WOLF CREEK
NUCLEAR OPERATING CORPORATION

Richard D. Flannigan
Manager Regulatory Affairs

April 28, 2010

RA 10-0039

U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555

Subject: Docket No. 50-482: 2009 Annual Radiological Environmental Operating Report

Gentlemen:

Enclosed is the Annual Radiological Environmental Operating Report, which is being submitted pursuant to Wolf Creek Generating Station (WCGS) Technical Specification 5.6.2. This report covers radiological environmental monitoring around WCGS for the period of January 1, 2009, through December 31, 2009.

No commitments are identified in this correspondence. If you have any questions concerning this matter, please contact me at (620) 364-4117, or Ms. Diane Hooper at (620) 364-4041.

Sincerely,

Richard D. Flannigan

RDF/rlt

Enclosure: 2009 Annual Radiological Environmental Operating Report

cc: E. E. Collins (NRC), w/e
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NRR

Enclosure to Letter ET 10-0039

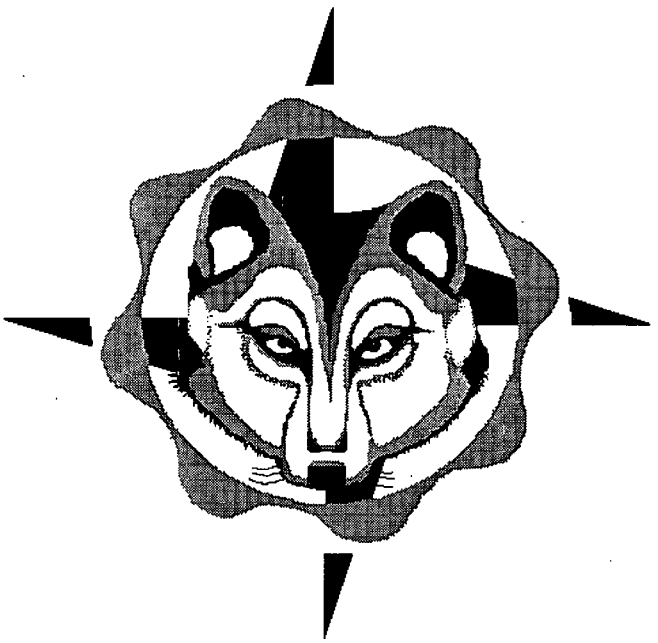
Wolf Creek Nuclear Operating Corporation
Wolf Creek Generating Station
2009 Annual Radiological
Environmental Operating Report
(150 Pages)

WOLF CREEK NUCLEAR OPERATING CORPORATION

WOLF CREEK GENERATING STATION

2009 ANNUAL RADIOLOGICAL

ENVIRONMENTAL OPERATING REPORT



April 15, 2010

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EXECUTIVE SUMMARY

Plant-related activation, corrosion or fission products were not detected during 2009 in airborne particulate and radioiodine filters, ground water, drinking water, broadleaf vegetation, shoreline sediment, crops, terrestrial vegetation, aquatic vegetation, or soil samples. Activation, corrosion or fission products attributable to plant operation were detected during 2009 in surface water, fish, deer, and bottom sediment samples.

Nuclides detected in Radiological Environmental Monitoring Program (REMP) samples were below applicable NRC reporting levels.

Based upon the radiological environmental monitoring program results, it was concluded that station operations had no significant radiological impact on the health and safety of the public or the environment.

INTRODUCTION

The 2009 Annual Radiological Environmental Operating Report for Wolf Creek Generating Station (WCGS) covers the period from January 1 through December 31, 2009. 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 REMP 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 REMP conducted by Wolf Creek Nuclear Operating Corporation (WCNOC), a discussion of monitoring program results, the revisions or changes to the program, program deviations, the Interlaboratory Comparison Program and a comparison to the Radioactive Effluents Release Program. The Interlaboratory Comparison Program results, a summary of results in the Nuclear Regulatory Commission (NRC) Branch Technical Position specified format, the individual sample results and the Land Use Census Report are included as appendices.

I. PROGRAM DESCRIPTION

Radiological environmental monitoring samples were collected according to the schedule in WCGS procedure AP 07B-004, *Offsite Dose Calculation Manual (Radiological Environmental Monitoring Program)*. Radiological environmental monitoring program samples were collected by the WCGS Environmental Management group and were analyzed by Environmental, Inc. Landauer, Inc. processed the environmental optically stimulated luminescence (OSL) dosimeters. Table 1 identifies the exposure pathway/sample type, number of samples/sample locations, sample collection frequency and type/frequency of analysis. Table 2 lists each sample location's distance and direction from the plant. Samples in addition to those required by the WCGS Offsite Dose Calculation Manual (ODCM) were also obtained and analyzed.

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

A. Airborne Pathway

Low volume air sampling pumps with digital flow meters continuously collected particulate and radioiodine samples on 47 mm glass fiber filters and charcoal canisters, respectively. The filters and charcoal canisters were changed out weekly, labeled, and shipped to Environmental, Inc. for analyses.

Gross beta analyses of the air particulate filters were performed after a nominal 72-hour period 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 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 six locations. Indicator locations 2, 37 and 49 are located in the three sectors with the highest ground level deposition constants (D/Q). Air sampling stations are also located in the community of New Strawn (indicator location 32) and a control location near the intersection of 20th Road and Yearling Road (location 53). Supplemental indicator location (location 18) was also sampled during the year. Indicator locations are shown in Figure 1 and the control location is shown in Figure 5.

B. Direct Radiation Pathway

Optically stimulated luminescence (OSL) dosimeters were used at 44 locations during the sample year to measure direct radiation. The OSLs were typically positioned roughly 3 to 4 feet above the ground in plastic thermostat boxes. Two OSLs were placed at each designated location. The OSLs were changed out quarterly. Transit dose was measured and subtracted from the ambient dose. Indicator OSL sample locations are illustrated in Figure 2 and control locations are shown in Figure 5. Control locations were 39 (Beto Junction), 48 (Harris) and 53 (near the intersection of 20th Road and Yearling Road).

C. Waterborne Pathway

All water samples were analyzed to determine whether gamma emitters were present. In addition to gamma isotopic 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 was also performed on ground water samples. Water sampling locations are shown in Figures 3 and 5.

Monthly grab samples of surface water were collected from John Redmond Reservoir (JRR) as a control location and from the "SP" location, which is located near the spillway of Coffey County Lake, formerly known as Wolf Creek Lake, as an indicator location.

Quarterly grab samples of ground water were collected from seven wells. Location B-12 is hydrologically up gradient from the site and was used as a control location. Six locations (C-10, C-49, F-1, G-2, J-1 and J-2) are hydrologically down gradient from the site and were used as indicator sample locations.

Drinking water was sampled at the water treatment facilities for the towns of Burlington (control location BW-15) and Iola (indicator location IO-DW). The Burlington facility is located upstream and the Iola facility is located downstream of the confluence of the discharge from Coffey County Lake and the Neosho River. Composite samples were obtained monthly from automatic samplers at each location that collected approximately 27 ml of drinking water every two hours.

Shoreline sediments were sampled semiannually. Gamma isotopic analyses were performed on the shoreline sediment samples. Shoreline sediment sample locations were the Coffey County Lake discharge cove (DC) indicator location and the JRR control location.

D. Ingestion Pathway

Because no sampling locations that produce milk for human consumption were identified within five miles of the plant, milk was not collected during the sample year.

Fish were sampled semiannually from the tail waters of JRR (control, Figure 4) and from Coffey County Lake (indicator, Figure 4). Gamma isotopic analyses were performed on the boneless meat portions of the fish. Several species of game fish and rough fish were sampled. Fish were also analyzed for tritium.

Broadleaf vegetation samples were collected monthly when available during the growing season from four gardens. Three indicator (H-2, N-1 and Q-6) gardens (Figure 4) and one control (D-2) garden (Figure 5) were sampled. Gamma isotopic analyses were performed on all samples.

Crop samples were obtained from two indicator locations (NR-D1 and NR-D2) downstream of the confluence of Wolf Creek and the Neosho River. Two crop samples were obtained from control location NR-U1. Gamma isotopic analysis was performed on each sample. Crop sample locations are identified on Figure 5.

E. Additional Samples Collected (not required by ODCM)

Quarterly, duplicate ground water grab samples were obtained from indicator location C-49 and were labeled L-49. These duplicate samples served as laboratory quality checks. The ground water samples were analyzed for gamma emitters, I-131 and tritium.

Bottom sediment samples were collected from indicator locations at the Coffey County Lake discharge cove (DC), Environmental Education Area (EEA), Make-Up Discharge Structure (MUDS) and the control location (JRR). Gamma isotopic analyses were performed on the bottom sediment samples. These indicator samples were collected as part of a cooperative sampling effort with the Kansas Department of Health and Environment (KDHE). The sample locations are identified on Figure 3.

Aquatic vegetation was collected from indicator locations EEA and MUDS. Gamma isotopic analyses were performed on the aquatic vegetation samples. These samples were collected as part of a cooperative sampling effort with the KDHE. The sample locations are identified on Figure 3.

Terrestrial vegetation was sampled from indicator locations EEA and MUDS. Gamma isotopic analyses were performed on the terrestrial vegetation samples. These samples were collected as part of a cooperative sampling effort with the KDHE. The sample locations are identified on Figure 4.

Soil was sampled from indicator locations MUDS and EEA. Gamma isotopic analyses were performed on the soil samples. These samples were collected as part of a cooperative sampling effort with the KDHE. The sample locations are identified on Figure 4.

Two road-killed deer were sampled from indicator locations B1.0 and R2.5. Gamma isotopic analyses and tritium analyses were performed. These samples were collected as part of a cooperative sampling effort with the KDHE. The sample locations are identified on Figure 4.

II. DISCUSSION OF RESULTS

Analysis results for all pathways are summarized in Appendix B using the format described in Radiological Assessment Branch Technical Position, Revision 1, November 1979 (NRC Generic Letter 79-065). Results for individual samples are listed in Appendix C.

In this section, results are discussed by pathway and analysis type. Monitoring results are compared with control data, preoperational values, sources of radioactivity, and effluent releases when applicable. Trends or seasonal effects are discussed.

A. Airborne Pathway

Chart 1 graphically illustrates weekly gross beta results for the sample year. Chart 2 represents the historical smoothed averages of indicator locations and the control locations gross beta data.

Charts 1 and 2 demonstrate how closely the indicator and control locations tracked together. Chart 2 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). This trend is expected and is attributed to seasonal meteorological changes, i.e., changes in prevailing winds and precipitation.

The gross beta results of 2009 were compared to pre-operational monitoring results of 1983 and 1984. The weekly gross beta analyses range for 1983 and 1984 was 0.0064 to 0.084 pCi/m^3. The 2009 weekly gross beta analyses range for indicator locations was 0.011 to 0.053 pCi/m^3, which was lower than the 1983 and 1984 pre-operational range. Additionally, the annual mean for indicator locations for 2009 (0.031 pCi/m^3) was slightly lower than the annual mean for 1983 (0.032 pCi/m^3).

The gross beta results for the indicator locations were also compared to the control location. The annual mean for indicator locations for 2009 (0.031 pCi/m^3) was the same as the annual mean of the control location (0.031 pCi/m^3). The indicator location with the highest gross beta annual mean was location 32 (0.032 pCi/m^3), which was slightly higher than the annual mean of the control location (0.031 pCi/m^3).

Naturally occurring Be-7 activity was detected, as was the case during pre-operational monitoring. In 1984, the range for Be-7 detected activity was 0.024 to 0.211 pCi/m^3 for indicator locations and the annual mean for indicator locations was 0.069 pCi/m^3. In 2009, the range for Be-7 detected activity was 0.060 to 0.122 pCi/m^3 for indicator locations and the annual mean for indicator locations was 0.093 pCi/m^3.

The control location annual mean for Be-7 detected activity (0.097 pCi/m^3) was slightly higher than the indicator locations annual mean (0.093 pCi/m^3).

I-131 activity was not detected in the weekly analysis of charcoal filters at any location.

Plant-related activation, corrosion or fission products were not detected during 2009 in airborne particulate and radioiodine filters and no unusual trends were noted.

B. Direct Radiation Pathway

Quarterly OSL dosimeter results for each location are shown in Table 3. Measured values have been converted to a standard 90-day quarter.

The annual mean of all indicator locations in 2009 was 0.132 mR/day and the annual mean for the control locations was also 0.132 mR/day. For pre-operational comparison, in 1981, the annual mean of all indicator locations was 0.21 mR/day and annual mean for the control locations was 0.19 mR/day.

The indicator location with the highest annual mean was 47 (0.194 mR/day). The close proximity of location 47 to the Radwaste Building is likely the reason direct radiation levels are higher at this location.

Chart 3 displays how closely the indicator and control location OSL dosimeter results are for 2009.

Chart 4 displays the TLD nearsite locations (1, 2, 7-9, 11-14, 18, 26, 27, 29, 30, 37 and 38) and the control locations (locations 39 and 48) for the preoperational years through 2007.

C. Waterborne Pathway

(1) Surface Water

Tritium, attributable to WCGS operation, was detected in all surface water samples collected from Coffey County Lake during 2009. Chart 5 illustrates the yearly averages of surface water tritium data for the spillway location. Chart 5 indicates that the average tritium concentration of the Coffey County Lake may have reached equilibrium.

ODCM required lower limits of detection were met and tritium activity was not detected in samples obtained from the control location (JRR).

During pre-operational radiological environmental monitoring, measured radiological activity was not detected in surface water samples.

Tritium was the only activity detected in surface water samples and no unusual trends were noted.

(2) Ground Water

ODCM required lower limits of detection were met for I-131, tritium and gamma isotopic analyses. Radioactivity was not detected in any ground water samples. No unusual trends were noted. Plant-related activation, corrosion or fission products were not detected during 2009 in ground water samples.

(3) Drinking Water

Gross beta activity was detected in all drinking water samples collected from the indicator location and the control location. The annual mean of the indicator location gross beta activity (3.1 pCi/L) was similar when compared to the annual mean of the control location gross beta activity (2.9 pCi/L). The 2009 annual means of gross beta activity for both the indicator and control locations were lower than those of the pre-operational monitoring year of 1984. In 1984, the annual mean of the indicator location gross beta activity was 7.5 pCi/L and the annual mean of the control location gross beta activity was 6.4 pCi/L.

Chart 6 illustrates the drinking water gross beta results for the last five years and how closely the gross beta results compared for the indicator and control locations.

ODCM required lower limits of detection were met. Additionally, radionuclides were not detected by the I-131, Tritium or gamma isotopic analyses.

Plant-related activation, corrosion or fission products were not detected during 2009 in drinking water samples and no unusual trends were noted.

(4) Shoreline Sediment

Naturally occurring K-40 was detected in all shoreline sediment samples. K-40 was also detected during pre-operational shoreline sediment monitoring.

Cs-137 activity was detected in both shoreline sediment samples obtained from the JRR control location. The detected Cs-137 activity at the control location was likely due to fallout. Cs-137 activity was not detected in the shoreline sediment samples obtained from the DC indicator location.

ODCM required lower limits of detection were met. Plant-related activation, corrosion or fission products were not detected during 2009 in shoreline sediment samples and no unusual trends were noted.

D. Ingestion Pathway

(1) Milk

Milk was not collected during the sample year since no indicator locations within five miles of the plant were identified during the Land Use Census.

(2) Fish

Naturally occurring K-40 activity was detected in all fish samples obtained from the CCL indicator location and the JRR control location. K-40 activity was also detected during pre-operational fish monitoring.

During 2009, fish were also analyzed for tritium. All fish samples taken from Coffey County Lake had tritium activity detected (7,764 pCi/kg annual mean). The detected tritium activity was attributable to plant operation. An adult consuming 21 kilograms of fish, at the maximum measured tritium concentration for 2009 (9,550 pCi/kg), would receive a committed effective dose equivalent of 0.013 mRem.

Tritium activity was not detected in the control samples collected from JRR.

No other radionuclides were detected in fish during the year. The ODCM required lower limits of detection were met and no unusual trends were noted.

(3) Broadleaf Vegetation

Gamma analyses of broadleaf vegetation samples obtained from indicator and control locations detected naturally occurring gamma emitters Be-7 and K-40. Be-7 and K-40 activity were also detected pre-operationally.

No other radionuclides were detected in broadleaf vegetation during the year. The ODCM required lower limits of detection were met and no unusual trends were noted. Plant-related activation, corrosion or fission products were not detected during 2009 in broadleaf vegetation samples.

(4) Crop Samples

Gamma analysis detected naturally occurring K-40 activity to be present in all of the samples. K-40 activity was also detected during pre-operational crop monitoring. K-40 was the only activity detected in crop samples. Plant-related activation, corrosion or fission products were not detected during 2009 in crop samples and no unusual trends were noted.

E. Additional Samples Collected (not required by ODCM)

(1) Bottom Sediment

Naturally occurring K-40 was detected in all of the bottom sediment samples obtained from the indicator locations and the control locations. K-40 activity was also detected during pre-operational bottom sediment monitoring.

Co-60 activity (57.9 pCi/kg) was detected in an indicator sample obtained from the Coffey County Lake discharge cove. Co-60 activity was attributable to plant operation and has been identified in plant effluents. Co-60 activity was not detected in pre-operational radiological environmental monitoring and was not detected in samples collected from control location JRR during 2009. Chart 7 plots the Co-60 detected activity from the discharge cove and reflects a decreasing trend. This downward trend is due to improvements made in the process system.

Cs-137 activity (125.5 and 169.4 pCi/kg) was detected in both of the indicator location samples obtained from the Coffey County Lake discharge cove. A portion of this activity is due to fallout and a portion of this activity is likely plant-related since Cs-134 activity has been detected in the past. Cs-137 activity was detected in pre-operational samples, and the results for 2009 indicator bottom sediment samples were within the pre-operational range. (Cs-137 activity detected in 1981 and 1982 was in the range of 79 to 953 pCi/kg. The decay corrected range of pre-operational Cs-137 activity detected is approximately 41 to 490 pCi/kg.) Cs-137 activity has been identified in plant effluents. Cs-137 activity (138.0 pCi/kg) was also detected in one control location (JRR) bottom sediment sample.

Cs-137 activity (51.3, 76.5 and 82.4 pCi/kg) was also detected in three indicator location samples obtained from the Environmental Education Area (EEA). Since the detected Cs-137 activity was lower than the detected Cs-137 activity measured at the JRR control location (138.0 pCi/kg), this activity was likely due to fallout and not attributed to plant operation.

Chart 8 plots the Cs-137 detected activity from the discharge cove indicator location and JRR control location bottom sediment samples. The detected Cs-137 activity measured from the discharge cove location reflects a decreasing trend. The Chart 8 trend line indicates that as expected, Cs-137 activity detected at the JRR control location has been decreasing.

No other radionuclides were detected in bottom sediment samples and no unusual trends were noted.

(3) Aquatic Vegetation

Naturally occurring Be-7 and K-40 activity were detected in samples collected in 2009. Be-7 and K-40 activity were also detected during pre-operational monitoring.

No other radionuclides were detected in aquatic vegetation samples. Plant-related activation, corrosion or fission products were not detected during 2009 in aquatic vegetation samples and no unusual trends were noted.

(4) Terrestrial Vegetation

Naturally occurring Be-7 and K-40 activity were detected in terrestrial vegetation indicator location samples collected in 2009. No other radionuclides were detected. Plant-related activation, corrosion or fission products were not detected during 2009 in terrestrial vegetation samples and no unusual trends were noted.

(5) Soil

Naturally occurring K-40 activity was detected in all of the indicator location soil samples. K-40 activity was also detected during pre-operational soil monitoring.

Cs-137 activity (285.2 and 405.1 pCi/kg) was also detected in two of the indicator location soil samples (EEA and MUDS). This activity is likely due to fallout. Data was reviewed for soil samples collected pre-operationally. The detected Cs-137 activity range from February of 1985 was 255 to 2,160 pCi/kg, dry. The decay corrected range of pre-operational Cs-137 activity detected in soil is approximately 143 to 1,212 pCi/kg. The range of the 2009 detected Cs-137 activity in soil is within the decay corrected pre-operational range.

Plant-related activation, corrosion or fission products were not detected during 2009 in soil samples and no unusual trends were noted.

(6) Deer

Naturally occurring K-40 activity was detected in the deer samples obtained from the two indicator locations.

The deer samples were also analyzed for tritium. The detected tritium activity (218 and 496 pCi/kg, wet) was attributable to plant operation.

One deer sample had Cs-137 activity (25.1 pCi/kg, wet) detected. This activity was likely due to fallout and not attributed to plant operation since Cs-137 activity was not detected in the broadleaf vegetation samples, the terrestrial vegetation samples, or the air particulate samples.

No other radionuclides were detected in the deer samples. No unusual trends were identified.

III. PROGRAM REVISIONS/CHANGES

Broadleaf vegetation alternate indicator location C-2 was removed from the REMP since the garden is no longer available to sample.

Alternate company-owned garden locations B-1, H-2, and R-2 were added to the REMP to enhance broadleaf vegetation sampling.

IV. PROGRAM DEVIATIONS

Air Samples

The following air sample locations failed to meet the requirement for "continuous sampler operation." As described in footnote (1) of procedure AP 07B-004, *Offsite Dose Calculation Manual (Radiological Environmental Monitoring Program)*, Table 5-1, deviations are permitted from the required sampling schedule due to malfunction of sampling equipment and other legitimate reasons. Discrepancies greater than five percent between Total Military Time and Total Digital Flow Meter Time, which resulted in a loss of air sample collected, are listed in the following table.

Location	Sample Period	Percent Discrepancy/ Hours Unavailable	Explanation of Deviation/ Condition Report Number/ Comments
53	03/05/09 – 03/11/09	40%/56	Power Outage Condition Report 2009-001173
53	03/26/09 – 04/01/09	34%/38	Ground Fault Circuit Interrupter Tripped Condition Report 2009-001618
53	04/15/09 – 04/22/09	51%/84	Ground Fault Circuit Interrupter Tripped Condition Report 00016281
53	04/22/09 – 04/29/09	16%/27	Ground Fault Circuit Interrupter Tripped Condition Report 00016281

Location	Sample Period	Percent Discrepancy/ Hours Unavailable	Explanation of Deviation/ Condition Report Number/ Comments
2	06/04/09 – 06/10/09	14%/20	Ground Fault Circuit Interrupter Tripped Condition Report 00017798
18	06/04/09 – 06/10/09	15%/21	Ground Fault Circuit Interrupter Tripped Condition Report 00017798
32	06/04/09 – 06/10/09	17%/24	Ground Fault Circuit Interrupter Tripped Condition Report 00017798
37	06/04/09 – 06/10/09	15%/21	Ground Fault Circuit Interrupter Tripped Condition Report 00017798
2	06/10/09 – 06/17/09	8%/14	Power Outage Condition Report 00017922
32	06/10/09 – 06/17/09	99%/166	Ground Fault Circuit Interrupter Tripped Condition Report 00017921
2	06/17/09 – 06/24/09	70%/117	Power Outage – Under voltage Condition Report 00018083. Due to small sample volume, the LLD for I-131 was not obtained.
18	07/01/09 – 07/08/09	59%/101	Ground Fault Circuit Interrupter Tripped Condition Report 00017798
32	07/01/09 – 07/08/09	65%/111	Ground Fault Circuit Interrupter Tripped Condition Report 00017798

To increase the reliability of the air sample equipment, surge protectors were installed in 2009. Additionally, on 07-07-2009, the ground fault circuit interrupter protected outlets were replaced.

Drinking Water Samples

Drinking water was not continuously collected at Iola during the 08-05-2009 to 09-09-2009 sample period due to a faulty power converter. The power converter was replaced and the sampler was returned to service the same day. Condition Report 00019804 was generated to document the condition.

Drinking water was not continuously collected at Iola during the 12-01-2009 to 01-04-2010 sample period due to a tube becoming disconnected during the sample period. Approximately ¾ of a gallon of water was collected before the tube became disconnected. This sample and a grab sample were submitted to the vendor lab for analysis. Condition Report 00022695 was generated to document the condition.

Irrigated Crop Samples

The I-131 lower limit of detection (LLD) was not met on two irrigated crop samples collected from NR-D2. A shipping delay was the cause for the missed LLDs. Condition Report 00022550 was generated to document the condition.

Ground Water Protection

The following information is being provided in association with the Nuclear Energy Institute (NEI) Groundwater Protection Industry Initiative:

Describe offsite ground water or surface water sample results that exceeded the REMP reporting criteria that were voluntarily communicated to State/Local officials during the calendar year – None.

V. INTERLABORATORY COMPARISON PROGRAM RESULTS

During 2009, Environmental, Inc., Midwest Laboratory was contracted to perform radiological analysis of environmental samples for WCNOC. The lab participated in the intercomparison studies administered by Environmental Resources Associates. Appendix A is the Interlaboratory Comparison Program Results for Environmental, Inc., Midwest Laboratory. Intercomparison results, in-house spikes, blanks, duplicates and mixed analyte performance evaluation program results are also contained in Appendix A.

VI. COMPARISON TO THE RADIOACTIVE EFFLUENTS RELEASE PROGRAM

As described in the section discussing radioisotopes found in fish from Coffey County Lake, dose that may be received as a result of tritium released from WCGS is comparable with the theoretical doses calculated by the Radioactive Effluent Release Program.

The theoretical doses calculated by the Radioactive Effluent Release Program assume that a person drinks the water from Coffey County Lake and eats the fish from Coffey County Lake. Based upon these assumptions the dose to man from both pathways was calculated to be 0.170 mRem for 2009.

Using sample data obtained from the REMP, an adult drinking 2 liters per day of surface water from Coffey County Lake, using the average tritium activity (11,356 pCi/L), would receive a committed effective dose equivalent of 0.518 mRem per year. For an adult eating 21 kg of fish per year from Coffey County Lake, using the average tritium activity (7,764 pCi/kg), would receive a committed effective dose equivalent of 0.010 mRem per year. Based upon the REMP results, the dose from both pathways was calculated to be 0.528 mRem per year.

It should be noted that the Coffey County Lake is not a drinking water source. Calculating the dose to man for tritium detected in the Coffey County Lake surface water is for comparison purposes only.

The tritium dose values are being compared on a qualitative basis. It is not expected that the annual doses, as calculated in the Radioactive Effluent Release Report, would compare directly to those calculated from the REMP. The Radioactive Effluent Release Report provides a 'snap shot' of potential dose resulting from the year's releases. The REMP data indicates the accumulated result of releasing tritium into the lake since the start of plant operation.

TABLE 1

2009 RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM DESCRIPTION (SAMPLE COLLECTION SPECIFIED BY ODCM)

EXPOSURE PATHWAY/ SAMPLE TYPE	NUMBER OF SAMPLES AND SAMPLE LOCATIONS	SAMPLE COLLECTION FREQUENCY	TYPE AND FREQUENCY OF ANALYSIS
AIRBORNE	**(See Figures 1 & 5)**		
Radioiodine and Particulates	Samples from six 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, 37, 49 and supplemental location 18 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 9.5 to 18.5 miles distant in a low ranked D/Q sector (Location 53 on Figure 5)		

TABLE 1 (Cont.)

EXPOSURE PATHWAY/ SAMPLE TYPE	NUMBER OF SAMPLES AND SAMPLE LOCATIONS	SAMPLE COLLECTION FREQUENCY	TYPE AND FREQUENCY OF ANALYSIS
DIRECT RADIATION	**(See Figures 2 & 5)**		
	40 routine monitoring stations with two or more dosimeters measuring dose continuously, placed as follows: 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, 30, 37, 38, 46, 47 & 49 on Figure 2). An outer ring of stations, one in each meteorological sector in the 3 to 5 mile range from the site (Locations 4, 5, 15-17, 19, 22-25, 32, 34-36, 50 & 51 on Figure 2). Four sectors [A, B, G & J] contain an additional station (Locations 2, 8, 14 & 20). The balance of the stations to be placed in special interest areas such as population centers (Locations 23, 32 & 52), nearby residences	Quarterly	Gamma dose quarterly

TABLE 1 (Cont.)

EXPOSURE PATHWAY/ SAMPLE TYPE	NUMBER OF SAMPLES AND SAMPLE LOCATIONS	SAMPLE COLLECTION FREQUENCY	TYPE AND FREQUENCY OF ANALYSIS
DIRECT RADIATION (cont.)	(many locations are near a residence), schools (Locations 23 & 52), Environmental Education Area (44), CCL Public Fishing Area (46) and in two areas to serve as control stations 10-20 miles distant from the site (Locations 39 and 48 on Figure 5).		
WATERBORNE	(See Figure 3)		
Surface	One sample upstream (Location JRR on Figure 3) and one sample downstream (Location SP 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. Indicator samples at locations hydrologically down gradient of the site (Locations C-10, C-49, F-1, G-2, J-1 and J-2 on Figure 3); control sample at a location hydrologically up gradient of the site (Location B-12 on Figure 3).	Quarterly grab sample	Quarterly gamma isotopic and tritium analysis

TABLE 1 (Cont.)

EXPOSURE PATHWAY/ SAMPLE TYPE	NUMBER OF SAMPLES AND SAMPLE LOCATIONS	SAMPLE COLLECTION FREQUENCY	TYPE AND FREQUENCY OF ANALYSIS
WATERBORNE (cont.)			
Drinking	Sample of municipal water supply at an indicator location downstream of the site (Location IO-DW 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 Coffey County Lake discharge cove (Location DC on Figure 3); control sample from John Redmond Reservoir (Location JRR on Figure 3).	Semiannually	Semiannual gamma isotopic analysis
INGESTION	(See Figures 4 & 5)		
Milk	Samples from milking animals at three indicator locations within 5 miles of the site having the highest dose potential (currently there are no locations producing milk for human consumption within 5 miles of the site); one sample from a control location greater than 10 miles from the site if indicator locations are sampled.	Semimonthly April to November; monthly December-March	Gamma isotopic analysis and I-131 analysis of each sample

TABLE 1 (Cont.)

EXPOSURE PATHWAY/ SAMPLE TYPE	NUMBER OF SAMPLES AND SAMPLE LOCATIONS	SAMPLE COLLECTION FREQUENCY	TYPE AND FREQUENCY OF ANALYSIS
INGESTION (cont.)			
Fish	Indicator samples of 1 to 3 recreationally important species from Coffey County 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 (using the criteria from the "Land Use Census" section) with highest calculated annual average D/Q (Locations Q-6 and N-1 and alternate locations B-1, H-2 and R-2 on Figure 4); sample of similar broadleaf vegetation from a control location 9.5 to 18.5 miles distant in a low ranked D/Q sector (Location D-2 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 IDENTIFIERS, DISTANCES (Miles) AND DIRECTIONS (Sectors)

Sample Type	Location Identifier	Distance from Reactor	Direction	Sector
Air Particulates and Radioiodine	2	2.7	N	A
	18	3.0	SSE	H
	32	3.1	WNW	P
	37	2.0	NNW	R
	49	0.8	NNE	B
	53	10.8	ENE	D
Dosimeters	1	1.4	N	A
	2	2.7	N	A
	4	4.1	NNE	B
	5	4.1	NE	C
	7	2.1	NE	C
	8	1.7	NNE	B
	9	2.0	ENE	D
	11	1.7	E	E
	12	1.9	ESE	F
	13	1.6	SE	G
	14	2.5	SE	G
	15	4.6	ESE	F
	16	4.3	E	E
	17	3.7	SE	G
	18	3.0	SSE	H
	19	3.9	SSE	H
	20	3.3	S	J
	22	3.9	SSW	K
	23	4.3	SW	L
	24	4.1	WSW	M
	25	3.4	W	N
	26	2.4	WSW	M
	27	2.2	SW	L
	29	2.7	SSW	K
	30	2.5	W	N
	32	3.1	WNW	P
	34	4.4	NW	Q
	35	4.6	NNW	R
	36	4.2	N	A
	37	2.0	NNW	R
	38	1.2	NW	Q
	39	13.1	N	A
	41	0.8	NNW	R
	42	0.8	SSE	H
	43	0.7	WNW	P
	44	3.0	NNW	R

TABLE 2 (Cont.)
SAMPLE LOCATION IDENTIFIERS, DISTANCES (Miles) AND DIRECTIONS (Sectors)

Sample Type	Location Identifier	Distance from Reactor	Direction	Sector
Dosimeters	46	1.6	WNW	P
	47	0.16	S	J
	48	14.7	ENE	D
	49	0.8	NNE	B
	50	3.6	ENE	D
	51	4.0	S	J
	52	3.6	SW	L
	53	10.8	ENE	D
Surface Water	JRR	3.7	W	N
	SP	3.2	SSE	H
Ground Water	B-12	1.9	NNE	B
	C-10	2.7	W	N
	C-49/L-49	2.8	SW	L
	F-1	2.5	ESE	F
	G-2	3.6	SE	G
	J-1	3.8	S	J
	J-2	4.3	S	J
Drinking Water	BW-15	3.9	SW	L
	IO-DW	26.1	SSE	H
Shoreline Sediment	DC	0.8	WNW	P
	JRR	3.6	W	N
Fish	CCL	0.6	E to NNW	E to R
	JRR	3.7	W	N
Food/Garden	D-2	14.8	ENE	D
	H-2	3.0	SSE	H
	N-1	2.4	W	N
	Q-6	2.4	NW	Q
Crops	NR-D1	8.9	S	J
	NR-D2	11.5	S	J
	NR-U1	4.0	SSW	K
Bottom Sediment	DC	0.9	WNW	P
	EEA	3.0	NNW	R
	JRR	3.7	W	N
	MUDS	1.5	WNW	P
Aquatic Vegetation	EEA	3.0	NNW	R
	MUDS	1.5	WNW	P
Terrestrial Vegetation	EEA	3.0	NNW	R
	MUDS	1.5	WNW	P
Soil	EEA	3.0	NNW	R
	MUDS	1.5	WNW	P
Deer	B1.0	1.0	NNE	B
	R2.5	2.5	NNW	R

TABLE 3
OSL Dosimeter Results
(mR/90-day qtr.)

Location	Qtr. 1 90-Day Avg.	Qtr. 2 90-Day Avg.	Qtr. 3 90-Day Avg.	Qtr. 4 90-Day Avg.	Total Annual Exposure (mR)
1	12.0	10.8	14.7	13.4	50.9
2	9.2	10.3	11.5	10.3	41.3
4	13.0	13.0	14.1	11.2	51.3
5	9.3	10.9	12.6	9.4	42.1
7	9.7	14.1	14.7	11.6	50.1
8	11.6	13.6	14.7	11.6	51.5
9	9.7	11.4	9.4	9.4	40.0
11	12.5	16.3	15.7	12.1	56.6
12	9.7	11.4	15.2	11.6	47.9
13	14.4	12.5	12.6	12.1	51.5
14	15.8	13.0	15.7	11.2	55.7
15	14.4	13.6	15.7	11.2	54.8
16	12.1	9.8	12.6	10.3	44.7
17	8.8	13.0	12.6	10.3	44.7
18	11.6	10.3	13.1	11.6	46.6
19	12.1	13.0	16.2	11.9	53.2
20	12.1	12.5	11.0	9.3	44.8
22	13.9	15.2	15.2	11.0	55.3
23	11.1	10.3	13.6	13.4	48.4
24	11.6	14.1	13.1	11.6	50.4
25	8.4	8.7	10.5	9.0	36.5
26	12.1	9.8	8.9	8.8	39.6
27	13.5	14.6	13.6	11.4	53.2
29	7.4	9.8	6.8	8.0	32.0
30	11.6	14.1	14.1	13.6	53.5
32	8.4	10.8	12.6	10.3	42.1
34	10.6	14.1	14.7	10.1	49.5
35	11.5	11.4	11.5	11.6	46.1
36	10.1	14.6	13.6	12.1	50.5
37	11.5	12.5	14.1	12.5	50.6
38	12.9	13.6	15.2	12.3	53.9
39	8.8	10.8	13.1	10.1	42.9
41	8.7	14.1	13.6	10.3	46.8
42	6.5	6.0	6.8	4.9	24.2
43	8.4	5.4	6.3	4.9	25.0
44	13.4	13.6	14.1	11.2	52.2
46	13.9	12.5	13.1	11.0	50.5
47	13.0	14.6	17.8	24.4	69.8
48	9.7	11.9	11.0	11.2	43.8
49	9.8	9.8	11.0	11.2	41.7
50	12.1	12.5	14.7	13.0	52.1
51	9.3	10.8	10.5	11.9	42.5
52	14.4	12.5	15.7	11.6	54.2
53	12.1	13.0	16.2	14.7	56.0

FIGURE 1

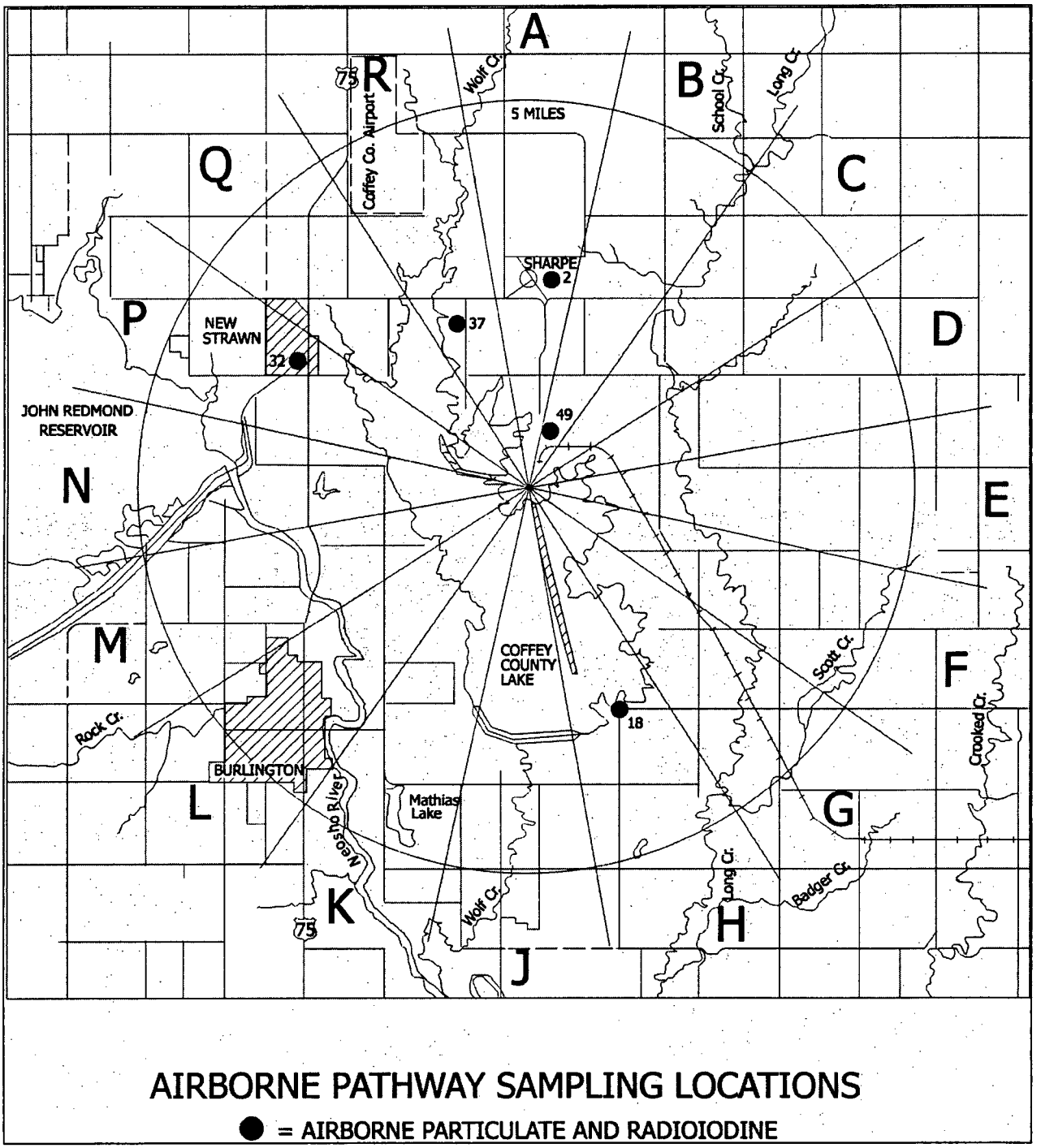

A
B
C
D
E
F
G
H
J
K
L
M
N
P
Q
R
75
Wolf Cr.
5 MILES
School Cr.
Long Cr.
Coffey Co. Airport
SHARPE
2
37
NEW STRAWN
32
JOHN REDMOND RESERVOIR
49
COFFEY COUNTY LAKE
18
Scott Cr.
Crooked Cr.
Rock Cr.
BURLINGTON
Neosho River
Mathias Lake
Long Cr.
Badger Cr.
Wolf Cr.
75
AIRBORNE PATHWAY SAMPLING LOCATIONS
● = AIRBORNE PARTICULATE AND RADIOIODINE

