

WOLF CREEK NUCLEAR OPERATING CORPORATION
WOLF CREEK GENERATING STATION
1995 ANNUAL RADIOLOGICAL
ENVIRONMENTAL OPERATING REPORT



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INTRODUCTION

The 1995 Annual Radiological Environmental Operating Report for Wolf Creek Generating Station (WCGS) covers the period from January 1 through December 31, 1995. WCGS is located in Coffey County, Kansas, approximately five miles northeast of Burlington, Kansas.

Fuel loading commenced at WCGS on March 12, 1985. The operational phase of the Radiological Environmental Monitoring Program began with initial criticality on May 22, 1985, and the first detectable quantities of radioactivity were reported in plant effluents in June 1985.

This report contains a description of the Radiological Environmental Monitoring Program (REMP) conducted by Wolf Creek Nuclear Operating Corporation (WCNOC), results of sample analyses performed by Teledyne Brown Engineering Environmental Services and WCNOC Health Physics technicians, a discussion of monitoring program results, a description of revisions to and deviations from the program, and comments on the results of the Environmental Protection Agency (EPA) Interlaboratory Comparison Program. Individual sample results and a summary of results in the Nuclear Regulatory Commission (NRC) Branch Technical Position specified format are included as appendices to the report.

During 1995, activation products were not detected in airborne particulate and radioiodine filters, broadleaf vegetation, crops, milk, ground water, nondomestic meat, terrestrial vegetation or drinking water.

During 1995, activation products were detected in algae, aquatic vegetation, shoreline sediment, bottom sediment, soil, surface water and fish samples.

All nuclides detected in the REMP samples were below applicable NRC reporting levels.

I. PROGRAM DESCRIPTION

Radiological environmental samples were collected according to the schedule in Attachment A, Table 5-1 of the WCGS Offsite Dose Calculation Manual (ODCM). All samples were collected by WCNOC's Environmental Management group. The samples were analyzed by Teledyne Brown Engineering Environmental Services of Westwood, New Jersey or WCGS Health Physics Technicians. Table 1 lists sampling pathways and frequencies of sampling and analysis. Table 2 lists each sample location's distance and direction from the plant. Samples in addition to those required by the WCGS ODCM were also obtained.

The following is a description of the sampling and analysis program by individual pathways.

A. Airborne

Low volume air sampling pumps continually collected particulate and radioiodine samples on 47 mm glass fiber filters and charcoal canisters, respectively. Weekly, the filters and charcoal canisters were changed out, labeled, and shipped to Teledyne Brown Engineering Environmental Services for analysis. The volume of air sampled was calculated from the average of initial and final flow rates and the total time of collection. Each pump is equipped with a time totalizer that is checked weekly against the elapsed time.

Gross beta analysis of the air particulate samples was performed approximately 72 hours post collection to allow the radon and thoron daughter products to decay.

Weekly air particulate filters were combined into quarterly composites for each location and analyzed for gamma emitting isotopes.

Charcoal canisters were routinely counted in groups of five to determine the presence or absence of I-131. Positive indication of I-131 would have resulted in analysis of each individual charcoal canister.

Air samples were collected from the three sectors with the highest ground level deposition constants (D/Q), the community of New Strawn, and a control location. Distances and directions to sampling locations from the plant site are listed in Table 2; locations are shown in Figure 1 (nearby locations) and Figure 5 (distant locations).

B. Direct Radiation

Panasonic UD-814-AQ TLDs were used during the 1995 sample year. These TLDs consist of one lithium-borate element and three calcium sulfate elements in a plastic case. Each TLD is annealed and analyzed by Wolf Creek Health Physics technicians on a Panasonic UD-710A TLD reader.

TLDs were typically positioned roughly 3 to 4 feet above the ground. The TLDs were contained in either plastic thermostat boxes or fiberglass air sample pump housings. The boxes and housings protect the TLDs from the elements and tampering. Two TLDs were placed at each designated location. TLD sample locations are illustrated in Figure 2 (nearby locations) and Figure 5 (distant

locations). Table 2 provides the distance and direction of each location from the site.

C. Waterborne

All water samples were analyzed to determine if gamma emitters were present. In addition to gamma analysis, radiochemical analysis for I-131 was performed on drinking water and ground water samples. Gross beta analysis was also performed on drinking water samples. Tritium analysis was performed monthly by liquid scintillation for surface water and quarterly for drinking water. Tritium analysis for ground water was performed quarterly by gas counting. All water sampling locations are listed in Table 2 and shown in Figures 3 and 5.

Drinking water was sampled at the water treatment facilities for the towns of Burlington (control location) and LeRoy (indicator location). The Burlington facility is located upstream and the LeRoy facility is located downstream of the confluence of the discharge from Wolf Creek Cooling Lake (WCCL) and the Neosho River. Monthly, composite samples were obtained from automatic composite samplers at each location that pulled approximately 10 ml samples hourly.

Monthly, grab samples were drawn from each surface water location. Surface water was sampled at the outfall of John Redmond Reservoir (JRR) as a control (location Make-up Water Screenhouse [MUSH]) and in the discharge cove and spillway of WCCL for indicator locations.

Ground water samples were collected quarterly from four locations. One ground water well is hydrologically upgradient from the site (location B-12) and is used as a control location. Three additional samples (C-10, C-49, and D-65) were obtained from wells hydrologically downgradient from the site as indicator samples. Duplicate samples were obtained from location B-12 and were labeled F-20. These duplicate samples served as a lab quality check.

Shoreline sediments were sampled semiannually for gamma analysis at the discharge cove (indicator, Figure 3) and at JRR (control, Figure 3). Shoreline sediment samples were also obtained from location Environmental Education Area (EEA) [indicator, Figure 3].

Bottom sediments were collected semiannually for gamma analysis at the discharge cove (indicator, Figure 3) and at location WC&11th RD (indicator, Figure 3). Due to high water, the sample normally collected in the spring at JRR (control, Figure 3) was unobtainable. However, the fall sample was collected.

Algae from the discharge cove (indicator, Figure 3) was collected semiannually for gamma analysis. Aquatic plants were sampled from locations EEA, DC ALT and Make-up Water Discharge Structure (MUDS) [indicator, Figure 3] and were also analyzed for gamma emitters.

D. Ingestion

Milk samples were collected semimonthly from April through November and monthly from December through March. No sampling locations that produce milk

for human consumption were identified within 5 miles of the plant during 1995. Therefore, only control samples were obtained. Radiochemical I-131 and gamma isotopic analyses were performed on each sample. The control location (S-3) is illustrated on Figure 5.

Broadleaf vegetation samples were collected monthly during the growing season from four gardens. The three indicator gardens (two regular and one alternate) and a control garden were sampled (Figure 5). Gamma isotopic analyses were performed on all samples.

Due to the wet spring, downstream crops were not irrigated. Three samples were obtained from cropland downstream of the confluence of Wolf Creek and the Neosho River (indicator) and two samples were obtained upstream (control). Gamma isotopic analysis was performed on each sample.

Fish were sampled from the tail waters of JRR (control) and from WCCL semiannually for gamma isotopic analysis (Figure 4). Several species of gamefish and roughfish were sampled. Gamma isotopic analysis was performed on boneless meat portions of the fish. Fish were also analyzed for tritium.

Fish entrails were sampled for gamma isotopic analysis from JRR (control, Figure 4) and WCCL (indicator, Figure 4). The fish entrails were also analyzed for tritium. These samples were a cooperative sampling effort with the Kansas Department of Health and Environment (KDHE).

Deer and quail were sampled in the immediate vicinity of the plant (indicator). Quail were also sampled from a control location that was remote from the site. Gamma isotopic analysis was performed on boneless meat portions of the game. These samples were a cooperative sampling effort with the KDHE.

Soil was sampled semiannually from locations MUDS and EEA for gamma isotopic analyses. These samples were a cooperative sampling effort with the KDHE.

Terrestrial vegetation was also sampled semiannually from locations MUDS and EEA for gamma isotopic analyses. These samples were a cooperative sampling effort with the KDHE.

Sampling locations listed in this section are outlined in Table 2.

II. DISCUSSION OF RESULTS

Analysis results for all pathways are summarized in Appendix A using the format described in NRC Radiological Assessment Branch Technical Position, Revision 1, November 1979. Results for individual samples are listed in Appendix B.

In this section, results are discussed by pathway and analysis type. Operational results are related to controls, preoperational values, sources of radioactivity, and effluent releases when applicable. Trends or seasonal effects are discussed. Associated errors for positive results on data contained in Tables 3 through 16 may be obtained in Appendix B.

A. Airborne

Results of the weekly gross beta analysis are summarized in Table 3. In addition, Figure 6 illustrates a graph of weekly gross beta results for 1995. Figure 7 represents the historical smoothed averages of indicator and control gross beta. Figure 8 illustrates the historical indicator and control gross beta ratio. Finally, Figure 9 displays a historical plot of average weekly indicator and control gross beta values since initial criticality.

Figures 6 through 9 demonstrate how closely the indicator and control locations tracked together. Figure 7 reveals a seasonal cyclic trend in which gross beta values peak in the winter months (December or January) and decrease to a low point in the spring months (May or June).

Results from the weekly analysis of charcoal filters for I-131 did not exceed the detection limit during the year.

Results of the quarterly gamma analysis of air particulate filter composites are summarized in Table 4. Naturally occurring Be-7 and K-40 were detected.

Effects of plant operation were not seen via the airborne pathway for the year and no unusual trends were noted.

B. Direct Radiation

Quarterly gamma exposures measured at each location for 1995 are shown in Tables 5 and 6. Values are normalized to a standard 90-day quarter.

Results from TLDs located near the plant site (less than approximately three miles distance), which would be most sensitive to changes due to plant operation, were combined into quarterly averages. These nearsite averages, using locations, 1, 2, 7-14, 18, 26-30, 37 and 38, are compared to control (locations 39 and 40) results in Figure 11. In addition, variation of the nearsite averages from the control location results are displayed graphically in Figure 10. These figures also include preoperational data for comparison. Note that nearsite TLD locations have historically trended higher than the control locations both prior to and after WCGS became operational. Figure 11 also shows that the levels of direct radiation measured by TLDs near Wolf Creek have declined from 1980 to 1993. (For further discussion of this decline, please see the 1993 WCGS Annual Radiological Environmental Operating Report.)

Changes to area gamma exposure rates as a result of plant operation were not identified and no unusual trends were noted.

C. Waterborne

(1) Drinking Water

Results of drinking water gamma isotopic analyses are summarized in Table 7. Figure 14 illustrates the historical drinking water gross beta data through 1995.

Only gross beta activity was detected in drinking water and it was detected in all of the drinking water samples. No significant difference between the indicator and control locations was found.

Activity due to plant operation was not evident in drinking water samples during 1995 and no unusual trends were noted.

(2) Surface Water

Tritium, attributable to WCGS operation, was detected in all surface water samples collected from WCCL in 1995. A total of 1089 curies of liquid tritium was released during the year. Measured concentrations are shown in Table 8. (Note that the tritium levels are well below the 20,000 pCi/liter reporting limit for drinking water sources and the 30,000 pCi/liter limit for other water sources.) Figure 12 illustrates smoothed tritium data for locations DC and SP from startup in May 1985 through 1995. The cumulative curies of liquid tritium released to WCCL is illustrated on Figure 13.

During 1995, the annual mean for detected tritium at the discharge cove was 10,275 pCi/liter. It can be seen in Figure 12 that monthly surface water tritium concentrations appear to be slightly increasing since plant startup. This is expected until the tritium concentration of the lake reaches equilibrium, which has been estimated at 13,074 pCi/liter.

There were no other radionuclides detected in surface water for the year, and no unusual trends were noted.

(3) Ground Water

During 1995, the occurrence of radioactivity was not detected in ground water samples.

(4) Shoreline Sediment

Naturally occurring nuclides (K-40, Ra-226 and Th-228) were detected in all indicator locations as well as the control locations. Another naturally occurring nuclide (Be-7) was detected in a control location sample.

In two samples from the discharge cove, Co-60 was detected (115 pCi/kg and 168 pCi/kg). This activity is attributable to plant operation.

Cs-137 was detected in samples from the indicator locations, as well as in one sample from a control location. Since Cs-134 was not detected in the samples from the indicator locations, this activity may indicate fallout as opposed to newly produced fission products. The presence of Cs-134 is expected if the occurrence of Cs-137 is related to plant operation. Since Cs-134 has a shorter half-life than Cs-137 (2 years versus 30 years), it is not expected to be found when the presence of Cs-137 is due to fallout. Figure 15 illustrates that Cs-137 activity was detected preoperationally and is routinely detected at the discharge cove. A linear trendline indicates that the Cs-137 activity detected in the discharge cove is showing a downward trend. Analysis results are summarized in Table 11.

D. Ingestion

(1) Milk

No indicator locations for milk existed during 1995 (see Program Deviation section for explanation). A control sample was routinely obtained for analysis. All milk samples analyzed contained K-40. The yearly average K-40 concentration was 1400 pCi/liter. Table 15 summarizes milk analysis results for 1995.

No other gamma emitters were detected.

(2) Food and Garden Crops

Gamma analyses of broadleaf vegetation samples during 1995 revealed naturally occurring gamma emitters Be-7 and K-40. Table 13 shows the results of 1995 analysis. Additional gamma emitters were not detected in broadleaf vegetation samples.

In addition to broadleaf vegetation, crop samples irrigated with water from the Neosho River were collected. Two control samples were obtained from cropland upstream of the confluence of Wolf Creek and the Neosho River, and three indicator samples were obtained downstream. Gamma analysis detected naturally occurring K-40 to be present in all of the samples, with no nuclides detected due to plant operation. Due to the wet spring, downstream crops were not irrigated this year. Results of crop analyses are summarized in Table 14.

(3) Fish

Analysis results are illustrated in Table 16. Naturally occurring K-40 was detected in all fish samples.

During 1995, fish were also analyzed for tritium. All fish samples taken from WCCL and from the WCCL outlet pool had tritium activity detected. The detected tritium activity is attributable to plant operation. An adult consuming 21 kilograms of fish, at the maximum measured tritium concentration for 1995 (9,100 pCi/kg) would receive a calculated committed dose of 0.012 mrem. Figure 16 illustrates the tritium concentrations detected in fish from WCCL.

E. Special Samples (not required by the WCGS ODCM)

(1) Nondomestic Meat (Quail & Deer)

Naturally occurring K-40 was detected in all samples. Other radionuclides were not detected and no effects of plant operation were detected in these samples.

(2) Bottom Sediment

Table 12 shows gamma emitters detected during 1995 in bottom sediment samples. Naturally occurring nuclides detected include Be-7, K-40, Ra-226, and Th-228.

Mn-54 and Co-58 were detected in one WCCL discharge cove sample. This activity is attributable to plant operation and is regularly identified in plant effluents.

Co-60 was detected in both samples obtained from the WCCL discharge cove. Co-60 activity shown in Table 12 is attributable to plant operation and is commonly identified in plant effluents.

Two samples obtained from the discharge cove contained both Cs-134 and Cs-137. Since both nuclides are present, some of the Cs-137 activity is attributed to plant operations, and all of the Cs-134 is attributed to plant operation.

Cs-137 was also detected in a sample taken from location WC&11TH RD. Since Cs-134 was not present and Cs-137 activity was also detected from the control location sample, this activity is primarily due to fallout, and not to a newly produced fission product.

No other radionuclides were detected.

(3) Aquatic Vegetation

Table 10 shows gamma emitters detected during 1995 in aquatic plant samples. Naturally occurring Be-7, K-40, Ra-226 and Th-228 were detected.

Mn-54 was detected in algae samples collected from the discharge cove. This activity is attributed to plant operation and is regularly identified in plant effluents.

Co-58 and Co-60 were also detected in algae samples collected from the discharge cove. This activity is attributed to plant operation and both nuclides are regularly identified in plant effluents.

Nb-95/Zr-95 were detected in an algae sample obtained from the discharge cove. This activity is attributed to plant operation and is regularly identified in plant effluents.

Cs-137 was detected in algae samples collected from the discharge cove. Cs-137 was also detected in the arrowhead sample collected from the EEA. Since Cs-134 was not detected in the samples, the Cs-137 activity is primarily due to fallout, and not due to a newly produced fission product.

(4) Terrestrial Vegetation

Pasturage samples were obtained from two locations: EEA and MUDS. All samples had naturally occurring Be-7 and K-40 activity detected. No other nuclides were detected.

(5) Soil

Soil samples were obtained from two locations: EEA and MUDS. Naturally occurring Be-7, K-40, Ra-226 and Th-228 activity was detected. Cs-137 activity was detected in three of the four soil samples. Since Cs-134 was not detected, the Cs-137 activity is primarily due to fallout, and not from a newly produced fission product.

III. ANNUAL LAND USE CENSUS RESULTS AND PROGRAM REVISIONS

INTRODUCTION

The annual Land Use Census of rural residents within five miles of the WCGS has been completed for 1995. The results and notable changes are summarized and illustrated in Tables 17 and 18.

BACKGROUND

Section 5.2, Attachment A, of the ODCM procedure (AP 07B-003), directs that "A Land Use Census shall be conducted annually during the growing season to identify the nearest (1) milk animal, (2) residence, and (3) garden of greater than 500 square feet producing broadleaf vegetation in each of the 16 meteorological sections within five miles of the WCGS site." "The results of the Land Use Census shall be included in the Annual Radiological Environmental Operating Report."

Table 5-1, Attachment A, of the ODCM requires that broadleaf vegetation samples be collected from "two indicator locations with the highest calculated annual average D/Q."

Table 5-1, Attachment A, of the ODCM also requires that milk samples be collected from "three indicator locations within 5 miles of the site having the highest dose potential."

METHODOLOGY

Surveys were mailed to rural residents within five miles of WCGS during the first week of September 1995. A follow-up mailing was sent during the third week of September to residents who had not responded. The survey excluded the residents of New Strawn, Burlington, and a trailer park just north of Burlington. These locations are excluded due to the large number of households and the low likelihood that information gained from these residences would affect the locations chosen for REMP sampling. Of the 168 surveys mailed to the rural residents, 146 were returned by mail and 16 responses were obtained through telephone conversations. Six surveys were partially completed with information obtained by driving by the locations, since the residents could not be reached by telephone or the surveys were not returned by mail. This is a response rate of 96.43 percent for the 1995 census.

RESULTS

The estimated population for the 1995 Land Use Census is 476 persons. This is an increase from the 1994 Land Use Census which was estimated at 436 persons. In 1993, 146 households were surveyed, while 158 households were surveyed in the 1994 Land Use Census.

Comparing the 1994 Land Use Census results to this year's results indicates that the nearest residence has changed in sectors A, M, and N. In sector A,

the nearest residence is located 2.6 miles from the plant (location A2.6-17TE1520). In sector M, the nearest residence is no longer 2.4 miles from the plant; the new location (M1.6-NARD1441) is located closer to the plant at 1.6 miles. In sector N, the nearest residence is no longer 2.6 miles from the plant; the new location (N2.1-15FD1350) is located closer to the plant at 2.1 miles. In sector L, the closest residence is still located at 1339 Native Road, SE, however, the distance was changed to more accurately reflect this location.

Two changes were noted in the distance to the nearest milk animal. During 1994, no locations were identified as having milk animals. During 1995, two surveys indicated dairy cattle were kept on the property. Telephone calls were made to both residences (G3.6-RERD1150 and B4.1-QURD1823), and neither household is milking the dairy cattle for human consumption.

Numerous location changes were noted for the nearest garden producing broadleaf vegetation. In sectors A, B, P, the gardens are closer to the plant than the gardens indicated in 1994. In sector L, the distance is the same, however, the location is different.

SUMMARY

Considering the data collected in the 1995 Land Use Census, a change is required in the REMP regarding broadleaf vegetation. The two locations with the highest calculated annual average D/Q rankings are A2.61-OXLA1731 and R2.1-NALA1650, respectively. The ODCM specifies that an "alternate location may be used to provide continued monitoring". The garden at G1.6-QURD1384 is third by the D/Q ranking, and is a likely candidate for the alternate garden location. The residents at A2.61-OXLA1731, R2.1-NALA1650, and G1.6-QURD1384 will be contacted to ask if they will participate in the REMP sampling program. Considering the residents' answers, the REMP will be revised accordingly.

IV. PROGRAM DEVIATIONS

Airborne

Location 2 (October 31): While performing the weekly air sample collection, the pump at location 2 (Sharpe) was found to be inoperable. The motor on the air sample pump was completely seized-up. The air sample pump was replaced. Although the motor seized, the installed clock continued to operate. Therefore the air particulate filter and the charcoal filter were submitted to the vendor lab with "unknown" as the volume. (PIR 95-2652)

Direct Radiation Samplers (TLDs)

Location 42, first quarter: The Health Physics lab reported that an erroneous reading had occurred on TLD E-0000079. The results for this location are based on one TLD instead of two.

Location 43, first quarter: The Health Physics lab reported than an erroneous reading had occurred on TLD E-0000036. The results for this location are based on one TLD instead of two.

Ingestion

Milk

Indicator sampling locations are still unavailable within five miles of the plant. Refer to Section III, Annual Land Use Census Results and Program Revisions.

Broadleaf Vegetation

Broadleaf vegetation is sampled when seasonally available. No broadleaf vegetation deviations occurred during 1995. Listed below are those sample locations and dates when the samples were not collected due to seasonal unavailability. No corrective actions were necessary. Samples were collected at alternate location C-1 when available. Sample locations R-1 and G-1 are the primary sample locations and S-4 is the control location.

| | |
|-------------|---|
| G-1 (5/30) | Unavailable. All other gardens sampled. |
| G-1 (6/27) | Unavailable. All other gardens sampled |
| R-1 (9/26) | Unavailable. All other gardens sampled |
| R-1 (10/31) | Unavailable. All other gardens sampled |

V. EPA INTERLABORATORY COMPARISON PROGRAM RESULTS

Teledyne Brown Engineering Environmental Services is contracted to perform radiological analysis of environmental samples for WCNOC. Teledyne participated in the EPA Interlaboratory Comparison Program during 1995.

Table 19 shows intercomparison test results received during the year. The table lists the sample date, the sample media, the nuclide or analysis type, the known value reported by the EPA, the measured value reported by Teledyne Brown Engineering Environmental Services (based upon triplicate analysis), and the normalized deviation from the known. Results are listed in the table for sample media and analysis types corresponding to those performed for WCNOC.

All of the Teledyne Brown Engineering Environmental Services results were within three standard deviations of the known EPA results.

TABLE 1

1995 RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM
SAMPLE COLLECTION

| EXPOSURE PATHWAY/ SAMPLE | NUMBER OF SAMPLES AND SAMPLE LOCATIONS | SAMPLING AND COLLECTION FREQUENCY | TYPE AND FREQUENCY OF ANALYSIS |
|------------------------------------|--|--|--|
| AIRBORNE | Figures 1 & 5 | | |
| Radioiodine and Particulates | Samples from five locations | Continuous sampler operation with sample collection weekly, or more frequently if required by dust loading. | Analyze radioiodine canister weekly for I-131 |
| | Samples from locations near the site boundary in three sectors having the highest calculated annual average D/Q (Locations 2, 3, and 37 on Figure 1) | | Analyze particulate filter weekly for gross beta activity; perform quarterly gamma isotopic analysis composite (by location) |
| | Sample from the vicinity of a community having the highest calculated annual average D/Q (Location 32 on Figure 1, New Strawn) | | |
| | Sample from a control location 10-20 miles distant in a low D/Q sector (Location 40 on Figure 5) | | |

TABLE 1 (Cont)

| EXPOSURE PATHWAY/ SAMPLE | NUMBER OF SAMPLES AND SAMPLE LOCATIONS | SAMPLING AND COLLECTION FREQUENCY | TYPE AND FREQUENCY OF ANALYSIS |
|--------------------------------|---|--------------------------------------|-----------------------------------|
| DIRECT RADIATION | Figures 2 & 5 | | |
| | 40 routine monitoring stations with two or more dosimeters measuring dose continuously, placed as follows: | Quarterly | Gamma dose quarterly |
| | An inner ring of stations, one in each meteorological sector 0-3 mile range from the site (Locations 1, 7-9, 11-13, 18, 26, 27, 29-31, 37 and 38 on Figure 2) | | |
| | An outer ring of stations, one in each meteorological sector in the 3-5 mile range from the site (Locations 4-6, 15-17, 19-25, and 33-36 on Figure 2). Five sectors [A, B, D, G, and L] contain an additional station (Locations 2, 3, 10, 14 and 28) | | |
| | The balance of the stations to be placed in special interest areas such as population centers (Locations 23 and 32), nearby residences | | |

TABLE 1 (Cont)

| EXPOSURE PATHWAY/ SAMPLE | NUMBER OF SAMPLES AND SAMPLE LOCATIONS | SAMPLING AND COLLECTION FREQUENCY | TYPE AND FREQUENCY OF ANALYSIS |
|--|---|--------------------------------------|--|
| DIRECT RADIATION (cont) | | | |
| (many locations are near a residence), schools (Location 23), and in one or two areas to serve as control stations 10-20 miles distant from the site (Locations 39 and 40 on Figure 5) | | | |
| WATERBORNE | Figure 3 | | |
| Surface | One sample upstream (Location MUSH on Figure 3) and one sample downstream (Location DC on Figure 3). | Monthly grab sample | Monthly gamma isotopic analysis and composite for tritium analysis quarterly |
| Ground | Samples from one or two sources only if likely to be affected. | Quarterly | Quarterly gamma isotopic and tritium analysis |
| | Indicator samples at locations hydrologically downgradient of the site (Locations C-10, C-49, and D-65 on Figure 3); Control sample at a location hydrologically upgradient of the site (Location B-12 on Figure 3) | | |

TABLE 1 (Cont)

| EXPOSURE PATHWAY/ SAMPLE | NUMBER OF SAMPLES AND SAMPLE LOCATIONS | SAMPLING AND COLLECTION FREQUENCY | TYPE AND FREQUENCY OF ANALYSIS |
|--------------------------------|--|---|--|
| WATERBORNE (cont) | | | |
| Drinking | Sample of municipal water supply at an indicator location downstream of the site (Location LW-40 on Figure 5); control sample from location upstream of the site (Location BW-15 on Figure 3) | Monthly Composite | Monthly gamma isotopic analysis and gross beta analysis of composite sample. Quarterly tritium analysis of composites. |
| Shoreline sediment | One sample from the vicinity of Wolf Creek Cooling Lake discharge cove; control sample from John Redmond Reservoir (Locations DC and JRR respectively on Figure 3) | Semiannually | Semiannual gamma isotopic analysis |
| INGESTION | | | |
| | Figures 4 & 5 | | |
| Milk | Samples from milking animals at three indicator locations within five miles of the site having the highest dose potential (currently there are no locations producing milk for human consumption within five miles of the site); one sample from a control location greater than 10 miles from the site (Location S-3 on Figure 5) | Semimonthly while animals are on pasture (April to November) and monthly during the remainder of the year (December to March) | Gamma isotopic analysis and I-131 analysis of each sample |

TABLE 1 (Cont)

| EXPOSURE PATHWAY/ SAMPLE | NUMBER OF SAMPLES AND SAMPLE LOCATIONS | SAMPLING AND COLLECTION FREQUENCY | TYPE AND FREQUENCY OF ANALYSIS |
|--------------------------------|---|--------------------------------------|--|
| INGESTION (cont) | | | |
| Fish | Indicator samples of 1-3 recreationally important species from Wolf Creek Cooling Lake; control samples of similar species from John Redmond Reservoir spillway (Figure 4) | Semiannually | Gamma isotopic analysis on edible portions |
| Broadleaf Vegetation | Samples of available broadleaf vegetation from two indicator locations with highest calculated annual average D/Q (Locations R-1 and G-1 and alternate location C-1 on Figure 4); sample of similar broadleaf vegetation from a control location greater than 10 miles from the site in a low D/Q sector (Location S-4 on Figure 5) | Monthly when available | Gamma isotopic analysis on edible portions |
| Irrigated Crops | Sample of crops irrigated with water from the Neosho River downstream of the Neosho River - Wolf Creek confluence (Location NR-D1 and NR-D2 on Figure 5) | At time of harvest | Gamma isotopic analysis on edible portions |

TABLE 2
SAMPLE LOCATION NUMBERS, DISTANCES (Miles), AND DIRECTIONS

| Location Number | Distance/Direction | Location Number | Distance/Direction | Location Number | Distance/Direction |
|--|--------------------------|-----------------------------|------------------------|---------------------------------|--------------------|
| Air Particulates and Radioiodines | | | | | |
| 2 | 2.7/N | | | | |
| 3 | 3.0/NNE | | | | |
| 32 | 3.2/WNW | | | | |
| 37 | 2.1/NNW | | | | |
| 40 | >15.0/WNW | | | | |
| TLDs | | | | | |
| 1 | 1.4/N | 16 | 4.2/E | 31 | 3.0/WNW |
| 2 | 2.7/N | 17 | 3.6/SE | 32 | 3.2/WNW |
| 3 | 3.0/NNE | 18 | 3.0/SSE | 33 | 3.7/WNW |
| 4 | 4.0/NNE | 19 | 4.0/SSE | 34 | 4.0/NW |
| 5 | 4.0/NE | 20 | 3.3/S | 35 | 4.6/NNW |
| 6 | 4.4/ENE | 21 | 3.8/S | 36 | 4.2/N |
| 7 | 1.9/NE | 22 | 4.1/SSW | 37 | 2.1/NNW |
| 8 | 1.6/NNE | 23 | 4.5/SW | 38 | 1.2/NW |
| 9 | 2.0/ENE | 24 | 4.1/WSW | 39 | 13.0/N |
| 10 | 2.4/ENE | 25 | 3.6/W | 40 | >15.0/WNW |
| 11 | 1.6/E | 26 | 2.6/WSW | 41 | 0.8/NNW |
| 12 | 1.8/ESE | 27 | 2.1/SW | 42 | 0.8/SSE |
| 13 | 1.5/SE | 28 | 2.8/SW | 43 | 0.8/WNW |
| 14 | 2.6/SE | 29 | 2.6/SSW | 44 | 3.0/NNW |
| 15 | 4.5/ESE | 30 | 2.2/W | 45 | 1.5/WNW |
| Ground water | | Drinking water | | Surface water | |
| B-12/F-20 | 2.2/NNE | BW-15 | 3.9/SW | MUSH | 3.6/W |
| C-10 | 2.8/W | LW-40 | >10.0/SSE | DC | 0.6/WNW |
| C-49 | 2.9/SW | | | SP | 2.9/S |
| D-65 | 3.9/S | | | | |
| Milk | | Broadleaf vegetation | | Irrigated Crops | |
| S-3 | >15.0/WNW | C-1 | 2.6/NE | NR-U1 | 4.2/SW |
| | | R-1 | 2.1/NNW | NR-D1 | 9.2/S |
| | | G-1 | 1.6/SE | NR-D2 | >10.0/S |
| | | S-4 | >15.0/WNW | | |
| Fish | | Shoreline Soil | | Aquatic Vegetation/Algae | |
| WCCL | 0.6/WNW | DC | 0.6/WNW | DC | 0.6/WNW |
| JRR | 4.0/W | JRR | 4.0/W | DC ALT | 1.5/NW |
| | | EEA | 3.0/NNW | EEA | 3.0/NNW |
| | | | | MUDS | 1.5/WNW |
| Game Birds and Animals | | | | | |
| WCCL | General Vicinity - NNW/N | | | | |
| LeRoy | >10.0/SSE | | | | |
| Terrestrial Vegetation & Soil | | | Bottom Sediment | | |
| EEA | 3.0/NNW | | DC | 0.6/WNW | |
| MUDS | 1.5/WNW | | JRR | 4.0/W | |
| | | | WC&llth RD | 3.8/S | |

TABLE 3
 1995 Airborne Particulate Gross Beta Analyses
 (pCi/cubic meter, analysis error reported in Appendix B)

| Date | | Location | | | | |
|-----------|---------|----------|-------|-------|-------|---------------|
| Beginning | Ending | 2 | 3 | 32 | 37 | 40 Control |
| 12/27/94 | 1/3/95 | 0.040 | 0.040 | 0.043 | 0.037 | 0.041 |
| 1/3/95 | 1/10/95 | 0.041 | 0.037 | 0.040 | 0.039 | 0.037 |
| 1/10/95 | 1/17/95 | 0.035 | 0.036 | 0.037 | 0.035 | 0.034 |
| 1/17/95 | 1/24/95 | 0.024 | 0.024 | 0.022 | 0.022 | 0.024 |
| 1/24/95 | 1/31/95 | 0.040 | 0.041 | 0.043 | 0.045 | 0.045 |
| 1/31/95 | 2/7/95 | 0.017 | 0.018 | 0.019 | 0.017 | 0.017 |
| 2/7/95 | 2/14/95 | 0.021 | 0.024 | 0.022 | 0.020 | 0.023 |
| 2/14/95 | 2/21/95 | 0.026 | 0.024 | 0.024 | 0.023 | 0.025 |
| 2/21/95 | 2/28/95 | 0.021 | 0.019 | 0.020 | 0.019 | 0.019 |
| 2/28/95 | 3/7/95 | 0.027 | 0.028 | 0.029 | 0.028 | 0.027 |
| 3/7/95 | 3/14/95 | 0.026 | 0.023 | 0.031 | 0.026 | 0.028 |
| 3/14/95 | 3/21/95 | 0.025 | 0.029 | 0.029 | 0.027 | 0.025 |
| 3/21/95 | 3/28/95 | 0.020 | 0.019 | 0.020 | 0.019 | 0.019 |
| 3/28/95 | 4/4/95 | 0.020 | 0.024 | 0.026 | 0.022 | 0.023 |
| 4/4/95 | 4/11/95 | 0.022 | 0.024 | 0.023 | 0.023 | 0.025 |
| 4/11/95 | 4/18/95 | 0.021 | 0.022 | 0.021 | 0.019 | 0.019 |
| 4/18/95 | 4/25/95 | 0.013 | 0.015 | 0.015 | 0.020 | 0.015 |
| 4/25/95 | 5/2/95 | 0.015 | 0.016 | 0.016 | 0.016 | 0.014 |
| 5/2/95 | 5/9/95 | 0.012 | 0.014 | 0.012 | 0.013 | 0.014 |
| 5/9/95 | 5/16/95 | 0.013 | 0.014 | 0.016 | 0.016 | 0.015 |
| 5/16/95 | 5/23/95 | 0.016 | 0.020 | 0.020 | 0.018 | 0.016 |
| 5/23/95 | 5/30/95 | 0.013 | 0.011 | 0.011 | 0.011 | 0.011 |
| 5/30/95 | 6/6/95 | 0.014 | 0.012 | 0.014 | 0.014 | 0.015 |
| 6/6/95 | 6/13/95 | 0.019 | 0.017 | 0.019 | 0.017 | 0.022 |
| 6/13/95 | 6/20/95 | 0.028 | 0.027 | 0.028 | 0.031 | 0.029 |
| 6/20/95 | 6/27/95 | 0.025 | 0.024 | 0.029 | 0.029 | 0.026 |
| 6/27/95 | 7/5/95 | 0.021 | 0.021 | 0.023 | 0.022 | 0.023 |

TABLE 3 (Cont)
 1995 Airborne Particulate Gross Beta Analyses
 (pCi/cubic meter, analysis error reported in Appendix B)

| Date | | Location | | | | |
|-----------|----------|----------|-------|-------|-------|---------------|
| Beginning | Ending | 2 | 3 | 32 | 37 | 40 Control |
| 7/5/95 | 7/11/95 | 0.027 | 0.023 | 0.026 | 0.028 | 0.027 |
| 7/11/95 | 7/18/95 | 0.037 | 0.030 | 0.035 | 0.038 | 0.035 |
| 7/18/95 | 7/25/95 | 0.024 | 0.020 | 0.022 | 0.023 | 0.023 |
| 7/25/95 | 8/2/95 | 0.024 | 0.020 | 0.023 | 0.024 | 0.024 |
| 8/2/95 | 8/8/95 | 0.017 | 0.016 | 0.020 | 0.017 | 0.018 |
| 8/8/95 | 8/16/95 | 0.021 | 0.024 | 0.021 | 0.025 | 0.023 |
| 8/16/95 | 8/22/95 | 0.029 | 0.026 | 0.029 | 0.032 | 0.029 |
| 8/22/95 | 8/29/95 | 0.043 | 0.045 | 0.041 | 0.046 | 0.041 |
| 8/29/95 | 9/5/95 | 0.044 | 0.043 | 0.045 | 0.044 | 0.039 |
| 9/5/95 | 9/12/95 | 0.030 | 0.029 | 0.029 | 0.032 | 0.028 |
| 9/12/95 | 9/19/95 | 0.037 | 0.034 | 0.037 | 0.039 | 0.036 |
| 9/19/95 | 9/26/95 | 0.025 | 0.022 | 0.023 | 0.024 | 0.021 |
| 9/26/95 | 10/3/95 | 0.044 | 0.040 | 0.045 | 0.043 | 0.039 |
| 10/3/95 | 10/10/95 | 0.022 | 0.019 | 0.023 | 0.026 | 0.025 |
| 10/10/95 | 10/16/95 | 0.035 | 0.036 | 0.036 | 0.040 | 0.040 |
| 10/16/95 | 10/24/95 | 0.022 | 0.023 | 0.020 | 0.025 | 0.025 |
| 10/24/95 | 10/31/95 | *** | 0.023 | 0.021 | 0.022 | 0.023 |
| 10/31/95 | 11/7/95 | 0.032 | 0.036 | 0.035 | 0.036 | 0.032 |
| 11/7/95 | 11/14/95 | 0.028 | 0.032 | 0.035 | 0.033 | 0.031 |
| 11/14/95 | 11/21/95 | 0.036 | 0.038 | 0.034 | 0.038 | 0.037 |
| 11/21/95 | 11/29/95 | 0.040 | 0.036 | 0.038 | 0.035 | 0.034 |
| 11/29/95 | 12/5/95 | 0.033 | 0.039 | 0.043 | 0.036 | 0.037 |
| 12/5/95 | 12/12/95 | 0.028 | 0.031 | 0.033 | 0.035 | 0.033 |
| 12/12/95 | 12/20/95 | 0.040 | 0.037 | 0.040 | 0.039 | 0.046 |
| 12/20/95 | 12/26/95 | 0.030 | 0.034 | 0.028 | 0.032 | 0.037 |
| 12/26/95 | 1/3/96 | 0.040 | 0.047 | 0.040 | 0.043 | 0.045 |

*** - Unavailable due to pump failure

TABLE 4
 1995 Airborne Particulate Quarterly Composite Gamma Isotopic Analyses
 (pCi/cubic meter, analysis error reported in Appendix B)

| Location | Quarter | Be-7 | K-40 |
|----------|---------|--------|--------|
| 2 | 1 | 0.133 | |
| 3 | 1 | 0.157 | |
| 32 | 1 | 0.156 | |
| 37 | 1 | 0.177 | |
| 40 | 1 | 0.127 | 0.0130 |
| 2 | 2 | 0.168 | |
| 3 | 2 | 0.159 | |
| 32 | 2 | 0.181 | 0.0087 |
| 37 | 2 | 0.169 | |
| 40 | 2 | 0.180 | |
| 2 | 3 | 0.0855 | |
| 3 | 3 | 0.0680 | |
| 32 | 3 | 0.0900 | |
| 37 | 3 | 0.0941 | |
| 40 | 3 | 0.0727 | |
| 2 | 4 | 0.0611 | 0.0143 |
| 3 | 4 | 0.0645 | |
| 32 | 4 | 0.0590 | |
| 37 | 4 | 0.0648 | |
| 40 | 4 | 0.0677 | |

TABLE 5
1995 First and Second Quarter TLD Results
(mr/90 day qtr)

| First Quarter | | | | Second Quarter | | | |
|---------------|------|-------------------|----------------------|----------------|------|-------------------|----------------------|
| Location | Days | 90 Day Average | Error (2 std dev) | Location | Days | 90 Day Average | Error (2 std dev) |
| 1 | 92.0 | 13.4 | 0.8 | 1 | 91.0 | 18.0 | 0.6 |
| 2 | 92.1 | 15.0 | 1.1 | 2 | 90.8 | 14.3 | 1.0 |
| 3 | 92.1 | 14.4 | 2.3 | 3 | 90.9 | 13.6 | 1.4 |
| 4 | 92.8 | 16.1 | 1.3 | 4 | 90.2 | 14.5 | 1.6 |
| 5 | 92.8 | 13.9 | 1.0 | 5 | 90.2 | 14.3 | 0.4 |
| 6 | 92.8 | 16.6 | 1.1 | 6 | 90.2 | 13.6 | 0.9 |
| 7 | 92.0 | 16.5 | 0.5 | 7 | 90.9 | 13.4 | 0.9 |
| 8 | 92.0 | 18.1 | 1.1 | 8 | 91.0 | 17.6 | 0.6 |
| 9 | 92.8 | 15.6 | 0.8 | 9 | 90.2 | 15.8 | 1.3 |
| 10 | 92.8 | 15.2 | 3.9 | 10 | 90.2 | 18.2 | 1.1 |
| 11 | 92.8 | 18.6 | 1.3 | 11 | 90.2 | 16.6 | 0.7 |
| 12 | 92.8 | 17.0 | 1.7 | 12 | 90.2 | 16.5 | 2.1 |
| 13 | 92.8 | 17.6 | 0.9 | 13 | 90.2 | 16.5 | 1.1 |
| 14 | 92.8 | 17.6 | 2.0 | 14 | 90.2 | 15.4 | 0.8 |
| 15 | 92.8 | 18.0 | 1.7 | 15 | 90.2 | 17.5 | 3.8 |
| 16 | 92.8 | 17.5 | 1.1 | 16 | 90.2 | 15.2 | 3.2 |
| 17 | 92.8 | 17.4 | 1.1 | 17 | 90.3 | 13.5 | 1.0 |
| 18 | 92.8 | 18.3 | 1.4 | 18 | 91.0 | 14.5 | 0.9 |
| 19 | 91.9 | 17.4 | 0.4 | 19 | 91.0 | 16.6 | 1.6 |
| 20 | 91.9 | 16.3 | 1.0 | 20 | 91.0 | 16.3 | 0.8 |
| 21 | 91.9 | 12.8 | 1.1 | 21 | 91.0 | 13.6 | 1.1 |
| 22 | 91.9 | 15.8 | 0.6 | 22 | 91.0 | 15.3 | 0.8 |
| 23 | 91.9 | 14.9 | 1.3 | 23 | 91.0 | 14.3 | 0.4 |
| 24 | 91.9 | 15.2 | 0.8 | 24 | 90.3 | 14.2 | 0.8 |
| 25 | 91.9 | 12.0 | 1.4 | 25 | 90.3 | 12.2 | 0.7 |
| 26 | 91.9 | 13.7 | 2.6 | 26 | 90.3 | 14.4 | 0.2 |
| 27 | 91.9 | 14.3 | 1.4 | 27 | 91.0 | 15.0 | 2.2 |
| 28 | 92.0 | 12.4 | 3.3 | 28 | 91.0 | 12.9 | 0.8 |
| 29 | 92.0 | 14.5 | 3.6 | 29 | 90.9 | 13.1 | 0.4 |
| 30 | 91.9 | 15.2 | 3.3 | 30 | 90.3 | 15.1 | 0.9 |
| 31 | 91.9 | 14.0 | 2.0 | 31 | 91.0 | 14.6 | 1.0 |
| 32 | 92.0 | 12.6 | 0.7 | 32 | 90.3 | 15.5 | 1.6 |
| 33 | 92.0 | 16.1 | 7.0 | 33 | 90.3 | 16.2 | 1.1 |
| 34 | 91.1 | 14.9 | 2.7 | 34 | 90.9 | 15.5 | 1.6 |
| 35 | 92.1 | 14.7 | 2.3 | 35 | 90.8 | 16.3 | 2.1 |
| 36 | 92.1 | 15.3 | 0.8 | 36 | 90.8 | 15.1 | 0.8 |
| 37 | 92.0 | 13.2 | 1.1 | 37 | 91.0 | 14.3 | 0.5 |
| 38 | 92.0 | 15.5 | 2.5 | 38 | 91.0 | 16.0 | 1.1 |
| 39 | 92.0 | 14.9 | 0.9 | 39 | 90.9 | 15.3 | 0.8 |
| 40 | 91.1 | 11.6 | 0.5 | 40 | 90.8 | 13.4 | 1.2 |
| 41 | 92.0 | 16.4 | 2.5 | 41 | 91.7 | 17.5 | 0.8 |
| * 42 | 92.0 | 10.8 | 0.6 | 42 | 91.0 | 10.5 | 3.5 |
| * 43 | 92.0 | 9.1 | 1.1 | 43 | 91.0 | 9.2 | 0.3 |
| 44 | 92.1 | 15.8 | 1.4 | 44 | 90.8 | 15.9 | 1.0 |
| 45 | 91.9 | 16.0 | 1.5 | 45 | 90.3 | 18.4 | 2.3 |

* One TLD

TABLE 6
1995 Third and Fourth Quarter TLD Results
(mr/90 day qtr)

| Third Quarter | | | | Fourth Quarter | | | |
|---------------|------|-------------------|----------------------|----------------|------|-------------------|----------------------|
| Location | Days | 90 Day Average | Error (2 std dev) | Location | Days | 90 Day Average | Error (2 std dev) |
| 1 | 97.9 | 17.4 | 0.9 | 1 | 84.1 | 18.7 | 1.5 |
| 2 | 98.0 | 14.2 | 1.8 | 2 | 84.1 | 15.8 | 2.3 |
| 3 | 98.1 | 15.7 | 1.4 | 3 | 84.0 | 15.2 | 1.5 |
| 4 | 98.1 | 18.0 | 3.9 | 4 | 84.0 | 17.2 | 3.4 |
| 5 | 98.1 | 14.6 | 1.1 | 5 | 84.0 | 15.6 | 1.6 |
| 6 | 98.1 | 14.8 | 2.2 | 6 | 84.0 | 15.5 | 1.6 |
| 7 | 98.9 | 14.7 | 0.8 | 7 | 83.2 | 15.6 | 1.0 |
| 8 | 98.8 | 18.3 | 2.8 | 8 | 83.2 | 17.5 | 2.4 |
| 9 | 98.8 | 15.6 | 3.1 | 9 | 83.2 | 15.7 | 1.5 |
| 10 | 98.8 | 17.8 | 3.6 | 10 | 83.2 | 17.2 | 2.0 |
| 11 | 98.8 | 18.3 | 2.1 | 11 | 83.2 | 18.0 | 1.1 |
| 12 | 98.1 | 17.2 | 2.5 | 12 | 84.0 | 16.2 | 2.0 |
| 13 | 98.1 | 16.8 | 1.8 | 13 | 84.0 | 17.9 | 3.8 |
| 14 | 98.1 | 17.8 | 3.2 | 14 | 84.0 | 16.8 | 1.4 |
| 15 | 98.1 | 18.0 | 4.8 | 15 | 84.0 | 16.0 | 1.4 |
| 16 | 98.1 | 16.8 | 0.8 | 16 | 84.0 | 16.7 | 2.7 |
| 17 | 98.8 | 16.6 | 1.1 | 17 | 84.0 | 15.4 | 1.0 |
| 18 | 98.0 | 18.6 | 2.9 | 18 | 84.0 | 16.9 | 1.5 |
| 19 | 98.1 | 16.8 | 1.8 | 19 | 83.9 | 16.5 | 1.9 |
| 20 | 98.2 | 17.4 | 2.6 | 20 | 83.9 | 18.5 | 1.4 |
| 21 | 98.1 | 14.2 | 0.9 | 21 | 83.9 | 15.4 | 2.1 |
| 22 | 98.0 | 18.8 | 3.5 | 22 | 83.9 | 16.2 | 1.9 |
| 23 | 98.0 | 15.7 | 3.8 | 23 | 83.9 | 15.4 | 1.6 |
| 24 | 98.8 | 15.5 | 2.4 | 24 | 83.9 | 15.2 | 1.2 |
| 25 | 98.8 | 13.1 | 1.4 | 25 | 83.9 | 13.4 | 1.1 |
| 26 | 98.9 | 14.1 | 1.4 | 26 | 83.9 | 14.6 | 1.7 |
| 27 | 98.2 | 16.2 | 0.8 | 27 | 83.9 | 18.3 | 2.0 |
| 28 | 98.2 | 13.4 | 1.5 | 28 | 83.9 | 13.8 | 2.0 |
| 29 | 98.2 | 12.8 | 2.0 | 29 | 83.9 | 13.1 | 1.4 |
| 30 | 98.9 | 14.7 | 0.5 | 30 | 83.9 | 15.3 | 1.3 |
| 31 | 9.2 | 14.7 | 2.0 | 31 | 83.9 | 15.8 | 1.7 |
| 32 | 98.9 | 14.2 | 1.2 | 32 | 83.8 | 15.3 | 1.2 |
| 33 | 98.8 | 16.4 | 1.8 | 33 | 83.9 | 18.3 | 2.8 |
| 34 | 98.1 | 16.4 | 1.4 | 34 | 84.0 | 17.8 | 1.8 |
| 35 | 98.2 | 16.5 | 0.7 | 35 | 84.0 | 16.1 | 1.6 |
| 36 | 98.2 | 17.4 | 2.6 | 36 | 84.0 | 16.3 | 1.6 |
| 37 | 97.8 | 15.8 | 1.6 | 37 | 84.9 | 18.0 | 3.0 |
| 38 | 97.8 | 19.8 | 2.1 | 38 | 84.9 | 19.4 | 2.2 |
| 39 | 98.1 | 16.9 | 0.9 | 39 | 84.0 | 17.8 | 1.6 |
| 40 | 98.2 | 15.6 | 1.1 | 40 | 84.0 | 15.5 | 2.1 |
| 41 | 97.2 | 16.7 | 1.3 | 41 | 84.1 | 18.3 | 1.7 |
| 42 | 97.9 | 10.2 | 0.2 | 42 | 84.9 | 12.0 | 1.3 |
| 43 | 97.9 | 9.7 | 1.4 | 43 | 84.9 | 11.4 | 1.4 |
| 44 | 98.0 | 16.0 | 1.0 | 44 | 84.2 | 17.4 | 1.6 |
| 45 | 98.9 | 15.7 | 0.6 | 45 | 83.9 | 18.9 | 1.8 |

TABLE 7
 1995 Drinking Water Radiological Analyses
 (pCi/liter, analysis error reported in Appendix B)

| Location | Date | Gr-B |
|----------|---------|------|
| BW15 | 1/3/95 | 6.4 |
| BW15 | 2/7/95 | 7.7 |
| BW15 | 3/7/95 | 6.6 |
| BW15 | 4/4/95 | 5.9 |
| BW15 | 5/2/95 | 6.5 |
| BW15 | 6/6/95 | 5.8 |
| BW15 | 7/5/95 | 7.9 |
| BW15 | 8/2/95 | 7.1 |
| BW15 | 9/5/95 | 8.5 |
| BW15 | 10/3/95 | 7.9 |
| BW15 | 11/7/95 | 9.4 |
| BW15 | 12/5/95 | 9.1 |
| LW40 | 1/3/95 | 6.3 |
| LW40 | 2/7/95 | 4.8 |
| LW40 | 3/7/95 | 7.0 |
| LW40 | 4/4/95 | 6.3 |
| LW40 | 5/2/95 | 4.5 |
| LW40 | 6/6/95 | 5.4 |
| LW40 | 7/5/95 | 5.1 |
| LW40 | 8/2/95 | 6.8 |
| LW40 | 9/5/95 | 7.6 |
| LW40 | 10/3/95 | 11 |
| LW40 | 11/7/95 | 8.6 |
| LW40 | 12/5/95 | 7.3 |

TABLE 8
 1995 Surface Water Radiological Analyses
 (pCi/liter, analysis error reported in Appendix B)

| Location | Date | H-3 |
|----------|----------|-------|
| DC | 1/17/95 | 9700 |
| DC | 2/22/95 | 11000 |
| DC | 3/21/95 | 9500 |
| DC | 4/25/95 | 12000 |
| DC | 5/16/95 | 11000 |
| DC | 6/20/95 | 9500 |
| DC | 7/11/95 | 9700 |
| DC | 8/22/95 | 8300 |
| DC | 9/19/95 | 9300 |
| DC | 10/24/95 | 12000 |
| DC | 11/21/95 | 12000 |
| DC | 12/20/95 | 9300 |
| SP | 1/17/95 | 9800 |
| SP | 2/22/95 | 9900 |
| SP | 3/21/95 | 9400 |
| SP | 4/25/95 | 12000 |
| SP | 5/16/95 | 11000 |
| SP | 6/20/95 | 9600 |
| SP | 7/11/95 | 10000 |
| SP | 8/22/95 | 8500 |
| SP | 9/19/95 | 9600 |
| SP | 10/24/95 | 11000 |
| SP | 11/21/95 | 12000 |
| SP | 12/20/95 | 9400 |

TABLE 9
 1995 Ground Water Radiological Analyses
 (pCi/liter, analysis error reported in Appendix B).

