361-2-15-	0-420739-06/12/74-12-	11-	-	-	-	-	-	-	9-1-4-4-6	-	-	-	-	-	-	-	-	-	-	2.80
AL	56-41.7667-107.0403-2-15-	0-420740-06/12/74-13-	14-	-	-	-	-	-	-	12-1-4-4-6	-	-	-	-	-	-	-	-	-	-	3.20
AL	56-41.7553-107.0339-2-13-	0-420741-06/12/74-13-	14-13.2	-	-	-	-	-	-	12-1-4-4-6	-	-	-	-	-	-	-	-	-	-	3.40
AL	56-41.7517-107.0306-2-15-	0-420742-06/12/74-14-	14-	-	-	-	-	-	-	9-1-4-4-6	-	-	-	-	-	-	-	-	-	-	4.10
AL	56-41.8381-107.0244-2-15-	0-420743-06/12/74-15-	18-	-	-	-	-	-	-	9-1-4-4-6	-	-	-	-	-	-	-	-	-	-	3.00
AL	56-41.7708-107.0469-2-15-	0-420744-06/12/74-15-	14-	-	-	-	-	-	-	12-1-4-4-6	-	-	-	-	-	-	-	-	-	-	2.70
AL	56-41.8222-107.2333-2-15-	0-420745-06/11/74-11-	20-	-	-	-	-	-	-	12-1-4-4-6	-	-	-	-	-	-	-	-	-	-	4.50
AL	56-41.7986-107.2128-2-15-	0-420746-06/11/74-12-	19-	-	-	-	-	-	-	2-4-7-6	-	-	-	-	-	-	-	-	-	-	4.30
AL	56-41.8042-107.1725-2-15-	0-420747-06/11/74-12-	21-	-	-	-	-	-	-	2-4-7-6	-	-	-	-	-	-	-	-	-	-	2.10
AL	56-41.7625-107.2267-2-12-	0-420748-06/11/74-13-	19-	-	-	-	-	-	-	2-1-5-5-7-3-1	-	-	-	-	-	-	-	-	-	-	3.10
AL	56-41.7700-107.1856-2-15-	0-420749-06/11/74-14-	21-	-	-	-	-	-	-	4-1-2-3-6	-	-	-	-	-	-	-	-	-	-	4.00
AL	56-41.7672-107.1644-2-15-	0-420750-06/11/74-14-	20-	-	-	-	-	-	-	7-4-4-6	-	-	-	-	-	-	-	-	-	-	2.70
AL	56-41.8583-107.2172-2-96-	0-420751-06/11/74-15-	18-	-	-	-	-	-	-	2-4-7-6	-	-	-	-	-	-	-	-	-	-	5.80
AL	56-41.9350-107.2044-2-15-	0-420752-06/11/74-17-	17-	-	-	-	-	-	-	7-4-7-6	-	-	-	-	-	-	-	-	-	-	3.40
AL	56-41.9347-107.2044-2-15-	0-420753-06/11/74-17-	17-	-	-	-	-	-	-	7-1-3-8	-	-	-	-	-	-	-	-	-	-	4.40
AL	56-41.9761-107.2003-2-15-	0-420754-06/11/74-17-	14-	-	-	-	-	-	-	4-4-7-6	-	-	-	-	-	-	-	-	-	-	2.70
AL	56-41.8822-107.1422-2-15-	0-420755-06/11/74-18-	14-	-	-	-	-	-	-	4-4-7-6	-	-	-	-	-	-	-	-	-	-	2.50
AL	56-41.2147-106.2511-2-12-	0-420756-06/11/74-18-	12-	-	-	-	-	-	-	1-3-4-4-6-3-3-1	-	-	-	-	-	-	-	-	-	-	1.80
AL	56-41.2147-106.2511-2-12-	0-420757-07/04/74-11-	17-14.2	-	-	-	-	-	-	1-3-4-4-6-3-3-1	-	-	-	-	-	-	-	-	-	-	6.70
AL	56-41.2147-106.2511-2-12-	0-420758-07/06/74-12-	25-14.3	-	-	-	-	-	-	1-3-4-4-6-3-3-1	-	-	-	-	-	-	-	-	-	-	1.50
AL	56-41.2149-106.2558-2-12-	0-420759-07/04/74-12-	25-	-	-	-	-	-	-	1-3-4-4-6-3-3-1	-	-	-	-	-	-	-	-	-	-	12.80
AL	56-41.2344-106.0811-2-12-	0-420760-07/02/74-10-	14-10.2	-	-	-	-	-	-	9-1-4-4-6-3-1	-	-	-	-	-	-	-	-	-	-	2.40
AL	56-41.2154-106.0656-2-13-	0-420761-07/03/74-11-	14-10.8	-	-	-	-	-	-	1-2-1-4-6-2-3-1	-	-	-	-	-	-	-	-	-	-	5.40
AL	56-41.2094-106.0967-2-12-	0-420762-07/02/74-12-	21-10.4	-	-	-	-	-	-	1-2-1-4-6-2-3-1	-	-	-	-	-	-	-	-	-	-	1.40
AL	56-41.1549-106.0556-2-12-	0-420763-07/02/74-13-	22-10.4	-	-	-	-	-	-	1-1-4-4-6-2-3-1	-	-	-	-	-	-	-	-	-	-	1.40
AL	56-41.1556-106.0564-2-12-	0-420764-07/02/74-13-	22-10.4	-	-	-	-	-	-	9-2-4-4-6-3-1	-	-	-	-	-	-	-	-	-	-	3.00
AL	56-41.1322-106.0353-2-12-	0-420765-07/02/74-13-	21-10.4	-	-	-	-	-	-	9-2-4-4-6-3-1	-	-	-	-	-	-	-	-	-	-	6.70
AL	56-41.1336-106.0333-2-12-	0-420766-07/02/74-13-	21-10.4	-	-	-	-	-	-	4-2-4-4-6-3-1	-	-	-	-	-	-	-	-	-	-	3.10
AL	56-41.1256-106.1728-2-12-	0-420767-07/03/74-10-	19-10.4	-	-	-	-	-	-	4-2-4-4-6-3-1	-	-	-	-	-	-	-	-	-	-	3.40
AL	56-41.1278-106.1928-2-12-	0-420768-07/03/74-11-	19-10.4	-	-	-	-	-	-	1-2-1-4-4-6-3-1	-	-	-	-	-	-	-	-	-	-	5.30
AL	56-41.1047-106.1983-2-12-	0-420769-07/03/74-12-	23-10.4	-	-	-	-	-	-	9-2-4-4-6-3-1	-	-	-	-	-	-	-	-	-	-	5.50
AL	56-41.1594-106.1983-2-12-	0-420770-07/03/74-13-	23-10.4	-	-	-	-	-	-	9-3-4-4-6-3-1	-	-	-	-	-	-	-	-	-	-	3.70
AL	56-41.2156-106.1244-2-12-	0-420771-07/03/74-14-	21-10.4	-	-	-	-	-	-	9-3-4-4-6-3-1	-	-	-	-	-	-	-	-	-	-	2.70
AL	56-41.2347-106.1612-2-12-	0-420772-07/03/74-15-	23-10.3	-	-	-	-	-	-	4-3-4-4-6-3-2-1	-	-	-	-	-	-	-	-	-	-	3.20
AL	56-41.2408-106.0667-2-12-	0-420773-07/03/74-10-	22-11.0	-	-	-	-	-	-	4-3-4-4-6-3-3-1	-	-	-	-	-	-	-	-	-	-	4.40
AL	56-41.1246-106.0655-2-12-	0-420774-07/03/74-11-	23-11.0	-	-	-	-	-	-	4-3-4-4-6-3-3-1	-	-	-	-	-	-	-	-	-	-	4.10
AL	56-41.1161-106.1067-2-12-	0-420775-07/03/74-11-	23-11.0	-	-	-	-	-	-	4-3-4-4-6-3-3-1	-	-	-	-	-	-	-	-	-	-	3.30
AL	56-41.1153-106.1056-2-12-	0-420776-07/03/74-11-	23-12.5	-	-	-	-	-	-	4-3-4-4-6-3-3-1	-	-	-	-	-	-	-	-	-	-	3.70
AL	56-41.1136-106.0380-2-12-	0-420777-07/03/74-11-	24-9.5	-	-	-	-	-	-	2-3-4-4-6-3-3-1	-	-	-	-	-	-	-	-	-	-	4.70
AL	56-41.0806-106.0830-2-11-	0-420778-07/03/74-12-	23-12.0	-	-	-	-	-	-	2-2-4-4-6-3-3-1	-	-	-	-	-	-	-	-	-	-	
AL	56-41.0806-106.0830-2-11-	0-420779-07/03/74-12-	23-12.0	-	-	-	-	-	-	2-2-4-4-6-3-3-1	-	-	-	-	-	-	-	-	-	-	