FIGURE 2

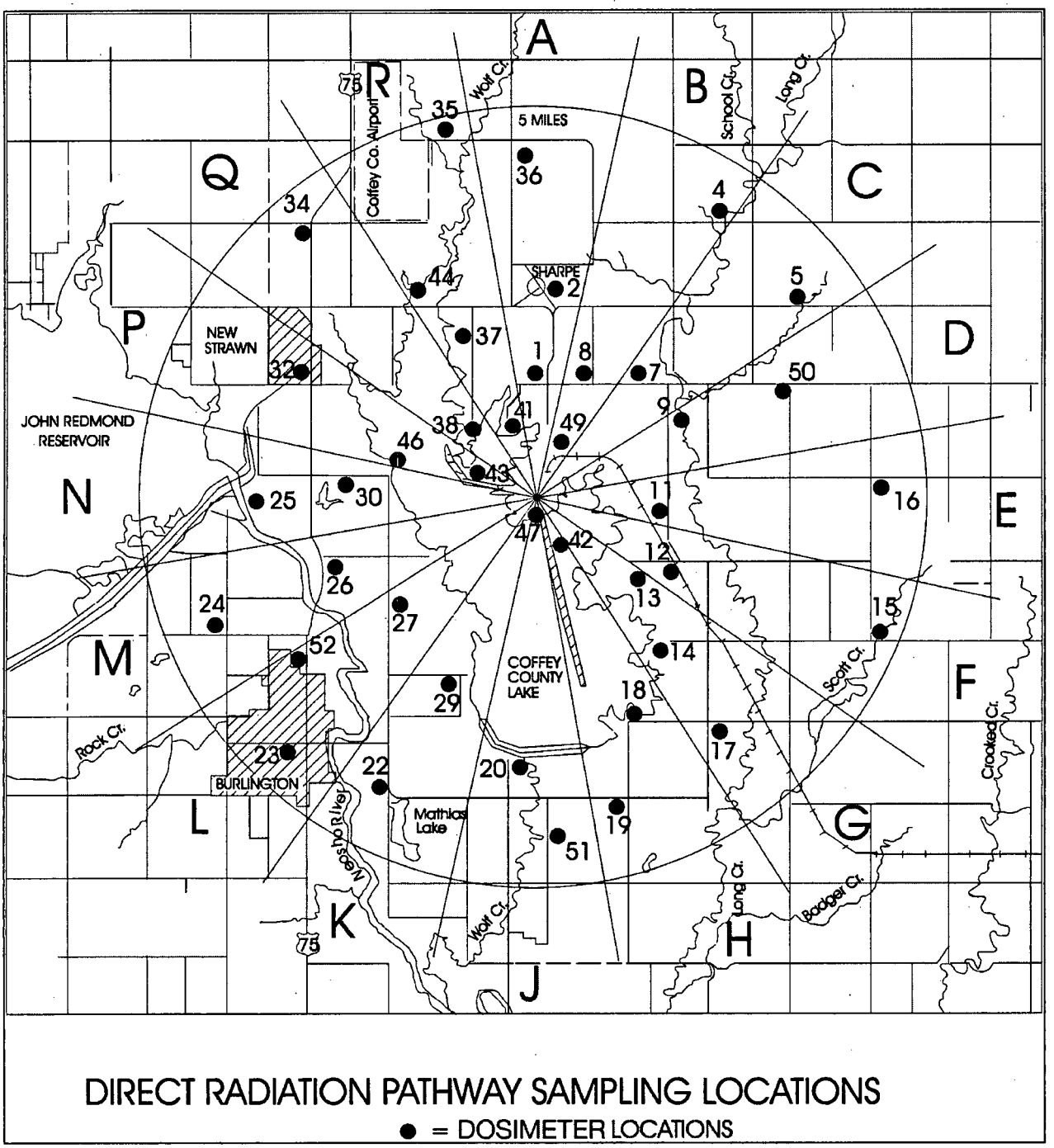
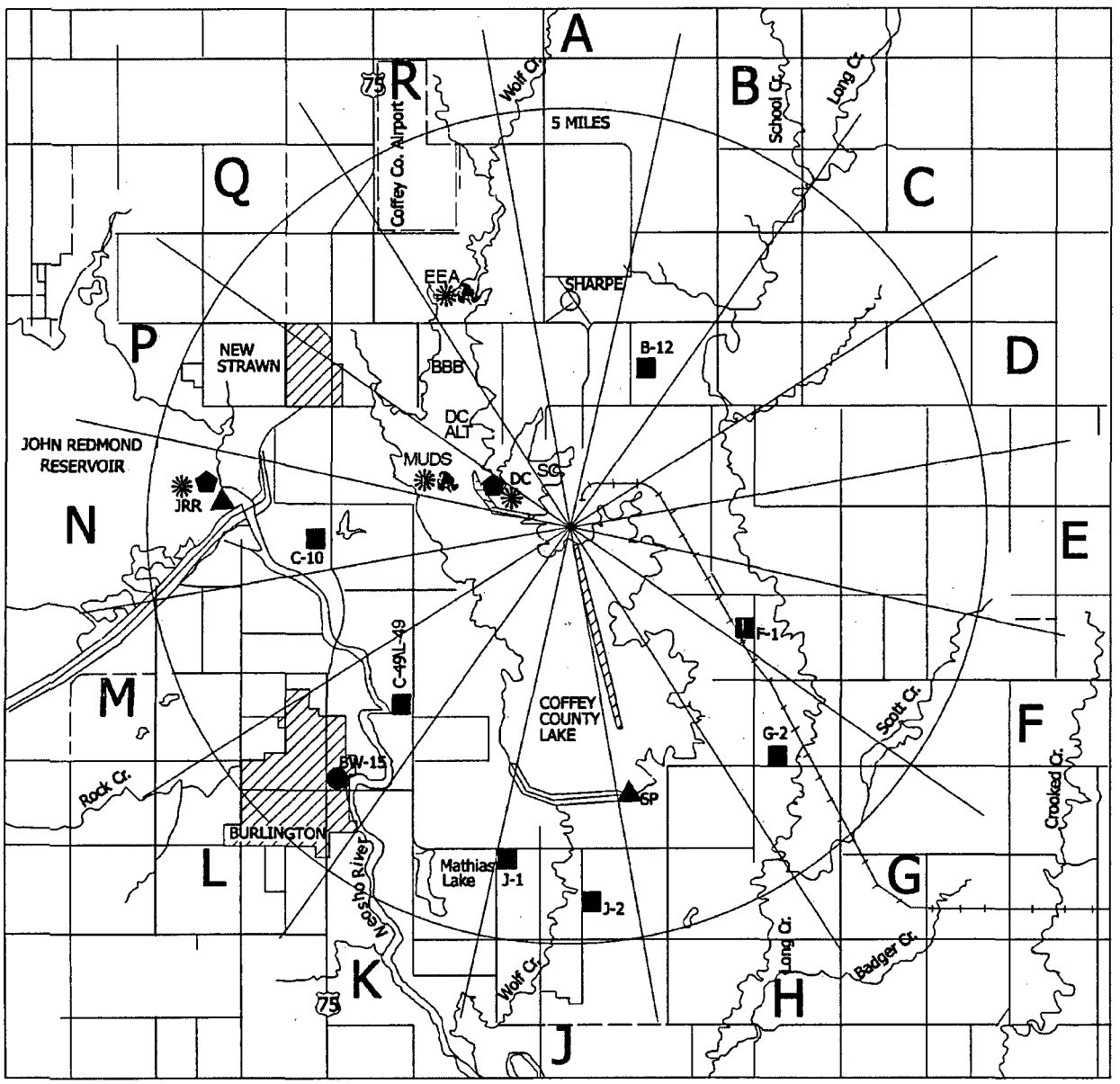

A
B
C
D
E
F
G
H
J
K
L
M
N
P
Q
R
5 MILES
Coffey Co. Airport
Wolf Ct.
School Ct.
Long Ct.
SHARPE
NEW STRAWN
JOHN REDMOND RESERVOIR
COFFEY COUNTY LAKE
Scott Ct.
Crooked Ct.
Rock Ct.
BURLINGTON
Neosho River
Mathias Lake
Long Run Ct.
Badger Ct.
75
35
36
4
34
44
2
5
37
1
8
7
50
32
9
41
49
38
46
43
11
16
25
30
47
42
12
26
13
24
27
15
52
14
29
18
17
23
22
20
19
51
DIRECT RADIATION PATHWAY SAMPLING LOCATIONS
● = DOSIMETER LOCATIONS

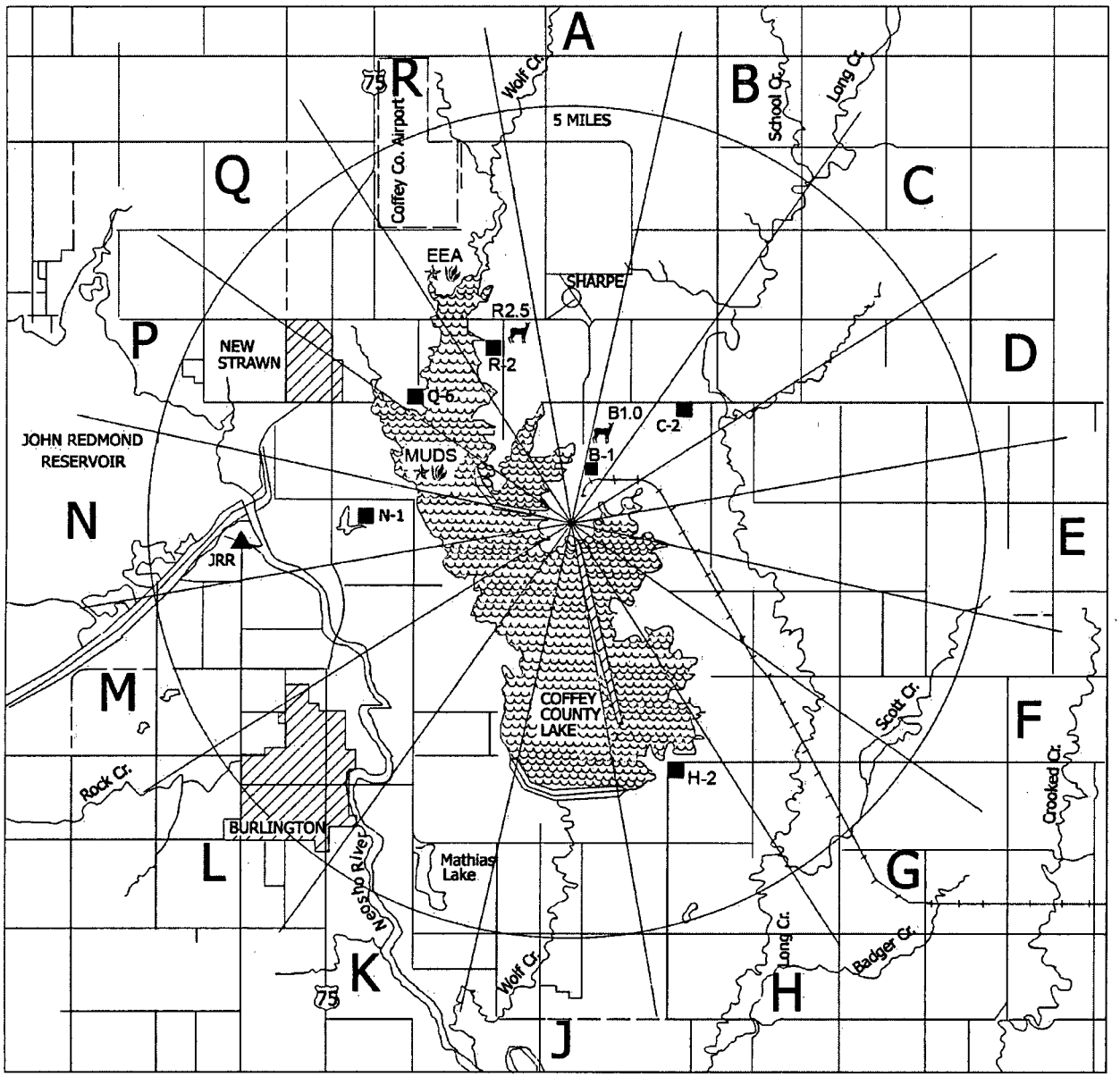
FIGURE 3



WATERBORNE PATHWAY SAMPLING LOCATIONS

- ● = DRINKING WATER
- ■ = GROUND WATER
- ✳ = BOTTOM SEDIMENT
- ▲ = SURFACE WATER
- ⬟ = SHORELINE SEDIMENT
- = AQUATIC VEGETATION

FIGURE 4



INGESTION PATHWAY SAMPLING LOCATIONS

▲ = FISH (JRR) ■ = BROADLEAF VEGETATION ☆ = SOIL

= FISH (CCL) = TERRESTRIAL VEGETATION = DEER

FIGURE 5

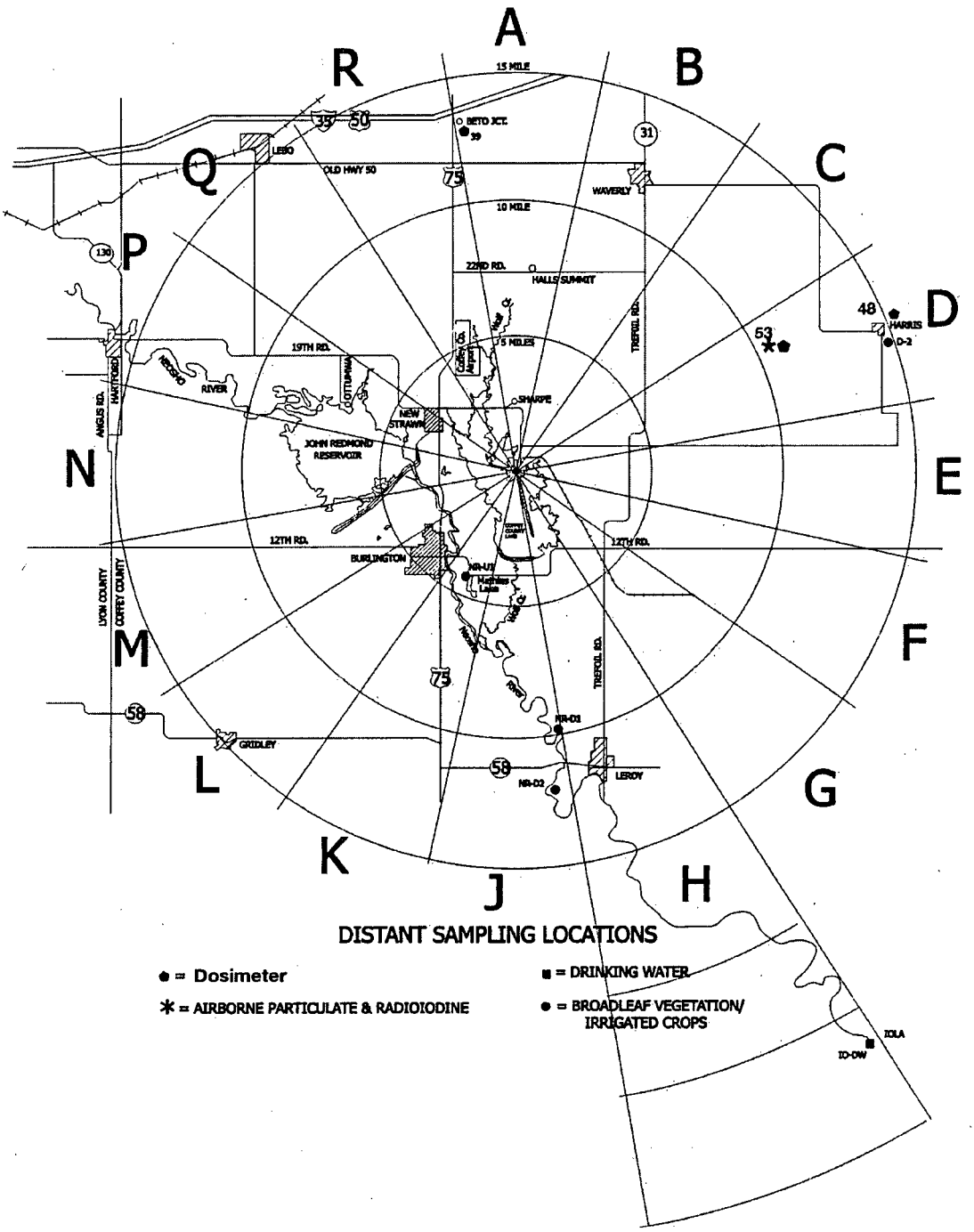

A
B
C
D
E
F
G
H
J
K
L
M
N
P
Q
R
15 MILE
10 MILE
5 MILES
LEBO
OLD HWY 50
BETO JCT.
WAVERLY
22ND RD.
HALLS SUMMIT
HARRIS
D-2
19TH RD.
OTTUMWA
NEW STRAWN
SHARPE
JOHN REDMOND RESERVOIR
12TH RD.
BURLINGTON
Matthias Lake
TREFOIL RD.
GRIDLEY
LEROY
IOLA
IO-DW
LYON COUNTY
COFFEY COUNTY
ANGUS RD.
HARTFORD
DISTANT SAMPLING LOCATIONS
● = Dosimeter
✱ = AIRBORNE PARTICULATE & RADIOIODINE
■ = DRINKING WATER
● = BROADLEAF VEGETATION/ IRRIGATED CROPS

CHART 1

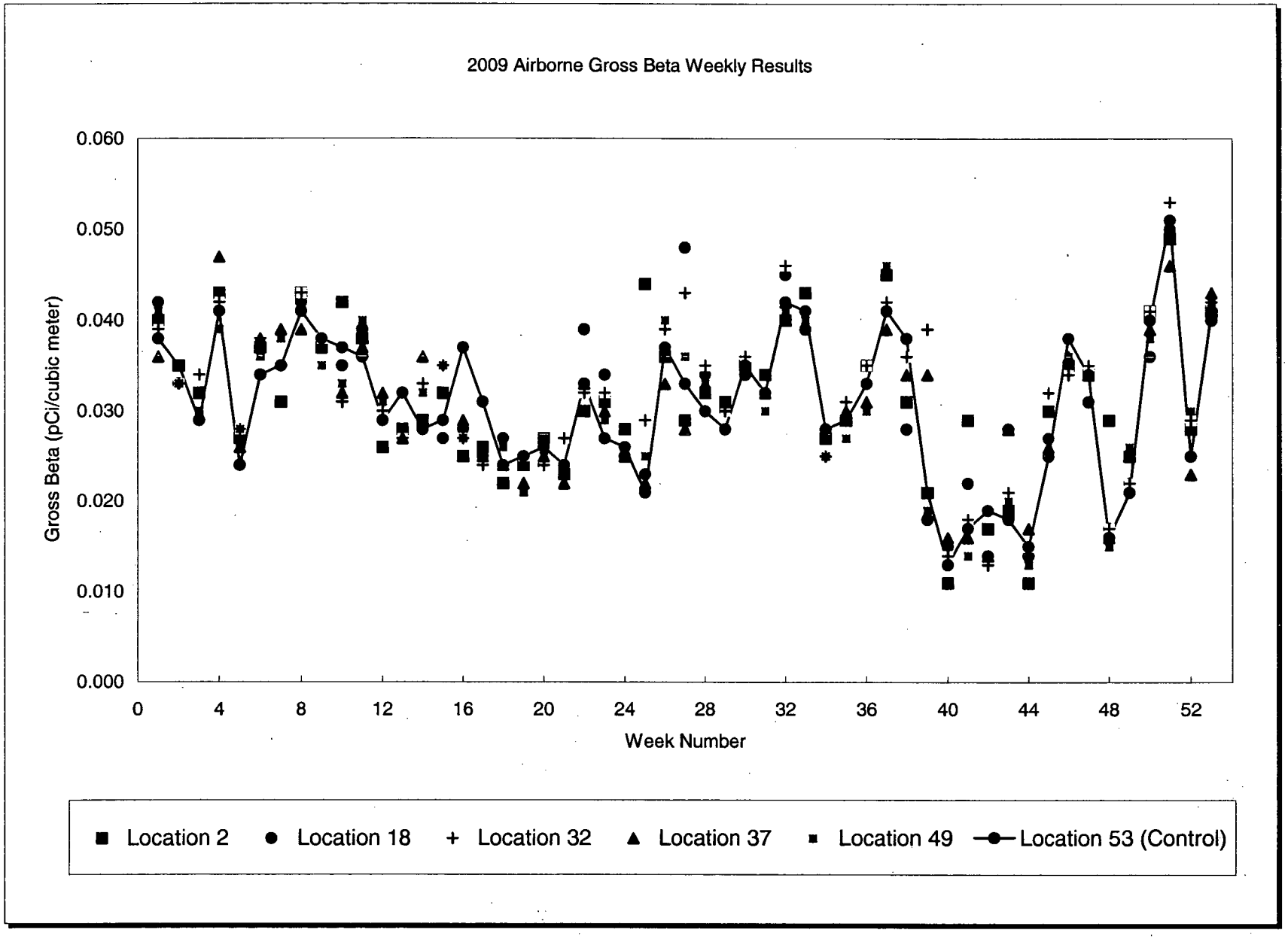

2009 Airborne Gross Beta Weekly Results
Gross Beta (pCi/cubic meter)
0.060
0.050
0.040
0.030
0.020
0.010
0.000
0
4
8
12
16
20
24
28
32
36
40
44
48
52
Week Number
Location 2
Location 18
Location 32
Location 37
Location 49
Location 53 (Control)

CHART 2

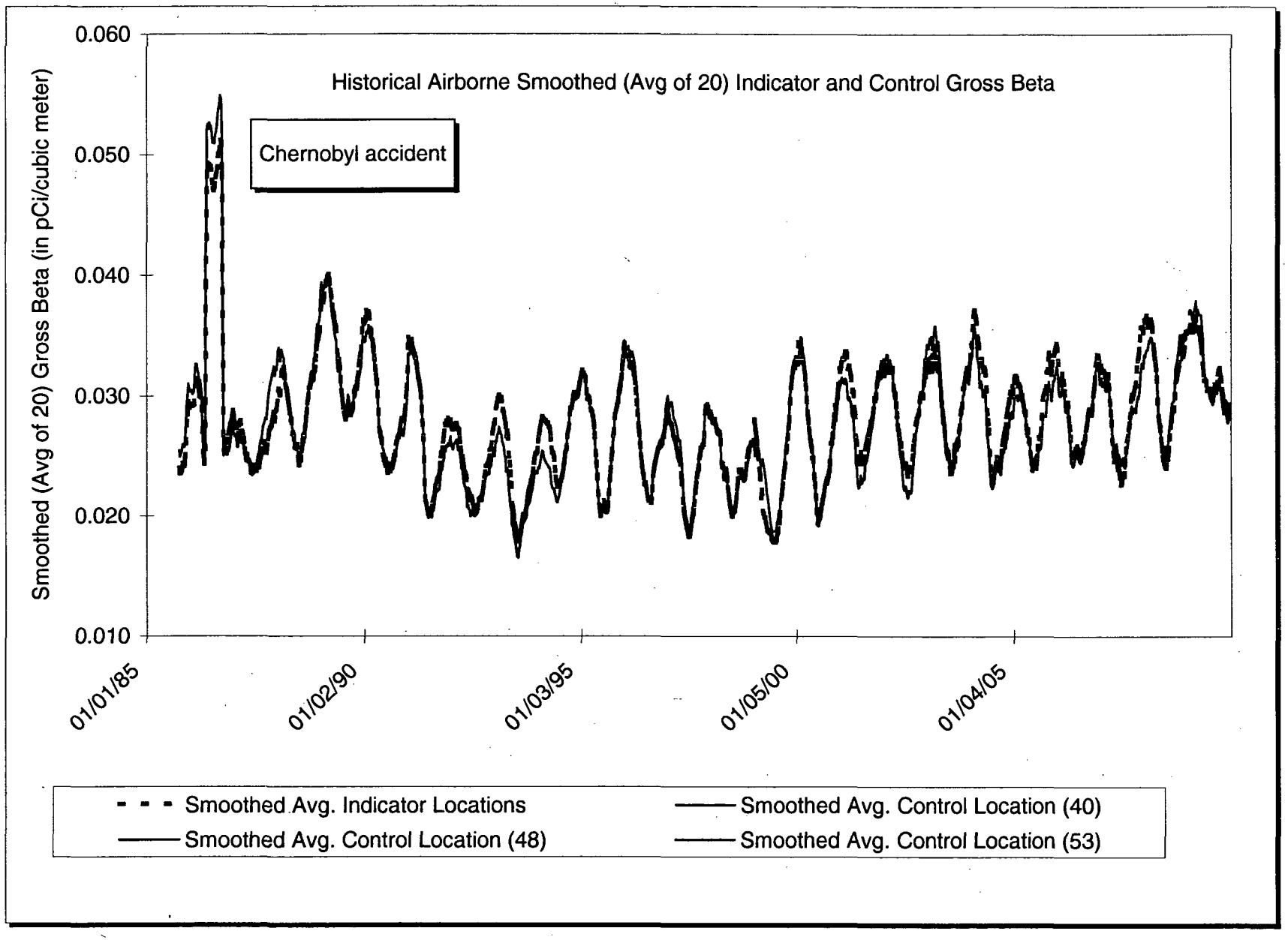

Historical Airborne Smoothed (Avg of 20) Indicator and Control Gross Beta
Chernobyl accident
Smoothed (Avg of 20) Gross Beta (in pCi/cubic meter)
0.060
0.050
0.040
0.030
0.020
0.010
01/01/85
01/02/90
01/03/95
01/05/00
01/04/05
Smoothed Avg. Indicator Locations
Smoothed Avg. Control Location (40)
Smoothed Avg. Control Location (48)
Smoothed Avg. Control Location (53)

CHART 3

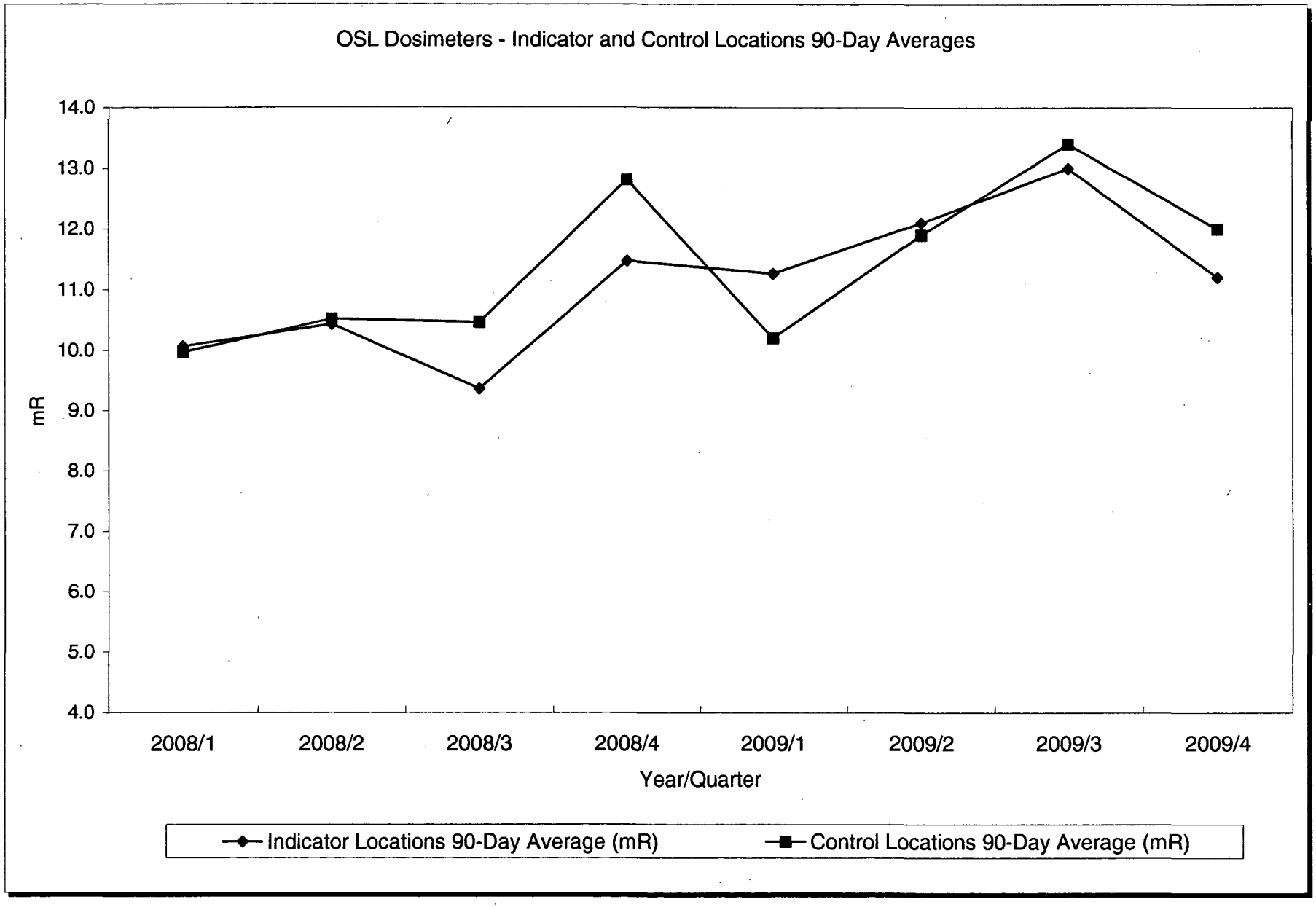

OSL Dosimeters - Indicator and Control Locations 90-Day Averages
14.0
13.0
12.0
11.0
10.0
9.0
8.0
7.0
6.0
5.0
4.0
mR
2008/1
2008/2
2008/3
2008/4
2009/1
2009/2
2009/3
2009/4
Year/Quarter
Indicator Locations 90-Day Average (mR)
Control Locations 90-Day Average (mR)

CHART 4

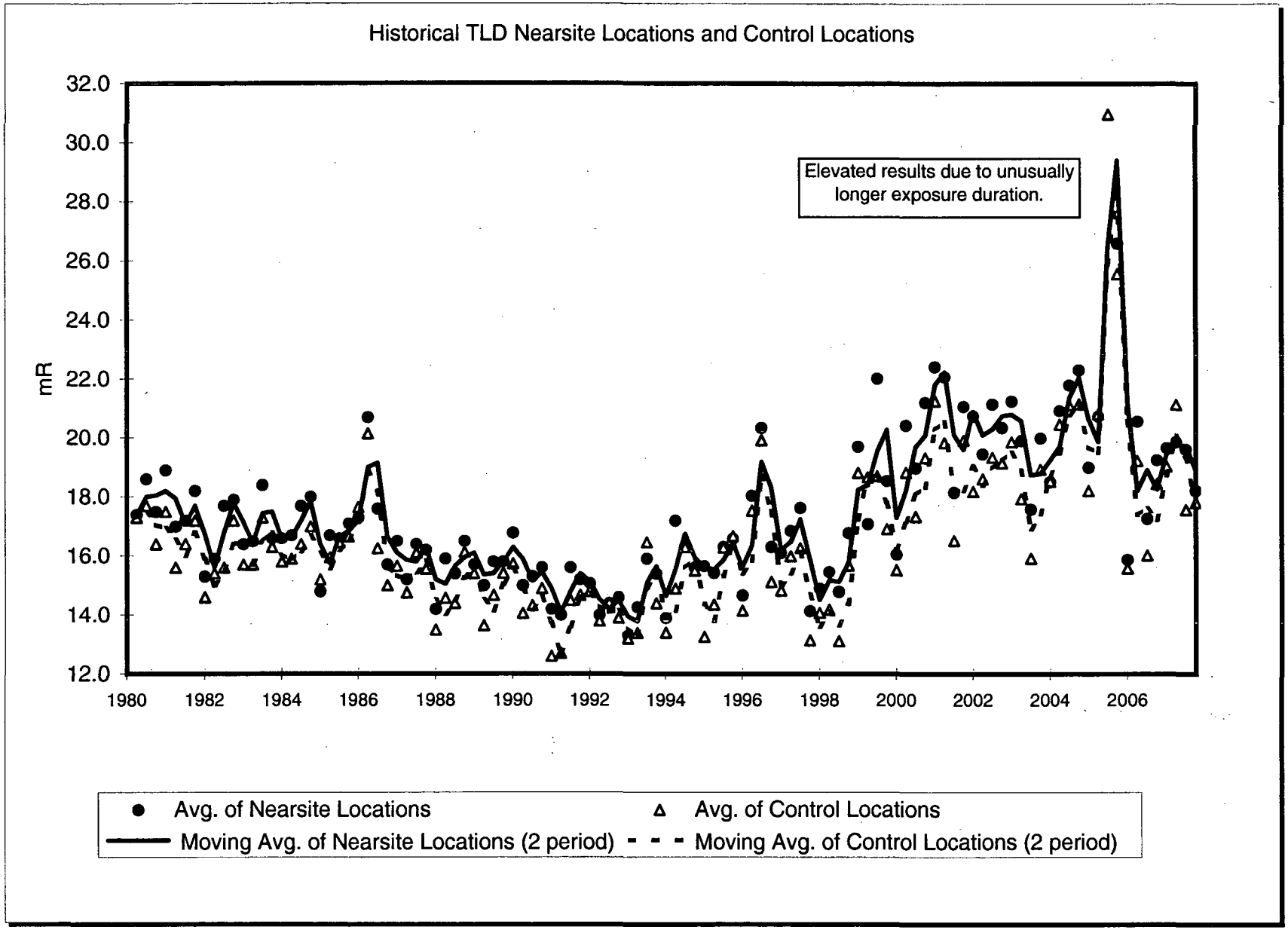

Historical TLD Nearsite Locations and Control Locations
mR
32.0
30.0
28.0
26.0
24.0
22.0
20.0
18.0
16.0
14.0
12.0
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
2004
2006
Elevated results due to unusually longer exposure duration.
Avg. of Nearsite Locations
Avg. of Control Locations
Moving Avg. of Nearsite Locations (2 period)
Moving Avg. of Control Locations (2 period)

CHART 5

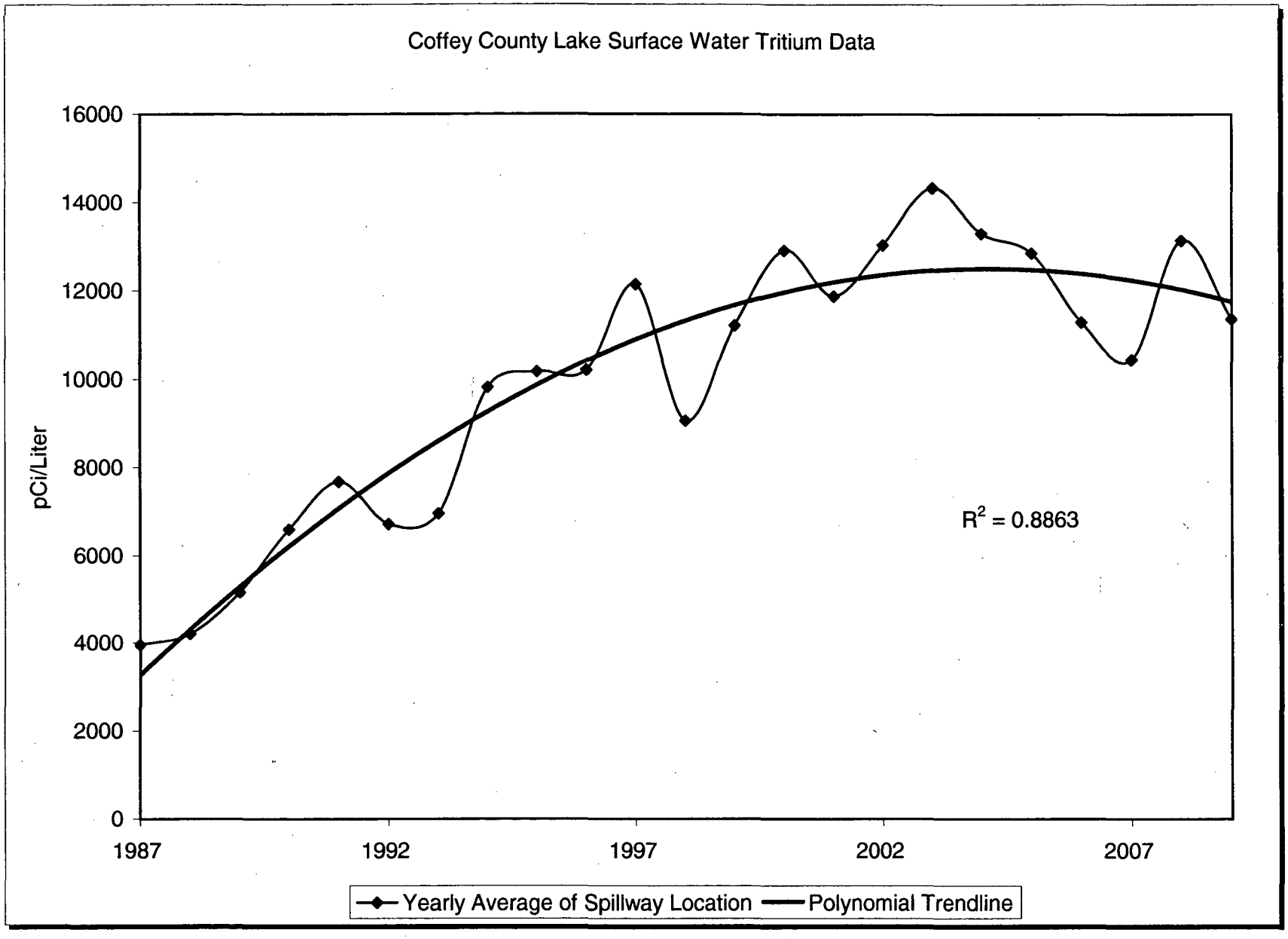

Coffey County Lake Surface Water Tritium Data
16000
14000
12000
10000
8000
6000
4000
2000
0
pCi/Liter
1987
1992
1997
2002
2007
R^2 = 0.8863
Yearly Average of Spillway Location
Polynomial Trendline

CHART 6

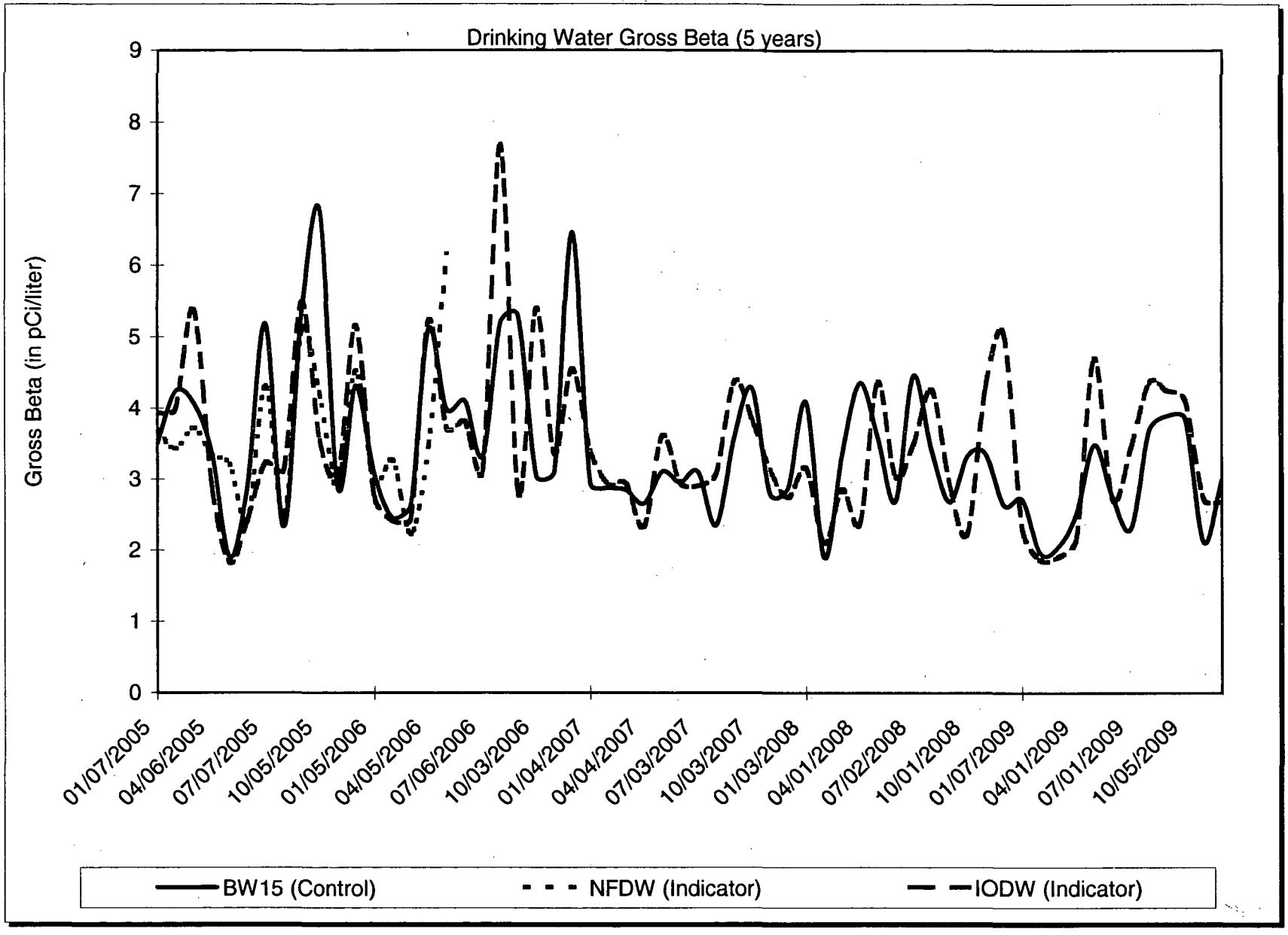

Drinking Water Gross Beta (5 years)
Gross Beta (in pCi/liter)
0
1
2
3
4
5
6
7
8
9
01/07/2005
04/06/2005
07/07/2005
10/05/2005
01/05/2006
04/05/2006
07/06/2006
10/03/2006
01/04/2007
04/04/2007
07/03/2007
10/03/2007
01/03/2008
04/01/2008
07/02/2008
10/01/2008
01/07/2009
04/01/2009
07/01/2009
10/05/2009
BW15 (Control)
NFDW (Indicator)
IODW (Indicator)