The occurrence of radioactivity was not detected in 1995 ground water samples.

TABLE 10
 1995 Aquatic Plants Radiological Analyses
 (pCi/kg, wet, analysis error reported in Appendix B)

| Loc | Type | Date | Be-7 | K-40 | Mn-54 | Co-58 | Co-60 | Nb-95 | Nb-95/Zr-95 | Cs-137 | Ra-226 | Th-228 |
|-----------|-------------|-------|------|------|-------|-------|-------|-------|-------------|--------|--------|--------|
| DC | Algae | 5/15 | 844 | 2000 | 16.9 | 192 | 118 | 31.7 | 20.7 | 61.9 | 431 | 194 |
| EEA | Arrow-head | 6/15 | 183 | 3700 | | | | | | 16.5 | 243 | 154 |
| DC | Algae | 8/25 | 570 | 1430 | 17.6 | 68.7 | 145 | | | 47.3 | 283 | 154 |
| DC ALT | Am Lotus | 8/25 | 184 | 2200 | | | | | | | | |
| MUDS | Pond-weed | 10/11 | | 2190 | | | | | | | | |

TABLE 11
1995 Shoreline Sediment Radiological Analyses
(pCi/kg, dry, analysis error reported in Appendix B)

| Location | Date | Be-7 | K-40 | Co-60 | Cs-137 | Ra-226 | Th-228 |
|----------|----------|------|-------|-------|--------|--------|--------|
| DC | 5/15/95 | | 8940 | 115 | 88.5 | 1950 | 1050 |
| DC | 10/18/95 | | 6570 | 168 | 207 | 1340 | 902 |
| EEA | 10/16/95 | | 9140 | | 90.6 | 1480 | 909 |
| JRR | 6/23/95 | 5540 | 12100 | | 204 | 1220 | 507 |
| JRR | 10/18/95 | | 8360 | | | 4080 | 1570 |

TABLE 12
1995 Bottom Sediment Radiological Analyses
(pCi/kg, dry, analysis error reported in Appendix B)

| Loc | Date | Be-7 | K-40 | Mn-54 | Co-58 | Co-60 | Cs-134 | Cs-137 | Ra-226 | Th-228 |
|----------------|-------|------|-------|-------|-------|-------|--------|--------|--------|--------|
| DC | 5/15 | | 11100 | 61.2 | 220 | 548 | 123 | 400 | 1720 | 1020 |
| WC&11 TH RD | 5/30 | | 11000 | | | | | | 1750 | 1090 |
| WC&11 TH RD | 10/24 | 1090 | 12100 | | | | | 98.1 | 2510 | 1200 |
| DC | 10/18 | | 13100 | | | 1090 | 152 | 623 | 2080 | 1540 |
| JRR | 10/18 | | 16700 | | | | | 220 | 2240 | 1250 |

TABLE 13
1995 Broadleaf Vegetation Radiological Analyses
(pCi/kg, wet, analysis error reported in Appendix B)

| Type | Location | Date | Be-7 | K-40 |
|---------|----------|----------|------|------|
| CABBAGE | C-1 | 5/30/95 | 504 | 3590 |
| CABBAGE | C-1 | 6/27/95 | 616 | 5950 |
| CABBAGE | C-1 | 7/25/95 | 252 | 4350 |
| CABBAGE | C-1 | 8/29/95 | 154 | 3860 |
| CABBAGE | C-1 | 9/26/95 | 232 | 3910 |
| CABBAGE | C-1 | 10/16/95 | | 2600 |
| CABBAGE | C-1 | 10/31/95 | 368 | 2020 |
| CABBAGE | G-1 | 7/26/95 | 546 | 3120 |
| CABBAGE | G-1 | 8/29/95 | 310 | 4760 |
| CABBAGE | G-1 | 9/26/95 | 318 | 2750 |
| CABBAGE | G-1 | 10/31/95 | 154 | 2740 |
| LETTUCE | R-1 | 5/30/95 | 724 | 4500 |
| LETTUCE | R-1 | 6/27/95 | 1190 | 4960 |
| CABBAGE | R-1 | 7/25/95 | 217 | 3970 |
| LETTUCE | R-1 | 8/29/95 | 141 | 6940 |
| CABBAGE | S-4 | 5/30/95 | 449 | 4300 |
| CABBAGE | S-4 | 6/27/95 | 621 | 2050 |
| CABBAGE | S-4 | 7/25/95 | 1050 | 4910 |
| CABBAGE | S-4 | 8/29/95 | 569 | 4520 |
| CABBAGE | S-4 | 9/26/95 | 484 | 4310 |
| CABBAGE | S-4 | 10/31/95 | 258 | 3160 |

TABLE 14
1995 Irrigated Crops Radiological Analyses
(pCi/kg, wet, analysis error reported in Appendix B)

| Type | Location | Date | K-40 | Comments |
|----------|----------|----------|-------|------------------------|
| SOYBEANS | NRD2 | 10/19/95 | 15300 | CROP WAS NOT IRRIGATED |
| SOYBEANS | NRU1 | 10/26/95 | 14700 | |
| SOYBEANS | NRD1 | 10/26/95 | 18200 | CROP WAS NOT IRRIGATED |
| CORN | NRD2 | 10/19/95 | 2710 | CROP WAS NOT IRRIGATED |
| CORN | NRU1 | 10/26/95 | 2800 | |

TABLE 15
1995 Milk Radiological Analyses
(pCi/liter, analysis error reported in Appendix B)

| LOC | TYPE | DATE | K-40 |
|-----|------|----------|------|
| S-3 | COW | 1/10/95 | 1570 |
| S-3 | COW | 2/14/95 | 1390 |
| S-3 | COW | 3/14/95 | 1310 |
| S-3 | COW | 4/11/95 | 1340 |
| S-3 | COW | 4/25/95 | 1400 |
| S-3 | COW | 5/9/95 | 1260 |
| S-3 | COW | 5/23/95 | 1340 |
| S-3 | COW | 6/13/95 | 1410 |
| S-3 | COW | 6/27/95 | 1550 |
| S-3 | COW | 7/11/95 | 1360 |
| S-3 | COW | 7/25/95 | 1390 |
| S-3 | COW | 8/9/95 | 1410 |
| S-3 | COW | 8/22/95 | 1420 |
| S-3 | COW | 9/12/95 | 1240 |
| S-3 | COW | 9/26/95 | 1390 |
| S-3 | COW | 10/10/95 | 1460 |
| S-3 | COW | 10/24/95 | 1390 |
| S-3 | COW | 11/14/95 | 1460 |
| S-3 | COW | 11/28/95 | 1450 |
| S-3 | COW | 12/12/95 | 1440 |

TABLE 16
1995 Fish Radiological Analyses
(pCi/kg, wet, analysis error reported in Appendix B)

| SPECIES | LOC | DATE | K-40 | H-3 |
|-----------------------------|------------------|----------|------|------|
| COMMON CARP | JRR | 5/10/95 | 3460 | |
| CHANNEL CATFISH | JRR | 5/10/95 | 3620 | |
| CHANNEL CATFISH | JRR | 10/18/95 | 3750 | |
| BM BUFFALO | JRR | 10/18/95 | 3660 | |
| BM BUFFALO | UHS | 10/11/95 | 3020 | 6800 |
| WALLEYE | UHS | 10/11/95 | 3620 | 7400 |
| WHITE BASS | WCCL-CAUSEWAY | 10/11/95 | 3850 | 7100 |
| SM BUFFALO | WCCL-CAUSEWAY | 10/11/95 | 3430 | 6300 |
| WHITE CRAPPIE | WCCL-DC | 4/7/95 | 3250 | 9100 |
| COMMON CARP | WCCL-DC | 5/15/95 | 3820 | 7900 |
| FLATHEAD CATFISH | WCCL-DC | 5/15/95 | 4820 | 7300 |
| CHANNEL CATFISH | WCCL-DC | 10/11/95 | 3010 | 6000 |
| WIPER | WCCL-DC | 10/11/95 | 4230 | 6600 |
| SM BASS | WCCL-MAIN BODY | 5/15/95 | 3960 | 5800 |
| CHANNEL CATFISH | WCCL-MAIN BODY | 5/15/95 | 3730 | 7400 |
| FLATHEAD CATFISH | WCCL-OUTLET POOL | 10/16/95 | 3400 | 5100 |
| RIVER CARPSUCKER/SM BUFFALO | WCCL-OUTLET POOL | 10/16/95 | 2860 | 6100 |
| LM BASS | WCCL-SE AREA | 5/15/95 | 3970 | 6900 |

TABLE 17
1995 Land Use Census Residence Data

| SECTOR | TOTAL POPULATION FOR SECTOR | NO. OF RESPONSES/ HOUSEHOLDS | 1994 CLOSEST RESIDENCE | 1995 CLOSEST RESIDENCE |
|--------|-----------------------------|------------------------------|------------------------|------------------------|
| A | <u>17</u> | <u>6/6</u> | A2.6-OXLA1731 | <u>A2.6-17TE1520</u> |
| B | 17 | <u>7/7</u> | B3.1-QURD1712 | B3.1-QURD1712 |
| C | <u>26</u> | <u>11/11</u> | C1.9-16RD1655 | C1.9-16RD1655 |
| D | <u>17</u> | <u>5/5</u> | D2.1-QULA1571 | D2.1-QULA1571 |
| E | <u>13</u> | <u>5/5</u> | E1.4-QULA1485 | E1.8-QULA1485 |
| F | <u>38</u> | <u>13/14</u> | F1.6-14RD1711 | F1.6-14RD1711 |
| G | <u>29</u> | <u>10/11</u> | G1.6-QURD1384 | G1.6-QURD1384 |
| H | <u>21</u> | <u>6/6</u> | H3.1-12RD1711 | H3.1-12RD1711 |
| J | <u>18</u> | <u>6/7</u> | J3.3-OXLA1141 | J3.3-OXLA1141 |
| K | <u>8</u> | <u>4/5</u> | K2.6-12LA1439 | K2.6-12LA1439 |
| L | <u>63</u> | <u>23/23</u> | L2.1-NARD1339 | <u>L2.4-NARD1339</u> |
| M | <u>40</u> | <u>16/16</u> | M2.4-14RD1321 | <u>M1.6-NARD1441</u> |
| N | <u>17</u> | <u>7/9</u> | N2.6-HW751465 | <u>N2.1-15RD1350</u> |
| P | <u>96</u> | <u>28/28</u> | P2.7-16RD1255 | P2.7-16RD1255 |
| Q | <u>33</u> | <u>12/12</u> | Q1.4-NALA1574 | Q1.4-NALA1574 |
| R | <u>6</u> | <u>3/3</u> | R2.1-NALA1650 | R2.1-NALA1650 |

NOTE: Entries underlined indicate changes from the 1994 Land Use Census.

Locations are identified based upon the following protocol:

EXAMPLE: A1.4-16RD1525

First letter is based upon sector, thus "A" designates this residence is in sector A.

The number immediately following the first letter designates the distance (in miles) from the powerblock.

The characters following the dash represent a unique identifier based upon location address.

The example is in sector A, 1.4 miles from the plant, at 1525 16th Road.

TABLE 18
1995 Land Use Census Milk and Garden Data

| SECTOR | 1994 MILK ANIMAL | 1995 MILK ANIMAL | 1994 CLOSEST GARDEN PRODUCING BROADLEAF VEGETATION | 1995 CLOSEST GARDEN PRODUCING BROADLEAF VEGETATION | D/Q (DEPOSITION CONSTANT) / RANKING |
|--------|------------------------|------------------------|--|---|--|
| | | | | | |
| A | none | none | A2.9-17LA1518 | <u>A2.61-OXLA1731</u> | <u>1.97E-09/1</u> |
| B | none | <u>B4.1-QURD1823</u> | B4.2-18RD1758 | <u>B3.1-QURD1712</u> | <u>9.05E-10/6</u> |
| C | none | none | C2.2-16RD1670 | C2.2-16RD1670 | <u>6.56E-10/8</u> |
| D | none | none | D2.1-QULA1571 | D2.1-QULA1571 | <u>4.32E-10/15</u> |
| E | none | none | E1.8-QULA1485 | E1.8-QULA1485 | <u>7.76E-10/7</u> |
| F | none | none | F1.8-14RD1730 | F1.8-14RD1730 | 9.39E-10/4 |
| G | none | <u>G3.6-RERD1150</u> | G1.6-QURD1384 | G1.6-QURD13.. | 1.55E-09/3 |
| H | none | none | H3.1-12RD1711 | H3.1-12RD1711 | <u>6.32E-10/9</u> |
| J | none | none | J3.8-11RD1535 | J3.8-11RD1535 | <u>4.45E-10/14</u> |
| K | none | none | K4.1-NARD1120 | K4.1-NARD1120 | <u>3.30E-10/16</u> |
| L | none | none | L2.6-NARD1308 | <u>L2.6-NARD1309</u> | <u>4.97E-10/13</u> |
| M | none | none | M2.4-14RD1321 | M2.4-14RD1321 | <u>6.19E-10/10</u> |
| N | none | none | N2.6-HW751455 | N2.6-HW751455 | <u>5.32E-10/12</u> |
| P | none | none | P4.3-16RD1112 | <u>P2.8-HW751534</u> | <u>5.49E-10/11</u> |
| Q | none | none | Q2.3-MILA1619 | Q2.3-MILA1619 | 9.36E-10/5 |
| R | none | none | R2.1-NALA1650 | R2.1-NALA1650 | <u>1.84E-09/2</u> |

NOTE: Underlined entries indicate changes from the 1994 Land Use Census.

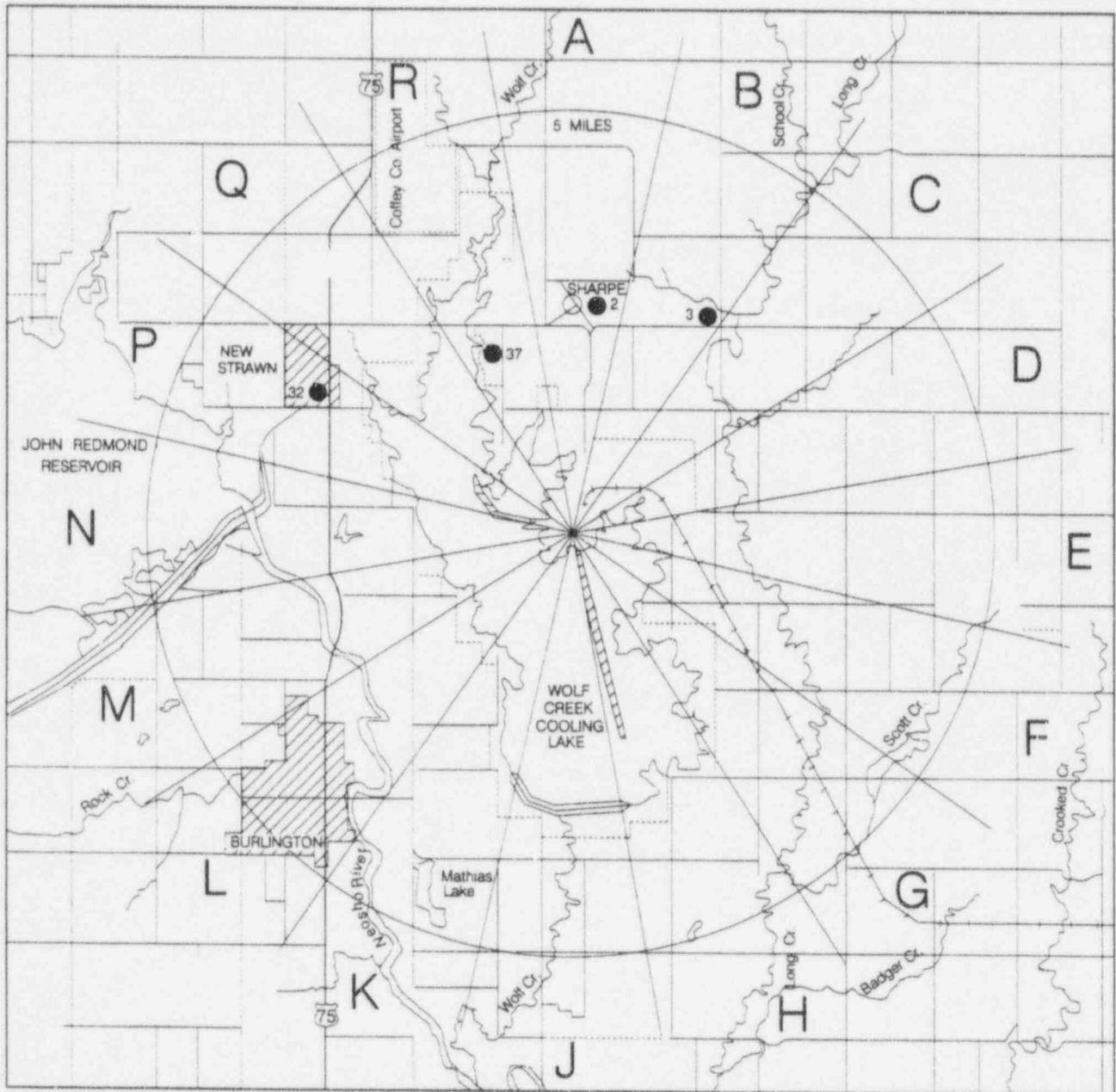
TABLE 19
EPA Interlaboratory Comparison Program 1995
Environmental

| Collection Date | Media | Nuclide | EPA Result (a) | Teledyne Brown Engineering Result (b) | Deviation (c) |
|-----------------|-------|---------|----------------|---------------------------------------|---------------|
| 01-27-95 | Water | Gr-Beta | 5.0 ± 5.0 | 6.00 ± 1.00 | 0.35 |
| 02-03-95 | Water | I-131 | 100.0 ± 10.0 | 88.33 ± 2.31 | -2.02 (d) |
| 03-10-95 | Water | H-3 | 7435.0 ± 744.0 | 7066.67 ± 115.47 | -0.86 |
| 04-18-95 | Water | Gr-Beta | 86.6 ± 10.0 | 80.33 ± 2.52 | -1.09 |
| | | Co-60 | 29.0 ± 5.0 | 31.67 ± 2.08 | 0.92 |
| | | Cs-134 | 20.0 ± 5.0 | 19.67 ± 1.73 | -0.12 |
| | | Cs-137 | 11.0 ± 5.0 | 11.67 ± 1.53 | 0.23 |
| 07-21-95 | Water | Gr-Beta | 19.4 ± 5.0 | 19.33 ± 1.53 | -0.02 |
| 08-04-95 | Water | H-3 | 4872.0 ± 487.0 | 4866.67 ± 152.75 | -0.02 |

Footnotes:

- a) EPA Results-Expected laboratory precision (1 sigma). Units are pCi/liter for water.
- b) Teledyne Results - Average ± one sigma. Units are pCi/liter for water.
- c) Normalized deviation from the known.
- d) The normalized deviation marginally exceeded the warning level and an apparent trend in the results appeared. The cause was a probable high bias in the beta counting efficiency. Check source control charts did not indicate any changes in the counting equipment, so the I-131 calibration was suspected. New I-131 calibrations were performed July 3 through 6, 1995 after receiving a new standard from the EPA. The intercomparison sample data sheets were recalculated with the new efficiencies and the average result was in agreement with the EPA (96 pCi/l versus the EPA value of 100 pCi/l). The discrepancy in the I-131 efficiency between the current calibration and the previous one (aside from the uncertainty in the standard) appears to be an abnormally low yield in the preparation of the standard for the older calibration which created a high bias in the counter efficiencies. The bias was less than ten percent, therefore further corrective action or revision of previously reported data is not deemed necessary.

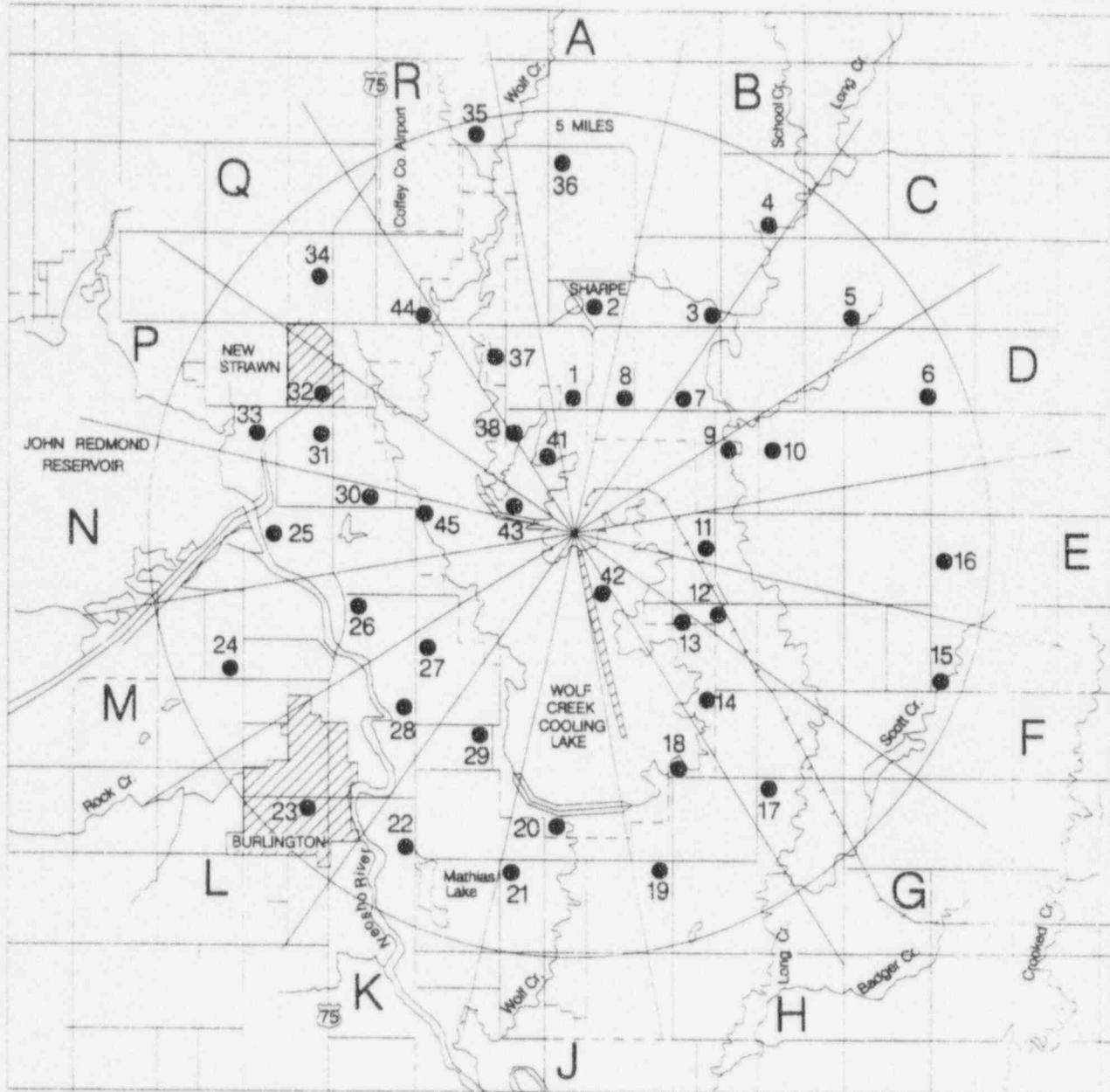
FIGURE 1



AIRBORNE PATHWAY SAMPLING LOCATIONS

● = AIRBORNE PARTICULATE AND RADIOIODINE

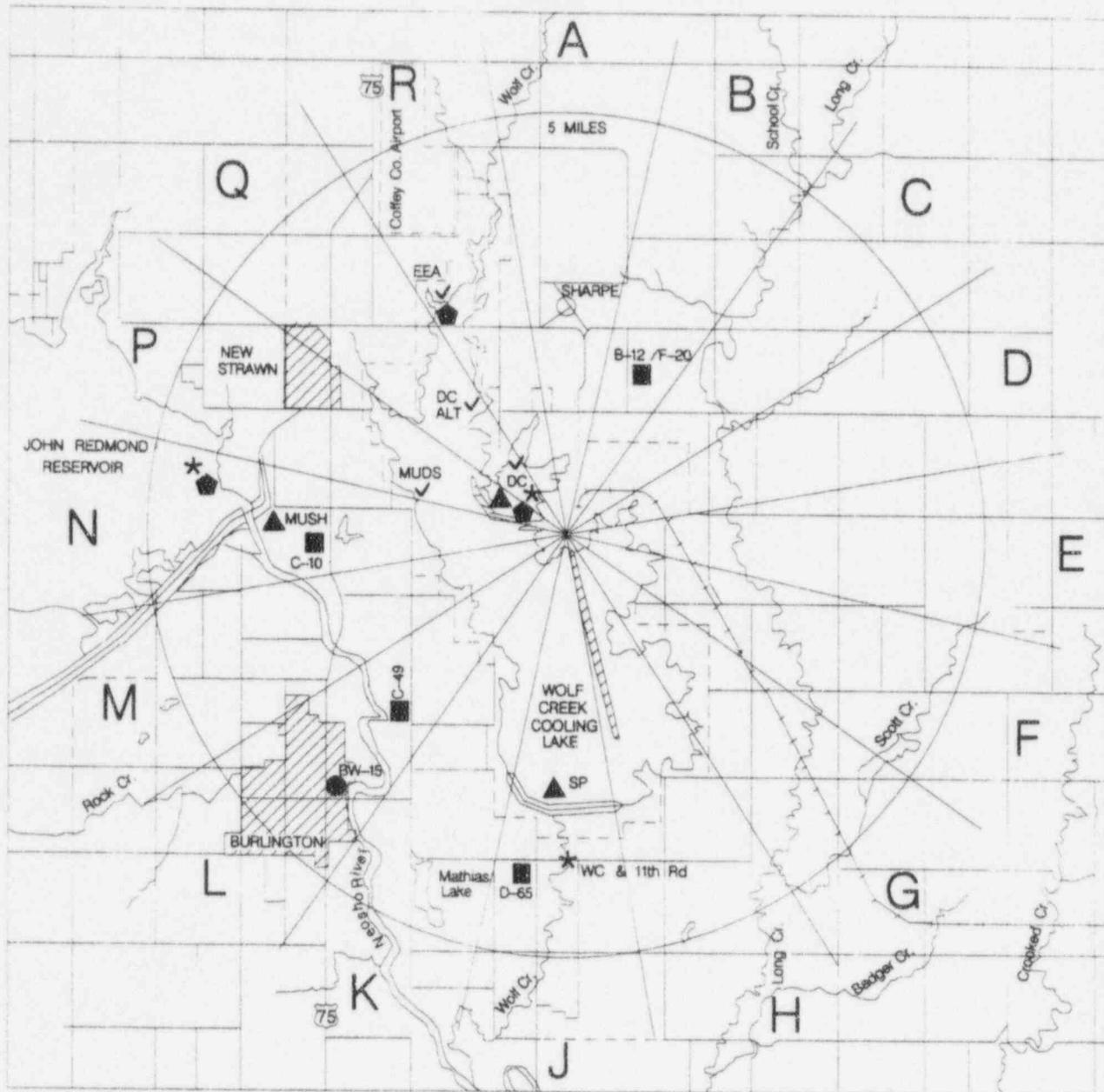
FIGURE 2



DIRECT RADIATION PATHWAY SAMPLING LOCATIONS

● = TLD LOCATIONS

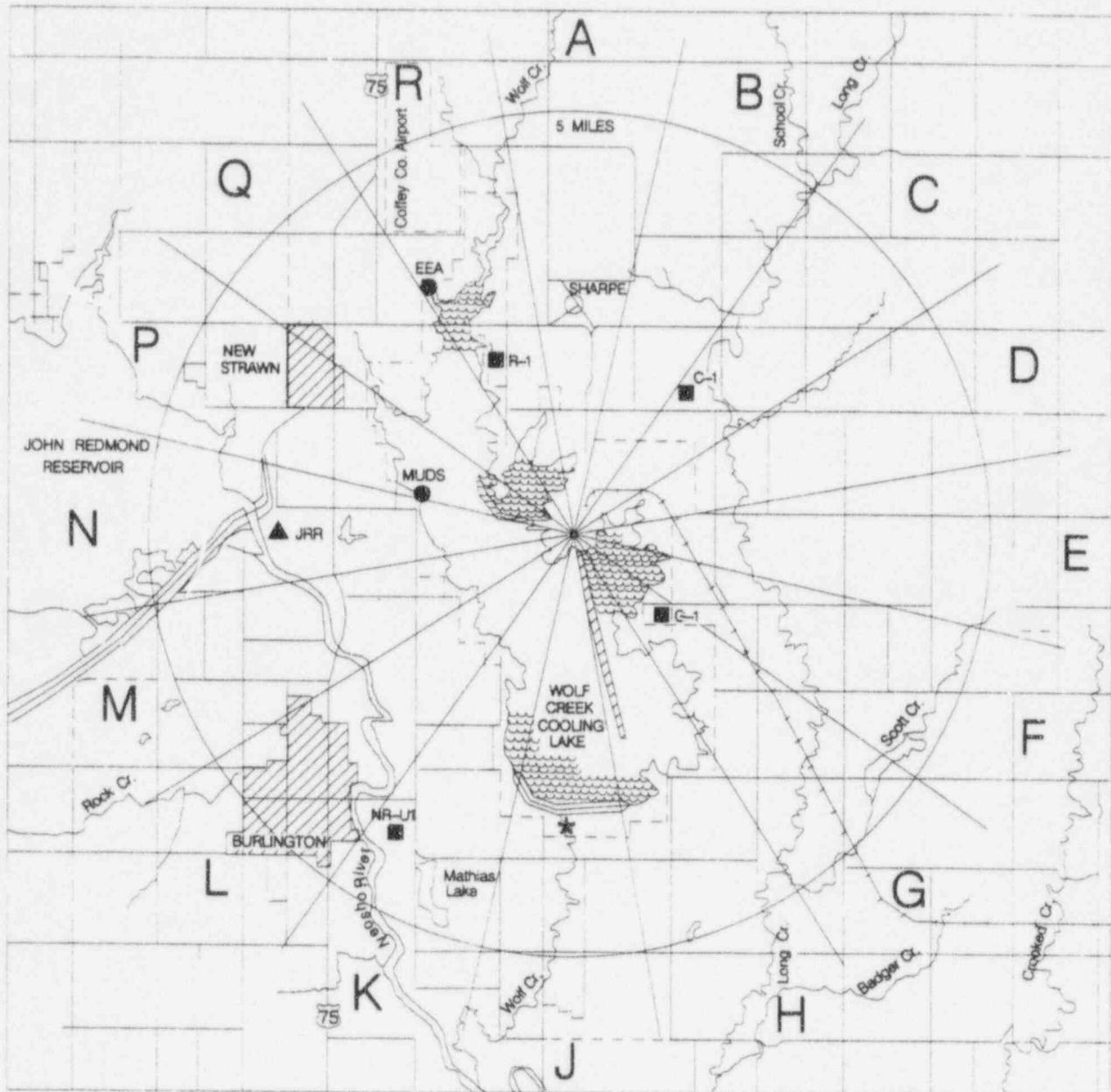
FIGURE 3



WATERBORNE PATHWAY SAMPLING LOCATIONS

- | | |
|---------------------|--------------------------------|
| ● = DRINKING WATER | ▲ = SURFACE WATER |
| ■ = GROUND WATER | ◆ = SHORELINE SEDIMENT |
| * = BOTTOM SEDIMENT | ✓ = AQUATIC VEGETATION / ALGAE |

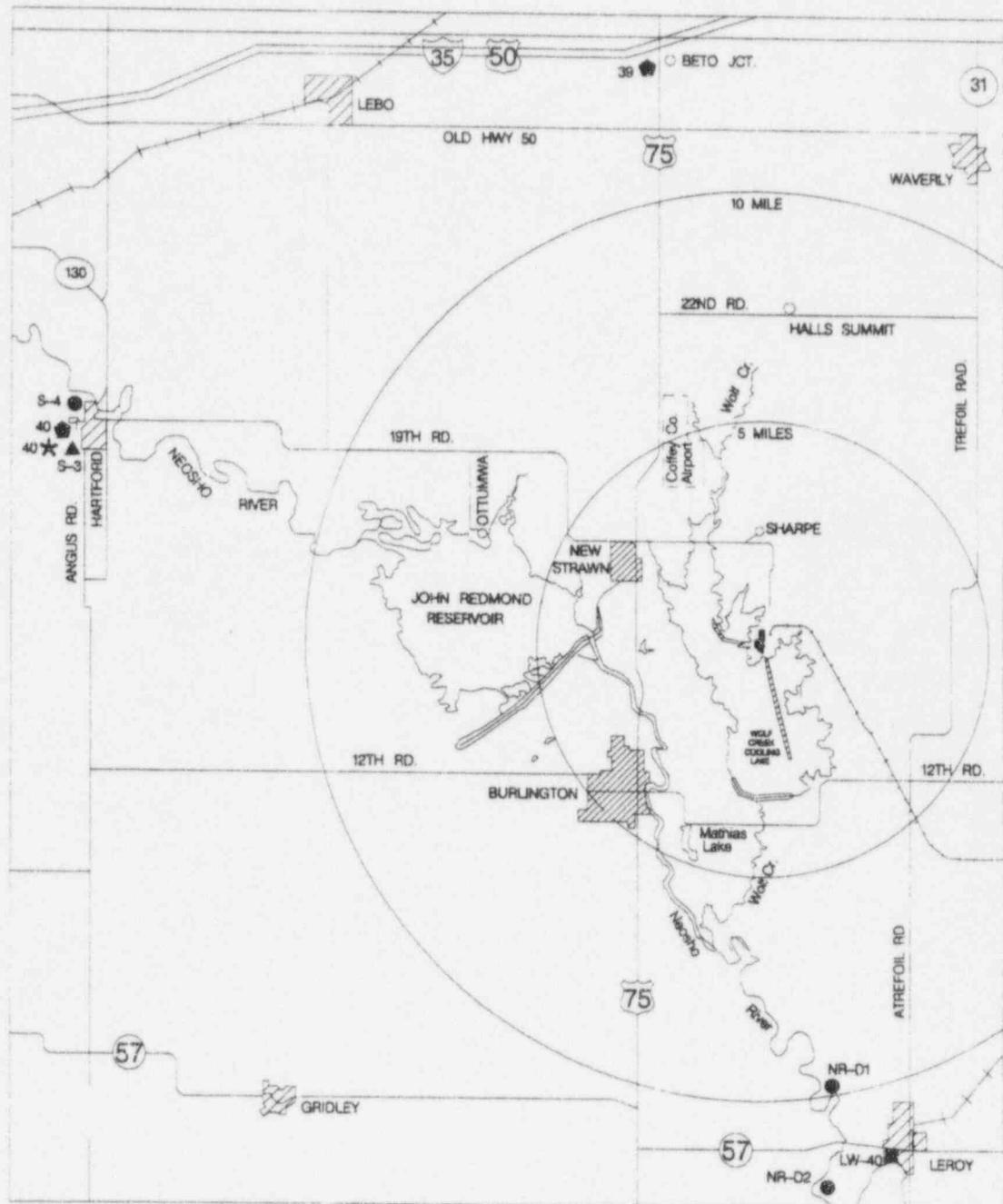
FIGURE 4



INGESTION PATHWAY SAMPLING LOCATIONS

- ▲ = FISH (JRR)
- = BROADLEAF VEGETATION / IRRIGATED CROPS
- 〰 = FISH (WCCL)
- ★ = FISH - WCCL (OUTLET POOL)
- = TERRESTRIAL VEGETATION AND SOIL