PENDIX C (continued). Field Data and Uranium Concentrations for Sediment Samples

[illegible]

APPENDIX C (continued). Field Data and Uranium Concentrations for Sediment Samples

[illegible]

APPENDIX C (continued). Field Data and Uranium Concentrations for Sediment Samples

[illegible]

APPENDIX C (continued). Field Data and Uranium Concentrations for Sediment Samples

DOE SAMPLE NUMBER										LAST SAMPLE LOCATION NUMBER AND FIELD DATA										U CONCENTRATION									
STATE	LATITUDE	LONGITUDE	DOR LAB	SAMPLE TYPE	SPIC/LAT	LAST SAMPLE LOCATION NUMBER	TIME SAMPLED		AIR TEMPERATURE	WATER TEMPERATURE	SPECIFIC CONDUCTANCE	pH	SOLUBLE CHLORIDE	POC TYPE	POC COLOR	SEDIMENT COLOR	WATER T.O.A	WATER LEVEL	STREAM CHANNEL TYPE	VEGETATION DENSITY	WILDLIFE	CONTAMINANTS	WELL TYPE	WELL DEPTH FEET	WATER DEPTH FEET	SEDIMENT SAMPLES ANALYZED BY DELAYED NEUTRON COUNTING (DNC)	U CONCENTRATION UNITS IN ppm		
							DATE	MOUSE																					
56-41	2225-107.7381	-2-14	0-W20997-01/23/77-12	2-1.0-C	8.2	45	12-1-4-4-6	1-1	3-3-3-2	1-1	2.40																		
56-41	2450-107.6853	-2-15	0-W20998-01/23/77-12	3-1-4-4-4	1-1	1.20																							
56-41	2181-107.6922	-2-15	0-W20999-01/23/77-12	3-C	2.90																								
56-41	2000-107.6892	-2-15	0-W21000-01/23/77-13	3-C	3.50																								
56-41	1914-107.7312	-2-15	0-W21001-01/23/77-13	1-1-1-4-4-6	1-1	3.30																							
56-41	1869-107.7326	-2-15	0-W21002-01/23/77-13	1-1-1-4-4-6	1-1	4.70																							
56-41	4036-106.0053	-2-15	0-W21003-12/14/76-13	10-1-2-1-4-4-6	1-1	3.90																							
56-41	4058-106.0611	-2-15	0-W21004-12/14/76-13	6-C	3.30																								
56-41	3947-106.0994	-2-15	0-W21005-12/14/76-13	5-1-2-2-4-6	1-1	3.30																							
56-41	3786-106.0267	-2-12	0-W21006-12/14/76-13	9-2.0-7.4	3.60																								
56-41	3800-106.0255	-2-12	0-W21007-12/14/76-13	6-2.0-7.1	3.30																								
56-41	3750-106.0244	-2-15	0-W21008-12/14/76-13	7-1-1-1-5-6	4.50																								
56-41	3842-106.0225	-2-15	0-W21009-12/14/76-13	5-1-1-1-4-6	3.60																								
56-41	7111-107.3644	-2-15	0-W21010-01/14/77-10	5-1-1-1-4-6	3.00																								
56-41	6708-107.3612	-2-14	0-W21011-01/14/77-11	2-1.0-7.4	2.80																								
56-41	6758-107.4903	-2-11	0-W21012-01/14/77-11	2-1.0-C-8.4	3.70																								
56-41	6139-107.7332	-2-15	0-W21013-01/14/77-13	2-1.0-C	2.90																								
56-41	6317-107.6602	-2-14	0-W21014-01/14/77-13	2-1.0-C	3.10																								
56-41	6525-107.8125	-2-14	0-W21015-01/14/77-13	3-1.0-C	3.0																								
56-41	7386-107.8347	-2-15	0-W21016-01/14/77-14	2-1.0-C	2.80																								
56-41	7386-107.8903	-2-15	0-W21017-01/14/77-14	2-1.0-C	3.0																								
56-41	6669-107.3061	-2-11	0-W21018-01/14/77-13	1-1.0-8.6	3.00																								
56-41	6089-107.3478	-2-15	0-W21019-01/14/77-13	1-1.0-8.8	3.70																								
56-41	5992-107.3472	-2-11	0-W21020-01/14/77-13	2-1.0-8.8	3.00																								
56-41	5815-107.3612	-2-15	0-W21021-01/14/77-16	1-1-1-4-6-1	3.30																								
56-41	7236-107.2632	-2-11	0-W21022-01/15/77-10	2-1.0-C-8.6	2.60																								
56-41	6272-107.2675	-2-14	0-W21023-01/15/77-10	3-1.0-C-7.8	3.00																								
56-41	5931-107.2499	-2-14	0-W21024-01/15/77-11	3-1.0-8.1	2.90																								
56-41	3475-107.7732	-2-15	0-W21026-01/20/77-11	8-1-2-1-4-5-6	3.00																								
56-41	3256-107.7556	-2-15	0-W21027-01/20/77-11	8-1-2-1-4-5-6	3.00																								
56-41	3057-107.5367	-2-14	0-W21028-01/20/77-13	1-1.0-C-7.8	3.30																								
56-41	3275-107.8797	-2-15	0-W21029-01/20/77-13	10-1-2-1-4-5-6	3.00																								
56-41	0244-107.5512	-2-15	0-W21030-01/20/77-13	2-1-1-4-4-6	2.60																								
56-41	1861-107.6708	-2-15	0-W21031-01/25/77-13	3-1.0-9.0	2.70																								
56-41	2786-107.9008	-2-15	0-W21032-01/25/77-13	3-1.0-9.0	2.60																								
56-41	2786-107.9281	-2-14	0-W21033-01/25/77-11	3-1.0-9.0	2.70																								
56-41	2614-107.9231	-2-15	0-W21034-01/25/77-11	3-1.0-9.0	2.60																								
56-41	2986-107.9803	-2-97	0-W21035-01/25/77-12	2-1.0-9.0	2.60																								
56-41	3253-107.9472	-2-15	0-W21036-01/25/77-13	1-1.0-9.0	2.60																								
56-41	3458-107.9112	-2-15	0-W21037-01/25/77-13	1-1.0-9.0	2.60																								
56-41	3375-107.8797	-2-15	0-W21038-01/25/77-13	1-1.0-9.0	2.60																								
56-41	2128-107.7972	-2-15	0-W21039-01/25/77-13	1-1.0-9.0	2.60																								
56-41	2064-107.7897	-2-97	0-W21040-01/25/77-13	1-1.0-9.0	2.60																								
56-41	1908-107.7752	-2-97	0-W21041-01/25/77-13	1-1.0-9.0	2.60																								
56-41	1414-107.7556	-2-15	0-W21042-01/25/77-13	1-1.0-9.0	2.60																								
56-41	2242-107.7556	-2-15	0-W21043-01/25/77-13	1-1.0-9.0	2.60																								
56-41	2166-107.7572	-2-97	0-W21044-01/25/77-13	1-1.0-9.0	2.60																								
56-41	2475-107.7742	-2-15	0-W21045-01/25/77-13	1-1.0-9.0	2.60																								
56-41	3708-107.6912	-2-15	0-W21046-01/25/77-13	1-1.0-9.0	2.60																								
56-41	8911-107.7162	-2-14	0-W21047-01/26/77-11	3-1.0-8.6	4.00																								
56-41	8950-107.6994	-2-15	0-W21048-01/26/77-11	3-1.0-8.6	4.00																								
56-41	8950-107.6994	-2-15	0-W21048-01/26/77-11	3-1.0-8.6	4.00																								