CHART 7

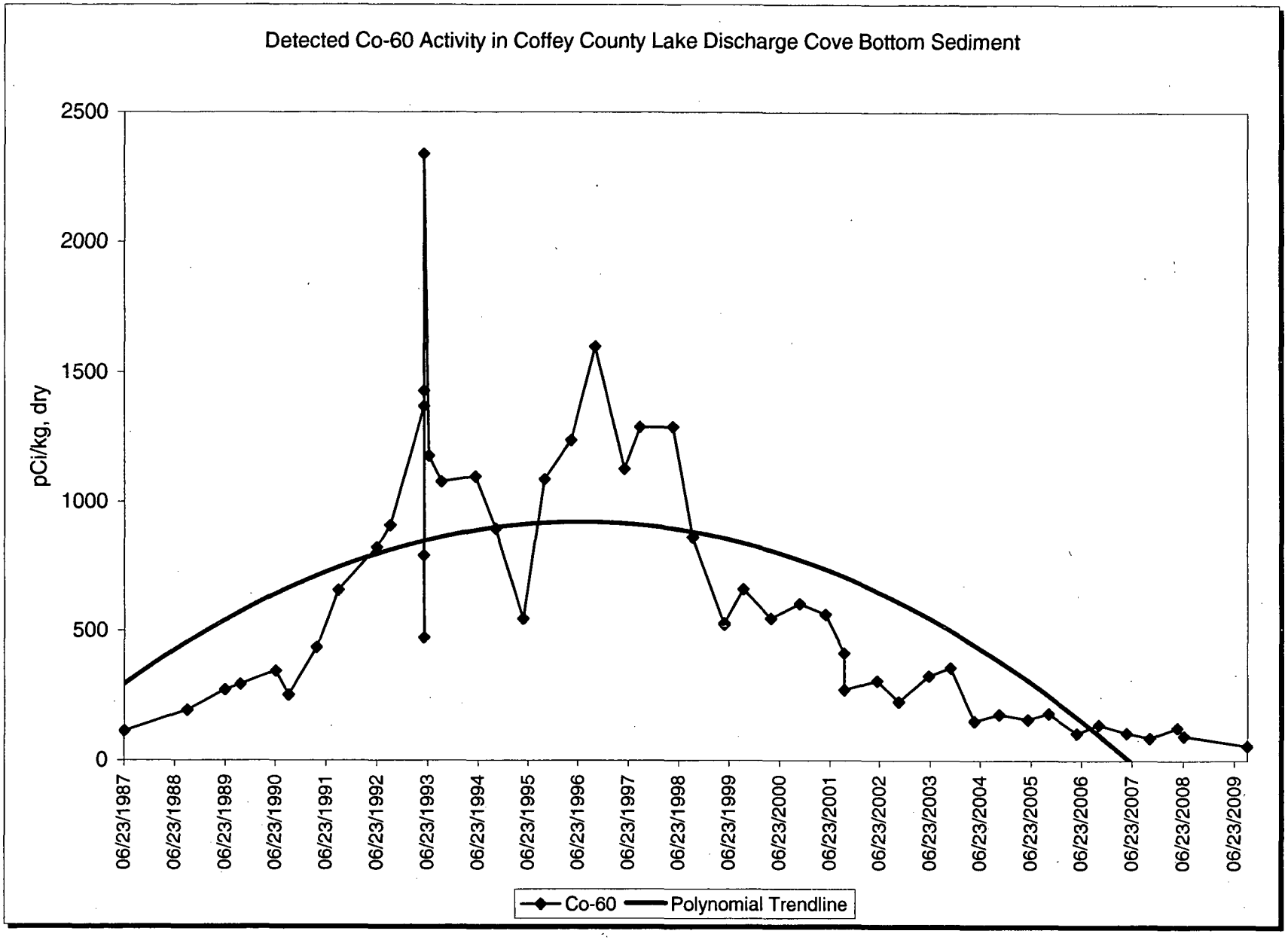
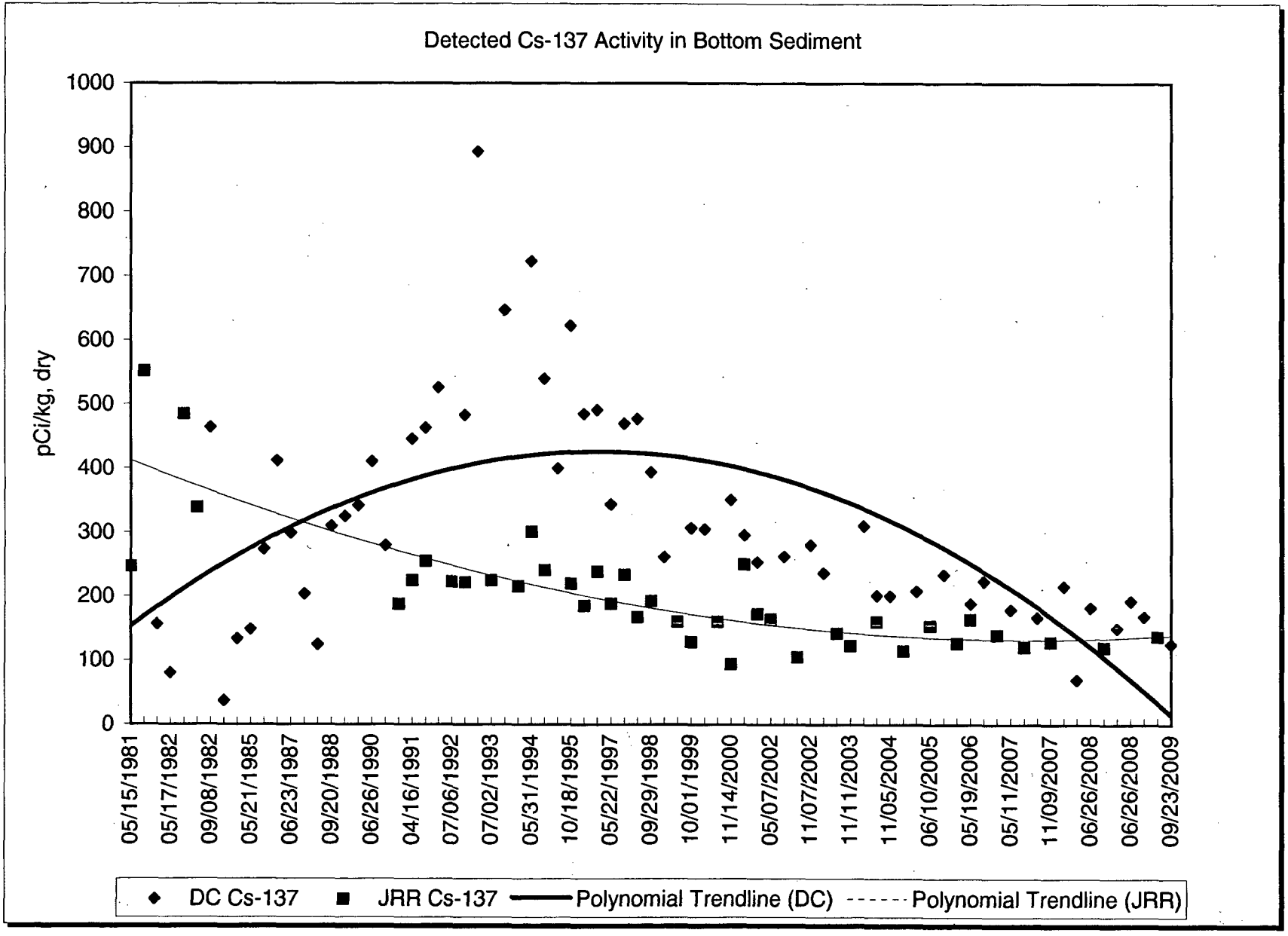

Detected Co-60 Activity in Coffey County Lake Discharge Cove Bottom Sediment
pCi/kg, dry
2500
2000
1500
1000
500
0
06/23/1987
06/23/1988
06/23/1989
06/23/1990
06/23/1991
06/23/1992
06/23/1993
06/23/1994
06/23/1995
06/23/1996
06/23/1997
06/23/1998
06/23/1999
06/23/2000
06/23/2001
06/23/2002
06/23/2003
06/23/2004
06/23/2005
06/23/2006
06/23/2007
06/23/2008
06/23/2009
Co-60
Polynomial Trendline

CHART 8


Detected Cs-137 Activity in Bottom Sediment
pCi/kg, dry
1000
900
800
700
600
500
400
300
200
100
0
05/15/1981
05/17/1982
09/08/1982
05/21/1985
06/23/1987
09/20/1988
06/26/1990
04/16/1991
07/06/1992
07/02/1993
05/31/1994
10/18/1995
05/22/1997
09/29/1998
10/01/1999
11/14/2000
05/07/2002
11/07/2002
11/11/2003
11/05/2004
06/10/2005
05/19/2006
05/11/2007
11/09/2007
06/26/2008
06/26/2008
09/23/2009
DC Cs-137
JRR Cs-137
Polynomial Trendline (DC)
Polynomial Trendline (JRR)

Environmental, Inc.
Midwest Laboratory
an Allegheny Technologies Co.

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APPENDIX A

INTERLABORATORY COMPARISON PROGRAM RESULTS

NOTE: Environmental Inc., Midwest Laboratory participates in intercomparison studies administered by Environmental Resources Associates, and serves as a replacement for studies conducted previously by the U.S. EPA Environmental Monitoring Systems Laboratory, Las Vegas, Nevada. Results are reported in Appendix A. TLD Intercomparison results, in-house spikes, blanks, duplicates and mixed analyte performance evaluation program results are also reported. Appendix A is updated four times a year; the complete Appendix is included in March, June, September and December monthly progress reports only.

January, 2009 through December, 2009

Appendix A

Interlaboratory Comparison Program Results

Environmental, Inc., Midwest Laboratory has participated in interlaboratory comparison (crosscheck) programs since the formulation of it's quality control program in December 1971. These programs are operated by agencies which supply environmental type samples containing concentrations of radionuclides known to the issuing agency but not to participant laboratories. The purpose of such a program is to provide an independent check on a laboratory's analytical procedures and to alert it of any possible problems.

Participant laboratories measure the concentration of specified radionuclides and report them to the issuing agency. Several months later, the agency reports the known values to the participant laboratories and specifies control limits. Results consistently higher or lower than the known values or outside the control limits indicate a need to check the instruments or procedures used.

Results in Table A-1 were obtained through participation in the environmental sample crosscheck program administered by Environmental Resources Associates, serving as a replacement for studies conducted previously by the U.S. EPA Environmental Monitoring Systems Laboratory, Las Vegas, Nevada.

Table A-2 lists results for thermoluminescent dosimeters (TLDs), via International Intercomparison of Environmental Dosimeters, when available, and internal laboratory testing.

Table A-3 lists results of the analyses on in-house "spiked" samples for the past twelve months. All samples are prepared using NIST traceable sources. Data for previous years available upon request.

Table A-4 lists results of the analyses on in-house "blank" samples for the past twelve months. Data for previous years available upon request.

Table A-5 lists REMP specific analytical results from the in-house "duplicate" program for the past twelve months. Acceptance is based on the difference of the results being less than the sum of the errors. Complete analytical data for duplicate analyses is available upon request.

The results in Table A-6 were obtained through participation in the Mixed Analyte Performance Evaluation Program.

Results in Table A-7 were obtained through participation in the environmental sample crosscheck program administered by Environmental Resources Associates, serving as a replacement for studies conducted previously by the Environmental Measurement Laboratory Quality Assessment Program (EML).

Attachment A lists the laboratory precision at the 1 sigma level for various analyses. The acceptance criteria in Table A-3 is set at ± 2 sigma.

Out-of-limit results are explained directly below the result.

Attachment A

ACCEPTANCE CRITERIA FOR "SPIKED" SAMPLES

LABORATORY PRECISION: ONE STANDARD DEVIATION VALUES FOR VARIOUS ANALYSES[a]

Analysis	Level	One standard deviation for single determination
Gamma Emitters	5 to 100 pCi/liter or kg > 100 pCi/liter or kg	5.0 pCi/liter 5% of known value
Strontium-89[b]	5 to 50 pCi/liter or kg > 50 pCi/liter or kg	5.0 pCi/liter 10% of known value
Strontium-90[b]	2 to 30 pCi/liter or kg > 30 pCi/liter or kg	5.0 pCi/liter 10% of known value
Potassium-40	≥ 0.1 g/liter or kg	5% of known value
Gross alpha	≤ 20 pCi/liter > 20 pCi/liter	5.0 pCi/liter 25% of known value
Gross beta	≤ 100 pCi/liter > 100 pCi/liter	5.0 pCi/liter 5% of known value
Tritium	≤ 4,000 pCi/liter > 4,000 pCi/liter	± 1σ = $169.85 \times (\text{known})^{0.0933}$ 10% of known value
Radium-226,-228	≥ 0.1 pCi/liter	15% of known value
Plutonium	≥ 0.1 pCi/liter, gram, or sample	10% of known value
Iodine-131, Iodine-129[b]	≤ 55 pCi/liter > 55 pCi/liter	6 pCi/liter 10% of known value
Uranium-238, Nickel-63[b] Technetium-99[b]	≤ 35 pCi/liter > 35 pCi/liter	6 pCi/liter 15% of known value
Iron-55[b]	50 to 100 pCi/liter > 100 pCi/liter	10 pCi/liter 10% of known value
Other Analyses [b]	---	20% of known value

[a] From EPA publication, "Environmental Radioactivity Laboratory Intercomparison Studies Program, Fiscal Year, 1981-1982, EPA-600/4-81-004.

[b] Laboratory limit.

TABLE A-1. Interlaboratory Comparison Crosscheck program, Environmental Resource Associates (ERA)[a].

Lab Code	Date	Concentration (pCi/L)				
		Analysis	Laboratory Result[b]	ERA Result[c]	Control Limits	Acceptance
STW-1181	04/06/09	Sr-89	41.0 ± 5.8	48.3	37.8 - 55.7	Pass
STW-1181	04/06/09	Sr-90	32.4 ± 2.4	31.4	22.9 - 36.4	Pass
STW-1182	04/06/09	Ba-133	44.6 ± 3.1	52.7	43.4 - 58.3	Pass
STW-1182	04/06/09	Co-60	81.0 ± 3.1	88.9	80.0 - 100.0	Pass
STW-1182	04/06/09	Cs-134	65.6 ± 5.2	72.9	59.5 - 80.2	Pass
STW-1182 [d]	04/06/09	Cs-137	147.7 ± 5.3	168.0	151.0 - 187.0	Fail
STW-1182	04/06/09	Zn-65	79.8 ± 7.5	84.4	76.0 - 101.0	Pass
STW-1183	04/06/09	Gr. Alpha	47.6 ± 2.1	54.2	28.3 - 67.7	Pass
STW-1183	04/06/09	Gr. Beta	38.5 ± 1.3	43.5	29.1 - 50.8	Pass
STW-1184	04/06/09	I-131	24.4 ± 2.5	26.1	21.7 - 30.8	Pass
STW-1185	04/06/09	Ra-226	14.0 ± 0.7	15.1	11.2 - 17.3	Pass
STW-1185	04/06/09	Ra-228	14.3 ± 2.1	13.6	9.0 - 16.6	Pass
STW-1185	04/06/09	Uranium	25.0 ± 0.2	25.7	20.6 - 28.8	Pass
STW-1186 [e]	04/06/09	H-3	22819.0 ± 453.0	20300.0	17800.0 - 22300.0	Fail
STW-1193	10/05/09	Sr-89	53.0 ± 6.0	62.2	50.2 - 70.1	Pass
STW-1193	10/05/09	Sr-90	31.1 ± 2.2	30.7	22.4 - 35.6	Pass
STW-1194	10/05/09	Ba-133	82.5 ± 3.5	92.9	78.3 - 102.0	Pass
STW-1194	10/05/09	Co-60	116.8 ± 3.3	117.0	105.0 - 131.0	Pass
STW-1194	10/05/09	Cs-134	78.8 ± 5.7	78.8	65.0 - 87.3	Pass
STW-1194	10/05/09	Cs-137	54.2 ± 3.7	54.6	49.1 - 62.9	Pass
STW-1194	10/05/09	Zn-65	102.5 ± 6.2	99.5	89.6 - 119.0	Pass
STW-1195	10/05/09	Gr. Alpha	20.3 ± 2.0	23.2	11.6 - 31.1	Pass
STW-1195	10/05/09	Gr. Beta	23.7 ± 1.4	26.0	16.2 - 33.9	Pass
STW-1196	10/05/09	I-131	22.4 ± 1.4	22.2	18.4 - 26.5	Pass
STW-1197	10/05/09	Ra-226	15.0 ± 0.7	13.9	10.4 - 16.0	Pass
STW-1197	10/05/09	Ra-228	17.4 ± 2.0	14.9	10.0 - 18.0	Pass
STW-1197	10/05/09	Uranium	32.5 ± 0.4	33.8	27.3 - 37.8	Pass
STW-1198	10/05/09	H-3	17228.0 ± 694.0	16400.0	14300.0 - 18000.0	Pass

[a] Results obtained by Environmental, Inc., Midwest Laboratory as a participant in the crosscheck program for proficiency testing in drinking water conducted by Environmental Resources Associates (ERA).

[b] Unless otherwise indicated, the laboratory result is given as the mean ± standard deviation for three determinations.

[c] Results are presented as the known values, expected laboratory precision (1 sigma, 1 determination) and control limits as provided by ERA.

[d] All gamma -emitters showed a low bias. A large plastic burr found on the base of the Marinelli kept the beaker from sitting directly on the detector. Result of recount in a different beaker, Cs-137, 155.33 ± 14.55 pCi/L.

[e] Samples were recounted and also reanalyzed. A recount of the original vials averaged 23,009 pCi/L. Reanalysis results were acceptable, 19,170 pCi/L.

TABLE A-2. Crosscheck program results; Thermoluminescent Dosimetry, (TLD, $CaSO_4$: Dy Cards).

Lab Code	Date	Description	mR Known Value	mR Lab Result ± 2 sigma	Control Limits	Acceptance
Environmental, Inc.						
2009-1	7/6/2009	40 cm.	41.82	45.43 ± 3.66	29.27 - 54.37	Pass
2009-1	7/6/2009	50 cm.	26.76	32.17 ± 1.52	18.73 - 34.79	Pass
2009-1	7/6/2009	60 cm.	18.58	20.23 ± 1.60	13.01 - 24.15	Pass
2009-1	7/6/2009	70 cm.	13.65	15.28 ± 0.79	9.56 - 17.75	Pass
2009-1	7/6/2009	90 cm.	8.26	7.97 ± 0.40	5.78 - 10.74	Pass
2009-1	7/6/2009	90 cm.	8.26	7.37 ± 0.49	5.78 - 10.74	Pass
2009-1	7/6/2009	100 cm.	6.69	6.16 ± 0.64	4.68 - 8.70	Pass
2009-1	7/6/2009	110 cm.	5.53	4.38 ± 0.24	3.87 - 7.19	Pass
2009-1	7/6/2009	120 cm.	4.65	4.34 ± 0.23	3.26 - 6.05	Pass
2009-1	7/6/2009	150 cm.	2.97	2.92 ± 0.25	2.08 - 3.86	Pass
Environmental, Inc.						
2009-2	12/27/2009	40 cm.	44.83	51.38 ± 2.69	31.38 - 58.28	Pass
2009-2	12/27/2009	50 cm.	28.69	31.65 ± 2.81	20.08 - 37.30	Pass
2009-2	12/27/2009	60 cm.	19.92	21.38 ± 1.19	13.94 - 25.90	Pass
2009-2	12/27/2009	60 cm.	19.92	22.30 ± 0.50	13.94 - 25.90	Pass
2009-2	12/27/2009	75 cm.	12.75	13.48 ± 1.02	8.93 - 16.58	Pass
2009-2	12/27/2009	90 cm.	8.85	9.62 ± 0.74	6.20 - 11.51	Pass
2009-2	12/27/2009	90 cm.	8.85	8.39 ± 0.86	6.20 - 11.51	Pass
2009-2	12/27/2009	100 cm.	7.17	6.65 ± 0.96	5.02 - 9.32	Pass
2009-2	12/27/2009	120 cm.	4.98	4.89 ± 0.53	3.49 - 6.47	Pass
2009-2	12/27/2009	120 cm.	4.98	4.92 ± 0.58	3.49 - 6.47	Pass
2009-2	12/27/2009	150 cm.	3.19	2.74 ± 0.39	2.23 - 4.15	Pass
2009-2	12/27/2009	180 cm.	2.21	1.65 ± 0.33	1.55 - 2.87	Pass
2009-2	12/27/2009	180 cm.	2.21	2.12 ± 0.69	1.55 - 2.87	Pass

TABLE A-3. In-House "Spike" Samples

Lab Code [b]	Date	Analysis	Concentration (pCi/L)[a] Laboratory results 2s, n=1 [c]	Known Activity	Control Limits [d]	Acceptance
W-12009	1/20/2009	Ra-226	12.88 ± 0.41	12.69	8.88 - 16.50	Pass
W-12009	1/27/2009	Gr. Alpha	20.20 ± 0.40	20.08	10.04 - 30.12	Pass
W-12709	1/27/2009	Gr. Beta	46.26 ± 0.42	45.60	35.60 - 55.60	Pass
SPW-5553	1/27/2009	Ra-228	29.11 ± 2.53	28.66	20.06 - 37.26	Pass
SPW-217	1/29/2009	U-238	44.98 ± 2.30	41.70	29.19 - 54.21	Pass
SPW-539	2/24/2009	Ni-63	167.93 ± 3.79	211.00	147.70 - 274.30	Pass
SPW-718	3/6/2009	C-14	4893.50 ± 21.69	4740.20	2844.12 - 6636.28	Pass
SPMI-814	3/16/2009	Cs-134	34.91 ± 3.85	35.70	25.70 - 45.70	Pass
SPMI-814	3/16/2009	Cs-137	59.17 ± 6.70	55.60	45.60 - 65.60	Pass
SPMI-814	3/16/2009	Sr-90	40.82 ± 1.59	44.07	35.26 - 52.88	Pass
SPMI-815	3/16/2009	I-131	70.99 ± 0.62	69.60	55.68 - 83.52	Pass
SPMI-815	3/16/2009	I-131(G)	63.08 ± 7.12	69.60	59.60 - 79.60	Pass
SPW-817	3/16/2009	I-131	62.11 ± 0.59	69.60	55.68 - 83.52	Pass
SPW-817	3/16/2009	I-131(G)	64.55 ± 8.32	69.60	59.60 - 79.60	Pass
SPW-818	3/16/2009	Co-60	50.84 ± 4.70	51.99	41.99 - 61.99	Pass
SPW-818	3/16/2009	Cs-134	33.78 ± 3.42	35.70	25.70 - 45.70	Pass
SPW-818	3/16/2009	Cs-137	61.27 ± 7.18	55.64	45.64 - 65.64	Pass
SPW-818	3/16/2009	Sr-90	47.26 ± 1.89	44.07	35.26 - 52.88	Pass
SPAP-903	3/23/2009	Cs-134	13.29 ± 2.89	14.19	4.19 - 24.19	Pass
SPAP-903	3/23/2009	Cs-137	103.24 ± 7.54	111.23	100.11 - 122.35	Pass
SPCH-916	3/24/2009	I-131(G)	0.22 ± 0.02	0.22	0.13 - 0.31	Pass
SPVE-888	4/1/2009	I-131(G)	0.40 ± 0.08	0.35	0.21 - 0.49	Pass
SPF-820	4/7/2009	Cs-134	0.58 ± 0.02	0.56	0.34 - 0.78	Pass
W-40909	4/9/2009	Gr. Alpha	19.26 ± 0.40	20.08	10.04 - 30.12	Pass
W-40909	4/9/2009	Gr. Beta	48.04 ± 0.42	45.60	35.60 - 55.60	Pass
SPW-12641	4/10/2009	Ra-228	40.06 ± 2.79	40.54	28.38 - 52.70	Pass
SPW-1267	4/10/2009	U-238	41.71 ± 2.25	41.70	29.19 - 54.21	Pass
TWW-2124	4/21/2009	H-3	7932.00 ± 279.00	7063.00	5650.40 - 8475.60	Pass
W-42809	4/28/2009	Ra-226	14.49 ± 0.53	16.78	11.75 - 21.81	Pass
SPMI-2186	5/12/2009	Cs-134	32.55 ± 1.26	33.89	23.89 - 43.89	Pass
SPMI-2186	5/12/2009	Cs-137	54.27 ± 2.60	55.60	45.60 - 65.60	Pass
SPMI-2186	5/12/2009	I-131	60.81 ± 0.63	52.40	40.40 - 64.40	Pass
SPMI-2186	5/12/2009	I-131(G)	56.89 ± 2.56	52.40	42.40 - 62.40	Pass
SPMI-2186	5/12/2009	Sr-90	43.88 ± 1.68	52.40	41.92 - 62.88	Pass
SPW-2497	5/27/2009	Fe-55	2472.37 ± 10.76	2106.35	1685.08 - 2527.62	Pass
SPW-3448	7/14/2009	Cs-137	171.06 ± 9.21	166.10	149.49 - 182.71	Pass
SPW-3497	7/15/2009	Ni-63	179.99 ± 3.06	210.40	147.28 - 273.52	Pass
SPW-3499	7/15/2009	Tc-99	29.61 ± 0.81	32.34	20.34 - 44.34	Pass
SPMI-3582	7/17/2009	Cs-134	32.86 ± 3.72	31.89	21.89 - 41.89	Pass
SPMI-3582	7/17/2009	Cs-137	182.49 ± 10.54	166.10	149.49 - 182.71	Pass
SPAP-3595	7/17/2009	Cs-134	13.01 ± 3.00	12.75	2.75 - 22.75	Pass
SPAP-3595	7/17/2009	Cs-137	110.63 ± 6.58	110.73	99.66 - 121.80	Pass

TABLE A-3. In-House "Spike" Samples

Lab Code [b]	Date	Concentration (pCi/L)[a] Analysis	Laboratory results 2s, n=1	Known Activity	Control Limits[c]	Acceptance
SPF-3597	7/17/2009	Cs-134	0.53 ± 0.03	0.51	0.31 - 0.71	Pass
SPF-3597	7/17/2009	Cs-137	2.43 ± 0.05	2.22	1.33 - 3.10	Pass
SPW-3599	7/17/2009	H-3	63246.00 ± 725.00	62495.00	49996.00 - 74994.00	Pass
SPW-12643	8/3/2009	Ra-228	38.18 ± 2.72	40.54	28.38 - 52.70	Pass
W-80709	8/7/2009	Ra-226	16.28 ± 0.41	16.77	11.74 - 21.80	Pass
W-81009	8/10/2009	Gr. Alpha	20.58 ± 0.44	20.08	10.04 - 30.12	Pass
W-81009	8/10/2009	Gr. Beta	44.44 ± 0.40	45.60	35.60 - 55.60	Pass
W-100109	10/1/2009	Ra-226	15.68 ± 0.41	16.77	11.74 - 21.80	Pass
W-102709	10/27/2009	Gr. Alpha	21.50 ± 0.43	20.08	10.04 - 30.12	Pass
W-102709	10/27/2009	Gr. Beta	44.83 ± 0.40	45.60	35.60 - 55.60	Pass
SPW-5964	10/28/2009	U-238	40.20 ± 1.87	41.70	29.19 - 54.21	Pass
SPW-12647	11/6/2009	Ra-228	44.49 ± 3.33	40.54	28.38 - 52.70	Pass
SPAP-6769	12/14/2009	Gr. Beta	45.43 ± 0.11	49.48	29.69 - 69.27	Pass
SPAP-6774	12/14/2009	Cs-134	10.32 ± 0.83	11.11	1.11 - 21.11	Pass
SPAP-6774	12/14/2009	Cs-137	106.58 ± 2.51	109.70	98.73 - 120.67	Pass
SPF-6776	12/14/2009	Cs-134	0.43 ± 0.02	0.44	0.26 - 0.62	Pass
SPF-6776	12/14/2009	Cs-137	2.33 ± 0.05	2.19	1.31 - 3.07	Pass
SPW-6780	12/14/2009	Tc-99	30.71 ± 1.09	32.34	20.34 - 44.34	Pass
SPMI-6782	12/14/2009	Co-60	74.30 ± 5.41	72.81	62.81 - 82.81	Pass
SPMI-6782	12/14/2009	Cs-134	58.82 ± 3.75	55.54	45.54 - 65.54	Pass
SPMI-6782	12/14/2009	Cs-137	178.18 ± 9.68	164.55	148.10 - 181.01	Pass
SPW-6784	12/14/2009	Co-60	74.03 ± 4.64	72.81	62.81 - 82.81	Pass
SPW-6784	12/14/2009	Cs-134	54.84 ± 3.83	55.54	45.54 - 65.54	Pass
SPW-6784	12/14/2009	Cs-137	180.06 ± 8.81	164.55	148.10 - 181.01	Pass

[a] Liquid sample results are reported in pCi/Liter, air filters(pCi/filter), charcoal (pCi/m^3), and solid samples (pCi/g).

[b] Laboratory codes as follows: W (water), MI (milk), AP (air filter), SO (soil), VE (vegetation), CH (charcoal canister), F (fish).

[c] Results are based on single determinations.

[d] Control limits are established from the precision values listed in Attachment A of this report, adjusted to ± 2σ.

[e] Control limits based on the laboratory limit, Attachment A ("Other Analyses").

NOTE: For fish, Jello is used for the Spike matrix. For Vegetation, cabbage is used for the Spike matrix.

TABLE A-4. In-House "Blank" Samples

Lab Code	Sample Type	Date	Analysis[b]	Concentration (pCi/L)[a]		
				Laboratory results (4.66σ)		Acceptance
				LLD	Activity[c]	Criteria (4.66 σ)
W-12009	Water	1/20/2009	Ra-226	0.05	0.06 ± 0.04	1
SPW-5554	Water	1/27/2009	Ra-228	0.08	0.17 ± 0.40	2
W-12709	Water	1/27/2009	Gr. Alpha	0.35	0.22 ± 0.27	1
W-12709	Water	1/27/2009	Gr. Beta	0.74	-0.08 ± 0.51	3.2
SPW-218	Water	1/29/2009	U-238	0.19	-0.06 ± 0.09	1
SPW-538	Water	2/24/2009	Ni-63	7.91	4.96 ± 4.93	20
SPW-717	Water	3/6/2009	C-14	7.66	3.03 ± 4.71	200
SPMI-816	Milk	3/16/2009	Cs-134	3.24	-	10
SPMI-816	Milk	3/16/2009	Cs-137	3.38	-	10
SPMI-816	Milk	3/16/2009	I-131	0.31	0.04 ± 0.17	0.5
SPMI-816	Milk	3/16/2009	I-131(G)	3.65	-	20
SPMI-816	Milk	3/16/2009	Sr-90	0.48	0.41 ± 0.27	1
SPW-819	Water	3/16/2009	Co-60	3.02	-	10
SPW-819	Water	3/16/2009	Cs-134	2.25	-	10
SPW-819	Water	3/16/2009	Cs-137	2.03	-	10
SPW-819	Water	3/16/2009	I-131	0.42	-0.06 ± 0.19	0.5
SPW-819	Water	3/16/2009	I-131(G)	3.02	-	20
SPW-819	Water	3/16/2009	Sr-90	1.10	-0.63 ± 0.44	1
SPAP-902	Air Filter	3/23/2009	Gr. Beta	0.003	0.006 ± 0.002	3.2
SPAP-904	Air Filter	3/23/2009	Cs-134	1.68	-	100
SPAP-904	Air Filter	3/23/2009	Cs-137	2.62	-	100
SPW-32709	Water	3/23/2009	Ni-63	2.84	1.37 ± 1.75	20
SPF-821	Fish	4/7/2009	Cs-134	3.12	-	100
SPF-821	Fish	4/7/2009	Cs-137	3.93	-	100
W-40909	Water	4/9/2009	Gr. Alpha	0.40	-0.25 ± 0.26	1
W-40909	Water	4/9/2009	Gr. Beta	0.77	-0.30 ± 0.53	3.2
SPW-12651	Water	4/10/2009	Ra-228	0.77	0.77 ± 0.45	2
SPW-1268	Water	4/10/2009	U-238	0.11	0.24 ± 0.17	1
W-42809	Water	4/28/2009	Ra-226	0.04	0.09 ± 0.04	1
SPMI-2186	Milk	5/12/2009	Sr-90	0.43	0.52 ± 0.26	1
SPMI-2187	Milk	5/12/2009	Cs-134	3.61	-	10
SPMI-2187	Milk	5/12/2009	Cs-137	3.13	-	10
SPMI-2187	Milk	5/12/2009	I-131	0.15	-0.02 ± 0.10	0.5
SPMI-2187	Milk	5/12/2009	I-131(G)	3.77	-	20
SPW-2498	Water	5/27/2009	Ni-63	1.60	0.00 ± 0.97	20

TABLE A-4. In-House "Blank" Samples

Lab Code	Sample Type	Date	Analysis[b]	Concentration (pCi/L)[a]		
				Laboratory results (4.66σ)		Acceptance
				LLD	Activity[c]	Criteria (4.66 σ)
SPW-3497	Water	7/15/2009	Ni-63	1.55	-0.24 ± 0.94	20
SPW-3500	Water	7/15/2009	Tc-99	0.90	-1.71 ± 0.53	10
SPMI-3589	Milk	7/17/2009	I-131(G)	5.75	-	20
SPAP-3594	Air Filter	7/17/2009	Cs-134	1.14	-	100
SPAP-3594	Air Filter	7/17/2009	Cs-137	2.47	-	100
SPF-3596	Fish	7/17/2009	Co-60	5.00	-	100
SPF-3596	Fish	7/17/2009	Cs-134	8.00	-	100
SPF-3596	Fish	7/17/2009	Cs-137	11.50	-	100
SPW-3598	Water	7/17/2009	H-3	148.40	0.69 ± 73.60	200
SPW-12653	Water	8/3/2009	Ra-228	0.76	1.46 ± 0.51	2
W-80709	Water	8/7/2009	Ra-226	0.04	0.08 ± 0.03	1
W-81009	Water	8/10/2009	Gr. Alpha	0.44	0.08 ± 0.31	1
W-81009	Water	8/10/2009	Gr. Beta	0.75	-0.31 ± 0.52	3.2
W-100109	Water	10/1/2009	Ra-226	0.04	0.09 ± 0.03	1
W-102709	Water	10/27/2009	Gr. Alpha	0.38	0.33 ± 0.30	1
W-102709	Water	10/27/2009	Gr. Beta	0.81	-0.59 ± 0.55	3.2
SPW-5965	Water	10/28/2009	U-238	0.15	0.09 ± 0.13	1
SPW-12657	Water	11/6/2009	Ra-228	0.86	0.80 ± 0.50	2
SPAP-6769	Air Filter	12/14/2009	Gr. Beta	0.003	0.010 ± 0.002	3.2
SPAP-6773	Air Filter	12/14/2009	Cs-137	1.31	-	100
SPF-6775	Fish	12/14/2009	Cs-134	5.70	-	100
SPF-6775	Fish	12/14/2009	Cs-137	4.18	-	100
SPW-6777	Water	12/14/2009	Ni-63	2.29	0.25 ± 1.38	20
SPW-6779	Water	12/14/2009	Tc-99	1.16	-0.98 ± 0.69	10
SPMI-6781	Milk	12/14/2009	Cs-134	2.62	-	10
SPMI-6781	Milk	12/14/2009	Cs-137	3.29	-	10
SPMI-6781	Milk	12/14/2009	I-131(G)	2.65	-	20
SPW-6783	Water	12/14/2009	Cs-134	2.18	-	10
SPW-6783	Water	12/14/2009	Cs-137	2.90	-	10
SPW-6783	Water	12/14/2009	I-131(G)	2.30	-	20

[a] Liquid sample results are reported in pCi/Liter, air filters(pCi/filter), charcoal (pCi/charcoal canister), and solid samples (pCi/kg).

[b] I-131(G); iodine-131 as analyzed by gamma spectroscopy.

[c] Activity reported is a net activity result. For gamma spectroscopic analysis, activity detected below the LLD value is not reported.