FIGURE 5



DISTANT SAMPLING LOCATIONS

● = TLD

■ = DRINKING WATER

▲ = MILK

● = BROADLEAF VEGETATION/
IRRIGATED CROPS

★ = AIRBORNE PARTICULATE & RADIIODINE

FIGURE 6

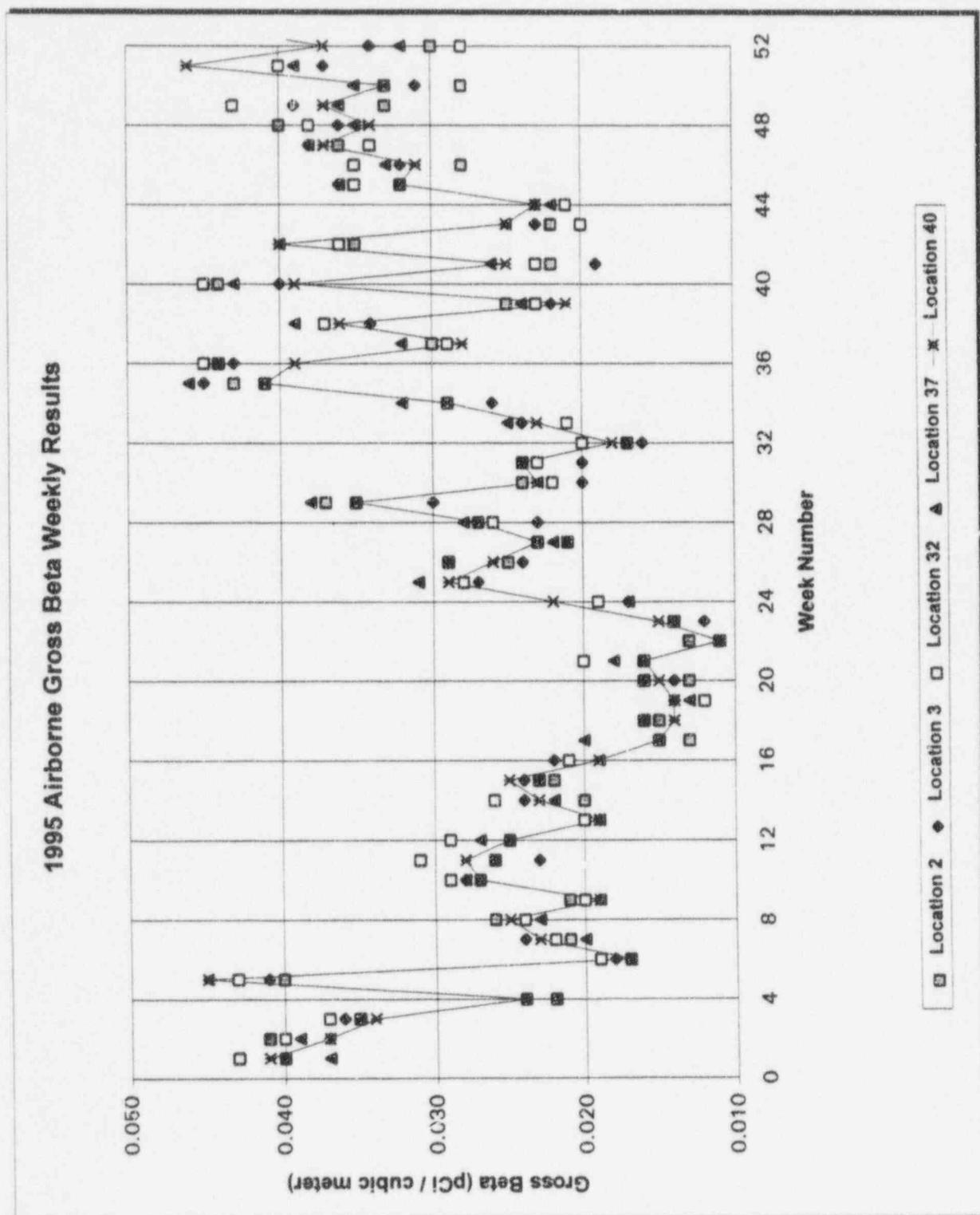


FIGURE 7

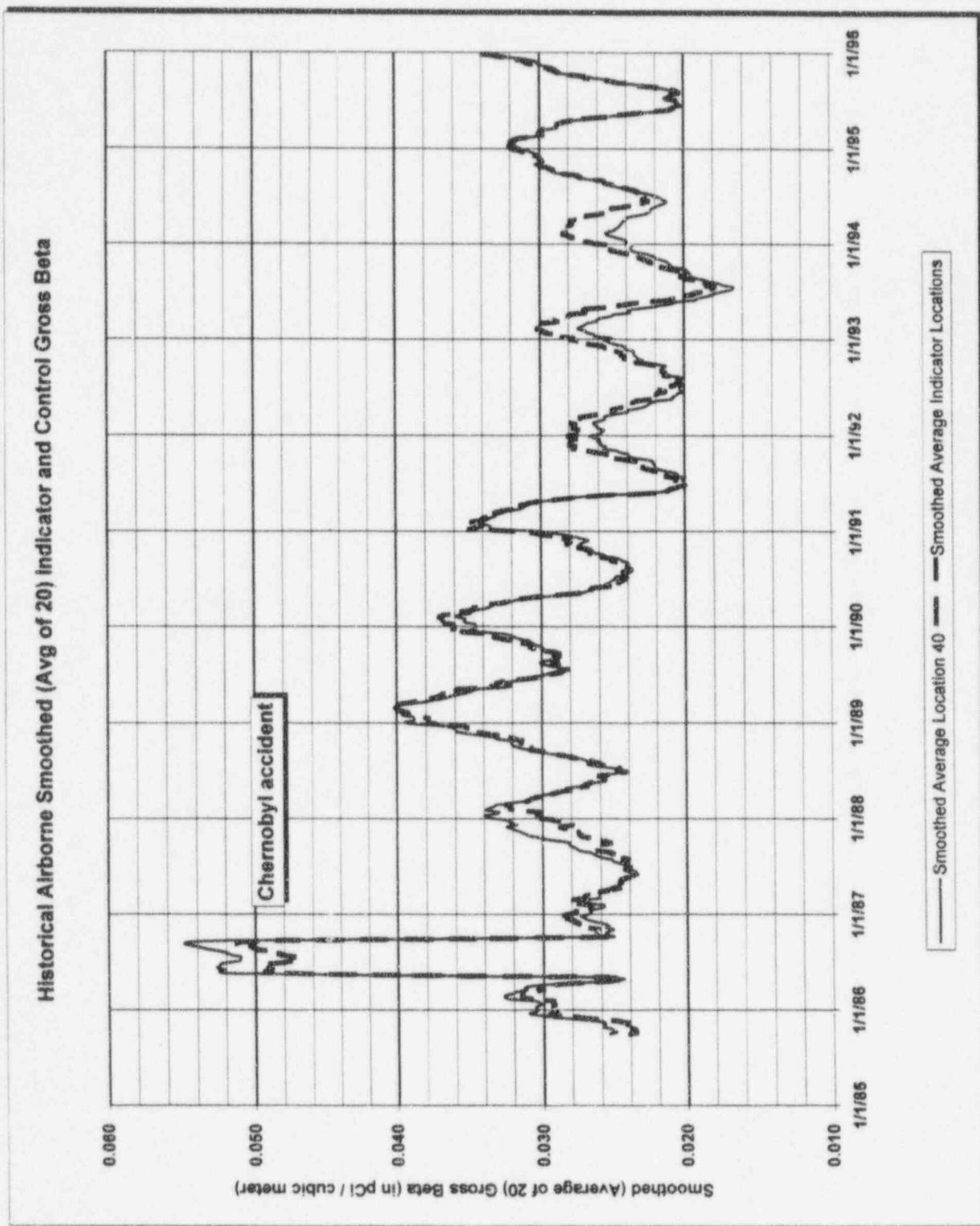


FIGURE 8

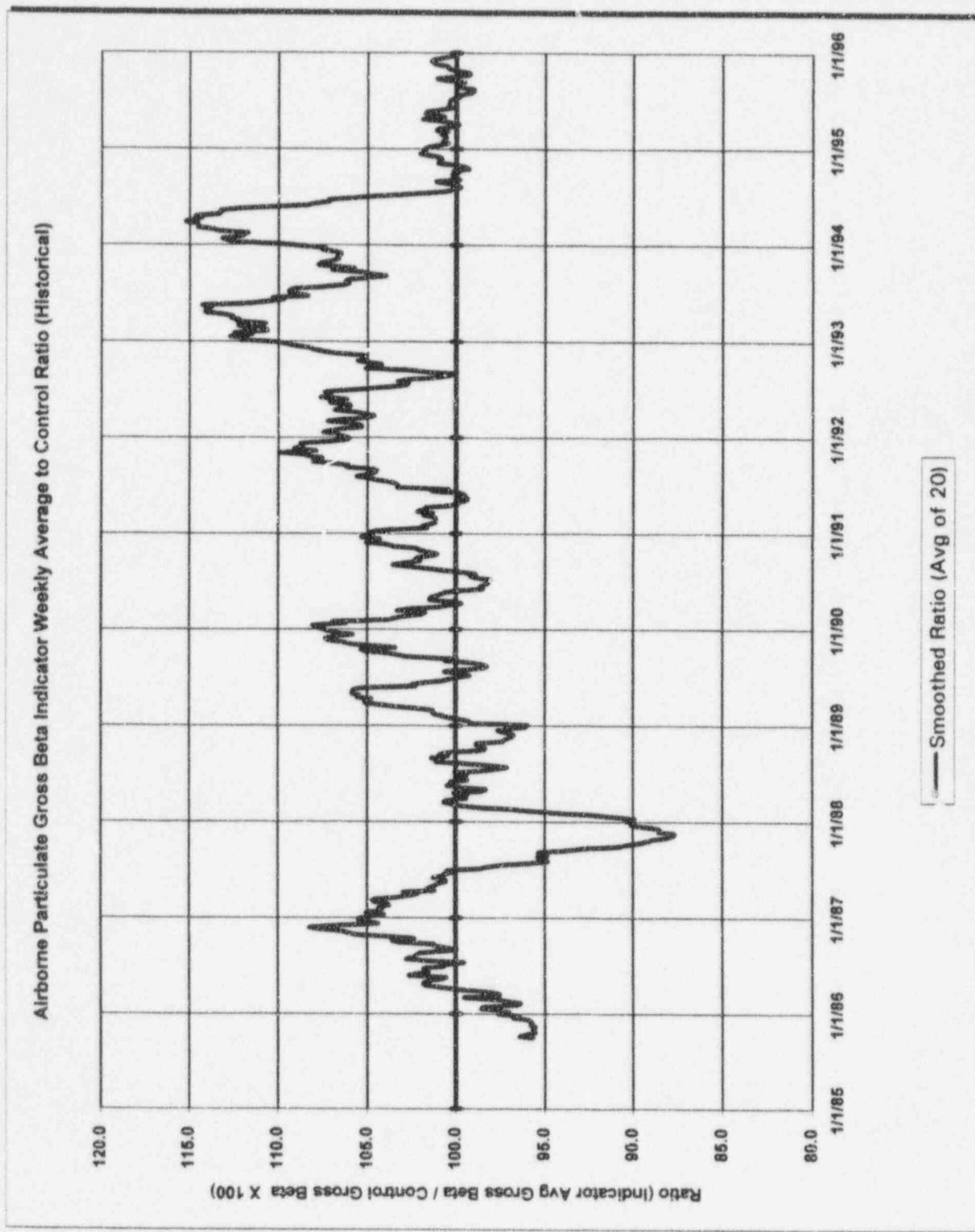


FIGURE 9

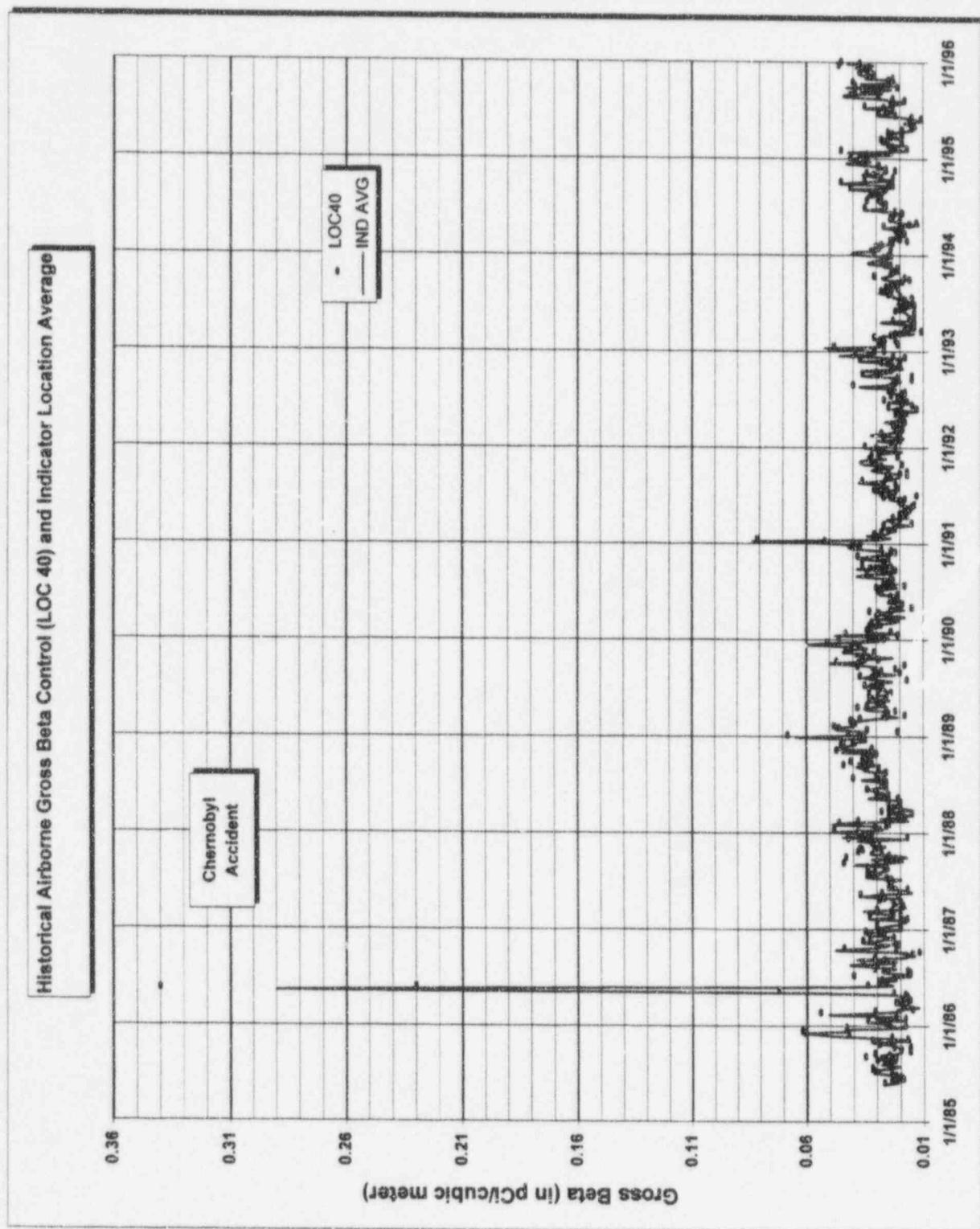


FIGURE 10

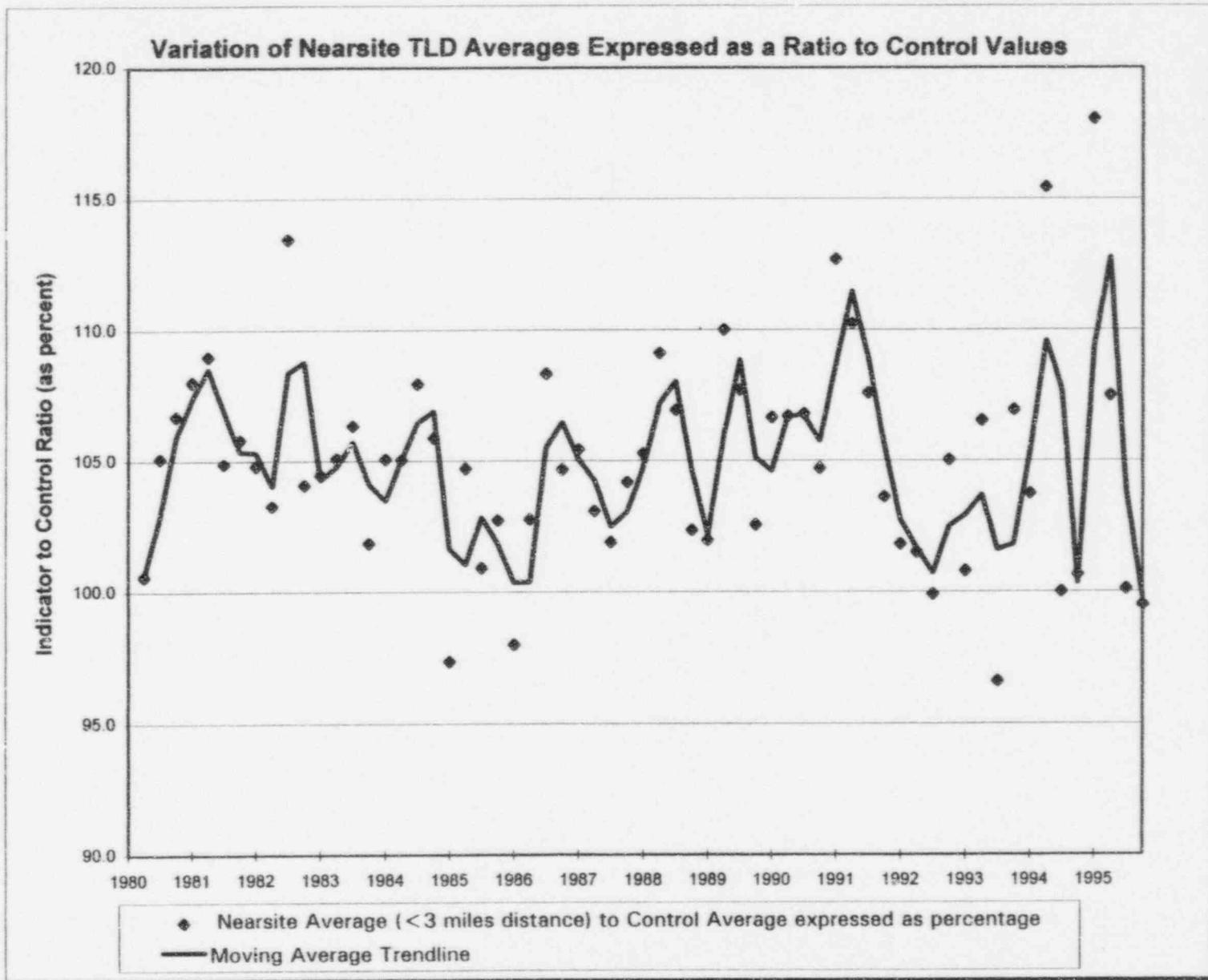
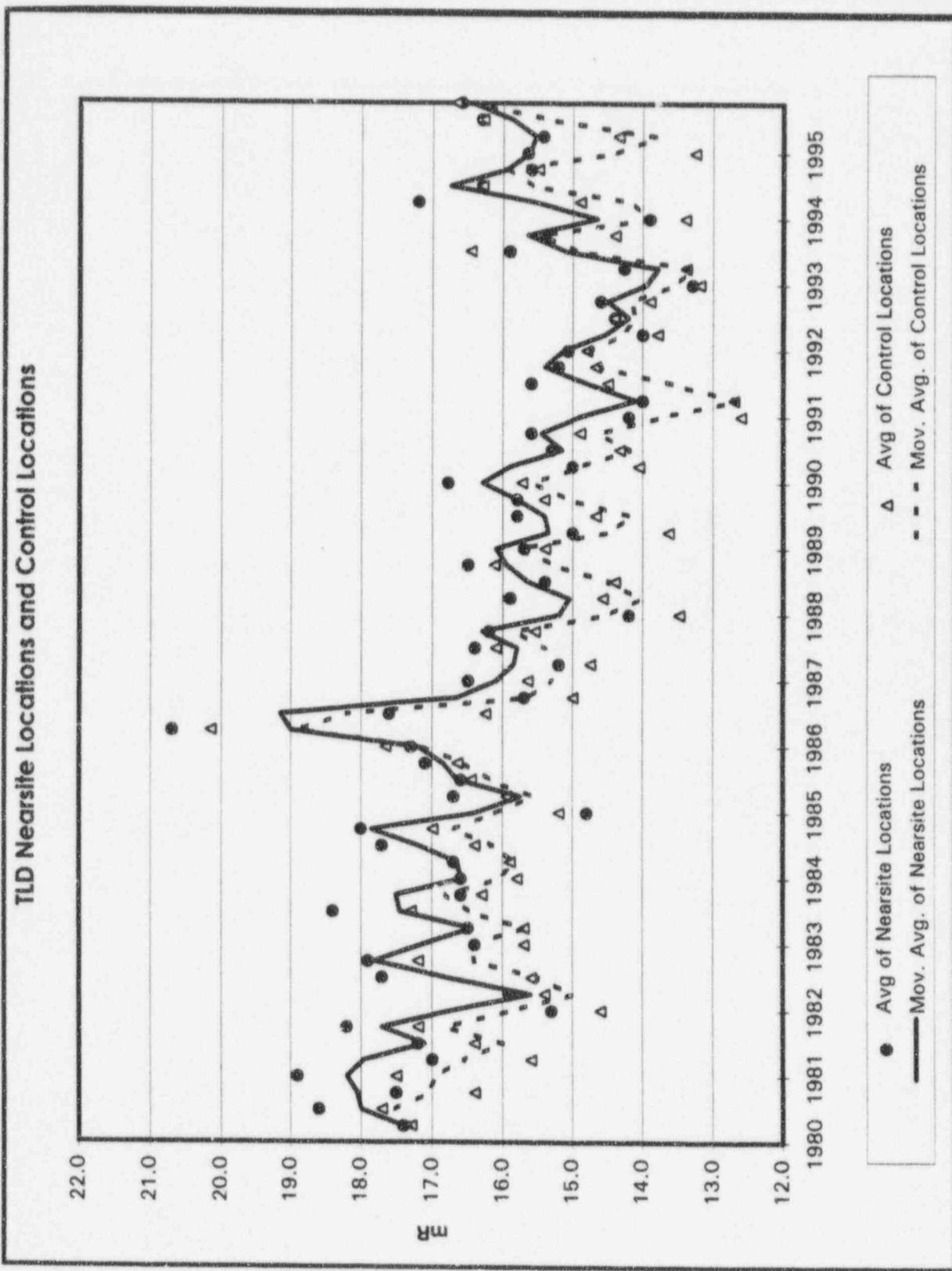


FIGURE 11



WCCL Smoothed (avg of 10) Surface Water Tritium Data (pCi/liter)

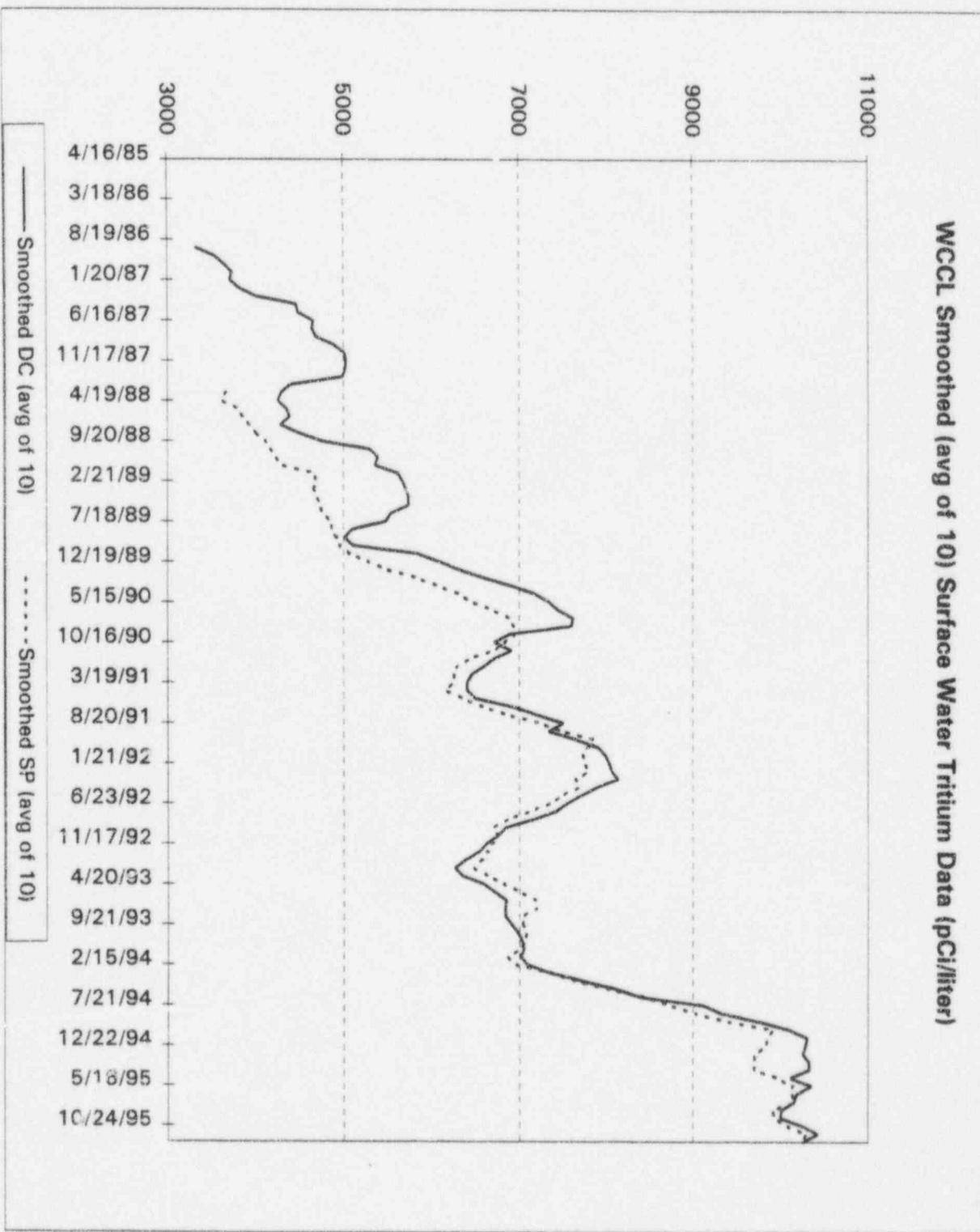


FIGURE 12

FIGURE 13

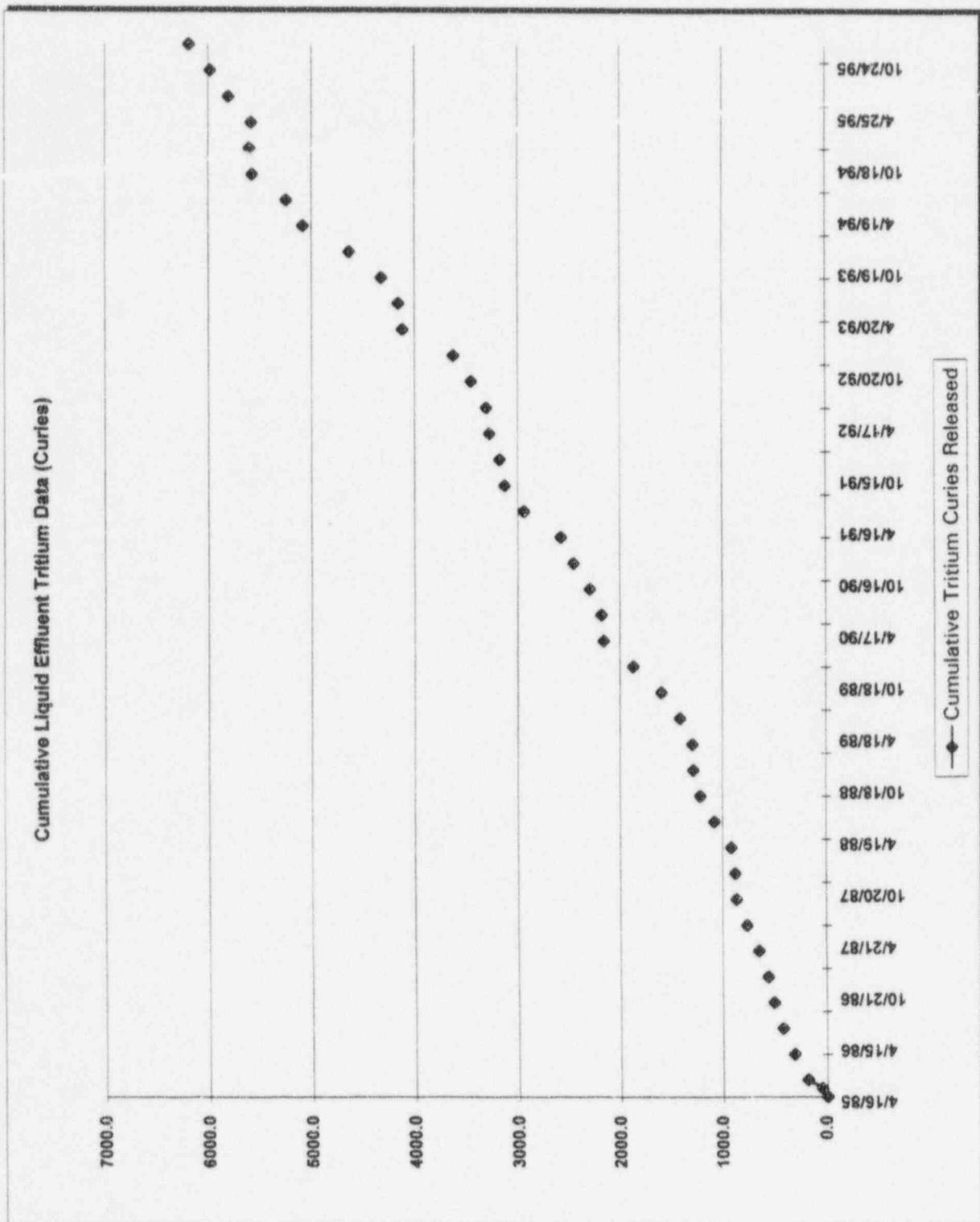


FIGURE 14

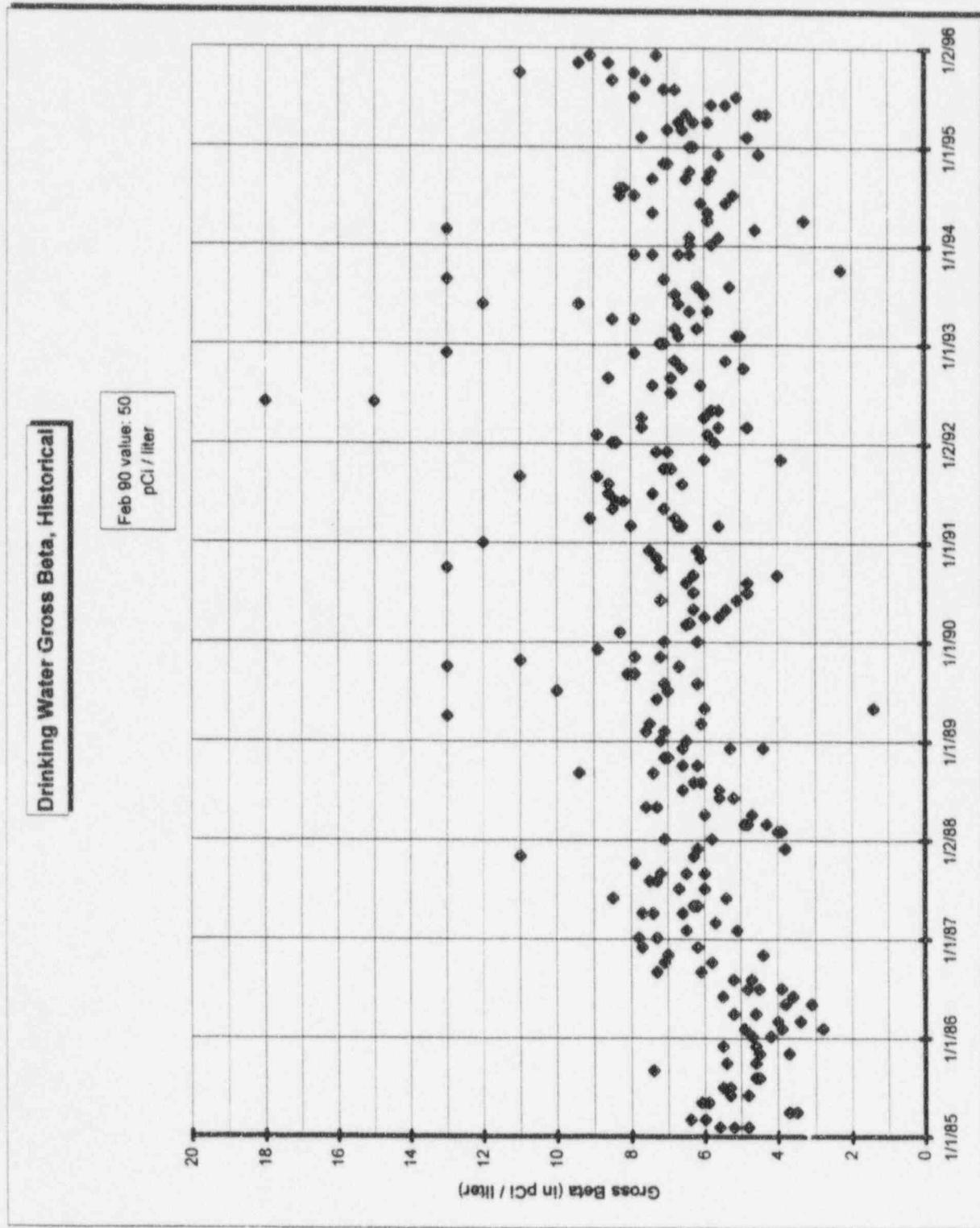
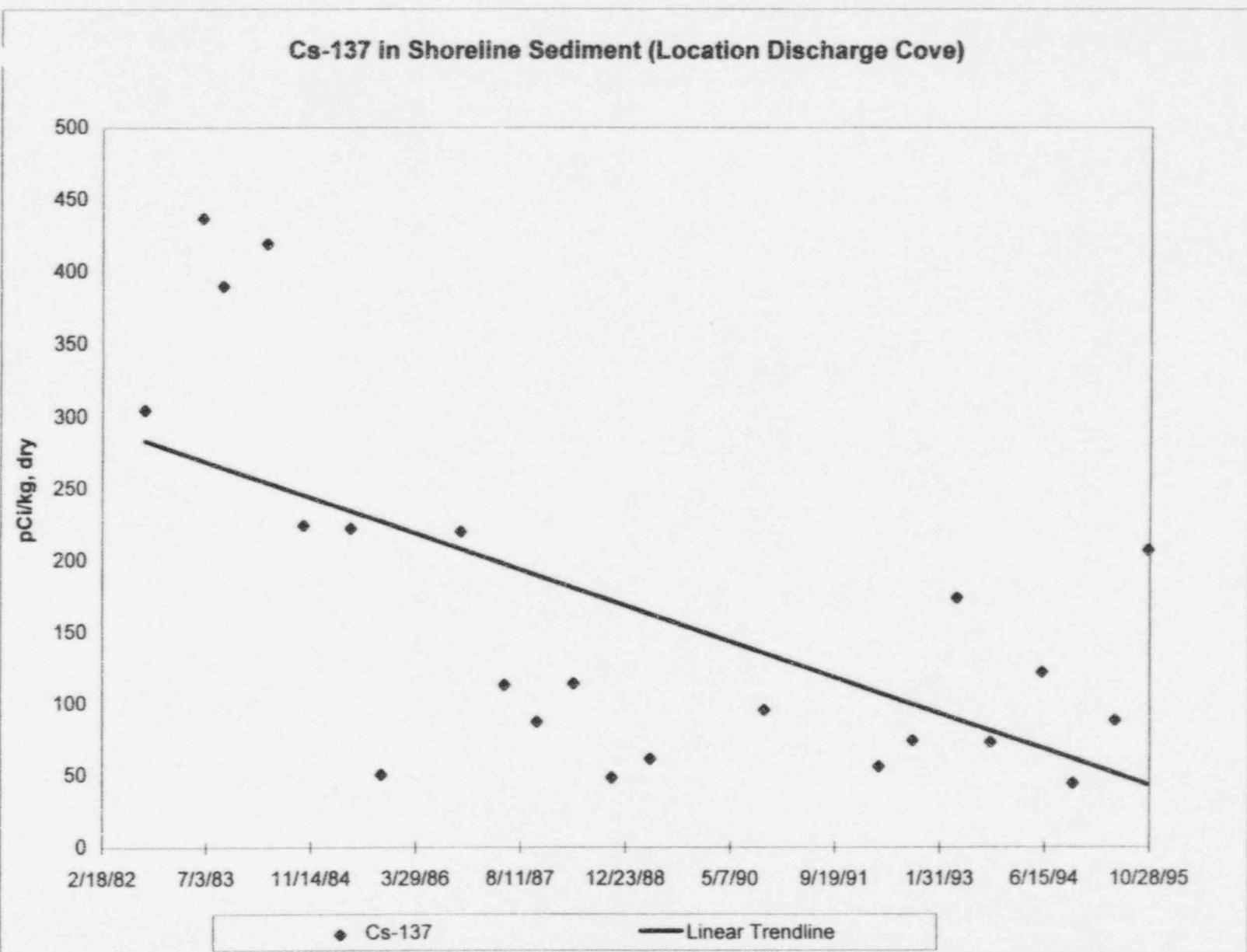


FIGURE 15



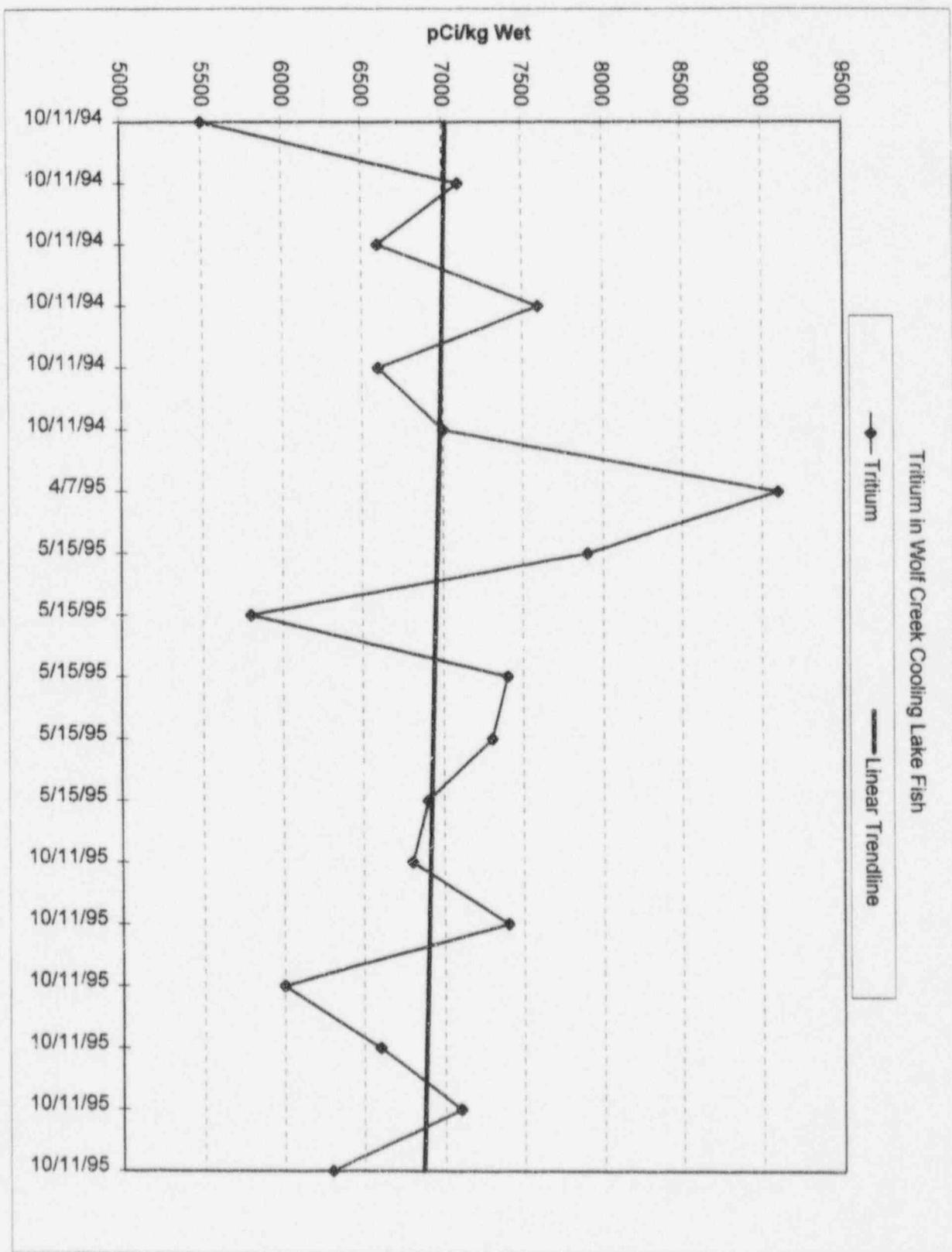


FIGURE 16

Appendix A

Summary Tables in the format of NRC Radiological
Assessment Branch Technical Position
Revision 1, November 1979

ENVIRONMENTAL RADIOLOGICAL MONITORING PROGRAM SUMMARYName of Facility Wolf Creek Nuclear Docket No. STN 50-482Location of Facility Coffey County, Kansas Reporting Period Annual 1995
(County, State)

| Medium of Pathway Sampled (Unit of Measurement) | Analysis and Total Number of Analysis Performed | Lower Limit of Detection (LLD) | All Indicator Locations | | Location with Highest Name Distance and Directions | Annual Mean **Mean (f) **Range | Control Locations | | Number of Nonroutine Reported Measurements** |
|---|--|---|---------------------------------|----------|--|--------------------------------------|-----------------------------|---------|---|
| | | | ** Mean (f) | ** Range | | | **Mean (f) | **Range | |
| Station No. 40 | | | | | | | | | |
| At Particulate (X10 ⁻³ pCi/Cu.M.) | Gross (264) Beta | 3 | 27(211/211) (11-47) | | 37 2.1 miles NNW | 28(53/53) (11-46) | 28(53/53) (11-46) | | 0 |
| | I-131 (264) | 7 | -(0/211) | -- | N/A | | N/A | -(0/53) | -- |
| Sector H | | | | | | | | | |
| Animals (pCi/kg wet) | Gamma (20) | | | | | | | | |
| | Be-7 | 1 | 118(16/16) (59-181) | | 37 2.1 miles NNW | 126(4/4) (65-177) | 112(4/4) (68-180) | | 0 |
| | K-40 | 24 | 12(2/16) (8.7-14) | | 2 2.7 miles N | 14(1/4) | 13(1/4) | | 0 |
| Sector H | | | | | | | | | |
| | Gamma (4) | | | | | | | | |
| | K-40 | 500 | 3560((3/3) (3060-3850) | | Comp. A & R 1 mile N/NNW | 3850(1/1) | 3700(1/1) | | 0 |
| Stations 39 and 40 | | | | | | | | | |
| External Radiation (mR/day) | TLD (358) Quarterly | 0.013 | 0.173(342/342) (0.109-0.199) | | 11 1.6 miles E | 0.199(8/8) (0.183-0.213) | 0.168(8/8) (0.127-0.199) | | 0 |

* Nominal Lower Limit of Detection (LLD)

** Mean and range based upon detectable measurements only. Fraction of detectable measurements at specified locations is indicated in parentheses (f)

ENVIRONMENTAL RADIOLOGICAL MONITORING PROGRAM SUMMARY

Name of Facility Wolf Creek Nuclear Docket No. STN 50-482

Location of Facility Coffey County, Kansas Reporting Period Annual 1995
(County, State)

| Medium of Pathway Sampled (Unit of Measurement) | Analysis and Total Number of Analysis Performed | Lower Limit of Detection (LLD) | All Indicator Locations | | Location with Highest Name Distance and Directions | Annual Mean **Mean (f) **Range | Control Locations **Mean (f) **Range | Number of Nonroutine Reported Measurements** |
|---|--|---|----------------------------|----------|--|--------------------------------------|--|---|
| | | | ** Mean (f) | ** Range | | | | |
| J. Redmond Reservoir | | | | | | | | |
| Fish (pCi/kg wet) | Gamma (18) | | | | | | | |
| | K-40 | 500 | 3641(14/14) (2860-4820) | | WCCL - SE Area | 3970(1/1) -- | 3623(4/4) (3460-3750) | 0 |
| Fish Entrails (pCi/kg wet) | Tritium (18) | 300 | 6843(14/14) (5100-9100) | | WCCL - DC | 7380(5/5) (6000-9100) | -0(4) -- | 0 |
| | Gamma (2) | | | | | | | |
| | K-40 | 500 | 885(1/1) | | WCCL-Main Body | 885(1/1) -- | 817(1/1) -- | 0 |
| Food and Garden Crops (pCi/kg wet weight) | Tritium (2) | 300 | 7800(1/1) | | WCCL-Main Body | 7800(1/1) -- | (0/1) -- | 0 |
| | Gamma (21) | | | | | | | |
| | Be-7 | 90 | 409(14/15) (141-1190) | | S-4 >15 miles WNW | 572(6/6) (258-1050) | 572(6/6) (258-1050) | 0 |
| | K-40 | 500 | 4001(15/15) (2020-6940) | | R-1 2.1 miles NNW | 5093(4/4) (3970-6940) | 3875(6/6) (2050-4910) | 0 |
| | | | | | | | | |

8-4

* Nominal Lower Limit of Detection (LLD)

** Mean and range based upon detectable measurements only. Fraction of detectable measurements at specified locations is indicated in parentheses (f)

ENVIRONMENTAL RADILOGICAL MONITORING PROGRAM SUMMARYName of Facility Wolf Creek Nuclear Docket No. STN 50-482Location of Facility Coffey County, Kansas Reporting Period Annual 1995
(County, State)

| Medium of Pathway Sampled (Unit of Measurement) | Analysis and Total Number of Analysis Performed | Lower Limit of Detection (LLD) | <u>All Indicator Locations</u> | Location with Highest Name Distance and Directions | Annual Mean | Control Locations | Number of Nonroutine Reported Measurements** |
|---|--|---|--------------------------------|--|-------------------|-------------------|---|
| | | | | | | | |
| Irrigated Crop (pCi/kg wet weight) | Gamma (5) | K-40 | 500 | 12070(3/3) (2710-18200) | NR-D1 9.2 miles S | 18200(1/1) -- | 8750(2/2) (2800-14700) 0 |

* Nominal Lower Limit of Detection (LLD)

** Mean and range based upon detectable measurements only. Fraction of detectable measurements at specified locations is indicated in parentheses (f)

ENVIRONMENTAL RADIOLOGICAL MONITORING PROGRAM SUMMARYName of Facility Wolf Creek Nuclear Docket No. STN 50-482Location of Facility Coffey County, Kansas Reporting Period Annual 1995
(County, State)

| Medium of Pathway Sampled (Unit of Measurement) | Analysis and Total Number of Analysis Performed | Lower Limit of Detection (LLD) | All Indicator Locations | Location with Highest Name Distance and Directions | Annual Mean **Mean (f) **Range | Control Locations **Mean (f) **Range | Number of Nonroutine Reported Measurements** |
|---|--|---|-------------------------|--|--------------------------------------|--|---|
| | | | | | | | Station 8-3 |
| Milk (pCi/l) | I-131 (20) | 3 | -- | -- | -- | -(0/20) | 0 |
| | Gamma (20) | | | | | | |
| | K-40 | 100 | -- | -- | -- | 1400(20/20) (1240-1570) | 0 |

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* Nominal Lower Limit of Detection (LLD)

** Mean and range based upon detectable measurements only. Fraction of detectable measurements at specified locations is indicated in parentheses (f)

ENVIRONMENTAL RADIOLICAL MONITORING PROGRAM SUMMARYName of Facility Wolf Creek Nuclear Docket No. STN 50-482Location of Facility Coffey County, Kansas Reporting Period Annual 1995
(County, State)

| Medium of Pathway Sampled (Unit of Measurement) | Analysis and Performed | Lower Limit of Detection (LLD) | All Indicator Locations | | Location with Highest Name Distance and Directions | Annual Mean **Mean (f) **Range | Control Locations **Mean (f) **Range | Number of Nonroutine Reported Measurements** |
|---|---------------------------|---|-----------------------------|---------|--|--------------------------------------|--|---|
| | | | ** Mean (f) | **Range | | | | |
| Soil (pCi/kg dry weight) | Gamma (4) | | | | | | | |
| | Be-7 | 300 | 1680(1/4) | -- | EEA 3.0 miles NNW | 1680(1/2) | -- | 0 |
| | K-40 | 500 | 12400(4/4) (11200-13400) | | EEA 3.0 miles NNW | 12600(2/2) (11800-13400) | -- | 0 |
| | Cs-137 | 60 | 185(3/4) (82-260) | | EEA 3.0 miles NNW | 236(2/2) | -- | 0 |
| | Ra-226 | 500 | 1993(4/4) (1520-2340) | | MUDS 1.5 miles WNW | 2105(2/2) (1870-2340)-- | -- | 0 |
| | Th-228 | 40 | 1213(4/4) (1060-1350) | | MUDS 1.5 miles WNW | 1315(2/2) (1280-1350) | -- | 0 |

Page 5

* Nominal Lower Limit of Detection (LLD)

** Mean and range based upon detectable measurements only. Fraction of detectable measurements at specified locations is indicated in parentheses (f)