APPENDIX C (continued). Field Data and Uranium Concentrations for Sediment Samples

[illegible]

APPENDIX C (continued). Field Data and Uranium Concentrations for Sediment Samples

[illegible]

APPENDIX C (continued). Field Data and Uranium Concentrations for Sediment Samples

DOE SAMPLE NUMBER				LAS SAMPLE LOCATION NUMBER AND FIELD DATA										U CONCENTRATION																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
STATE	DATE	LONG. LAT.	SAMPLE TYPE	REPLICATE	LAKE NAME	LOCATION	TIME SAMPLED	DATE	TIME SAMPLED	WATER TEMPERATURE	COMMENTS	WINDSPEED	WIND DIRECTION	PR	SURFACE ELEVATION	SOIL TYPE	ROCK TYPE	SLOPE	WATER COLOR	WATER LEVEL	WATER COLOR	VEGETATION	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR	WATER COLOR

APPENDIX C (continued). Field Data and Uranium Concentrations for Sediment Samples

STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REF/LCATE	LAST SAMPLE LOCATION NUMBER	TIME SAMPLED		WATER TEMPERATURE	COMMENTS	SPECIAL MEASUREMENTS	pH	SPECIFIC CONDUCTANCE (micro/cm)	SCINTILLATION RATE (cpm)	ROCK TYPE	SEDIMENT COLOR	WATER FLOW	WATER LEVEL	WATER COLOR	STRAIN CHARACTER	VEGETATION TYPE	BELIEF	WEATHER	OWNERSHIP	CONTAMINANTS	WELL TYPE	WELL DIAMETER (INCHES)	WELL DEPTH (FEET)	WATER DEPTH (FEET)	SEDIMENT ANALYZED BY DELAYED NEUTRON COUNTING UNITS IN	U CONCENTRATION
							DATE	HOUR																							
56-41	5681	-107.397	-2-14			0-021210	06/14/77	15	30-16.0	-	-	8.5	3400	1-2	1-4	5-6	2-2	-2	-3	-4	-1	-1	-	-	-	-	-	-	-	-	2.60
56-41	5742	-107.446	-2-11			0-021211	06/14/77	16	30	-	-	8.8	245	8-1	4-8	-8	2-2	1-2	-3	-3	-1	-1	-	-	-	-	-	-	-	-	3.00
56-41	5269	-107.458	-2-11			0-021212	06/14/77	16	30-16.0	-	-	8.1	2000	1-1	4-6	-8	-2	-2	-3	-4	-1	-1	-	-	-	-	-	-	-	-	4.40
56-41	5650	-107.455	-2-15			0-021213	06/14/77	17	29	-	-	-	-	9-1	4-4	-6	-1	-2	-3	-3	-1	-1	-	-	-	-	-	-	-	-	4.50
56-41	5844	-107.325	-2-14			0-021214	06/14/77	17	30	-	-	8.6	1000	1-1	4-7	-5	-2	-2	-2	-3	-1	-1	-	-	-	-	-	-	-	-	4.00
56-41	6049	-107.383	-2-97			0-021215	06/15/77	10	27	-	-	-	-	1-1	4-5	-7	-1	-2	-3	-2	-1	-1	-	-	-	-	-	-	-	-	3.90
56-41	8097	-107.293	-2-14			0-021216	06/15/77	11	29-14.0	-	-	8.2	4000	4-3	7-4	-8	-2	-1	-2	-2	-4	-1	-1	-	-	-	-	-	-	-	3.60
56-41	8139	-107.293	-2-11			0-021217	06/15/77	11	29-13.0	-	-	7.0	4500	1-3	7-5	-8	-2	-3	-2	-4	-1	-1	-	-	-	-	-	-	-	-	7.20
56-41	8361	-107.318	-2-11			0-021218	06/15/77	11	29	-	-	9.5	1200	1-3	7-5	-6	-2	-2	-3	-4	-1	-1	-	-	-	-	-	-	-	-	4.40
56-41	8422	-107.356	-2-11			0-021219	06/15/77	12	29-12.0	-C	-	7.1	900	1-1	4-5	-6	-3	-1	-2	-3	-5	-1	-1	-	-	-	-	-	-	-	3.40
56-41	8425	-107.380	-2-15			0-021220	06/15/77	12	29	-	-	-	-	1-1	4-4	-6	-1	-2	-3	-3	-1	-1	-	-	-	-	-	-	-	-	3.60
56-41	8625	-107.401	-2-15			0-021221	06/15/77	13	31	-	-	-	-	1-1	4-4	-6	-1	-2	-2	-2	-1	-1	-	-	-	-	-	-	-	-	4.20
56-41	8650	-107.401	-2-15			0-021222	06/15/77	13	31	-	-	-	-	1-1	4-4	-6	-1	-2	-2	-2	-1	-1	-	-	-	-	-	-	-	-	4.20
56-41	8731	-107.366	-2-11			0-021223	06/15/77	13	31-14.0	-	-	7.2	2100	1-1	4-5	-7	-2	-2	-3	-4	-1	-1	-	-	-	-	-	-	-	-	2.70
56-41	8700	-107.342	-2-11			0-021224	06/15/77	14	31-13.0	-	-	7.5	550	1-1	4-5	-6	-2	-2	-3	-4	-1	-1	-	-	-	-	-	-	-	-	4.50
56-41	9192	-107.352	-2-11			0-021225	06/15/77	16	29	-	-	7.7	175	2-1	4-4	-6	-2	-2	-3	-4	-2	-1	-	-	-	-	-	-	-	-	3.00
56-41	7483	-107.406	-2-13			0-021226	06/17/77	9	20-17.0	-	-	7.8	4700	1-1	4-4	-6	-1	-2	-3	-4	-1	-1	-	-	-	-	-	-	-	-	3.40
56-41	7492	-106.947	-2-15			0-021227	06/17/77	10	20	-	-	-	-	1-1	4-4	-6	-1	-2	-2	-4	-1	-1	-	-	-	-	-	-	-	-	2.50
56-41	8011	-106.975	-2-15			0-021228	06/17/77	11	22	-	-	-	-	1-1	4-4	-6	-1	-2	-2	-4	-1	-1	-	-	-	-	-	-	-	-	2.70