TABLE A-5. In-House "Duplicate" Samples

Lab Code	Date	Analysis	Concentration (pCi/L)[a] First Result	Second Result	Averaged Result	Acceptance
AP-7464, 7465	1/1/2009	Be-7	0.063 ± 0.012	0.065 ± 0.010	0.064 ± 0.008	Pass
E-20, 21	1/5/2009	K-40	1.34 ± 0.21	1.13 ± 0.13	1.24 ± 0.12	Pass
CF-67, 68	1/5/2009	Be-7	0.34 ± 0.12	0.39 ± 0.08	0.37 ± 0.07	Pass
CF-67, 68	1/5/2009	Gr. Beta	4.34 ± 0.11	4.38 ± 0.12	4.36 ± 0.08	Pass
CF-67, 68	1/5/2009	K-40	3.16 ± 0.26	3.00 ± 0.16	3.08 ± 0.15	Pass
DW-90010, 90011	1/9/2009	Ra-226	2.97 ± 0.22	2.76 ± 0.21	2.87 ± 0.15	Pass
DW-90010, 90011	1/9/2009	Ra-228	3.13 ± 0.71	3.55 ± 0.81	3.34 ± 0.54	Pass
SG-198, 199	1/23/2009	Gr. Alpha	101.90 ± 6.50	101.70 ± 6.10	101.80 ± 4.46	Pass
SG-198, 199	1/23/2009	Gr. Beta	97.80 ± 3.50	94.00 ± 3.20	95.90 ± 2.37	Pass
SW-308, 309	1/27/2009	Gr. Beta	1.43 ± 0.58	1.41 ± 0.54	1.42 ± 0.40	Pass
LW-330, 331	1/27/2009	Gr. Beta	2.09 ± 0.58	2.33 ± 0.63	2.21 ± 0.43	Pass
SW-308, 309	1/29/2009	Gr. Beta	1.51 ± 0.56	1.61 ± 0.57	1.56 ± 0.40	Pass
DW-375, 376	2/4/2009	Gr. Beta	2.72 ± 0.65	3.06 ± 0.69	2.89 ± 0.47	Pass
SWU-606, 607	2/24/2009	Gr. Beta	2.66 ± 0.68	2.16 ± 0.67	2.41 ± 0.48	Pass
U-651, 652	2/27/2009	Beta-K40	3.90 ± 2.30	1.70 ± 2.50	2.80 ± 1.70	Pass
U-651, 652	2/27/2009	H-3	597.00 ± 292.00	507.00 ± 288.00	552.00 ± 205.07	Pass
SG-739, 740	3/2/2009	Ra-226	8.20 ± 0.20	8.30 ± 0.20	8.25 ± 0.14	Pass
MI-875, 876	3/17/2009	K-40	1286.50 ± 111.60	1471.70 ± 111.50	1379.10 ± 78.88	Pass
MI-875, 876	3/17/2009	Sr-90	0.67 ± 0.31	0.36 ± 0.36	0.52 ± 0.24	Pass
WW-970, 971	3/24/2009	Gr. Beta	13.59 ± 2.32	17.33 ± 2.69	15.46 ± 1.78	Pass
XWW-980, 981	3/24/2009	H-3	7143.00 ± 262.00	7262.00 ± 264.00	7202.50 ± 185.97	Pass
AP-1441, 1442	3/30/2009	Be-7	0.076 ± 0.012	0.075 ± 0.014	0.076 ± 0.009	Pass
SWT-1123, 1124	3/31/2009	Gr. Beta	1.40 ± 0.55	1.86 ± 0.62	1.63 ± 0.41	Pass
WW-1102, 1103	4/1/2009	Gr. Beta	2.13 ± 1.34	2.30 ± 1.32	2.22 ± 0.94	Pass
XWW-1174, 1175	4/1/2009	H-3	2814 ± 176	2787 ± 176	2801 ± 124	Pass
AP-1462, 1463	4/2/2009	Be-7	0.085 ± 0.014	0.10 ± 0.016	0.091 ± 0.011	Pass
SL-2024, 2025	5/4/2009	Be-7	0.80 ± 0.18	0.82 ± 0.13	0.81 ± 0.11	Pass
SL-2024, 2025	5/4/2009	Gr. Beta	2.41 ± 0.19	2.68 ± 0.21	2.55 ± 0.14	Pass
SL-2024, 2025	5/4/2009	K-40	1.20 ± 0.21	1.30 ± 0.15	1.25 ± 0.13	Pass
SO-2045, 2046	5/4/2009	Gr. Alpha	6.22 ± 2.87	6.50 ± 3.26	6.36 ± 2.17	Pass
SO-2045, 2046	5/4/2009	Gr. Beta	28.85 ± 3.15	30.39 ± 3.34	29.62 ± 2.30	Pass
SO-2045, 2046	5/4/2009	Sr-90	0.036 ± 0.010	0.024 ± 0.010	0.030 ± 0.007	Pass
mi-2251, 2252	5/14/2009	K-40	1220.60 ± 155.10	1455.50 ± 118.20	1338.05 ± 97.50	Pass
mi-2381, 2382	5/19/2009	K-40	1472.50 ± 122.90	1412.80 ± 117.40	1442.65 ± 84.98	Pass
SWT-2534, 2535	5/26/2009	Gr. Beta	1.12 ± 0.57	1.66 ± 0.58	1.39 ± 0.41	Pass
G-2626, 2627	5/28/2009	Gr. Beta	6.32 ± 0.19	6.18 ± 0.19	6.25 ± 0.13	Pass
G-2626, 2627	5/28/2009	K-40	4.13 ± 0.35	4.05 ± 0.34	4.09 ± 0.24	Pass
WW-2732, 2733	6/1/2009	H-3	240.73 ± 93.21	190.39 ± 90.81	215.56 ± 65.07	Pass

TABLE A-5. In-House "Duplicate" Samples

Lab Code	Date	Analysis	Concentration (pCi/L)[a] First Result	Second Result	Averaged Result	Acceptance
SO-3141, 3142	6/22/2009	Ac-228	1.07 ± 0.06	1.06 ± 0.05	1.07 ± 0.04	Pass
SO-3141, 3142	6/22/2009	Be-7	0.55 ± 0.14	0.62 ± 0.08	0.59 ± 0.08	Pass
SO-3141, 3142	6/22/2009	Bi-212	1.16 ± 0.17	1.14 ± 0.16	1.15 ± 0.12	Pass
SO-3141, 3142	6/22/2009	Bi-214	0.96 ± 0.03	1.01 ± 0.03	0.99 ± 0.02	Pass
SO-3141, 3142	6/22/2009	Cs-137	0.72 ± 0.07	0.76 ± 0.08	0.74 ± 0.05	Pass
SO-3141, 3142	6/22/2009	Pb-212	1.00 ± 0.02	1.03 ± 0.02	1.02 ± 0.01	Pass
SO-3141, 3142	6/22/2009	Pb-214	1.01 ± 0.03	1.04 ± 0.03	1.03 ± 0.02	Pass
SO-3141, 3142	6/22/2009	Pu-239/40	0.022 ± 0.008	0.030 ± 0.009	0.026 ± 0.006	Pass
SO-3141, 3142	6/22/2009	Th-232	0.51 ± 0.04	0.48 ± 0.05	0.50 ± 0.03	Pass
SO-3141, 3142	6/22/2009	Tl-208	0.35 ± 0.02	0.36 ± 0.02	0.36 ± 0.01	Pass
SO-3141, 3142	6/22/2009	U-233/4	0.16 ± 0.02	0.18 ± 0.02	0.17 ± 0.01	Pass
SO-3141, 3142	6/22/2009	U-238	0.14 ± 0.02	0.18 ± 0.03	0.16 ± 0.02	Pass
SG-3187, 3188	6/25/2009	Ac-228	11.07 ± 0.33	10.88 ± 0.33	10.97 ± 0.24	Pass
SG-3187, 3188	6/25/2009	Pb-214	26.54 ± 0.23	26.17 ± 0.25	26.36 ± 0.17	Pass
SL-3297, 3298	7/1/2009	Be-7	1.15 ± 0.13	1.15 ± 0.12	1.15 ± 0.09	Pass
SL-3297, 3298	7/1/2009	Gr. Beta	3.38 ± 0.23	3.37 ± 0.12	3.38 ± 0.13	Pass
SL-3297, 3298	7/1/2009	K-40	1.43 ± 0.18	1.50 ± 0.19	1.47 ± 0.13	Pass
AP-3944, 3945	7/1/2009	Be-7	0.064 ± 0.009	0.068 ± 0.010	0.066 ± 0.007	Pass
DW-90222, 90223	7/15/2009	Ra-226	5.36 ± 0.60	4.62 ± 0.51	4.99 ± 0.39	Pass
DW-90222, 90223	7/15/2009	Ra-228	2.91 ± 0.73	2.80 ± 0.70	2.86 ± 0.51	Pass
DW-90237, 90238	7/17/2009	Gr. Alpha	3.54 ± 0.99	4.22 ± 1.09	3.88 ± 0.74	Pass
F-3790, 3791	7/21/2009	K-40	1.10 ± 0.35	1.41 ± 0.44	1.26 ± 0.28	Pass
DW-90250, 90251	7/22/2009	Ra-226	14.58 ± 0.39	15.13 ± 0.40	14.86 ± 0.28	Pass
DW-90250, 90251	7/22/2009	Ra-228	6.71 ± 1.05	6.10 ± 1.01	6.41 ± 0.73	Pass
VE-3965, 3966	7/28/2009	K-40	1.48 ± 0.16	1.56 ± 0.19	1.52 ± 0.13	Pass
VE-4098, 4099	8/3/2009	Be-7	0.54 ± 0.16	0.58 ± 0.16	0.56 ± 0.11	Pass
VE-4098, 4099	8/3/2009	Gr. Beta	5.15 ± 0.17	5.07 ± 0.18	5.11 ± 0.12	Pass
VE-4098, 4099	8/3/2009	K-40	4.91 ± 0.49	5.17 ± 0.15	5.04 ± 0.26	Pass
SO-4325, 4326	8/14/2009	Be-7	0.59 ± 0.21	0.68 ± 0.28	0.64 ± 0.18	Pass
SO-4325, 4326	8/14/2009	Cs-137	0.29 ± 0.05	0.28 ± 0.05	0.28 ± 0.03	Pass
SO-4325, 4326	8/14/2009	K-40	13.41 ± 0.77	13.46 ± 0.80	13.43 ± 0.56	Pass
SG-4283, 4284	8/17/2009	Ac-228	7.16 ± 0.28	7.10 ± 0.26	7.13 ± 0.19	Pass
SG-4283, 4284	8/17/2009	Pb-214	6.27 ± 0.13	6.21 ± 0.13	6.24 ± 0.09	Pass
VE-4436, 4437	8/25/2009	K-40	2.28 ± 0.28	2.67 ± 0.26	2.48 ± 0.19	Pass
SL-4589, 4590	9/1/2009	Be-7	1.25 ± 0.22	1.25 ± 0.16	1.25 ± 0.14	Pass
SL-4589, 4590	9/1/2009	K-40	2.96 ± 0.30	2.70 ± 0.27	2.83 ± 0.20	Pass
AV-4882, 4883	9/8/2009	Be-7	0.93 ± 0.18	0.95 ± 0.17	0.94 ± 0.12	Pass
AV-4882, 4883	9/8/2009	K-40	2.50 ± 0.26	2.47 ± 0.29	2.49 ± 0.20	Pass

TABLE A-5. In-House "Duplicate" Samples

Lab Code	Date	Analysis	Concentration (pCi/L)[a] First Result	Second Result	Averaged Result	Acceptance
WW-4721, 4722	9/9/2009	H-3	19191.00 ± 404.00	18677.00 ± 399.00	18934.00 ± 283.91	Pass
WW-4903, 4904	9/11/2009	H-3	1075.00 ± 130.00	1281.00 ± 136.00	1178.00 ± 94.07	Pass
BS-5119, 5120	9/16/2009	Be-7	2067.50 ± 327.90	2225.40 ± 371.10	2146.45 ± 247.61	Pass
BS-5119, 5120	9/16/2009	Cs-137	86.24 ± 35.40	145.10 ± 31.54	115.67 ± 23.71	Pass
BS-5119, 5120	9/16/2009	K-40	16.85 ± 0.90	17.27 ± 0.79	17.06 ± 0.60	Pass
SS-5188, 5189	9/23/2009	Be-7	1.02 ± 0.31	1.04 ± 0.43	1.03 ± 0.26	Pass
SS-5188, 5189	9/23/2009	K-40	10.21 ± 0.65	9.94 ± 0.93	10.07 ± 0.57	Pass
AP-3944, 3945	9/29/2009	Be-7	0.09 ± 0.02	0.09 ± 0.02	0.09 ± 0.01	Pass
E-5251, 5252	10/1/2009	Gr. Beta	2.30 ± 0.10	2.10 ± 0.10	2.20 ± 0.07	Pass
E-5251, 5252	10/1/2009	K-40	1.18 ± 0.24	1.15 ± 0.18	1.17 ± 0.15	Pass
G-5272, 5273	10/1/2009	Be-7	3.31 ± 0.29	3.60 ± 0.26	3.46 ± 0.19	Pass
G-5272, 5273	10/1/2009	Gr. Alpha	19.81 ± 0.80	21.10 ± 0.74	20.46 ± 0.54	Pass
G-5272, 5273	10/1/2009	K-40	16.47 ± 0.75	17.00 ± 0.74	16.74 ± 0.53	Pass
F-5690, 5691	10/15/2009	H-3	8895.00 ± 250.00	9051.00 ± 252.00	8973.00 ± 177.49	Pass
F-5690, 5691	10/15/2009	K-40	3.62 ± 0.40	3.09 ± 0.48	3.36 ± 0.31	Pass
DW-90396, 90397	10/16/2009	Ra-226	0.54 ± 0.09	0.42 ± 0.08	0.48 ± 0.06	Pass
DW-90396, 90397	10/16/2009	Ra-228	1.44 ± 0.56	0.94 ± 0.51	1.19 ± 0.38	Pass
DW-90408, 90409	10/19/2009	Ra-226	0.99 ± 0.12	1.10 ± 0.14	1.05 ± 0.09	Pass
DW-90408, 90409	10/19/2009	Ra-228	2.76 ± 0.66	1.38 ± 0.92	2.07 ± 0.57	Pass
DW-90420, 90421	10/21/2009	Ra-226	1.95 ± 0.17	1.77 ± 0.15	1.86 ± 0.11	Pass
DW-90420, 90421	10/21/2009	Ra-228	3.10 ± 0.73	3.32 ± 0.80	3.21 ± 0.54	Pass
SG-5962, 5963	10/22/2009	Ac-228	16.39 ± 0.79	16.51 ± 0.63	16.45 ± 0.51	Pass
SG-5962, 5963	10/22/2009	Pb-214	18.03 ± 0.41	17.74 ± 0.42	17.89 ± 0.29	Pass
DW-90423, 90424	10/27/2009	Gr. Alpha	12.04 ± 1.68	15.28 ± 1.97	13.66 ± 1.29	Pass
ME-6116, 6117	11/3/2009	Gr. Beta	0.86 ± 0.03	0.83 ± 0.03	0.85 ± 0.02	Pass
ME-6116, 6117	11/3/2009	K-40	2.57 ± 0.08	2.65 ± 0.08	2.61 ± 0.06	Pass
F-6567, 6568	11/6/2009	Gr. Beta	2.72 ± 1.05	3.04 ± 0.92	2.88 ± 0.70	Pass
F-6567, 6568	11/6/2009	Sr-90	0.09 ± 0.03	0.12 ± 0.04	0.11 ± 0.02	Pass
W-6495, 6496	11/8/2009	H-3	2638.00 ± 173.00	2451.00 ± 168.00	2544.50 ± 120.57	Pass
WW-6313, 6314	11/9/2009	H-3	1514.00 ± 137.00	1483.00 ± 136.00	1498.50 ± 96.52	Pass
SWU-6611, 6612	11/24/2009	Gr. Beta	1.88 ± 0.60	1.67 ± 0.59	1.78 ± 0.42	Pass
DW-90446, 90447	12/30/2009	Ra-226	0.30 ± 0.10	0.54 ± 0.14	0.42 ± 0.09	Pass
DW-90446, 90447	12/30/2009	Ra-228	2.60 ± 0.64	2.65 ± 0.65	2.63 ± 0.46	Pass

Note: Duplicate analyses are performed on every twentieth sample received in-house. Results are not listed for those analyses with activities that measure below the LLD.

[a] Results are reported in units of pCi/L, except for air filters (pCi/Filter), food products, vegetation, soil, sediment (pCi/g).

TABLE A-6. Department of Energy's Mixed Analyte Performance Evaluation Program (MAPEP)[a].

			Concentration [b]			
Lab Code [c]	Date	Analysis	Laboratory result	Known Activity	Control Limits [d]	Acceptance
STW-1170 [f]	01/01/09	Am-241	1.15 ± 0.06	0.64	0.45 - 0.83	Fail
STW-1170	01/01/09	Co-57	19.60 ± 0.40	18.90	13.20 - 24.60	Pass
STW-1170	01/01/09	Co-60	16.60 ± 0.30	17.21	12.05 - 22.37	Pass
STW-1170	01/01/09	Cs-134	20.40 ± 0.50	22.50	15.80 - 29.30	Pass
STW-1170 [e]	01/01/09	Cs-137	0.10 ± 0.20	0.00	0.00 - 1.00	Pass
STW-1170	01/01/09	Fe-55	51.60 ± 20.60	48.20	33.70 - 62.70	Pass
STW-1170	01/01/09	H-3	359.90 ± 33.90	330.90	231.60 - 430.20	Pass
STW-1170	01/01/09	Mn-54	15.00 ± 0.40	14.66	10.26 - 19.06	Pass
STW-1170	01/01/09	Ni-63	50.50 ± 3.25	53.50	37.45 - 69.55	Pass
STW-1170	01/01/09	Pu-238	1.17 ± 0.04	1.18	0.83 - 1.53	Pass
STW-1170	01/01/09	Pu-239/40	0.74 ± 0.03	0.85	0.60 - 1.11	Pass
STW-1170	01/01/09	Sr-90	7.87 ± 1.39	7.21	5.05 - 9.37	Pass
STW-1170	01/01/09	Tc-99	12.70 ± 0.80	14.46	10.12 - 18.80	Pass
STW-1170	01/01/09	U-233/4	2.78 ± 0.07	2.77	1.94 - 3.60	Pass
STW-1170	01/01/09	U-238	2.87 ± 0.07	2.88	2.02 - 3.74	Pass
STW-1170	01/01/09	Zn-65	14.00 ± 0.70	13.60	9.50 - 17.70	Pass
STW-1171	01/01/09	Gr. Alpha	0.56 ± 0.06	0.64	0.00 - 1.27	Pass
STW-1171	01/01/09	Gr. Beta	1.29 ± 0.05	1.27	0.64 - 1.91	Pass
STSO-1172 [e]	01/01/09	Co-57	0.00 ± 0.00	0.00	0.00 - 1.00	Pass
STSO-1172	01/01/09	Cs-134	458.60 ± 7.40	467.00	327.00 - 607.00	Pass
STSO-1172	01/01/09	Cs-137	652.30 ± 3.50	605.00	424.00 - 787.00	Pass
STSO-1172	01/01/09	K-40	636.40 ± 9.50	570.00	360.40 - 669.40	Pass
STSO-1172	01/01/09	Mn-54	346.40 ± 3.10	307.00	215.00 - 399.00	Pass
STSO-1172	01/01/09	Pu-238	28.60 ± 2.20	25.30	17.70 - 32.90	Pass
STSO-1172 [e]	01/01/09	Pu-239/40	0.50 ± 0.40	0.00	0.00 - 1.00	Pass
STSO-1172	01/01/09	Sr-90	180.60 ± 12.10	257.00	180.00 - 334.00	Pass
STSO-1172	01/01/09	U-233/4	152.20 ± 4.30	149.00	104.00 - 194.00	Pass
STSO-1172	01/01/09	U-238	154.90 ± 4.40	155.00	109.00 - 202.00	Pass
STSO-1172	01/01/09	Zn-65	268.30 ± 4.00	242.00	169.00 - 315.00	Pass
STVE-1173	01/01/09	Co-57	2.75 ± 0.11	2.36	1.65 - 3.07	Pass
STVE-1173 [e]	01/01/09	Co-60	0.06 ± 0.09	0.00	0.00 - 1.00	Pass
STVE-1173	01/01/09	Cs-134	3.49 ± 0.22	3.40	2.38 - 4.42	Pass
STVE-1173	01/01/09	Cs-137	1.01 ± 0.11	0.93	0.65 - 1.21	Pass
STVE-1173	01/01/09	Mn-54	2.52 ± 0.14	2.30	1.61 - 2.99	Pass
STVE-1173	01/01/09	Zn-65	1.52 ± 0.18	1.35	0.95 - 1.76	Pass

TABLE A-6. Department of Energy's Mixed Analyte Performance Evaluation Program (MAPEP)[a].

			Concentration [b]			
Lab Code [c]	Date	Analysis	Laboratory result	Known Activity	Control Limits [d]	Acceptance
STAP-1174 [g]	01/01/09	Am-241	0.29 ± 0.03	0.21	0.14 - 0.27	Fail
STAP-1174	01/01/09	Co-57	1.25 ± 0.05	1.30	0.91 - 1.69	Pass
STAP-1174	01/01/09	Co-60	1.17 ± 0.06	1.22	0.85 - 1.59	Pass
STAP-1174	01/01/09	Cs-134	2.67 ± 0.14	2.93	2.05 - 3.81	Pass
STAP-1174	01/01/09	Cs-137	1.53 ± 0.08	1.52	1.06 - 1.98	Pass
STAP-1174	01/01/09	Mn-54	2.34 ± 0.09	2.27	1.59 - 2.95	Pass
STAP-1174 [h]	01/01/09	Sr-90	0.93 ± 0.14	0.64	0.45 - 0.83	Fail
STAP-1174	01/01/09	Zn-65	1.44 ± 0.14	1.36	0.95 - 1.77	Pass
STAP-1175	01/01/09	Gr. Alpha	0.22 ± 0.03	0.35	0.00 - 0.70	Pass
STAP-1175	01/01/09	Gr. Beta	0.36 ± 0.04	0.28	0.14 - 0.42	Pass
STSO-1188	07/01/09	Co-57	674.60 ± 9.00	586.00	410.00 - 762.00	Pass
STSO-1188	07/01/09	Co-60	356.40 ± 6.30	327.00	229.00 - 425.00	Pass
STSO-1188	07/01/09	Cs-134	0.20 ± 1.90	0.00	0.00 - 1.00	Pass
STSO-1188	07/01/09	Cs-137	767.50 ± 12.00	669.00	468.00 - 870.00	Pass
STSO-1188	07/01/09	K-40	433.00 ± 37.20	375.00	263.00 - 488.00	Pass
STSO-1188	07/01/09	Mn-54	931.60 ± 14.10	796.00	557.00 - 1035.00	Pass
STSO-1188	07/01/09	Pu-238	53.10 ± 9.00	63.20	44.20 - 82.20	Pass
STSO-1188	07/01/09	Pu-239/40	107.10 ± 12.60	116.30	81.40 - 151.20	Pass
STSO-1188 [i]	07/01/09	Sr-90	310.50 ± 12.20	455.00	319.00 - 592.00	Fail
STSO-1188	07/01/09	U-233/4	188.20 ± 11.90	209.00	146.00 - 272.00	Pass
STSO-1188	07/01/09	U-238	197.40 ± 12.20	217.00	152.00 - 282.00	Pass
STSO-1188	07/01/09	Zn-65	1433.90 ± 25.20	1178.00	825.00 - 1531.00	Pass
STAP-1189	07/01/09	Gr. Alpha	0.33 ± 0.04	0.66	0.00 - 1.32	Pass
STAP-1189	07/01/09	Gr. Beta	1.57 ± 0.07	1.32	0.66 - 1.98	Pass
STAP-1190	07/01/09	Am-241	0.01 ± 0.02	0.00	0.01 - 0.05	Pass
STAP-1190	07/01/09	Co-57	6.78 ± 0.27	6.48	4.54 - 8.42	Pass
STAP-1190	07/01/09	Co-60	1.06 ± 0.18	1.03	0.72 - 1.34	Pass
STAP-1190	07/01/09	Cs-134	0.01 ± 0.06	0.00	0.01 - 0.05	Pass
STAP-1190	07/01/09	Cs-137	1.49 ± 0.27	1.40	0.98 - 1.82	Pass
STAP-1190	07/01/09	Mn-54	6.00 ± 0.45	5.49	3.84 - 7.14	Pass
STAP-1190	07/01/09	Sr-90	0.79 ± 0.13	0.84	0.59 - 1.09	Pass
STAP-1190	07/01/09	Zn-65	4.55 ± 0.66	3.93	2.75 - 5.11	Pass
STVE-1190	07/01/09	Co-57	8.90 ± 0.60	8.00	5.60 - 10.40	Pass
STVE-1190	07/01/09	Co-60	2.50 ± 0.36	2.57	1.80 - 3.34	Pass
STVE-1190	07/01/09	Cs-134	0.01 ± 0.11	0.00	0.00 - 0.10	Pass
STVE-1190	07/01/09	Cs-137	2.42 ± 0.16	2.43	1.70 - 3.16	Pass
STVE-1190	07/01/09	Mn-54	8.35 ± 0.70	7.90	5.50 - 10.30	Pass
STVE-1190	07/01/09	Zn-65	0.01 ± 0.26	0.00	0.00 - 0.10	Pass

TABLE A-6. Department of Energy's Mixed Analyte Performance Evaluation Program (MAPEP)[a].

			Concentration [b]			
Lab Code [c]	Date	Analysis	Laboratory result	Known Activity	Control Limits [d]	Acceptance
STW-1191	07/01/09	Gr. Alpha	0.88 ± 0.07	1.05	0.00 - 2.09	Pass
STW-1191	07/01/09	Gr. Beta	7.29 ± 0.10	7.53	3.77 - 11.30	Pass
STW-1192	07/01/09	Am-241	0.88 ± 0.08	1.04	0.73 - 1.35	Pass
STW-1192	07/01/09	Co-57	37.20 ± 1.50	36.60	25.60 - 47.60	Pass
STW-1192	07/01/09	Co-60	15.10 ± 0.90	15.40	10.80 - 20.00	Pass
STW-1192	07/01/09	Cs-134	30.30 ± 2.10	32.20	22.50 - 41.90	Pass
STW-1192	07/01/09	Cs-137	41.90 ± 1.80	41.20	28.80 - 53.60	Pass
STW-1192	07/01/09	Fe-55	54.50 ± 15.50	60.80	42.60 - 79.00	Pass
STW-1192	07/01/09	H-3	680.30 ± 33.60	634.10	443.90 - 824.30	Pass
STW-1192 [e]	07/01/09	Mn-54	0.01 ± 0.26	0.00	0.00 - 1.00	Pass
STW-1192	07/01/09	Ni-63	38.70 ± 2.60	44.20	30.90 - 57.50	Pass
STW-1192	07/01/09	Pu-238	0.02 ± 0.01	0.02	0.00 - 0.05	Pass
STW-1192	07/01/09	Pu-239/40	1.70 ± 0.10	1.64	1.15 - 2.13	Pass
STW-1192	07/01/09	Sr-90	12.90 ± 1.70	12.99	9.09 - 16.89	Pass
STW-1192	07/01/09	Tc-99	7.60 ± 0.40	10.00	7.00 - 13.00	Pass
STW-1192	07/01/09	Tc-99	7.60 ± 0.40	10.00	7.00 - 13.00	Pass
STW-1192	07/01/09	U-233/4	2.90 ± 0.10	2.96	2.07 - 3.85	Pass
STW-1192	07/01/09	U-238	3.00 ± 0.10	3.03	2.12 - 3.94	Pass
STW-1192	07/01/09	Zn-65	28.50 ± 2.40	26.90	18.80 - 35.00	Pass

[a] Results obtained by Environmental, Inc., Midwest Laboratory as a participant in the Department of Energy's Mixed Analyte Performance Evaluation Program, Idaho Operations office, Idaho Falls, Idaho

[b] Results are reported in units of Bq/kg (soil), Bq/L (water) or Bq/total sample (filters, vegetation).

[c] Laboratory codes as follows: STW (water), STAP (air filter), STSO (soil), STVE (vegetation).

[d] MAPEP results are presented as the known values and expected laboratory precision (1 sigma, 1 determination) and control limits as defined by the MAPEP.

[e] Included in the testing series as a "false positive".

[f] No errors were found in procedure or calculation. There was not enough sample for a reanalysis. Americium-241 in water was included in the ERA studies (Tbl. A-7) and also in the second round of MAPEP testing. Both analysis results were acceptable.

[g] One determination was eliminated from the average, due to poor recovery. Average of three determinations, 0.25 ± 0.03 pCi/filter.

[h] No reason was determined for the initial high results. The analysis was repeated; result of reanalysis; 0.54 ± 0.12 Bq/filter.

[i] Incomplete separation of strontium from calcium could result in a higher recovery percentage and consequently lower reported activity. The analysis was repeated; result of reanalysis 363.3 ± 28.6 Bq/kg.

TABLE A-7. Interlaboratory Comparison Crosscheck program, Environmental Resource Associates (ERA)[a].

Lab Code [b]	Date	Analysis	Concentration (pCi/L) Laboratory Result [c]	ERA Result [d]	Control Limits	Acceptance
STAP-1176	03/23/09	Am-241	47.20 ± 3.10	55.4	32.4 - 76.0	Pass
STAP-1176	03/23/09	Co-60	543.60 ± 8.90	490.0	379.0 - 612.0	Pass
STAP-1176	03/23/09	Cs-134	941.30 ± 30.70	865.0	563.0 - 1070.0	Pass
STAP-1176	03/23/09	Cs-137	850.60 ± 19.40	724.0	544.0 - 951.0	Pass
STAP-1176 [e]	03/23/09	Mn-54	0.00 ± 0.00	0.0	0.0 - 0.0	Pass
STAP-1176	03/23/09	Pu-238	64.50 ± 3.60	57.4	39.4 - 75.5	Pass
STAP-1176	03/23/09	Pu-239/40	88.50 ± 4.20	78.2	56.7 - 101.0	Pass
STAP-1176	03/23/09	Sr-90	93.90 ± 10.00	95.3	41.9 - 148.0	Pass
STAP-1176	03/23/09	U-233/4	50.00 ± 2.47	53.5	33.7 - 79.3	Pass
STAP-1176	03/23/09	U-238	50.40 ± 2.48	53.1	34.0 - 75.4	Pass
STAP-1176	03/23/09	Uranium	101.60 ± 5.30	109.0	55.7 - 173.0	Pass
STAP-1176	03/23/09	Zn-65	237.30 ± 23.70	185.0	128.0 - 256.0	Pass
STAP-1177	03/23/09	Gr. Alpha	76.30 ± 3.47	63.8	33.1 - 96.0	Pass
STAP-1177	03/23/09	Gr. Beta	98.50 ± 3.04	80.7	49.7 - 118.0	Pass
STSO-1178	03/23/09	Ac-228	1370.00 ± 121.00	1330.0	860.0 - 1880.0	Pass
STSO-1178	03/23/09	Am-241	1853.00 ± 185.50	1660.0	992.0 - 2130.0	Pass
STSO-1178	03/23/09	Bi-212	1449.00 ± 308.80	1550.0	406.0 - 2310.0	Pass
STSO-1178	03/23/09	Bi-214	1355.00 ± 66.20	1420.0	872.0 - 2050.0	Pass
STSO-1178	03/23/09	Co-60	7475.00 ± 46.40	7520.0	5470.0 - 10100.0	Pass
STSO-1178	03/23/09	Cs-134	5073.00 ± 74.70	5170.0	3330.0 - 6220.0	Pass
STSO-1178	03/23/09	Cs-137	5040.00 ± 49.70	4970.0	3800.0 - 6460.0	Pass
STSO-1178	03/23/09	K-40	10884.00 ± 292.70	11200.0	8060.0 - 15100.0	Pass
STSO-1178	03/23/09	Mn-54	0.00 ± 0.00	0.0	0.0 - 20.0	Pass
STSO-1178	03/23/09	Pb-212	1259.00 ± 28.40	1260.0	820.0 - 1780.0	Pass
STSO-1178	03/23/09	Pb-214	1464.00 ± 56.80	1510.0	902.0 - 2260.0	Pass
STSO-1178	03/23/09	Pu-238	1853.00 ± 185.50	1590.0	910.0 - 2240.0	Pass
STSO-1178	03/23/09	Pu-239/40	1516.50 ± 168.30	1360.0	928.0 - 1800.0	Pass
STSO-1178	03/23/09	Sr-90	5270.90 ± 290.20	5750.0	2080.0 - 9380.0	Pass
STSO-1178	03/23/09	U-233/4	1452.30 ± 114.40	1600.0	1010.0 - 1990.0	Pass
STSO-1178	03/23/09	Uranium	3013.70 ± 131.10	3270.0	1860.0 - 4410.0	Pass
STSO-1178	03/23/09	Zn-65	2083.00 ± 59.00	1940.0	1540.0 - 2600.0	Pass

TABLE A-7. Interlaboratory Comparison Crosscheck program, Environmental Resource Associates (ERA)[a].

Lab Code [b]	Date	Analysis	Concentration (pCi/L) Laboratory Result [c]	ERA Result [d]	Control Limits	Acceptance
STVE-1179	03/23/09	Am-241	2849.70 ± 237.60	3660.0	2090.0 - 5030.0	Pass
STVE-1179	03/23/09	Cm-244	808.00 ± 85.70	954.0	470.0 - 1480.0	Pass
STVE-1179	03/23/09	Co-60	1546.80 ± 31.60	1710.0	1160.0 - 2460.0	Pass
STVE-1179	03/23/09	Cs-134	1706.00 ± 59.20	1880.0	1080.0 - 2600.0	Pass
STVE-1179	03/23/09	Cs-137	1940.50 ± 44.80	1800.0	1320.0 - 2500.0	Pass
STVE-1179	03/23/09	K-40	30107.30 ± 598.00	30800.0	22300.0 - 43700.0	Pass
STVE-1179	03/23/09	Mn-54	0.00 ± 0.00	0.0	0.0 - 0.0	Pass
STVE-1179	03/23/09	Sr-90	6604.80 ± 440.10	8860.0	4950.0 - 11800.0	Pass
STVE-1179	03/23/09	U-233/4	1718.00 ± 128.90	2040.0	1400.0 - 2710.0	Pass
STVE-1179	03/23/09	U-238	1718.30 ± 128.80	2020.0	1420.0 - 2550.0	Pass
STVE-1179	03/23/09	Uranium	3499.40 ± 371.00	4150.0	2850.0 - 5360.0	Pass
STVE-1179	03/23/09	Zn-65	869.40 ± 63.60	878.0	634.0 - 1200.0	Pass
STW-1180	03/23/09	Am-241	127.50 ± 5.10	132.0	90.4 - 178.0	Pass
STW-1180	03/23/09	Co-60	1174.10 ± 11.70	1230.0	1070.0 - 1450.0	Pass
STW-1180	03/23/09	Cs-134	742.20 ± 18.30	790.0	584.0 - 907.0	Pass
STW-1180	03/23/09	Cs-137	887.50 ± 14.00	913.0	776.0 - 1090.0	Pass
STW-1180	03/23/09	Fe-55	323.00 ± 362.00	492.0	286.0 - 657.0	Pass
STW-1180	03/23/09	Mn-54	0.00 ± 0.00	0.0	0.0 - 0.0	Pass
STW-1180	03/23/09	Pu-238	96.60 ± 2.20	108.0	81.7 - 134.0	Pass
STW-1180	03/23/09	Pu-239/40	89.50 ± 2.10	86.3	66.8 - 107.0	Pass
STW-1180	03/23/09	Sr-90	763.20 ± 12.90	834.0	530.0 - 1120.0	Pass
STW-1180	03/23/09	U-233/4	95.00 ± 1.80	96.6	72.8 - 124.0	Pass
STW-1180	03/23/09	U-238	97.40 ± 1.80	95.8	73.2 - 119.0	Pass
STW-1180	03/23/09	Uranium	195.50 ± 3.70	197.0	142.0 - 262.0	Pass
STW-1180	03/23/09	Zn-65	653.10 ± 24.10	631.0	535.0 - 786.0	Pass

[a] Results obtained by Environmental, Inc., Midwest Laboratory as a participant in the crosscheck program for proficiency testing administered by Environmental Resources Associates, serving as a replacement for studies conducted previously by the Environmental Measurements Laboratory Quality Assessment Program (EML).

[b] Laboratory codes as follows: STW (water), STAP (air filter), STSO (soil), STVE (vegetation).

[c] Unless otherwise indicated, the laboratory result is given as the mean ± standard deviation for three determinations.

[d] Results are presented as the known values, expected laboratory precision (1 sigma, 1 determination) and control limits as provided by ERA.

[e] Included in the testing series as a "false positive". No activity expected.

[f] The analysis was repeated by leaching and total dissolution methods. Total dissolution yielded results within expected range. Results of the reanalysis: U-233,4, 1655 ± 95 pCi/kg. U-238 1805 ± 97 pCi/kg.