ENVIRONMENTAL RADIOLICAL MONITORING PROGRAM SUMMARYName of Facility Wolf Creek Nuclear Docket No. STN 50-482Location of Facility Coffey County, Kansas Reporting Period Annual 1995
(County, State)

| Medium of Pathway Sampled (Unit of Measurement) | Analysis and Performed | Lower Limit Total Number of Analysis | Detection (LLD) | All Indicator Locations ** Mean (f) **Range | Location with Highest Name Distance and Directions | Annual Mean **Mean (f) **Range | Control Locations **Mean (f) **Range | Number of Nonroutine Reported Measurements** |
|---|---------------------------|--|--------------------------|---|--|--------------------------------------|--|---|
| | | | | | | | | Station No. JRR |
| Shoreline Soil (pCi/kg dry weight) | Gamma (5) | | | | | | | |
| | Be-7 | 300 | -{0/3} | | JRR 4 miles W | 5540(1/2) | 5540(1/2) | |
| | | | -- | | | -- | -- | |
| | K-40 | 500 | 8217(3/3) (6570-9140) | | JRR 4 miles W | 10230(2/2) (8360-12100) | 10230(2/2) (8360-12100) | 0 |
| | Co-60 | 30 | 142(2/3) (115-168) | | DC 0.6 miles WNW | 142(2/2) (115-168) | -{0/2} -- | 0 |
| | Cs-137 | 60 | 129(3/3) (89-207) | | DC 0.6 miles WNW | 148(2/2) (89-207) | 204(1/2) -- | 0 |
| | Ra-226 | 500 | 1590(3/3) (1340-1950) | | JRR 4 miles W | 2650(2/2) (1220-4080) | 2650(2/2) (1220-4080) | 0 |
| | Th-228 | 40 | 954(3/3) (902-1050) | | JRR 4 miles W | 1039(2/2) (507-1570) | 1039(2/2) (507-1570) | 0 |

* Nominal Lower Limit of Detection (LLD)

** Mean and range based upon detectable measurements only. Fraction of detectable measurements at specified locations is indicated in parentheses (f)

ENVIRONMENTAL RADIOLOGICAL MONITORING PROGRAM SUMMARYName of Facility Wolf Creek Nuclear Docket No. STN 50-482Location of Facility Coffey County, Kansas Reporting Period Annual 1995
(County, State)

| Medium of Pathway Sampled (Unit of Measurement) | Analysis and Performed | Lower Limit of Detection (LLD) | All Indicator Locations ** Mean (f) **Range | Location with Highest Name Distance and Directions | Annual Mean **Mean (f) **Range | Control Locations **Mean (f) **Range | Number of Nonroutine Reported Measurements** |
|---|---------------------------|---|---|--|--------------------------------------|--|---|
| | | | | | | | Station No. JRR |
| Sediment/Silt (pCi/kg dry weight) | Gamma (5) | | | | | | |
| | Be-7 | 300 | 1090(1/4) -- | WC & 11th Road 3.8 miles S | 1090(1/2) -- | -0(1) -- | 0 |
| | K-40 | 500 | 11825(4/4) (11000-13100) | JRR 4 miles W | 16700(1/1) -- | 16700(1/1) -- | 0 |
| | Co-58 | 20 | 220(1/4) -- | DC 0.6 miles WNW | 220(1/4) -- | -0(1) -- | 0 |
| | Mn-54 | 30 | 61(1/4) -- | DC 0.6 miles WNW | 61(1/2) -- | -0(1) -- | 0 |
| | Co-60 | 20 | 819(2/4) (548-1090) | DC 0.6 miles WNW | 819(2/2) (548-1090) | -0(1) -- | 0 |
| | Cs-134 | 60 | 138(2/4) (123-152) | DC 0.6 miles WNW | 138(2/2) (123-152) | -0(1) -- | 0 |
| | Cs-137 | 60 | 374(3/4) (98-623) | DC 0.6 miles WNW | 512(2/2) (400-623) | 220(1/1) -- | 0 |
| | Ra-226 | 500 | 2015(4/4) (1720-2510) | JRR 4 miles W | 2240(1/1) -- | 2240(1/1) -- | 0 |
| | Th-228 | 40 | 1213(4/4) (1020-1540) | DC 0.6 miles WNW | 1280(2/2) (1020-1540) | 1250(1/1) -- | 0 |

* Nominal Lower Limit of Detection (LLD)

** Mean and range based upon detectable measurements only. Fraction of detectable measurements at specified locations is indicated in parentheses (f)

ENVIRONMENTAL RADIOLOGICAL MONITORING PROGRAM SUMMARYName of Facility Wolf Creek Nuclear Docket No. STN 50-482Location of Facility Coffey County, Kansas Reporting Period Annual 1995
(County, State)

| Medium of Pathway Sampled (Unit of Measurement) | Analysis and Total Number of Analysis Performed | Lower Limit of Detection (LLD) | All Indicator Locations ** Mean (f) ** Range | Location with Highest Name Distance and Directions | Annual Mean **Mean (f) **Range | Control Locations **Mean (f) **Range | Number of Nonroutine Reported Measurements** |
|---|--|---|--|--|--------------------------------------|--|---|
| | | | | | | | No Control |
| Vegetation | Gamma (5) | | | | | | |
| Aquatic (pCi/kg wet weight) | Be-7 | 100 | 445(4/5) (183-844) | DC 0.6 miles WNW | 707(2/2) (570-844) | -- | 0 |
| | K-40 | 500 | 2304(5/5) (1430-3700) | EEA 3 miles NNW | 3700(1/1) | -- | 0 |
| | Mn-54 | 40 | 17(2/5) (17-18) | DC 0.6 miles WNW | 17(2/2) (17-18) | -- | 0 |
| | Co-58 | 10 | 130(2/5) (69-192) | DC 0.6 miles WNW | 130(2/2) (69-192) | -- | 0 |
| | Co-60 | 10 | 132(2/5) (118-145) | DC 0.6 miles WNW | 132(2/2) (118-145) | -- | 0 |
| | Nb-95 | 7 | 32(1/5) -- | DC 0.6 miles WNW | 32(1/2) -- | -- | 0 |
| | Nb-95/Zr-95 | 10 | 21(1/5) -- | DC 0.6 miles WNW | 21(1/2) -- | -- | 0 |
| | Cs-137 | 10 | 42(3/5) (17-62) | DC 0.6 miles WNW | 55(2/2) (47-62) | -- | 0 |
| | Ra-226 | 200 | 319(3/5) (243-431) | DC 0.6 miles WNW | 357(2/2) (283-431) | -- | 0 |
| | Th-228 | 20 | 167(3/5) (154-194) | DC 0.6 miles WNW | 174(2/2) (154-194) | -- | 0 |

* Nominal Lower Limit of Detection (LLD)

** Mean and range based upon detectable measurements only. Fraction of detectable measurements at specified locations is indicated in parentheses (f)

ENVIRONMENTAL RADIOLOGICAL MONITORING PROGRAM SUMMARYName of Facility Wolf Creek Nuclear Docket No. STN 50-482Location of Facility Coffey County, Kansas Reporting Period Annual 1995
(County, State)

| Medium of Pathway Sampled (Unit of Measurement) | Analysis and Total Number of Analysis Performed | Lower Limit of Detection (LLD) | All Indicator Locations | | Location with Highest Name Distance and Directions | Annual Mean **Mean (f) **Range | Control Locations **Mean (f) **Range | Number of Nonroutine Reported Measurements** |
|---|--|---|-------------------------|--------------------------|--|--------------------------------------|--|---|
| | | | ** Mean (f) | **Range | | | | |
| Vegetation Terrestrial (pCi/kg wet weight) | Gamma (4) | Be-7 | 100 | 2270(4/4) (1390-3120) | MUDS 1.5 miles WNW | 3080(2/2) (3040-3120) | -- | 0 |
| | | K-40 | 500 | 4943(4/4) (3800-7040) | EEA 3 miles NNW | 5420(2/2) (3800-7040) | -- | 0 |

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* Nominal Lower Limit of Detection (LLD)

** Mean and range based upon detectable measurements only. Fraction of detectable measurements at specified locations is indicated in parentheses (f)

ENVIRONMENTAL RADIOLOGICAL MONITORING PROGRAM SUMMARYName of Facility Wolf Creek Nuclear Docket No. STN 50-482Location of Facility Coffey County, Kansas Reporting Period Annual 1995
(County, State)

| Medium of Pathway Sampled (Unit of Measurement) | Analysis and Total Number of Analysis Performed | Lower Limit of Detection (LLD) | All Indicator Locations | | Location with Highest Name Distance and Directions | Annual Mean **Mean (f) **Range | Control Locations BW-15 | Number of Nonroutine Reported Measurements** |
|---|--|---|-------------------------|---------|--|--------------------------------------|----------------------------|---|
| | | | ** Mean (f) | **Range | | | | |
| Water Drinking (pCi/l) | I-131 (24) | 0.5 | -(0/12) | | NA | NA | -(0/12) | 0 |
| | Gross (24) Beta | 2 | 6.7(12/12) (4.5-11) | | BW-15-3.9 miles SW | 7.4(12/12) (5.8-9.4) | 7.4(12/12) (5.8-9.4) | 0 |
| | Gamma (24) | -- | -(0/12) | | NA | NA | -(0/12) | 0 |
| | Tritium (8) | 1000 | -(0/4) | -- | NA | NA | -(0/4) | 0 |
| Water Ground (pCi/l) | I-131 (20) | 0.5 | -(0/12) | -- | NA | NA | -(0/8) | 0 |
| | Gamma (20) | | | | | | B-12/F-20 | |
| | K-40 | 100 | -(0/12) | -- | NA | NA | -(0/8) | 0 |
| | Tritium (20) | 1000 | -(0/12) | -- | NA | NA | -(0/8) | 0 |

* Nominal Lower Limit of Detection (LLD)

** Mean and range based upon detectable measurements only. Fraction of detectable measurements at specified locations is indicated in parentheses (f)

ENVIRONMENTAL RADIOLOGICAL MONITORING PROGRAM SUMMARYName of Facility Wolf Creek Nuclear Docket No. STN 50-482Location of Facility Coffey County, Kansas Reporting Period Annual 1995
(County, State)

| Medium of Pathway Sampled (Unit of Measurement) | Analysis and Performed | Lower Limit Total Number of Analysis | of Detection (LLD) | All Indicator Locations ** Mean (f) **Range | Location with Highest Name Distance and Directions | Annual Mean **Mean (f) **Range | Control Locations **Mean (f) **Range | Number of Nonroutine Reported Measurements** |
|---|---------------------------|--|--------------------------|---|--|--------------------------------------|--|---|
| Water Surface (pCi/l) | Gamma (36) | | | | | | Mush | |
| | K-40 | 60 | | - (0/24) -- | N/A | N/A -- | - (0/12) -- | 0 |
| | Tritium (36) | 1000 | | 10229(24/24) (8300-12000) | DC 0.6 miles WNW | 10275(12/12) (8300-12000) | - (0/12) -- | 0 |

* Nominal Lower Limit of Detection (LLD)

** Mean and range based upon detectable measurements only. Fraction of detectable measurements at specified locations is indicated in parentheses (f)

Appendix B
1995 Individual Sample Results

WOLF CREEK NUCLEAR OPERATING CORPORATION
 AIR PARTICULATE AND CHARCOAL FILTERS
 STATION NUMBER 02

| COLLECTION DATE START DATE | DATE STOP DATE | VOLUME | UNITS | MID COUNT TIME DATE | A P FILTER GROSS BETA (pCi/Cu.M.) | MID COUNT TIME DATE | CHARCOAL FILTER I-131 (pCi/Cu.M.) |
|-------------------------------|-------------------|----------|-------|---------------------------|---|---------------------------|---|
| 12/27 | 01/03 | 3.00E 08 | CC | 01/10 | 4.0 ± 0.4 E-02 | 01/06 | L.T. 2. E-02 |
| 01/03 | 01/10 | 3.00E 08 | CC | 01/19 | 4.1 ± 0.4 E-02 | 01/12 | L.T. 2. E-02 |
| 01/10 | 01/17 | 3.10E 08 | CC | 01/26 | 3.5 ± 0.3 E-02 | 01/20 | L.T. 1. E-02 |
| 01/17 | 01/24 | 2.90E 08 | CC | 02/01 | 2.4 ± 0.3 E-02 | 01/27 | L.T. 2. E-02 |
| P 01/24 | 01/31 | 3.10E 08 | CC | 02/07 | 4.0 ± 0.4 E-02 | 02/03 | L.T. 2. E-02 |
| Page 01/31 | 02/07 | 3.00E 08 | CC | 02/13 | 1.7 ± 0.3 E-02 | 02/09 | L.T. 2. E-02 |
| B 02/07 | 02/14 | 3.00E 08 | CC | 02/19 | 2.1 ± 0.3 E-02 | 02/16 | L.T. 1. E-02 |
| 02/14 | 02/21 | 2.90E 08 | CC | 02/28 | 2.6 ± 0.3 E-02 | 02/25 | L.T. 2. E-02 |
| 02/21 | 02/28 | 3.00E 08 | CC | 03/06 | 2.1 ± 0.3 E-02 | 03/07 | L.T. 4. E-02 |
| 02/28 | 03/07 | 3.10E 08 | CC | 03/12 | 2.7 ± 0.3 E-02 | 03/09 | L.T. 2. E-02 |
| 03/07 | 03/14 | 3.10E 08 | CC | 03/20 | 2.6 ± 0.3 E-02 | 03/16 | L.T. 2. E-02 |
| 03/14 | 03/21 | 3.00E 08 | CC | 03/26 | 2.5 ± 0.3 E-02 | 03/23 | L.T. 2. E-02 |
| 03/21 | 03/28 | 3.10E 08 | CC | 04/02 | 2.0 ± 0.3 E-02 | 03/30 | L.T. 2. E-02 |
| 03/28 | 04/04 | 3.00E 08 | CC | 04/09 | 2.0 ± 0.3 E-02 | 04/06 | L.T. 2. E-02 |
| 04/04 | 04/11 | 3.10E 08 | CC | 04/15 | 2.2 ± 0.3 E-02 | 04/13 | L.T. 2. E-02 |
| 04/11 | 04/18 | 3.10E 08 | CC | 04/23 | 2.1 ± 0.3 E-02 | 04/21 | L.T. 2. E-02 |
| 04/18 | 04/25 | 3.10E 08 | CC | 05/01 | 1.3 ± 0.2 E-02 | 04/27 | L.T. 2. E-02 |
| 04/25 | 05/02 | 3.00E 08 | CC | 05/07 | 1.5 ± 0.3 E-02 | 05/05 | L.T. 2. E-02 |
| 05/02 | 05/09 | 3.10E 08 | CC | 05/15 | 1.2 ± 0.2 E-02 | 05/13 | L.T. 2. E-02 |

WOLF CREEK NUCLEAR OPERATING CORPORATION
AIR PARTICULATE AND CHARCOAL FILTERS
STATION NUMBER 02

| COLLECTION DATE | DATE STOP START DATE | VOLUME | UNITS | MID COUNT TIME DATE | AP FILTER GROSS BETA (pCi/Cu.M.) | MID COUNT TIME DATE | CHARCOAL FILTER I-131 (pCi/Cu.M.) | |
|-----------------|-------------------------|----------|----------|---------------------------|--|---------------------------|---|--------------|
| | | | | | | | | |
| 05/02* | 05/09 | 3.10E 08 | CC | 05/15 | 1.3 ± 0.3 E-02 | 05/17 | L.T. 2. E-02 | |
| 05/09 | 05/16 | 3.10E 08 | CC | 05/22 | 1.3 ± 0.3 E-02 | 05/20 | L.T. 3. E-02 | |
| 05/16 | 05/23 | 2.70E 08 | CC | 05/30 | 1.6 ± 0.3 E-02 | 05/27 | L.T. 3. E-02 | |
| 05/23 | 05/30 | 3.00E 08 | CC | 06/06 | 1.3 ± 0.2 E-02 | 06/03 | L.T. 2. E-02 | |
| Page 05/30 | 06/06 | 3.10E 08 | CC | 06/13 | 1.4 ± 0.3 E-02 | 06/10 | L.T. 2. E-02 | |
| B | 06/06 | 06/13 | 3.00E 08 | CC | 06/19 | 1.9 ± 0.3 E-02 | 06/17 | L.T. 2. E-02 |
| -3 | 06/13 | 06/20 | 3.00E 08 | CC | 06/26 | 2.8 ± 0.3 E-02 | 06/24 | L.T. 2. E-02 |
| 06/20 | 06/27 | 3.00E 08 | CC | 07/06 | 2.5 ± 0.3 E-02 | 07/01 | L.T. 2. E-02 | |
| 06/27 | 07/05 | 3.50E 08 | CC | 07/14 | 2.1 ± 0.3 E-02 | 07/12 | L.T. 2. E-02 | |
| 07/05 | 07/11 | 2.60E 08 | CC | 07/20 | 2.7 ± 0.3 E-02 | 07/16 | L.T. 3. E-02 | |
| 07/11 | 07/18 | 3.00E 08 | CC | 07/24 | 3.7 ± 0.4 E-02 | 07/20 | L.T. 2. E-02 | |
| 07/18 | 07/25 | 3.00E 08 | CC | 08/02 | 2.4 ± 0.3 E-02 | 07/29 | L.T. 3. E-02 | |
| 07/25 | 08/02 | 3.40E 08 | CC | 08/10 | 2.4 ± 0.3 E-02 | 08/08 | L.T. 1. E-02 | |
| 08/02 | 08/08 | 2.70E 08 | CC | 08/16 | 1.7 ± 0.3 E-02 | 08/12 | L.T. 3. E-02 | |
| 08/02* | 08/08 | 2.70E 08 | CC | 08/30 | 1.7 ± 0.3 E-02 | 08/15 | L.T. 3. E-02 | |
| 08/08 | 08/16 | 3.50E 08 | CC | 08/25 | 2.1 ± 0.3 E-02 | 08/21 | L.T. 3. E-02 | |
| 08/16 | 08/22 | 2.60E 08 | CC | 08/29 | 2.9 ± 0.4 E-02 | 08/26 | L.T. 2. E-02 | |

*Duplicate Analysis

WOLF CREEK NUCLEAR OPERATING CORPORATION
AIR PARTICULATE AND CHARCOAL FILTERS
STATION NUMBER 02

| COLLECTION START DATE | DATE STOP DATE | VOLUME | UNITS | MID COUNT TIME DATE | A P FILTER GROSS BETA (pCi/Cu.M.) | MID COUNT TIME DATE | CHARCOAL FILTER I-131 (pCi/Cu.M.) |
|-----------------------------|----------------------|----------|-------|---------------------------|---|---------------------------|---|
| 08/22 | 08/29 | 3.20E 08 | CC | 09/08 | 4.3 ± 0.4 E-02 | 09/02 | L.T. 2. E-02 |
| 08/29 | 09/05 | 3.00E 08 | CC | 09/13 | 4.4 ± 0.4 E-02 | 09/09 | L.T. 2. E-02 |
| 09/05 | 09/12 | 3.00E 08 | CC | 09/19 | 3.0 ± 0.3 E-02 | 09/16 | L.T. 2. E-02 |
| 09/12 | 09/19 | 3.00E 08 | CC | 09/27 | 3.7 ± 0.4 E-02 | 09/26 | L.T. 3. E-02 |
| 09/19 | 09/26 | 3.10E 08 | CC | 10/04 | 2.5 ± 0.3 E-02 | 09/30 | L.T. 2. E-02 |
| 09/26 | 10/03 | 2.90E 08 | CC | 10/11 | 4.4 ± 0.4 E-02 | 10/10 | L.T. 3. E-02 |
| 10/03 | 10/10 | 3.00E 08 | CC | 10/15 | 2.2 ± 0.3 E-02 | 10/12 | L.T. 2. E-02 |
| 10/10 | 10/16 | 2.50E 08 | CC | 10/21 | 3.5 ± 0.4 E-02 | 10/21 | L.T. 3. E-02 |
| 10/16 | 10/24 | 3.40E 08 | CC | 10/30 | 2.2 ± 0.3 E-02 | 10/28 | L.T. 1. E-02 |
| 10/24 | 10/31* | | | | 4.2 ± 0.7 E 00 | | L.T. 5. E 00 |
| 10/31 | 11/07 | 3.00E 08 | CC | 11/14 | 3.2 ± 0.3 E-02 | 11/11 | L.T. 2. E-02 |
| 11/07 | 11/14 | 2.80E 08 | CC | 11/20 | 2.8 ± 0.4 E-02 | 11/18 | L.T. 2. E-02 |
| 11/14 | 11/21 | 3.00E 08 | CC | 11/29 | 3.6 ± 0.3 E-02 | 11/28 | L.T. 3. E-02 |
| 11/21 | 11/29 | 3.50E 08 | CC | 12/05 | 4.0 ± 0.4 E-02 | 12/03 | L.T. 2. E-02 |
| 11/29 | 12/05 | 2.60E 08 | CC | 12/10 | 3.3 ± 0.4 E-02 | 12/09 | L.T. 2. E-02 |
| 12/05 | 12/12 | 3.00E 08 | CC | 12/18 | 2.8 ± 0.3 E-02 | 12/15 | L.T. 2. E-02 |
| 12/12 | 12/20 | 3.50E 08 | CC | 12/28 | 4.0 ± 0.3 E-02 | 12/27 | L.T. 2. E-02 |
| 12/20 | 12/26 | 2.70E 08 | CC | 01/10 | 3.0 ± 0.4 E-02 | 12/29 | L.T. 2. E-02 |

*TOTAL PCI

WOLF CREEK NUCLEAR OPERATING CORPORATION

AIR PARTICULATE AND CHARCOAL FILTERS

STATION NUMBER 02

| COLLECTION START DATE | DATE STOP DATE | VOLUME | UNITS | MID COUNT TIME DATE | A P FILTER GROSS BETA (pCi/Cu.M.) | MID COUNT TIME DATE | CHARCOAL FILTER I-131 (pCi/Cu.M.) |
|-----------------------------|----------------------|----------|-------|---------------------------|---|---------------------------|---|
| 12/26 | 01/03 | 3.40E 08 | CC | 01/13 | 4.0 ± 0.4 E-02 | 01/07 | L.T. 2. E-02 |

WOLF CREEK NUCLEAR OPERATING CORPORATION
AIR PARTICULATE AND CHARCOAL FILTERS
STATION NUMBER 03

| COLLECTION START DATE | DATE STOP DATE | VOLUME | UNITS | MID COUNT TIME DATE | | A/P FILTER GROSS BETA (pCi/Cu.M.) | MID COUNT TIME DATE | CHARCOAL FILTER I-131 (pCi/Cu.M.) |
|-----------------------------|----------------------|----------|-------|---------------------------|--|---|---------------------------|---|
| | | | | | | | | |
| 12/27 | 01/03 | 3.00E 08 | CC | 01/10 | | 4.0 ± 0.4 E-02 | 01/06 | L.T. 2. E-02 |
| 01/03 | 01/10 | 2.90E 08 | CC | 01/19 | | 3.7 ± 0.4 E-02 | 01/12 | L.T. 2. E-02 |
| 01/10 | 01/17 | 3.00E 08 | CC | 01/26 | | 3.6 ± 0.4 E-02 | 01/20 | L.T. 1. E-02 |
| 01/17 | 01/24 | 2.80E 08 | CC | 02/01 | | 2.4 ± 0.3 E-02 | 01/27 | L.T. 2. E-02 |
| 01/24 | 01/31 | 2.90E 08 | CC | 02/07 | | 4.1 ± 0.4 E-02 | 02/03 | L.T. 2. E-02 |
| Page 6 | 01/31 | 2.90E 08 | CC | 02/13 | | 1.8 ± 0.3 E-02 | 02/09 | L.T. 2. E-02 |
| B-1 | 02/07 | 3.00E 08 | CC | 02/19 | | 2.4 ± 0.3 E-02 | 02/16 | L.T. 1. E-02 |
| 02/07* | 02/14 | 3.00E 08 | CC | 02/19 | | 2.2 ± 0.3 E-02 | 02/16 | L.T. 1. E-02 |
| 02/14 | 02/21 | 3.00E 08 | CC | 02/28 | | 2.4 ± 0.3 E-02 | 02/25 | L.T. 2. E-02 |
| 02/21 | 02/28 | 2.80E 08 | CC | 03/06 | | 1.9 ± 0.3 E-02 | 03/07 | L.T. 4. E-02 |
| 02/28 | 03/07 | 2.90E 08 | CC | 03/12 | | 2.8 ± 0.3 E-02 | 03/09 | L.T. 2. E-02 |
| 03/07 | 03/14 | 2.90E 08 | CC | 03/20 | | 2.3 ± 0.3 E-02 | 03/16 | L.T. 2. E-02 |
| 03/14 | 03/21 | 2.90E 08 | CC | 03/26 | | 2.9 ± 0.3 E-02 | 03/23 | L.T. 2. E-02 |
| 03/14* | 03/21 | 2.90E 08 | CC | 03/27 | | 2.8 ± 0.3 E-02 | 03/24 | L.T. 1. E-02 |
| 03/21 | 03/28 | 3.00E 08 | CC | 04/02 | | 1.9 ± 0.3 E-02 | 03/30 | L.T. 2. E-02 |
| 03/28 | 04/04 | 3.00E 08 | CC | 04/09 | | 2.4 ± 0.3 E-02 | 04/06 | L.T. 2. E-02 |
| 04/04 | 04/11 | 3.00E 08 | CC | 04/15 | | 2.4 ± 0.3 E-02 | 04/13 | L.T. 2. E-02 |

*Duplicate Analysts

WOLF CREEK NUCLEAR OPERATING CORPORATION

AIR PARTICULATE AND CHARCOAL FILTERS

STATION NUMBER 03

| COLLECTION START DATE | DATE STOP DATE | VOLUME | UNITS | MID COUNT TIME DATE | A P FILTER GROSS BETA (pCi/Cu.M.) | MID COUNT TIME DATE | CHARCOAL FILTER I-131 (pCi/Cu.M.) |
|-----------------------------|----------------------|----------|-------|---------------------------|---|---------------------------|---|
| 04/11 | 04/18 | 2.90E 08 | CC | 04/23 | 2.2 ± 0.3 E-02 | 04/21 | L.T. 3. E-02 |
| 04/11* | 04/18 | 2.90E 08 | CC | 04/23 | 2.0 ± 0.3 E-02 | 04/22 | L.T. 2. E-02 |
| 04/18 | 04/25 | 2.90E 08 | CC | 05/01 | 1.5 ± 0.3 E-02 | 04/27 | L.T. 2. E-02 |
| 04/25 | 05/02 | 2.90E 08 | CC | 05/07 | 1.6 ± 0.3 E-02 | 05/05 | L.T. 3. E-02 |
| 05/02 | 05/09 | 2.90E 08 | CC | 05/15 | 1.4 ± 0.3 E-02 | 05/13 | L.T. 2. E-02 |
| 05/09 | 05/16 | 2.90E 08 | CC | 05/22 | 1.4 ± 0.3 E-02 | 05/20 | L.T. 3. E-02 |
| 05/16 | 05/23 | 2.90E 08 | CC | 05/30 | 2.0 ± 0.3 E-02 | 05/27 | L.T. 3. E-02 |
| 05/23 | 05/30 | 2.90E 08 | CC | 06/06 | 1.1 ± 0.2 E-02 | 06/03 | L.T. 2. E-02 |
| 05/30 | 06/06 | 2.90E 08 | CC | 06/13 | 1.2 ± 0.3 E-02 | 06/10 | L.T. 2. E-02 |
| 06/06 | 06/13 | 3.00E 08 | CC | 06/19 | 1.7 ± 0.3 E-02 | 06/17 | L.T. 2. E-02 |
| 06/13 | 06/20 | 2.90E 08 | CC | 06/26 | 2.7 ± 0.3 E-02 | 06/24 | L.T. 2. E-02 |
| 06/20 | 06/27 | 2.90E 08 | CC | 07/06 | 2.4 ± 0.3 E-02 | 07/01 | L.T. 2. E-02 |
| 06/27 | 07/05 | 3.50E 08 | CC | 07/14 | 2.1 ± 0.3 E-02 | 07/12 | L.T. 2. E-02 |
| 07/05 | 07/11 | 2.50E 08 | CC | 07/20 | 2.3 ± 0.3 E-02 | 07/16 | L.T. 3. E-02 |
| 07/11 | 07/18 | 2.90E 08 | CC | 07/24 | 3.0 ± 0.3 E-02 | 07/20 | L.T. 2. E-02 |
| 07/18 | 07/25 | 3.10E 08 | CC | 08/02 | 2.0 ± 0.3 E-02 | 07/29 | L.T. 3. E-02 |
| 07/25 | 08/02 | 3.40E 08 | CC | 08/10 | 2.0 ± 0.3 E-02 | 08/08 | L.T. 1. E-02 |
| 08/02 | 08/08 | 2.70E 08 | CC | 08/16 | 1.6 ± 0.3 E-02 | 08/12 | L.T. 3. E-02 |

*Duplicate Analysis

WOLF CREEK NUCLEAR OPERATING CORPORATION

AIR PARTICULATE AND CHARCOAL FILTERS

STATION NUMBER 03

| COLLECTION START DATE | DATE STOP DATE | VOLUME | UNITS | MID COUNT TIME DATE | A P FILTER GROSS BETA (pCi/Cu.M.) | MID COUNT TIME DATE | CHARCOAL FILTER I-131 (pCi/Cu.M.) |
|-----------------------------|----------------------|----------|-------|---------------------------|---|---------------------------|---|
| 08/08 | 08/16 | 3.40E 08 | CC | 08/25 | 2.4 ± 0.3 E-02 | 08/21 | L.T. 3. E-02 |
| 08/16 | 08/22 | 2.50E 08 | CC | 08/29 | 2.6 ± 0.4 E-02 | 08/26 | L.T. 2. E-02 |
| 08/22 | 08/29 | 3.00E 08 | CC | 09/08 | 4.5 ± 0.4 E-02 | 09/02 | L.T. 2. E-02 |
| 08/29 | 09/05 | 2.90E 08 | CC | 09/13 | 4.3 ± 0.4 E-02 | 09/09 | L.T. 2. E-02 |
| 09/05 | 09/12 | 3.00E 08 | CC | 09/19 | 2.9 ± 0.3 E-02 | 09/16 | L.T. 2. E-02 |
| 09/12 | 09/19 | 3.00E 08 | CC | 09/27 | 3.4 ± 0.3 E-02 | 09/26 | L.T. 3. E-02 |
| 09/19 | 09/26 | 3.10E 08 | CC | 10/04 | 2.2 ± 0.3 E-02 | 09/30 | L.T. 2. E-02 |
| 09/26 | 10/03 | 3.00E 08 | CC | 10/11 | 4.0 ± 0.4 E-02 | 10/10 | L.T. 3. E-02 |
| 10/03 | 10/10 | 3.00E 08 | CC | 10/15 | 1.9 ± 0.3 E-02 | 10/12 | L.T. 2. E-02 |
| 10/10 | 10/16 | 2.60E 08 | CC | 10/21 | 3.6 ± 0.4 E-02 | 10/21 | L.T. 3. E-02 |
| 10/16 | 10/24 | 3.50E 08 | CC | 10/30 | 2.3 ± 0.3 E-02 | 10/28 | L.T. 1. E-02 |
| 10/24 | 10/31 | 3.10E 08 | CC | 11/05 | 2.3 ± 0.3 E-02 | 11/03 | L.T. 2. E-02 |
| 10/24* | 10/31 | 3.10E 08 | CC | 11/05 | 2.6 ± 0.3 E-02 | 11/04 | L.T. 9. E-03 |
| 10/31 | 11/07 | 3.00E 08 | CC | 11/14 | 3.6 ± 0.3 E-02 | 11/11 | L.T. 2. E-02 |
| 11/07 | 11/14 | 2.80E 08 | CC | 11/20 | 3.2 ± 0.4 E-02 | 11/18 | L.T. 2. E-02 |
| 11/14 | 11/21 | 2.90E 08 | CC | 11/29 | 3.8 ± 0.4 E-02 | 11/28 | L.T. 3. E-02 |
| 11/21 | 11/29 | 3.30E 08 | CC | 12/05 | 3.6 ± 0.4 E-02 | 12/03 | L.T. 2. E-02 |
| 11/29 | 12/05 | 2.50E 08 | CC | 12/10 | 3.9 ± 0.4 E-02 | 12/09 | L.T. 2. E-02 |

*Duplicate Analysis

WOLF CREEK NUCLEAR OPERATING CORPORATION

AIR PARTICULATE AND CHARCOAL FILTERS

STATION NUMBER 03

| COLLECTION START DATE | DATE STOP DATE | VOLUME | UNITS | MID COUNT TIME DATE | A P FILTER GROSS BETA (pCi/Cu.M.) | MID COUNT TIME DATE | CHARCOAL FILTER I-131 (pCi/Cu.M.) |
|-----------------------------|----------------------|----------|-------|---------------------------|---|---------------------------|---|
| 12/05 | 12/12 | 3.00E 08 | CC | 12/18 | 3.1 ± 0.3 E-02 | 12/15 | L.T. 2. E-02 |
| 12/12 | 12/20 | 3.40E 08 | CC | 12/28 | 3.7 ± 0.3 E-02 | 12/27 | L.T. 2. E-02 |
| 12/20 | 12/26 | 2.60E 08 | CC | 01/10 | 3.4 ± 0.4 E-02 | 12/29 | L.T. 2. E-02 |
| 12/26 | 01/03 | 3.30E 08 | CC | 01/13 | 4.7 ± 0.4 E-02 | 01/07 | L.T. 2. E-02 |

WOLF CREEK NUCLEAR OPERATING CORPORATION
AIR PARTICULATE AND CHARCOAL FILTERS
STATION NUMBER 32

| COLLECTION START DATE | DATE STOP DATE | VOLUME | UNITS | MID COUNT TIME DATE | A P FILTER GROSS BETA (pCi/Cu.M.) | MID COUNT TIME DATE | CHARCOAL FILTER I-131 (pCi/Cu.M.) |
|-----------------------------|----------------------|----------|-------|---------------------------|---|---------------------------|---|
| 12/27 | 01/03 | 3.00E 08 | CC | 01/10 | 4.3 ± 0.4 E-02 | 01/06 | L.T. 2. E-02 |
| 01/03 | 01/10 | 3.00E 08 | CC | 01/19 | 4.0 ± 0.4 E-02 | 01/12 | L.T. 2. E-02 |
| 01/10 | 01/17 | 3.10E 08 | CC | 01/26 | 3.7 ± 0.3 E-02 | 01/20 | L.T. 1. E-02 |
| 01/10* | 01/17 | 3.10E 08 | CC | 01/26 | 3.4 ± 0.3 E-02 | 01/21 | L.T. 1. E-02 |
| 01/17 | 01/24 | 2.90E 08 | CC | 02/01 | 2.2 ± 0.3 E-02 | 01/27 | L.T. 2. E-02 |
| 01/24 | 01/31 | 3.00E 08 | CC | 02/07 | 4.3 ± 0.4 E-02 | 02/03 | L.T. 2. E-02 |
| 01/31 | 02/07 | 2.90E 08 | CC | 02/13 | 1.9 ± 0.3 E-02 | 02/09 | L.T. 2. E-02 |
| 02/07 | 02/14 | 3.00E 08 | CC | 02/19 | 2.2 ± 0.3 E-02 | 02/16 | L.T. 1. E-02 |
| 02/14 | 02/21 | 3.00E 08 | CC | 02/28 | 2.4 ± 0.3 E-02 | 02/25 | L.T. 2. E-02 |
| 02/21 | 02/28 | 3.10E 08 | CC | 03/06 | 2.0 ± 0.3 E-02 | 03/07 | L.T. 3. E-02 |
| 02/28 | 03/07 | 3.10E 08 | CC | 03/12 | 2.9 ± 0.3 E-02 | 03/09 | L.T. 2. E-02 |
| 03/07 | 03/14 | 3.20E 08 | CC | 03/20 | 3.1 ± 0.3 E-02 | 03/16 | L.T. 2. E-02 |
| 03/14 | 03/21 | 3.00E 08 | CC | 03/26 | 2.9 ± 0.3 E-02 | 03/23 | L.T. 2. E-02 |
| 03/21 | 03/28 | 3.20E 08 | CC | 04/02 | 2.0 ± 0.3 E-02 | 03/30 | L.T. 2. E-02 |
| 03/28 | 04/04 | 3.20E 08 | CC | 04/09 | 2.6 ± 0.3 E-02 | 04/06 | L.T. 2. E-02 |
| 04/04 | 04/11 | 3.20E 08 | CC | 04/15 | 2.3 ± 0.3 E-02 | 04/13 | L.T. 2. E-02 |
| 04/11 | 04/18 | 3.10E 08 | CC | 04/23 | 2.1 ± 0.3 E-02 | 04/21 | L.T. 2. E-02 |
| 04/18 | 04/25 | 3.10E 08 | CC | 05/01 | 1.5 ± 0.3 E-02 | 04/27 | L.T. 2. E-02 |

*Duplicate Analysis

WOLF CREEK NUCLEAR OPERATING CORPORATION
AIR PARTICULATE AND CHARCOAL FILTERS
STATION NUMBER 32

| COLLECTION DATE START DATE | DATE STOP DATE | VOLUME | UNITS | MID COUNT TIME DATE | A P FILTER GROSS BETA (pCi/Cu.M.) | MID COUNT TIME DATE | CHARCOAL FILTER I-131 (pCi/Cu.M.) |
|-------------------------------|-------------------|----------|-------|---------------------------|---|---------------------------|---|
| 04/25 | 05/02 | 2.90E 08 | CC | 05/07 | 1.6 ± 0.3 E-02 | 05/05 | L.T. 3. E-02 |
| 05/02 | 05/09 | 3.10E 08 | CC | 05/15 | 1.2 ± 0.2 E-02 | 05/13 | L.T. 2. E-02 |
| 05/09 | 05/16 | 3.20E 08 | CC | 05/22 | 1.6 ± 0.3 E-02 | 05/20 | L.T. 2. E-02 |
| 05/16 | 05/23 | 3.00E 08 | CC | 05/30 | 2.0 ± 0.3 E-02 | 05/27 | L.T. 3. E-02 |
| 05/23 | 05/30 | 3.10E 08 | CC | 06/06 | 1.1 ± 0.2 E-02 | 06/03 | L.T. 2. E-02 |
| 05/30 | 06/06 | 3.00E 08 | CC | 06/13 | 1.4 ± 0.3 E-02 | 06/10 | L.T. 2. E-02 |
| e 06/06 | 06/13 | 3.00E 08 | CC | 06/19 | 1.9 ± 0.3 E-02 | 06/17 | L.T. 2. E-02 |
| B - 06/13 | 06/20 | 3.00E 08 | CC | 06/26 | 2.8 ± 0.3 E-02 | 06/24 | L.T. 2. E-02 |
| - 1 06/20 | 06/27 | 3.00E 08 | CC | 07/06 | 2.9 ± 0.3 E-02 | 07/01 | L.T. 2. E-02 |
| 06/27 | 07/05 | 3.40E 08 | CC | 07/14 | 2.3 ± 0.3 E-02 | 07/12 | L.T. 2. E-02 |
| 06/27* | 07/05 | 3.40E 08 | CC | 07/14 | 2.2 ± 0.3 E-02 | 07/13 | L.T. 2. E-02 |
| 07/05 | 07/11 | 2.60E 08 | CC | 07/20 | 2.6 ± 0.3 E-02 | 07/16 | L.T. 3. E-02 |
| 07/11 | 07/18 | 3.00E 08 | CC | 07/24 | 3.5 ± 0.3 E-02 | 07/20 | L.T. 2. E-02 |
| 07/18 | 07/25 | 3.10E 08 | CC | 08/02 | 2.2 ± 0.3 E-02 | 07/29 | L.T. 3. E-02 |
| 07/25 | 08/02 | 3.40E 08 | CC | 08/10 | 2.3 ± 0.3 E-02 | 08/08 | L.T. 1. E-02 |
| 08/02 | 08/08 | 2.70E 08 | CC | 08/16 | 2.0 ± 0.3 E-02 | 08/12 | L.T. 3. E-02 |
| 08/08 | 08/16 | 3.70E 08 | CC | 08/25 | 2.1 ± 0.3 E-02 | 08/21 | L.T. 2. E-02 |
| 08/16 | 08/22 | 2.50E 08 | CC | 08/29 | 2.9 ± 0.4 E-02 | 08/26 | L.T. 2. E-02 |

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*Duplicate Analysis

WOLF CREEK NUCLEAR OPERATING CORPORATION

AIR PARTICULATE AND CHARCOAL FILTERS

STATION NUMBER 32

| COLLECTION START DATE | DATE STOP DATE | VOLUME | UNITS | MID COUNT TIME DATE | A P FILTER GROSS BETA (pCi/Cu.M.) | MID COUNT TIME DATE | CHARCOAL FILTER I-131 (pCi/Cu.M.) |
|-----------------------------|----------------------|----------|-------|---------------------------|---|---------------------------|---|
| 08/22 | 08/29 | 3.10E 08 | CC | 09/08 | 4.1 ± 0.4 E-02 | 09/02 | L.T. 2. E-02 |
| 08/22* | 08/29 | 3.10E 08 | CC | 09/08 | 4.4 ± 0.4 E-02 | 09/06 | L.T. 2. E-02 |
| 08/29 | 09/05 | 2.90E 08 | CC | 09/13 | 4.5 ± 0.4 E-02 | 09/09 | L.T. 2. E-02 |
| 09/05 | 09/12 | 3.00E 08 | CC | 09/19 | 2.9 ± 0.3 E-02 | 09/16 | L.T. 2. E-02 |
| 09/12 | 09/19 | 3.00E 08 | CC | 09/27 | 3.7 ± 0.4 E-02 | 09/26 | L.T. 3. E-02 |
| 09/19 | 09/26 | 3.10E 08 | CC | 10/04 | 2.3 ± 0.3 E-02 | 09/30 | L.T. 2. E-02 |
| 09/26 | 10/03 | 2.90E 08 | CC | 10/11 | 4.5 ± 0.4 E-02 | 10/10 | L.T. 3. E-02 |
| 10/03 | 10/10 | 3.10E 08 | CC | 10/15 | 2.3 ± 0.3 E-02 | 10/12 | L.T. 2. E-02 |
| 10/10 | 10/16 | 2.60E 08 | CC | 10/21 | 3.6 ± 0.4 E-02 | 10/21 | L.T. 3. E-02 |
| 10/16 | 10/24 | 3.50E 08 | CC | 10/30 | 2.0 ± 0.3 E-02 | 10/28 | L.T. 1. E-02 |
| 10/24 | 10/31 | 3.10E 08 | CC | 11/05 | 2.1 ± 0.3 E-02 | 11/03 | L.T. 2. E-02 |
| 10/31 | 11/07 | 3.00E 08 | CC | 11/14 | 3.5 ± 0.3 E-02 | 11/11 | L.T. 2. E-02 |
| 11/07 | 11/14 | 2.80E 08 | CC | 11/20 | 3.5 ± 0.4 E-02 | 11/18 | L.T. 2. E-02 |
| 11/14 | 11/21 | 3.10E 08 | CC | 11/29 | 3.4 ± 0.3 E-02 | 11/28 | L.T. 3. E-02 |
| 11/21 | 11/29 | 3.50E 08 | CC | 12/05 | 3.8 ± 0.4 E-02 | 12/03 | L.T. 2. E-02 |
| 11/29 | 12/05 | 2.60E 08 | CC | 12/10 | 4.3 ± 0.4 E-02 | 12/09 | L.T. 2. E-02 |
| 12/05 | 12/12 | 3.00E 08 | CC | 12/18 | 3.3 ± 0.3 E-02 | 12/15 | L.T. 2. E-02 |
| 12/12 | 12/20 | 3.50E 08 | CC | 12/28 | 4.0 ± 0.3 E-02 | 12/27 | L.T. 2. E-02 |

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*Duplicate Analysis

WOLF CREEK NUCLEAR OPERATING CORPORATION

AIR PARTICULATE AND CHARCOAL FILTERS

STATION NUMBER 32

| COLLECTION START DATE | DATE STOP DATE | VOLUME | UNITS | MID COUNT TIME DATE | A P FILTER GROSS BETA (pCi/Cu.M.) | MID COUNT TIME DATE | CHARCOAL FILTER I-131 (pCi/Cu.M.) |
|-----------------------------|----------------------|----------|-------|---------------------------|---|---------------------------|---|
| 12/20 | 12/26 | 2.70E 08 | CC | 01/10 | 2.8 ± 0.4 E-02 | 12/29 | L.T. 2. E-02 |
| 12/26 | 01/03 | 3.40E 08 | CC | 01/13 | 4.0 ± 0.4 E-02 | 01/07 | L.T. 2. E-02 |

WOLF CREEK NUCLEAR OPERATING CORPORATION

AIR PARTICULATE AND CHARCOAL FILTERS

STATION NUMBER 37

| COLLECTION DATE START DATE | DATE STOP DATE | VOLUME | UNITS | MID COUNT TIME DATE | AP FILTER GROSS BETA (pCi/Cu.M.) | MID COUNT TIME DATE | CHARCOAL FILTER I-131 (pCi/Cu.M.) |
|-------------------------------|-------------------|----------|-------|---------------------------|--|---------------------------|---|
| 12/27 | 01/03 | 3.00E 08 | CC | 01/10 | 3.7 ± 0.3 E-02 | 01/06 | L.T. 2. E-02 |
| 01/03 | 01/10 | 2.90E 08 | CC | 01/19 | 3.9 ± 0.4 E-02 | 01/12 | L.T. 2. E-02 |
| 01/10 | 01/17 | 3.20E 08 | CC | 01/26 | 3.5 ± 0.3 E-02 | 01/20 | L.T. 1. E-02 |
| 01/17 | 01/24 | 2.90E 08 | CC | 02/01 | 2.2 ± 0.3 E-02 | 01/27 | L.T. 2. E-02 |
| 01/24 | 01/31 | 3.00E 08 | CC | 02/07 | 4.5 ± 0.4 E-02 | 02/03 | L.T. 2. E-02 |
| 01/31 | 02/07 | 2.90E 08 | CC | 02/13 | 1.7 ± 0.3 E-02 | 02/09 | L.T. 2. E-02 |
| 02/07 | 02/14 | 3.00E 08 | CC | 02/19 | 2.0 ± 0.3 E-02 | 02/16 | L.T. 1. E-02 |
| 02/14 | 02/21 | 3.00E 08 | CC | 02/28 | 2.3 ± 0.3 E-02 | 02/25 | L.T. 2. E-02 |
| 02/21 | 02/28 | 3.00E 08 | CC | 03/06 | 1.9 ± 0.3 E-02 | 03/07 | L.T. 4. E-02 |
| 02/28 | 03/07 | 3.00E 08 | CC | 03/12 | 2.8 ± 0.3 E-02 | 03/09 | L.T. 2. E-02 |
| 03/07 | 03/14 | 3.00E 08 | CC | 03/20 | 2.6 ± 0.3 E-02 | 03/16 | L.T. 2. E-02 |
| 03/14 | 03/21 | 3.00E 08 | CC | 03/26 | 2.7 ± 0.3 E-02 | 03/23 | L.T. 2. E-02 |
| 03/21 | 03/28 | 3.00E 08 | CC | 04/02 | 1.9 ± 0.3 E-02 | 03/30 | L.T. 2. E-02 |
| 03/28 | 04/04 | 3.00E 08 | CC | 04/09 | 2.2 ± 0.3 E-02 | 04/06 | L.T. 2. E-02 |
| 04/04 | 04/11 | 3.10E 08 | CC | 04/15 | 2.3 ± 0.3 E-02 | 04/13 | L.T. 2. E-02 |
| 04/04* | 04/11 | 3.10E 08 | CC | 04/17 | 2.1 ± 0.3 E-02 | 04/15 | L.T. 2. E-02 |
| 04/11 | 04/18 | 3.00E 08 | CC | 04/23 | 1.9 ± 0.3 E-02 | 04/21 | L.T. 2. E-02 |
| 04/18 | 04/25 | 3.00E 08 | CC | 05/01 | 2.0 ± 0.3 E-02 | 04/27 | L.T. 2. E-02 |