56-41	7722	-106.900	-2-15			0-021229	06/17/77	11	27	-	-	-	-	1-1	4-4	-6	-1	-2	-3	-4	-1	-1	-	-	-	-	-	-	-	-	4.70
56-41	8125	-106.917	-2-15			0-021230	06/17/77	11	27	-	-	-	-	1-1	4-4	-6	-1	-2	-3	-4	-1	-1	-	-	-	-	-	-	-	-	3.30
56-41	8378	-106.969	-2-96			0-021231	06/17/77	11	27	-	-	-	-	1-1	4-4	-6	-1	-2	-3	-4	-1	-1	-	-	-	-	-	-	-	-	3.40
56-41	7475	-106.747	-2-15			0-021232	06/17/77	12	27	-	-	-	-	1-1	4-4	-6	-1	-2	-3	-4	-1	-1	-	-	-	-	-	-	-	-	3.40
56-41	7486	-106.761	-2-15			0-021233	06/17/77	13	28	-	-	-	-	2-1	4-4	-5	-6	-1	-2	-3	-3	-1	-1	-	-	-	-	-	-	-	3.40
56-41	7489	-106.759	-2-15			0-021234	06/17/77	13	28	-C	-	-	-	1-1	4-4	-6	-1	-2	-3	-3	-1	-1	-	-	-	-	-	-	-	-	3.40
56-41	7594	-106.826	-2-15			0-021235	06/17/77	13	28	-	-	-	-	1-1	4-4	-6	-1	-2	-3	-3	-1	-1	-	-	-	-	-	-	-	-	2.40
56-41	6825	-106.828	-2-15			0-021236	06/17/77	14	28	-	-	-	-	1-1	4-4	-6	-1	-2	-3	-3	-1	-1	-	-	-	-	-	-	-	-	2.50
56-41	7378	-106.944	-2-15			0-021237	06/17/77	16	27	-	-	-	-	1-1	4-4	-6	-1	-2	-3	-3	-1	-1	-	-	-	-	-	-	-	-	2.90
56-41	7236	-106.991	-2-15			0-021238	06/17/77	16	30	-	-	-	-	1-1	4-4	-6	-1	-2	-3	-3	-1	-1	-	-	-	-	-	-	-	-	1.80
56-41	7442	-106.725	-2-15			0-021239	06/18/77	9	23	-C	-	-	-	1-1	4-4	-6	-1	-2	-2	-3	-1	-1	-	-	-	-	-	-	-	-	4.70
56-41	7350	-106.721	-2-15			0-021240	06/18/77	11	26	-	-	-	-	1-1	4-4	-6	-1	-2	-3	-3	-1	-1	-	-	-	-	-	-	-	-	2.70
56-41	7381	-106.728	-2-15			0-021241	06/18/77	11	26	-	-	-	-	1-1	4-4	-6	-1	-2	-3	-3	-1	-1	-	-	-	-	-	-	-	-	7.60
56-41	7317	-106.721	-2-15			0-021242	06/18/77	11	26	-	-	-	-	1-1	4-4	-6	-1	-2	-3	-3	-1	-1	-	-	-	-	-	-	-	-	3.40
56-41	6942	-106.753	-2-15			0-021243	06/18/77	12	27	-	-	-	-	1-1	4-4	-6	-1	-2	-3	-3	-1	-1	-	-	-	-	-	-	-	-	6.00
56-41	6288	-106.672	-2-12			0-021244	06/18/77	13	27-21.0	-	-	7.4	70	1-1	4-4	-6	-3	-2	-3	-2	-1	-1	-	-	-	-	-	-	-	-	3.60
56-41	6311	-106.645	-2-11			0-021245	06/18/77	14	28-13.0	-	-	7.1	35	4-1	6-5	-6	-2	-3	-2	-4	-1	-1	-	-	-	-	-	-	-	-	3.90
56-41	6241	-106.633	-2-15			0-021246	06/18/77	14	27	-	-	-	-	9-1	4-4	-6	-1	-2	-2	-2	-1	-1	-	-	-	-	-	-	-	-	2.70
56-41	6869	-106.936	-2-15			0-021247	06/18/77	16	26	-	-	-	-	1-1	4-4	-6	-1	-2	-3	-3	-1	-1	-	-	-	-	-	-	-	-	3.60
56-41	6267	-106.940	-2-15			0-021248	06/18/77	16	26	-	-	-	-	1-1	4-4	-6	-1	-2	-3	-3	-1	-1	-	-	-	-	-	-	-	-	4.90
56-41	6778	-107.099	-2-11			0-021249	06/20/77	10	27-17.0	-	-	-	-	1-1	4-4	-6	-1	-2	-3	-3	-1	-1	-	-	-	-	-	-	-	-	2.90
56-41	9564	-107.102	-2-15			0-021250	06/20/77	10	27	-	-	8.1	1700	1-1	4-4	-6	-1	-2	-3	-3	-1	-1	-	-	-	-	-	-	-	-	3.40
56-41	9425	-107.470	-2-15			0-021251	06/20/77	14	29	-	-	-	-	1-1	4-4	-6	-1	-2	-3	-3	-1	-1	-	-	-	-	-	-	-	-	4.90
56-41	8586	-107.496	-2-96			0-021252	06/20/77	14	29	-	-	-	-	1-1	4-4	-6	-1	-2	-3	-3	-1	-1	-	-	-	-	-	-	-	-	2.90
56-41	8586	-107.496	-2-96			0-021253	06/20/77	15	30	-	-	8.1	1250	1-1	4-4	-6	-1	-2	-3	-3	-1	-1	-	-	-	-	-	-	-	-	3.40
56-41	6953	-107.131	-2-11			0-021254	06/21/77	11	28-16.0	-	-	-	-	1-1	4-4	-6	-1	-2	-3	-3	-1	-1	-	-	-	-	-	-	-	-	4.90
56-41	6639	-107.147	-2-11			0-021255	06/21/77	12	28	-	-	-	-	1-1	4-4	-6	-1	-2	-3	-3	-1	-1	-	-	-	-	-	-	-	-	3.00
56-41	6594	-107.203	-2-99			0-021256	06/21/77	13	28	-	-	-	-	1-1	4-4	-6	-1	-2	-3	-3	-1	-1	-	-	-	-	-	-	-	-	3.40
56-41	6547	-107.203	-2-11			0-021257	06/21/77	14	26-12.0	-C	-	7.2	1100	1-1	4-4	-6	-2	-2	-3	-3	-1	-1	-	-	-	-	-	-	-	-	3.90
56-41	6525	-107.212	-2-11			0-021258	06/21/77	14	26-17.0	-	-	8.4	2100	6-1	4-6	-6	-2	-2	-3	-3	-1	-1	-	-	-	-	-	-	-	-	3.80
56-41	6528	-107.205	-2-15			0-021259	06/21/77	14	27	-	-	-	-	1-1	4-4	-6	-1	-2	-3	-3	-1	-1	-	-	-	-	-	-	-	-	3.10
56-41	5728	-107.084	-2-15			0-021260	06/21/77	16	24	-	-	-	-	1-1	4-4	-6	-1	-2	-3	-3	-1	-1	-	-	-	-	-	-	-	-	3.