Appendix B

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

RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM SUMMARY

Name of Facility: Wolf Creek Generating Station Docket No.: 50-482

Location of Facility: Coffey County, Kansas Reporting Period: Annual 2009

Medium of Pathway Sampled (Unit of Measurement)	Analysis and Total Number of Analysis Performed	ODCM Lower Limit of Detection (LLD)	All Indicator Locations ** Mean (f) ** Range	Indicator Location with Highest Annual Mean Name Distance and Direction	 ** Mean (f) ** Range	Control Locations ** Mean (f) ** Range	Number of Nonroutine Reported Measurements **
Air Particulate (pCi/m^3)	Gross Beta (318)	0.01	0.031 (265/265) (0.011 - 0.053)	32 3.1 miles WNW	0.032(52/52) (0.013 - 0.053)	Station 53 0.031 (53/53) (0.013 - 0.051)	0
	Gamma (24) Be-7	-	0.093 (20/20) (0.060 - 0.122)	37 2.0 miles NNW	0.098 (4/4) (0.064 - 0.122)	0.097 (4/4) (0.073 - 0.108)	0
	I-131 (318)	0.07	- (0/265)	N/A	N/A	- (0/53)	0
External Radiation (mR/day)	Dosimeters (352)	-	0.132 (328/328) (0.055 - 0.271)	47 0.16 miles S	0.194 (8/8) (0.145 - 0.271)	Stations 39, 48 & 53 0.132 (24/24) (0.098 - 0.180)	0
Surface Water (pCi/l)	Gamma (24)		-(0/12)	N/A	N/A	JRR -(0/12)	0
	Tritium (24)	3000	11356 (12/12) (9382 - 13351)	SP 3.2 miles SSE	11356 (12/12) (9382 - 13351)	-(0/12)	0
Ground Water (pCi/l)	I-131 (32)	1	-(0/28)	N/A	N/A	B-12 -(0/4)	0
	Gamma (32)		-(0/28)	N/A	N/A	-(0/4)	0
	Tritium (32)	2000	-(0/28)	N/A	N/A	-(0/4)	0

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

RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM SUMMARY

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Location of Facility: Coffey County, Kansas Reporting Period: Annual 2009

Medium of Pathway Sampled (Unit of Measurement)	Analysis and Total Number of Analysis Performed	ODCM Lower Limit of Detection (LLD)	All Indicator Locations ** Mean (f) ** Range	Indicator Location with Highest Annual Mean Name Distance and Direction	 ** Mean (f) ** Range	Control Locations ** Mean (f) ** Range	Number of Nonroutine Reported Measurements **
Drinking Water (pCi/l)	I-131 (25)	1	-(0/13)	N/A	N/A	BW-15 -(0/12)	0
	Gross Beta (25)	4	3.1 (13/13) (1.9 - 4.7)	IO-DW 26.1 miles SSE	3.1 (13/13) (1.9 - 4.7)	2.9 (12/12) (2.0 - 3.9)	0
	Gamma (25)		-(0/13)	N/A	N/A	-(0/12)	0
	Tritium (8)	2000	-(0/4)	N/A	N/A	-(0/4)	0
Shoreline Sediment (pCi/kg dry)	Gamma (4)					JRR	
	K-40	-	11484 (2/2) (10073 - 12895)	DC 0.8 miles WNW	11484 (2/2) (10073 - 12895)	10463 (2/2) (10205 - 10720)	0
	Cs-137	180	-(0/2)			117.2 (2/2) (108.9 – 125.5)	0
Fish (pCi/kg wet)	Gamma (21)					JRR	
	K-40	-	3119 (15/15) (2331 - 3615)	CCL 0.6 miles	3119 (15/15) (2331 - 3615)	3008 (6/6) (2650 - 3443)	0
	Tritium (21)	-	7764 (15/15) (6681 - 9550)	CCL 0.6 miles	7764 (15/15) (6681 - 9550)	-(0/6)	0

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

RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM SUMMARY

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Location of Facility: Coffey County, Kansas Reporting Period: Annual 2009

Medium of Pathway Sampled (Unit of Measurement)	Analysis and Total Number of Analysis Performed	ODCM Lower Limit of Detection (LLD)	All Indicator Locations ** Mean (f) ** Range	Indicator Location with Highest Annual Mean Name Distance and Direction	 ** Mean (f) ** Range	Control Locations ** Mean (f) ** Range	Number of Nonroutine Reported Measurements **
Food and Garden (pCi/kg wet)	Gamma (20)					D-2	
	Be-7	-	1105 (13/13) (471 - 1899)	H-2 3.0 miles SSE	1721 (2/2) (1543 - 1899)	1242 (7/7) (679 - 2697)	0
	K-40	-	4976 (13/13) (2887 - 7468)	Q-6 2.4 miles NW	5933 (6/6) (4739 - 7468)	6159 (7/7) (5159 - 7742)	0
Crops (pCi/kg wet)	Gamma (5)					NR-U1	
	K-40	-	9794 (3/3) (2945 – 13457)	NR-D1 8.9 miles S	12979 (1/1)	7266 (2/2) (2597 - 11934)	0
Bottom Sediment (pCi/kg dry)	Gamma (8)					JRR	
	K-40	-	11766 (6/6) (9826 - 13568)	DC 0.8 miles WNW	13433 (2/2) (13297 - 13568)	15894 (2/2) (14224 -17563)	0
	Co-60	-	57.9 (1/6)	DC 0.8 miles WNW	57.9 (1/2)	- (0/2)	0
	Cs-137	-	101.0 (5/6) (51.3 – 169.4)	DC 0.8 miles WNW	147.5 (2/2) (125.5 – 169.4)	138.0 (1/2)	0

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

RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM SUMMARY

Name of Facility: Wolf Creek Generating Station Docket No.: 50-482

Location of Facility: Coffey County, Kansas Reporting Period: Annual 2009

Medium of Pathway Sampled (Unit of Measurement)	Analysis and Total Number of Analysis Performed	ODCM Lower Limit of Detection (LLD)	All Indicator Locations ** Mean (f) ** Range	Indicator Location with Highest Annual Mean Name Distance and Direction	** Mean (f) ** Range	Control Locations ** Mean (f) ** Range	Number of Nonroutine Reported Measurements **
Aquatic Vegetation (pCi/kg wet)	Gamma (4)					No Control	
	Be-7	-	951.8 (2/4) (931.4 – 972.2)	EEA 3.0 miles NNW	972.2 (1/3)		0
	K-40	-	3238 (4/4) (1419 – 5171)	EEA 3.0 miles NNW	3483 (3/3) (1419 – 5171)		0
Terrestrial Vegetation (pCi/kg wet)	Gamma (4)					No Control	
	Be-7	-	1794 (4/4) (467 – 4593)	EEA 3.0 miles NNW	2530 (2/2) (467 – 4593)		0
	K-40		6685 (4/4) (4506 - 10264)	EEA 3.0 miles NNW	8347 (2/2) (6429 – 10264)		0
Soil (pCi/kg dry)	Gamma (3)					No Control	
	K-40	-	12705 (3/3) (11515 - 13405)	EEA 3.0 miles NNW	13300 (2/2) (13195 – 13405)		0
	Cs-137	-	345.2 (2/3) (285.2 – 405.1)	MUDS 1.5 miles WNW	405.1 (1/1)		0

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

RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM SUMMARY
Name of Facility: Wolf Creek Generating Station Docket No.: 50-482
Location of Facility: Coffey County, Kansas Reporting Period: Annual 2009

Medium of Pathway Sampled (Unit of Measurement)	Analysis and Total Number of Analysis Performed	ODCM Lower Limit of Detection (LLD)	All Indicator Locations ** Mean (f) ** Range	Indicator Location with Highest Annual Mean Name Distance and Direction	** Mean (f) ** Range	Control Locations ** Mean (f) ** Range	Number of Nonroutine Reported Measurements **
Deer (pCi/kg wet)	Gamma (2)					No Control	
	K-40	-	2675 (2/2) (2379 – 2970)	R2.5 2.5 miles NNW	2970 (1/1)		0
	Cs-137	-	25.1 (1/2)	B1.0 1.0 miles NNE	25.1 (1/1)		0
	Tritium (2)	-	357 (2/2) (218 – 496)	B1.0 1.0 miles NNE	496 (1/1)		0

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

Air Particulate and Charcoal Filters

Location: 002

Collection Start Date	Collection End Date	Volume m^3	Gross Beta Concentration (pCi/m^3)	I-131 Concentration (pCi/m^3)	Duplicate Analysis
31-DEC-08	07-JAN-09	291	0.040 +/- 0.004	< 0.010	
07-JAN-09	14-JAN-09	301	0.035 +/- 0.004	< 0.019	
14-JAN-09	21-JAN-09	309	0.032 +/- 0.003	< 0.017	
21-JAN-09	28-JAN-09	319	0.043 +/- 0.004	< 0.015	
28-JAN-09	04-FEB-09	300	0.027 +/- 0.003	< 0.016	
04-FEB-09	11-FEB-09	307	0.037 +/- 0.004	< 0.017	
11-FEB-09	18-FEB-09	306	0.031 +/- 0.003	< 0.021	
18-FEB-09	25-FEB-09	312	0.043 +/- 0.004	< 0.016	
25-FEB-09	05-MAR-09	365	0.037 +/- 0.003	< 0.012	
05-MAR-09	11-MAR-09	259	0.042 +/- 0.005	< 0.013	
11-MAR-09	18-MAR-09	292	0.038 +/- 0.004	< 0.009	
18-MAR-09	26-MAR-09	342	0.026 +/- 0.003	< 0.007	
26-MAR-09	01-APR-09	258	0.028 +/- 0.004	< 0.017	
01-APR-09	08-APR-09	309	0.029 +/- 0.003	< 0.012	
08-APR-09	15-APR-09	303	0.032 +/- 0.004	< 0.020	
15-APR-09	22-APR-09	292	0.025 +/- 0.003	< 0.019	
15-APR-09	22-APR-09	292	0.026 +/- 0.003		Duplicate
22-APR-09	29-APR-09	301	0.026 +/- 0.003	< 0.026	
29-APR-09	06-MAY-09	310	0.022 +/- 0.003	< 0.018	
06-MAY-09	13-MAY-09	295	0.024 +/- 0.003	< 0.013	
13-MAY-09	21-MAY-09	360	0.027 +/- 0.003	< 0.014	
21-MAY-09	28-MAY-09	294	0.023 +/- 0.003	< 0.019	
28-MAY-09	04-JUN-09	303	0.030 +/- 0.003	< 0.011	
04-JUN-09	10-JUN-09	215	0.031 +/- 0.004	< 0.016	
10-JUN-09	17-JUN-09	269	0.028 +/- 0.004	< 0.017	
17-JUN-09	24-JUN-09	91	0.044 +/- 0.009	< 0.093	
24-JUN-09	01-JUL-09	295	0.036 +/- 0.004	< 0.025	
01-JUL-09	08-JUL-09	304	0.029 +/- 0.003	< 0.011	
08-JUL-09	16-JUL-09	340	0.032 +/- 0.003	< 0.010	
16-JUL-09	22-JUL-09	252	0.031 +/- 0.004	< 0.034	
22-JUL-09	29-JUL-09	298	0.035 +/- 0.004	< 0.018	
29-JUL-09	05-AUG-09	297	0.034 +/- 0.004	< 0.021	
05-AUG-09	10-AUG-09	215	0.040 +/- 0.005	< 0.013	
10-AUG-09	17-AUG-09	307	0.043 +/- 0.004	< 0.011	
17-AUG-09	24-AUG-09	294	0.027 +/- 0.003	< 0.009	
24-AUG-09	31-AUG-09	307	0.029 +/- 0.003	< 0.012	
31-AUG-09	09-SEP-09	388	0.035 +/- 0.003	< 0.012	
09-SEP-09	14-SEP-09	220	0.045 +/- 0.006	< 0.021	
14-SEP-09	21-SEP-09	292	0.031 +/- 0.004	< 0.013	
21-SEP-09	28-SEP-09	300	0.021 +/- 0.004	< 0.010	

Air Particulate and Charcoal Filters

Location: 002

Collection Start Date	Collection End Date	Volume m^3	Gross Beta Concentration (pCi/m^3)	I-131 Concentration (pCi/m^3)	Duplicate Analysis
28-SEP-09	05-OCT-09	299	0.011 +/- 0.004	< 0.012	
05-OCT-09	12-OCT-09	293	0.029 +/- 0.004	< 0.012	
12-OCT-09	19-OCT-09	306	0.017 +/- 0.004	< 0.009	
19-OCT-09	26-OCT-09	295	0.019 +/- 0.004	< 0.011	
26-OCT-09	02-NOV-09	301	0.011 +/- 0.003	< 0.008	
02-NOV-09	09-NOV-09	299	0.030 +/- 0.004	< 0.012	
09-NOV-09	16-NOV-09	306	0.035 +/- 0.004	< 0.013	
16-NOV-09	25-NOV-09	377	0.034 +/- 0.004	< 0.012	
16-NOV-09	25-NOV-09	377	0.030 +/- 0.004		Duplicate
25-NOV-09	30-NOV-09	216	0.029 +/- 0.006	< 0.017	
30-NOV-09	07-DEC-09	323	0.025 +/- 0.004	< 0.013	
07-DEC-09	14-DEC-09	290	0.041 +/- 0.005	< 0.010	
14-DEC-09	21-DEC-09	302	0.049 +/- 0.005	< 0.011	
21-DEC-09	28-DEC-09	298	0.028 +/- 0.004	< 0.016	
28-DEC-09	04-JAN-10	323	0.041 +/- 0.004	< 0.006	

Air Particulate and Charcoal Filters

Location: 018

Collection Start Date	Collection End Date	Volume m^3	Gross Beta Concentration (pCi/m^3)	I-131 Concentration (pCi/m^3)	Duplicate Analysis
31-DEC-08	07-JAN-09	293	0.042 +/- 0.004	< 0.010	
07-JAN-09	14-JAN-09	295	0.033 +/- 0.004	< 0.020	
14-JAN-09	21-JAN-09	311	0.032 +/- 0.003	< 0.017	
21-JAN-09	28-JAN-09	309	0.041 +/- 0.004	< 0.015	
28-JAN-09	04-FEB-09	295	0.024 +/- 0.003	< 0.016	
04-FEB-09	11-FEB-09	296	0.034 +/- 0.004	< 0.018	
04-FEB-09	11-FEB-09	296	0.037 +/- 0.004	< 0.018	Duplicate
11-FEB-09	18-FEB-09	299	0.035 +/- 0.004	< 0.021	
18-FEB-09	25-FEB-09	316	0.042 +/- 0.004	< 0.016	
25-FEB-09	05-MAR-09	359	0.037 +/- 0.003	< 0.012	
25-FEB-09	05-MAR-09	359	0.036 +/- 0.003		Duplicate
05-MAR-09	11-MAR-09	255	0.035 +/- 0.004	< 0.013	
11-MAR-09	18-MAR-09	289	0.039 +/- 0.004	< 0.009	
18-MAR-09	26-MAR-09	347	0.026 +/- 0.003	< 0.007	
26-MAR-09	01-APR-09	260	0.028 +/- 0.004	< 0.017	
01-APR-09	08-APR-09	298	0.028 +/- 0.003	< 0.012	
08-APR-09	15-APR-09	303	0.027 +/- 0.003	< 0.020	
08-APR-09	15-APR-09	303	0.028 +/- 0.003		Duplicate
15-APR-09	22-APR-09	291	0.028 +/- 0.003	< 0.019	
22-APR-09	29-APR-09	302	0.025 +/- 0.003	< 0.026	
29-APR-09	06-MAY-09	299	0.027 +/- 0.003	< 0.019	
06-MAY-09	13-MAY-09	299	0.025 +/- 0.003	< 0.012	
13-MAY-09	21-MAY-09	353	0.024 +/- 0.003	< 0.014	
21-MAY-09	28-MAY-09	296	0.024 +/- 0.003	< 0.019	
28-MAY-09	04-JUN-09	298	0.039 +/- 0.004	< 0.011	
04-JUN-09	10-JUN-09	214	0.034 +/- 0.005	< 0.017	
10-JUN-09	17-JUN-09	287	0.025 +/- 0.003	< 0.016	
17-JUN-09	24-JUN-09	300	0.023 +/- 0.003	< 0.029	
24-JUN-09	01-JUL-09	296	0.036 +/- 0.004	< 0.025	
01-JUL-09	08-JUL-09	122	0.048 +/- 0.007	< 0.028	
08-JUL-09	16-JUL-09	340	0.034 +/- 0.003	< 0.010	
16-JUL-09	22-JUL-09	265	0.030 +/- 0.004	< 0.031	
22-JUL-09	29-JUL-09	301	0.034 +/- 0.004	< 0.018	
29-JUL-09	05-AUG-09	300	0.032 +/- 0.004	< 0.020	
05-AUG-09	10-AUG-09	216	0.045 +/- 0.005	< 0.013	
10-AUG-09	17-AUG-09	308	0.039 +/- 0.004	< 0.011	
17-AUG-09	24-AUG-09	298	0.028 +/- 0.003	< 0.009	
24-AUG-09	31-AUG-09	303	0.029 +/- 0.003	< 0.012	
31-AUG-09	09-SEP-09	382	0.033 +/- 0.003	< 0.012	
09-SEP-09	14-SEP-09	222	0.045 +/- 0.006	< 0.020	

Location: 018

Collection Start Date	Collection End Date	Volume m^3	Gross Beta Concentration (pCi/m^3)	I-131 Concentration (pCi/m^3)	Duplicate Analysis
09-SEP-09	14-SEP-09	222	0.036 +/- 0.005		Duplicate
14-SEP-09	21-SEP-09	292	0.028 +/- 0.004	< 0.013	
21-SEP-09	28-SEP-09	307	0.018 +/- 0.004	< 0.010	
28-SEP-09	05-OCT-09	298	0.015 +/- 0.004	< 0.012	
05-OCT-09	12-OCT-09	310	0.022 +/- 0.004	< 0.012	
12-OCT-09	19-OCT-09	315	0.014 +/- 0.003	< 0.009	
19-OCT-09	26-OCT-09	300	0.028 +/- 0.004	< 0.011	
26-OCT-09	02-NOV-09	317	0.014 +/- 0.003	< 0.008	
02-NOV-09	09-NOV-09	302	0.027 +/- 0.004	< 0.012	
09-NOV-09	16-NOV-09	318	0.035 +/- 0.004	< 0.013	
16-NOV-09	25-NOV-09	397	0.031 +/- 0.004	< 0.011	
25-NOV-09	30-NOV-09	227	0.017 +/- 0.005	< 0.016	
25-NOV-09	30-NOV-09	227	0.023 +/- 0.005		Duplicate
30-NOV-09	07-DEC-09	322	0.022 +/- 0.004	< 0.013	
07-DEC-09	14-DEC-09	295	0.036 +/- 0.004	< 0.010	
14-DEC-09	21-DEC-09	302	0.050 +/- 0.005	< 0.011	
21-DEC-09	28-DEC-09	297	0.025 +/- 0.004	< 0.016	
28-DEC-09	04-JAN-10	314	0.040 +/- 0.004	< 0.007	

Air Particulate and Charcoal Filters

Location: 032

Collection Start Date	Collection End Date	Volume m^3	Gross Beta Concentration (pCi/m^3)	I-131 Concentration (pCi/m^3)	Duplicate Analysis
31-DEC-08	07-JAN-09	295	0.039 +/- 0.004	< 0.010	
07-JAN-09	14-JAN-09	296	0.033 +/- 0.004	< 0.020	
14-JAN-09	21-JAN-09	309	0.034 +/- 0.004	< 0.017	
21-JAN-09	28-JAN-09	312	0.042 +/- 0.004	< 0.015	
28-JAN-09	04-FEB-09	301	0.028 +/- 0.003	< 0.016	
04-FEB-09	11-FEB-09	287	0.038 +/- 0.004	< 0.019	
11-FEB-09	18-FEB-09	300	0.035 +/- 0.004	< 0.021	
18-FEB-09	25-FEB-09	308	0.043 +/- 0.004	< 0.017	
25-FEB-09	05-MAR-09	357	0.038 +/- 0.003	< 0.012	
05-MAR-09	11-MAR-09	261	0.031 +/- 0.004	< 0.013	
11-MAR-09	18-MAR-09	287	0.036 +/- 0.004	< 0.009	
18-MAR-09	26-MAR-09	347	0.030 +/- 0.003	< 0.007	
26-MAR-09	01-APR-09	263	0.027 +/- 0.004	< 0.017	
01-APR-09	08-APR-09	302	0.033 +/- 0.004	< 0.012	
08-APR-09	15-APR-09	303	0.035 +/- 0.004	< 0.020	
15-APR-09	22-APR-09	296	0.027 +/- 0.003	< 0.019	
22-APR-09	29-APR-09	309	0.024 +/- 0.003	< 0.025	
29-APR-09	06-MAY-09	306	0.024 +/- 0.003	< 0.018	
06-MAY-09	13-MAY-09	297	0.025 +/- 0.003	< 0.013	
13-MAY-09	21-MAY-09	354	0.024 +/- 0.003	< 0.014	
21-MAY-09	28-MAY-09	298	0.027 +/- 0.003	< 0.019	
28-MAY-09	04-JUN-09	307	0.032 +/- 0.003	< 0.011	
04-JUN-09	10-JUN-09	209	0.032 +/- 0.005	< 0.017	
17-JUN-09	24-JUN-09	298	0.029 +/- 0.004	< 0.027	
24-JUN-09	01-JUL-09	300	0.039 +/- 0.004	< 0.025	
01-JUL-09	08-JUL-09	106	0.043 +/- 0.008	< 0.032	
08-JUL-09	16-JUL-09	345	0.035 +/- 0.003	< 0.010	
16-JUL-09	22-JUL-09	254	0.030 +/- 0.004	< 0.037	
22-JUL-09	29-JUL-09	300	0.036 +/- 0.004	< 0.018	
29-JUL-09	05-AUG-09	299	0.032 +/- 0.004	< 0.021	
05-AUG-09	10-AUG-09	215	0.046 +/- 0.005	< 0.013	
10-AUG-09	17-AUG-09	308	0.041 +/- 0.004	< 0.011	
17-AUG-09	24-AUG-09	292	0.025 +/- 0.003	< 0.009	
24-AUG-09	31-AUG-09	298	0.031 +/- 0.004	< 0.012	
31-AUG-09	09-SEP-09	388	0.035 +/- 0.003	< 0.012	
09-SEP-09	14-SEP-09	220	0.042 +/- 0.006	< 0.021	
14-SEP-09	21-SEP-09	291	0.036 +/- 0.005	< 0.013	
21-SEP-09	28-SEP-09	308	0.039 +/- 0.004	< 0.010	
21-SEP-09	28-SEP-09	308	0.029 +/- 0.003		RECOUNT
28-SEP-09	05-OCT-09	303	0.014 +/- 0.004	< 0.012	

Air Particulate and Charcoal Filters

Location: 032

Collection Start Date	Collection End Date	Volume m^3	Gross Beta Concentration (pCi/m^3)	I-131 Concentration (pCi/m^3)	Duplicate Analysis
28-SEP-09	05-OCT-09	303	0.014 +/- 0.004		Duplicate
05-OCT-09	12-OCT-09	312	0.018 +/- 0.003	< 0.012	
12-OCT-09	19-OCT-09	309	0.013 +/- 0.003	< 0.009	
19-OCT-09	26-OCT-09	300	0.021 +/- 0.004	< 0.011	
26-OCT-09	02-NOV-09	305	0.015 +/- 0.004	< 0.008	
02-NOV-09	09-NOV-09	301	0.032 +/- 0.004	< 0.012	
09-NOV-09	16-NOV-09	310	0.034 +/- 0.004	< 0.013	
16-NOV-09	25-NOV-09	375	0.035 +/- 0.004	< 0.012	
25-NOV-09	30-NOV-09	211	0.017 +/- 0.005	< 0.017	
30-NOV-09	07-DEC-09	315	0.022 +/- 0.004	< 0.014	
07-DEC-09	14-DEC-09	296	0.041 +/- 0.005	< 0.010	
14-DEC-09	21-DEC-09	303	0.053 +/- 0.005	< 0.011	
21-DEC-09	28-DEC-09	297	0.029 +/- 0.004	< 0.016	
28-DEC-09	04-JAN-10	319	0.042 +/- 0.004	< 0.007	

Air Particulate and Charcoal Filters

Location: 037

Collection Start Date	Collection End Date	Volume m^3	Gross Beta Concentration (pCi/m^3)	I-131 Concentration (pCi/m^3)	Duplicate Analysis
31-DEC-08	07-JAN-09	296	0.036 +/- 0.004	< 0.010	
07-JAN-09	14-JAN-09	305	0.035 +/- 0.004	< 0.019	
14-JAN-09	21-JAN-09	310	0.032 +/- 0.003	< 0.017	
21-JAN-09	28-JAN-09	316	0.047 +/- 0.004	< 0.015	
28-JAN-09	04-FEB-09	302	0.026 +/- 0.003	< 0.016	
04-FEB-09	11-FEB-09	296	0.038 +/- 0.004	< 0.018	
11-FEB-09	18-FEB-09	302	0.039 +/- 0.004	< 0.021	
18-FEB-09	25-FEB-09	317	0.039 +/- 0.004	< 0.016	
25-FEB-09	05-MAR-09	359	0.037 +/- 0.003	< 0.012	
05-MAR-09	11-MAR-09	261	0.032 +/- 0.004	< 0.013	
11-MAR-09	18-MAR-09	288	0.037 +/- 0.004	< 0.009	
18-MAR-09	26-MAR-09	346	0.032 +/- 0.003	< 0.007	
26-MAR-09	01-APR-09	272	0.027 +/- 0.004	< 0.016	
01-APR-09	08-APR-09	305	0.036 +/- 0.004	< 0.012	
08-APR-09	15-APR-09	309	0.032 +/- 0.004	< 0.020	
15-APR-09	22-APR-09	297	0.029 +/- 0.003	< 0.019	
22-APR-09	29-APR-09	294	0.025 +/- 0.003	< 0.027	
29-APR-09	06-MAY-09	308	0.024 +/- 0.003	< 0.018	
29-APR-09	06-MAY-09	308	0.026 +/- 0.003		Duplicate
06-MAY-09	13-MAY-09	296	0.022 +/- 0.003	< 0.013	
13-MAY-09	21-MAY-09	361	0.025 +/- 0.003	< 0.014	
21-MAY-09	28-MAY-09	303	0.022 +/- 0.003	< 0.018	
28-MAY-09	04-JUN-09	302	0.033 +/- 0.004	< 0.011	
04-JUN-09	10-JUN-09	216	0.030 +/- 0.004	< 0.016	
10-JUN-09	17-JUN-09	295	0.025 +/- 0.003	< 0.016	
17-JUN-09	24-JUN-09	305	0.022 +/- 0.003	< 0.016	
24-JUN-09	01-JUL-09	307	0.033 +/- 0.004	< 0.024	
24-JUN-09	01-JUL-09	307	0.037 +/- 0.004		Duplicate
01-JUL-09	08-JUL-09	306	0.028 +/- 0.003	< 0.011	
08-JUL-09	16-JUL-09	343	0.033 +/- 0.003	< 0.010	
16-JUL-09	22-JUL-09	254	0.031 +/- 0.004	< 0.022	
22-JUL-09	29-JUL-09	297	0.035 +/- 0.004	< 0.018	
29-JUL-09	05-AUG-09	297	0.032 +/- 0.004	< 0.021	
29-JUL-09	05-AUG-09	297	0.029 +/- 0.004		Duplicate
05-AUG-09	10-AUG-09	211	0.042 +/- 0.005	< 0.014	
10-AUG-09	17-AUG-09	309	0.043 +/- 0.004	< 0.011	
17-AUG-09	24-AUG-09	293	0.027 +/- 0.003	< 0.009	
24-AUG-09	31-AUG-09	301	0.030 +/- 0.004	< 0.012	
31-AUG-09	09-SEP-09	384	0.031 +/- 0.003	< 0.012	
09-SEP-09	14-SEP-09	213	0.039 +/- 0.006	< 0.021	

Air Particulate and Charcoal Filters

Location: 037

Collection Start Date	Collection End Date	Volume m^3	Gross Beta Concentration (pCi/m^3)	I-131 Concentration (pCi/m^3)	Duplicate Analysis
14-SEP-09	21-SEP-09	290	0.034 +/- 0.005	< 0.013	
21-SEP-09	28-SEP-09	297	0.034 +/- 0.004	< 0.011	
21-SEP-09	28-SEP-09	297	0.031 +/- 0.004		RECOUNT
28-SEP-09	05-OCT-09	296	0.016 +/- 0.004	< 0.012	
05-OCT-09	12-OCT-09	298	0.016 +/- 0.003	< 0.012	
12-OCT-09	19-OCT-09	295	0.014 +/- 0.003	< 0.010	
19-OCT-09	26-OCT-09	298	0.028 +/- 0.004	< 0.011	
19-OCT-09	26-OCT-09	298	0.020 +/- 0.004		Duplicate
26-OCT-09	02-NOV-09	298	0.017 +/- 0.004	< 0.008	
02-NOV-09	09-NOV-09	291	0.026 +/- 0.004	< 0.012	
02-NOV-09	09-NOV-09	291	0.027 +/- 0.004		Duplicate
09-NOV-09	16-NOV-09	296	0.036 +/- 0.004	< 0.014	
16-NOV-09	25-NOV-09	359	0.034 +/- 0.004	< 0.012	
25-NOV-09	30-NOV-09	204	0.016 +/- 0.006	< 0.018	
30-NOV-09	07-DEC-09	323	0.025 +/- 0.004	< 0.013	
07-DEC-09	14-DEC-09	291	0.039 +/- 0.005	< 0.010	
14-DEC-09	21-DEC-09	298	0.046 +/- 0.005	< 0.011	
21-DEC-09	28-DEC-09	301	0.023 +/- 0.004	< 0.016	
28-DEC-09	04-JAN-10	314	0.043 +/- 0.004	< 0.007	

Air Particulate and Charcoal Filters

Location: 049

Collection Start Date	Collection End Date	Volume m^3	Gross Beta Concentration (pCi/m^3)	I-131 Concentration (pCi/m^3)	Duplicate Analysis
31-DEC-08	07-JAN-09	301	0.041 +/- 0.004	< 0.010	
07-JAN-09	14-JAN-09	306	0.033 +/- 0.004	< 0.019	
14-JAN-09	21-JAN-09	314	0.030 +/- 0.003	< 0.017	
21-JAN-09	28-JAN-09	313	0.039 +/- 0.004	< 0.015	
28-JAN-09	04-FEB-09	309	0.028 +/- 0.003	< 0.015	
04-FEB-09	11-FEB-09	294	0.036 +/- 0.004	< 0.018	
11-FEB-09	18-FEB-09	304	0.038 +/- 0.004	< 0.021	
11-FEB-09	18-FEB-09	304	0.039 +/- 0.004		Duplicate
18-FEB-09	25-FEB-09	322	0.041 +/- 0.004	< 0.016	
18-FEB-09	25-FEB-09	322	0.040 +/- 0.004		Duplicate
25-FEB-09	05-MAR-09	365	0.035 +/- 0.003	< 0.012	
05-MAR-09	11-MAR-09	265	0.033 +/- 0.004	< 0.013	
11-MAR-09	18-MAR-09	291	0.040 +/- 0.004	< 0.009	
18-MAR-09	26-MAR-09	350	0.031 +/- 0.003	< 0.007	
26-MAR-09	01-APR-09	264	0.028 +/- 0.004	< 0.017	
01-APR-09	08-APR-09	307	0.032 +/- 0.004	< 0.012	
08-APR-09	15-APR-09	305	0.035 +/- 0.004	< 0.020	
15-APR-09	22-APR-09	297	0.027 +/- 0.003	< 0.019	
22-APR-09	29-APR-09	300	0.025 +/- 0.003	< 0.026	
29-APR-09	06-MAY-09	310	0.026 +/- 0.003	< 0.018	
06-MAY-09	13-MAY-09	297	0.021 +/- 0.003	< 0.013	
06-MAY-09	13-MAY-09	297	0.026 +/- 0.003		Duplicate
13-MAY-09	21-MAY-09	363	0.025 +/- 0.003	< 0.014	
21-MAY-09	28-MAY-09	299	0.024 +/- 0.003	< 0.018	
28-MAY-09	04-JUN-09	301	0.033 +/- 0.004	< 0.011	
04-JUN-09	10-JUN-09	255	0.029 +/- 0.004	< 0.014	
10-JUN-09	17-JUN-09	300	0.025 +/- 0.003	< 0.015	
17-JUN-09	24-JUN-09	301	0.025 +/- 0.003	< 0.029	
24-JUN-09	01-JUL-09	299	0.040 +/- 0.004	< 0.025	
01-JUL-09	08-JUL-09	303	0.036 +/- 0.004	< 0.011	
08-JUL-09	16-JUL-09	343	0.033 +/- 0.003	< 0.010	
16-JUL-09	22-JUL-09	296	0.031 +/- 0.004	< 0.034	
22-JUL-09	29-JUL-09	310	0.035 +/- 0.004	< 0.018	
29-JUL-09	05-AUG-09	294	0.030 +/- 0.004	< 0.021	
05-AUG-09	10-AUG-09	220	0.041 +/- 0.005	< 0.013	
10-AUG-09	17-AUG-09	314	0.040 +/- 0.004	< 0.011	
17-AUG-09	24-AUG-09	291	0.025 +/- 0.003	< 0.009	
24-AUG-09	31-AUG-09	306	0.027 +/- 0.003	< 0.012	
31-AUG-09	09-SEP-09	390	0.030 +/- 0.003	< 0.012	
09-SEP-09	14-SEP-09	228	0.046 +/- 0.006	< 0.020	

Air Particulate and Charcoal Filters

Location: 049

Collection Start Date	Collection End Date	Volume m^3	Gross Beta Concentration (pCi/m^3)	I-131 Concentration (pCi/m^3)	Duplicate Analysis
14-SEP-09	21-SEP-09	295	0.031 +/- 0.004	< 0.012	
21-SEP-09	28-SEP-09	307	0.019 +/- 0.004	< 0.010	
21-SEP-09	28-SEP-09	307	0.019 +/- 0.004		Duplicate
28-SEP-09	05-OCT-09	308	0.013 +/- 0.004	< 0.012	
05-OCT-09	12-OCT-09	310	0.014 +/- 0.003	< 0.012	
12-OCT-09	19-OCT-09	302	0.014 +/- 0.003	< 0.010	
19-OCT-09	26-OCT-09	295	0.020 +/- 0.004	< 0.011	
26-OCT-09	02-NOV-09	303	0.013 +/- 0.004	< 0.008	
02-NOV-09	09-NOV-09	300	0.030 +/- 0.004	< 0.012	
09-NOV-09	16-NOV-09	309	0.036 +/- 0.004	< 0.013	
16-NOV-09	25-NOV-09	380	0.031 +/- 0.004	< 0.012	
25-NOV-09	30-NOV-09	216	0.015 +/- 0.005	< 0.017	
30-NOV-09	07-DEC-09	323	0.026 +/- 0.004	< 0.013	
07-DEC-09	14-DEC-09	295	0.038 +/- 0.004	< 0.010	
07-DEC-09	14-DEC-09	295	0.041 +/- 0.005		Duplicate
14-DEC-09	21-DEC-09	304	0.051 +/- 0.005	< 0.011	
21-DEC-09	28-DEC-09	296	0.030 +/- 0.004	< 0.016	
28-DEC-09	04-JAN-10	321	0.042 +/- 0.004	< 0.006	

Air Particulate and Charcoal Filters

Location: 053

Collection Start Date	Collection End Date	Volume m^3	Gross Beta Concentration (pCi/m^3)	I-131 Concentration (pCi/m^3)	Duplicate Analysis
31-DEC-08	07-JAN-09	293	0.038 +/- 0.004	< 0.010	
07-JAN-09	14-JAN-09	309	0.035 +/- 0.004	< 0.019	
14-JAN-09	21-JAN-09	311	0.029 +/- 0.003	< 0.017	
21-JAN-09	28-JAN-09	314	0.041 +/- 0.004	< 0.015	
28-JAN-09	04-FEB-09	303	0.024 +/- 0.003	< 0.015	
04-FEB-09	11-FEB-09	300	0.034 +/- 0.004	< 0.018	
11-FEB-09	18-FEB-09	300	0.035 +/- 0.004	< 0.021	
18-FEB-09	25-FEB-09	314	0.041 +/- 0.004	< 0.016	
25-FEB-09	05-MAR-09	364	0.038 +/- 0.003	< 0.012	
05-MAR-09	11-MAR-09	156	0.037 +/- 0.006	< 0.021	
11-MAR-09	18-MAR-09	295	0.036 +/- 0.004	< 0.009	
18-MAR-09	26-MAR-09	351	0.029 +/- 0.003	< 0.007	
26-MAR-09	01-APR-09	194	0.032 +/- 0.005	< 0.023	
01-APR-09	08-APR-09	302	0.028 +/- 0.003	< 0.012	
01-APR-09	08-APR-09	302	0.028 +/- 0.003		Duplicate
08-APR-09	15-APR-09	307	0.029 +/- 0.003	< 0.020	
15-APR-09	22-APR-09	147	0.037 +/- 0.006	< 0.038	
22-APR-09	29-APR-09	254	0.031 +/- 0.004	< 0.031	
29-APR-09	06-MAY-09	299	0.024 +/- 0.003	< 0.019	
06-MAY-09	13-MAY-09	306	0.025 +/- 0.003	< 0.012	
13-MAY-09	21-MAY-09	358	0.026 +/- 0.003	< 0.014	
21-MAY-09	28-MAY-09	295	0.024 +/- 0.003	< 0.019	
28-MAY-09	04-JUN-09	304	0.033 +/- 0.004	< 0.011	
04-JUN-09	10-JUN-09	241	0.027 +/- 0.004	< 0.015	
10-JUN-09	17-JUN-09	297	0.026 +/- 0.003	< 0.015	
17-JUN-09	24-JUN-09	301	0.021 +/- 0.003	< 0.030	
24-JUN-09	01-JUL-09	300	0.037 +/- 0.004	< 0.025	
01-JUL-09	08-JUL-09	299	0.033 +/- 0.004	< 0.011	
08-JUL-09	16-JUL-09	339	0.030 +/- 0.003	< 0.010	
16-JUL-09	22-JUL-09	251	0.028 +/- 0.004	< 0.026	
22-JUL-09	29-JUL-09	296	0.035 +/- 0.004	< 0.019	
29-JUL-09	05-AUG-09	295	0.032 +/- 0.004	< 0.021	
05-AUG-09	10-AUG-09	211	0.042 +/- 0.005	< 0.014	
10-AUG-09	17-AUG-09	290	0.041 +/- 0.004	< 0.012	
17-AUG-09	24-AUG-09	291	0.028 +/- 0.003	< 0.009	
24-AUG-09	31-AUG-09	298	0.029 +/- 0.004	< 0.012	
31-AUG-09	09-SEP-09	379	0.033 +/- 0.003	< 0.012	
09-SEP-09	14-SEP-09	215	0.041 +/- 0.006	< 0.021	
14-SEP-09	21-SEP-09	288	0.038 +/- 0.005	< 0.013	
21-SEP-09	28-SEP-09	305	0.021 +/- 0.004	< 0.010	

Air Particulate and Charcoal Filters

Location: 053

Collection Start Date	Collection End Date	Volume m^3	Gross Beta Concentration (pCi/m^3)	I-131 Concentration (pCi/m^3)	Duplicate Analysis
28-SEP-09	05-OCT-09	288	0.013 +/- 0.004	< 0.013	
05-OCT-09	12-OCT-09	289	0.017 +/- 0.004	< 0.012	
12-OCT-09	19-OCT-09	303	0.019 +/- 0.004	< 0.010	
19-OCT-09	26-OCT-09	303	0.018 +/- 0.004	< 0.011	
26-OCT-09	02-NOV-09	299	0.015 +/- 0.004	< 0.008	
02-NOV-09	09-NOV-09	292	0.025 +/- 0.004	< 0.012	
09-NOV-09	16-NOV-09	299	0.038 +/- 0.004	< 0.014	
16-NOV-09	25-NOV-09	337	0.034 +/- 0.004	< 0.013	
25-NOV-09	30-NOV-09	211	0.016 +/- 0.005	< 0.017	
30-NOV-09	07-DEC-09	296	0.021 +/- 0.004	< 0.014	
07-DEC-09	14-DEC-09	285	0.040 +/- 0.005	< 0.010	
14-DEC-09	21-DEC-09	292	0.051 +/- 0.005	< 0.012	
21-DEC-09	28-DEC-09	294	0.025 +/- 0.004	< 0.016	
28-DEC-09	04-JAN-10	306	0.041 +/- 0.004	< 0.007	

Location: 002

01-APR-09 Nuclide	Concentration (pCi/m^3)		
BE-7	0.098+/-	0.013	
MN-54	<	0.001	
CO-58	<	0.001	
FE-59	<	0.001	
CO-60	<	0.001	
ZN-65	<	0.001	
ZR-NB-95	<	0.001	
CS-134	<	0.001	
CS-137	<	0.001	

01-JUL-09 Nuclide	Concentration (pCi/m^3)		
BE-7	0.096+/-	0.013	
BE-7	0.101+/-	0.011	*
MN-54	<	0.001	*
MN-54	<	0.001	
CO-58	<	0.001	*
CO-58	<	0.001	
FE-59	<	0.001	*
FE-59	<	0.001	
CO-60	<	0.001	*
CO-60	<	0.001	
ZN-65	<	0.001	*
ZN-65	<	0.001	
ZR-NB-95	<	0.001	*
ZR-NB-95	<	0.001	
CS-134	<	0.001	*
CS-134	<	0.001	
CS-137	<	0.001	*
CS-137	<	0.001	

* Duplicate Analysis

Quarterly Air Particulate - Gamma

Location: 002

28-SEP-09

Nuclide	Concentration (pCi/m³)		
BE-7	0.080+/-	0.011	*
BE-7	0.103+/-	0.016	
MN-54	<	0.001	*
MN-54	<	0.001	
CO-58	<	0.001	*
CO-58	<	0.001	
FE-59	<	0.001	
FE-59	<	0.002	*
CO-60	<	0.001	*
CO-60	<	0.001	
ZN-65	<	0.001	*
ZN-65	<	0.001	
ZR-NB-95	<	0.001	*
ZR-NB-95	<	0.001	
CS-134	<	0.001	*
CS-134	<	0.001	
CS-137	<	0.001	*
CS-137	<	0.001	

28-DEC-09

Nuclide	Concentration (pCi/m³)	
BE-7	0.060+/-	0.012
MN-54	<	0.001
CO-58	<	0.001
FE-59	<	0.001
CO-60	<	0.001
ZN-65	<	0.001
ZR-NB-95	<	0.001
CS-134	<	0.001
CS-137	<	0.001

*** Duplicate Analysis**

Location: 018

01-APR-09

Nuclide	Concentration (pCi/m³)	
BE-7	0.107+/-	0.013
MN-54	<	0.001
CO-58	<	0.001
FE-59	<	0.001
CO-60	<	0.001
ZN-65	<	0.001
ZR-NB-95	<	0.001
CS-134	<	0.001
CS-137	<	0.001

01-JUL-09

Nuclide	Concentration (pCi/m³)	
BE-7	0.103+/-	0.014
MN-54	<	0.001
CO-58	<	0.001
FE-59	<	0.001
CO-60	<	0.001
ZN-65	<	0.001
ZR-NB-95	<	0.001
CS-134	<	0.001
CS-137	<	0.001

28-SEP-09

Nuclide	Concentration (pCi/m³)	
BE-7	0.095+/-	0.014
MN-54	<	0.001
CO-58	<	0.001
FE-59	<	0.001
CO-60	<	0.001
ZN-65	<	0.001
ZR-NB-95	<	0.001
CS-134	<	0.001
CS-137	<	0.001

*** Duplicate Analysis**

Quarterly Air Particulate - Gamma

Location: 018

28-DEC-09 Nuclide	Concentration (pCi/m^3)		
BE-7	0.058+/-	0.013	*
BE-7	0.062+/-	0.013	
MN-54	<	0.001	*
MN-54	<	0.001	
CO-58	<	0.001	*
CO-58	<	0.001	
FE-59	<	0.001	*
FE-59	<	0.002	
CO-60	<	0.001	*
CO-60	<	0.001	
ZN-65	<	0.001	*
ZN-65	<	0.001	
ZR-NB-95	<	0.001	*
ZR-NB-95	<	0.001	
CS-134	<	0.001	*
CS-134	<	0.001	
CS-137	<	0.001	*
CS-137	<	0.001	

*** Duplicate Analysis**

Location: 032

01-APR-09

Nuclide	Concentration (pCi/m^3)	
BE-7	0.093+/-	0.011
MN-54	<	0.001
CO-58	<	0.001
FE-59	<	0.001
CO-60	<	0.001
ZN-65	<	0.001
ZR-NB-95	<	0.001
CS-134	<	0.001
CS-137	<	0.001

01-JUL-09

Nuclide	Concentration (pCi/m^3)	
BE-7	0.114+/-	0.013
MN-54	<	0.001
CO-58	<	0.001
FE-59	<	0.001
CO-60	<	0.001
ZN-65	<	0.001
ZR-NB-95	<	0.001
CS-134	<	0.001
CS-137	<	0.001

28-SEP-09

Nuclide	Concentration (pCi/m^3)	
BE-7	0.104+/-	0.017
MN-54	<	0.001
CO-58	<	0.001
FE-59	<	0.001
CO-60	<	0.001
ZN-65	<	0.001
ZR-NB-95	<	0.001
CS-134	<	0.001
CS-137	<	0.001

28-DEC-09

Nuclide	Concentration (pCi/m^3)	
BE-7	0.063+/-	0.013
MN-54	<	0.001
CO-58	<	0.001
FE-59	<	0.002
CO-60	<	0.001
ZN-65	<	0.001
ZR-NB-95	<	0.001
CS-134	<	0.001
CS-137	<	0.001

*** Duplicate Analysis**

Location: 037

01-APR-09

Nuclide	Concentration (pCi/m³)	
BE-7	0.103+/-	0.012
MN-54	<	0.001
CO-58	<	0.001
FE-59	<	0.001
CO-60	<	0.001
ZN-65	<	0.001
ZR-NB-95	<	0.001
CS-134	<	0.001
CS-137	<	0.001

01-JUL-09

Nuclide	Concentration (pCi/m³)	
BE-7	0.101+/-	0.011
MN-54	<	0.001
CO-58	<	0.001
FE-59	<	0.001
CO-60	<	0.001
ZN-65	<	0.001
ZR-NB-95	<	0.001
CS-134	<	0.001
CS-137	<	0.001