*Duplicate Analysis

WOLF CREEK NUCLEAR OPERATING CORPORATION

AIR PARTICULATE AND CHARCOAL FILTERS

STATION NUMBER 37

| COLLECTION START DATE | DATE STOP DATE | VOLUME | UNITS | MID COUNT TIME DATE | A P FILTER GROSS BETA (pCi/Cu.M.) | MID COUNT TIME DATE | CHARCOAL FILTER I-131 (pCi/Cu.M.) |
|-----------------------------|----------------------|----------|-------|---------------------------|---|---------------------------|---|
| 04/25 | 05/02 | 3.10E 08 | CC | 05/07 | 1.6 ± 0.3 E-02 | 05/05 | L.T. 2. E-02 |
| 05/02 | 05/09 | 3.10E 08 | CC | 05/15 | 1.3 ± 0.2 E-02 | 05/13 | L.T. 2. E-02 |
| 05/09 | 05/16 | 2.90E 08 | CC | 05/22 | 1.6 ± 0.3 E-02 | 05/20 | L.T. 3. E-02 |
| 05/16 | 05/23 | 3.00E 08 | CC | 05/30 | 1.8 ± 0.3 E-02 | 05/27 | L.T. 3. E-02 |
| 05/23 | 05/30 | 3.10E 08 | CC | 06/06 | 1.1 ± 0.2 E-02 | 06/03 | L.T. 2. E-02 |
| 05/30 | 06/06 | 3.00E 08 | CC | 06/13 | 1.4 ± 0.3 E-02 | 06/10 | L.T. 2. E-02 |
| 06/06 | 06/13 | 3.00E 08 | CC | 06/19 | 1.7 ± 0.3 E-02 | 06/17 | L.T. 2. E-02 |
| 06/13 | 06/20 | 3.00E 08 | CC | 06/26 | 3.1 ± 0.3 E-02 | 06/24 | L.T. 2. E-02 |
| 06/20 | 06/27 | 3.00E 08 | CC | 07/06 | 2.9 ± 0.3 E-02 | 07/01 | L.T. 2. E-02 |
| 06/27 | 07/05 | 3.50E 08 | CC | 07/14 | 2.2 ± 0.3 E-02 | 07/12 | L.T. 2. E-02 |
| 07/05 | 07/11 | 2.60E 08 | CC | 07/20 | 2.8 ± 0.3 E-02 | 07/16 | L.T. 3. E-02 |
| 07/11 | 07/18 | 3.00E 08 | CC | 07/24 | 3.8 ± 0.4 E-02 | 07/20 | L.T. 2. E-02 |
| 07/18 | 07/25 | 3.10E 08 | CC | 08/02 | 2.3 ± 0.3 E-02 | 07/29 | L.T. 3. E-02 |
| 07/25 | 08/02 | 3.40E 08 | CC | 08/10 | 2.4 ± 0.3 E-02 | 08/08 | L.T. 1. E-02 |
| 08/02 | 08/08 | 2.60E 08 | CC | 08/16 | 1.7 ± 0.3 E-02 | 08/12 | L.T. 3. E-02 |
| 08/08 | 08/16 | 3.30E 08 | CC | 08/25 | 2.5 ± 0.3 E-02 | 08/21 | L.T. 3. E-02 |
| 08/16 | 08/22 | 2.50E 08 | CC | 08/29 | 3.2 ± 0.4 E-02 | 08/26 | L.T. 2. E-02 |
| 08/22 | 08/29 | 3.00E 08 | CC | 09/08 | 4.6 ± 0.4 E-02 | 09/02 | L.T. 2. E-02 |
| 08/29 | 09/05 | 2.90E 08 | CC | 09/13 | 4.4 ± 0.4 E-02 | 09/09 | L.T. 2. E-02 |

WOLF CREEK NUCLEAR OPERATING CORPORATION

AIR PARTICULATE AND CHARCOAL FILTERS

STATION NUMBER 37

| COLLECTION START DATE | DATE STOP DATE | VOLUME | UNITS | MID COUNT TIME DATE | A P FILTER GROSS BETA (pCi/Cu.M.) | MID COUNT TIME DATE | CHARCOAL FILTER I-131 (pCi/Cu.M.) |
|-----------------------------|----------------------|----------|-------|---------------------------|---|---------------------------|---|
| 09/05 | 09/12 | 3.00E 08 | CC | 09/19 | 3.2 ± 0.3 E-02 | 09/16 | L.T. 2. E-02 |
| 09/12 | 09/19 | 3.10E 08 | CC | 09/27 | 3.9 ± 0.4 E-02 | 09/26 | L.T. 3. E-02 |
| 09/19 | 09/26 | 3.00E 08 | CC | 10/04 | 2.4 ± 0.3 E-02 | 09/30 | L.T. 2. E-02 |
| 09/19* | 09/26 | 3.00E 08 | CC | 10/04 | 2.4 ± 0.3 E-02 | 10/03 | L.T. 7. E-02 |
| 09/26 | 10/03 | 3.00E 08 | CC | 10/11 | 4.3 ± 0.4 E-02 | 10/10 | L.T. 3. E-02 |
| 10/03 | 10/10 | 3.10E 08 | CC | 10/15 | 2.6 ± 0.3 E-02 | 10/12 | L.T. 2. E-02 |
| 10/10 | 10/16 | 2.50E 08 | CC | 10/21 | 4.0 ± 0.4 E-02 | 10/21 | L.T. 3. E-02 |
| 10/16 | 10/24 | 3.30E 08 | CC | 10/30 | 2.5 ± 0.3 E-02 | 10/28 | L.T. 1. E-02 |
| 10/24 | 10/31 | 3.00E 08 | CC | 11/05 | 2.2 ± 0.3 E-02 | 11/03 | L.T. 2. E-02 |
| 10/31 | 11/07 | 3.00E 08 | CC | 11/14 | 3.6 ± 0.3 E-02 | 11/11 | L.T. 2. E-02 |
| 11/07 | 11/14 | 2.90E 08 | CC | 11/20 | 3.3 ± 0.4 E-02 | 11/18 | L.T. 2. E-02 |
| 11/14 | 11/21 | 3.00E 08 | CC | 11/29 | 3.8 ± 0.4 E-02 | 11/28 | L.T. 3. E-02 |
| 11/21 | 11/29 | 3.40E 08 | CC | 12/05 | 3.5 ± 0.3 E-02 | 12/03 | L.T. 2. E-02 |
| 11/29 | 12/05 | 2.50E 08 | CC | 12/10 | 3.6 ± 0.4 E-02 | 12/09 | L.T. 2. E-02 |
| 12/05 | 12/12 | 2.90E 08 | CC | 12/18 | 3.5 ± 0.4 E-02 | 12/15 | L.T. 2. E-02 |
| 12/12 | 12/20 | 3.30E 08 | CC | 12/29 | 3.9 ± 0.3 E-02 | 12/27 | L.T. 2. E-02 |
| 12/20 | 12/26 | 2.60E 08 | CC | 01/10 | 3.2 ± 0.4 E-02 | 12/29 | L.T. 2. E-02 |
| 12/26 | 01/03 | 3.40E 08 | CC | 01/13 | 4.3 ± 0.4 E-02 | 01/07 | L.T. 2. E-02 |

*Duplicate Analysis

WOLF CREEK NUCLEAR OPERATING CORPORATION
AIR PARTICULATE AND CHARCOAL FILTERS
STATION NUMBER 40

| COLLECTION DATE | DATE STOP DATE | VOLUME | UNITS | MID COUNT TIME DATE | A P FILTER GROSS BETA (pCi/Cu.M.) | MID COUNT TIME DATE | CHARCOAL FILTER I-131 (pCi/Cu.M.) |
|-----------------|----------------|----------|-------|---------------------|-----------------------------------|---------------------|-----------------------------------|
| 12/27 | 01/03 | 3.00E 08 | CC | 01/10 | 4.1 ± 0.4 E-02 | 01/06 | L.T. 2. E-02 |
| 01/03 | 01/10 | 2.90E 08 | CC | 01/19 | 3.7 ± 0.4 E-02 | 01/12 | L.T. 1. E-02 |
| 01/10 | 01/17 | 3.10E 08 | CC | 01/26 | 3.4 ± 0.3 E-02 | 01/20 | L.T. 8. E-03 |
| 01/17 | 01/24 | 2.90E 08 | CC | 02/01 | 2.4 ± 0.3 E-02 | 01/27 | L.T. 1. E-02 |
| 01/24 | 01/31 | 3.00E 08 | CC | 02/07 | 4.5 ± 0.4 E-02 | 02/03 | L.T. 9. E-03 |
| 01/31 | 02/07 | 2.90E 08 | CC | 02/13 | 1.7 ± 0.3 E-02 | 02/09 | L.T. 1. E-02 |
| 02/07 | 02/14 | 2.90E 08 | CC | 02/19 | 2.3 ± 0.3 E-02 | 02/16 | L.T. 9. E-03 |
| 02/14 | 02/21 | 3.00E 08 | CC | 02/28 | 2.5 ± 0.3 E-02 | 02/25 | L.T. 1. E-02 |
| 02/21 | 02/28 | 2.90E 08 | CC | 03/06 | 1.9 ± 0.3 E-02 | 03/07 | L.T. 2. E-02 |
| 02/28 | 03/07 | 3.10E 08 | CC | 03/12 | 2.7 ± 0.3 E-02 | 03/09 | L.T. 1. E-02 |
| 03/07 | 03/14 | 3.30E 08 | CC | 03/20 | 2.8 ± 0.3 E-02 | 03/16 | L.T. 1. E-02 |
| 03/14 | 03/21 | 3.00E 08 | CC | 03/26 | 2.5 ± 0.3 E-02 | 03/23 | L.T. 1. E-02 |
| 03/21 | 03/28 | 3.00E 08 | CC | 04/02 | 1.9 ± 0.3 E-02 | 03/30 | L.T. 1. E-02 |
| 03/28 | 04/04 | 3.00E 08 | CC | 04/09 | 2.3 ± 0.3 E-02 | 04/06 | L.T. 1. E-02 |
| 04/04 | 04/11 | 2.90E 08 | CC | 04/15 | 2.5 ± 0.3 E-02 | 04/13 | L.T. 2. E-02 |
| 04/11 | 04/18 | 2.90E 08 | CC | 04/23 | 1.9 ± 0.3 E-02 | 04/21 | L.T. 2. E-02 |
| 04/18 | 04/25 | 2.90E 08 | CC | 05/01 | 1.5 ± 0.3 E-02 | 04/27 | L.T. 1. E-02 |
| 04/25 | 05/02 | 2.90E 08 | CC | 05/07 | 1.4 ± 0.3 E-02 | 05/05 | L.T. 2. E-02 |
| 05/02 | 05/09 | 3.00E 08 | CC | 05/15 | 1.4 ± 0.3 E-02 | 05/13 | L.T. 2. E-02 |

WOLF CREEK NUCLEAR OPERATING CORPORATION
AIR PARTICULATE AND CHARCOAL FILTERS
STATION NUMBER 40

| COLLECTION START DATE | DATE STOP DATE | VOLUME | UNITS | MID COUNT TIME DATE | A P FILTER GROSS BETA (pCi/Cu.M.) | MID COUNT TIME DATE | CHARCOAL FILTER I-131 (pCi/Cu.M.) |
|-----------------------------|----------------------|----------|-------|---------------------------|---|---------------------------|---|
| 05/09 | 05/16 | 3.00E 08 | CC | 05/22 | 1.5 ± 0.3 E-02 | 05/20 | L.T. 2. E-02 |
| 05/16 | 05/23 | 2.80E 08 | CC | 05/30 | 1.6 ± 0.3 E-02 | 05/27 | L.T. 2. E-02 |
| 05/23 | 05/30 | 3.20E 08 | CC | 06/06 | 1.1 ± 0.2 E-02 | 06/03 | L.T. 1. E-02 |
| 05/30 | 06/06 | 3.10E 08 | CC | 06/13 | 1.5 ± 0.3 E-02 | 06/10 | L.T. 1. E-02 |
| 05/30* | 06/06 | 3.10E 08 | CC | 06/13 | 1.4 ± 0.3 E-02 | 06/13 | L.T. 2. E-02 |
| 06/06 | 06/13 | 3.00E 08 | CC | 06/19 | 2.2 ± 0.3 E-02 | 06/17 | L.T. 1. E-02 |
| 06/13 | 06/20 | 3.10E 08 | CC | 06/26 | 2.9 ± 0.3 E-02 | 06/24 | L.T. 1. E-02 |
| 06/20 | 06/27 | 3.10E 08 | CC | 07/06 | 2.6 ± 0.3 E-02 | 07/01 | L.T. 1. E-02 |
| 06/27 | 07/05 | 3.50E 08 | CC | 07/14 | 2.3 ± 0.3 E-02 | 07/12 | L.T. 1. E-02 |
| 07/05 | 07/11 | 2.60E 08 | CC | 07/20 | 2.7 ± 0.3 E-02 | 07/16 | L.T. 2. E-02 |
| 07/11 | 07/18 | 3.00E 08 | CC | 07/24 | 3.5 ± 0.3 E-02 | 07/20 | L.T. 1. E-02 |
| 07/18 | 07/25 | 3.10E 08 | CC | 08/02 | 2.3 ± 0.3 E-02 | 07/29 | L.T. 2. E-02 |
| 07/25 | 08/02 | 3.30E 08 | CC | 08/10 | 2.4 ± 0.3 E-02 | 08/08 | L.T. 1. E-02 |
| 08/02 | 08/08 | 2.50E 08 | CC | 08/16 | 1.8 ± 0.3 E-02 | 08/12 | L.T. 2. E-02 |
| 08/08 | 08/16 | 3.50E 08 | CC | 08/25 | 2.3 ± 0.3 E-02 | 08/21 | L.T. 2. E-02 |
| 08/16 | 08/22 | 2.60E 08 | CC | 08/29 | 2.9 ± 0.4 E-02 | 08/26 | L.T. 1. E-02 |
| 08/22 | 08/29 | 3.10E 08 | CC | 09/08 | 4.1 ± 0.4 E-02 | 09/02 | L.T. 9. E-03 |
| 08/29 | 09/05 | 3.00E 08 | CC | 09/13 | 3.9 ± 0.4 E-02 | 09/09 | L.T. 1. E-02 |

*Duplicate Analysis

WOLF CREEK NUCLEAR OPERATING CORPORATION

AIR PARTICULATE AND CHARCOAL FILTERS

STATION NUMBER 40

| COLLECTION START DATE | DATE STOP DATE | VOLUME | UNITS | MID COUNT TIME DATE | A P FILTER GROSS BETA (pCi/Cu.M.) | MID COUNT TIME DATE | CHARCOAL FILTER I-131 (pCi/Cu.M.) |
|-----------------------------|----------------------|----------|-------|---------------------------|---|---------------------------|---|
| 09/05 | 09/12 | 2.90E 08 | CC | 09/19 | 2.8 ± 0.3 E-02 | 09/16 | L.T. 1. E-02 |
| 09/12 | 09/19 | 3.00E 08 | CC | 09/27 | 3.6 ± 0.3 E-02 | 09/26 | L.T. 1. E-02 |
| 09/19 | 09/26 | 3.10E 08 | CC | 10/04 | 2.1 ± 0.3 E-02 | 09/30 | L.T. 1. E-02 |
| 09/26 | 10/03 | 2.90E 08 | CC | 10/11 | 3.9 ± 0.4 E-02 | 10/10 | L.T. 2. E-02 |
| 10/03 | 10/10 | 3.00E 08 | CC | 10/15 | 2.5 ± 0.3 E-02 | 10/12 | L.T. 1. E-02 |
| 10/10 | 10/16 | 2.60E 08 | CC | 10/21 | 4.0 ± 0.4 E-02 | 10/21 | L.T. 1. E-02 |
| 10/16 | 10/24 | 3.50E 08 | CC | 10/30 | 2.5 ± 0.3 E-02 | 10/28 | L.T. 9. E-03 |
| 10/24 | 10/31 | 3.10E 08 | CC | 11/05 | 2.3 ± 0.3 E-02 | 11/03 | L.T. 1. E-02 |
| 10/31 | 11/07 | 3.00E 08 | CC | 11/14 | 3.2 ± 0.3 E-02 | 11/11 | L.T. 8. E-03 |
| 11/07 | 11/14 | 2.90E 08 | CC | 11/20 | 3.1 ± 0.4 E-02 | 11/18 | L.T. 1. E-02 |
| 11/14 | 11/21 | 3.10E 08 | CC | 11/29 | 3.7 ± 0.3 E-02 | 11/28 | L.T. 2. E-02 |
| 11/21 | 11/29 | 3.50E 08 | CC | 12/05 | 3.4 ± 0.3 E-02 | 12/03 | L.T. 1. E-02 |
| 11/29 | 12/05 | 2.50E 08 | CC | 12/10 | 3.7 ± 0.4 E-02 | 12/09 | L.T. 1. E-02 |
| 11/29* | 12/05 | 2.50E 08 | CC | 12/10 | 4.9 ± 0.5 E-02 | 12/12 | L.T. 2. E-02 |
| 12/05 | 12/12 | 3.00E 08 | CC | 12/18 | 3.3 ± 0.3 E-02 | 12/15 | L.T. 1. E-02 |
| 12/12 | 12/20 | 3.50E 08 | CC | 12/28 | 4.6 ± 0.4 E-02 | 12/27 | L.T. 1. E-02 |
| 12/20 | 12/26 | 2.70E 08 | CC | 01/10 | 3.7 ± 0.4 E-02 | 12/29 | L.T. 1. E-02 |
| 12/26 | 01/03 | 3.50E 08 | CC | 01/13 | 4.5 ± 0.4 E-02 | 01/07 | L.T. 1. E-02 |

*Duplicate Analysis

WOLF CREEK NUCLEAR OPERATING CORPORATION

AIR PARTICULATE FILTERS
EXPOSURE PATHWAY - AIRBORNE

ISOTOPIC ANALYSIS ON QUARTERLY COMPIANCE

(pCi/Cu.M.)

STATION NUMBER 02

DATE COLLECTED: 01/03-04/04 04/04-07/05 07/05-10/03 10/03-01/03

GAMMA SPECTRUM ANALYSIS:

| | | | | |
|---------------|----------------|----------------|----------------|----------------|
| BE-7 | 1.33±0.13 E-01 | 1.68±0.17 E-01 | 8.55±0.85 E-02 | 6.11±0.64 E-02 |
| K-40 | L.T. 1. E-02 | L.T. 7. E-03 | L.T. 7. E-03 | 1.43±0.52 E-02 |
| MN-54 | L.T. 4. E-04 | L.T. 5. E-04 | L.T. 3. E-04 | L.T. 5. E-04 |
| CO-58 | L.T. 6. E-04 | L.T. 6. E-04 | L.T. 5. E-04 | L.T. 6. E-04 |
| FE-59 | L.T. 2. E-03 | L.T. 2. E-03 | L.T. 9. E-04 | L.T. 1. E-03 |
| CO-60 | L.T. 4. E-04 | L.T. 4. E-04 | L.T. 6. E-04 | L.T. 6. E-04 |
| ZN-65 | L.T. 1. E-03 | L.T. 1. E-03 | L.T. 9. E-04 | L.T. 1. E-03 |
| NB-95/ZR-95 | L.T. 8. E-04 | L.T. 8. E-04 | L.T. 5. E-04 | L.T. 5. E-04 |
| RU-103 | L.T. 1. E-03 | L.T. 1. E-03 | L.T. 5. E-04 | L.T. 6. E-04 |
| RU-106 | L.T. 4. E-03 | L.T. 4. E-03 | L.T. 3. E-03 | L.T. 4. E-03 |
| I-131 | L.T. 6. E-02 | L.T. 7. E-02 | L.T. 2. E-03 | L.T. 2. E-03 |
| CS-134 | L.T. 4. E-04 | L.T. 5. E-04 | L.T. 5. E-04 | L.T. 4. E-04 |
| CS-137 | L.T. 4. E-04 | L.T. 5. E-04 | L.T. 4. E-04 | L.T. 5. E-04 |
| LA-140/BA-140 | L.T. 1. E-02 | L.T. 1. E-02 | L.T. 2. E-03 | L.T. 1. E-03 |
| CE-141 | L.T. 2. E-03 | L.T. 2. E-03 | L.T. 7. E-04 | L.T. 9. E-04 |
| CE-144 | L.T. 2. E-03 | L.T. 3. E-03 | L.T. 2. E-03 | L.T. 3. E-03 |
| RA-226 | L.T. 6. E-03 | L.T. 9. E-03 | L.T. 7. E-03 | L.T. 1. E-02 |
| TH-228 | L.T. 6. E-04 | L.T. 8. E-04 | L.T. 7. E-04 | L.T. 9. E-04 |

WOLF CREEK NUCLEAR OPERATING CORPORATION

AIR PARTICULATE FILTERS
EXPOSURE PATHWAY - AIRBORNE

ISOTOPIC ANALYSIS ON QUARTERLY COMPOSITE

(pCi/Cu.M.)

STATION NUMBER 03

DATE COLLECTED: 01/03-04/04 04/04-07/05 07/05-10/03 10/03-01/03

GAMMA SPECTRUM ANALYSIS:

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| | | | | |
|---------------|----------------|----------------|----------------|----------------|
| BE-7 | 1.57±0.16 E-01 | 1.59±0.16 E-01 | 6.80±0.68 E-02 | 6.45±0.64 E-02 |
| K-40 | L.T. 9. E-03 | L.T. 1. E-02 | L.T. 6. E-03 | L.T. 1. E-02 |
| MN-54 | L.T. 5. E-04 | L.T. 5. E-04 | L.T. 3. E-04 | L.T. 4. E-04 |
| CO-58 | L.T. 7. E-04 | L.T. 8. E-04 | L.T. 4. E-04 | L.T. 5. E-04 |
| FE-59 | L.T. 2. E-03 | L.T. 2. E-03 | L.T. 1. E-03 | L.T. 1. E-03 |
| CO-60 | L.T. 4. E-04 | L.T. 5. E-04 | L.T. 5. E-04 | L.T. 3. E-04 |
| ZN-65 | L.T. 1. E-03 | L.T. 1. E-03 | L.T. 8. E-04 | L.T. 9. E-04 |
| NB-95/ZR-95 | L.T. 9. E-04 | L.T. 8. E-04 | L.T. 4. E-04 | L.T. 5. E-04 |
| RU-103 | L.T. 1. E-03 | L.T. 1. E-03 | L.T. 4. E-04 | L.T. 5. E-04 |
| RU-106 | L.T. 5. E-03 | L.T. 4. E-03 | L.T. 3. E-03 | L.T. 4. E-03 |
| I-131 | L.T. 8. E-02 | L.T. 7. E-02 | L.T. 1. E-03 | L.T. 2. E-03 |
| CS-134 | L.T. 5. E-04 | L.T. 5. E-04 | L.T. 4. E-04 | L.T. 5. E-04 |
| CS-137 | L.T. 5. E-04 | L.T. 4. E-04 | L.T. 4. E-04 | L.T. 5. E-04 |
| LA-140/BA-140 | L.T. 1. E-02 | L.T. 1. E-02 | L.T. 2. E-03 | L.T. 1. E-03 |
| CE-141 | L.T. 2. E-03 | L.T. 2. E-03 | L.T. 5. E-04 | L.T. 8. E-04 |
| CE-144 | L.T. 3. E-03 | L.T. 3. E-03 | L.T. 2. E-03 | L.T. 2. E-03 |
| RA-226 | L.T. 1. E-02 | L.T. 8. E-03 | L.T. 5. E-03 | L.T. 8. E-03 |
| TH-228 | L.T. 9. E-04 | L.T. 8. E-04 | L.T. 5. E-04 | L.T. 8. E-04 |

WOLF CREEK NUCLEAR OPERATING CORPORATION

AIR PARTICULATE FILTERS
EXPOSURE PATHWAY - AIRBORNE

ISOTOPIC ANALYSIS ON QUARTERLY COMPOSITE

(pCi/Cu.M.)

STATION NUMBER 32

| DATE COLLECTED: | 01/03-04/04 | 04/04-07/05 | 07/05-10/03 | 10/03-01/03 |
|-----------------|-------------|-------------|-------------|-------------|
|-----------------|-------------|-------------|-------------|-------------|

GAMMA SPECTRUM ANALYSIS:

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| | | | | |
|---------------|----------------|----------------|----------------|----------------|
| BE-7 | 1.56±0.16 E-01 | 1.81±0.18 E-01 | 9.00±0.90 E-02 | 5.90±0.59 E-02 |
| K-40 | L.T. 8. E-03 | 8.70±3.80 E-03 | L.T. 8. E-03 | L.T. 1. E-02 |
| MN-54 | L.T. 5. E-04 | L.T. 5. E-04 | L.T. 3. E-04 | L.T. 4. E-04 |
| CO-58 | L.T. 7. E-04 | L.T. 7. E-04 | L.T. 3. E-04 | L.T. 5. E-04 |
| FE-59 | L.T. 2. E-03 | L.T. 2. E-03 | L.T. 8. E-04 | L.T. 1. E-03 |
| CO-60 | L.T. 4. E-04 | L.T. 5. E-04 | L.T. 3. E-04 | L.T. 5. E-04 |
| ZN-65 | L.T. 1. E-03 | L.T. 1. E-03 | L.T. 8. E-04 | L.T. 1. E-03 |
| NB-95/ZR-95 | L.T. 9. E-04 | L.T. 9. E-04 | L.T. 4. E-04 | L.T. 5. E-04 |
| RU-103 | L.T. 1. E-03 | L.T. 1. E-03 | L.T. 4. E-04 | L.T. 5. E-04 |
| RU-106 | L.T. 4. E-03 | L.T. 5. E-03 | L.T. 3. E-03 | L.T. 4. E-03 |
| I-131 | L.T. 7. E-02 | L.T. 6. E-02 | L.T. 1. E-03 | L.T. 1. E-03 |
| CS-134 | L.T. 5. E-04 | L.T. 4. E-04 | L.T. 4. E-04 | L.T. 5. E-04 |
| CS-137 | L.T. 5. E-04 | L.T. 5. E-04 | L.T. 3. E-04 | L.T. 5. E-04 |
| LA-140/BA-140 | L.T. 1. E-02 | L.T. 1. E-02 | L.T. 8. E-04 | L.T. 1. E-03 |
| CE-141 | L.T. 2. E-03 | L.T. 2. E-03 | L.T. 6. E-04 | L.T. 6. E-04 |
| CE-144 | L.T. 3. E-03 | L.T. 2. E-03 | L.T. 2. E-03 | L.T. 2. E-03 |
| RA-226 | L.T. 8. E-03 | L.T. 6. E-03 | L.T. 6. E-03 | L.T. 6. E-03 |
| TH-228 | L.T. 8. E-04 | L.T. 6. E-04 | L.T. 6. E-04 | L.T. 6. E-04 |

WOLF CREEK NUCLEAR OPERATING CORPORATION

AIR PARTICULATE FILTERS
EXPOSURE PATHWAY - AIRBORNE

ISOTOPIC ANALYSIS ON QUARTERLY COMPOSITE

(pCi/Cu.M.)

STATION NUMBER 37

| DATE COLLECTED: | 01/03-04/04 | 04/04-07/05 | 07/05-10/03 | 10/03-01/03 |
|-----------------|-------------|-------------|-------------|-------------|
|-----------------|-------------|-------------|-------------|-------------|

GAMMA SPECTRUM ANALYSIS:

| | | | | |
|---------------|----------------|----------------|----------------|----------------|
| BE-7 | 1.77±0.18 E-01 | 1.69±0.17 E-01 | 9.41±0.94 E-02 | 6.48±0.65 E-02 |
| K-40 | L.T. 1. E-02 | L.T. 2. E-02 | L.T. 2. E-02 | L.T. 2. E-02 |
| Mn-54 | L.T. 7. E-04 | L.T. 6. E-04 | L.T. 5. E-04 | L.T. 5. E-04 |
| C-14 | L.T. 1. E-03 | L.T. 8. E-04 | L.T. 6. E-04 | L.T. 5. E-04 |
| FE-59 | L.T. 3. E-03 | L.T. 3. E-03 | L.T. 1. E-03 | L.T. 1. E-03 |
| CO-60 | L.T. 5. E-04 | L.T. 6. E-04 | L.T. 6. E-04 | L.T. 5. E-04 |
| ZN-65 | L.T. 1. E-03 | L.T. 1. E-03 | L.T. 1. E-03 | L.T. 1. E-03 |
| NB-95/ZR-95 | L.T. 1. E-03 | L.T. 9. E-04 | L.T. 6. E-04 | L.T. 6. E-04 |
| RU-103 | L.T. 2. E-03 | L.T. 1. E-03 | L.T. 6. E-04 | L.T. 6. E-04 |
| RU-106 | L.T. 5. E-03 | L.T. 5. E-03 | L.T. 5. E-03 | L.T. 5. E-03 |
| I-131 | L.T. 1. E-01 | L.T. 7. E-02 | L.T. 2. E-03 | L.T. 2. E-03 |
| CS-134 | L.T. 7. E-04 | L.T. 6. E-04 | L.T. 5. E-04 | L.T. 6. E-04 |
| CS-137 | L.T. 6. E-04 | L.T. 5. E-04 | L.T. 6. E-04 | L.T. 6. E-04 |
| LA-140/BA-140 | L.T. 1. E-02 | L.T. 1. E-02 | L.T. 1. E-03 | L.T. 1. E-03 |
| CE-141 | L.T. 3. E-03 | L.T. 2. E-03 | L.T. 7. E-04 | L.T. 8. E-04 |
| CE-144 | L.T. 5. E-03 | L.T. 3. E-03 | L.T. 2. E-03 | L.T. 3. E-03 |
| RA-226 | L.T. 1. E-02 | L.T. 8. E-03 | L.T. 8. E-03 | L.T. 8. E-03 |
| TH-228 | L.T. 1. E-03 | L.T. 7. E-04 | L.T. 7. E-04 | L.T. 7. E-04 |

WOLF CREEK NUCLEAR OPERATING CORPORATION

AIR PARTICULATE FILTERS
EXPOSURE PATHWAY - AIRBORNE

ISOTOPIC ANALYSIS ON QUARTERLY COMPOSITE

(pCi/Cu.M.)

STATION NUMBER 40

| DATE COLLECTED: | 01/03-04/04 | 04/04-07/05 | 07/05-10/03 | 10/03-01/03 |
|--------------------------|----------------|----------------|----------------|----------------|
| GAMMA SPECTRUM ANALYSIS: | | | | |
| BE-7 | 1.27±0.13 E-01 | 1.80±0.18 E-01 | 7.27±0.73 E-02 | 6.77±0.68 E-02 |
| K-40 | 1.30±0.47 E-02 | LT. 6. E-03 | LT. 1. E-02 | LT. 6. E-03 |
| MN-54 | LT. 5. E-04 | LT. 4. E-04 | LT. 5. E-04 | LT. 3. E-04 |
| CO-58 | LT. 8. E-04 | LT. 5. E-04 | LT. 5. E-04 | LT. 3. E-04 |
| FE-59 | LT. 3. E-03 | LT. 2. E-03 | LT. 1. E-03 | LT. 8. E-04 |
| CO-60 | LT. 6. E-04 | LT. 4. E-04 | LT. 4. E-04 | LT. 5. E-04 |
| ZN-65 | LT. 1. E-03 | LT. 9. E-04 | LT. 9. E-04 | LT. 7. E-04 |
| NB-95/ZR-95 | LT. 1. E-03 | LT. 7. E-04 | LT. 5. E-04 | LT. 4. E-04 |
| RU-103 | LT. 1. E-03 | LT. 1. E-03 | LT. 5. E-04 | LT. 5. E-04 |
| RU-106 | LT. 5. E-03 | LT. 3. E-03 | LT. 4. E-03 | LT. 3. E-03 |
| I-131 | LT. 8. E-02 | LT. 5. E-02 | LT. 2. E-03 | LT. 1. E-03 |
| CS-134 | LT. 5. E-04 | LT. 3. E-04 | LT. 5. E-04 | LT. 4. E-04 |
| CS-137 | LT. 5. E-04 | LT. 4. E-04 | LT. 4. E-04 | LT. 4. E-04 |
| LA-140/BA-140 | LT. 2. E-02 | LT. 1. E-02 | LT. 1. E-03 | LT. 1. E-03 |
| CE-141 | LT. 2. E-03 | LT. 2. E-03 | LT. 5. E-04 | LT. 7. E-04 |
| CE-144 | LT. 2. E-03 | LT. 2. E-03 | LT. 2. E-03 | LT. 2. E-03 |
| RA-226 | LT. 8. E-03 | LT. 7. E-03 | LT. 7. E-03 | LT. 7. E-03 |
| TH-228 | LT. 8. E-04 | LT. 7. E-04 | LT. 6. E-04 | LT. 7. E-04 |

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WOLF CREEK NUCLEAR OPERATING CORPORATION
EXPOSURE PATHWAY - INGESTION

ANIMALS/GAME

(pCi/KG WET)

STATION NUMBER SECTOR A (INDICATOR)

DATE COLLECTED: 12/15
 DEER

GAMMA SPECTRUM ANALYSIS:

| | | |
|---------------|-----------|------|
| BE-7 | LT. 4. | E 01 |
| K-40 | 3.06±0.31 | E 03 |
| MN-54 | LT. 4. | E 00 |
| CO-58 | LT. 4. | E 00 |
| FE-59 | LT. 1. | E 01 |
| CO-60 | LT. 4. | E 00 |
| ZN-65 | LT. 1. | E 01 |
| NB-95/ZR-95 | LT. 4. | E 00 |
| RU-103 | LT. 5. | E 00 |
| RU-106 | LT. 3. | E 01 |
| I-131 | LT. 1. | E 01 |
| CS-134 | LT. 4. | E 00 |
| CS-137 | LT. 4. | E 00 |
| LA-140/BA-140 | LT. 8. | E 00 |
| CE-141 | LT. 6. | E 00 |
| CE-144 | LT. 2. | E 01 |
| RA-226 | LT. 6. | E 01 |
| TH-228 | LT. 6. | E 00 |

WOLF CREEK NUCLEAR OPERATING CORPORATION
EXPOSURE PATHWAY - INGESTION

ANIMALS/GAME

(pCi/KG WET)

STATION NUMBER SECTORS A&R (INDICATOR)

DATE COLLECTED: 12/29
COMP. QUAIL

GAMMA SPECTRUM ANALYSIS:

| | | |
|---------------|-----------|------|
| BE-7 | L.T. 1. | E 02 |
| K-40 | 3.85±0.38 | E 03 |
| MN-54 | L.T. 2. | E 01 |
| CO-58 | L.T. 1. | E 01 |
| FE-59 | L.T. 3. | E 01 |
| CO-60 | L.T. 2. | E 01 |
| ZN-65 | L.T. 3. | E 01 |
| NB-95/ZR-95 | L.T. 2. | E 01 |
| RU-103 | L.T. 2. | E 01 |
| RU-106 | L.T. 1. | E 02 |
| I-131 | L.T. 3. | E 01 |
| CS-134 | L.T. 2. | E 01 |
| CS-137 | L.T. 2. | E 01 |
| LA-140/BA-140 | L.T. 2. | E 01 |
| CE-141 | L.T. 2. | E 01 |
| CE-144 | L.T. 8. | E 01 |
| RA-226 | L.T. 3. | E 02 |
| TH-228 | L.T. 2. | E 01 |

WOLF CREEK NUCLEAR OPERATING CORPORATION
EXPOSURE PATHWAY - INGESTION

ANIMALS/GAME

(pCi/KG WET)

STATION NUMBER SECTOR R (INDICATOR)

DATE COLLECTED: 02/08
DEER

GAMMA SPECTRUM ANALYSIS:

| | | |
|---------------|-----------|------|
| BE-7 | L.T. 4. | E 01 |
| K-40 | 3.77±0.38 | E 03 |
| MN-54 | L.T. 4. | E 00 |
| CO-58 | L.T. 5. | E 00 |
| FE-59 | L.T. 1. | E 01 |
| CO-60 | L.T. 5. | E 00 |
| ZN-65 | L.T. 1. | E 01 |
| NB-95/ZR-95 | L.T. 5. | E 00 |
| RU-103 | L.T. 5. | E 00 |
| RU-106 | L.T. 4. | E 01 |
| I-131 | L.T. 1. | E 01 |
| CS-134 | L.T. 5. | E 00 |
| CS-137 | L.T. 5. | E 00 |
| LA-140/BA-140 | L.T. 6. | E 00 |
| CE-141 | L.T. 8. | E 00 |
| CE-144 | L.T. 3. | E 01 |
| RA-226 | L.T. 9. | E 01 |
| TH-228 | L.T. 8. | E 00 |

WOOLF CREEK NUCLEAR OPERATING CORPORATION
EXPOSURE PATHWAY - INGESTION

ANIMALS/GAME

(pCi/KG WET)

STATION NUMBER SECTOR H (CONTROL)

DATE COLLECTED: 12/15
QUAIL

GAMMA SPECTRUM ANALYSIS:

| | | |
|---------------|-----------|------|
| BE-7 | L.T. 1. | E 02 |
| K-40 | 3.70±0.37 | E 03 |
| MN-54 | L.T. 1. | E 01 |
| CO-58 | L.T. 1. | E 01 |
| FE-59 | L.T. 3. | E 01 |
| CO-60 | L.T. 1. | E 01 |
| ZN-65 | L.T. 3. | E 01 |
| NB-95/ZR-95 | L.T. 1. | E 01 |
| RU-103 | L.T. 1. | E 01 |
| RU-106 | L.T. 1. | E 02 |
| I-131 | L.T. 4. | E 01 |
| CS-134 | L.T. 1. | E 01 |
| CS-137 | L.T. 1. | E 01 |
| LA-140/BA-140 | L.T. 2. | E 01 |
| CE-141 | L.T. 3. | E 01 |
| CE-144 | L.T. 9. | E 01 |
| RA-226 | L.T. 3. | E 02 |
| TH-228 | L.T. 2. | E 01 |

WOLF CREEK NUCLEAR OPERATING CORPORATION
EXPOSURE PATHWAY - INGESTION

FEED & FORAGE

(pCi/KG WET)

STATION NUMBER NR-U1

| | | |
|-----------------|-------|----------|
| DATE COLLECTED: | 10/26 | 10/26 |
| | CORN | SOYBEANS |

GAMMA SPECTRUM ANALYSIS:

| | | | | |
|---------------|-----------|------|-----------|------|
| BE-7 | L.T. 4. | E 01 | L.T. 5. | E 01 |
| K-40 | 2.80±0.28 | E 03 | 1.47±0.15 | E 04 |
| MN-54 | L.T. 4. | E 00 | L.T. 7. | E 00 |
| CO-58 | L.T. 4. | E 00 | L.T. 7. | E 00 |
| FE-59 | L.T. 1. | E 01 | L.T. 2. | E 01 |
| CO-60 | L.T. 4. | E 00 | L.T. 8. | E 00 |
| ZN-65 | L.T. 1. | E 01 | L.T. 2. | E 01 |
| NB-95/ZR-95 | L.T. 4. | E 00 | L.T. 7. | E 00 |
| RU-103 | L.T. 5. | E 00 | L.T. 7. | E 00 |
| RU-106 | L.T. 4. | E 01 | L.T. 6. | E 01 |
| I-131 | L.T. 8. | E 00 | L.T. 1. | E 01 |
| CS-134 | L.T. 4. | E 00 | L.T. 7. | E 00 |
| CS-137 | L.T. 5. | E 00 | L.T. 7. | E 00 |
| LA-140/BA-140 | L.T. 6. | E 00 | L.T. 6. | E 00 |
| CE-141 | L.T. 7. | E 00 | L.T. 9. | E 00 |
| CE-144 | L.T. 3. | E 01 | L.T. 3. | E 01 |
| RA-226 | L.T. 8. | E 01 | L.T. 9. | E 01 |
| TH-228 | L.T. 7. | E 00 | L.T. 9. | E 00 |

WOLF CREEK NUCLEAR OPERATING CORPORATION
EXPOSURE PATHWAY - INGESTION

FEED & FORAGE

(pCi/KG WET)

STATION NUMBER NR-D1

DATE COLLECTED: 10/26
SOYBEANS

GAMMA SPECTRUM ANALYSIS:

| | | | |
|---------------|-----------|------|------|
| BE-7 | L.T. | 6. | E 01 |
| K-40 | 1.82±0.18 | E 04 | |
| MN-54 | L.T. | 6. | E 00 |
| CO-58 | L.T. | 6. | E 00 |
| FE-59 | L.T. | 2. | E 01 |
| CO-60 | L.T. | 7. | E 00 |
| ZN-65 | L.T. | 2. | E 01 |
| NB-95/ZR-95 | L.T. | 7. | E 00 |
| RU-103 | L.T. | 6. | E 00 |
| RU-106 | L.T. | 5. | E 01 |
| I-131 | L.T. | 1. | E 01 |
| CS-134 | L.T. | 7. | E 00 |
| CS-137 | L.T. | 7. | E 00 |
| LA-140/BA-140 | L.T. | 7. | E 00 |
| CE-141 | L.T. | 9. | E 00 |
| CE-144 | L.T. | 4. | E 01 |
| RA-226 | L.T. | 1. | E 02 |
| TH-228 | L.T. | 1. | E 01 |

WOLF CREEK NUCLEAR OPERATING CORPORATION
EXPOSURE PATHWAY - INGESTION

FEED & FORAGE

(pCi/KG WET)

STATION NUMBER NR-D2

| | | |
|-----------------|-------|----------|
| DATE COLLECTED: | 10/19 | 10/19 |
| | CORN | SOYBEANS |

GAMMA SPECTRUM ANALYSIS:

Page 8-31

| | | |
|---------------|----------------|----------------|
| BE-7 | L.T. 4. E 01 | L.T. 6. E 01 |
| K-40 | 2.71±0.27 E 03 | 1.53±0.15 E 04 |
| MN-54 | L.T. 4. E 00 | L.T. 7. E 00 |
| CO-58 | L.T. 4. E 00 | L.T. 7. E 00 |
| FE-59 | L.T. 1. E 01 | L.T. 2. E 01 |
| CO-60 | L.T. 5. E 00 | L.T. 8. E 00 |
| ZN-65 | L.T. 1. E 01 | L.T. 2. E 01 |
| NB-95/ZR-95 | L.T. 4. E 00 | L.T. 7. E 00 |
| RU-103 | L.T. 5. E 00 | L.T. 7. E 00 |
| RU-106 | L.T. 4. E 01 | L.T. 6. E 01 |
| I-131 | L.T. 8. E 00 | L.T. 1. E 01 |
| CS-134 | L.T. 5. E 00 | L.T. 7. E 00 |
| CS-137 | L.T. 4. E 00 | L.T. 7. E 00 |
| LA-140/BA-140 | L.T. 6. E 00 | L.T. 8. E 00 |
| CE-141 | L.T. 7. E 00 | L.T. 1. E 01 |
| CE-144 | L.T. 3. E 01 | L.T. 4. E 01 |
| RA-226 | L.T. 7. E 01 | L.T. 1. E 02 |
| TH-228 | L.T. 6. E 00 | L.T. 9. E 00 |

WOLF CREEK NUCLEAR OPERATING CORPORATION
EXPOSURE PATHWAY - INGESTION

FISH

(pCi/KG WET)

STATION NUMBER WCCL DC

| DATE COLLECTED: | 04/07 | 05/15 | 05/15 | 10/11 | 10/11 |
|-----------------|---------------|------------------|-------------|-----------------|-------|
| | WHITE CRAPPIE | FLATHEAD CATFISH | COMMON CARP | CHANNEL CATFISH | WIPER |