APPENDIX C (continued). Field Data and Uranium Concentrations for Sediment Samples

[illegible]

APPENDIX C (continued): Field Data and Chemical Concentration Data

DOE SAMPLE NUMBER										LASI SAMPLE LOCATION NUMBER AND FIELD DATA										U CONCENTRATION											
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	SPRINT DATE	TIME SAMPLED		AIR TEMPERATURE	WATER TEMPERATURE	COMMENTS	SPECIFIC CONDUCTIVITY	pH	SCENTINOMETER	DOY TYPE	DOY COLOR	SEDIMENT TYPE	SEDIMENT COLOR	WATER FLOW	WATER LEVEL	WATER COLOR	SPEARM (MAGNETIC)	AGITATION TYPE	VEGETATION DENSITY	WEATHER	CONTAMINANTS	WELL TYPE	WELL DEPTH	WELL DATE	SEDIMENT SAMPLES ANALYZED BY DELAYED NEUTRON COUNTING (DNC)	UNITS IN PPM	
						DATE	MO/DP																								
56-41	1.4235	-106.5061	-2-15	0-W21313-06/24/77-16	28	0-W21313-06/24/77-16	28	8.0	6.8	210	16-2-7-4-6	1	9-1-1-4-6	1-2-3-3-2	1	1-2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1
56-41	1.4350	-106.5292	-2-11	0-W21314-06/24/77-17	26	0-W21314-06/24/77-17	26	8.0	6.8	210	16-2-7-4-6	1	9-1-1-4-6	1-2-3-3-2	1	1-2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1
56-41	1.4501	-106.8003	-2-12	0-W21315-06/27/77-11	21	0-W21315-06/27/77-11	21	8.5	7.4	50	17-3-4-6-3	1	10-3-4-6-3	1-2-3-3-2	1	1-2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1
56-41	1.4594	-106.8056	-2-12	0-W21316-06/27/77-12	22	0-W21316-06/27/77-12	22	9.0	6.8	50	17-3-4-6-3	1	10-3-4-6-3	1-2-3-3-2	1	1-2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1
56-41	1.4616	-106.8000	-2-12	0-W21317-06/27/77-11	22	0-W21317-06/27/77-11	22	9.0	6.7	50	17-3-4-6-3	1	10-3-4-6-3	1-2-3-3-2	1	1-2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1
56-41	1.4756	-106.7483	-2-12	0-W21318-06/26/77-11	16	0-W21318-06/26/77-11	16	8.0	7.2	210	17-3-4-6-3	1	10-3-4-6-3	1-2-3-3-2	1	1-2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1
56-41	1.4956	-106.6492	-2-11	0-W21319-06/24/77-13	27	0-W21319-06/24/77-13	27	18.0	7.7	210	17-3-4-6-3	1	10-3-4-6-3	1-2-3-3-2	1	1-2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1
56-41	1.4919	-106.4400	-2-12	0-W21320-06/26/77-11	27	0-W21320-06/26/77-11	27	14.0	7.9	210	17-3-4-6-3	1	10-3-4-6-3	1-2-3-3-2	1	1-2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1
56-41	1.4992	-106.8017	-2-11	0-W21321-06/26/77-11	26	0-W21321-06/26/77-11	26	9.5	6.8	40	17-3-4-6-3	1	10-3-4-6-3	1-2-3-3-2	1	1-2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1
56-41	1.4964	-106.7981	-2-11	0-W21322-06/27/77-15	22	0-W21322-06/27/77-15	22	5.5	7.1	100	17-3-4-6-3	1	10-3-4-6-3	1-2-3-3-2	1	1-2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1
56-41	1.4769	-106.7861	-2-11	0-W21323-06/27/77-15	21	0-W21323-06/27/77-15	21	5.6	6.8	45	17-3-4-6-3	1	10-3-4-6-3	1-2-3-3-2	1	1-2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1
56-41	1.477	-106.7825	-2-11	0-W21324-06/27/77-11	22	0-W21324-06/27/77-11	22	5.0	6.6	45	17-3-4-6-3	1	10-3-4-6-3	1-2-3-3-2	1	1-2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1
56-41	1.474	-106.7800	-2-11	0-W21325-06/27/77-15	21	0-W21325-06/27/77-15	21	16.0	7.1	120	17-3-4-6-3	1	10-3-4-6-3	1-2-3-3-2	1	1-2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1
56-41	1.494	-106.7800	-2-12	0-W21326-06/27/77-11	31	0-W21326-06/27/77-11	31	20.0	8.6	150	17-3-4-6-3	1	10-3-4-6-3	1-2-3-3-2	1	1-2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1
56-41	1.4967	-107.8950	-2-11	0-W21327-06/23/77-12	31	0-W21327-06/23/77-12	31	11	7.1	120	17-3-4-6-3	1	10-3-4-6-3	1-2-3-3-2	1	1-2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1
56-41	1.4975	-107.8981	-2-15	0-W21328-06/23/77-13	31	0-W21328-06/23/77-13	31	11	7.1	120	17-3-4-6-3	1	10-3-4-6-3	1-2-3-3-2	1	1-2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1
56-41	1.4801	-107.8986	-2-15	0-W21329-06/23/77-13	32	0-W21329-06/23/77-13	32	11	7.1	120	17-3-4-6-3	1	10-3-4-6-3	1-2-3-3-2	1	1-2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1
56-41	1.4800	-107.8994	-2-15	0-W21330-06/23/77-13	31	0-W21330-06/23/77-13	31	11	7.1	120	17-3-4-6-3	1	10-3-4-6-3	1-2-3-3-2	1	1-2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1
56-41	1.492	-107.8991	-2-15	0-W21331-06/23/77-13	31	0-W21331-06/23/77-13	31	11	7.1	120	17-3-4-6-3	1	10-3-4-6-3	1-2-3-3-2	1	1-2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1
56-41	1.472	-107.9386	-2-15	0-W21332-06/23/77-16	30	0-W21332-06/23/77-16	30	10	7.1	120	17-3-4-6-3	1	10-3-4-6-3	1-2-3-3-2	1	1-2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1
56-41	1.453	-107.9776	-2-15	0-W21333-06/24/77-10	10	0-W21333-06/24/77-10	10	10	7.1	120	17-3-4-6-3	1	10-3-4-6-3	1-2-3-3-2	1	1-2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1
56-41	2.458	-107.5755	-2-15	0-W21334-06/24/77-11	30	0-W21334-06/24/77-11	30	16.0	8.6	1350	17-3-4-6-3	1	10-3-4-6-3	1-2-3-3-2	1	1-2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1
56-41	2.367	-107.5717	-2-11	0-W21335-06/24/77-11	30	0-W21335-06/24/77-11	30	10	8.6	1350	17-3-4-6-3	1	10-3-4-6-3	1-2-3-3-2	1	1-2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1
56-41	2.347	-107.5600	-2-15	0-W21336-06/24/77-11	30	0-W21336-06/24/77-11	30	10	8.6	1350	17-3-4-6-3	1	10-3-4-6-3	1-2-3-3-2	1	1-2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1
56-41	2.264	-107.6200	-2-15	0-W21337-06/24/77-11	30	0-W21337-06/24/77-11	30	10	8.6	1350	17-3-4-6-3	1	10-3-4-6-3	1-2-3-3-2	1	1-2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1
56-41	2.308	-107.5482	-2-15	0-W21338-06/24/77-11	31	0-W21338-06/24/77-11	31	10	8.6	1350	17-3-4-6-3	1	10-3-4-6-3	1-2-3-3-2	1	1-2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1
56-41	2.299	-107.5482	-2-15	0-W21339-06/24/77-13	29	0-W21339-06/24/77-13	29	10	8.6	1350	17-3-4-6-3	1	10-3-4-6-3	1-2-3-3-2	1	1-2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1
56-41	0.747	-107.5752	-2-97	0-W21340-06/24/77-13	10	0-W21340-06/24/77-13	10	10	8.6	1350	17-3-4-6-3	1	10-3-4-6-3	1-2-3-3-2	1	1-2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1
56-41	0.736	-107.5480	-2-15	0-W21341-06/24/77-13	10	0-W21341-06/24/77-13	10	10	8.6	1350	17-3-4-6-3	1	10-3-4-6-3	1-2-3-3-2	1	1-2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1
56-41	0.714	-107.5400	-2-15	0-W21342-06/24/77-15	29	0-W21342-06/24/77-15	29	10	8.6	1350	17-3-4-6-3	1	10-3-4-6-3	1-2-3-3-2	1	1-2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1
56-41	1.456	-107.5472	-2-15	0-W21343-06/24/77-15	29	0-W21343-06/24/77-15	29	10	8.6	1350	17-3-4-6-3	1	10-3-4-6-3	1-2-3-3-2	1	1-2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1
56-41	1.462	-107.5469	-2-15	0-W21344-06/24/77-15	29	0-W21344-06/24/77-15	29	10	8.6	1350	17-3-4-6-3	1	10-3-4-6-3	1-2-3-3-2	1	1-2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1
56-41	1.750	-107.5553	-2-15	0-W21345-06/24/77-15	28	0-W21345-06/24/77-15	28	10	8.6	1350	17-3-4-6-3	1	10-3-4-6-3	1-2-3-3-2	1	1-2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1
56-41	1.842	-107.5637	-2-15	0-W21346-06/24/77-15	28	0-W21346-06/24/77-15	28	10	8.6	1350	17-3-4-6-3	1	10-3-4-6-3	1-2-3-3-2	1	1-2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1	2-3-2-4-2	1
56-41	1.836	-107.5																													