28-SEP-09

Nuclide	Concentration (pCi/m³)	
BE-7	0.122+/-	0.016
MN-54	<	0.001
CO-58	<	0.001
FE-59	<	0.001
CO-60	<	0.001
ZN-65	<	0.001
ZR-NB-95	<	0.001
CS-134	<	0.001
CS-137	<	0.001

28-DEC-09

Nuclide	Concentration (pCi/m³)	
BE-7	0.064+/-	0.010
MN-54	<	0.001
CO-58	<	0.001
FE-59	<	0.001
CO-60	<	0.001
ZN-65	<	0.001
ZR-NB-95	<	0.001
CS-134	<	0.001
CS-137	<	0.001

*** Duplicate Analysis**

Location: 049

01-APR-09 Nuclide	Concentration (pCi/m^3)	
BE-7	0.114+/-	0.013
MN-54	<	0.001
CO-58	<	0.001
FE-59	<	0.001
CO-60	<	0.001
ZN-65	<	0.001
ZR-NB-95	<	0.001
CS-134	<	0.001
CS-137	<	0.001

01-JUL-09 Nuclide	Concentration (pCi/m^3)	
BE-7	0.101+/-	0.016
MN-54	<	0.001
CO-58	<	0.001
FE-59	<	0.001
CO-60	<	0.001
ZN-65	<	0.001
ZR-NB-95	<	0.001
CS-134	<	0.001
CS-137	<	0.001

28-SEP-09 Nuclide	Concentration (pCi/m^3)	
BE-7	0.097+/-	0.015
MN-54	<	0.001
CO-58	<	0.001
FE-59	<	0.001
CO-60	<	0.001
ZN-65	<	0.001
ZR-NB-95	<	0.001
CS-134	<	0.001
CS-137	<	0.001

28-DEC-09 Nuclide	Concentration (pCi/m^3)	
BE-7	0.062+/-	0.015
MN-54	<	0.001
CO-58	<	0.001
FE-59	<	0.002
CO-60	<	0.001
ZN-65	<	0.001
ZR-NB-95	<	0.001
CS-134	<	0.001
CS-137	<	0.001

*** Duplicate Analysis**

Location: 053

01-APR-09

Nuclide	Concentration (pCi/m^3)	
BE-7	0.100+/-	0.011
MN-54	<	0.001
CO-58	<	0.001
FE-59	<	0.001
CO-60	<	0.001
ZN-65	<	0.001
ZR-NB-95	<	0.001
CS-134	<	0.001
CS-137	<	0.001

01-JUL-09

Nuclide	Concentration (pCi/m^3)	
BE-7	0.108+/-	0.014
MN-54	<	0.001
CO-58	<	0.001
FE-59	<	0.001
CO-60	<	0.001
ZN-65	<	0.001
ZR-NB-95	<	0.001
CS-134	<	0.001
CS-137	<	0.001

28-SEP-09

Nuclide	Concentration (pCi/m^3)	
BE-7	0.107+/-	0.018
MN-54	<	0.001
CO-58	<	0.001
FE-59	<	0.001
CO-60	<	0.001
ZN-65	<	0.001
ZR-NB-95	<	0.001
CS-134	<	0.001
CS-137	<	0.001

28-DEC-09

Nuclide	Concentration (pCi/m^3)	
BE-7	0.073+/-	0.015
MN-54	<	0.001
CO-58	<	0.001
FE-59	<	0.002
CO-60	<	0.001
ZN-65	<	0.001
ZR-NB-95	<	0.001
CS-134	<	0.001
CS-137	<	0.001

*** Duplicate Analysis**

Exposure Pathway - Waterborne
Surface Water

Location JRR

Collection Date	Nuclide	Gamma Spectrum & H-3 Concentration (pCi/Liter)		Duplicate Analysis
08-JAN-09	MN-54	<	3.6	
08-JAN-09	CO-58	<	2.2	
08-JAN-09	FE-59	<	6.1	
08-JAN-09	CO-60	<	3.8	
08-JAN-09	ZN-65	<	4.3	
08-JAN-09	ZR-NB-95	<	2.8	
08-JAN-09	I-131	<	6.4	
08-JAN-09	CS-134	<	3.9	
08-JAN-09	CS-137	<	3.0	
08-JAN-09	BA-LA-140	<	3.0	
08-JAN-09	H-3	<	133.0	
13-FEB-09	MN-54	<	3.4	
13-FEB-09	CO-58	<	2.2	
13-FEB-09	FE-59	<	3.1	
13-FEB-09	CO-60	<	2.1	
13-FEB-09	ZN-65	<	2.5	
13-FEB-09	ZR-NB-95	<	2.6	
13-FEB-09	I-131	<	6.1	
13-FEB-09	CS-134	<	2.6	
13-FEB-09	CS-137	<	2.9	
13-FEB-09	BA-LA-140	<	1.9	
13-FEB-09	H-3	<	145.0	
12-MAR-09	MN-54	<	1.6	
12-MAR-09	CO-58	<	1.6	
12-MAR-09	FE-59	<	3.7	
12-MAR-09	CO-60	<	2.7	
12-MAR-09	ZN-65	<	2.5	
12-MAR-09	ZR-NB-95	<	3.2	
12-MAR-09	I-131	<	4.1	
12-MAR-09	CS-134	<	2.6	
12-MAR-09	CS-137	<	2.4	
12-MAR-09	BA-LA-140	<	2.6	
12-MAR-09	H-3	<	149.0	
16-APR-09	MN-54	<	2.6	
16-APR-09	CO-58	<	2.3	
16-APR-09	FE-59	<	4.5	
16-APR-09	CO-60	<	2.4	
16-APR-09	ZN-65	<	4.6	
16-APR-09	ZR-NB-95	<	2.5	
16-APR-09	I-131	<	4.8	

Exposure Pathway - Waterborne
Surface Water

Location JRR

Collection Date	Nuclide	Gamma Spectrum & H-3 Concentration (pCi/Liter)		Duplicate Analysis
16-APR-09	CS-134	<	2.2	
16-APR-09	CS-137	<	2.0	
16-APR-09	BA-LA-140	<	3.0	
16-APR-09	H-3	<	153.0	
11-MAY-09	MN-54	<	1.9	
11-MAY-09	CO-58	<	2.3	
11-MAY-09	FE-59	<	4.6	
11-MAY-09	CO-60	<	2.0	
11-MAY-09	ZN-65	<	4.4	
11-MAY-09	ZR-NB-95	<	2.2	
11-MAY-09	I-131	<	3.6	
11-MAY-09	CS-134	<	1.9	
11-MAY-09	CS-137	<	2.5	
11-MAY-09	BA-LA-140	<	2.3	
11-MAY-09	H-3	<	155.0	
08-JUN-09	MN-54	<	4.0	
08-JUN-09	CO-58	<	2.8	
08-JUN-09	FE-59	<	5.3	
08-JUN-09	CO-60	<	2.1	
08-JUN-09	ZN-65	<	4.5	
08-JUN-09	ZR-NB-95	<	2.5	
08-JUN-09	I-131	<	3.3	
08-JUN-09	CS-134	<	2.6	
08-JUN-09	CS-137	<	3.2	
08-JUN-09	BA-LA-140	<	2.5	
08-JUN-09	H-3	<	142.0	
09-JUL-09	MN-54	<	2.4	
09-JUL-09	CO-58	<	2.1	
09-JUL-09	FE-59	<	5.8	
09-JUL-09	CO-60	<	2.7	
09-JUL-09	ZN-65	<	3.9	
09-JUL-09	ZR-NB-95	<	3.5	
09-JUL-09	I-131	<	4.4	
09-JUL-09	CS-134	<	2.9	
09-JUL-09	CS-137	<	2.9	
09-JUL-09	BA-LA-140	<	1.5	
09-JUL-09	H-3	<	147.0	
10-AUG-09	MN-54	<	3.1	
10-AUG-09	CO-58	<	1.8	
10-AUG-09	FE-59	<	5.0	

Exposure Pathway - Waterborne
Surface Water

Location JRR

Collection Date	Nuclide	Gamma Spectrum & H-3 Concentration (pCi/Liter)		Duplicate Analysis
10-AUG-09	CO-60	<	3.1	
10-AUG-09	ZN-65	<	3.3	
10-AUG-09	ZR-NB-95	<	2.9	
10-AUG-09	I-131	<	4.9	
10-AUG-09	CS-134	<	3.2	
10-AUG-09	CS-137	<	2.8	
10-AUG-09	BA-LA-140	<	2.7	
10-AUG-09	H-3	<	142.0	
21-SEP-09	MN-54	<	3.9	Duplicate
21-SEP-09	MN-54	<	2.2	
21-SEP-09	CO-58	<	3.5	Duplicate
21-SEP-09	CO-58	<	2.9	
21-SEP-09	FE-59	<	5.0	Duplicate
21-SEP-09	FE-59	<	4.8	
21-SEP-09	CO-60	<	3.8	Duplicate
21-SEP-09	CO-60	<	2.2	
21-SEP-09	ZN-65	<	4.9	Duplicate
21-SEP-09	ZN-65	<	4.4	
21-SEP-09	ZR-NB-95	<	4.1	Duplicate
21-SEP-09	ZR-NB-95	<	3.6	
21-SEP-09	I-131	<	7.2	Duplicate
21-SEP-09	I-131	<	2.5	
21-SEP-09	CS-134	<	3.5	Duplicate
21-SEP-09	CS-134	<	2.4	
21-SEP-09	CS-137	<	4.8	Duplicate
21-SEP-09	CS-137	<	2.1	
21-SEP-09	BA-LA-140	<	2.2	Duplicate
21-SEP-09	BA-LA-140	<	2.1	
21-SEP-09	H-3	<	152.0	Duplicate
21-SEP-09	H-3	<	152.0	
13-OCT-09	MN-54	<	2.1	
13-OCT-09	CO-58	<	2.4	
13-OCT-09	FE-59	<	3.7	
13-OCT-09	CO-60	<	3.0	
13-OCT-09	ZN-65	<	3.3	
13-OCT-09	ZR-NB-95	<	1.8	
13-OCT-09	I-131	<	6.4	
13-OCT-09	CS-134	<	2.2	
13-OCT-09	CS-137	<	2.7	
13-OCT-09	BA-LA-140	<	1.7	

Exposure Pathway - Waterborne
Surface Water

Location JRR

Collection Date	Nuclide	Gamma Spectrum & H-3 Concentration (pCi/Liter)			Duplicate Analysis
13-OCT-09	H-3	<	152.0		
10-NOV-09	MN-54	<	3.0		
10-NOV-09	CO-58	<	2.2		
10-NOV-09	FE-59	<	4.6		
10-NOV-09	CO-60	<	2.3		
10-NOV-09	ZN-65	<	2.8		
10-NOV-09	ZR-NB-95	<	3.9		
10-NOV-09	I-131	<	3.3		
10-NOV-09	CS-134	<	2.0		
10-NOV-09	CS-137	<	3.7		
10-NOV-09	BA-LA-140	<	2.5		
10-NOV-09	H-3	<	150.0		
21-DEC-09	MN-54	<	2.0		
21-DEC-09	CO-58	<	2.3		
21-DEC-09	FE-59	<	2.9		
21-DEC-09	CO-60	<	1.9		
21-DEC-09	ZN-65	<	4.3		
21-DEC-09	ZR-NB-95	<	3.5		
21-DEC-09	I-131	<	4.8		
21-DEC-09	CS-134	<	2.6		
21-DEC-09	CS-137	<	2.9		
21-DEC-09	BA-LA-140	<	2.7		
21-DEC-09	H-3	<	150.0		

Exposure Pathway - Waterborne
Surface Water

Location SP

Collection Date	Nuclide	Gamma Spectrum & H-3 Concentration (pCi/Liter)			Duplicate Analysis
08-JAN-09	MN-54		<	3.9	
08-JAN-09	CO-58		<	4.2	
08-JAN-09	FE-59		<	5.0	
08-JAN-09	CO-60		<	2.4	
08-JAN-09	ZN-65		<	4.0	
08-JAN-09	ZR-NB-95		<	3.4	
08-JAN-09	I-131		<	9.6	
08-JAN-09	CS-134		<	2.6	
08-JAN-09	CS-137		<	3.5	
08-JAN-09	BA-LA-140		<	4.2	
08-JAN-09	H-3	9,382	+/-	273.0	
13-FEB-09	MN-54		<	2.4	
13-FEB-09	CO-58		<	1.9	
13-FEB-09	FE-59		<	5.6	
13-FEB-09	CO-60		<	1.9	
13-FEB-09	ZN-65		<	3.4	
13-FEB-09	ZR-NB-95		<	3.9	
13-FEB-09	I-131		<	5.5	
13-FEB-09	CS-134		<	2.6	
13-FEB-09	CS-137		<	3.2	
13-FEB-09	BA-LA-140		<	1.3	
13-FEB-09	H-3	10,180	+/-	286.0	
12-MAR-09	MN-54		<	2.7	
12-MAR-09	CO-58		<	2.8	
12-MAR-09	FE-59		<	4.9	
12-MAR-09	CO-60		<	2.9	
12-MAR-09	ZN-65		<	5.9	
12-MAR-09	ZR-NB-95		<	3.9	
12-MAR-09	I-131		<	6.3	
12-MAR-09	CS-134		<	3.4	
12-MAR-09	CS-137		<	4.6	
12-MAR-09	BA-LA-140		<	4.5	
12-MAR-09	H-3	9,676	+/-	295.0	
16-APR-09	MN-54		<	1.7	Duplicate
16-APR-09	MN-54		<	2.4	
16-APR-09	CO-58		<	2.6	Duplicate
16-APR-09	CO-58		<	2.7	
16-APR-09	FE-59		<	5.3	Duplicate
16-APR-09	FE-59		<	3.5	
16-APR-09	CO-60		<	2.3	Duplicate

Exposure Pathway - Waterborne
Surface Water

Location SP

Collection Date	Nuclide	Gamma Spectrum & H-3 Concentration (pCi/Liter)			Duplicate Analysis
16-APR-09	CO-60		<	3.0	
16-APR-09	ZN-65		<	6.2	Duplicate
16-APR-09	ZN-65		<	2.7	
16-APR-09	ZR-NB-95		<	2.0	Duplicate
16-APR-09	ZR-NB-95		<	2.2	
16-APR-09	I-131		<	6.5	Duplicate
16-APR-09	I-131		<	5.3	
16-APR-09	CS-134		<	2.6	Duplicate
16-APR-09	CS-134		<	2.1	
16-APR-09	CS-137		<	2.1	Duplicate
16-APR-09	CS-137		<	2.8	
16-APR-09	BA-LA-140		<	1.6	Duplicate
16-APR-09	BA-LA-140		<	1.6	
16-APR-09	H-3	10,349	+/-	311.0	Duplicate
16-APR-09	H-3	10,507	+/-	313.0	
11-MAY-09	MN-54		<	2.6	
11-MAY-09	CO-58		<	1.6	
11-MAY-09	FE-59		<	4.1	
11-MAY-09	CO-60		<	2.5	
11-MAY-09	ZN-65		<	3.6	
11-MAY-09	ZR-NB-95		<	1.6	
11-MAY-09	I-131		<	3.2	
11-MAY-09	CS-134		<	2.1	
11-MAY-09	CS-137		<	2.7	
11-MAY-09	BA-LA-140		<	2.5	
11-MAY-09	H-3	11,530	+/-	327.0	
08-JUN-09	MN-54		<	2.9	
08-JUN-09	CO-58		<	3.8	
08-JUN-09	FE-59		<	7.6	
08-JUN-09	CO-60		<	2.7	
08-JUN-09	ZN-65		<	3.5	
08-JUN-09	ZR-NB-95		<	3.1	
08-JUN-09	I-131		<	5.8	
08-JUN-09	CS-134		<	4.0	
08-JUN-09	CS-137		<	4.0	
08-JUN-09	BA-LA-140		<	2.4	
08-JUN-09	H-3	10,928	+/-	293.0	
09-JUL-09	MN-54		<	2.9	
09-JUL-09	CO-58		<	2.9	
09-JUL-09	FE-59		<	2.3	

Exposure Pathway - Waterborne
Surface Water

Location SP

Collection Date	Nuclide	Gamma Spectrum & H-3 Concentration (pCi/Liter)			Duplicate Analysis
09-JUL-09	CO-60		<	2.9	
09-JUL-09	ZN-65		<	6.9	
09-JUL-09	ZR-NB-95		<	3.6	
09-JUL-09	I-131		<	4.6	
09-JUL-09	CS-134		<	2.8	
09-JUL-09	CS-137		<	3.5	
09-JUL-09	BA-LA-140		<	2.7	
09-JUL-09	H-3	11,615	+/-	317.0	
10-AUG-09	MN-54		<	3.3	
10-AUG-09	CO-58		<	1.9	
10-AUG-09	FE-59		<	4.5	
10-AUG-09	CO-60		<	3.1	
10-AUG-09	ZN-65		<	3.5	
10-AUG-09	ZR-NB-95		<	4.9	
10-AUG-09	I-131		<	3.9	
10-AUG-09	CS-134		<	2.8	
10-AUG-09	CS-137		<	2.6	
10-AUG-09	BA-LA-140		<	1.5	
10-AUG-09	H-3	11,252	+/-	310.0	
21-SEP-09	MN-54		<	3.0	
21-SEP-09	CO-58		<	3.1	
21-SEP-09	FE-59		<	2.6	
21-SEP-09	CO-60		<	2.1	
21-SEP-09	ZN-65		<	2.4	
21-SEP-09	ZR-NB-95		<	4.6	
21-SEP-09	I-131		<	5.3	
21-SEP-09	CS-134		<	4.3	
21-SEP-09	CS-137		<	4.7	
21-SEP-09	BA-LA-140		<	3.0	
21-SEP-09	H-3	12,830	+/-	332.0	
13-OCT-09	MN-54		<	1.4	
13-OCT-09	CO-58		<	1.9	
13-OCT-09	FE-59		<	6.4	
13-OCT-09	CO-60		<	2.1	
13-OCT-09	ZN-65		<	5.2	
13-OCT-09	ZR-NB-95		<	2.1	
13-OCT-09	I-131		<	5.0	
13-OCT-09	CS-134		<	2.1	
13-OCT-09	CS-137		<	3.4	
13-OCT-09	BA-LA-140		<	2.2	

Exposure Pathway - Waterborne
Surface Water

Location SP

Collection Date	Nuclide	Gamma Spectrum & H-3 Concentration (pCi/Liter)			Duplicate Analysis
13-OCT-09	H-3	13,351	+/-	346.0	
10-NOV-09	MN-54		<	1.9	
10-NOV-09	CO-58		<	1.5	
10-NOV-09	FE-59		<	3.1	
10-NOV-09	CO-60		<	2.7	
10-NOV-09	ZN-65		<	5.9	
10-NOV-09	ZR-NB-95		<	2.8	
10-NOV-09	I-131		<	4.8	
10-NOV-09	CS-134		<	2.6	
10-NOV-09	CS-137		<	3.0	
10-NOV-09	BA-LA-140		<	2.2	
10-NOV-09	H-3	12,635	+/-	332.0	
21-DEC-09	MN-54		<	3.0	
21-DEC-09	CO-58		<	2.8	
21-DEC-09	FE-59		<	2.3	
21-DEC-09	CO-60		<	1.9	
21-DEC-09	ZN-65		<	2.7	
21-DEC-09	ZR-NB-95		<	2.2	
21-DEC-09	I-131		<	3.4	
21-DEC-09	CS-134		<	2.3	
21-DEC-09	CS-137		<	2.1	
21-DEC-09	BA-LA-140		<	3.9	
21-DEC-09	H-3	12,386	+/-	336.0	

Exposure Pathway - Waterborne
Ground Water

Location B-12

Collection Date	Nuclide	Concentration (pCi/Liter)		Duplicate Analysis
18-FEB-09	MN-54	<	2.6	
18-FEB-09	CO-58	<	1.7	
18-FEB-09	FE-59	<	4.0	
18-FEB-09	CO-60	<	1.9	
18-FEB-09	ZN-65	<	4.2	
18-FEB-09	ZR-NB-95	<	2.1	
18-FEB-09	CS-134	<	2.5	
18-FEB-09	CS-137	<	3.8	
18-FEB-09	BA-LA-140	<	2.4	
18-FEB-09	H-3	<	146.0	
18-FEB-09	I-131 (CHEM)	<	0.345	
15-MAY-09	MN-54	<	1.6	
15-MAY-09	CO-58	<	2.7	
15-MAY-09	FE-59	<	2.6	
15-MAY-09	CO-60	<	1.8	
15-MAY-09	ZN-65	<	2.8	
15-MAY-09	ZR-NB-95	<	2.9	
15-MAY-09	CS-134	<	2.8	
15-MAY-09	CS-137	<	2.2	
15-MAY-09	BA-LA-140	<	1.8	
15-MAY-09	H-3	<	163.0	
15-MAY-09	I-131 (CHEM)	<	0.324	
24-AUG-09	MN-54	<	2.8	
24-AUG-09	CO-58	<	3.3	
24-AUG-09	FE-59	<	2.1	
24-AUG-09	CO-60	<	1.8	
24-AUG-09	ZN-65	<	1.6	
24-AUG-09	ZR-NB-95	<	2.5	
24-AUG-09	CS-134	<	3.4	
24-AUG-09	CS-137	<	3.8	
24-AUG-09	BA-LA-140	<	3.5	
24-AUG-09	H-3	<	146.0	
24-AUG-09	I-131 (CHEM)	<	0.345	
10-NOV-09	MN-54	<	3.0	
10-NOV-09	CO-58	<	2.5	
10-NOV-09	FE-59	<	6.9	
10-NOV-09	CO-60	<	3.0	
10-NOV-09	ZN-65	<	4.5	
10-NOV-09	ZR-NB-95	<	3.8	
10-NOV-09	CS-134	<	3.5	
10-NOV-09	CS-137	<	5.0	

Exposure Pathway - Waterborne
Ground Water

Location B-12

Collection Date	Nuclide	Concentration (pCi/Liter)	Duplicate Analysis
10-NOV-09	BA-LA-140	< 4.0	
10-NOV-09	H-3	< 150.0	
10-NOV-09	I-131 (CHEM)	< 0.319	

Exposure Pathway - Waterborne
Ground Water

Location C-10

Collection Date	Nuclide	Concentration (pCi/Liter)	Duplicate Analysis
18-FEB-09	MN-54	< 4.3	
18-FEB-09	CO-58	< 2.0	
18-FEB-09	FE-59	< 4.3	
18-FEB-09	CO-60	< 2.5	
18-FEB-09	ZN-65	< 4.8	
18-FEB-09	ZR-NB-95	< 3.1	
18-FEB-09	CS-134	< 4.1	
18-FEB-09	CS-137	< 4.1	
18-FEB-09	BA-LA-140	< 6.8	
18-FEB-09	H-3	< 146.0	
18-FEB-09	I-131 (CHEM)	< 0.358	
15-MAY-09	MN-54	< 2.2	
15-MAY-09	CO-58	< 3.1	
15-MAY-09	FE-59	< 4.0	
15-MAY-09	CO-60	< 2.1	
15-MAY-09	ZN-65	< 4.9	
15-MAY-09	ZR-NB-95	< 3.5	
15-MAY-09	CS-134	< 3.5	
15-MAY-09	CS-137	< 3.7	
15-MAY-09	BA-LA-140	< 2.4	
15-MAY-09	H-3	< 163.0	
15-MAY-09	I-131 (CHEM)	< 0.302	
24-AUG-09	MN-54	< 2.8	
24-AUG-09	CO-58	< 1.9	
24-AUG-09	FE-59	< 4.4	
24-AUG-09	CO-60	< 2.4	
24-AUG-09	ZN-65	< 4.1	
24-AUG-09	ZR-NB-95	< 2.7	
24-AUG-09	CS-134	< 3.1	
24-AUG-09	CS-137	< 2.7	
24-AUG-09	BA-LA-140	< 3.3	
24-AUG-09	H-3	< 146.0	
24-AUG-09	I-131 (CHEM)	< 0.33	
10-NOV-09	MN-54	< 4.2	
10-NOV-09	CO-58	< 5.0	
10-NOV-09	FE-59	< 6.3	
10-NOV-09	CO-60	< 3.0	
10-NOV-09	ZN-65	< 4.0	
10-NOV-09	ZR-NB-95	< 4.5	
10-NOV-09	CS-134	< 2.9	
10-NOV-09	CS-137	< 6.4	

Exposure Pathway - Waterborne
Ground Water

Location C-10

Collection Date	Nuclide	Concentration (pCi/Liter)	Duplicate Analysis
10-NOV-09	BA-LA-140	< 2.2	
10-NOV-09	H-3	< 150.0	
10-NOV-09	I-131 (CHEM)	< 0.452	

Exposure Pathway - Waterborne
Ground Water

Location C-49

Collection Date	Nuclide	Concentration (pCi/Liter)	Duplicate Analysis
18-FEB-09	MN-54	< 3.9	
18-FEB-09	CO-58	< 1.9	
18-FEB-09	FE-59	< 4.2	
18-FEB-09	CO-60	< 1.7	
18-FEB-09	ZN-65	< 2.9	
18-FEB-09	ZR-NB-95	< 4.3	
18-FEB-09	CS-134	< 3.9	
18-FEB-09	CS-137	< 4.4	
18-FEB-09	BA-LA-140	< 2.5	
18-FEB-09	H-3	< 146.0	
18-FEB-09	I-131 (CHEM)	< 0.457	
15-MAY-09	MN-54	< 1.4	
15-MAY-09	CO-58	< 2.2	
15-MAY-09	FE-59	< 3.5	
15-MAY-09	CO-60	< 2.2	
15-MAY-09	ZN-65	< 2.2	
15-MAY-09	ZR-NB-95	< 2.6	
15-MAY-09	CS-134	< 2.7	
15-MAY-09	CS-137	< 2.3	
15-MAY-09	BA-LA-140	< 2.2	
15-MAY-09	H-3	< 163.0	
15-MAY-09	I-131 (CHEM)	< 0.388	
24-AUG-09	MN-54	< 2.5	
24-AUG-09	CO-58	< 4.7	
24-AUG-09	FE-59	< 7.2	
24-AUG-09	CO-60	< 2.7	
24-AUG-09	ZN-65	< 10.5	
24-AUG-09	ZR-NB-95	< 6.0	
24-AUG-09	CS-134	< 4.9	
24-AUG-09	CS-137	< 4.6	
24-AUG-09	BA-LA-140	< 2.5	
24-AUG-09	H-3	< 146.0	
24-AUG-09	I-131 (CHEM)	< 0.366	
10-NOV-09	MN-54	< 2.0	
10-NOV-09	CO-58	< 2.0	
10-NOV-09	FE-59	< 3.8	
10-NOV-09	CO-60	< 1.6	
10-NOV-09	ZN-65	< 3.9	
10-NOV-09	ZR-NB-95	< 2.7	
10-NOV-09	CS-134	< 2.5	
10-NOV-09	CS-137	< 2.7	

Exposure Pathway - Waterborne
Ground Water

Location C-49

Collection Date	Nuclide	Concentration (pCi/Liter)	Duplicate Analysis
10-NOV-09	BA-LA-140	< 3.4	
10-NOV-09	H-3	< 150.0	
10-NOV-09	I-131 (CHEM)	< 0.224	

Exposure Pathway - Waterborne
Ground Water

Location F-1

Collection Date	Nuclide	Concentration (pCi/Liter)	Duplicate Analysis
18-FEB-09	MN-54	< 1.6	
18-FEB-09	CO-58	< 1.7	
18-FEB-09	FE-59	< 1.9	
18-FEB-09	CO-60	< 1.7	
18-FEB-09	ZN-65	< 2.8	
18-FEB-09	ZR-NB-95	< 2.5	
18-FEB-09	CS-134	< 1.6	
18-FEB-09	CS-137	< 2.6	
18-FEB-09	BA-LA-140	< 3.1	
18-FEB-09	H-3	< 146.0	
18-FEB-09	I-131 (CHEM)	< 0.391	
15-MAY-09	MN-54	< 1.3	Duplicate
15-MAY-09	MN-54	< 2.6	
15-MAY-09	CO-58	< 2.6	Duplicate
15-MAY-09	CO-58	< 3.4	
15-MAY-09	FE-59	< 3.4	Duplicate
15-MAY-09	FE-59	< 5.2	
15-MAY-09	CO-60	< 2.7	Duplicate
15-MAY-09	CO-60	< 1.7	
15-MAY-09	ZN-65	< 3.8	Duplicate
15-MAY-09	ZN-65	< 2.4	
15-MAY-09	ZR-NB-95	< 3.1	Duplicate
15-MAY-09	ZR-NB-95	< 3.1	
15-MAY-09	CS-134	< 2.6	Duplicate
15-MAY-09	CS-134	< 2.7	
15-MAY-09	CS-137	< 3.4	Duplicate
15-MAY-09	CS-137	< 3.5	
15-MAY-09	BA-LA-140	< 3.2	Duplicate
15-MAY-09	BA-LA-140	< 4.1	
15-MAY-09	H-3	< 163.0	Duplicate
15-MAY-09	H-3	< 163.0	
15-MAY-09	I-131 (CHEM)	< 0.409	Duplicate
15-MAY-09	I-131 (CHEM)	< 0.44	
24-AUG-09	MN-54	< 2.1	
24-AUG-09	CO-58	< 2.8	
24-AUG-09	FE-59	< 5.5	
24-AUG-09	CO-60	< 2.5	
24-AUG-09	ZN-65	< 5.7	
24-AUG-09	ZR-NB-95	< 3.2	
24-AUG-09	CS-134	< 3.3	
24-AUG-09	CS-137	< 2.6	

Exposure Pathway - Waterborne
Ground Water

Location F-1

Collection Date	Nuclide	Concentration (pCi/Liter)	Duplicate Analysis
24-AUG-09	BA-LA-140	< 2.1	
24-AUG-09	H-3	< 146.0	
24-AUG-09	I-131 (CHEM)	< 0.338	
10-NOV-09	MN-54	< 2.5	
10-NOV-09	CO-58	< 2.5	
10-NOV-09	FE-59	< 2.5	
10-NOV-09	CO-60	< 2.3	
10-NOV-09	ZN-65	< 4.1	
10-NOV-09	ZR-NB-95	< 2.0	
10-NOV-09	CS-134	< 2.5	
10-NOV-09	CS-137	< 3.1	
10-NOV-09	BA-LA-140	< 2.1	
10-NOV-09	H-3	< 150.0	
10-NOV-09	I-131 (CHEM)	< 0.38	

Exposure Pathway - Waterborne
Ground Water

Location G-2

Collection Date	Nuclide	Concentration (pCi/Liter)	Duplicate Analysis
18-FEB-09	MN-54	< 2.2	
18-FEB-09	CO-58	< 1.7	
18-FEB-09	FE-59	< 4.6	
18-FEB-09	CO-60	< 1.9	
18-FEB-09	ZN-65	< 2.3	
18-FEB-09	ZR-NB-95	< 2.2	
18-FEB-09	CS-134	< 2.7	
18-FEB-09	CS-137	< 2.7	
18-FEB-09	BA-LA-140	< 2.7	
18-FEB-09	H-3	< 146.0	
18-FEB-09	I-131 (CHEM)	< 0.357	
15-MAY-09	MN-54	< 2.5	
15-MAY-09	CO-58	< 2.7	
15-MAY-09	FE-59	< 2.7	
15-MAY-09	CO-60	< 2.3	
15-MAY-09	ZN-65	< 3.3	
15-MAY-09	ZR-NB-95	< 1.7	
15-MAY-09	CS-134	< 3.3	
15-MAY-09	CS-137	< 2.8	
15-MAY-09	BA-LA-140	< 2.4	
15-MAY-09	H-3	< 163.0	
15-MAY-09	I-131 (CHEM)	< 0.34	
24-AUG-09	MN-54	< 2.5	
24-AUG-09	CO-58	< 1.7	
24-AUG-09	FE-59	< 5.8	
24-AUG-09	CO-60	< 3.0	
24-AUG-09	ZN-65	< 4.8	
24-AUG-09	ZR-NB-95	< 2.8	
24-AUG-09	CS-134	< 3.2	
24-AUG-09	CS-137	< 2.1	
24-AUG-09	BA-LA-140	< 2.6	
24-AUG-09	H-3	< 146.0	
24-AUG-09	I-131 (CHEM)	< 0.338	
10-NOV-09	MN-54	< 2.7	
10-NOV-09	CO-58	< 1.8	
10-NOV-09	FE-59	< 5.5	
10-NOV-09	CO-60	< 2.0	
10-NOV-09	ZN-65	< 4.5	
10-NOV-09	ZR-NB-95	< 3.3	
10-NOV-09	CS-134	< 2.6	
10-NOV-09	CS-137	< 1.8	

Exposure Pathway - Waterborne
Ground Water

Location G-2

Collection Date	Nuclide	Concentration (pCi/Liter)	Duplicate Analysis
10-NOV-09	BA-LA-140	< 1.6	
10-NOV-09	H-3	< 150.0	
10-NOV-09	I-131 (CHEM)	< 0.22	

Exposure Pathway - Waterborne
Ground Water

Location J-1

Collection Date	Nuclide	Concentration (pCi/Liter)		Duplicate Analysis
18-FEB-09	MN-54	<	3.3	
18-FEB-09	CO-58	<	2.9	
18-FEB-09	FE-59	<	2.7	
18-FEB-09	CO-60	<	2.3	
18-FEB-09	ZN-65	<	7.3	
18-FEB-09	ZR-NB-95	<	4.0	
18-FEB-09	CS-134	<	2.7	
18-FEB-09	CS-137	<	3.5	
18-FEB-09	BA-LA-140	<	2.8	
18-FEB-09	H-3	<	146.0	
18-FEB-09	I-131 (CHEM)	<	0.357	
13-MAY-09	MN-54	<	2.2	
13-MAY-09	CO-58	<	1.9	
13-MAY-09	FE-59	<	3.9	
13-MAY-09	CO-60	<	2.7	
13-MAY-09	ZN-65	<	6.3	
13-MAY-09	ZR-NB-95	<	3.2	
13-MAY-09	CS-134	<	2.8	
13-MAY-09	CS-137	<	2.7	
13-MAY-09	BA-LA-140	<	1.7	
13-MAY-09	H-3	<	155.0	
13-MAY-09	I-131 (CHEM)	<	0.353	
24-AUG-09	MN-54	<	2.9	
24-AUG-09	CO-58	<	2.4	
24-AUG-09	FE-59	<	4.7	
24-AUG-09	CO-60	<	3.1	
24-AUG-09	ZN-65	<	6.7	
24-AUG-09	ZR-NB-95	<	3.3	
24-AUG-09	CS-134	<	3.1	
24-AUG-09	CS-137	<	4.3	
24-AUG-09	BA-LA-140	<	3.9	
24-AUG-09	H-3	<	147.0	
24-AUG-09	I-131 (CHEM)	<	0.338	
10-NOV-09	MN-54	<	2.3	
10-NOV-09	CO-58	<	2.0	
10-NOV-09	FE-59	<	3.6	
10-NOV-09	CO-60	<	2.2	
10-NOV-09	ZN-65	<	6.2	
10-NOV-09	ZR-NB-95	<	3.5	
10-NOV-09	CS-134	<	2.9	
10-NOV-09	CS-137	<	2.9	

Exposure Pathway - Waterborne
Ground Water

Location J-1

Collection Date	Nuclide	Concentration (pCi/Liter)	Duplicate Analysis
10-NOV-09	BA-LA-140	< 2.2	
10-NOV-09	H-3	< 150.0	
10-NOV-09	I-131 (CHEM)	< 0.293	

Exposure Pathway - Waterborne
Ground Water

Location J-2

Collection Date	Nuclide	Concentration (pCi/Liter)	Duplicate Analysis
18-FEB-09	MN-54	< 3.4	
18-FEB-09	CO-58	< 4.2	
18-FEB-09	FE-59	< 10.9	
18-FEB-09	CO-60	< 3.7	
18-FEB-09	ZN-65	< 5.7	
18-FEB-09	ZR-NB-95	< 7.1	
18-FEB-09	CS-134	< 5.8	
18-FEB-09	CS-137	< 3.9	
18-FEB-09	BA-LA-140	< 3.5	
18-FEB-09	H-3	< 146.0	
18-FEB-09	I-131 (CHEM)	< 0.362	
15-MAY-09	MN-54	< 1.9	
15-MAY-09	CO-58	< 1.4	
15-MAY-09	FE-59	< 6.1	
15-MAY-09	CO-60	< 1.7	
15-MAY-09	ZN-65	< 5.6	
15-MAY-09	ZR-NB-95	< 3.3	
15-MAY-09	CS-134	< 2.4	
15-MAY-09	CS-137	< 3.7	
15-MAY-09	BA-LA-140	< 2.5	
15-MAY-09	H-3	< 163.0	
15-MAY-09	I-131 (CHEM)	< 0.292	
24-AUG-09	MN-54	< 2.9	
24-AUG-09	CO-58	< 2.3	
24-AUG-09	FE-59	< 6.7	
24-AUG-09	CO-60	< 2.8	
24-AUG-09	ZN-65	< 7.0	
24-AUG-09	ZR-NB-95	< 3.3	
24-AUG-09	CS-134	< 3.2	
24-AUG-09	CS-137	< 3.5	
24-AUG-09	BA-LA-140	< 1.9	
24-AUG-09	H-3	< 146.0	
24-AUG-09	I-131 (CHEM)	< 0.391	
10-NOV-09	MN-54	< 1.5	
10-NOV-09	CO-58	< 2.7	
10-NOV-09	FE-59	< 5.0	
10-NOV-09	CO-60	< 2.2	
10-NOV-09	ZN-65	< 6.9	
10-NOV-09	ZR-NB-95	< 4.0	
10-NOV-09	CS-134	< 3.5	
10-NOV-09	CS-137	< 3.6	

Exposure Pathway - Waterborne
Ground Water

Location J-2

Collection Date	Nuclide	Concentration (pCi/Liter)	Duplicate Analysis
10-NOV-09	BA-LA-140	< 3.1	
10-NOV-09	H-3	< 150.0	
10-NOV-09	I-131 (CHEM)	< 0.329	

Exposure Pathway - Waterborne
Ground Water

Location L-49

Collection Date	Nuclide	Concentration (pCi/Liter)		Duplicate Analysis
18-FEB-09	MN-54	<	3.1	
18-FEB-09	CO-58	<	2.2	
18-FEB-09	FE-59	<	6.3	
18-FEB-09	CO-60	<	1.9	
18-FEB-09	ZN-65	<	4.0	
18-FEB-09	ZR-NB-95	<	2.3	
18-FEB-09	CS-134	<	3.5	
18-FEB-09	CS-137	<	3.1	
18-FEB-09	BA-LA-140	<	3.1	
18-FEB-09	H-3	<	146.0	
18-FEB-09	I-131 (CHEM)	<	0.349	
15-MAY-09	MN-54	<	2.0	
15-MAY-09	CO-58	<	1.6	
15-MAY-09	FE-59	<	4.0	
15-MAY-09	CO-60	<	2.1	
15-MAY-09	ZN-65	<	5.5	
15-MAY-09	ZR-NB-95	<	2.3	
15-MAY-09	CS-134	<	2.6	
15-MAY-09	CS-137	<	2.6	
15-MAY-09	BA-LA-140	<	3.4	
15-MAY-09	H-3	<	163.0	
15-MAY-09	I-131 (CHEM)	<	0.479	
24-AUG-09	MN-54	<	2.9	
24-AUG-09	CO-58	<	3.0	
24-AUG-09	FE-59	<	5.0	
24-AUG-09	CO-60	<	2.6	
24-AUG-09	ZN-65	<	7.0	
24-AUG-09	ZR-NB-95	<	4.1	
24-AUG-09	CS-134	<	2.6	
24-AUG-09	CS-137	<	3.8	
24-AUG-09	BA-LA-140	<	2.3	
24-AUG-09	H-3	<	146.0	
24-AUG-09	I-131 (CHEM)	<	0.323	
10-NOV-09	MN-54	<	2.0	
10-NOV-09	CO-58	<	3.4	
10-NOV-09	FE-59	<	4.5	
10-NOV-09	CO-60	<	2.5	
10-NOV-09	ZN-65	<	6.0	
10-NOV-09	ZR-NB-95	<	3.2	
10-NOV-09	CS-134	<	3.5	
10-NOV-09	CS-137	<	1.5	

Exposure Pathway - Waterborne
Ground Water

Location L-49

Collection Date	Nuclide	Concentration (pCi/Liter)	Duplicate Analysis
10-NOV-09	BA-LA-140	< 1.8	
10-NOV-09	H-3	< 150.0	
10-NOV-09	I-131 (CHEM)	< 0.329	