GAMMA SPECTRUM ANALYSIS:

| | | | | | |
|---------------|----------------|----------------|----------------|----------------|----------------|
| BE-7 | LT. 1. E 02 | LT. 2. E 02 | LT. 2. E 02 | LT. 1. E 02 | LT. 1. E 02 |
| K-40 | 3.25±0.32 E 03 | 4.82±0.48 E 03 | 3.82±0.38 E 03 | 3.01±0.30 E 03 | 4.23±0.42 E 03 |
| MN-54 | LT. 1. E 01 | LT. 3. E 01 | LT. 2. E 01 | LT. 1. E 01 | LT. 2. E 01 |
| CO-58 | LT. 1. E 01 | LT. 3. E 01 | LT. 2. E 01 | LT. 1. E 01 | LT. 1. E 01 |
| FE-59 | LT. 3. E 01 | LT. 5. E 01 | LT. 5. E 01 | LT. 3. E 01 | LT. 4. E 01 |
| CO-60 | LT. 2. E 01 | LT. 3. E 01 | LT. 2. E 01 | LT. 1. E 01 | LT. 2. E 01 |
| ZN-65 | LT. 3. E 01 | LT. 6. E 01 | LT. 5. E 01 | LT. 3. E 01 | LT. 4. E 01 |
| NB-95/ZR-95 | LT. 1. E 01 | LT. 3. E 01 | LT. 2. E 01 | LT. 1. E 01 | LT. 2. E 01 |
| RU-103 | LT. 2. E 01 | LT. 3. E 01 | LT. 3. E 01 | LT. 2. E 01 | LT. 2. E 01 |
| RU-106 | LT. 1. E 02 | LT. 3. E 02 | LT. 2. E 02 | LT. 1. E 02 | LT. 1. E 02 |
| I-131 | LT. 2. E 01 | LT. 5. E 01 | LT. 4. E 01 | LT. 3. E 01 | LT. 3. E 01 |
| CS-134 | LT. 1. E 01 | LT. 3. E 01 | LT. 3. E 01 | LT. 2. E 01 | LT. 2. E 01 |
| CS-137 | LT. 2. E 01 | LT. 3. E 01 | LT. 3. E 01 | LT. 2. E 01 | LT. 2. E 01 |
| LA-140/BA-140 | LT. 2. E 01 | LT. 4. E 01 | LT. 3. E 01 | LT. 2. E 01 | LT. 3. E 01 |
| CE-141 | LT. 3. E 01 | LT. 4. E 01 | LT. 4. E 01 | LT. 2. E 01 | LT. 2. E 01 |
| CE-144 | LT. 1. E 02 | LT. 1. E 02 | LT. 1. E 02 | LT. 8. E 01 | LT. 8. E 01 |
| RA-226 | LT. 3. E 02 | LT. 5. E 02 | LT. 5. E 02 | LT. 3. E 02 | LT. 2. E 02 |
| TH-228 | LT. 3. E 01 | LT. 5. E 01 | LT. 4. E 01 | LT. 2. E 01 | LT. 2. E 01 |

TRITIUM ANALYSIS:

| | | | | | |
|-----|----------------|----------------|----------------|----------------|----------------|
| H-3 | 9.1 ± 0.5 E 03 | 7.3 ± 0.3 E 03 | 7.9 ± 0.3 E 03 | 6.0 ± 0.2 E 03 | 6.6 ± 0.2 E 03 |
|-----|----------------|----------------|----------------|----------------|----------------|

WOLF CREEK NUCLEAR OPERATING CORPORATION
EXPOSURE PATHWAY - INGESTION

FISH

(pCi/KG WET)

STATION NUMBER JRR

| DATE COLLECTED: | 05/10 COMMON CARP | 05/10 CHANNEL CATFISH | 10/18 CHANNEL CATFISH | 10/18 BM BUFFALO | 10/18* BM BUFFALO |
|--------------------------|----------------------|--------------------------|--------------------------|---------------------|----------------------|
| GAMMA SPECTRUM ANALYSIS: | | | | | |
| BE-7 | L.T. 2. E 02 | L.T. 2. E 02 | L.T. 1. E 02 | L.T. 1. E 02 | L.T. 9. E 01 |
| K-40 | 3.46±0.35 E 03 | 3.62±0.36 E 03 | 3.75±0.37 E 03 | 3.66±0.37 E 03 | 4.05±0.41 E 03 |
| MN-54 | L.T. 2. E 01 | L.T. 3. E 01 | L.T. 1. E 01 | L.T. 1. E 01 | L.T. 1. E 01 |
| CO-58 | L.T. 2. E 01 | L.T. 3. E 01 | L.T. 1. E 01 | L.T. 1. E 01 | L.T. 1. E 01 |
| FE-59 | L.T. 5. E 01 | L.T. 5. E 01 | L.T. 3. E 01 | L.T. 3. E 01 | L.T. 2. E 01 |
| CO-60 | L.T. 2. E 01 | L.T. 2. E 01 | L.T. 2. E 01 | L.T. 2. E 01 | L.T. 1. E 01 |
| ZN-65 | L.T. 4. E 01 | L.T. 5. E 01 | L.T. 3. E 01 | L.T. 4. E 01 | L.T. 3. E 01 |
| NB-95/ZR-95 | L.T. 2. E 01 | L.T. 3. E 01 | L.T. 1. E 01 | L.T. 2. E 01 | L.T. 1. E 01 |
| RU-103 | L.T. 2. E 01 | L.T. 3. E 01 | L.T. 2. E 01 | L.T. 2. E 01 | L.T. 1. E 01 |
| RU-106 | L.T. 2. E 02 | L.T. 2. E 02 | L.T. 1. E 02 | L.T. 1. E 02 | L.T. 1. E 02 |
| I-131 | L.T. 6. E 01 | L.T. 7. E 01 | L.T. 2. E 01 | L.T. 2. E 01 | L.T. 2. E 01 |
| CS-134 | L.T. 2. E 01 | L.T. 3. E 01 | L.T. 2. E 01 | L.T. 2. E 01 | L.T. 1. E 01 |
| CS-137 | L.T. 3. E 01 | L.T. 3. E 01 | L.T. 2. E 01 | L.T. 2. E 01 | L.T. 1. E 01 |
| LA-140/BA-140 | L.T. 4. E 01 | L.T. 4. E 01 | L.T. 2. E 01 | L.T. 2. E 01 | L.T. 1. E 01 |
| CE-141 | L.T. 3. E 01 | L.T. 4. E 01 | L.T. 2. E 01 | L.T. 2. E 01 | L.T. 2. E 01 |
| CE-144 | L.T. 1. E 02 | L.T. 1. E 02 | L.T. 1. E 02 | L.T. 8. E 01 | L.T. 8. E 01 |
| RA-226 | L.T. 4. E 02 | L.T. 5. E 02 | L.T. 3. E 02 | L.T. 3. E 02 | L.T. 2. E 02 |
| TH-228 | L.T. 4. E 01 | L.T. 4. E 01 | L.T. 3. E 01 | L.T. 3. E 01 | L.T. 2. E 01 |

TRITIUM ANALYSIS:

| | | | | | |
|-----|--------------|--------------|--------------|--------------|--------------|
| H-3 | L.T. 1. E 02 |
|-----|--------------|--------------|--------------|--------------|--------------|

*Duplicate Analysis

WOLF CREEK NUCLEAR OPERATING CORPORATION
EXPOSURE PATHWAY - INGESTION

FISH

(pCi/KG WET)

STATION NUMBER WCCL - MAIN BODY

DATE COLLECTED: 05/15
 SM BASS 05/15
 CHANNEL CATFISH

GAMMA SPECTRUM ANALYSIS:

| | | | | |
|---------------|-----------|------|-----------|------|
| BE-7 | L.T. 2. | E 02 | L.T. 2. | E 02 |
| K-40 | 3.96±0.40 | E 03 | 3.73±0.37 | E 03 |
| MN-54 | L.T. 3. | E 01 | L.T. 2. | E 01 |
| CO-58 | L.T. 2. | E 01 | L.T. 2. | E 01 |
| FE-59 | L.T. 6. | E 01 | L.T. 4. | E 01 |
| CO-60 | L.T. 3. | E 01 | L.T. 2. | E 01 |
| ZN-65 | L.T. 6. | E 01 | L.T. 5. | E 01 |
| NB-95/ZR-95 | L.T. 3. | E 01 | L.T. 2. | E 01 |
| RU-103 | L.T. 3. | E 01 | L.T. 2. | E 01 |
| RU-106 | L.T. 3. | E 02 | L.T. 2. | E 02 |
| I-131 | L.T. 5. | E 01 | L.T. 4. | E 01 |
| CS-134 | L.T. 3. | E 01 | L.T. 2. | E 01 |
| CS-137 | L.T. 3. | E 01 | L.T. 2. | E 01 |
| LA-140/BA-140 | L.T. 3. | E 01 | L.T. 2. | E 01 |
| CE-141 | L.T. 4. | E 01 | L.T. 4. | E 01 |
| CE-144 | L.T. 2. | E 02 | L.T. 1. | E 02 |
| RA-226 | L.T. 5. | E 02 | L.T. 4. | E 02 |
| TH-228 | L.T. 5. | E 01 | L.T. 4. | E 01 |

TRITIUM ANALYSIS:

H-3 5.8 ± 0.3 E 03 7.4 ± 0.3 E 03

WOLF CREEK NUCLEAR OPERATING CORPORATION
EXPOSURE PATHWAY - INGESTION

FISH

(pCi/KG WET)

STATION NUMBER WCCL - SE AREA

DATE COLLECTED: 05/15
LM BASS

GAMMA SPECTRUM ANALYSIS:

| | | |
|---------------|-----------|------|
| BE-7 | L.T. 2. | E 02 |
| K-40 | 3.97±0.40 | E 03 |
| MN-54 | L.T. 3. | E 01 |
| CO-58 | L.T. 3. | E 01 |
| FE-59 | L.T. 5. | E 01 |
| CO-60 | L.T. 3. | E 01 |
| ZN-65 | L.T. 5. | E 01 |
| NB-95/ZR-95 | L.T. 3. | E 01 |
| RU-103 | L.T. 3. | E 01 |
| RU-106 | L.T. 3. | E 02 |
| I-131 | L.T. 5. | E 01 |
| CS-134 | L.T. 3. | E 01 |
| CS-137 | L.T. 3. | E 01 |
| LA-140/BA-140 | L.T. 4. | E 01 |
| CE-141 | L.T. 3. | E 01 |
| CE-144 | L.T. 1. | E 02 |
| RA-226 | L.T. 5. | E 02 |
| TH-228 | L.T. 5. | E 01 |

TRITIUM ANALYSIS:

H-3 6.9 ± 0.3 E 03

WOLF CREEK NUCLEAR OPERATING CORPORATION
EXPOSURE PATHWAY - INGESTION

FISH

(pCi/KG WET)

STATION NUMBER UHS

DATE COLLECTED: 10/11
 BM BUFFALO 10/11
 WALLEYE

GAMMA SPECTRUM ANALYSIS:

| | | |
|---------------|----------------|----------------|
| BE-7 | L.T. 1. E 02 | L.T. 1. E 02 |
| K-40 | 3.02±0.30 E 03 | 3.62±0.36 E 03 |
| MN-54 | L.T. 1. E 01 | L.T. 1. E 01 |
| CO-58 | L.T. 1. E 01 | L.T. 1. E 01 |
| FE-59 | L.T. 3. E 01 | L.T. 3. E 01 |
| CO-60 | L.T. 1. E 01 | L.T. 2. E 01 |
| ZN-65 | L.T. 3. E 01 | L.T. 3. E 01 |
| NB-95/ZR-95 | L.T. 1. E 01 | L.T. 2. E 01 |
| RU-103 | L.T. 2. E 01 | L.T. 2. E 01 |
| RU-106 | L.T. 1. E 02 | L.T. 1. E 02 |
| I-131 | L.T. 3. E 01 | L.T. 3. E 01 |
| CS-134 | L.T. 1. E 01 | L.T. 2. E 01 |
| CS-137 | L.T. 2. E 01 | L.T. 2. E 01 |
| LA-140/BA-140 | L.T. 2. E 01 | L.T. 2. E 01 |
| CE-141 | L.T. 3. E 01 | L.T. 3. E 01 |
| CE-144 | L.T. 1. E 02 | L.T. 1. E 02 |
| RA-226 | L.T. 3. E 02 | L.T. 3. E 02 |
| TH-228 | L.T. 3. E 01 | L.T. 3. E 01 |

TRITIUM ANALYSIS:

| | | |
|-----|----------------|----------------|
| H-3 | 6.8 ± 0.2 E 03 | 7.4 ± 0.3 E 03 |
|-----|----------------|----------------|

WOLF CREEK NUCLEAR OPERATING CORPORATION
EXPOSURE PATHWAY - INGESTION

FISH

(pCi/KG WET)

STATION NUMBER WCCL CAUSEWAY

| | | | |
|-----------------|---------------------|----------------------|---------------------|
| DATE COLLECTED: | 10/11 WHITE BASS | 10/11* WHITE BASS | 10/11 SM BUFFALO |
|-----------------|---------------------|----------------------|---------------------|

GAMMA SPECTRUM ANALYSIS:

| | | | |
|---------------|----------------|----------------|----------------|
| BE-7 | L.T. 1. E 02 | L.T. 2. E 02 | L.T. 2. E 02 |
| K-40 | 3.85±0.39 E 03 | 3.02±0.30 E 03 | 3.43±0.34 E 03 |
| MN-54 | L.T. 1. E 01 | L.T. 2. E 01 | L.T. 2. E 01 |
| CO-58 | L.T. 1. E 01 | L.T. 2. E 01 | L.T. 2. E 01 |
| FE-59 | L.T. 3. E 01 | L.T. 5. E 01 | L.T. 5. E 01 |
| CO-60 | L.T. 1. E 01 | L.T. 2. E 01 | L.T. 2. E 01 |
| ZN-65 | L.T. 3. E 01 | L.T. 5. E 01 | L.T. 4. E 01 |
| NB-95/ZR-95 | L.T. 1. E 01 | L.T. 2. E 01 | L.T. 2. E 01 |
| RU-103 | L.T. 2. E 01 | L.T. 3. E 01 | L.T. 2. E 01 |
| RU-106 | L.T. 1. E 02 | L.T. 2. E 02 | L.T. 2. E 02 |
| I-131 | L.T. 3. E 01 | L.T. 5. E 01 | L.T. 4. E 01 |
| CS-134 | L.T. 1. E 01 | L.T. 2. E 01 | L.T. 2. E 01 |
| CS-137 | L.T. 2. E 01 | L.T. 3. E 01 | L.T. 2. E 01 |
| LA-140/BA-140 | L.T. 2. E 01 | L.T. 3. E 01 | L.T. 3. E 01 |
| CE-141 | L.T. 3. E 01 | L.T. 3. E 01 | L.T. 3. E 01 |
| CE-144 | L.T. 1. E 02 | L.T. 1. E 02 | L.T. 1. E 02 |
| RA-226 | L.T. 3. E 02 | L.T. 4. E 02 | L.T. 4. E 02 |
| TH-228 | L.T. 3. E 01 | L.T. 4. E 01 | L.T. 3. E 01 |

TRITIUM ANALYSIS:

| | | | |
|-----|----------------|----------------|----------------|
| H-3 | 7.1 ± 0.2 E 03 | 7.5 ± 0.3 E 03 | 6.3 ± 0.2 E 03 |
|-----|----------------|----------------|----------------|

*Duplicate Analysis

WOLF CREEK NUCLEAR OPERATING CORPORATION
EXPOSURE PATHWAY - INGESTION

FISH

(pCi/KG WET)

STATION NUMBER WCCL - OUTLET POOL

DATE COLLECTED: 10/16 10/16
 FLATHEAD CATFISH SM BUFFALO/RIVER CARPSUCKER

GAMMA SPECTRUM ANALYSIS:

| | | | | |
|---------------|-----------|------|-----------|------|
| BE-7 | L.T. 1. | E 02 | L.T. 2. | E 02 |
| K-40 | 3.40±0.34 | E 03 | 2.86±0.29 | E 03 |
| MN-54 | L.T. 1. | E 01 | L.T. 2. | E 01 |
| CO-58 | L.T. 2. | E 01 | L.T. 2. | E 01 |
| FE-59 | L.T. 3. | E 01 | L.T. 5. | E 01 |
| CO-60 | L.T. 2. | E 01 | L.T. 2. | E 01 |
| ZN-65 | L.T. 4. | E 01 | L.T. 5. | E 01 |
| NB-95/ZR-95 | L.T. 2. | E 01 | L.T. 2. | E 01 |
| RU-103 | L.T. 2. | E 01 | L.T. 2. | E 01 |
| RU-106 | L.T. 1. | E 02 | L.T. 2. | E 02 |
| I-131 | L.T. 2. | E 01 | L.T. 3. | E 01 |
| CS-134 | L.T. 2. | E 01 | L.T. 2. | E 01 |
| CS-137 | L.T. 2. | E 01 | L.T. 2. | E 01 |
| LA-140/BA-140 | L.T. 2. | E 01 | L.T. 3. | E 01 |
| CE-141 | L.T. 3. | E 01 | L.T. 3. | E 01 |
| CE-144 | L.T. 1. | E 02 | L.T. 1. | E 02 |
| RA-226 | L.T. 3. | E 02 | L.T. 4. | E 02 |
| TH-228 | L.T. 3. | E 01 | L.T. 3. | E 01 |

TRITIUM ANALYSIS:

| | | | | |
|-----|-----------|------|-----------|------|
| H-3 | 5.1 ± 0.3 | E 03 | 6.1 ± 0.3 | E 03 |
|-----|-----------|------|-----------|------|

WOLF CREEK NUCLEAR OPERATING CORPORATION
EXPOSURE PATHWAY - INGESTION

FISH ENTRAILS

(pCi/KG WET)

STATION NUMBER JRR

DATE COLLECTED: 05/10
GAMMA SPECTRUM ANALYSIS: CHANNEL CATFISH

P
e
d
e
B
-
C
9
NB-95/ZR-95

| | | |
|---------------|-----------|------|
| BE-7 | L.T. 2. | E 02 |
| K-40 | 8.17±1.77 | E 02 |
| MN-54 | L.T. 2. | E 01 |
| CO-58 | L.T. 2. | E 01 |
| FE-59 | L.T. 5. | E 01 |
| CO-60 | L.T. 2. | E 01 |
| ZN-65 | L.T. 4. | E 01 |
| RU-103 | L.T. 3. | E 01 |
| RU-106 | L.T. 2. | E 02 |
| I-131 | L.T. 7. | E 01 |
| CS-134 | L.T. 2. | E 01 |
| CS-137 | L.T. 3. | E 01 |
| LA-140/BA-140 | L.T. 5. | E 01 |
| CE-141 | L.T. 4. | E 01 |
| CE-144 | L.T. 1. | E 02 |
| RA-226 | L.T. 5. | E 02 |
| TH-228 | L.T. 5. | E 01 |

TRITIUM ANALYSIS:

H-3 L.T. 2. E 02

WOLF CREEK NUCLEAR OPERATING CORPORATION
EXPOSURE PATHWAY - INGESTION

FISH ENTRAILS

(pCi/KG WET)

STATION NUMBER WCCL - MAIN BODY

DATE COLLECTED: 05/15
GAMMA SPECTRUM ANALYSIS: CHANNEL CATFISH

BE-7 L.T. 3. E 02
K-40 8.85±2.03 E 02
MN-54 L.T. 3. E 01
CO-58 L.T. 3. E 01
FE-59 L.T. 5. E 01
CO-60 L.T. 3. E 01
ZN-65 L.T. 4. E 01
NB-95/ZR-95 L.T. 3. E 01
RU-103 L.T. 3. E 01
RU-106 L.T. 3. E 02
I-131 L.T. 5. E 01
CS-134 L.T. 3. E 01
CS-137 L.T. 3. E 01
LA-140/BA-140 L.T. 4. E 01
CE-141 L.T. 4. E 01
CE-144 L.T. 1. E 02
RA-226 L.T. 5. E 02
TH-228 L.T. 5. E 01

TRITIUM ANALYSIS:

H-3 7.8 ± 0.3 E 03

WOLF CREEK NUCLEAR OPERATING CORPORATION
EXPOSURE PATHWAY - INGESTION

FOOD/GARDEN CROPS

(PCI/KG WET)

STATION NUMBER R-1

| | | | | |
|-----------------|------------------|------------------|------------------|------------------|
| DATE COLLECTED: | 05/30 LETTUCE | 06/27 LETTUCE | 07/25 CABBAGE | 08/29 LETTUCE |
|-----------------|------------------|------------------|------------------|------------------|

GAMMA SPECTRUM ANALYSIS:

| | | | | |
|---------------|----------------|----------------|----------------|----------------|
| BE-7 | 7.24±0.87 E 02 | 1.19±0.12 E 03 | 2.17±0.81 E 02 | 1.41±0.80 E 02 |
| K-40 | 4.50±0.45 E 03 | 4.96±0.50 E 03 | 3.97±0.40 E 03 | 6.94±0.69 E 03 |
| MN-54 | LT. 1. E 01 |
| CO-58 | LT. 1. E 01 |
| FE-59 | LT. 3. E 01 | LT. 3. E 01 | LT. 2. E 01 | LT. 2. E 01 |
| CO-60 | LT. 1. E 01 |
| ZN-65 | LT. 3. E 01 | LT. 3. E 01 | LT. 2. E 01 | LT. 3. E 01 |
| NB-95/ZR-95 | LT. 1. E 01 |
| RU-103 | LT. 1. E 01 | LT. 2. E 01 | LT. 1. E 01 | LT. 1. E 01 |
| RU-106 | LT. 1. E 02 |
| I-131 | LT. 2. E 01 |
| CS-134 | LT. 1. E 01 |
| CS-137 | LT. 1. E 01 |
| LA-140/BA-140 | LT. 2. E 01 | LT. 2. E 01 | LT. 1. E 01 | LT. 1. E 01 |
| CE-141 | LT. 2. E 01 |
| CE-144 | LT. 7. E 01 | LT. 8. E 01 | LT. 7. E 01 | LT. 9. E 01 |
| RA-226 | LT. 2. E 02 | LT. 3. E 02 | LT. 2. E 02 | LT. 3. E 02 |
| TH-228 | LT. 2. E 01 |

WOLF CREEK NUCLEAR OPERATING CORPORATION
EXPOSURE PATHWAY - INGESTION

FOOD/GARDEN CROPS

(PCI/KG WET)

STATION NUMBER C-1

| DATE COLLECTED: | 05/30 CABBAGE | 06/27 CABBAGE | 06/27* CABBAGE | 07/25 CABBAGE | 08/29 CABBAGE |
|-----------------|------------------|------------------|-------------------|------------------|------------------|
|-----------------|------------------|------------------|-------------------|------------------|------------------|

GAMMA SPECTRUM ANALYSIS:

Page 3 of 42

| | | | | | |
|---------------|----------------|----------------|----------------|----------------|----------------|
| BE-7 | 5.04±0.64 E 02 | 6.16±1.05 E 02 | 5.89±0.77 E 02 | 2.52±0.70 E 02 | 1.54±0.63 E 02 |
| K-40 | 3.59±0.36 E 03 | 5.95±0.60 E 03 | 5.11±0.51 E 03 | 4.35±0.43 E 03 | 3.86±0.39 E 03 |
| MN-54 | LT. 9. E 00 | LT. 1. E 01 | LT. 1. E 01 | LT. 9. E 00 | LT. 8. E 00 |
| CO-58 | LT. 9. E 00 | LT. 1. E 01 | LT. 1. E 01 | LT. 8. E 00 | LT. 9. E 00 |
| FE-59 | LT. 2. E 01 | LT. 3. E 01 | LT. 3. E 01 | LT. 2. E 01 | LT. 2. E 01 |
| CO-60 | LT. 9. E 00 | LT. 1. E 01 | LT. 1. E 01 | LT. 1. E 01 | LT. 9. E 00 |
| ZN-65 | LT. 2. E 01 | LT. 3. E 01 | LT. 3. E 01 | LT. 2. E 01 | LT. 2. E 01 |
| NB-95/ZR-95 | LT. 1. E 01 | LT. 1. E 01 | LT. 1. E 01 | LT. 9. E 00 | LT. 9. E 00 |
| RU-103 | LT. 9. E 00 | LT. 1. E 01 | LT. 1. E 01 | LT. 9. E 00 | LT. 9. E 00 |
| RU-106 | LT. 9. E 01 | LT. 1. E 02 | LT. 1. E 02 | LT. 7. E 01 | LT. 8. E 01 |
| I-131 | LT. 1. E 01 | LT. 2. E 01 | LT. 2. E 01 | LT. 1. E 01 | LT. 1. E 01 |
| CS-134 | LT. 1. E 01 | LT. 9. E 00 |
| CS-137 | LT. 1. E 01 | LT. 1. E 01 | LT. 1. E 01 | LT. 9. E 00 | LT. 1. E 01 |
| LA-140/BA-140 | LT. 1. E 01 | LT. 2. E 01 | LT. 2. E 01 | LT. 1. E 01 | LT. 1. E 01 |
| CE-141 | LT. 1. E 01 | LT. 2. E 01 | LT. 2. E 01 | LT. 1. E 01 | LT. 1. E 01 |
| CE-144 | LT. 5. E 01 | LT. 7. E 01 | LT. 6. E 01 | LT. 5. E 01 | LT. 5. E 01 |
| RA-226 | LT. 2. E 02 |
| TH-228 | LT. 2. E 01 | LT. 2. E 01 | LT. 2. E 01 | LT. 1. E 01 | LT. 2. E 01 |

*Duplicate Analysis

WOLF CREEK NUCLEAR OPERATING CORPORATION
EXPOSURE PATHWAY - INGESTION

FOOD/GARDEN CROPS

(PCI/KG WET)

STATION NUMBER C-1

| | | | |
|-----------------|---------|---------|---------|
| DATE COLLECTED- | 09/26 | 10/16 | 10/31 |
| | CABBAGE | CABBAGE | CABBAGE |

GAMMA SPECTRUM ANALYSIS:

| | | | |
|---------------|----------------|----------------|----------------|
| BE-7 | 2.32±0.79 E 02 | L.T. 1. E 02 | 3.68±0.84 E 02 |
| K-40 | 3.91±0.39 E 03 | 2.60±0.26 E 03 | 2.02±0.20 E 03 |
| MN-54 | L.T. 1. E 01 | L.T. 1. E 01 | L.T. 1. E 01 |
| CO-58 | L.T. 1. E 01 | L.T. 1. E 01 | L.T. 1. E 01 |
| FE-59 | L.T. 2. E 01 | L.T. 3. E 01 | L.T. 2. E 01 |
| CO-60 | L.T. 1. E 01 | L.T. 1. E 01 | L.T. 1. E 01 |
| ZN-65 | L.T. 3. E 01 | L.T. 3. E 01 | L.T. 2. E 01 |
| NB-95/ZR-95 | L.T. 1. E 01 | L.T. 1. E 01 | L.T. 1. E 01 |
| RU-103 | L.T. 1. E 01 | L.T. 1. E 01 | L.T. 1. E 01 |
| RU-106 | L.T. 1. E 02 | L.T. 1. E 02 | L.T. 1. E 02 |
| I-131 | L.T. 2. E 01 | L.T. 1. E 01 | L.T. 1. E 01 |
| CS-134 | L.T. 1. E 01 | L.T. 1. E 01 | L.T. 1. E 01 |
| CS-137 | L.T. 1. E 01 | L.T. 1. E 01 | L.T. 1. E 01 |
| LA-140/BA-140 | L.T. 1. E 01 | L.T. 1. E 01 | L.T. 1. E 01 |
| CE-141 | L.T. 2. E 01 | L.T. 2. E 01 | L.T. 2. E 01 |
| CE-144 | L.T. 7. E 01 | L.T. 7. E 01 | L.T. 7. E 01 |
| RA-226 | L.T. 2. E 02 | L.T. 2. E 02 | L.T. 2. E 02 |
| TH-228 | L.T. 2. E 01 | L.T. 2. E 01 | L.T. 2. E 01 |

**WOLF CREEK NUCLEAR OPERATING CORPORATION
EXPOSURE PATHWAY - INGESTION**

FOOD/GARDEN CROPS

(PCI/KG WET)

STATION NUMBER G-1

| DATE COLLECTED: | 07/26 CABBAGE | 08/29 CABBAGE | 09/26 CABBAGE | 10/31 CABBAGE |
|---------------------------------|------------------|------------------|------------------|------------------|
| GAMMA SPECTRUM ANALYSIS: | | | | |
| BE-7 | 5.46±0.88 E 02 | 3.10±0.78 E 02 | 3.18±1.05 E 02 | 1.54±0.56 E 02 |
| K-40 | 3.12±0.31 E 03 | 4.76±0.48 E 03 | 2.75±0.27 E 03 | 2.74±0.27 E 03 |
| MN-54 | LT. 1. E 01 | LT. 1. E 01 | LT. 2. E 01 | LT. 7. E 00 |
| CO-58 | LT. 1. E 01 | LT. 1. E 01 | LT. 1. E 01 | LT. 8. E 00 |
| FE-59 | LT. 2. E 01 | LT. 2. E 01 | LT. 3. E 01 | LT. 2. E 01 |
| CO-60 | LT. 1. E 01 | LT. 1. E 01 | LT. 1. E 01 | LT. 8. E 00 |
| ZN-65 | LT. 2. E 01 | LT. 2. E 01 | LT. 3. E 01 | LT. 2. E 01 |
| NB-95/ZR-95 | LT. 1. E 01 | LT. 1. E 01 | LT. 2. E 01 | LT. 8. E 00 |
| RU-103 | LT. 1. E 01 | LT. 1. E 01 | LT. 2. E 01 | LT. 9. E 00 |
| RU-106 | LT. 1. E 02 | LT. 9. E 01 | LT. 1. E 02 | LT. 8. E 01 |
| I-131 | LT. 2. E 01 | LT. 1. E 01 | LT. 2. E 01 | LT. 1. E 01 |
| CS-134 | LT. 1. E 01 | LT. 1. E 01 | LT. 2. E 01 | LT. 8. E 00 |
| CS-137 | LT. 1. E 01 | LT. 1. E 01 | LT. 2. E 01 | LT. 9. E 00 |
| LA-140/BA-140 | LT. 2. E 01 | LT. 1. E 01 | LT. 2. E 01 | LT. 9. E 00 |
| CE-141 | LT. 2. E 01 | LT. 1. E 01 | LT. 2. E 01 | LT. 2. E 01 |
| CE-144 | LT. 6. E 01 | LT. 6. E 01 | LT. 1. E 02 | LT. 7. E 01 |
| RA-226 | LT. 2. E 02 | LT. 2. E 02 | LT. 3. E 02 | LT. 2. E 02 |
| TH-228 | LT. 2. E 01 |

P-093-B-4

**WOLF CREEK NUCLEAR OPERATING CORPORATION
EXPOSURE PATHWAY - INGESTION**

FOOD/GARDEN CROPS

(PCI/KG WET)

STATION NUMBER S-4

| DATE COLLECTED: | 05/30 CABBAGE | 06/27 CABBAGE | 07/25 CABBAGE | 08/29 CABBAGE | 09/26 CABBAGE |
|-----------------|------------------|------------------|------------------|------------------|------------------|
|-----------------|------------------|------------------|------------------|------------------|------------------|

GAMMA SPECTRUM ANALYSIS:

| | | | | | |
|---------------|----------------|----------------|----------------|----------------|----------------|
| BE-7 | 4.49±0.94 E 02 | 6.21±0.62 E 02 | 1.05±0.10 E 03 | 5.69±0.80 E 02 | 4.84±1.00 E 02 |
| K-40 | 4.30±0.43 E 03 | 2.05±0.21 E 03 | 4.91±0.49 E 03 | 4.52±0.45 E 03 | 4.31±0.43 E 03 |
| MN-54 | L.T. 1. E 01 | L.T. 7. E 00 | L.T. 8. E 00 | L.T. 9. E 00 | L.T. 1. E 01 |
| CO-58 | L.T. 1. E 01 | L.T. 7. E 00 | L.T. 8. E 00 | L.T. 8. E 00 | L.T. 1. E 01 |
| FE-59 | L.T. 3. E 01 | L.T. 2. E 01 | L.T. 2. E 01 | L.T. 2. E 01 | L.T. 3. E 01 |
| CO-60 | L.T. 1. E 01 | L.T. 7. E 00 | L.T. 9. E 00 | L.T. 1. E 01 | L.T. 1. E 01 |
| ZN-65 | L.T. 3. E 01 | L.T. 2. E 01 | L.T. 2. E 01 | L.T. 2. E 01 | L.T. 3. E 01 |
| NB-95/ZR-95 | L.T. 1. E 01 | L.T. 7. E 00 | L.T. 9. E 00 | L.T. 9. E 00 | L.T. 1. E 01 |
| RU-103 | L.T. 1. E 01 | L.T. 8. E 00 | L.T. 1. E 01 | L.T. 8. E 00 | L.T. 1. E 01 |
| RU-106 | L.T. 1. E 02 | L.T. 6. E 01 | L.T. 8. E 01 | L.T. 8. E 01 | L.T. 1. E 02 |
| I-131 | L.T. 2. E 01 | L.T. 1. E 01 | L.T. 2. E 01 | L.T. 1. E 01 | L.T. 2. E 01 |
| CS-134 | L.T. 2. E 01 | L.T. 8. E 00 | L.T. 9. E 00 | L.T. 1. E 01 | L.T. 1. E 01 |
| CS-137 | L.T. 2. E 01 | L.T. 8. E 00 | L.T. 9. E 00 | L.T. 9. E 00 | L.T. 1. E 01 |
| LA-140/BA-140 | L.T. 2. E 01 | L.T. 1. E 01 | L.T. 1. E 01 | L.T. 1. E 01 | L.T. 2. E 01 |
| CE-141 | L.T. 2. E 01 | L.T. 1. E 01 | L.T. 1. E 01 | L.T. 1. E 01 | L.T. 2. E 01 |
| CE-144 | L.T. 8. E 01 | L.T. 4. E 01 | L.T. 5. E 01 | L.T. 5. E 01 | L.T. 8. E 01 |
| RA-226 | L.T. 3. E 02 | L.T. 1. E 02 | L.T. 2. E 02 | L.T. 2. E 02 | L.T. 2. E 02 |
| TH-228 | L.T. 3. E 01 | L.T. 1. E 01 | L.T. 1. E 01 | L.T. 1. E 01 | L.T. 2. E 01 |

WOLF CREEK NUCLEAR OPERATING CORPORATION
EXPOSURE PATHWAY - INGESTION

FOOD/GARDEN CROPS

(PCI/KG WET)

STATION NUMBER S-4

DATE COLLECTED: 10/31
CABBAGE

GAMMA SPECTRUM ANALYSIS:

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| | | |
|---------------|-----------|------|
| BE-7 | 2.58±0.87 | E 02 |
| K-40 | 3.16±0.32 | E 03 |
| MN-54 | L.T. | E 01 |
| CO-58 | L.T. | E 01 |
| FE-59 | L.T. | E 01 |
| CO-60 | L.T. | E 01 |
| ZN-65 | L.T. | E 01 |
| NI-95/ZR-95 | L.T. | E 01 |
| RU-103 | L.T. | E 01 |
| RU-106 | L.T. | E 02 |
| I-131 | L.T. | E 01 |
| CS-134 | L.T. | E 01 |
| CS-137 | L.T. | E 01 |
| LA-140/BA-140 | L.T. | E 01 |
| CE-141 | L.T. | E 01 |
| CE-144 | L.T. | E 01 |
| RA-226 | L.T. | E 02 |
| TH-228 | L.T. | E 01 |

**WOLF CREEK NUCLEAR OPERATING CORPORATION
EXPOSURE PATHWAY - INGESTION**

MILK

(PCI/LITER)

STATION NUMBER S-3

| DATE COLLECTED: | 01/10 | 02/14 | 03/14 | 04/11 | 04/25 |
|-----------------|-------|-------|-------|-------|-------|
|-----------------|-------|-------|-------|-------|-------|

RADIOCHEMICAL ANALYSIS:

| | | | | | | | | | | |
|-------|--------|------|---------|------|---------|------|---------|------|---------|------|
| I-131 | L.T. 2 | E-01 | L.T. 2. | E-01 | L.T. 1. | E-01 | L.T. 1. | E-01 | L.T. 2. | E-01 |
|-------|--------|------|---------|------|---------|------|---------|------|---------|------|

GAMMA SPECTRUM ANALYSIS:

| | | | | | | | | | | |
|---------------|-----------------|------|-----------------|------|-----------------|------|-----------------|------|-----------------|------|
| BE-7 | L.T. 3. | E 01 | L.T. 3. | E 01 | L.T. 3. | E 01 | L.T. 4. | E 01 | L.T. 3. | E 01 |
| K-40 | 1.57 ± 0.16 | E 03 | 1.39 ± 0.14 | E 03 | 1.31 ± 0.13 | E 03 | 1.34 ± 0.13 | E 03 | 1.40 ± 0.14 | E 03 |
| MN-54 | L.T. 4. | E 00 | L.T. 3. | E 00 | L.T. 3. | E 00 | L.T. 4. | E 00 | L.T. 3. | E 00 |
| CO-58 | L.T. 4. | E 00 | L.T. 3. | E 00 | L.T. 3. | E 00 | L.T. 4. | E 00 | L.T. 3. | E 00 |
| FE-59 | L.T. 9. | E 00 | L.T. 7. | E 00 | L.T. 8. | E 00 | L.T. 9. | E 00 | L.T. 6. | E 00 |
| CO-60 | L.T. 5. | E 00 | L.T. 4. | E 00 | L.T. 4. | E 00 | L.T. 5. | E 00 | L.T. 4. | E 00 |
| ZN-65 | L.T. 1. | E 01 | L.T. 9. | E 00 | L.T. 9. | E 00 | L.T. 9. | E 00 | L.T. 8. | E 00 |
| NB-95/ZR-95 | L.T. 4. | E 00 | L.T. 3. | E 00 | L.T. 3. | E 00 | L.T. 4. | E 00 | L.T. 3. | E 00 |
| RU-103 | L.T. 4. | E 00 | L.T. 3. | E 00 |
| RU-106 | L.T. 3. | E 01 |
| I-131 | L.T. 5. | E 00 | L.T. 4. | E 00 | L.T. 4. | E 00 | L.T. 5. | E 00 | L.T. 4. | E 00 |
| CS-134 | L.T. 4. | E 00 |
| CS-137 | L.T. 4. | E 00 | L.T. 5. | E 00 |
| LA-140/BA-140 | L.T. 4. | E 00 | L.T. 3. | E 00 |
| CE-141 | L.T. 7. | E 00 | L.T. 5. | E 00 | L.T. 6. | E 00 | L.T. 7. | E 00 | L.T. 6. | E 00 |
| CE-144 | L.T. 3. | E 01 | L.T. 2. | E 01 | L.T. 3. | E 01 | L.T. 3. | E 01 | L.T. 2. | E 01 |
| RA-226 | L.T. 8. | E 01 | L.T. 6. | E 01 | L.T. 8. | E 01 | L.T. 9. | E 01 | L.T. 7. | E 01 |
| TH-228 | L.T. 8. | E 00 | L.T. 6. | E 00 | L.T. 7. | E 00 | L.T. 7. | E 00 | L.T. 6. | E 00 |

**WOLF CREEK NUCLEAR OPERATING CORPORATION
EXPOSURE PATHWAY - INGESTION**

MILK

(PCI/LITER)

STATION NUMBER S-3

| DATE COLLECTED: | 05/09 | 05/23 | 06/13 | 06/27 | 06/27* |
|-----------------|-------|-------|-------|-------|--------|
|-----------------|-------|-------|-------|-------|--------|

RADIOCHEMICAL ANALYSIS:

| | | | | | | | | | | |
|-------|---------|------|---------|------|---------|------|---------|------|---------|------|
| I-131 | L.T. 2. | E-01 | L.T. 2. | E-01 | L.T. 2. | E-01 | L.T. 5. | E-01 | L.T. 5. | E-01 |
|-------|---------|------|---------|------|---------|------|---------|------|---------|------|

GAMMA SPECTRUM ANALYSIS:

| | | | | | | | | | | |
|---------------|-----------|------|-----------|------|-----------|------|-----------|------|-----------|------|
| BE-7 | L.T. 6. | E 01 | L.T. 4. | E 01 | L.T. 3. | E 01 | L.T. 3. | E 01 | L.T. 3. | E 01 |
| K-40 | 1.28±0.13 | E 03 | 1.34±0.13 | E 03 | 1.41±0.14 | E 03 | 1.55±0.16 | E 03 | 1.36±0.14 | E 03 |
| MN-54 | L.T. 5. | E 00 | L.T. 4. | E 00 | L.T. 3. | E 00 | L.T. 4. | E 00 | L.T. 3. | E 00 |
| CO-58 | L.T. 6. | E 00 | L.T. 3. | E 00 | L.T. 4. | E 00 | L.T. 4. | E 00 | L.T. 3. | E 00 |
| FE-59 | L.T. 1. | E 01 | L.T. 8. | E 00 | L.T. 8. | E 00 | L.T. 9. | E 00 | L.T. 7. | E 00 |
| CO-60 | L.T. 5. | E 00 | L.T. 4. | E 00 |
| ZN-65 | L.T. 1. | E 01 | L.T. 1. | E 01 | L.T. 8. | E 00 | L.T. 9. | E 00 | L.T. 7. | E 00 |
| NB-95/ZR-95 | L.T. 6. | E 00 | L.T. 4. | E 00 | L.T. 4. | E 00 | L.T. 4. | E 00 | L.T. 3. | E 00 |
| RU-103 | L.T. 7. | E 00 | L.T. 4. | E 00 |
| RU-106 | L.T. 6. | E 01 | L.T. 4. | E 01 | L.T. 3. | E 01 | L.T. 3. | E 01 | L.T. 3. | E 01 |
| I-131 | L.T. 1. | E 01 | L.T. 5. | E 00 | L.T. 6. | E 00 | L.T. 9. | E 00 | L.T. 1. | E 01 |
| CS-134 | L.T. 6. | E 00 | L.T. 4. | E 00 | L.T. 4. | E 00 | L.T. 4. | E 00 | L.T. 3. | E 00 |
| CS-137 | L.T. 6. | E 00 | L.T. 4. | E 00 |
| LA-140/BA-140 | L.T. 8. | E 00 | L.T. 5. | E 00 | L.T. 4. | E 00 | L.T. 6. | E 00 | L.T. 7. | E 00 |
| CE-141 | L.T. 1. | E 01 | L.T. 7. | E 00 | L.T. 5. | E 00 | L.T. 6. | E 00 | L.T. 7. | E 00 |
| CE-144 | L.T. 5. | E 01 | L.T. 3. | E 01 | L.T. 2. | E 01 | L.T. 2. | E 01 | L.T. 2. | E 01 |
| RA-226 | L.T. 1. | E 02 | L.T. 9. | E 01 | L.T. 7. | E 01 | L.T. 8. | E 01 | L.T. 7. | E 01 |
| TH-228 | L.T. 1. | E 01 | L.T. 7. | E 00 | L.T. 6. | E 00 | L.T. 7. | E 00 | L.T. 6. | E 00 |

*Duplicate Analysis

WOLF CREEK NUCLEAR OPERATING CORPORATION
EXPOSURE PATHWAY - INGESTION

MILK

(PCI/LITER)

STATION NUMBER S-3

| DATE COLLECTED: | 07/11 | 07/25 | 08/09 | 08/22 | 09/12 |
|-----------------|-------|-------|-------|-------|-------|
|-----------------|-------|-------|-------|-------|-------|

RADIOCHEMICAL ANALYSIS:

| | | | | | | | | | | |
|-------|---------|------|---------|------|---------|------|---------|------|---------|------|
| I-131 | L.T. 2. | E-01 | L.T. 2. | E-01 | L.T. 3. | E-01 | L.T. 4. | E-01 | L.T. 2. | E-01 |
|-------|---------|------|---------|------|---------|------|---------|------|---------|------|

GAMMA SPECTRUM ANALYSIS:

Page 8-49

| | | | | | | | | | | |
|---------------|-----------|------|-----------|------|-----------|------|-----------|------|-----------|------|
| BE-7 | L.T. 4. | E 01 | L.T. 3. | E 01 |
| K-40 | 1.36±0.14 | E 03 | 1.39±0.14 | E 03 | 1.41±0.14 | E 03 | 1.42±0.14 | E 03 | 1.24±0.12 | E 03 |
| MN-54 | L.T. 4. | E 00 | L.T. 3. | E 00 | L.T. 4. | E 00 | L.T. 4. | E 00 | L.T. 3. | E 00 |
| CO-58 | L.T. 5. | E 00 | L.T. 3. | E 00 | L.T. 4. | E 00 | L.T. 3. | E 00 | L.T. 3. | E 00 |
| FE-59 | L.T. 1. | E 01 | L.T. 8. | E 00 |
| CO-60 | L.T. 5. | E 00 | L.T. 4. | E 00 |
| ZN-65 | L.T. 1. | E 01 | L.T. 9. | E 00 | L.T. 9. | E 00 | L.T. 8. | E 00 | L.T. 8. | E 00 |
| NB-95/ZR-95 | L.T. 5. | E 00 | L.T. 4. | E 00 |
| RU-103 | L.T. 5. | E 00 | L.T. 4. | E 00 |
| RU-106 | L.T. 4 | E 01 | L.T. 3. | E 01 |
| I-131 | L.T. 1. | E 01 | L.T. 7. | E 00 | L.T. 6. | E 00 | L.T. 4. | E 00 | L.T. 5. | E 00 |
| CS-134 | L.T. 5. | E 00 | L.T. 4. | E 00 |
| CS-137 | L.T. 5. | E 00 | L.T. 4. | E 00 |
| LA-140/BA-140 | L.T. 5. | E 00 | L.T. 5. | E 00 | L.T. 5. | E 00 | L.T. 4. | E 00 | L.T. 4. | E 00 |
| CE-141 | L.T. 1. | E 01 | L.T. 7. | E 00 | L.T. 6. | E 00 | L.T. 6. | E 00 | L.T. 6. | E 00 |
| CE-144 | L.T. 4. | E 01 | L.T. 3. | E 01 | L.T. 2. | E 01 | L.T. 2. | E 01 | L.T. 2. | E 01 |
| RA-226 | L.T. 1. | E 02 | L.T. 7. | E 01 |
| TH-228 | L.T. 9. | E 00 | L.T. 6. | E 00 | L.T. 7. | E 00 | L.T. 7. | E 00 | L.T. 6. | E 00 |

**WOLF CREEK NUCLEAR OPERATING CORPORATION
EXPOSURE PATHWAY - INGESTION**

MIK

PRACTICE

STATION NUMBER S-3

DATE COLLECTED

BIOCHEMICAL ANALYSIS

CAMM SPECTRIMANIVSIS.