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APPENDIX D

CODE TO DATA LISTINGS

APPENDIX D-I

Explanation of Codes Used

APPENDIX D-II

Key to Sample Types

APPENDIX D-I

EXPLANATION OF CODES USED

DOE SAMPLE NUMBER

STATE: A two-digit Federal Information Processing Standards (FIPS) code, designating the state from which each sample came. For the states being covered by the LASL, the code numbers are:

Alaska	= 02	Montana	= 30	Texas	= 48
Arizona	= 04	New Mexico	= 35	Utah	= 49
Colorado	= 08	Oklahoma	= 40	Wyoming	= 56
Idaho	= 16				

LATITUDE AND LONGITUDE: Sample location, in degrees and decimal degrees to four places. Although generally much better, locational accuracy cannot be guaranteed closer than about 300 m (1000 ft).

DOE LAB: A Department of Energy (DOE) one-digit identifier designating the DOE laboratory responsible for taking the samples and data shown in the listings, as well as providing the analyses of the uranium and other elemental concentrations, if any. The LASL is designated by the numeral 2.

SAMPLE TYPE: A two-digit identifier which specifically designates the pertinent properties defining the sample type to which the listed data relate. For explanation of the code used, refer to the attached "Key to Sample Types," Appendix D-II.

REPLICATE: A three-digit sequential number assigned to indicate a multiple sample of a single sample type from a single location. The largest number in use indicates the most recent sample taken, and there will always be smaller sequential numbers representing earlier samples back to 000, which is the initial sample from any given location. Except in the case of special studies, there will be no replicate samples and this entry will therefore be 000.

LASL SAMPLE LOCATION NUMBER AND FIELD DATA

LASL SAMPLE LOCATION NUMBER: A unique six-place alphanumeric designator permanently assigned by the LASL to every location sampled. For internal use, these numbers are assigned in blocks to the various areas individually treated and reported upon, and therefore serve to generally locate the samples within various areas for which the LASL is responsible as follows.

<u>Location Numbers</u>	<u>State</u>
N00 001 through N99 999	= Principally New Mexico
C00 001 through C99 999	= Principally Colorado
W00 001 through W99 999	= Principally Wyoming
M00 001 through M99 999	= Principally Montana
A00 001 and above	= Alaska only
L00 001 and above	= Areas beyond the western boundary of LASL's region as established by DOE in 1977.
Ø00 001 and above	= Areas beyond the eastern boundary of LASL's region as established by DOE in 1977.

TIME SAMPLED: The DATE that the sample was taken, in terms of the number of the MONTH, followed by the DAY and finally the YEAR, separated by slashes, and then the TIME it was taken on that date to the nearest whole HOUR on a 24-hour clock.

AIR TEMPERATURE: The temperature that was measured in the shade at the time of sampling, to the nearest whole degree Celsius (°C).

WATER TEMPERATURE: The temperature that was measured in the sample water (in situ whenever possible) at the time of sampling, to the nearest one-tenth of a degree Celsius (0.1°C).

COMMENTS: A "C" in this column indicates that some secondary comment not included in the listing was recorded at the sample location. This information will be used by the LASL in evaluating the data, and if appropriate, it will be mentioned in the final report.

SPECIAL MEASUREMENTS: An "S" in this column indicates that one or more field measurements in addition to those listed were made at the sample location. A description of any special parameters measured and the measured value at each sample location will be included in the final HSSR survey report on the area.

pH: The pH, to the nearest one-tenth (0.1) of a pH unit, that was measured in the water at the sample location at the time of sampling.

SPECIFIC CONDUCTANCE: The conductivity, in $\mu\text{mho/cm}$, that was measured in the water at the sample location at the time of sampling. Conductivities which exceed the range of the meter (i.e., $>50\,000\ \mu\text{mhos/cm}$) are denoted by 50 001 in Appendixes B and C.

SCINTILLOMETER: The equivalent uranium (eU), in ppm, as measured on a flat ground surface within 10 m of the sample location using a scintillometer fitted with a differential gamma sampler (DGS). The effect of the DGS is to introduce a fixed geometry into the measurement and remove the background.

ROCK TYPE: The single digit in this column provides a general description of the dominant lithologic regime at or near the sample location, as given below.

1 = Sedimentary	3 = Igneous
2 = Metamorphic	4 = Unknown

ROCK COLOR: The single digit in this column provides an indication of the observed dominant color of local bedrock exposures at or near the sample location, as given below.

1 = White/Buff	4 = Pink/Red	7 = Gray
2 = Yellow	5 = Green	8 = Black
3 = Orange	6 = Brown	9 = Other

SEDIMENT TYPE: The single digit in this column provides a subjective evaluation of the dominant sediment type at the sample location, as given below.

1 = Boulders	4 = Sand	7 = Other
2 = Cobbles	5 = Mud	
3 = Gravel	6 = Muck	

SEDIMENT COLOR: The single digit in this column indicates the observed dominant color of the bottom sediment (stream channel, lake bed, etc.) at the sample location at the time of sampling, as given below.

1 = White/Buff	4 = Pink/Red	7 = Gray
2 = Yellow	5 = Green	8 = Black
3 = Orange	6 = Brown	9 = Other

WATER FLOW: The single digit in this column provides a subjective evaluation of the water movement at the sample location at the time of sampling, as given below.

1 = Stagnant	3 = Moderate	5 = Torrent
2 = Slow	4 = Fast	

WATER LEVEL: The single digit in this column provides a subjective estimate of water quantity at the time of sampling, relative to its usual condition at the sample location, as given below.

1 = Dry	3 = Normal	5 Flood
2 = Low	4 = High	

WATER COLOR: The single digit in this column provides a subjective evaluation of suspended load in the sample water as, given below.