Exposure Pathway - Waterborne
Drinking Water

Location BW-15

Collection Date	Nuclide	Concentration (pCi/Liter)	Duplicate Analysis
04-FEB-09	MN-54	< 2.2	
04-FEB-09	MN-54	< 2.4	Duplicate
04-FEB-09	CO-58	< 2.2	
04-FEB-09	CO-58	< 2.3	Duplicate
04-FEB-09	FE-59	< 4.7	
04-FEB-09	FE-59	< 4.9	Duplicate
04-FEB-09	CO-60	< 2.2	
04-FEB-09	CO-60	< 3.5	Duplicate
04-FEB-09	ZN-65	< 3.6	
04-FEB-09	ZN-65	< 3.7	Duplicate
04-FEB-09	ZR-NB-95	< 2.7	
04-FEB-09	ZR-NB-95	< 3.2	Duplicate
04-FEB-09	CS-134	< 2.5	
04-FEB-09	CS-134	< 3.0	Duplicate
04-FEB-09	CS-137	< 3.0	
04-FEB-09	CS-137	< 3.3	Duplicate
04-FEB-09	BA-LA-140	< 2.8	
04-FEB-09	BA-LA-140	< 3.9	Duplicate
04-FEB-09	GROSS BETA	2.717 +/- 0.648	
04-FEB-09	GROSS BETA	3.056 +/- 0.685	Duplicate
04-FEB-09	I-131 (CHEM)	< 0.364	
05-MAR-09	MN-54	< 2.8	
05-MAR-09	CO-58	< 2.0	
05-MAR-09	FE-59	< 4.3	
05-MAR-09	CO-60	< 1.7	
05-MAR-09	ZN-65	< 2.6	
05-MAR-09	ZR-NB-95	< 2.3	
05-MAR-09	CS-134	< 2.1	
05-MAR-09	CS-137	< 2.3	
05-MAR-09	BA-LA-140	< 2.7	
05-MAR-09	GROSS BETA	1.963 +/- 0.602	
05-MAR-09	I-131 (CHEM)	< 0.455	
01-APR-09	MN-54	< 2.5	
01-APR-09	CO-58	< 2.2	
01-APR-09	FE-59	< 5.3	
01-APR-09	CO-60	< 2.9	
01-APR-09	ZN-65	< 5.6	
01-APR-09	ZR-NB-95	< 3.1	
01-APR-09	CS-134	< 2.8	
01-APR-09	CS-137	< 4.3	

Exposure Pathway - Waterborne
Drinking Water

Location BW-15

Collection Date	Nuclide	Concentration (pCi/Liter)	Duplicate Analysis
01-APR-09	BA-LA-140	< 3.5	
01-APR-09	GROSS BETA	2.051 +/- 0.469	
01-APR-09	I-131 (CHEM)	< 0.268	
06-MAY-09	MN-54	< 1.9	
06-MAY-09	CO-58	< 2.2	
06-MAY-09	FE-59	< 4.4	
06-MAY-09	CO-60	< 1.7	
06-MAY-09	ZN-65	< 4.9	
06-MAY-09	ZR-NB-95	< 1.3	
06-MAY-09	CS-134	< 2.6	
06-MAY-09	CS-137	< 2.1	
06-MAY-09	BA-LA-140	< 2.2	
06-MAY-09	GROSS BETA	2.509 +/- 0.679	
06-MAY-09	I-131 (CHEM)	< 0.357	
04-JUN-09	MN-54	< 2.7	
04-JUN-09	CO-58	< 3.4	
04-JUN-09	FE-59	< 5.3	
04-JUN-09	CO-60	< 2.3	
04-JUN-09	ZN-65	< 4.1	
04-JUN-09	ZR-NB-95	< 3.0	
04-JUN-09	CS-134	< 3.5	
04-JUN-09	CS-137	< 4.0	
04-JUN-09	BA-LA-140	< 2.6	
04-JUN-09	GROSS BETA	3.485 +/- 1.151	
04-JUN-09	I-131 (CHEM)	< 0.309	
01-JUL-09	MN-54	< 2.1	
01-JUL-09	CO-58	< 2.4	
01-JUL-09	FE-59	< 5.9	
01-JUL-09	CO-60	< 1.3	
01-JUL-09	ZN-65	< 2.8	
01-JUL-09	ZR-NB-95	< 2.4	
01-JUL-09	CS-134	< 4.0	
01-JUL-09	CS-137	< 2.7	
01-JUL-09	BA-LA-140	< 2.5	
01-JUL-09	GROSS BETA	2.759 +/- 1.1	
01-JUL-09	I-131 (CHEM)	< 0.318	
05-AUG-09	MN-54	< 2.3	
05-AUG-09	CO-58	< 3.4	
05-AUG-09	FE-59	< 3.5	
05-AUG-09	CO-60	< 2.0	

Exposure Pathway - Waterborne
Drinking Water

Location BW-15

Collection Date	Nuclide	Concentration (pCi/Liter)	Duplicate Analysis
05-AUG-09	ZN-65	< 5.6	
05-AUG-09	ZR-NB-95	< 3.0	
05-AUG-09	CS-134	< 3.0	
05-AUG-09	CS-137	< 3.4	
05-AUG-09	BA-LA-140	< 3.3	
05-AUG-09	GROSS BETA	2.311 +/- 0.47	
05-AUG-09	I-131 (CHEM)	< 0.36	
09-SEP-09	MN-54	< 1.6	
09-SEP-09	CO-58	< 2.2	
09-SEP-09	FE-59	< 5.2	
09-SEP-09	CO-60	< 1.6	
09-SEP-09	ZN-65	< 2.9	
09-SEP-09	ZR-NB-95	< 4.3	
09-SEP-09	CS-134	< 2.3	
09-SEP-09	CS-137	< 3.2	
09-SEP-09	BA-LA-140	< 3.1	
09-SEP-09	GROSS BETA	3.690 +/- 1.121	
09-SEP-09	I-131 (CHEM)	< 0.303	
05-OCT-09	MN-54	< 2.2	
05-OCT-09	CO-58	< 1.8	
05-OCT-09	FE-59	< 5.8	
05-OCT-09	CO-60	< 3.4	
05-OCT-09	ZN-65	< 8.6	
05-OCT-09	ZR-NB-95	< 3.2	
05-OCT-09	CS-134	< 2.9	
05-OCT-09	CS-137	< 4.6	
05-OCT-09	BA-LA-140	< 5.2	
05-OCT-09	GROSS BETA	3.895 +/- 1.117	
05-OCT-09	I-131 (CHEM)	< 0.223	
02-NOV-09	MN-54	< 3.6	
02-NOV-09	CO-58	< 2.1	
02-NOV-09	FE-59	< 5.5	
02-NOV-09	CO-60	< 2.9	
02-NOV-09	ZN-65	< 3.6	
02-NOV-09	ZR-NB-95	< 3.4	
02-NOV-09	CS-134	< 2.9	
02-NOV-09	CS-137	< 2.9	
02-NOV-09	BA-LA-140	< 2.4	
02-NOV-09	GROSS BETA	3.853 +/- 1.153	
02-NOV-09	I-131 (CHEM)	< 0.3	

Exposure Pathway - Waterborne
Drinking Water

Location BW-15

Collection Date	Nuclide	Concentration (pCi/Liter)	Duplicate Analysis
01-DEC-09	MN-54	< 2.3	
01-DEC-09	CO-58	< 2.1	
01-DEC-09	FE-59	< 5.6	
01-DEC-09	CO-60	< 2.3	
01-DEC-09	ZN-65	< 2.6	
01-DEC-09	ZR-NB-95	< 4.4	
01-DEC-09	CS-134	< 2.4	
01-DEC-09	CS-137	< 3.2	
01-DEC-09	BA-LA-140	< 2.2	
01-DEC-09	GROSS BETA	2.124 +/- 0.631	
01-DEC-09	I-131 (CHEM)	< 0.26	
04-JAN-10	MN-54	< 1.4	
04-JAN-10	CO-58	< 1.8	
04-JAN-10	FE-59	< 4.3	
04-JAN-10	CO-60	< 1.7	
04-JAN-10	ZN-65	< 2.7	
04-JAN-10	ZR-NB-95	< 1.8	
04-JAN-10	CS-134	< 3.0	
04-JAN-10	CS-137	< 2.8	
04-JAN-10	BA-LA-140	< 2.7	
04-JAN-10	GROSS BETA	2.997 +/- 1.102	
04-JAN-10	I-131 (CHEM)	< 0.291	

Exposure Pathway - Waterborne
Drinking Water

Location IO-DW

Collection Date	Nuclide	Concentration (pCi/Liter)	Duplicate Analysis
04-FEB-09	MN-54	< 2.2	
04-FEB-09	CO-58	< 2.2	
04-FEB-09	FE-59	< 3.7	
04-FEB-09	CO-60	< 1.2	
04-FEB-09	ZN-65	< 3.4	
04-FEB-09	ZR-NB-95	< 1.3	
04-FEB-09	CS-134	< 2.3	
04-FEB-09	CS-137	< 2.8	
04-FEB-09	BA-LA-140	< 2.3	
04-FEB-09	GROSS BETA	2.300 +/- 0.688	
04-FEB-09	I-131 (CHEM)	< 0.379	
05-MAR-09	MN-54	< 1.7	
05-MAR-09	CO-58	< 1.6	
05-MAR-09	FE-59	< 2.4	
05-MAR-09	CO-60	< 2.1	
05-MAR-09	ZN-65	< 3.7	
05-MAR-09	ZR-NB-95	< 3.3	
05-MAR-09	CS-134	< 2.1	
05-MAR-09	CS-137	< 2.2	
05-MAR-09	BA-LA-140	< 1.5	
05-MAR-09	GROSS BETA	1.871 +/- 0.596	
05-MAR-09	I-131 (CHEM)	< 0.251	
01-APR-09	MN-54	< 3.1	
01-APR-09	CO-58	< 2.1	
01-APR-09	FE-59	< 3.8	
01-APR-09	CO-60	< 2.4	
01-APR-09	ZN-65	< 2.3	
01-APR-09	ZR-NB-95	< 2.8	
01-APR-09	CS-134	< 2.5	
01-APR-09	CS-137	< 2.9	
01-APR-09	BA-LA-140	< 1.6	
01-APR-09	GROSS BETA	1.909 +/- 0.631	
01-APR-09	I-131 (CHEM)	< 0.479	
06-MAY-09	MN-54	< 2.6	
06-MAY-09	CO-58	< 2.2	
06-MAY-09	FE-59	< 5.8	
06-MAY-09	CO-60	< 1.7	
06-MAY-09	ZN-65	< 2.1	
06-MAY-09	ZR-NB-95	< 2.4	
06-MAY-09	CS-134	< 2.4	

Exposure Pathway - Waterborne
Drinking Water

Location IO-DW

Collection Date	Nuclide	Concentration (pCi/Liter)	Duplicate Analysis
06-MAY-09	CS-137	< 2.8	
06-MAY-09	BA-LA-140	< 2.3	
06-MAY-09	GROSS BETA	2.161 +/- 0.633	
06-MAY-09	I-131 (CHEM)	< 0.362	
04-JUN-09	MN-54	< 1.9	
04-JUN-09	CO-58	< 1.2	
04-JUN-09	FE-59	< 3.4	
04-JUN-09	CO-60	< 3.2	
04-JUN-09	ZN-65	< 2.9	
04-JUN-09	ZR-NB-95	< 2.2	
04-JUN-09	CS-134	< 2.2	
04-JUN-09	CS-137	< 2.6	
04-JUN-09	BA-LA-140	< 1.3	
04-JUN-09	GROSS BETA	4.705 +/- 1.068	
04-JUN-09	I-131 (CHEM)	< 0.313	
01-JUL-09	MN-54	< 3.2	
01-JUL-09	CO-58	< 4.0	
01-JUL-09	FE-59	< 4.3	
01-JUL-09	CO-60	< 2.2	
01-JUL-09	ZN-65	< 6.7	
01-JUL-09	ZR-NB-95	< 3.4	
01-JUL-09	CS-134	< 3.2	
01-JUL-09	CS-137	< 2.1	
01-JUL-09	BA-LA-140	< 5.4	
01-JUL-09	GROSS BETA	2.733 +/- 0.364	
01-JUL-09	I-131 (CHEM)	< 0.376	
05-AUG-09	MN-54	< 3.4	
05-AUG-09	CO-58	< 3.6	
05-AUG-09	FE-59	< 5.0	
05-AUG-09	CO-60	< 2.0	
05-AUG-09	ZN-65	< 4.4	
05-AUG-09	ZR-NB-95	< 2.4	
05-AUG-09	CS-134	< 3.3	
05-AUG-09	CS-137	< 3.9	
05-AUG-09	BA-LA-140	< 1.9	
05-AUG-09	GROSS BETA	3.441 +/- 0.523	
05-AUG-09	I-131 (CHEM)	< 0.37	
09-SEP-09	MN-54	< 3.1	
09-SEP-09	CO-58	< 4.0	
09-SEP-09	FE-59	< 6.2	

Exposure Pathway - Waterborne
Drinking Water

Location IO-DW

Collection Date	Nuclide	Concentration (pCi/Liter)	Duplicate Analysis
09-SEP-09	CO-60	< 2.7	
09-SEP-09	ZN-65	< 4.4	
09-SEP-09	ZR-NB-95	< 3.3	
09-SEP-09	CS-134	< 3.1	
09-SEP-09	CS-137	< 4.2	
09-SEP-09	BA-LA-140	< 2.4	
09-SEP-09	GROSS BETA	4.365 +/- 1.069	
09-SEP-09	I-131 (CHEM)	< 0.286	
05-OCT-09	MN-54	< 6.4	
05-OCT-09	CO-58	< 2.7	
05-OCT-09	FE-59	< 8.7	
05-OCT-09	CO-60	< 3.4	
05-OCT-09	ZN-65	< 3.5	
05-OCT-09	ZR-NB-95	< 3.7	
05-OCT-09	CS-134	< 5.2	
05-OCT-09	CS-137	< 4.1	
05-OCT-09	BA-LA-140	< 3.6	
05-OCT-09	GROSS BETA	4.250 +/- 1.039	
05-OCT-09	I-131 (CHEM)	< 0.221	
02-NOV-09	MN-54	< 4.3	
02-NOV-09	CO-58	< 3.1	
02-NOV-09	FE-59	< 3.6	
02-NOV-09	CO-60	< 2.9	
02-NOV-09	ZN-65	< 5.3	
02-NOV-09	ZR-NB-95	< 4.4	
02-NOV-09	CS-134	< 4.4	
02-NOV-09	CS-137	< 2.5	
02-NOV-09	BA-LA-140	< 4.3	
02-NOV-09	GROSS BETA	4.115 +/- 1.111	
02-NOV-09	I-131 (CHEM)	< 0.356	
01-DEC-09	MN-54	< 3.0	
01-DEC-09	CO-58	< 3.0	
01-DEC-09	FE-59	< 4.3	
01-DEC-09	CO-60	< 2.4	
01-DEC-09	ZN-65	< 3.7	
01-DEC-09	ZR-NB-95	< 3.4	
01-DEC-09	CS-134	< 3.4	
01-DEC-09	CS-137	< 3.3	
01-DEC-09	BA-LA-140	< 3.4	
01-DEC-09	GROSS BETA	2.733 +/- 0.688	

Exposure Pathway - Waterborne
Drinking Water

Location IO-DW

Collection Date	Nuclide	Concentration (pCi/Liter)	Duplicate Analysis
01-DEC-09	I-131 (CHEM)	< 0.319	
04-JAN-10	MN-54	< 2.1	
04-JAN-10	MN-54	< 3.1	
04-JAN-10	CO-58	< 2.1	
04-JAN-10	CO-58	< 3.1	
04-JAN-10	FE-59	< 3.7	
04-JAN-10	FE-59	< 5.2	
04-JAN-10	CO-60	< 1.8	
04-JAN-10	CO-60	< 2.1	
04-JAN-10	ZN-65	< 4.0	
04-JAN-10	ZN-65	< 6.3	
04-JAN-10	ZR-NB-95	< 2.4	
04-JAN-10	ZR-NB-95	< 1.9	
04-JAN-10	CS-134	< 1.9	
04-JAN-10	CS-134	< 3.7	
04-JAN-10	CS-137	< 2.6	
04-JAN-10	CS-137	< 4.2	
04-JAN-10	BA-LA-140	< 1.9	
04-JAN-10	BA-LA-140	< 2.1	
04-JAN-10	GROSS BETA	2.680 +/- 0.997	
04-JAN-10	GROSS BETA	3.283 +/- 1.154	
04-JAN-10	I-131 (CHEM)	< 0.291	
04-JAN-10	I-131 (CHEM)	< 0.289	

Exposure Pathway - Waterborne
Drinking Water
Quarterly Tritium Analysis

Location BW-15

Collection Date	Nuclide	Concentration (pCi/Liter)	Duplicate Analysis
01-APR-09	H-3	< 152	
01-JUL-09	H-3	< 148	
05-OCT-09	H-3	< 151	
04-JAN-10	H-3	< 150	

Exposure Pathway - Waterborne
Drinking Water
Quarterly Tritium Analysis

Location IO-DW

Collection Date	Nuclide	Concentration (pCi/Liter)	Duplicate Analysis
01-APR-09	H-3	< 152	
01-JUL-09	H-3	< 148	
05-OCT-09	H-3	< 151	
04-JAN-10	H-3	< 150	

Exposure Pathway - Waterborne
Shoreline Sediment

Location DC

Collection Date	Nuclide	Gamma Spectrum Concentration (pCi/Kg Dry)	Duplicate Analysis
29-MAY-09	K-40	10,923.0 +/- 1,206.0	Duplicate
29-MAY-09	K-40	10,073.0 +/- 1,719.0	
29-MAY-09	MN-54	< 52.7	Duplicate
29-MAY-09	MN-54	< 101.4	
29-MAY-09	CO-58	< 44.3	Duplicate
29-MAY-09	CO-58	< 33.2	
29-MAY-09	FE-59	< 113.8	Duplicate
29-MAY-09	FE-59	< 153.1	
29-MAY-09	CO-60	< 52.0	Duplicate
29-MAY-09	CO-60	< 42.8	
29-MAY-09	ZN-65	< 95.1	Duplicate
29-MAY-09	ZN-65	< 156.4	
29-MAY-09	CS-134	< 51.6	Duplicate
29-MAY-09	CS-134	< 85.4	
29-MAY-09	CS-137	< 65.9	Duplicate
29-MAY-09	CS-137	< 97.8	
23-SEP-09	K-40	12,895.0 +/- 1,410.0	
23-SEP-09	MN-54	< 75.0	
23-SEP-09	CO-58	< 70.4	
23-SEP-09	FE-59	< 96.9	
23-SEP-09	CO-60	< 46.9	
23-SEP-09	ZN-65	< 127.5	
23-SEP-09	CS-134	< 47.1	
23-SEP-09	CS-137	< 85.8	

Exposure Pathway - Waterborne
Shoreline Sediment

Location JRR

Collection Date	Nuclide	Gamma Spectrum Concentration (pCi/Kg Dry)	Duplicate Analysis
04-JUN-09	K-40	10,720.0 +/- 631.5	
04-JUN-09	MN-54	< 23.8	
04-JUN-09	CO-58	< 19.1	
04-JUN-09	FE-59	< 40.2	
04-JUN-09	CO-60	< 16.1	
04-JUN-09	ZN-65	< 59.5	
04-JUN-09	CS-134	< 18.2	
04-JUN-09	CS-137	125.5 +/- 31.4	
23-SEP-09	K-40	9,936.5 +/- 934.1	Duplicate
23-SEP-09	K-40	10,205.0 +/- 652.1	
23-SEP-09	MN-54	< 39.0	Duplicate
23-SEP-09	MN-54	< 28.5	
23-SEP-09	CO-58	< 36.6	Duplicate
23-SEP-09	CO-58	< 28.0	
23-SEP-09	FE-59	< 37.5	Duplicate
23-SEP-09	FE-59	< 25.9	
23-SEP-09	CO-60	< 16.6	Duplicate
23-SEP-09	CO-60	< 19.5	
23-SEP-09	ZN-65	< 80.0	Duplicate
23-SEP-09	ZN-65	< 58.2	
23-SEP-09	CS-134	< 33.1	Duplicate
23-SEP-09	CS-134	< 21.3	
23-SEP-09	CS-137	103.1 +/- 36.4	Duplicate
23-SEP-09	CS-137	108.9 +/- 37.9	

Exposure Pathway - Ingestion
Fish

Location CCL

Collection Date	Sample Description	Nuclide	Gamma Spectrum & H-3 Concentration (pCi/Kg Wet)	Duplicate Analysis
29-MAY-09	BIGMOUTH BUFFALO	K-40	3,194.5 +/- 568.1	
29-MAY-09	BIGMOUTH BUFFALO	MN-54	< 12.8	
29-MAY-09	BIGMOUTH BUFFALO	CO-58	< 19.1	
29-MAY-09	BIGMOUTH BUFFALO	FE-59	< 52.8	
29-MAY-09	BIGMOUTH BUFFALO	CO-60	< 14.6	
29-MAY-09	BIGMOUTH BUFFALO	ZN-65	< 23.8	
29-MAY-09	BIGMOUTH BUFFALO	CS-134	< 25.1	
29-MAY-09	BIGMOUTH BUFFALO	CS-137	< 20.3	
29-MAY-09	BIGMOUTH BUFFALO	H-3	7,471.0 +/- 230.0	
29-MAY-09	COMMON CARP	K-40	3,185.3 +/- 435.4	
29-MAY-09	COMMON CARP	MN-54	< 18.0	
29-MAY-09	COMMON CARP	CO-58	< 12.5	
29-MAY-09	COMMON CARP	FE-59	< 34.1	
29-MAY-09	COMMON CARP	CO-60	< 13.2	
29-MAY-09	COMMON CARP	ZN-65	< 16.5	
29-MAY-09	COMMON CARP	CS-134	< 15.0	
29-MAY-09	COMMON CARP	CS-137	< 21.2	
29-MAY-09	COMMON CARP	H-3	7,319.0 +/- 228.0	
29-MAY-09	FLATHEAD CATFISH	K-40	3,413.4 +/- 505.5	
29-MAY-09	FLATHEAD CATFISH	MN-54	< 16.6	
29-MAY-09	FLATHEAD CATFISH	CO-58	< 17.3	
29-MAY-09	FLATHEAD CATFISH	FE-59	< 41.6	
29-MAY-09	FLATHEAD CATFISH	CO-60	< 12.5	
29-MAY-09	FLATHEAD CATFISH	ZN-65	< 30.7	
29-MAY-09	FLATHEAD CATFISH	CS-134	< 21.8	
29-MAY-09	FLATHEAD CATFISH	CS-137	< 19.1	
29-MAY-09	FLATHEAD CATFISH	H-3	7,367.0 +/- 212.0	
29-MAY-09	LARGEMOUTH BASS	K-40	3,129.7 +/- 393.8	
29-MAY-09	LARGEMOUTH BASS	MN-54	< 14.4	
29-MAY-09	LARGEMOUTH BASS	CO-58	< 11.6	
29-MAY-09	LARGEMOUTH BASS	FE-59	< 8.6	
29-MAY-09	LARGEMOUTH BASS	CO-60	< 8.5	
29-MAY-09	LARGEMOUTH BASS	ZN-65	< 8.1	
29-MAY-09	LARGEMOUTH BASS	CS-134	< 8.0	
29-MAY-09	LARGEMOUTH BASS	CS-137	< 9.9	
29-MAY-09	LARGEMOUTH BASS	H-3	6,681.0 +/- 208.0	
29-MAY-09	SMALLMOUTH BASS	K-40	3,330.4 +/- 469.7	
29-MAY-09	SMALLMOUTH BASS	MN-54	< 21.0	
29-MAY-09	SMALLMOUTH BASS	CO-58	< 21.0	
29-MAY-09	SMALLMOUTH BASS	FE-59	< 34.9	
29-MAY-09	SMALLMOUTH BASS	CO-60	< 16.9	

Exposure Pathway - Ingestion
Fish

Location CCL

Collection Date	Sample Description	Nuclide	Gamma Spectrum & H-3 Concentration (pCi/Kg Wet)		Duplicate Analysis
29-MAY-09	SMALLMOUTH BASS	ZN-65	<	33.2	
29-MAY-09	SMALLMOUTH BASS	CS-134	<	27.7	
29-MAY-09	SMALLMOUTH BASS	CS-137	<	16.5	
29-MAY-09	SMALLMOUTH BASS	H-3	6,852.0 +/-	206.0	
29-MAY-09	SMALLMOUTH BUFFALO	K-40	2,916.4 +/-	431.7	
29-MAY-09	SMALLMOUTH BUFFALO	MN-54	<	17.0	
29-MAY-09	SMALLMOUTH BUFFALO	CO-58	<	8.6	
29-MAY-09	SMALLMOUTH BUFFALO	FE-59	<	29.5	
29-MAY-09	SMALLMOUTH BUFFALO	CO-60	<	17.8	
29-MAY-09	SMALLMOUTH BUFFALO	ZN-65	<	31.0	
29-MAY-09	SMALLMOUTH BUFFALO	CS-134	<	13.1	
29-MAY-09	SMALLMOUTH BUFFALO	CS-137	<	18.5	
29-MAY-09	SMALLMOUTH BUFFALO	H-3	6,781.0 +/-	222.0	
29-MAY-09	WHITE BASS	K-40	2,979.7 +/-	509.9	
29-MAY-09	WHITE BASS	MN-54	<	18.6	
29-MAY-09	WHITE BASS	CO-58	<	15.9	
29-MAY-09	WHITE BASS	FE-59	<	35.8	
29-MAY-09	WHITE BASS	CO-60	<	10.5	
29-MAY-09	WHITE BASS	ZN-65	<	40.5	
29-MAY-09	WHITE BASS	CS-134	<	22.9	
29-MAY-09	WHITE BASS	CS-137	<	15.7	
29-MAY-09	WHITE BASS	H-3	6,820.0 +/-	207.0	
15-OCT-09	BIGMOUTH BUFFALO	K-40	2,809.7 +/-	398.6	
15-OCT-09	BIGMOUTH BUFFALO	MN-54	<	14.1	
15-OCT-09	BIGMOUTH BUFFALO	CO-58	<	13.9	
15-OCT-09	BIGMOUTH BUFFALO	FE-59	<	44.2	
15-OCT-09	BIGMOUTH BUFFALO	CO-60	<	15.2	
15-OCT-09	BIGMOUTH BUFFALO	ZN-65	<	33.0	
15-OCT-09	BIGMOUTH BUFFALO	CS-134	<	14.8	
15-OCT-09	BIGMOUTH BUFFALO	CS-137	<	16.9	
15-OCT-09	BIGMOUTH BUFFALO	H-3	8,379.0 +/-	228.0	
15-OCT-09	CHANNEL CATFISH	K-40	3,085.4 +/-	471.9	
15-OCT-09	CHANNEL CATFISH	MN-54	<	14.8	
15-OCT-09	CHANNEL CATFISH	CO-58	<	23.6	
15-OCT-09	CHANNEL CATFISH	FE-59	<	40.6	
15-OCT-09	CHANNEL CATFISH	CO-60	<	16.3	
15-OCT-09	CHANNEL CATFISH	ZN-65	<	40.4	
15-OCT-09	CHANNEL CATFISH	CS-134	<	15.5	
15-OCT-09	CHANNEL CATFISH	CS-137	<	13.1	
15-OCT-09	CHANNEL CATFISH	H-3	9,550.0 +/-	262.0	
15-OCT-09	RIVER CARPSUCKER	K-40	2,331.2 +/-	532.6	

Exposure Pathway - Ingestion
Fish

Location CCL

Collection Date	Sample Description	Nuclide	Gamma Spectrum & H-3 Concentration (pCi/Kg Wet)		Duplicate Analysis
15-OCT-09	RIVER CARPSUCKER	MN-54	<	15.6	
15-OCT-09	RIVER CARPSUCKER	CO-58	<	26.2	
15-OCT-09	RIVER CARPSUCKER	FE-59	<	44.4	
15-OCT-09	RIVER CARPSUCKER	CO-60	<	16.3	
15-OCT-09	RIVER CARPSUCKER	ZN-65	<	35.4	
15-OCT-09	RIVER CARPSUCKER	CS-134	<	16.2	
15-OCT-09	RIVER CARPSUCKER	CS-137	<	20.7	
15-OCT-09	RIVER CARPSUCKER	H-3	8,074.0 +/-	227.0	
15-OCT-09	SMALLMOUTH BUFFALO	K-40	2,956.0 +/-	318.3	
15-OCT-09	SMALLMOUTH BUFFALO	MN-54	<	11.5	
15-OCT-09	SMALLMOUTH BUFFALO	CO-58	<	8.8	
15-OCT-09	SMALLMOUTH BUFFALO	FE-59	<	26.5	
15-OCT-09	SMALLMOUTH BUFFALO	CO-60	<	10.6	
15-OCT-09	SMALLMOUTH BUFFALO	ZN-65	<	15.8	
15-OCT-09	SMALLMOUTH BUFFALO	CS-134	<	12.7	
15-OCT-09	SMALLMOUTH BUFFALO	CS-137	<	15.1	
15-OCT-09	SMALLMOUTH BUFFALO	H-3	8,649.0 +/-	239.0	
15-OCT-09	WALLEYE	K-40	3,366.8 +/-	408.5	
15-OCT-09	WALLEYE	MN-54	<	18.7	
15-OCT-09	WALLEYE	CO-58	<	8.9	
15-OCT-09	WALLEYE	FE-59	<	25.0	
15-OCT-09	WALLEYE	CO-60	<	9.0	
15-OCT-09	WALLEYE	ZN-65	<	33.0	
15-OCT-09	WALLEYE	CS-134	<	16.4	
15-OCT-09	WALLEYE	CS-137	<	15.9	
15-OCT-09	WALLEYE	H-3	7,760.0 +/-	236.0	
15-OCT-09	WHITE BASS	K-40	3,439.7 +/-	429.2	
15-OCT-09	WHITE BASS	MN-54	<	21.3	
15-OCT-09	WHITE BASS	CO-58	<	17.1	
15-OCT-09	WHITE BASS	FE-59	<	49.4	
15-OCT-09	WHITE BASS	CO-60	<	18.5	
15-OCT-09	WHITE BASS	ZN-65	<	28.3	
15-OCT-09	WHITE BASS	CS-134	<	13.7	
15-OCT-09	WHITE BASS	CS-137	<	11.9	
15-OCT-09	WHITE BASS	H-3	8,673.0 +/-	243.0	
15-OCT-09	WHITE CRAPPIE	K-40	3,028.1 +/-	587.3	
15-OCT-09	WHITE CRAPPIE	MN-54	<	28.3	
15-OCT-09	WHITE CRAPPIE	CO-58	<	34.6	
15-OCT-09	WHITE CRAPPIE	FE-59	<	60.1	
15-OCT-09	WHITE CRAPPIE	CO-60	<	28.0	
15-OCT-09	WHITE CRAPPIE	ZN-65	<	48.2	

Exposure Pathway - Ingestion
Fish

Location CCL

Collection Date	Sample Description	Nuclide	Gamma Spectrum & H-3 Concentration (pCi/Kg Wet)			Duplicate Analysis
15-OCT-09	WHITE CRAPPIE	CS-134	<		14.6	
15-OCT-09	WHITE CRAPPIE	CS-137	<		24.8	
15-OCT-09	WHITE CRAPPIE	H-3	7,194.0	+/-	233.0	
15-OCT-09	WIPER HYBRID	K-40	3,091.2	+/-	484.5	Duplicate
15-OCT-09	WIPER HYBRID	K-40	3,614.5	+/-	401.6	
15-OCT-09	WIPER HYBRID	MN-54	<		24.1	Duplicate
15-OCT-09	WIPER HYBRID	MN-54	<		11.6	
15-OCT-09	WIPER HYBRID	CO-58	<		17.6	Duplicate
15-OCT-09	WIPER HYBRID	CO-58	<		14.7	
15-OCT-09	WIPER HYBRID	FE-59	<		44.2	Duplicate
15-OCT-09	WIPER HYBRID	FE-59	<		33.5	
15-OCT-09	WIPER HYBRID	CO-60	<		15.8	Duplicate
15-OCT-09	WIPER HYBRID	CO-60	<		13.5	
15-OCT-09	WIPER HYBRID	ZN-65	<		36.9	Duplicate
15-OCT-09	WIPER HYBRID	ZN-65	<		30.7	
15-OCT-09	WIPER HYBRID	CS-134	<		14.0	Duplicate
15-OCT-09	WIPER HYBRID	CS-134	<		16.5	
15-OCT-09	WIPER HYBRID	CS-137	<		21.5	Duplicate
15-OCT-09	WIPER HYBRID	CS-137	<		16.5	
15-OCT-09	WIPER HYBRID	H-3	9,051.0	+/-	252.0	Duplicate
15-OCT-09	WIPER HYBRID	H-3	8,895.0	+/-	250.0	

Exposure Pathway - Ingestion
Fish

Location JRR

Collection Date	Sample Description	Nuclide	Gamma Spectrum & H-3 Concentration (pCi/Kg Wet)		Duplicate Analysis
28-MAY-09	CHANNEL CATFISH	K-40	2,833.2 +/-	355.8	
28-MAY-09	CHANNEL CATFISH	MN-54	<	9.4	
28-MAY-09	CHANNEL CATFISH	CO-58	<	6.9	
28-MAY-09	CHANNEL CATFISH	FE-59	<	12.9	
28-MAY-09	CHANNEL CATFISH	CO-60	<	11.7	
28-MAY-09	CHANNEL CATFISH	ZN-65	<	12.6	
28-MAY-09	CHANNEL CATFISH	CS-134	<	12.4	
28-MAY-09	CHANNEL CATFISH	CS-137	<	8.1	
28-MAY-09	CHANNEL CATFISH	H-3	<	112.0	
28-MAY-09	COMMON CARP	K-40	3,443.1 +/-	597.3	
28-MAY-09	COMMON CARP	MN-54	<	16.2	
28-MAY-09	COMMON CARP	CO-58	<	8.9	
28-MAY-09	COMMON CARP	FE-59	<	32.9	
28-MAY-09	COMMON CARP	CO-60	<	12.3	
28-MAY-09	COMMON CARP	ZN-65	<	28.8	
28-MAY-09	COMMON CARP	CS-134	<	17.8	
28-MAY-09	COMMON CARP	CS-137	<	22.9	
28-MAY-09	COMMON CARP	H-3	<	124.0	
28-MAY-09	SMALLMOUTH BUFFALO	K-40	2,893.3 +/-	487.6	
28-MAY-09	SMALLMOUTH BUFFALO	MN-54	<	18.9	
28-MAY-09	SMALLMOUTH BUFFALO	CO-58	<	12.8	
28-MAY-09	SMALLMOUTH BUFFALO	FE-59	<	31.7	
28-MAY-09	SMALLMOUTH BUFFALO	CO-60	<	11.8	
28-MAY-09	SMALLMOUTH BUFFALO	ZN-65	<	38.8	
28-MAY-09	SMALLMOUTH BUFFALO	CS-134	<	25.7	
28-MAY-09	SMALLMOUTH BUFFALO	CS-137	<	21.7	
28-MAY-09	SMALLMOUTH BUFFALO	H-3	<	115.0	
23-SEP-09	CHANNEL CATFISH	K-40	3,146.6 +/-	383.7	
23-SEP-09	CHANNEL CATFISH	MN-54	<	9.3	
23-SEP-09	CHANNEL CATFISH	CO-58	<	12.5	
23-SEP-09	CHANNEL CATFISH	FE-59	<	29.4	
23-SEP-09	CHANNEL CATFISH	CO-60	<	9.3	
23-SEP-09	CHANNEL CATFISH	ZN-65	<	20.1	
23-SEP-09	CHANNEL CATFISH	CS-134	<	15.1	
23-SEP-09	CHANNEL CATFISH	CS-137	<	10.8	
23-SEP-09	CHANNEL CATFISH	H-3	<	117.0	
23-SEP-09	COMMON CARP	K-40	2,649.7 +/-	356.7	
23-SEP-09	COMMON CARP	MN-54	<	13.8	
23-SEP-09	COMMON CARP	CO-58	<	16.0	
23-SEP-09	COMMON CARP	FE-59	<	15.2	
23-SEP-09	COMMON CARP	CO-60	<	10.4	

Exposure Pathway - Ingestion
Fish

Location JRR

Collection Date	Sample Description	Nuclide	Gamma Spectrum & H-3 Concentration (pCi/Kg Wet)	Duplicate Analysis
23-SEP-09	COMMON CARP	ZN-65	< 30.4	
23-SEP-09	COMMON CARP	CS-134	< 13.3	
23-SEP-09	COMMON CARP	CS-137	< 10.9	
23-SEP-09	COMMON CARP	H-3	< 118.0	
23-SEP-09	SMALLMOUTH BUFFALO	K-40	3,079.2 +/- 353.4	
23-SEP-09	SMALLMOUTH BUFFALO	MN-54	< 12.1	
23-SEP-09	SMALLMOUTH BUFFALO	CO-58	< 6.1	
23-SEP-09	SMALLMOUTH BUFFALO	FE-59	< 13.0	
23-SEP-09	SMALLMOUTH BUFFALO	CO-60	< 9.2	
23-SEP-09	SMALLMOUTH BUFFALO	ZN-65	< 16.6	
23-SEP-09	SMALLMOUTH BUFFALO	CS-134	< 9.2	
23-SEP-09	SMALLMOUTH BUFFALO	CS-137	< 7.5	
23-SEP-09	SMALLMOUTH BUFFALO	H-3	< 121.0	

Exposure Pathway - Ingestion
Food/Garden

Location D-2

Collection Date	Sample Description	Nuclide	Gamma Spectrum Concentration (pCi/Kg Wet)	Duplicate Analysis
21-MAY-09	HORSERADISH LEAVES	BE-7	986.9 +/- 238.0	
21-MAY-09	HORSERADISH LEAVES	K-40	5,583.9 +/- 557.7	
21-MAY-09	HORSERADISH LEAVES	MN-54	< 19.4	
21-MAY-09	HORSERADISH LEAVES	CO-58	< 12.4	
21-MAY-09	HORSERADISH LEAVES	FE-59	< 38.1	
21-MAY-09	HORSERADISH LEAVES	CO-60	< 14.1	
21-MAY-09	HORSERADISH LEAVES	ZN-65	< 23.7	
21-MAY-09	HORSERADISH LEAVES	ZR-NB-95	< 22.6	
21-MAY-09	HORSERADISH LEAVES	I-131	< 34.8	
21-MAY-09	HORSERADISH LEAVES	CS-134	< 13.6	
21-MAY-09	HORSERADISH LEAVES	CS-137	< 21.3	
17-JUN-09	HORSERADISH LEAVES	BE-7	831.3 +/- 171.1	
17-JUN-09	HORSERADISH LEAVES	K-40	5,805.1 +/- 434.0	
17-JUN-09	HORSERADISH LEAVES	MN-54	< 10.2	
17-JUN-09	HORSERADISH LEAVES	CO-58	< 15.1	
17-JUN-09	HORSERADISH LEAVES	FE-59	< 15.3	
17-JUN-09	HORSERADISH LEAVES	CO-60	< 11.4	
17-JUN-09	HORSERADISH LEAVES	ZN-65	< 21.7	
17-JUN-09	HORSERADISH LEAVES	ZR-NB-95	< 10.6	
17-JUN-09	HORSERADISH LEAVES	I-131	< 19.1	
17-JUN-09	HORSERADISH LEAVES	CS-134	< 11.0	
17-JUN-09	HORSERADISH LEAVES	CS-137	< 8.8	
16-JUL-09	HORSERADISH LEAVES	BE-7	1,300.4 +/- 233.5	
16-JUL-09	HORSERADISH LEAVES	K-40	7,742.4 +/- 568.2	
16-JUL-09	HORSERADISH LEAVES	MN-54	< 15.0	
16-JUL-09	HORSERADISH LEAVES	CO-58	< 14.5	
16-JUL-09	HORSERADISH LEAVES	FE-59	< 40.2	
16-JUL-09	HORSERADISH LEAVES	CO-60	< 8.6	
16-JUL-09	HORSERADISH LEAVES	ZN-65	< 17.3	
16-JUL-09	HORSERADISH LEAVES	ZR-NB-95	< 16.8	
16-JUL-09	HORSERADISH LEAVES	I-131	< 31.4	
16-JUL-09	HORSERADISH LEAVES	CS-134	< 17.0	
16-JUL-09	HORSERADISH LEAVES	CS-137	< 10.8	
14-AUG-09	HORSERADISH LEAVES	BE-7	1,403.3 +/- 242.4	
14-AUG-09	HORSERADISH LEAVES	K-40	6,201.2 +/- 507.1	
14-AUG-09	HORSERADISH LEAVES	MN-54	< 17.1	
14-AUG-09	HORSERADISH LEAVES	CO-58	< 17.8	
14-AUG-09	HORSERADISH LEAVES	FE-59	< 33.7	
14-AUG-09	HORSERADISH LEAVES	CO-60	< 10.5	
14-AUG-09	HORSERADISH LEAVES	ZN-65	< 29.4	
14-AUG-09	HORSERADISH LEAVES	ZR-NB-95	< 21.3	