20/20

878

10/10 10/34

| | | | | | | | |
|-------|-------|-------|-------|-------|-------|-------|-----|
| LT. 1 | E-0 | LT. 2 | E-0 | LT. 3 | E-0 | LT. 2 | E-0 |
| 10/10 | 10/24 | | 11/14 | | 11/28 | | |
| | | | | | | | |

**WOLF CREEK NUCLEAR OPERATING CORPORATION
EXPOSURE PATHWAY - INGESTION**

MILK

(PCI/LITER)

STATION NUMBER S-3

DATE COLLECTED: 12/12

RADIOCHEMICAL ANALYSIS:

I-131 L.T. 2. E-01

GAMMA SPECTRUM ANALYSIS:

| | | |
|---------------|-----------|------|
| BE-7 | L.T. 3. | E 01 |
| K-40 | 1.44±0.14 | E 03 |
| MN-54 | L.T. 4. | E 00 |
| CO-58 | L.T. 4. | E 00 |
| FE-59 | L.T. 9. | E 00 |
| CO-60 | L.T. 4. | E 00 |
| ZN-65 | L.T. 9. | E 00 |
| NB-95/ZR-95 | L.T. 4. | E 00 |
| RU-103 | L.T. 4. | E 00 |
| RU-106 | L.T. 4. | E 01 |
| I-131 | L.T. 5. | E 00 |
| CS-134 | L.T. 4. | E 00 |
| CS-137 | L.T. 4. | E 00 |
| LA-140/BA-140 | L.T. 4. | E 00 |
| CE-141 | L.T. 6. | E 00 |
| CE-144 | L.T. 2. | E 01 |
| RA-226 | L.T. 7. | E 01 |
| TH-228 | L.T. 6. | E 00 |

EXPOSURE PATHWAY - AQUATIC

SEDIMENT SILT

(pCi/KG DRY)

STATION NUMBER JRR

DATE COLLECTED: 10/18

GAMMA SPECTRUM ANALYSIS:

| | | |
|---------------|-----------|------|
| BE-7 | L.T. 4. | E 02 |
| K-40 | 1.67±0.17 | E 04 |
| MN-54 | L.T. 4. | E 01 |
| CO-58 | L.T. 4. | E 01 |
| FE-59 | L.T. 1. | E 02 |
| CO-60 | L.T. 4. | E 01 |
| ZN-65 | L.T. 1. | E 02 |
| NB-95/ZR-95 | L.T. 5. | E 01 |
| RU-103 | L.T. 5. | E 01 |
| RU-106 | L.T. 4. | E 02 |
| I-131 | L.T. 1. | E 02 |
| CS-134 | L.T. 5. | E 01 |
| CS-137 | 2.20±0.44 | E 02 |
| LA-140/BA-140 | L.T. 7. | E 01 |
| CE-141 | L.T. 8. | E 01 |
| CE-144 | L.T. 3. | E 02 |
| RA-226 | 2.24±0.71 | E 03 |
| TH-228 | 1.25±0.13 | E 03 |

WOLF CREEK NUCLEAR OPERATING CORPORATION
EXPOSURE PATHWAY - AQUATIC

SEDIMENT/SILT

(pCi/KG DRY)

STATION NUMBER DC

DATE COLLECTED: 05/15 10/18

GAMMA SPECTRUM ANALYSIS:

| | | |
|---------------|----------------|----------------|
| BE-7 | L.T. 4. E 02 | L.T. 3. E 02 |
| K-40 | 1.11±0.11 E 04 | 1.31±0.13 E 04 |
| MN-54 | 6.12±2.35 E 01 | L.T. 4. E 01 |
| CO-58 | 2.20±0.38 E 02 | L.T. 3. E 01 |
| FE-59 | L.T. 9. E 01 | L.T. 7. E 01 |
| CO-60 | 5.48±0.55 E 02 | 1.09±0.11 E 03 |
| ZN-65 | L.T. 1. E 02 | L.T. 8. E 01 |
| NB-95/ZR-95 | L.T. 5. E 01 | L.T. 4. E 01 |
| RU-103 | L.T. 4. E 01 | L.T. 4. E 01 |
| RU-106 | L.T. 4. E 02 | L.T. 3. E 02 |
| I-131 | L.T. 8. E 01 | L.T. 8. E 01 |
| CS-134 | 1.23±0.40 E 02 | 1.52±0.32 E 02 |
| CS-137 | 4.00±0.46 E 02 | 6.23±0.62 E 02 |
| LA-140/BA-140 | L.T. 7. E 01 | L.T. 5. E 01 |
| CE-141 | L.T. 6. E 01 | L.T. 5. E 01 |
| CE-144 | L.T. 2. E 02 | L.T. 2. E 02 |
| RA-226 | 1.72±0.63 E 03 | 2.08±0.48 E 03 |
| TH-228 | 1.02±0.10 E 03 | 1.54±0.15 E 03 |

**WOLF CREEK NUCLEAR OPERATING CORPORATION
EXPOSURE PATHWAY - AQUATIC**

SEDIMENT/SILT

(pCi/KG DRY)

STATION NUMBER WC & 11th ROAD

DATE COLLECTED: 05/30 10/24

GAMMA SPECTRUM ANALYSIS:

| | | |
|---------------|----------------|----------------|
| BE-7 | L.T. 3. E 02 | 1.09±0.37 E 03 |
| K-40 | 1.10±0.11 E 04 | 1.21±0.12 E 04 |
| MN-54 | L.T. 3. E 01 | L.T. 4. E 01 |
| CO-58 | L.T. 3. E 01 | L.T. 4. E 01 |
| FE-59 | L.T. 8. E 01 | L.T. 1. E 02 |
| CO-60 | L.T. 4. E 01 | L.T. 4. E 01 |
| ZN-65 | L.T. 8. E 01 | L.T. 1. E 02 |
| NB-95/ZR-95 | L.T. 4. E 01 | L.T. 6. E 01 |
| RU-103 | L.T. 4. E 01 | L.T. 5. E 01 |
| RU-106 | L.T. 3. E 02 | L.T. 4. E 02 |
| I-131 | L.T. 7. E 01 | L.T. 1. E 02 |
| CS-134 | L.T. 4. E 01 | L.T. 5. E 01 |
| CS-137 | L.T. 5. E 01 | 9.81±2.93 E 01 |
| LA-140/BA-140 | L.T. 5. E 01 | L.T. 8. E 01 |
| CE-141 | L.T. 6. E 01 | L.T. 9. E 01 |
| CE-144 | L.T. 2. E 02 | L.T. 3. E 02 |
| RA-226 | 1.75±0.52 E 03 | 2.51±0.70 E 03 |
| TH-228 | 1.09±0.11 E 03 | 1.20±0.12 E 03 |

WOLF CREEK NUCLEAR OPERATING CORPORATION
EXPOSURE PATHWAY - WATERBORNE

SHORELINE SOIL

(pCi/KG DRY)

STATION NUMBER DC

DATE COLLECTED: 05/15 10/18

GAMMA SPECTRUM ANALYSIS:

| | | |
|---------------|----------------|----------------|
| BE-7 | L.T. 3. E 02 | L.T. 3. E 02 |
| K-40 | 8.94±0.89 E 03 | 6.57±0.66 E 03 |
| MN-54 | L.T. 3. E 01 | L.T. 3. E 01 |
| CO-58 | L.T. 4. E 01 | L.T. 4. E 01 |
| FE-59 | L.T. 8. E 01 | L.T. 7. E 01 |
| CO-60 | 1.15±0.36 E 02 | 1.68±0.30 E 02 |
| ZN-65 | L.T. 9. E 01 | L.T. 8. E 01 |
| NB-95/ZR-95 | L.T. 5. E 01 | L.T. 4. E 01 |
| RU-103 | L.T. 4. E 01 | L.T. 4. E 01 |
| RU-106 | L.T. 3. E 02 | L.T. 3. E 02 |
| I-131 | L.T. 7. E 01 | L.T. 8. E 01 |
| CS-134 | L.T. 5. E 01 | L.T. 4. E 01 |
| CS-137 | 8.85±4.00 E 01 | 2.07±0.35 E 02 |
| LA-140/BA-140 | L.T. 6. E 01 | L.T. 6. E 01 |
| CE-141 | L.T. 7. E 01 | L.T. 5. E 01 |
| CE-144 | L.T. 3. E 02 | L.T. 2. E 02 |
| RA-226 | 1.95±0.64 E 03 | 1.34±0.49 E 03 |
| TH-228 | 1.05±0.11 E 03 | 9.02±0.90 E 02 |

WOLF CREEK NUCLEAR OPERATING CORPORATION
EXPOSURE PATHWAY - WATERBORNE

SHORELINE SOIL

(pCi/KG DRY)

STATION NUMBER EEA

DATE COLLECTED: 10/16

GAMMA SPECTRUM ANALYSIS:

| | | |
|---------------|-----------|------|
| BE-7 | LT. 3. | E 02 |
| K-40 | 9.14±0.91 | E 03 |
| MN-54 | LT. 3. | E 01 |
| CO-58 | LT. 3. | E 01 |
| FE-59 | LT. 6. | E 01 |
| CO-60 | LT. 3. | E 01 |
| ZN-65 | LT. 6. | E 01 |
| NB-95/ZR-95 | LT. 3. | E 01 |
| RU-103 | LT. 3. | E 01 |
| RU-106 | LT. 2. | E 02 |
| I-131 | LT. 7. | E 01 |
| CS-134 | LT. 3. | E 01 |
| CS-137 | 9.06±2.69 | E 01 |
| LA-140/BA-140 | LT. 5. | E 01 |
| CE-141 | LT. 5. | E 01 |
| CE-144 | LT. 2. | E 02 |
| RA-226 | 1.48±0.46 | E 03 |
| TH-228 | 9.09±0.91 | E 02 |

WOLF CREEK NUCLEAR OPERATING CORPORATION
EXPOSURE PATHWAY - WATERBORNE

SHORELINE SOIL

(pCi/KG DRY)

STATION NUMBER JRR

DATE COLLECTED: 06/23 10/18

GAMMA SPECTRUM ANALYSIS:

| | | |
|---------------|----------------|----------------|
| BE-7 | 5.54±0.55 E 03 | L.T. 4. E 02 |
| K-40 | 1.21±0.12 E 04 | 8.36±0.64 E 03 |
| MN-54 | L.T. 3. E 01 | L.T. 4. E 01 |
| CO-58 | L.T. 3. E 01 | L.T. 3. E 01 |
| FE-59 | L.T. 9. E 01 | L.T. 8. E 01 |
| CO-60 | L.T. 3. E 01 | L.T. 4. E 01 |
| ZN-65 | L.T. 8. E 01 | L.T. 9. E 01 |
| NB-95/ZR-95 | L.T. 4. E 01 | L.T. 5. E 01 |
| RU-103 | L.T. 4. E 01 | L.T. 4. E 01 |
| RU-106 | L.T. 3. E 02 | L.T. 3. E 02 |
| I-131 | L.T. 1. E 02 | L.T. 1. E 02 |
| CS-134 | L.T. 4. E 01 | L.T. 5. E 01 |
| CS-137 | 2.04±0.35 E 02 | L.T. 4. E 01 |
| LA-140/BA-140 | L.T. 8. E 01 | L.T. 7. E 01 |
| CE-141 | L.T. 7. E 01 | L.T. 7. E 01 |
| CE-144 | L.T. 2. E 02 | L.T. 3. E 02 |
| RA-226 | 1.22±0.53 E 03 | 4.08±0.68 E 03 |
| TH-228 | 5.07±0.51 E 02 | 1.57±0.16 E 03 |

WOLF CREEK NUCLEAR OPERATING CORPORATION
EXPOSURE PATHWAY - TERRESTRIAL

SOIL

(pCi/KG DRY)

STATION NUMBER MUDS

DATE COLLECTED: 06/15 10/16

GAMMA SPECTRUM ANALYSIS:

| | | |
|---------------|----------------|----------------|
| BE-7 | LT. 4. E 02 | LT. 4. E 02 |
| K-40 | 1.32±0.13 E 04 | 1.12±0.11 E 04 |
| MN-54 | LT. 4. E 01 | LT. 4. E 01 |
| CO-58 | LT. 3. E 01 | LT. 4. E 01 |
| FE-59 | LT. 8. E 01 | LT. 8. E 01 |
| CO-60 | LT. 4. E 01 | LT. 4. E 01 |
| ZN-65 | LT. 9. E 01 | LT. 9. E 01 |
| NB-95/ZR-95 | LT. 5. E 01 | LT. 5. E 01 |
| RU-103 | LT. 4. E 01 | LT. 5. E 01 |
| RU-106 | LT. 3. E 02 | LT. 3. E 02 |
| I-131 | LT. 9. E 01 | LT. 1. E 02 |
| CS-134 | LT. 5. E 01 | LT. 5. E 01 |
| CS-137 | 8.20±3.45 E 01 | LT. 5. E 01 |
| LA-140/BA-140 | LT. 6. E 01 | LT. 7. E 01 |
| CE-141 | LT. 7. E 01 | LT. 8. E 01 |
| CE-144 | LT. 2. E 02 | LT. 3. E 02 |
| RA-226 | 1.87±0.61 E 03 | 2.34±0.71 E 03 |
| TH-228 | 1.35±0.13 E 03 | 1.28±0.13 E 03 |

WOLF CREEK NUCLEAR OPERATING CORPORATION
EXPOSURE PATHWAY - TERRESTRIAL

SOIL

(pCi/KG DRY)

STATION NUMBER EEA

DATE COLLECTED: 06/15 10/16

GAMMA SPECTRUM ANALYSIS:

| | | |
|---------------|-----------------|----------------|
| BE-7 | 1.68 ± 0.36E 03 | L.T. 3. E 02 |
| K-40 | 1.18±0.12 E 04 | 1.34±0.13 E 04 |
| MN-54 | L.T. 4. E 01 | L.T. 3. E 01 |
| CO-58 | L.T. 4. E 01 | L.T. 4. E 01 |
| FE-59 | L.T. 9. E 01 | L.T. 9. E 01 |
| CO-60 | L.T. 4. E 01 | L.T. 3. E 01 |
| ZN-65 | L.T. 1. E 02 | L.T. 8. E 01 |
| NB-95/ZR-95 | L.T. 5. E 01 | L.T. 5. E 01 |
| RU-103 | L.T. 4. E 01 | L.T. 4. E 01 |
| RU-106 | L.T. 4. E 02 | L.T. 3. E 02 |
| I-131 | L.T. 1. E 02 | L.T. 1. E 02 |
| CS-134 | L.T. 5. E 01 | L.T. 4. E 01 |
| CS-137 | 2.60±0.45 E 02 | 2.12±0.39 E 02 |
| LA-140/BA-140 | L.T. 6. E 01 | L.T. 8. E 01 |
| CE-141 | L.T. 7. E 01 | L.T. 6. E 01 |
| CE-144 | L.T. 3. E 02 | L.T. 2. E 02 |
| RA-226 | 1.52±0.65 E 03 | 2.24±0.52 E 03 |
| TH-228 | 1.06±0.11 E 03 | 1.16±0.12 E 03 |

WOLF CREEK NUCLEAR OPERATING CORPORATION
EXPOSURE PATHWAY - AQUATIC

VEGETATION - AQUATIC

(pCi/KG WET)

STATION NUMBER DC

| | | |
|-----------------|----------------|----------------|
| DATE COLLECTED: | 05/15 ALGAE | 08/25 ALGAE |
|-----------------|----------------|----------------|

GAMMA SPECTRUM ANALYSIS:

| | | |
|---------------|----------------|----------------|
| BE-7 | 8.44±0.84 E 02 | 5.70±0.57 E 02 |
| K-40 | 2.00±0.20 E 03 | 1.43±0.14 E 03 |
| MN-54 | 1.69±0.38 E 01 | 1.76±0.34 E 01 |
| CO-58 | 1.92±0.19 E 02 | 6.87±0.69 E 01 |
| FE-59 | L.T. 1. E 01 | L.T. 9. E 00 |
| CO-60 | 1.18±0.12 E 02 | 1.45±0.15 E 02 |
| ZN-65 | L.T. 1. E 01 | L.T. 9. E 00 |
| NB-95/ZR-95 | 2.07±0.74 E 01 | L.T. 5. E 00 |
| RU-103 | L.T. 5. E 00 | L.T. 5. E 00 |
| RU-106 | L.T. 4. E 01 | L.T. 4. E 01 |
| I-131 | L.T. 7. E 00 | L.T. 8. E 00 |
| CS-134 | L.T. 7. E 00 | L.T. 6. E 00 |
| CS-137 | 6.19±0.62 E 01 | 4.73±0.48 E 01 |
| LA-140/BA-140 | L.T. 6. E 00 | L.T. 6. E 00 |
| CE-141 | L.T. 8. E 00 | L.T. 8. E 00 |
| CE-144 | L.T. 3. E 01 | L.T. 3. E 01 |
| RA-226 | 4.31±0.83 E 02 | 2.83±0.66 E 02 |
| TH-228 | 1.94±0.19 E 02 | 1.54±0.15 E 02 |
| NB-95 | 3.17±0.36 E 01 | |

WOLF CREEK NUCLEAR OPERATING CORPORATION
EXPOSURE PATHWAY - AQUATIC

VEGETATION - AQUATIC

(pCi/KG WET)

STATION NUMBER ALT DC

DATE COLLECTED: 08/25
 AM LOTUS

GAMMA SPECTRUM ANALYSIS:

| | | |
|---------------|-----------|------|
| BE-7 | 1.84±0.77 | E 02 |
| K-40 | 2.20±0.22 | E 03 |
| MN-54 | L.T. 1. | E 01 |
| CO-58 | L.T. 1. | E 01 |
| FE-59 | L.T. 3. | E 01 |
| CO-60 | L.T. 1. | E 01 |
| ZN-65 | L.T. 3. | E 01 |
| NB-95/ZR-95 | L.T. 1. | E 01 |
| RU-103 | L.T. 1. | E 01 |
| RU-106 | L.T. 1. | E 02 |
| I-131 | L.T. 2. | E 01 |
| CS-134 | L.T. 1. | E 01 |
| CS-137 | L.T. 1. | E 01 |
| LA-140/BA-140 | L.T. 2. | E 01 |
| CE-141 | L.T. 2. | E 01 |
| CE-144 | L.T. 6. | E 01 |
| RA-226 | L.T. 2. | E 02 |
| TH-228 | L.T. 2. | E 01 |

WOLF CREEK NUCLEAR OPERATING CORPORATION
EXPOSURE PATHWAY - AQUATIC

VEGETATION - AQUATIC

(pCi/KG WET)

STATION NUMBER EEA

DATE COLLECTED: 06/15
ARROWHEAD

GAMMA SPECTRUM ANALYSIS:

| | | |
|---------------|-----------|------|
| BE-7 | 1.83±0.68 | E 02 |
| K-40 | 3.70±0.37 | E 03 |
| MN-54 | LT. 1. | E 01 |
| CO-58 | LT. 1. | E 01 |
| FE-59 | LT. 2. | E 01 |
| CO-60 | LT. 1. | E 01 |
| ZN-65 | LT. 2. | E 01 |
| NB-95/ZR-95 | LT. 1. | E 01 |
| RU-103 | LT. 1. | E 01 |
| RU-106 | LT. 9. | E 01 |
| I-131 | LT. 2. | E 01 |
| CS-134 | LT. 1. | E 01 |
| CS-137 | 1.65±0.84 | E 01 |
| LA-140/BA-140 | LT. 2. | E 01 |
| CE-141 | LT. 2. | E 01 |
| CE-144 | LT. 6. | E 01 |
| RA-226 | 2.43±1.25 | E 02 |
| TH-228 | 1.54±0.15 | E 02 |

WOLF CREEK NUCLEAR OPERATING CORPORATION
EXPOSURE PATHWAY - AQUATIC

VEGETATION - AQUATIC

(pCi/KG WET)

STATION NUMBER MUDS

DATE COLLECTED: 10/11
PONDWEED

GAMMA SPECTRUM ANALYSIS:

| | | |
|---------------|-----------|------|
| BE-7 | L.T. 1. | E 02 |
| K-40 | 2.19±0.22 | E 03 |
| MN-54 | L.T. 1. | E 01 |
| CO-58 | L.T. 1. | E 01 |
| FE-59 | L.T. 2. | E 01 |
| CO-60 | L.T. 1. | E 01 |
| ZN-65 | L.T. 2. | E 01 |
| NB-95/ZR-95 | L.T. 1. | E 01 |
| RU-103 | L.T. 1. | E 01 |
| RU-106 | L.T. 1. | E 02 |
| I-131 | L.T. 2. | E 01 |
| CS-134 | L.T. 1. | E 01 |
| CS-137 | L.T. 1. | E 01 |
| LA-140/BA-140 | L.T. 2. | E 01 |
| CE-141 | L.T. 2. | E 01 |
| CE-144 | L.T. 7. | E 01 |
| RA-226 | L.T. 2. | E 02 |
| TH-228 | L.T. 2. | E 01 |

**WOLF CREEK NUCLEAR OPERATING CORPORATION
EXPOSURE PATHWAY - TERRESTRIAL**

VEGETATION - TERRESTRIAL

(pCi/KG WET)

STATION NUMBER MUDS

| | | |
|-----------------|-------------|-------------|
| DATE COLLECTED: | 06/15 | 10/16 |
| | TERRESTRIAL | TERRESTRIAL |

GAMMA SPECTRUM ANALYSIS:

| | | |
|---------------|----------------|----------------|
| BE-7 | 3.04±0.30 E 03 | 3.12±0.35 E 03 |
| K-40 | 4.16±0.42 E 03 | 4.77±0.48 E 03 |
| MN-54 | L.T. 2. E 01 | L.T. 4. E 01 |
| CO-58 | L.T. 2. E 01 | L.T. 4. E 01 |
| FE-59 | L.T. 4. E 01 | L.T. 9. E 01 |
| CO-60 | L.T. 2. E 01 | L.T. 4. E 01 |
| ZN-65 | L.T. 4. E 01 | L.T. 9. E 01 |
| NB-95/ZR-95 | L.T. 2. E 01 | L.T. 4. E 01 |
| RU-103 | L.T. 2. E 01 | L.T. 4. E 01 |
| RU-106 | L.T. 2. E 02 | L.T. 3. E 02 |
| I-131 | L.T. 4. E 01 | L.T. 8. E 01 |
| CS-134 | L.T. 2. E 01 | L.T. 4. E 01 |
| CS-137 | L.T. 2. E 01 | L.T. 4. E 01 |
| LA-140/BA-140 | L.T. 3. E 01 | L.T. 6. E 01 |
| CE-141 | L.T. 3. E 01 | L.T. 6. E 01 |
| CE-144 | L.T. 1. E 02 | L.T. 2. E 02 |
| RA-226 | L.T. 4. E 02 | L.T. 7. E 02 |
| TH-228 | L.T. 4. E 01 | L.T. 6. E 01 |

**WOLF CREEK NUCLEAR OPERATING CORPORATION
EXPOSURE PATHWAY - TERRESTRIAL**

VEGETATION - TERRESTRIAL

(pCi/KG WET)

STATION NUMBER EEA

| | | |
|-----------------|-------------|-------------|
| DATE COLLECTED: | 06/15 | 10/16 |
| | TERRESTRIAL | TERRESTRIAL |

GAMMA SPECTRUM ANALYSIS:

| | | |
|---------------|----------------|----------------|
| BE-7 | 1.53±0.16 E 03 | 1.39±0.15 E 03 |
| K-40 | 3.80±0.38 E 03 | 7.04±0.70 E 03 |
| MN-54 | LT. 2. E 01 | LT. 2. E 01 |
| CO-58 | LT. 2. E 01 | LT. 2. E 01 |
| FE-59 | LT. 4. E 01 | LT. 4. E 01 |
| CO-60 | LT. 2. E 01 | LT. 2. E 01 |
| ZN-65 | LT. 4. E 01 | LT. 4. E 01 |
| NB-95/ZR-95 | LT. 2. E 01 | LT. 2. E 01 |
| RU-103 | LT. 2. E 01 | LT. 2. E 01 |
| RU-106 | LT. 2. E 02 | LT. 1. E 02 |
| I-131 | LT. 4. E 01 | LT. 3. E 01 |
| CS-134 | LT. 2. E 01 | LT. 2. E 01 |
| CS-137 | LT. 2. E 01 | LT. 2. E 01 |
| LA-140/BA-140 | LT. 3. E 01 | LT. 2. E 01 |
| CE-141 | LT. 3. E 01 | LT. 2. E 01 |
| CE-144 | LT. 1. E 02 | LT. 9. E 01 |
| RA-226 | LT. 3. E 02 | LT. 3. E 02 |
| TH-228 | LT. 3. E 01 | LT. 3. E 01 |

WOLF CREEK NUCLEAR OPERATING CORPORATION
EXPOSURE PATHWAY - WATERBORNE

DRINKING WATER

(PCI/LITER)

STATION NUMBER BW15

| DATE COLLECTED: | 01/03-02/07 | 02/07-03/07 | 03/07-04/04 | 04/04-05/02 | 04/04-05/02* |
|-----------------|-------------|-------------|-------------|-------------|--------------|
|-----------------|-------------|-------------|-------------|-------------|--------------|

RADIOCHEMICAL ANALYSIS:

| | | | | | | | | | | |
|-------|---------------|------|---------------|------|---------------|------|---------------|------|---------------|------|
| CR-B | 6.4 ± 1.3 | E 00 | 7.7 ± 1.4 | E 00 | 6.6 ± 1.2 | E 00 | 5.9 ± 1.7 | E 00 | 6.7 ± 1.8 | E 00 |
| I-131 | L.T. 6. | E-01 | L.T. 3. | E-01 | L.T. 5. | E-01 | L.T. 1. | E 00 | L.T. 1. | E 00 |

GAMMA SPECTRUM ANALYSIS:

| | | | | | | | | | | |
|---------------|---------|------|---------|------|---------|------|---------|------|---------|------|
| BE-7 | L.T. 3. | E 01 | L.T. 3. | E 01 | L.T. 3. | E 01 | L.T. 5. | E 01 | L.T. 2. | E 01 |
| K-40 | L.T. 8. | E 01 | L.T. 9. | E 01 | L.T. 9. | E 01 | L.T. 7. | E 01 | L.T. 5. | E 01 |
| MN-54 | L.T. 3. | E 00 | L.T. 3. | E 00 | L.T. 3. | E 00 | L.T. 4. | E 00 | L.T. 3. | E 00 |
| CO-58 | L.T. 3. | E 00 | L.T. 3. | E 00 | L.T. 3. | E 00 | L.T. 4. | E 00 | L.T. 3. | E 00 |
| FE-59 | L.T. 7. | E 00 | L.T. 7. | E 00 | L.T. 7. | E 00 | L.T. 1. | E 01 | L.T. 6. | E 00 |
| CO-60 | L.T. 3. | E 00 | L.T. 3. | E 00 | L.T. 4. | E 00 | L.T. 5. | E 00 | L.T. 3. | E 00 |
| ZN-65 | L.T. 8. | E 00 | L.T. 7. | E 00 | L.T. 7. | E 00 | L.T. 9. | E 00 | L.T. 5. | E 00 |
| NB-95/ZR-95 | L.T. 3. | E 00 | L.T. 3. | E 00 | L.T. 3. | E 00 | L.T. 5. | E 00 | L.T. 3. | E 00 |
| RU-103 | L.T. 4. | E 00 | L.T. 4. | E 00 | L.T. 4. | E 00 | L.T. 6. | E 00 | L.T. 3. | E 00 |
| RU-106 | L.T. 3. | E 01 | L.T. 3. | E 01 | L.T. 3. | E 01 | L.T. 4. | E 01 | L.T. 2. | E 01 |
| I-131 | L.T. 5. | E 00 | L.T. 5. | E 00 | L.T. 5. | E 00 | L.T. 1. | E 01 | L.T. 7. | E 00 |
| CS-134 | L.T. 4. | E 00 | L.T. 4. | E 00 | L.T. 4. | E 00 | L.T. 5. | E 00 | L.T. 3. | E 00 |
| CS-137 | L.T. 4. | E 00 | L.T. 4. | E 00 | L.T. 4. | E 00 | L.T. 5. | E 00 | L.T. 4. | E 00 |
| LA-140/BA-140 | L.T. 4. | E 00 | L.T. 4. | E 00 | L.T. 4. | E 00 | L.T. 1. | E 01 | L.T. 5. | E 00 |
| CE-141 | L.T. 7. | E 00 | L.T. 5. | E 00 | L.T. 6. | E 00 | L.T. 1. | E 01 | L.T. 6. | E 00 |
| CE-144 | L.T. 3. | E 01 | L.T. 2. | E 01 | L.T. 2. | E 01 | L.T. 3. | E 01 | L.T. 2. | E 01 |
| RA-226 | L.T. 8. | E 01 | L.T. 7. | E 01 | L.T. 7. | E 01 | L.T. 1. | E 02 | L.T. 6. | E 01 |
| TH-228 | L.T. 6. | E 00 | L.T. 6. | E 00 | L.T. 6. | E 00 | L.T. 9. | E 00 | L.T. 5. | E 00 |

| | |
|-------------------|-------------|
| TRITIUM ANALYSIS: | 01/03-04/04 |
|-------------------|-------------|

| | | |
|-----|---------|------|
| H-3 | L.T. 3. | E 02 |
|-----|---------|------|

*Duplicate analysis

**WOLF CREEK NUCLEAR OPERATING CORPORATION
EXPOSURE PATHWAY - WATERBORNE**

DRINKING WATER

(PCI/LITER)

STATION NUMBER BW15

| DATE COLLECTED: | 05/02-06/06 | 05/02-06/06* | 06/06-07/05 | 07/05-08/02 | 08/02-09/05 | | | | | |
|---------------------------------|-------------|--------------|-------------|-------------|-------------|------|-----------|------|-------------|------|
| RADIOCHEMICAL ANALYSIS: | | | | | | | | | | |
| GR-B | 6.5 ± 1.7 | E 00 | 4.3 ± 1.6 | E 00 | 5.8 ± 1.2 | E 00 | 7.9 ± 1.3 | E 00 | 7.1 ± 1.3 | E 00 |
| I-131 | L.T. 8. | E-01 | L.T. 1. | E 00 | L.T. 1. | E-01 | L.T. 5. | E-01 | L.T. 8. | E-01 |
| GAMMA SPECTRUM ANALYSIS: | | | | | | | | | | |
| BE-7 | L.T. 3. | E 01 | L.T. 3. | E 01 | L.T. 3. | E 01 | L.T. 3. | E 01 | L.T. 2. | E 01 |
| K-40 | L.T. 5. | E 01 | L.T. 5. | E 01 | L.T. 8. | E 01 | L.T. 8. | E 01 | L.T. 5. | E 01 |
| MN-54 | L.T. 3. | E 00 | L.T. 3. | E 00 | L.T. 4. | E 00 | L.T. 3. | E 00 | L.T. 3. | E 00 |
| CO-58 | L.T. 3. | E 00 | L.T. 3. | E 00 | L.T. 4. | E 00 | L.T. 3. | E 00 | L.T. 3. | E 00 |
| FE-59 | L.T. 7. | E 00 | L.T. 7. | E 00 | L.T. 7. | E 00 | L.T. 6. | E 00 | L.T. 5. | E 00 |
| CO-60 | L.T. 3. | E 00 | L.T. 3. | E 00 | L.T. 3. | E 00 | L.T. 3. | E 00 | L.T. 3. | E 00 |
| ZN-65 | L.T. 6. | E 00 | L.T. 7. | E 00 | L.T. 7. | E 00 | L.T. 7. | E 00 | L.T. 5. | E 00 |
| NB-95/ZR-95 | L.T. 3. | E 00 | L.T. 3. | E 00 | L.T. 4. | E 00 | L.T. 3. | E 00 | L.T. 3. | E 00 |
| RU-103 | L.T. 4. | E 00 | L.T. 4. | E 00 | L.T. 4. | E 00 | L.T. 3. | E 00 | L.T. 3. | E 00 |
| RU-106 | L.T. 3. | E 01 | L.T. 3. | E 01 | L.T. 3. | E 01 | L.T. 3. | E 01 | L.T. 3. | E 01 |
| I-131 | L.T. 8. | E 00 | L.T. 1. | E 01 | L.T. 7. | E 00 | L.T. 5. | E 00 | L.T. 4. | E 00 |
| CS-134 | L.T. 3. | E 00 | L.T. 3. | E 00 | L.T. 4. | E 00 | L.T. 3. | E 00 | L.T. 3. | E 00 |
| CS-137 | L.T. 4. | E 00 | L.T. 5. | E 00 | L.T. 4. | E 00 | L.T. 3. | E 00 | L.T. 4. | E 00 |
| LA-140/BA-140 | L.T. 5. | E 00 | L.T. 8. | E 00 | L.T. 5. | E 00 | L.T. 4. | E 00 | L.T. 4. | E 00 |
| CE-141 | L.T. 7. | E 00 | L.T. 7. | E 00 | L.T. 5. | E 00 | L.T. 6. | E 00 | L.T. 5. | E 00 |
| CE-144 | L.T. 3. | E 01 | L.T. 3. | E 01 | L.T. 2. | E 01 | L.T. 2. | E 01 | L.T. 2. | E 01 |
| RA-226 | L.T. 7. | E 01 | L.T. 7. | E 01 | L.T. 7. | E 01 | L.T. 7. | E 01 | L.T. 6. | E 01 |
| TH-228 | L.T. 6. | E 00 | L.T. 6. | E 00 | L.T. 7. | E 00 | L.T. 6. | E 00 | L.T. 5. | E 00 |
| TRITIUM ANALYSIS: | | | | | | | | | | |
| | | 04/04-07/05 | | | | | | | 07/08-10/03 | |
| H-3 | | L.T. 2. | E 02 | | | | | | L.T. 2. | E 02 |

*Duplicate analysis

**WOLF CREEK NUCLEAR OPERATING CORPORATION
EXPOSURE PATHWAY - WATERBORNE**

DRINKING WATER

IPCI/LINTER

STATION NUMBER BW15

卷之三

10/03-11/07 11/07-12/05

09/05-10/03

DATE COLLECTED:

RADIOCHEMICAL ANALYSIS:

GB-B

11-11

GAMMA SPECTRUM ANALYSIS

BE-7

R-40

卷之三

FE-59

CO-60

NID OF 17B OF

RU-103

RU-106

CS 124

CS-137

LA-140/EA-140

CE-114

RA-226

III-228

LITHIUM ANALYSIS

三
工

10/03-01/03

L.T. 2. E.02

WOLF CREEK NUCLEAR OPERATING CORPORATION
EXPOSURE PATHWAY - WATERBORNE

DRINKING WATER

(PCI/LITER)

STATION NUMBER LW40

| DATE COLLECTED: | 01/03-02/07 | 02/07-03/07 | 03/07-04/04 | 04/04-05/02 | 05/02-06/06 | | | | | |
|---------------------------------|-------------|-------------|-------------|-------------|-------------|------|-------------|------|-----------|------|
| RADIOCHEMICAL ANALYSIS: | | | | | | | | | | |
| GR-B | 6.3 ± 1.4 | E 00 | 4.8 ± 1.3 | E 00 | 7.0 ± 1.3 | E 00 | 6.3 ± 1.9 | E 00 | 4.5 ± 1.6 | E 00 |
| I-131 | L.T. 8. | E-01 | L.T. 5. | E-01 | L.T. 5. | E-01 | L.T. 6. | E-01 | L.T. 5. | E-01 |
| GAMMA SPECTRUM ANALYSIS: | | | | | | | | | | |
| BE-7 | L.T. 3. | E 01 | L.T. 3. | E 01 | L.T. 4. | E 01 | L.T. 2. | E 01 | L.T. 3. | E 01 |
| K-40 | L.T. 6. | E 01 | L.T. 5. | E 01 | L.T. 1. | E 02 | L.T. 5. | E 01 | L.T. 9. | E 01 |
| MN-54 | L.T. 3. | E 00 | L.T. 3. | E 00 | L.T. 4. | E 00 | L.T. 3. | E 00 | L.T. 3. | E 00 |
| CO-58 | L.T. 3. | E 00 | L.T. 3. | E 00 | L.T. 4. | E 00 | L.T. 3. | E 00 | L.T. 3. | E 00 |
| FE-59 | L.T. 6. | E 00 | L.T. 6. | E 00 | L.T. 9. | E 00 | L.T. 5. | E 00 | L.T. 8. | E 00 |
| CO-60 | L.T. 3. | E 00 | L.T. 3. | E 00 | L.T. 4. | E 00 | L.T. 3. | E 00 | L.T. 3. | E 00 |
| ZN-65 | L.T. 7. | E 00 | L.T. 6. | E 00 | L.T. 1. | E 01 | L.T. 5. | E 00 | L.T. 7. | E 00 |
| NB-95/ZR-95 | L.T. 3. | E 00 | L.T. 3. | E 00 | L.T. 4. | E 00 | L.T. 3. | E 00 | L.T. 4. | E 00 |
| RU-103 | L.T. 4. | E 00 | L.T. 3. | E 00 | L.T. 5. | E 00 | L.T. 3. | E 00 | L.T. 4. | E 00 |
| RU-106 | L.T. 3. | E 01 | L.T. 3. | E 01 | L.T. 4. | E 01 | L.T. 2. | E 01 | L.T. 3. | E 01 |
| I-131 | L.T. 5. | E 00 | L.T. 6. | E 00 | L.T. 6. | E 00 | L.T. 7. | E 00 | L.T. 8. | E 00 |
| CS-134 | L.T. 3. | E 00 | L.T. 3. | E 00 | L.T. 5. | E 00 | L.T. 3. | E 00 | L.T. 4. | E 00 |
| CS-137 | L.T. 4. | E 00 | L.T. 4. | E 00 | L.T. 5. | E 00 | L.T. 4. | E 00 | L.T. 4. | E 00 |
| LA-140/BA-140 | L.T. 4. | E 00 | L.T. 5. | E 00 | L.T. 5. | E 00 | L.T. 5. | E 00 | L.T. 5. | E 00 |
| CE-141 | L.T. 6. | E 00 | L.T. 6. | E 00 | L.T. 8. | E 00 | L.T. 6. | E 00 | L.T. 6. | E 00 |
| CE-144 | L.T. 3. | E 01 | L.T. 2. | E 01 | L.T. 3. | E 01 | L.T. 2. | E 01 | L.T. 2. | E 01 |
| RA-226 | L.T. 7. | E 01 | L.T. 7. | E 01 | L.T. 9. | E 01 | L.T. 6. | E 01 | L.T. 7. | E 01 |
| TH-228 | L.T. 6. | E 00 | L.T. 7. | E 00 | L.T. 8. | E 00 | L.T. 5. | E 00 | L.T. 7. | E 00 |
| TRITIUM ANALYSIS: | | | | | | | | | | |
| | 01/03-04/04 | | | | | | 04/04-07/05 | | | |
| H-3 | L.T. 3. | E 02 | | | | | L.T. 2. | E 02 | | |

WOLF CREEK NUCLEAR OPERATING CORPORATION
EXPOSURE PATHWAY - WATERBORNE

DRINKING WATER

(PCI/LITER)

STATION NUMBER LW40

| DATE COLLECTED: | 06/06-07/05 | 07/05-08/02 | 08/02-09/05 | 09/05-10/03 | 10/03-11/07 |
|-----------------|-------------|-------------|-------------|-------------|-------------|
|-----------------|-------------|-------------|-------------|-------------|-------------|

RADIOCHEMICAL ANALYSIS:

| | | | | | | | | | | |
|-------|-----------|------|-----------|------|-----------|------|-----------|------|-----------|------|
| GR-B | 5.4 ± 1.2 | E 00 | 5.1 ± 1.1 | E 00 | 6.8 ± 1.4 | E 00 | 7.6 ± 1.4 | E 00 | 1.1 ± 0.2 | E 01 |
| I-131 | LT. 2. | E-01 | LT. 5. | E-01 | LT. 7. | E-01 | LT. 4. | E-01 | LT. 2. | E-01 |

GAMMA SPECTRUM ANALYSIS:

| | | | | | | | | | | |
|---------------|--------|------|--------|------|--------|------|--------|------|--------|------|
| BE-7 | LT. 3. | E 01 | LT. 3. | E 01 | LT. 3. | E 01 | LT. 2. | E 01 | LT. 3. | E 01 |
| K-40 | LT. 8. | E 01 | LT. 6. | E 01 | LT. 5. | E 01 | LT. 5. | E 01 | LT. 5. | E 01 |
| MN-54 | LT. 4. | E 00 | LT. 3. | E 00 |
| CO-58 | LT. 4. | E 00 | LT. 3. | E 00 | LT. 3. | E 00 | LT. 2. | E 00 | LT. 3. | E 00 |
| FE-59 | LT. 7. | E 00 | LT. 6. | E 00 | LT. 6. | E 00 | LT. 5. | E 00 | LT. 6. | E 00 |
| CO-60 | LT. 3. | E 00 |
| ZN-65 | LT. 7. | E 00 | LT. 7. | E 00 | LT. 6. | E 00 | LT. 6. | E 00 | LT. 6. | E 00 |
| NB-95/ZR-95 | LT. 4. | E 00 | LT. 3. | E 00 |
| RU-103 | LT. 4. | E 00 | LT. 4. | E 00 | LT. 3. | E 00 | LT. 3. | E 00 | LT. 3. | E 00 |
| RU-106 | LT. 3. | E 01 | LT. 3. | E 01 | LT. 3. | E 01 | LT. 2. | E 01 | LT. 3. | E 01 |
| I-131 | LT. 7. | E 00 | LT. 6. | E 00 | LT. 4. | E 00 | LT. 5. | E 00 | LT. 4. | E 00 |
| CS-134 | LT. 4. | E 00 | LT. 4. | E 00 | LT. 3. | E 00 | LT. 3. | E 00 | LT. 3. | E 00 |
| CS-137 | LT. 4. | E 00 | LT. 3. | E 00 | LT. 4. | E 00 | LT. 3. | E 00 | LT. 3. | E 00 |
| LA-140/BA-140 | LT. 5. | E 00 | LT. 5. | E 00 | LT. 4. | E 00 | LT. 4. | E 00 | LT. 3. | E 00 |
| CE-141 | LT. 6. | E 00 |
| CE-144 | LT. 2. | E 01 | LT. 3. | E 01 | LT. 2. | E 01 | LT. 2. | E 01 | LT. 3. | E 01 |
| RA-226 | LT. 7. | E 01 | LT. 7. | E 01 | LT. 7. | E 01 | LT. 6. | E 01 | LT. 8. | E 01 |
| TH-228 | LT. 7. | E 00 | LT. 6. | E 00 | LT. 6. | E 00 | LT. 5. | E 00 | LT. 6. | E 00 |

| | |
|-------------------|-------------|
| TRITIUM ANALYSIS: | 07/08-10/03 |
|-------------------|-------------|

**WOLF CREEK NUCLEAR OPERATING CORPORATION
EXPOSURE PATHWAY - WATERBORNE**

DRINKING WATER

(PCI/LITER)

STATION NUMBER LW40

DATE COLLECTED: 11/07-12/05 12/05-01/03

RADIOCHEMICAL ANALYSIS:

| | | | | |
|-------|-----------|------|-----------|------|
| GR-B | 8.6 ± 1.6 | E 00 | 7.3 ± 1.5 | E 00 |
| I-131 | L.T. 5. | E-01 | L.T. 5. | E-01 |

GAMMA SPECTRUM ANALYSIS:

| | | | | |
|---------------|---------|------|---------|------|
| BE-7 | L.T. 2. | E 01 | L.T. 3. | E 01 |
| K-40 | L.T. 4. | E 01 | L.T. 5. | E 01 |
| MN-54 | L.T. 2. | E 00 | L.T. 3. | E 00 |
| CO-58 | L.T. 2. | E 00 | L.T. 3. | E 00 |
| FE-59 | L.T. 4. | E 00 | L.T. 7. | E 00 |
| CO-60 | L.T. 3. | E 00 | L.T. 3. | E 00 |
| ZN-65 | L.T. 5. | E 00 | L.T. 7. | E 00 |
| NB-95/ZR-95 | L.T. 3. | E 00 | L.T. 3. | E 00 |
| RU-103 | L.T. 3. | E 00 | L.T. 3. | E 00 |
| RU-106 | L.T. 2. | E 01 | L.T. 3. | E 01 |
| I-131 | L.T. 3. | E 00 | L.T. 6. | E 00 |
| CS-134 | L.T. 2. | E 00 | L.T. 3. | E 00 |
| CS-137 | L.T. 3. | E 00 | L.T. 4. | E 00 |
| LA-140/BA-140 | L.T. 3. | E 00 | L.T. 6. | E 00 |
| CE-141 | L.T. 5. | E 00 | L.T. 7. | E 00 |
| CE-144 | L.T. 2. | E 01 | L.T. 3. | E 01 |
| RA-226 | L.T. 5. | E 01 | L.T. 7. | E 01 |
| TH-228 | L.T. 4. | E 00 | L.T. 7. | E 00 |

TRITIUM ANALYSIS: 10/03-01/03

H-3 L.T. 2. E 02

WOLF CREEK NUCLEAR OPERATING CORPORATION
EXPOSURE PATHWAY - WATERBORNE

GROUND WATER

(PCI/LITER)

STATION NUMBER B-12

| | | | | |
|-----------------|-------|-------|-------|-------|
| DATE COLLECTED: | 02/22 | 05/16 | 08/22 | 11/21 |
|-----------------|-------|-------|-------|-------|

RADIOCHEMICAL ANALYSIS:

| | | | | | | | | |
|-------|---------|------|---------|------|---------|------|---------|------|
| I-131 | L.T. 2. | E-01 | L.T. 2. | E-01 | L.T. 3. | E-01 | L.T. 2. | E-01 |
|-------|---------|------|---------|------|---------|------|---------|------|