1 = Clear	3 = Cloudy	5 = Algal
2 = Murky	4 = Muddy	6 = Other

STREAM CHANNEL: The single digit here gives a subjective evaluation of stream channel character at the sample location at the time of sampling, as given below.

1 = Depositing	2 = Eroding	3 = Unknown
----------------	-------------	-------------

VEGETATION TYPE: The single digit in this column provides a subjective evaluation of the dominant plant type in the vicinity of the sample location, as given below.

1 = Conifers	4 = Grass	7 = Other
2 = Deciduous	5 = Moss	
3 = Brush	6 = Marsh	

VEGETATION DENSITY: The single digit in this column provides a subjective estimate of the amount of plant cover in the vicinity of the sample location, as given below.

1 = Barren	3 = Moderate	5 = Very Dense
2 = Sparse	4 = Dense	

RELIEF: The single digit in this column provides a subjective evaluation of the topography within a few hundred meters of the sample location, as given below.

1 = Flat	3 = Gentle (15-60 m)	5 = High (>300 m)
2 = Low (<15 m)	4 = Moderate (60-300 m)	6 = Other

WEATHER: The single digit in this column gives the observed climatic condition at the sample location at the time of sampling, as given below.

1 = Clear	3 = Overcast	5 = Snowy
2 = Partly cloudy	4 = Rainy	6 = Other

OWNERSHIP: When shown, the single digit here gives a broad classification of administrative responsibility or general ownership of the land at the sample location, as given below.

1 = Federal	3 = Private	5 = Other
2 = State	4 = Indian	

CONTAMINANTS: The single digit here indicates known or suspected local factors likely to influence analytical results, as given below.

1 = None	4 = Industry	7 = Urban
2 = Mining	5 = Sewage	8 = Recreation
3 = Agriculture	6 = Power generation	9 = Other

WELL TYPE: If a well water sample, the single digit in this column provides a general description of the type of well from which the sample was taken as given below.

1 = Windmill-stock	4 = Suction pump	7 = Hand bail
2 = Windmill-domestic	5 = Jet pump	8 = Unknown
3 = Submersible pump	6 = Large turbine	9 = Other

WELL DIAMETER: When shown, the one or two digits in this column give the measured or estimated inside diameter, in inches, of the well casing from which the water sample came.

WELL DEPTH: When shown, the one, two, or three digits in this column give the total drilled depth from the surface, in feet, of the well from which the sample came. Three 9s in this column indicates a well depth greater than 1000 ft.

WATER DEPTH: When shown, the one, two, or three digits in this column give the known depth, in feet, from the surface to the standing water in the well. A -1 in this column indicates a flowing artesian well.

URANIUM CONCENTRATION: The value given in this column is the analytically derived value of the total uranium concentration found in the water sample in ppb, or in the sediment sample in ppm. Those uranium concentrations in water that are shown with an asterisk were measured using a delayed-neutron counting method, while those without an asterisk were determined fluorometrically. The uranium analyses as determined by both of these methods at the LASL are directly comparable, as described in Appendix A.

APPENDIX D-II

KEY TO SAMPLE TYPES

This numerical key provides the necessary tie between the specific type or form of each sample taken and each individual suite of field and laboratory data to which the sample relates. It defines the various sample types collected by the LASL in the DOE HSSR for uranium.

The two-digit key number assigned to each sample type designates three distinct properties of the samples taken. These properties are: (a) The general sample source (spring or stream or dry stream, etc.); (b) The sample medium (water or sediment, etc.); and (c) The treatment given the sample in the field or laboratory prior to its analysis by the LASL.

The key numbers are inserted in the appropriate columns of the specially formatted DOE sample numbering system to positively identify the sample type for all LASL sample data submitted.

<u>KEY NO.</u>	<u>SOURCE</u> / <u>MEDIUM</u> / <u>TREATMENT</u>
----------------	--

01 -	<u>Spring water</u> sample <u>untreated</u> .
02 -	<u>Stream water</u> sample <u>untreated</u> .
03 -	<u>Well water</u> sample <u>untreated</u> .
04 -	<u>Natural pond water</u> sample <u>untreated</u> .
05 -	<u>Artificial pond water</u> sample <u>untreated</u> .
06 -	<u>Spring water</u> sample <u>filtered</u> through an 0.45- μ membrane filter <u>and acidified</u> to a pH of ≤ 1 with reagent-grade nitric acid (HNO_3).
07 -	<u>Stream water</u> sample <u>filtered</u> through an 0.45- μ membrane filter <u>and acidified</u> to a pH of ≤ 1 with reagent-grade nitric acid (HNO_3).
08 -	<u>Well water</u> sample <u>filtered</u> through an 0.45- μ membrane filter <u>and acidified</u> to a pH of ≤ 1 with reagent-grade nitric acid (HNO_3).
09 -	<u>Natural pond water</u> sample <u>filtered</u> through an 0.45- μ membrane filter <u>and acidified</u> to a pH of ≤ 1 with reagent-grade nitric acid (HNO_3).
10 -	<u>Artificial pond water</u> sample <u>filtered</u> through an 0.45- μ membrane filter <u>and acidified</u> to a pH of ≤ 1 with reagent-grade nitric acid (HNO_3).
11 -	<u>Wet spring sediment</u> sample <u>dried</u> at $\leq 100^\circ\text{C}$ <u>and sieved</u> to <u>-100 mesh</u> through stainless steel sieves.
12 -	<u>Wet stream sediment</u> sample <u>dried</u> at $\leq 100^\circ\text{C}$ <u>and sieved</u> to <u>-100 mesh</u> through stainless steel sieves.

- 13 - Wet natural pond sediment sample dried at $\leq 100^{\circ}\text{C}$ and sieved to -100 mesh through stainless steel sieves.
- 14 - Wet artificial pond sediment sample dried at $\leq 100^{\circ}\text{C}$ and sieved to -100 mesh through stainless steel sieves.
- 15 - Dry stream sediment sample dried at $\leq 100^{\circ}\text{C}$ (if necessary) and sieved to -100 mesh through stainless steel sieves.
- 96 - Dry natural pond sediment sample dried at $\leq 100^{\circ}\text{C}$ (if necessary) and sieved to -100 mesh through stainless steel sieves.
- 97 - Dry artificial pond sediment sample dried at $\leq 100^{\circ}\text{C}$ (if necessary) and sieved to -100 mesh through stainless steel sieves.
- 98 - Other water These key numbers are to be used only for water (98) or sediment (99) samples coming from a special source and/or given a special treatment not described for any of the types of samples above. When used in the listings published herein, the source and treatment given the samples so designated are described in the text.
- 99 - Other sediment

108° 00'
42° 00'

45'

30'

1

45'

30'

30'

4

EXPLANATION

SEDIMENTARY

IGNEOUS

20 25 M.E.S.

25 KILOMETERS

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RAWLINS COMING

STRATIGRAPHIC LEGEND

and sandstone with local iron-stone concretions.

MEZAVENDE GROUP
Mass-bedded sandstone. Inter- and siltstone.

MANCOS SHALE
Shale, local sandstone and siltstone.

STEELE SHALE
Shale with thick units of sandstone at top.

LANEY FORMATION
Shale, overlain by gray silty shale.

WATER FORMATION
Siltstone concretions and siltstone sandstone at top.

MOWRY SHALE
Shale with bentonite layers, siltstone.

HERNIMAN SHALE
Shale, brown sandstone beds. Siltstone at top.