GAMMA SPECTRUM ANALYSIS:

| | | | | | | | | |
|---------------|---------|------|---------|------|---------|------|---------|------|
| BE-7 | L.T. 3. | E 01 |
| K-40 | L.T. 5. | E 01 | L.T. 1. | E 02 | L.T. 6. | E 01 | L.T. 8. | E 01 |
| MN-54 | L.T. 3. | E 00 | L.T. 4. | E 00 | L.T. 3. | E 00 | L.T. 3. | E 00 |
| CO-58 | L.T. 3. | E 00 | L.T. 4. | E 00 | L.T. 3. | E 00 | L.T. 3. | E 00 |
| FE-59 | L.T. 7. | E 00 | L.T. 8. | E 00 | L.T. 6. | E 00 | L.T. 6. | E 00 |
| CO-60 | L.T. 3. | E 00 | L.T. 4. | E 00 | L.T. 3. | E 00 | L.T. 3. | E 00 |
| ZN-65 | L.T. 7. | E 00 |
| NB-95/ZR-95 | L.T. 3. | E 00 | L.T. 4. | E 00 | L.T. 3. | E 00 | L.T. 3. | E 00 |
| RU-103 | L.T. 3. | E 00 | L.T. 4. | E 00 | L.T. 3. | E 00 | L.T. 4. | E 00 |
| RU-106 | L.T. 3. | E 01 | L.T. 4. | E 01 | L.T. 3. | E 01 | L.T. 3. | E 01 |
| I-131 | L.T. 4. | E 00 | L.T. 7. | E 00 | L.T. 4. | E 00 | L.T. 6. | E 00 |
| CS-134 | L.T. 3. | E 00 | L.T. 4. | E 00 | L.T. 3. | E 00 | L.T. 3. | E 00 |
| CS-137 | L.T. 3. | E 00 | L.T. 4. | E 00 | L.T. 4. | E 00 | L.T. 4. | E 00 |
| LA-140/BA-140 | L.T. 4. | E 00 | L.T. 6. | E 00 | L.T. 5. | E 00 | L.T. 4. | E 00 |
| CE-141 | L.T. 5. | E 00 | L.T. 6. | E 00 | L.T. 6. | E 00 | L.T. 5. | E 00 |
| CE-144 | L.T. 2. | E 01 | L.T. 2. | E 01 | L.T. 3. | E 01 | L.T. 2. | E 01 |
| RA-226 | L.T. 7. | E 01 | L.T. 8. | E 01 | L.T. 8. | E 01 | L.T. 6. | E 01 |
| TH-228 | L.T. 6. | E 00 | L.T. 8. | E 00 | L.T. 7. | E 00 | L.T. 6. | E 00 |

TRITIUM ANALYSIS:

| | | | | | | | | |
|-----|---------|------|---------|------|---------|------|---------|------|
| H-3 | L.T. 2. | E 02 | L.T. 3. | E 02 | L.T. 3. | E 02 | L.T. 2. | E 02 |
|-----|---------|------|---------|------|---------|------|---------|------|

WOLF CREEK NUCLEAR OPERATING CORPORATION
EXPOSURE PATHWAY - WATERBORNE

GROUND WATER

(PCI/LITER)

STATION NUMBER C-10

| | | | | |
|-----------------|-------|-------|-------|-------|
| DATE COLLECTED: | 02/22 | 05/16 | 08/22 | 11/21 |
|-----------------|-------|-------|-------|-------|

RADIOCHEMICAL ANALYSIS:

| | | | | | | | | |
|-------|---------|------|---------|------|---------|------|---------|------|
| I-131 | L.T. 2. | E-01 | L.T. 2. | E-01 | L.T. 4. | E-01 | L.T. 2. | E-01 |
|-------|---------|------|---------|------|---------|------|---------|------|

GAMMA SPECTRUM ANALYSIS:

| | | | | | | | | |
|---------------|---------|------|---------|------|---------|------|---------|------|
| BE-7 | L.T. 3. | E 01 |
| K-40 | L.T. 9. | E 01 | L.T. 1. | E 02 | L.T. 6. | E 01 | L.T. 6. | E 01 |
| MN-54 | L.T. 3. | E 00 | L.T. 3. | E 00 | L.T. 3. | E 00 | L.T. 4. | E 00 |
| CO-58 | L.T. 3. | E 00 |
| FE-59 | L.T. 7. | E 00 | L.T. 8. | E 00 | L.T. 6. | E 00 | L.T. 8. | E 00 |
| CO-60 | L.T. 4. | E 00 | L.T. 3. | E 00 | L.T. 3. | E 00 | L.T. 4. | E 00 |
| ZN-65 | L.T. 7. | E 00 |
| NB-95/ZR-95 | L.T. 3. | E 00 | L.T. 4. | E 00 | L.T. 4. | E 00 | L.T. 3. | E 00 |
| RU-103 | L.T. 4. | E 00 |
| RU-106 | L.T. 3. | E 01 |
| I-131 | L.T. 4. | E 00 | L.T. 7. | E 00 | L.T. 5. | E 00 | L.T. 7. | E 00 |
| CS-134 | L.T. 4. | E 00 | L.T. 4. | E 00 | L.T. 4. | E 00 | L.T. 3. | E 00 |
| CS-137 | L.T. 4. | E 00 |
| LA-140/BA-140 | L.T. 4. | E 00 | L.T. 6. | E 00 | L.T. 4. | E 00 | L.T. 7. | E 00 |
| CE-141 | L.T. 5. | E 00 | L.T. 7. | E 00 | L.T. 7. | E 00 | L.T. 8. | E 00 |
| CE-144 | L.T. 2. | E 01 | L.T. 3. | E 01 | L.T. 3. | E 01 | L.T. 3. | E 01 |
| RA-226 | L.T. 7. | E 01 | L.T. 8. | E 01 | L.T. 9. | E 01 | L.T. 8. | E 01 |
| TH-228 | L.T. 6. | E 00 | L.T. 7. | E 00 | L.T. 8. | E 00 | L.T. 8. | E 00 |

TRITIUM ANALYSIS:

| | | | | | | | | |
|-----|---------|------|---------|------|---------|------|---------|------|
| H-3 | L.T. 2. | E 02 | L.T. 3. | E 02 | L.T. 3. | E 02 | L.T. 2. | E 02 |
|-----|---------|------|---------|------|---------|------|---------|------|

**WOLF CREEK NUCLEAR OPERATING CORPORATION
EXPOSURE PATHWAY - WATERBORNE**

GROUND WATER

(PCI/LITER)

STATION NUMBER C-49

| | | | | |
|-----------------|-------|-------|-------|-------|
| DATE COLLECTED: | 02/22 | 05/16 | 08/22 | 11/21 |
|-----------------|-------|-------|-------|-------|

RADIOCHEMICAL ANALYSIS:

| | | | | | | | | |
|-------|---------|------|---------|------|---------|------|---------|------|
| I-131 | L.T. 2. | E-01 | L.T. 2. | E-01 | L.T. 3. | E-01 | L.T. 2. | E-01 |
|-------|---------|------|---------|------|---------|------|---------|------|

GAMMA SPECTRUM ANALYSIS:

| | | | | | | | | |
|---------------|---------|------|---------|------|---------|------|---------|------|
| BE-7 | L.T. 4. | E 01 | L.T. 3. | E 01 | L.T. 3. | E 01 | L.T. 3. | E 01 |
| K-40 | L.T. 1. | E 02 | L.T. 9. | E 01 | L.T. 5. | E 01 | L.T. 8. | E 01 |
| MN-54 | L.T. 4. | E 00 | L.T. 4. | E 00 | L.T. 3. | E 00 | L.T. 3. | E 00 |
| CO-58 | L.T. 4. | E 00 | L.T. 4. | E 00 | L.T. 3. | E 00 | L.T. 3. | E 00 |
| FE-59 | L.T. 9. | E 00 | L.T. 7. | E 00 | L.T. 6. | E 00 | L.T. 7. | E 00 |
| CO-60 | L.T. 5. | E 00 | L.T. 3. | E 00 | L.T. 3. | E 00 | L.T. 3. | E 00 |
| ZN-65 | L.T. 1. | E 01 | L.T. 7. | E 00 | L.T. 6. | E 00 | L.T. 8. | E 00 |
| NB-95/ZR-95 | L.T. 6. | E 00 | L.T. 4. | E 00 | L.T. 4. | E 00 | L.T. 4. | E 00 |
| RU-103 | L.T. 5. | E 00 | L.T. 4. | E 00 | L.T. 3. | E 00 | L.T. 4. | E 00 |
| RU-106 | L.T. 4. | E 01 | L.T. 4. | E 01 | L.T. 3. | E 01 | L.T. 3. | E 01 |
| I-131 | L.T. 6. | E 00 | L.T. 7. | E 00 | L.T. 4. | E 00 | L.T. 6. | E 00 |
| CS-134 | L.T. 5. | E 00 | L.T. 4. | E 00 | L.T. 3. | E 00 | L.T. 3. | E 00 |
| CS-137 | L.T. 5. | E 00 | L.T. 4. | E 00 | L.T. 4. | E 00 | L.T. 4. | E 00 |
| LA-140/BA-140 | L.T. 5. | E 00 | L.T. 5. | E 00 | L.T. 4. | E 00 | L.T. 4. | E 00 |
| CE-141 | L.T. 7. | E 00 | L.T. 7. | E 00 | L.T. 6. | E 00 | L.T. 6. | E 00 |
| CE-144 | L.T. 3. | E 01 | L.T. 3. | E 01 | L.T. 3. | E 01 | L.T. 2. | E 01 |
| RA-226 | L.T. 9. | E 01 | L.T. 9. | E 01 | L.T. 7. | E 01 | L.T. 7. | E 01 |
| TH-228 | L.T. 9. | E 00 | L.T. 7. | E 00 | L.T. 7. | E 00 | L.T. 6. | E 00 |

TRITIUM ANALYSIS:

| | | | | | | | | |
|-----|---------|------|---------|------|---------|------|---------|------|
| H-3 | L.T. 2. | E 02 | L.T. 3. | E 02 | L.T. 2. | E 02 | L.T. 2. | E 02 |
|-----|---------|------|---------|------|---------|------|---------|------|

WOLF CREEK NUCLEAR OPERATING CORPORATION
EXPOSURE PATHWAY - WATERBORNE

GROUND WATER

(PCI/LITER)

STATION NUMBER D-65

| DATE COLLECTED: | 02/22 | 05/16 | 08/22 | 11/21 |
|---------------------------------|--------------|--------------|--------------|--------------|
| RADIOCHEMICAL ANALYSIS: | | | | |
| I-131 | L.T. 2. E-01 | L.T. 2. E-01 | L.T. 4. E-01 | L.T. 2. E-01 |
| GAMMA SPECTRUM ANALYSIS: | | | | |
| BE-7 | L.T. 3. E 01 | L.T. 4. E 01 | L.T. 2. E 01 | L.T. 3. E 01 |
| K-40 | L.T. 5. E 01 | L.T. 1. E 02 | L.T. 5. E 01 | L.T. 5. E 01 |
| MN-54 | L.T. 3. E 00 | L.T. 4. E 00 | L.T. 2. E 00 | L.T. 3. E 00 |
| CO-58 | L.T. 3. E 00 | L.T. 4. E 00 | L.T. 2. E 00 | L.T. 2. E 00 |
| FE-59 | L.T. 7. E 00 | L.T. 8. E 00 | L.T. 5. E 00 | L.T. 5. E 00 |
| CO-60 | L.T. 4. E 00 | L.T. 4. E 00 | L.T. 3. E 00 | L.T. 3. E 00 |
| ZN-65 | L.T. 8. E 00 | L.T. 9. E 00 | L.T. 5. E 00 | L.T. 6. E 00 |
| NB-95/ZR-95 | L.T. 3. E 00 | L.T. 4. E 00 | L.T. 3. E 00 | L.T. 3. E 00 |
| RU-103 | L.T. 4. E 00 | L.T. 4. E 00 | L.T. 3. E 00 | L.T. 3. E 00 |
| RU-106 | L.T. 3. E 01 | L.T. 4. E 01 | L.T. 2. E 01 | L.T. 3. E 01 |
| I-131 | L.T. 6. E 00 | L.T. 7. E 00 | L.T. 4. E 00 | L.T. 5. E 00 |
| CS-134 | L.T. 4. E 00 | L.T. 5. E 00 | L.T. 3. E 00 | L.T. 3. E 00 |
| CS-137 | L.T. 4. E 00 | L.T. 5. E 00 | L.T. 4. E 00 | L.T. 3. E 00 |
| LA-140/BA-140 | L.T. 5. E 00 | L.T. 6. E 00 | L.T. 3. E 00 | L.T. 4. E 00 |
| CE-141 | L.T. 8. E 00 | L.T. 7. E 00 | L.T. 5. E 00 | L.T. 6. E 00 |
| CE-144 | L.T. 3. E 01 | L.T. 3. E 01 | L.T. 2. E 01 | L.T. 2. E 01 |
| RA-226 | L.T. 9. E 01 | L.T. 9. E 01 | L.T. 6. E 01 | L.T. 7. E 01 |
| TH-228 | L.T. 7. E 00 | L.T. 8. E 00 | L.T. 5. E 00 | L.T. 6. E 00 |
| TRITIUM ANALYSIS: | | | | |
| H-3 | L.T. 2. E 02 | L.T. 3. E 02 | L.T. 3. E 02 | L.T. 2. E 02 |

**WOLF CREEK NUCLEAR OPERATING CORPORATION
EXPOSURE PATHWAY - WATERBORNE**

GROUND WATER

(PCI/LITER)

STATION NUMBER F-20

(DUPLICATE SAMPLES FROM STATION NUMBER B-12)

| | | | | | |
|-----------------|-------|-------|-------|-------|--------|
| DATE COLLECTED: | 02/22 | 05/16 | 08/22 | 11/21 | 11/21* |
|-----------------|-------|-------|-------|-------|--------|

RADIOCHEMICAL ANALYSIS:

| | | | | | | | | | | |
|-------|---------|------|---------|------|---------|------|---------|------|---------|------|
| I-131 | L.T. 2. | E-01 | L.T. 2. | E-01 | L.T. 4. | E-01 | L.T. 4. | E-01 | L.T. 4. | E-01 |
|-------|---------|------|---------|------|---------|------|---------|------|---------|------|

GAMMA SPECTRUM ANALYSIS:

| | | | | | | | | | | |
|---------------|---------|------|---------|------|---------|------|---------|------|---------|------|
| BE-7 | L.T. 3. | E 01 | L.T. 3. | E 01 | L.T. 3. | E 01 | L.T. 4. | E 01 | L.T. 5. | E 01 |
| K-40 | L.T. 7. | E 01 | L.T. 8. | E 01 | L.T. 5. | E 01 | L.T. 1. | E 02 | L.T. 2. | E 02 |
| MN-54 | L.T. 4. | E 00 | L.T. 4. | E 00 | L.T. 3. | E 00 | L.T. 4. | E 00 | L.T. 5. | E 00 |
| CO-58 | L.T. 4. | E 00 | L.T. 4. | E 00 | L.T. 2. | E 00 | L.T. 4. | E 00 | L.T. 5. | E 00 |
| FE-59 | L.T. 8. | E 00 | L.T. 7. | E 00 | L.T. 6. | E 00 | L.T. 8. | E 00 | L.T. 1. | E 01 |
| CO-60 | L.T. 4. | E 00 | L.T. 3. | E 00 | L.T. 3. | E 00 | L.T. 4. | E 00 | L.T. 5. | E 00 |
| ZN-65 | L.T. 8. | E 00 | L.T. 7. | E 00 | L.T. 6. | E 00 | L.T. 8. | E 00 | L.T. 1. | E 01 |
| NB-95/ZR-95 | L.T. 4. | E 00 | L.T. 4. | E 00 | L.T. 3. | E 00 | L.T. 4. | E 00 | L.T. 5. | E 00 |
| RU-103 | L.T. 5. | E 00 | L.T. 4. | E 00 | L.T. 3. | E 00 | L.T. 4. | E 00 | L.T. 6. | E 00 |
| RU-106 | L.T. 4. | E 01 | L.T. 3. | E 01 | L.T. 2. | E 01 | L.T. 4. | E 01 | L.T. 5. | E 01 |
| I-131 | L.T. 7. | E 00 | L.T. 7. | E 00 | L.T. 5. | E 00 | L.T. 7. | E 00 | L.T. 1. | E 01 |
| CS-134 | L.T. 4. | E 00 | L.T. 4. | E 00 | L.T. 3. | E 00 | L.T. 5. | E 00 | L.T. 6. | E 00 |
| CS-137 | L.T. 4. | E 00 | L.T. 4. | E 00 | L.T. 3. | E 00 | L.T. 4. | E 00 | L.T. 6. | E 00 |
| LA-140/BA-140 | L.T. 6. | E 00 | L.T. 5. | E 00 | L.T. 4. | E 00 | L.T. 6. | E 00 | L.T. 7. | E 00 |
| CE-141 | L.T. 9. | E 00 | L.T. 6. | E 00 | L.T. 6. | E 00 | L.T. 6. | E 00 | L.T. 9. | E 00 |
| CE-144 | L.T. 4. | E 01 | L.T. 2. | E 01 | L.T. 3. | E 01 | L.T. 2. | E 01 | L.T. 4. | E 01 |
| RA-226 | L.T. 1. | E 02 | L.T. 8. | E 01 | L.T. 7. | E 01 | L.T. 7. | E 01 | L.T. 1. | E 02 |
| TH-228 | L.T. 9. | E 00 | L.T. 7. | E 00 | L.T. 6. | E 00 | L.T. 6. | E 00 | L.T. 8. | E 00 |

TRITIUM ANALYSIS:

| | | | | | | | | | | |
|-----|---------|------|---------|------|---------|------|---------|------|---------|------|
| H-3 | L.T. 2. | E 02 | L.T. 3. | E 02 | L.T. 2. | E 02 | L.T. 2. | E 02 | L.T. 2. | E 02 |
|-----|---------|------|---------|------|---------|------|---------|------|---------|------|

*Duplicate Analysis

WOLF CREEK NUCLEAR OPERATING CORPORATION
EXPOSURE PATHWAY - WATERBORNE

SURFACE WATER

(PCI/LITER)

STATION NUMBER MUSH

| DATE COLLECTED | 01/17 | 02/22 | 02/22* | 03/21 | 04/25 |
|----------------|-------|-------|--------|-------|-------|
|----------------|-------|-------|--------|-------|-------|

GAMMA SPECTRUM ANALYSIS:

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| | | | | | | | | | | |
|---------------|--------|------|--------|------|--------|------|--------|------|--------|------|
| BE-7 | LT. 3. | E 01 | LT. 3. | E 01 | LT. 3. | E 01 | LT. 4. | E 01 | LT. 3. | E 01 |
| K-40 | LT. 5. | E 01 | LT. 1. | E 02 | LT. 7. | E 01 | LT. 7. | E 01 | LT. 9. | E 01 |
| MN-54 | LT. 3. | E 00 | LT. 4. | E 00 | LT. 3. | E 00 | LT. 4. | E 00 | LT. 3. | E 00 |
| CO-58 | LT. 3. | E 00 | LT. 4. | E 00 | LT. 3. | E 00 | LT. 4. | E 00 | LT. 3. | E 00 |
| FE-59 | LT. 7. | E 00 | LT. 8. | E 00 | LT. 6. | E 00 | LT. 7. | E 00 | LT. 7. | E 00 |
| CO-60 | LT. 4. | E 00 | LT. 4. | E 00 | LT. 3. | E 00 | LT. 4. | E 00 | LT. 3. | E 00 |
| ZN-65 | LT. 7. | E 00 | LT. 8. | E 00 | LT. 7. | E 00 | LT. 7. | E 00 | LT. 7. | E 00 |
| NB-95/ZR-95 | LT. 3. | E 00 | LT. 4. | E 00 | LT. 3. | E 00 | LT. 4. | E 00 | LT. 3. | E 00 |
| RU-103 | LT. 3. | E 00 | LT. 4. | E 00 |
| RU-106 | LT. 3. | E 01 |
| I-131 | LT. 4. | E 00 | LT. 6. | E 00 | LT. 6. | E 00 | LT. 5. | E 00 | LT. 5. | E 00 |
| CS-134 | LT. 4. | E 00 | LT. 4. | E 00 | LT. 3. | E 00 | LT. 4. | E 00 | LT. 4. | E 00 |
| CS-137 | LT. 4. | E 00 |
| LA-140/BA-140 | LT. 4. | E 00 | LT. 5. | E 00 | LT. 4. | E 00 | LT. 5. | E 00 | LT. 4. | E 00 |
| CE-141 | LT. 6. | E 00 | LT. 6. | E 00 | LT. 6. | E 00 | LT. 8. | E 00 | LT. 6. | E 00 |
| CE-144 | LT. 2. | E 01 | LT. 2. | E 01 | LT. 2. | E 01 | LT. 4. | E 01 | LT. 2. | E 01 |
| RA-226 | LT. 7. | E 01 | LT. 7. | E 01 | LT. 7. | E 01 | LT. 1. | E 02 | LT. 7. | E 01 |
| TH-228 | LT. 7. | E 00 | LT. 6. | E 00 | LT. 6. | E 00 | LT. 9. | E 00 | LT. 6. | E 00 |

TRITIUM ANALYSIS:

| | | | | | | | | | | |
|-----|--------|------|--------|------|--------|------|--------|------|--------|------|
| H-3 | LT. 2. | E 02 |
|-----|--------|------|--------|------|--------|------|--------|------|--------|------|

*Duplicate analysis

WOLF CREEK NUCLEAR OPERATING CORPORATION
EXPOSURE PATHWAY - WATERBORNE

SURFACE WATER

(PCI/LITER)

STATION NUMBER MUSH

DATE COLLECTED:

GAMMA SPECTRUM ANALYSIS:

| | 05/16 | 06/20 | 07/11 | 08/22 | 09/19 |
|---------------|---------|-------|---------|-------|---------|
| BE-7 | L.T. 3. | E 01 | L.T. 3. | E 01 | L.T. 3. |
| K-40 | L.T. 5. | E 01 | L.T. 5. | E 01 | L.T. 6. |
| MN-54 | L.T. 3. | E 00 | L.T. 3. | E 00 | L.T. 3. |
| CO-58 | L.T. 3. | E 00 | L.T. 2. | E 00 | L.T. 4. |
| FE-59 | L.T. 6. | E 00 | L.T. 5. | E 00 | L.T. 8. |
| CO-60 | L.T. 3. | E 00 | L.T. 3. | E 00 | L.T. 4. |
| ZN-65 | L.T. 6. | E 00 | L.T. 5. | E 00 | L.T. 8. |
| NB-95/ZR-95 | L.T. 3. | E 00 | L.T. 3. | E 00 | L.T. 4. |
| RU-103 | L.T. 4. | E 00 | L.T. 3. | E 00 | L.T. 5. |
| RU-106 | L.T. 3. | E 01 | L.T. 2. | E 01 | L.T. 3. |
| I-131 | L.T. 7. | E 00 | L.T. 5. | E 00 | L.T. 9. |
| CS-134 | L.T. 3. | E 00 | L.T. 3. | E 00 | L.T. 4. |
| CS-137 | L.T. 5. | E 00 | L.T. 4. | E 00 | L.T. 4. |
| LA-140/BA-140 | L.T. 5. | E 00 | L.T. 4. | E 00 | L.T. 7. |
| CE-141 | L.T. 6. | E 00 | L.T. 6. | E 00 | L.T. 7. |
| CE-144 | L.T. 2. | E 01 | L.T. 2. | E 01 | L.T. 3. |
| RA-226 | L.T. 7. | E 01 | L.T. 6. | E 01 | L.T. 7. |
| TH-228 | L.T. 6. | E 00 | L.T. 6. | E 00 | L.T. 6. |

TRITIUM ANALYSIS:

| | | | | | | |
|-----|---------|------|---------|------|---------|------|
| H-3 | L.T. 2. | E 02 | L.T. 2. | E 02 | L.T. 3. | E 02 |
| | | | | | L.T. 2. | E 02 |

**WOLF CREEK NUCLEAR OPERATING CORPORATION
EXPOSURE PATHWAY - WATERBORNE**

SURFACE WATER

(PCI/LITER)

STATION NUMBER MUSH

| | | | |
|-----------------|-------|-------|-------|
| DATE COLLECTED: | 10/24 | 11/21 | 12/20 |
|-----------------|-------|-------|-------|

GAMMA SPECTRUM ANALYSIS:

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| | | | | | | |
|---------------|---------|------|---------|------|---------|------|
| BE-7 | L.T. 3. | E 01 | L.T. 3. | E 01 | L.T. 3. | E 01 |
| K-40 | L.T. 5. | E 01 | L.T. 6. | E 01 | L.T. 9. | E 01 |
| MN-54 | L.T. 3. | E 00 | L.T. 4. | E 00 | L.T. 3. | E 00 |
| CO-58 | L.T. 3. | E 00 | L.T. 3. | E 00 | L.T. 3. | E 00 |
| FE-59 | L.T. 6. | E 00 | L.T. 8. | E 00 | L.T. 6. | E 00 |
| CO-60 | L.T. 3. | E 00 | L.T. 3. | E 00 | L.T. 3. | E 00 |
| ZN-65 | L.T. 7. | E 00 | L.T. 8. | E 00 | L.T. 6. | E 00 |
| NB-95/ZR-95 | L.T. 3. | E 00 | L.T. 4. | E 00 | L.T. 3. | E 00 |
| RU-103 | L.T. 3. | E 00 | L.T. 4. | E 00 | L.T. 3. | E 00 |
| RU-106 | L.T. 3. | E 01 | L.T. 3. | E 01 | L.T. 3. | E 01 |
| I-131 | L.T. 4. | E 00 | L.T. 7. | E 00 | L.T. 5. | E 00 |
| CS-134 | L.T. 3. | E 00 | L.T. 4. | E 00 | L.T. 3. | E 00 |
| CS-137 | L.T. 3. | E 00 | L.T. 4. | E 00 | L.T. 3. | E 00 |
| LA-140/BA-140 | L.T. 4. | E 00 | L.T. 7. | E 00 | L.T. 4. | E 00 |
| CE-141 | L.T. 5. | E 00 | L.T. 7. | E 00 | L.T. 5. | E 00 |
| CE-144 | L.T. 2. | E 01 | L.T. 3. | E 01 | L.T. 2. | E 01 |
| RA-226 | L.T. 7. | E 01 | L.T. 8. | E 01 | L.T. 6. | E 01 |
| TH-228 | L.T. 6. | E 00 | L.T. 7. | E 00 | L.T. 5. | E 00 |

TRITIUM ANALYSIS:

| | | | | | | |
|-----|---------|------|---------|------|---------|------|
| H-3 | L.T. 2. | E 02 | L.T. 2. | E 02 | L.T. 2. | E 02 |
|-----|---------|------|---------|------|---------|------|

WOLF CREEK NUCLEAR OPERATING CORPORATION
EXPOSURE PATHWAY - WATERBORNE

SURFACE WATER

(PCI/LITER)

STATION NUMBER DC

| DATE COLLECTED: | 01/17 | 02/22 | 03/21 | 04/25 | 05/16 |
|-----------------|-------|-------|-------|-------|-------|
|-----------------|-------|-------|-------|-------|-------|

GAMMA SPECTRUM ANALYSIS:

| | | | | | | | | | | |
|---------------|--------|------|--------|------|--------|------|--------|------|--------|------|
| BE-7 | LT. 3. | E 01 |
| K-40 | LT. 9. | E 01 | LT. 5. | E 01 | LT. 1. | E 02 | LT. 5. | E 01 | LT. 8. | E 01 |
| MN-54 | LT. 4. | E 00 | LT. 3. | E 00 | LT. 4. | E 00 | LT. 3. | E 00 | LT. 3. | E 00 |
| CO-58 | LT. 4. | E 00 | LT. 3. | E 00 | LT. 4. | E 00 | LT. 3. | E 00 | LT. 3. | E 00 |
| FE-59 | LT. 7. | E 00 | LT. 6. | E 00 | LT. 8. | E 00 | LT. 7. | E 00 | LT. 7. | E 00 |
| CO-60 | LT. 4. | E 00 | LT. 3. | E 00 | LT. 4. | E 00 | LT. 3. | E 00 | LT. 3. | E 00 |
| ZN-65 | LT. 8. | E 00 | LT. 6. | E 00 | LT. 8. | E 00 | LT. 6. | E 00 | LT. 6. | E 00 |
| NB-95/ZR-95 | LT. 4. | E 00 | LT. 3. | E 00 | LT. 4. | E 00 | LT. 3. | E 00 | LT. 3. | E 00 |
| RU-103 | LT. 4. | E 00 | LT. 3. | E 00 | LT. 4. | E 00 | LT. 3. | E 00 | LT. 4. | E 00 |
| RU-106 | LT. 3. | E 01 |
| I-131 | LT. 5. | E 00 | LT. 7. | E 00 |
| CS-134 | LT. 4. | E 00 | LT. 3. | E 00 | LT. 4. | E 00 | LT. 3. | E 00 | LT. 4. | E 00 |
| CS-137 | LT. 4. | E 00 |
| LA-140/BA-140 | LT. 4. | E 00 | LT. 4. | E 00 | LT. 5. | E 00 | LT. 5. | E 00 | LT. 4. | E 00 |
| CE-141 | LT. 6. | E 00 | LT. 6. | E 00 | LT. 5. | E 00 | LT. 6. | E 00 | LT. 6. | E 00 |
| CE-144 | LT. 2. | E 01 |
| RA-226 | LT. 7. | E 01 | LT. 7. | E 01 | LT. 7. | E 01 | LT. 8. | E 01 | LT. 8. | E 01 |
| TH-228 | LT. 6. | E 00 | LT. 6. | E 00 | LT. 6. | E 00 | LT. 7. | E 00 | LT. 7. | E 00 |

TRITIUM ANALYSIS:

| | | | | | | | | | | |
|-----|-----------|------|-----------|------|-----------|------|-----------|------|-----------|------|
| H-3 | 9.7 ± 0.3 | E 03 | 1.1 ± 0.1 | E 04 | 9.5 ± 0.3 | E 03 | 1.2 ± 0.1 | E 04 | 1.1 ± 0.1 | E 04 |
|-----|-----------|------|-----------|------|-----------|------|-----------|------|-----------|------|

WOLF CREEK NUCLEAR OPERATING CORPORATION
EXPOSURE PATHWAY - WATERBORNE

SURFACE WATER

(PCI/LITER)

STATION NUMBER DC

| DATE COLLECTED: | 06/20 | 07/11 | 08/22 | 09/19 | 10/24 |
|-----------------|-------|-------|-------|-------|-------|
|-----------------|-------|-------|-------|-------|-------|

GAMMA SPECTRUM ANALYSIS:

| | | | | | | | | | | |
|---------------|---------|------|---------|------|---------|------|---------|------|---------|------|
| BE-7 | L.T. 4. | E 01 | L.T. 4. | E 01 | L.T. 3. | E 01 | L.T. 3. | E 01 | L.T. 3. | E 01 |
| K-40 | L.T. 1. | E 02 | L.T. 1. | E 02 | L.T. 9. | E 01 | L.T. 6. | E 01 | L.T. 6. | E 01 |
| MN-54 | L.T. 4. | E 00 | L.T. 4. | E 00 | L.T. 3. | E 00 | L.T. 3. | E 00 | L.T. 3. | E 00 |
| CO-58 | L.T. 5. | E 00 | L.T. 5. | E 00 | L.T. 3. | E 00 | L.T. 3. | E 00 | L.T. 3. | E 00 |
| FE-59 | L.T. 1. | E 01 | L.T. 1. | E 01 | L.T. 7. | E 00 | L.T. 6. | E 00 | L.T. 7. | E 00 |
| CO-60 | L.T. 4. | E 00 | L.T. 4. | E 00 | L.T. 3. | E 00 | L.T. 4. | E 00 | L.T. 4. | E 00 |
| ZN-65 | L.T. 1. | E 01 | L.T. 1. | E 01 | L.T. 7. | E 00 | L.T. 7. | E 00 | L.T. 8. | E 00 |
| NB-95/ZR-95 | L.T. 5. | E 00 | L.T. 5. | E 00 | L.T. 3. | E 00 | L.T. 4. | E 00 | L.T. 3. | E 00 |
| RU-103 | L.T. 5. | E 00 | L.T. 5. | E 00 | L.T. 3. | E 00 | L.T. 4. | E 00 | L.T. 4. | E 00 |
| RU-106 | L.T. 4. | E 01 | L.T. 4. | E 01 | L.T. 3. | E 01 | L.T. 3. | E 01 | L.T. 3. | E 01 |
| I-131 | L.T. 9. | E 00 | L.T. 1. | E 01 | L.T. 5. | E 00 | L.T. 5. | E 00 | L.T. 5. | E 00 |
| CS-134 | L.T. 5. | E 00 | L.T. 5. | E 00 | L.T. 4. | E 00 | L.T. 3. | E 00 | L.T. 4. | E 00 |
| CS-137 | L.T. 5. | E 00 | L.T. 5. | E 00 | L.T. 4. | E 00 | L.T. 3. | E 00 | L.T. 4. | E 00 |
| LA-140/BA-140 | L.T. 7. | E 00 | L.T. 7. | E 00 | L.T. 5. | E 00 | L.T. 4. | E 00 | L.T. 4. | E 00 |
| CE-141 | L.T. 9. | E 00 | L.T. 8. | E 00 | L.T. 5. | E 00 | L.T. 7. | E 00 | L.T. 6. | E 00 |
| CE-144 | L.T. 3. | E 01 | L.T. 3. | E 01 | L.T. 2. | E 01 | L.T. 3. | E 01 | L.T. 2. | E 01 |
| RA-226 | L.T. 9. | E 01 | L.T. 8. | E 01 | L.T. 6. | E 01 | L.T. 8. | E 01 | L.T. 7. | E 01 |
| TH-228 | L.T. 8. | E 00 | L.T. 7. | E 00 | L.T. 6. | E 00 | L.T. 7. | E 00 | L.T. 6. | E 00 |

TRITIUM ANALYSIS:

| | | | | | |
|-----|----------------|----------------|----------------|----------------|----------------|
| H-3 | 9.5 ± 0.4 E 03 | 9.7 ± 0.4 E 03 | 8.3 ± 0.3 E 03 | 9.3 ± 0.4 E 03 | 1.2 ± 0.1 E 04 |
|-----|----------------|----------------|----------------|----------------|----------------|

WOLF CREEK NUCLEAR OPERATING CORPORATION
EXPOSURE PATHWAY - WATERBORNE

SURFACE WATER

(PCI/LITER)

STATION NUMBER DC

DATE COLLECTED: 11/21 12/20

GAMMA SPECTRUM ANALYSIS:

| | | | | |
|---------------|---------|------|---------|------|
| BE-7 | L.T. 5. | E 01 | L.T. 3. | E 01 |
| K-40 | L.T. 9. | E 01 | L.T. 6. | E 01 |
| MN-54 | L.T. 4. | E 00 | L.T. 3. | E 00 |
| CO-58 | L.T. 5. | E 00 | L.T. 3. | E 00 |
| FE-59 | L.T. 9. | E 00 | L.T. 6. | E 00 |
| CO-60 | L.T. 5. | E 00 | L.T. 4. | E 00 |
| ZN-65 | L.T. 1. | E 01 | L.T. 6. | E 00 |
| NB-95/ZR-95 | L.T. 5. | E 00 | L.T. 4. | E 00 |
| RU-103 | L.T. 6. | E 00 | L.T. 4. | E 00 |
| RU-106 | L.T. 4. | E 01 | L.T. 3. | E 01 |
| I-131 | L.T. 1. | E 01 | L.T. 7. | E 00 |
| CS-134 | L.T. 5. | E 00 | L.T. 4. | E 00 |
| CS-137 | L.T. 5. | E 00 | L.T. 4. | E 00 |
| LA-140/BA-140 | L.T. 8. | E 00 | L.T. 6. | E 00 |
| CE-141 | L.T. 1. | E 01 | L.T. 8. | E 00 |
| CE-144 | L.T. 5. | E 01 | L.T. 3. | E 01 |
| RA-226 | L.T. 1. | E 02 | L.T. 1. | E 02 |
| TH-228 | L.T. 1. | E 01 | L.T. 8. | E 00 |

TRITIUM ANALYSIS:

H-3 1.2 ± 0.1 E 04 9.3 ± 0.3 E 03

WOLF CREEK NUCLEAR OPERATING CORPORATION
EXPOSURE PATHWAY - WATERBORNE

SURFACE WATER

(PCI/LITER)

STATION NUMBER SP

| DATE COLLECTED: | 01/17 | 02/22 | 03/21 | 04/25 | 05/16 |
|-----------------|-------|-------|-------|-------|-------|
|-----------------|-------|-------|-------|-------|-------|

GAMMA SPECTRUM ANALYSIS:

| | | | | | | | | | | |
|----------------|--------|------|--------|------|--------|------|--------|------|--------|------|
| BE-7 | LT. 4. | E 01 | LT. 2. | E 01 | LT. 3. | E 01 | LT. 3. | E 01 | LT. 4. | E 01 |
| K-40 | LT. 1. | E 02 | LT. 5. | E 01 | LT. 6. | E 01 | LT. 9. | E 01 | LT. 1. | E 02 |
| MN-54 | LT. 4. | E 00 | LT. 3. | E 00 | LT. 3. | E 00 | LT. 3. | E 00 | LT. 4. | E 00 |
| P CO-58 | LT. 4. | E 00 | LT. 3. | E 00 | LT. 3. | E 00 | LT. 3. | E 00 | LT. 4. | E 00 |
| G FE-59 | LT. 9. | E 00 | LT. 5. | E 00 | LT. 6. | E 00 | LT. 7. | E 00 | LT. 8. | E 00 |
| D CO-60 | LT. 4. | E 00 | LT. 3. | E 00 | LT. 3. | E 00 | LT. 3. | E 00 | LT. 4. | E 00 |
| B ZN-65 | LT. 1. | E 01 | LT. 6. | E 00 | LT. 6. | E 00 | LT. 7. | E 00 | LT. 8. | E 00 |
| CO NB-95/ZR-95 | LT. 4. | E 00 | LT. 3. | E 00 | LT. 3. | E 00 | LT. 3. | E 00 | LT. 4. | E 00 |
| RU-103 | LT. 5. | E 00 | LT. 3. | E 00 | LT. 3. | E 00 | LT. 4. | E 00 | LT. 4. | E 00 |
| RU-106 | LT. 4. | E 01 | LT. 2. | E 01 | LT. 3. | E 01 | LT. 3. | E 01 | LT. 4. | E 01 |
| I-131 | LT. 6. | E 00 | LT. 5. | E 00 | LT. 4. | E 00 | LT. 5. | E 00 | LT. 8. | E 00 |
| CS-134 | LT. 5. | E 00 | LT. 3. | E 00 | LT. 3. | E 00 | LT. 3. | E 00 | LT. 5. | E 00 |
| CS-137 | LT. 5. | E 00 | LT. 4. | E 00 |
| LA-140/BA-140 | LT. 5. | E 00 | LT. 4. | E 00 | LT. 4. | E 00 | LT. 4. | E 00 | LT. 6. | E 00 |
| CE-141 | LT. 7. | E 00 | LT. 5. | E 00 | LT. 6. | E 00 | LT. 5. | E 00 | LT. 7. | E 00 |
| CE-144 | LT. 3. | E 01 | LT. 2. | E 01 | LT. 2. | E 01 | LT. 2. | E 01 | LT. 3. | E 01 |
| RA-226 | LT. 9. | E 01 | LT. 6. | E 01 | LT. 7. | E 01 | LT. 6. | E 01 | LT. 8. | E 01 |
| TH-228 | LT. 7. | E 00 | LT. 5. | E 00 | LT. 6. | E 00 | LT. 6. | E 00 | LT. 7. | E 00 |

TRITIUM ANALYSIS:

| | | | | | |
|-----|----------------|----------------|----------------|----------------|----------------|
| H-3 | 9.8 ± 0.3 E 03 | 9.9 ± 0.3 E 03 | 9.4 ± 0.3 E 03 | 1.2 ± 0.1 E 04 | 1.1 ± 0.1 E 04 |
|-----|----------------|----------------|----------------|----------------|----------------|

**WOLF CREEK NUCLEAR OPERATING CORPORATION
EXPOSURE PATHWAY - WATERBORNE**

SURFACE WATER

(PCI/LITER)

STATION NUMBER SP

| DATE COLLECTED: | 06/20 | 07/11 | 08/22 | 09/19 | 09/19* |
|-----------------|-------|-------|-------|-------|--------|
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GAMMA SPECTRUM ANALYSIS:

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| | | | | | | | | | | |
|---------------|---------|------|---------|------|---------|------|---------|------|---------|------|
| BE-7 | L.T. 3. | E 01 | L.T. 3. | E 01 | L.T. 2. | E 01 | L.T. 3. | E 01 | L.T. 3. | E 01 |
| K-40 | L.T. 1. | E 02 | L.T. 7. | E 01 | L.T. 5. | E 01 | L.T. 6. | E 01 | L.T. 1. | E 02 |
| MN-54 | L.T. 4. | E 00 | L.T. 3. | E 00 | L.T. 2. | E 00 | L.T. 3. | E 00 | L.T. 3. | E 00 |
| CO-58 | L.T. 3. | E 00 | L.T. 3. | E 00 | L.T. 2. | E 00 | L.T. 4. | E 00 | L.T. 4. | E 00 |
| FE-59 | L.T. 8. | E 00 | L.T. 7. | E 00 | L.T. 5. | E 00 | L.T. 7. | E 00 | L.T. 7. | E 00 |
| CO-60 | L.T. 3. | E 00 | L.T. 3. | E 00 | L.T. 3. | E 00 | L.T. 4. | E 00 | L.T. 4. | E 00 |
| ZN-65 | L.T. 7. | E 00 | L.T. 6. | E 00 | L.T. 5. | E 00 | L.T. 6. | E 00 | L.T. 8. | E 00 |
| NB-95/ZR-95 | L.T. 4. | E 00 | L.T. 4. | E 00 | L.T. 2. | E 00 | L.T. 4. | E 00 | L.T. 4. | E 00 |
| RU-103 | L.T. 4. | E 00 | L.T. 4. | E 00 | L.T. 3. | E 00 | L.T. 4. | E 00 | L.T. 4. | E 00 |
| RU-106 | L.T. 3. | E 01 | L.T. 3. | E 01 | L.T. 2. | E 01 | L.T. 3. | E 01 | L.T. 3. | E 01 |
| I-131 | L.T. 7. | E 00 | L.T. 8. | E 00 | L.T. 4. | E 00 | L.T. 6. | E 00 | L.T. 5. | E 00 |
| CS-134 | L.T. 4. | E 00 | L.T. 3. | E 00 | L.T. 3. | E 00 | L.T. 4. | E 00 | L.T. 4. | E 00 |
| CS-137 | L.T. 4. | E 00 | L.T. 3. | E 00 | L.T. 4. | E 00 | L.T. 4. | E 00 | L.T. 4. | E 00 |
| LA-140/BA-140 | L.T. 5. | E 00 | L.T. 5. | E 00 | L.T. 4. | E 00 | L.T. 5. | E 00 | L.T. 5. | E 00 |
| CE-141 | L.T. 6. | E 00 | L.T. 6. | E 00 | L.T. 5. | E 00 | L.T. 8. | E 00 | L.T. 6. | E 00 |
| CE-144 | L.T. 2. | E 01 | L.T. 2. | E 01 | L.T. 2. | E 01 | L.T. 3. | E 01 | L.T. 2. | E 01 |
| RA-226 | L.T. 7. | E 01 | L.T. 6. | E 01 | L.T. 6. | E 01 | L.T. 1. | E 02 | L.T. 7. | E 01 |
| TH-228 | L.T. 7. | E 00 | L.T. 5. | E 00 | L.T. 6. | E 00 | L.T. 8. | E 00 | L.T. 6. | E 00 |

TRITIUM ANALYSIS:

| | | | | | |
|-----|----------------|----------------|----------------|----------------|----------------|
| H-3 | 9.6 ± 0.4 E 03 | 1.0 ± 0.1 E 04 | 8.5 ± 0.3 E 03 | 9.6 ± 0.4 E 03 | 9.5 ± 0.4 E 03 |
|-----|----------------|----------------|----------------|----------------|----------------|

*Duplicate Analysis

WOLF CREEK NUCLEAR OPERATING CORPORATION
EXPOSURE PATHWAY - WATERBORNE

SURFACE WATER

(PCI/LITER)

STATION NUMBER SP

| | | | |
|-----------------|-------|-------|-------|
| DATE COLLECTED: | 10/24 | 11/21 | 12/20 |
|-----------------|-------|-------|-------|

GAMMA SPECTRUM ANALYSIS:

P
a
g
e
8
5

| | | | | | | |
|---------------|---------|------|---------|------|---------|------|
| BE-7 | L.T. 3. | E 01 | L.T. 4. | E 01 | L.T. 3. | E 01 |
| K-40 | L.T. 9. | E 01 | L.T. 1. | E 02 | L.T. 1. | E 02 |
| MN-54 | L.T. 4. | E 00 | L.T. 4. | E 00 | L.T. 3. | E 00 |
| CO-58 | L.T. 4. | E 00 | L.T. 4. | E 00 | L.T. 4. | E 00 |
| FE-59 | L.T. 8. | E 00 | L.T. 9. | E 00 | L.T. 8. | E 00 |
| CO-60 | L.T. 3. | E 00 | L.T. 4. | E 00 | L.T. 4. | E 00 |
| ZN-65 | L.T. 8. | E 00 | L.T. 9. | E 00 | L.T. 8. | E 00 |
| NB-95/ZR-95 | L.T. 4. | E 00 | L.T. 4. | E 00 | L.T. 4. | E 00 |
| RU-103 | L.T. 4. | E 00 | L.T. 5. | E 00 | L.T. 4. | E 00 |
| RU-106 | L.T. 4. | E 01 | L.T. 4. | E 01 | L.T. 3. | E 01 |
| I-131 | L.T. 4. | E 00 | L.T. 8. | E 00 | L.T. 7. | E 00 |
| CS-134 | L.T. 4. | E 00 | L.T. 5. | E 00 | L.T. 4. | E 00 |
| CS-137 | L.T. 4. | E 00 | L.T. 4. | E 00 | L.T. 4. | E 00 |
| LA-140/BA-140 | L.T. 4. | E 00 | L.T. 6. | E 00 | L.T. 5. | E 00 |
| CE-141 | L.T. 5. | E 00 | L.T. 7. | E 00 | L.T. 6. | E 00 |
| CE-144 | L.T. 2. | E 01 | L.T. 3. | E 01 | L.T. 2. | E 01 |
| RA-226 | L.T. 8. | E 01 | L.T. 8. | E 01 | L.T. 7. | E 01 |
| TH-228 | L.T. 7. | E 00 | L.T. 7. | E 00 | L.T. 6. | E 00 |

TRITIUM ANALYSIS:

| | | | |
|-----|----------------|----------------|----------------|
| H-3 | 1.1 ± 0.1 E 04 | 1.2 ± 0.1 E 04 | 9.4 ± 0.3 E 03 |
|-----|----------------|----------------|----------------|