CLAY SANDSTONE
Bedded sandstone and shale.

CLOVERLY GROUP
Siltstone at base, pink shale in sandstone at top.

FRONTIER FORMATION
Shale blue-gray shale, abundant sandstone beds at top.

CLAY FORMATION
Shale, sandstone and oolitic siltstone.

CLAY FORMATION
Shale and siltstones with clay siltstone at base.

CLAY FORMATION
Siltstones, some thin beds of sandstone.

FORELLE Limestone
Bedded crinoidal limestone.

SATANKA SHALE
Siltstones with local beds of sandstone.

GOOSE EGG FORMATION
Siltstone and beds of limestone.

CASPER FORMATION
Bedded sandstone with limestone.

MOUNTAIN FORMATION
Sandstone, siltstone and shale.

TENSLEEP FORMATION
Partly dolomitic sandstone. Top of sandstone.

AMSDEN FORMATION
Limestone sequence with Darwin siltstone at base.

MADISON LIMESTONE
Dolomite. Light gray cherty dolomite with sucrosic buff dolomite.

CRETACEOUS

JURASSIC

TRIASSIC

PERMIAN

PENNSYLVANIAN

MISSISSIPPIAN

QUATERNARY

TERTIARY

CRETACEOUS

JURASSIC

TRIASSIC

PERMIAN

PENNSYLVANIAN

MISSISSIPPIAN

CAMBRIAN

PRECAMBRIAN

Qal	Alluvium
Qmc	Mantle cover
Qls	Landslide deposits
Qg	Gravels
Qc	Terrace deposits
Qyu	Sandstone and cgl und
Ti	Intrusives
Tv	Volcanics
Tnp	North Park fm
Twr	White River fm
Twr	Wind River fm
Tbp	Browns Park fm
Tbs	Battle Spring fm
Tb	Bridger fm
Twk	Washakie fm
Td	Dutton Creek fm
Tgm	Morrow Creek mbr
Tgl	Laney sh mbr
Tgt	Tipton Tongue mbr
Twc	Cathedral Bluffs tongue
Tfu	Fort Union fm
Th	Hanna fm
Tkf	Ferris fm
Kfh	Fox Hills fm
Kl	Lance fm
Kle	Lewis sh
Kmb	Medicine Bow fm
Kmc	Mesaverde fm
Ksn	Steele sh - Niobrara fm und
Kf	Frontier fm
Kmt	Mowry sh - Thermopolis sh und
Kd	Dakota ss
Kcy	Cloverly gp
Jm	Morrison fm
Js	Sundance fm
Jc	Jelm fm
Jw	Chugwater fm
Pf	Forelle ls
Ps	Satanka sh
Pg	Goose Egg fm
Pfc	Casper fm
Pf	Fountain fm
Pta	Tensleep fm - Amsden fm und
Pm	Madison ls
Cu	Cambrian und
pct	Mafic igneous rock
psch	Schist
pgt	Granite
pgm	Quartz monzonite
pgd	Quartz diorite
pgc	Quartzite, slate and phyllite
pgn	Granite and quartz monzonite
pgn	Gneiss

Q Surficial deposits und

Tu Und

Tgr Green River fm

Tw Matsatch fm

Tmf Und

Ku Und

Kdu Und

Kfm Und

Kjcm Und

Jms Ju Und

Jm u Und

Jc Ju Und

N Pu Und

Pu Und

Ppfsc Und

Ppu Und

Ppu Und

Ppu Und

Mc u Und

pu Und

GEOLOGIC SYMBOLS

	Contact
	Fault (D on downthrown side)
	Alignment
	Thrust Fault
	Shear Fault
	Anticline
	Anticline, overturned
	Syncline
	Syncline, overturned

5

15'

107°00'

PLATE II

The LASL sample location numbers above same as those used in APPENDIXES B and the leading two alphanumeric characters any subsequent leading zeros have been

above are the
and C except
sters and
een dropped.

2

SAMPLE LOCATION OVERLAY FOR RAWLINS NTMS QUADRANGLE, WY

113

236

826
827

1356

712

241
240
243

233

246

252

255

411

713
711

928
929

332

736

334

305

303

330

930
931

906
905

737
738
739

123
120

310

311
312

317

234

128
127

203

316

333
334

832

908

802
901

312

252

317

256

251

24

249

135
134

770
773

271

394

251

270

205

250

317

273

277

311

257

307

317

1356
141

127

768

316

401

410

258

254

306

317

317

1357

142

126

770

143

124

125

1309

1309

1309

1310

296

297

1311

1354

1365

297

111

322

785

796

323

324

763

767

793

792

327

247

325

255

326

271

276

1313

310

238

1350

317

232

231

233

293

285

291

270

263

301

302

307

293

268

306

1314

290

145

148

117

45'

30'

15'

25 MILES

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3

HE
ING

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61

23

153

23

32

27

28

25

21

29

22

2

45'

30'

15'

31

22

48

3

95

96

24

448

73

53

22

123

3

LEGEND

WELL WATER	SPRING WATER	ARTIFICIAL POND WATER	NATURAL LAKE OR POND WATER	STREAM WATER	TOTAL URANIUM (ppb)
•	◊	▽	△	◻	≤ 0.50
○	◊	▽	△	◻	0.51 - 1.00
◉	◊	▽	△	◻	1.01 - 2.00
⊙	◊	▽	△	◻	2.01 - 5.00
⊗	◊	▽	△	◻	5.01 - 10.00
⊘	◊	▽	△	◻	10.01 - 20.00
⊙	◊	▽	△	◻	20.01 - 50.00
⊗	◊	▽	△	◻	> 50.00

17 The numbers prior to the two largest concentration values are the uranium concentration

ed next to the symbols for the
ntration intervals are the measured
ations, in ppb , for those samples.

2

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(ppb) IN WATERS -
QUADRANGLE, WYOMING

3

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15'

107°00'

(P)

2

C

60

D

45'

30'

15'

17

3

PLATE IV

LEGEND

OTHER SEDIMENT	DRY ARTIFICIAL POND SEDIMENT	DRY NATURAL POND SEDIMENT	DRY STREAM SEDIMENT	WET SPRING SEDIMENT	WET ARTIFICIAL POND SEDIMENT	WET NATURAL LAKE OR POND SEDIMENT	WET STREAM SEDIMENT	TOTAL URANIUM (ppm)
•	•	•	■	◊	◊	△	□	≤ 3.00
+	⊕	○	⊠	◊	▽	△	□	3.10 - 5.00
+	⊕	○	⊠	◊	▽	△	□	5.10 - 7.00
+	⊕	○	⊠	◊	▽	△	□	7.10 - 9.00
+	⊕	○	⊠	◊	▽	△	□	9.10 - 11.00
+	⊕	○	⊠	◊	▽	△	□	11.10 - 13.00
+	⊕	○	⊠	◊	▽	△	□	13.10 - 15.00
+	⊕	○	⊠	◊	▽	△	□

A

Uranium occurrences - See Table I
and Uranium Occurrences section
in text for description of each.

- 19 The numbers printed next to the symbols for the
two largest concentration intervals are the measured
uranium concentrations, in ppm, for those samples.

2

URANIUM CONCENTRATION OVERLAY TO THE RAWLINS NATIONAL MONUMENT

107°00'

45'

SCALE 1: 250 000

5 10 15 20 25 MILES

5 10 15 20 25 KILOMETERS

3

CONCENTRATIONS (ppm) IN SEDIMENTS -
NTMS QUADRANGLE, WYOMING

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G