Exposure Pathway - Ingestion
Food/Garden

Location D-2

Collection Date	Sample Description	Nuclide	Gamma Spectrum Concentration (pCi/Kg Wet)			Duplicate Analysis
14-AUG-09	HORSERADISH LEAVES	I-131		<	16.8	
14-AUG-09	HORSERADISH LEAVES	CS-134		<	13.4	
14-AUG-09	HORSERADISH LEAVES	CS-137		<	15.0	
28-SEP-09	HORSERADISH LEAVES	BE-7	793.5	+/-	188.6	
28-SEP-09	HORSERADISH LEAVES	K-40	5,409.3	+/-	423.0	
28-SEP-09	HORSERADISH LEAVES	MN-54		<	13.0	
28-SEP-09	HORSERADISH LEAVES	CO-58		<	12.0	
28-SEP-09	HORSERADISH LEAVES	FE-59		<	22.6	
28-SEP-09	HORSERADISH LEAVES	CO-60		<	13.8	
28-SEP-09	HORSERADISH LEAVES	ZN-65		<	25.3	
28-SEP-09	HORSERADISH LEAVES	ZR-NB-95		<	8.6	
28-SEP-09	HORSERADISH LEAVES	I-131		<	27.2	
28-SEP-09	HORSERADISH LEAVES	CS-134		<	11.6	
28-SEP-09	HORSERADISH LEAVES	CS-137		<	14.9	
19-OCT-09	HORSERADISH LEAVES	BE-7	679.0	+/-	131.4	
19-OCT-09	HORSERADISH LEAVES	K-40	5,159.0	+/-	327.5	
19-OCT-09	HORSERADISH LEAVES	MN-54		<	9.5	
19-OCT-09	HORSERADISH LEAVES	CO-58		<	8.3	
19-OCT-09	HORSERADISH LEAVES	FE-59		<	21.6	
19-OCT-09	HORSERADISH LEAVES	CO-60		<	7.9	
19-OCT-09	HORSERADISH LEAVES	ZN-65		<	8.2	
19-OCT-09	HORSERADISH LEAVES	ZR-NB-95		<	5.8	
19-OCT-09	HORSERADISH LEAVES	I-131		<	19.4	
19-OCT-09	HORSERADISH LEAVES	CS-134		<	6.5	
19-OCT-09	HORSERADISH LEAVES	CS-137		<	8.2	
09-NOV-09	HORSERADISH LEAVES	BE-7	2,696.8	+/-	256.8	
09-NOV-09	HORSERADISH LEAVES	K-40	7,214.3	+/-	535.3	
09-NOV-09	HORSERADISH LEAVES	MN-54		<	10.9	
09-NOV-09	HORSERADISH LEAVES	CO-58		<	9.4	
09-NOV-09	HORSERADISH LEAVES	FE-59		<	22.8	
09-NOV-09	HORSERADISH LEAVES	CO-60		<	15.8	
09-NOV-09	HORSERADISH LEAVES	ZN-65		<	19.9	
09-NOV-09	HORSERADISH LEAVES	ZR-NB-95		<	9.7	
09-NOV-09	HORSERADISH LEAVES	I-131		<	10.7	
09-NOV-09	HORSERADISH LEAVES	CS-134		<	12.2	
09-NOV-09	HORSERADISH LEAVES	CS-137		<	14.1	

Exposure Pathway - Ingestion
Food/Garden

Location H-2

Collection Date	Sample Description	Nuclide	Gamma Spectrum Concentration (pCi/Kg Wet)			Duplicate Analysis
14-AUG-09	HORSERADISH LEAVES	BE-7	1,898.6	+/-	225.4	
14-AUG-09	HORSERADISH LEAVES	K-40	5,328.0	+/-	441.8	
14-AUG-09	HORSERADISH LEAVES	MN-54		<	12.4	
14-AUG-09	HORSERADISH LEAVES	CO-58		<	16.4	
14-AUG-09	HORSERADISH LEAVES	FE-59		<	27.6	
14-AUG-09	HORSERADISH LEAVES	CO-60		<	12.8	
14-AUG-09	HORSERADISH LEAVES	ZN-65		<	32.0	
14-AUG-09	HORSERADISH LEAVES	ZR-NB-95		<	17.2	
14-AUG-09	HORSERADISH LEAVES	I-131		<	18.1	
14-AUG-09	HORSERADISH LEAVES	CS-134		<	14.0	
14-AUG-09	HORSERADISH LEAVES	CS-137		<	14.6	
09-NOV-09	HORSERADISH LEAVES	BE-7	1,543.2	+/-	220.3	
09-NOV-09	HORSERADISH LEAVES	K-40	4,325.3	+/-	429.8	
09-NOV-09	HORSERADISH LEAVES	MN-54		<	12.2	
09-NOV-09	HORSERADISH LEAVES	CO-58		<	9.7	
09-NOV-09	HORSERADISH LEAVES	FE-59		<	29.1	
09-NOV-09	HORSERADISH LEAVES	CO-60		<	17.6	
09-NOV-09	HORSERADISH LEAVES	ZN-65		<	22.5	
09-NOV-09	HORSERADISH LEAVES	ZR-NB-95		<	8.5	
09-NOV-09	HORSERADISH LEAVES	I-131		<	13.3	
09-NOV-09	HORSERADISH LEAVES	CS-134		<	12.3	
09-NOV-09	HORSERADISH LEAVES	CS-137		<	7.5	

Exposure Pathway - Ingestion
Food/Garden

Location N-1

Collection Date	Sample Description	Nuclide	Gamma Spectrum Concentration (pCi/Kg Wet)	Duplicate Analysis
21-MAY-09	HORSERADISH LEAVES	BE-7	1,103.0 +/- 226.3	
21-MAY-09	HORSERADISH LEAVES	K-40	4,581.3 +/- 472.6	
21-MAY-09	HORSERADISH LEAVES	MN-54	< 9.7	
21-MAY-09	HORSERADISH LEAVES	CO-58	< 8.4	
21-MAY-09	HORSERADISH LEAVES	FE-59	< 27.4	
21-MAY-09	HORSERADISH LEAVES	CO-60	< 11.8	
21-MAY-09	HORSERADISH LEAVES	ZN-65	< 26.4	
21-MAY-09	HORSERADISH LEAVES	ZR-NB-95	< 15.4	
21-MAY-09	HORSERADISH LEAVES	I-131	< 29.4	
21-MAY-09	HORSERADISH LEAVES	CS-134	< 8.5	
21-MAY-09	HORSERADISH LEAVES	CS-137	< 18.3	
17-JUN-09	HORSERADISH LEAVES	BE-7	685.3 +/- 163.9	
17-JUN-09	HORSERADISH LEAVES	K-40	4,556.1 +/- 386.3	
17-JUN-09	HORSERADISH LEAVES	MN-54	< 11.6	
17-JUN-09	HORSERADISH LEAVES	CO-58	< 8.1	
17-JUN-09	HORSERADISH LEAVES	FE-59	< 28.5	
17-JUN-09	HORSERADISH LEAVES	CO-60	< 8.9	
17-JUN-09	HORSERADISH LEAVES	ZN-65	< 12.4	
17-JUN-09	HORSERADISH LEAVES	ZR-NB-95	< 8.2	
17-JUN-09	HORSERADISH LEAVES	I-131	< 17.3	
17-JUN-09	HORSERADISH LEAVES	CS-134	< 10.3	
17-JUN-09	HORSERADISH LEAVES	CS-137	< 13.2	
16-JUL-09	HORSERADISH LEAVES	BE-7	1,488.1 +/- 221.3	
16-JUL-09	HORSERADISH LEAVES	K-40	3,939.0 +/- 441.1	
16-JUL-09	HORSERADISH LEAVES	MN-54	< 11.3	
16-JUL-09	HORSERADISH LEAVES	CO-58	< 9.8	
16-JUL-09	HORSERADISH LEAVES	FE-59	< 36.0	
16-JUL-09	HORSERADISH LEAVES	CO-60	< 10.5	
16-JUL-09	HORSERADISH LEAVES	ZN-65	< 18.5	
16-JUL-09	HORSERADISH LEAVES	ZR-NB-95	< 15.0	
16-JUL-09	HORSERADISH LEAVES	I-131	< 24.9	
16-JUL-09	HORSERADISH LEAVES	CS-134	< 13.6	
16-JUL-09	HORSERADISH LEAVES	CS-137	< 13.2	
28-SEP-09	HORSERADISH LEAVES	BE-7	845.0 +/- 171.8	
28-SEP-09	HORSERADISH LEAVES	K-40	3,465.5 +/- 393.2	
28-SEP-09	HORSERADISH LEAVES	MN-54	< 14.9	
28-SEP-09	HORSERADISH LEAVES	CO-58	< 10.4	
28-SEP-09	HORSERADISH LEAVES	FE-59	< 20.2	
28-SEP-09	HORSERADISH LEAVES	CO-60	< 14.4	
28-SEP-09	HORSERADISH LEAVES	ZN-65	< 12.2	
28-SEP-09	HORSERADISH LEAVES	ZR-NB-95	< 14.8	

Exposure Pathway - Ingestion
Food/Garden

Location N-1

Collection Date	Sample Description	Nuclide	Gamma Spectrum Concentration (pCi/Kg Wet)	Duplicate Analysis
28-SEP-09	HORSERADISH LEAVES	I-131	< 23.9	
28-SEP-09	HORSERADISH LEAVES	CS-134	< 11.8	
28-SEP-09	HORSERADISH LEAVES	CS-137	< 14.6	
19-OCT-09	HORSERADISH LEAVES	BE-7	603.6 +/- 114.6	
19-OCT-09	HORSERADISH LEAVES	K-40	2,886.5 +/- 257.8	
19-OCT-09	HORSERADISH LEAVES	MN-54	< 9.9	
19-OCT-09	HORSERADISH LEAVES	CO-58	< 9.5	
19-OCT-09	HORSERADISH LEAVES	FE-59	< 22.3	
19-OCT-09	HORSERADISH LEAVES	CO-60	< 9.1	
19-OCT-09	HORSERADISH LEAVES	ZN-65	< 16.1	
19-OCT-09	HORSERADISH LEAVES	ZR-NB-95	< 8.0	
19-OCT-09	HORSERADISH LEAVES	I-131	< 14.0	
19-OCT-09	HORSERADISH LEAVES	CS-134	< 7.2	
19-OCT-09	HORSERADISH LEAVES	CS-137	< 8.2	

Exposure Pathway - Ingestion
Food/Garden

Location Q-6

Collection Date	Sample Description	Nuclide	Gamma Spectrum Concentration (pCi/Kg Wet)	Duplicate Analysis
21-MAY-09	HORSERADISH LEAVES	BE-7	686.9 +/- 251.7	
21-MAY-09	HORSERADISH LEAVES	K-40	6,681.9 +/- 663.8	
21-MAY-09	HORSERADISH LEAVES	MN-54	< 17.6	
21-MAY-09	HORSERADISH LEAVES	CO-58	< 11.6	
21-MAY-09	HORSERADISH LEAVES	FE-59	< 43.8	
21-MAY-09	HORSERADISH LEAVES	CO-60	< 16.0	
21-MAY-09	HORSERADISH LEAVES	ZN-65	< 43.3	
21-MAY-09	HORSERADISH LEAVES	ZR-NB-95	< 22.0	
21-MAY-09	HORSERADISH LEAVES	I-131	< 45.8	
21-MAY-09	HORSERADISH LEAVES	CS-134	< 17.2	
21-MAY-09	HORSERADISH LEAVES	CS-137	< 20.4	
17-JUN-09	HORSERADISH LEAVES	BE-7	927.9 +/- 194.4	
17-JUN-09	HORSERADISH LEAVES	K-40	5,986.0 +/- 481.5	
17-JUN-09	HORSERADISH LEAVES	MN-54	< 12.6	
17-JUN-09	HORSERADISH LEAVES	CO-58	< 8.0	
17-JUN-09	HORSERADISH LEAVES	FE-59	< 35.2	
17-JUN-09	HORSERADISH LEAVES	CO-60	< 14.4	
17-JUN-09	HORSERADISH LEAVES	ZN-65	< 26.4	
17-JUN-09	HORSERADISH LEAVES	ZR-NB-95	< 17.6	
17-JUN-09	HORSERADISH LEAVES	I-131	< 28.9	
17-JUN-09	HORSERADISH LEAVES	CS-134	< 13.6	
17-JUN-09	HORSERADISH LEAVES	CS-137	< 8.2	
16-JUL-09	HORSERADISH LEAVES	BE-7	1,245.1 +/- 226.2	
16-JUL-09	HORSERADISH LEAVES	K-40	7,468.0 +/- 568.5	
16-JUL-09	HORSERADISH LEAVES	MN-54	< 19.4	
16-JUL-09	HORSERADISH LEAVES	CO-58	< 11.7	
16-JUL-09	HORSERADISH LEAVES	FE-59	< 23.8	
16-JUL-09	HORSERADISH LEAVES	CO-60	< 12.0	
16-JUL-09	HORSERADISH LEAVES	ZN-65	< 33.2	
16-JUL-09	HORSERADISH LEAVES	ZR-NB-95	< 15.5	
16-JUL-09	HORSERADISH LEAVES	I-131	< 19.9	
16-JUL-09	HORSERADISH LEAVES	CS-134	< 12.7	
16-JUL-09	HORSERADISH LEAVES	CS-137	< 16.4	
14-AUG-09	HORSERADISH LEAVES	BE-7	1,428.7 +/- 244.2	
14-AUG-09	HORSERADISH LEAVES	K-40	5,193.4 +/- 489.8	
14-AUG-09	HORSERADISH LEAVES	MN-54	< 17.6	
14-AUG-09	HORSERADISH LEAVES	CO-58	< 9.8	
14-AUG-09	HORSERADISH LEAVES	FE-59	< 37.2	
14-AUG-09	HORSERADISH LEAVES	CO-60	< 10.2	
14-AUG-09	HORSERADISH LEAVES	ZN-65	< 29.8	
14-AUG-09	HORSERADISH LEAVES	ZR-NB-95	< 18.7	

Exposure Pathway - Ingestion
Food/Garden

Location Q-6

Collection Date	Sample Description	Nuclide	Gamma Spectrum Concentration (pCi/Kg Wet)	Duplicate Analysis
14-AUG-09	HORSERADISH LEAVES	I-131	< 29.4	
14-AUG-09	HORSERADISH LEAVES	CS-134	< 14.0	
14-AUG-09	HORSERADISH LEAVES	CS-137	< 11.6	
28-SEP-09	HORSERADISH LEAVES	BE-7	1,440.0 +/- 236.1	
28-SEP-09	HORSERADISH LEAVES	K-40	4,739.0 +/- 511.8	
28-SEP-09	HORSERADISH LEAVES	MN-54	< 15.0	
28-SEP-09	HORSERADISH LEAVES	CO-58	< 14.8	
28-SEP-09	HORSERADISH LEAVES	FE-59	< 29.8	
28-SEP-09	HORSERADISH LEAVES	CO-60	< 15.6	
28-SEP-09	HORSERADISH LEAVES	ZN-65	< 23.9	
28-SEP-09	HORSERADISH LEAVES	ZR-NB-95	< 18.6	
28-SEP-09	HORSERADISH LEAVES	I-131	< 28.3	
28-SEP-09	HORSERADISH LEAVES	CS-134	< 13.1	
28-SEP-09	HORSERADISH LEAVES	CS-137	< 21.1	
19-OCT-09	LETTUCE	BE-7	470.8 +/- 92.0	
19-OCT-09	LETTUCE	K-40	5,531.9 +/- 324.5	
19-OCT-09	LETTUCE	MN-54	< 9.5	
19-OCT-09	LETTUCE	CO-58	< 9.3	
19-OCT-09	LETTUCE	FE-59	< 20.3	
19-OCT-09	LETTUCE	CO-60	< 7.7	
19-OCT-09	LETTUCE	ZN-65	< 9.6	
19-OCT-09	LETTUCE	ZR-NB-95	< 5.3	
19-OCT-09	LETTUCE	I-131	< 8.6	
19-OCT-09	LETTUCE	CS-134	< 8.9	
19-OCT-09	LETTUCE	CS-137	< 8.6	

Exposure Pathway - Ingestion
Feed and Forage

Location NR-D1

Collection Date	Sample Description	Nuclide	Gamma Spectrum Concentration (pCi/Kg Wet)		Duplicate Analysis
01-DEC-09	IRRIGATED SOYBEANS	BE-7	<	73.5	
01-DEC-09	IRRIGATED SOYBEANS	K-40	12,979.0 +/-	431.7	
01-DEC-09	IRRIGATED SOYBEANS	MN-54	<	8.1	
01-DEC-09	IRRIGATED SOYBEANS	CO-58	<	9.3	
01-DEC-09	IRRIGATED SOYBEANS	FE-59	<	20.9	
01-DEC-09	IRRIGATED SOYBEANS	CO-60	<	8.0	
01-DEC-09	IRRIGATED SOYBEANS	ZN-65	<	27.3	
01-DEC-09	IRRIGATED SOYBEANS	ZR-NB-95	<	9.0	
01-DEC-09	IRRIGATED SOYBEANS	I-131	<	20.0	
01-DEC-09	IRRIGATED SOYBEANS	CS-134	<	7.3	
01-DEC-09	IRRIGATED SOYBEANS	CS-137	<	10.5	

Exposure Pathway - Ingestion
Feed and Forage

Location NR-D2

Collection Date	Sample Description	Nuclide	Gamma Spectrum Concentration (pCi/Kg Wet)		Duplicate Analysis
09-NOV-09	IRRIGATED CORN	BE-7	<	81.1	
09-NOV-09	IRRIGATED CORN	K-40	2,944.9 +/-	240.4	
09-NOV-09	IRRIGATED CORN	MN-54	<	8.6	
09-NOV-09	IRRIGATED CORN	CO-58	<	8.9	
09-NOV-09	IRRIGATED CORN	FE-59	<	27.0	
09-NOV-09	IRRIGATED CORN	CO-60	<	9.1	
09-NOV-09	IRRIGATED CORN	ZN-65	<	15.0	
09-NOV-09	IRRIGATED CORN	ZR-NB-95	<	7.9	
09-NOV-09	IRRIGATED CORN	I-131	<	99.6	
09-NOV-09	IRRIGATED CORN	CS-134	<	7.0	
09-NOV-09	IRRIGATED CORN	CS-137	<	7.7	
05-NOV-09	IRRIGATED SOYBEANS	BE-7	<	109.7	
05-NOV-09	IRRIGATED SOYBEANS	K-40	13,457.0 +/-	402.7	
05-NOV-09	IRRIGATED SOYBEANS	MN-54	<	7.9	
05-NOV-09	IRRIGATED SOYBEANS	CO-58	<	11.7	
05-NOV-09	IRRIGATED SOYBEANS	FE-59	<	40.4	
05-NOV-09	IRRIGATED SOYBEANS	CO-60	<	11.1	
05-NOV-09	IRRIGATED SOYBEANS	ZN-65	<	32.6	
05-NOV-09	IRRIGATED SOYBEANS	ZR-NB-95	<	18.3	
05-NOV-09	IRRIGATED SOYBEANS	I-131	<	182.5	
05-NOV-09	IRRIGATED SOYBEANS	CS-134	<	7.1	
05-NOV-09	IRRIGATED SOYBEANS	CS-137	<	9.4	

Exposure Pathway - Ingestion
Feed and Forage

Location NR-U1

Collection Date	Sample Description	Nuclide	Gamma Spectrum Concentration (pCi/Kg Wet)		Duplicate Analysis
27-NOV-09	IRRIGATED CORN	BE-7	<	48.3	
27-NOV-09	IRRIGATED CORN	K-40	2,597.0 +/-	247.4	
27-NOV-09	IRRIGATED CORN	MN-54	<	6.0	
27-NOV-09	IRRIGATED CORN	CO-58	<	4.9	
27-NOV-09	IRRIGATED CORN	FE-59	<	12.9	
27-NOV-09	IRRIGATED CORN	CO-60	<	5.8	
27-NOV-09	IRRIGATED CORN	ZN-65	<	11.9	
27-NOV-09	IRRIGATED CORN	ZR-NB-95	<	6.7	
27-NOV-09	IRRIGATED CORN	I-131	<	26.0	
27-NOV-09	IRRIGATED CORN	CS-134	<	7.6	
27-NOV-09	IRRIGATED CORN	CS-137	<	9.5	
27-NOV-09	IRRIGATED SOYBEANS	BE-7	<	70.0	
27-NOV-09	IRRIGATED SOYBEANS	K-40	11,934.0 +/-	390.8	
27-NOV-09	IRRIGATED SOYBEANS	MN-54	<	9.9	
27-NOV-09	IRRIGATED SOYBEANS	CO-58	<	5.5	
27-NOV-09	IRRIGATED SOYBEANS	FE-59	<	15.9	
27-NOV-09	IRRIGATED SOYBEANS	CO-60	<	9.3	
27-NOV-09	IRRIGATED SOYBEANS	ZN-65	<	21.7	
27-NOV-09	IRRIGATED SOYBEANS	ZR-NB-95	<	8.5	
27-NOV-09	IRRIGATED SOYBEANS	I-131	<	20.5	
27-NOV-09	IRRIGATED SOYBEANS	CS-134	<	6.9	
27-NOV-09	IRRIGATED SOYBEANS	CS-137	<	8.3	

Exposure Pathway - Aquatic
Bottom Sediment

Location DC

Collection Date	Nuclide	Gamma Spectrum Concentration (pCi/Kg Dry)	Duplicate Analysis
29-MAY-09	K-40	13,568.0 +/- 1,362.0	
29-MAY-09	MN-54	< 68.4	
29-MAY-09	CO-58	< 38.5	
29-MAY-09	FE-59	< 98.4	
29-MAY-09	CO-60	< 36.2	
29-MAY-09	ZN-65	< 99.9	
29-MAY-09	CS-134	< 27.8	
29-MAY-09	CS-137	169.4 +/- 82.3	
23-SEP-09	K-40	13,297.0 +/- 805.9	
23-SEP-09	MN-54	< 30.3	
23-SEP-09	CO-58	< 26.1	
23-SEP-09	FE-59	< 46.8	
23-SEP-09	CO-60	57.9 +/- 25.8	
23-SEP-09	ZN-65	< 46.3	
23-SEP-09	CS-134	< 20.3	
23-SEP-09	CS-137	125.5 +/- 24.6	

Exposure Pathway - Aquatic
Bottom Sediment

Location EEA

Collection Date	Nuclide	Gamma Spectrum Concentration (pCi/Kg Dry)	Duplicate Analysis
26-MAY-09	K-40	11,247.0 +/- 702.9	
26-MAY-09	K-40	11,096.0 +/- 807.3	
26-MAY-09	MN-54	< 26.4	
26-MAY-09	MN-54	< 24.7	
26-MAY-09	CO-58	< 20.2	
26-MAY-09	CO-58	< 24.4	
26-MAY-09	FE-59	< 51.8	
26-MAY-09	FE-59	< 34.2	
26-MAY-09	CO-60	< 17.6	
26-MAY-09	CO-60	< 6.8	
26-MAY-09	ZN-65	< 47.6	
26-MAY-09	ZN-65	< 61.7	
26-MAY-09	CS-134	< 17.5	
26-MAY-09	CS-134	< 11.8	
26-MAY-09	CS-137	51.3 +/- 23.6	
26-MAY-09	CS-137	76.5 +/- 31.4	
14-AUG-09	K-40	11,563.0 +/- 761.2	
14-AUG-09	MN-54	< 24.1	
14-AUG-09	CO-58	< 17.9	
14-AUG-09	FE-59	< 37.8	
14-AUG-09	CO-60	< 26.7	
14-AUG-09	ZN-65	< 47.7	
14-AUG-09	CS-134	< 17.9	
14-AUG-09	CS-137	82.4 +/- 33.0	

Exposure Pathway - Aquatic
Bottom Sediment

Location JRR

Collection Date	Nuclide	Gamma Spectrum Concentration (pCi/Kg Dry)	Duplicate Analysis
04-JUN-09	K-40	17,563.0 +/- 1,359.0	
04-JUN-09	MN-54	< 53.8	
04-JUN-09	CO-58	< 30.6	
04-JUN-09	FE-59	< 117.3	
04-JUN-09	CO-60	< 36.1	
04-JUN-09	ZN-65	< 113.9	
04-JUN-09	CS-134	< 55.8	
04-JUN-09	CS-137	138.0 +/- 57.4	
23-SEP-09	K-40	14,224.0 +/- 1,250.0	
23-SEP-09	MN-54	< 44.9	
23-SEP-09	CO-58	< 55.8	
23-SEP-09	FE-59	< 62.5	
23-SEP-09	CO-60	< 28.6	
23-SEP-09	ZN-65	< 89.1	
23-SEP-09	CS-134	< 36.6	
23-SEP-09	CS-137	< 53.0	

Exposure Pathway - Aquatic
Bottom Sediment

Location MUDS

Collection Date	Nuclide	Gamma Spectrum Concentration (pCi/Kg Dry)	Duplicate Analysis
29-MAY-09	K-40	9,825.8 +/- 864.9	
29-MAY-09	MN-54	< 40.4	
29-MAY-09	CO-58	< 26.0	
29-MAY-09	FE-59	< 60.8	
29-MAY-09	CO-60	< 23.1	
29-MAY-09	ZN-65	< 68.9	
29-MAY-09	CS-134	< 31.4	
29-MAY-09	CS-137	< 38.3	

Exposure Pathway - Aquatic Vegetation

Location EEA

Collection Date	Sample Description	Nuclide	Gamma Spectrum Concentration (pCi/Kg Wet)	Duplicate Sample
26-MAY-09	WATER PRIMROSE	BE-7	972.2 +/- 152.3	
26-MAY-09	WATER PRIMROSE	K-40	1,419.3 +/- 232.2	
26-MAY-09	WATER PRIMROSE	MN-54	< 12.7	
26-MAY-09	WATER PRIMROSE	CO-58	< 8.4	
26-MAY-09	WATER PRIMROSE	FE-59	< 13.9	
26-MAY-09	WATER PRIMROSE	CO-60	< 8.0	
26-MAY-09	WATER PRIMROSE	ZN-65	< 16.4	
26-MAY-09	WATER PRIMROSE	ZR-NB-95	< 8.7	
26-MAY-09	WATER PRIMROSE	I-131	< 22.7	
26-MAY-09	WATER PRIMROSE	CS-134	< 10.1	
26-MAY-09	WATER PRIMROSE	CS-137	< 14.8	
29-MAY-09	AMERICAN LOTUS	BE-7	< 184.7	
29-MAY-09	AMERICAN LOTUS	K-40	3,860.0 +/- 407.6	
29-MAY-09	AMERICAN LOTUS	MN-54	< 15.2	
29-MAY-09	AMERICAN LOTUS	CO-58	< 8.4	
29-MAY-09	AMERICAN LOTUS	FE-59	< 21.0	
29-MAY-09	AMERICAN LOTUS	CO-60	< 9.5	
29-MAY-09	AMERICAN LOTUS	ZN-65	< 21.5	
29-MAY-09	AMERICAN LOTUS	ZR-NB-95	< 13.9	
29-MAY-09	AMERICAN LOTUS	I-131	< 21.7	
29-MAY-09	AMERICAN LOTUS	CS-134	< 16.1	
29-MAY-09	AMERICAN LOTUS	CS-137	< 18.7	
14-AUG-09	ARROWHEAD	BE-7	< 200.5	
14-AUG-09	ARROWHEAD	K-40	5,171.0 +/- 452.5	
14-AUG-09	ARROWHEAD	MN-54	< 18.0	
14-AUG-09	ARROWHEAD	CO-58	< 11.6	
14-AUG-09	ARROWHEAD	FE-59	< 38.3	
14-AUG-09	ARROWHEAD	CO-60	< 14.8	
14-AUG-09	ARROWHEAD	ZN-65	< 19.4	
14-AUG-09	ARROWHEAD	ZR-NB-95	< 19.4	
14-AUG-09	ARROWHEAD	I-131	< 24.9	
14-AUG-09	ARROWHEAD	CS-134	< 12.6	
14-AUG-09	ARROWHEAD	CS-137	< 19.1	

Exposure Pathway - Aquatic Vegetation

Location MUDS

Collection Date	Sample Description	Nuclide	Gamma Spectrum Concentration (pCi/Kg Wet)			Duplicate Sample
08-SEP-09	PONDWEED	BE-7	949.7	+/-	165.7	Duplicate
08-SEP-09	PONDWEED	BE-7	931.4	+/-	183.0	
08-SEP-09	PONDWEED	K-40	2,473.8	+/-	294.2	Duplicate
08-SEP-09	PONDWEED	K-40	2,501.5	+/-	259.0	
08-SEP-09	PONDWEED	MN-54		<	9.5	Duplicate
08-SEP-09	PONDWEED	MN-54		<	13.0	
08-SEP-09	PONDWEED	CO-58		<	9.0	Duplicate
08-SEP-09	PONDWEED	CO-58		<	6.9	
08-SEP-09	PONDWEED	FE-59		<	16.8	Duplicate
08-SEP-09	PONDWEED	FE-59		<	25.2	
08-SEP-09	PONDWEED	CO-60		<	8.1	Duplicate
08-SEP-09	PONDWEED	CO-60		<	9.8	
08-SEP-09	PONDWEED	ZN-65		<	17.3	Duplicate
08-SEP-09	PONDWEED	ZN-65		<	20.2	
08-SEP-09	PONDWEED	ZR-NB-95		<	16.3	Duplicate
08-SEP-09	PONDWEED	ZR-NB-95		<	8.9	
08-SEP-09	PONDWEED	I-131		<	34.5	Duplicate
08-SEP-09	PONDWEED	I-131		<	22.0	
08-SEP-09	PONDWEED	CS-134		<	10.6	Duplicate
08-SEP-09	PONDWEED	CS-134		<	9.5	
08-SEP-09	PONDWEED	CS-137		<	14.8	Duplicate
08-SEP-09	PONDWEED	CS-137		<	11.2	

Exposure Pathway - Terrestrial Vegetation

Location EEA

Collection Date	Sample Description	Nuclide	Gamma Spectrum Concentration (pCi/Kg Wet)	Duplicate Analysis
26-MAY-09	GRASS	BE-7	466.8 +/- 153.4	
26-MAY-09	GRASS	K-40	6,429.0 +/- 453.1	
26-MAY-09	GRASS	MN-54	< 14.5	
26-MAY-09	GRASS	CO-58	< 10.1	
26-MAY-09	GRASS	FE-59	< 19.8	
26-MAY-09	GRASS	CO-60	< 8.4	
26-MAY-09	GRASS	ZN-65	< 31.0	
26-MAY-09	GRASS	ZR-NB-95	< 9.1	
26-MAY-09	GRASS	I-131	< 24.0	
26-MAY-09	GRASS	CS-134	< 14.7	
26-MAY-09	GRASS	CS-137	< 11.4	
14-AUG-09	GRASS	BE-7	4,592.8 +/- 313.2	
14-AUG-09	GRASS	K-40	10,264.0 +/- 621.4	
14-AUG-09	GRASS	MN-54	< 18.6	
14-AUG-09	GRASS	CO-58	< 21.1	
14-AUG-09	GRASS	FE-59	< 56.8	
14-AUG-09	GRASS	CO-60	< 15.8	
14-AUG-09	GRASS	ZN-65	< 37.0	
14-AUG-09	GRASS	ZR-NB-95	< 17.9	
14-AUG-09	GRASS	I-131	< 30.3	
14-AUG-09	GRASS	CS-134	< 18.8	
14-AUG-09	GRASS	CS-137	< 20.3	

Exposure Pathway - Terrestrial Vegetation

Location MUDS

Collection Date	Sample Description	Nuclide	Gamma Spectrum Concentration (pCi/Kg Wet)	Duplicate Analysis
29-MAY-09	GRASS	BE-7	696.0 +/- 178.6	
29-MAY-09	GRASS	K-40	5,542.3 +/- 470.7	
29-MAY-09	GRASS	MN-54	< 12.4	
29-MAY-09	GRASS	CO-58	< 11.8	
29-MAY-09	GRASS	FE-59	< 21.7	
29-MAY-09	GRASS	CO-60	< 15.1	
29-MAY-09	GRASS	ZN-65	< 28.6	
29-MAY-09	GRASS	ZR-NB-95	< 12.5	
29-MAY-09	GRASS	I-131	< 30.8	
29-MAY-09	GRASS	CS-134	< 16.5	
29-MAY-09	GRASS	CS-137	< 11.2	
08-SEP-09	GRASS	BE-7	1,421.2 +/- 186.3	
08-SEP-09	GRASS	K-40	4,505.5 +/- 412.3	
08-SEP-09	GRASS	MN-54	< 11.9	
08-SEP-09	GRASS	CO-58	< 10.1	
08-SEP-09	GRASS	FE-59	< 25.1	
08-SEP-09	GRASS	CO-60	< 12.0	
08-SEP-09	GRASS	ZN-65	< 21.8	
08-SEP-09	GRASS	ZR-NB-95	< 13.9	
08-SEP-09	GRASS	I-131	< 23.4	
08-SEP-09	GRASS	CS-134	< 9.2	
08-SEP-09	GRASS	CS-137	< 14.8	

Exposure Pathway - Terrestrial
Soil

Location EEA

Collection Date	Nuclide	Gamma Spectrum Concentration (pCi/Kg Dry)			Duplicate Analysis
26-MAY-09	K-40	13,195.0	+/-	805.9	
26-MAY-09	MN-54		<	33.8	
26-MAY-09	CO-58		<	22.1	
26-MAY-09	FE-59		<	29.0	
26-MAY-09	CO-60		<	17.4	
26-MAY-09	ZN-65		<	37.3	
26-MAY-09	CS-134		<	22.3	
26-MAY-09	CS-137		<	27.2	
14-AUG-09	K-40	13,458.0	+/-	802.0	Duplicate
14-AUG-09	K-40	13,405.0	+/-	771.0	
14-AUG-09	MN-54		<	34.6	Duplicate
14-AUG-09	MN-54		<	26.4	
14-AUG-09	CO-58		<	13.5	Duplicate
14-AUG-09	CO-58		<	26.0	
14-AUG-09	FE-59		<	44.2	Duplicate
14-AUG-09	FE-59		<	43.8	
14-AUG-09	CO-60		<	20.6	Duplicate
14-AUG-09	CO-60		<	26.4	
14-AUG-09	ZN-65		<	64.7	Duplicate
14-AUG-09	ZN-65		<	53.0	
14-AUG-09	CS-134		<	17.2	Duplicate
14-AUG-09	CS-134		<	20.8	
14-AUG-09	CS-137	279.5	+/-	45.5	Duplicate
14-AUG-09	CS-137	285.2	+/-	45.9	

Exposure Pathway - Terrestrial
Soil

Location MUDS

Collection Date	Nuclide	Gamma Spectrum Concentration (pCi/Kg Dry)	Duplicate Analysis
09-JAN-09	K-40	11,515.0 +/- 753.8	
09-JAN-09	MN-54	< 32.4	
09-JAN-09	CO-58	< 31.8	
09-JAN-09	FE-59	< 51.1	
09-JAN-09	CO-60	< 19.1	
09-JAN-09	ZN-65	< 68.3	
09-JAN-09	CS-134	< 26.8	
09-JAN-09	CS-137	405.1 +/- 41.4	

Exposure Pathway - Ingestion
Deer

Location B1.0

Collection Date	Sample Description	Nuclide	Gamma Spectrum & H-3 Concentration (pCi/Kg Wet)	Duplicate Analysis
28-OCT-09	DEER	K-40	2,379.0 +/- 364.7	
28-OCT-09	DEER	MN-54	< 6.9	
28-OCT-09	DEER	CO-58	< 6.7	
28-OCT-09	DEER	FE-59	< 23.7	
28-OCT-09	DEER	CO-60	< 10.7	
28-OCT-09	DEER	ZN-65	< 15.0	
28-OCT-09	DEER	CS-134	< 7.3	
28-OCT-09	DEER	CS-137	25.1 +/- 12.9	
28-OCT-09	DEER	H-3	496.0 +/- 81.0	

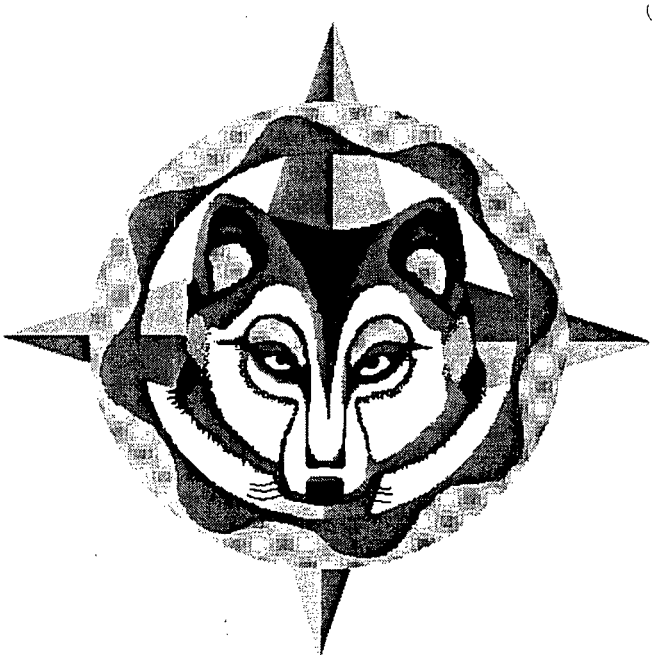
Exposure Pathway - Ingestion
Deer

Location R2.5

Collection Date	Sample Description	Nuclide	Gamma Spectrum & H-3 Concentration (pCi/Kg Wet)	Duplicate Analysis
20-FEB-09	DEER	K-40	2,970.0 +/- 361.1	
20-FEB-09	DEER	MN-54	< 12.7	
20-FEB-09	DEER	CO-58	< 11.4	
20-FEB-09	DEER	FE-59	< 12.7	
20-FEB-09	DEER	CO-60	< 7.6	
20-FEB-09	DEER	ZN-65	< 12.3	
20-FEB-09	DEER	CS-134	< 12.1	
20-FEB-09	DEER	CS-137	< 9.9	
20-FEB-09	DEER	H-3	218.0 +/- 66.0	

WOLF CREEK GENERATING STATION

2009 LAND USE CENSUS REPORT



Prepared by:	Teresa L. Rice	09-17-2009
	Teresa L. Rice	Date
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	Ralph L. Logsdon	Date
Approved by:	Robert Hammond	09-30-2009
	Robert A. Hammond	Date

EXECUTIVE SUMMARY

The annual Land Use Census of rural residents within five miles of the Wolf Creek Generating Station (WCGS) has been completed for 2009 in accordance with AP 07B-004, [Offsite Dose Calculation Manual (Radiological Environmental Monitoring Program)].

No program changes are necessary regarding milk locations. Again, no milk sampling locations were identified.

No program changes are necessary regarding the broadleaf vegetation sample locations. The broadleaf vegetation locations that had the highest calculated annual average D/Q rankings are Q2.35-MILA1619, L2.39-NARD1309 and N2.38-RODR9, respectively. Samples are currently being obtained from locations Q2.35-MILA1619 and N2.38-RODR9. The garden at L2.39-NARD1309 will not be added to the sample program for the following reasons:

- The difference between the calculated D/Qs for locations L2.39-NARD1309 and N2.38-RODR9 is less than twenty percent.
- The landowner at location L2.39-NARD1309 has not responded to previous requests to add the garden to the REMP sample program.

BACKGROUND

Section 5.2, Attachment A, of the ODCM procedure (AP 07B-004), 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" and "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 (AP 07B-004) requires that broadleaf vegetation samples be collected from "two indicator locations (using the criteria from the "Land Use Census" section) with highest calculated annual average D/Q."

Table 5-1, Attachment A, of the ODCM (AP 07B-004) also requires that milk samples be collected from "three indicator locations within 5 miles of the site having the highest dose potential."

METHODOLOGY

Two hundred fifteen surveys were mailed to the rural residents living within five miles of WCGS. A follow-up survey was sent to residents who did not respond. The survey excluded the residents of New Strawn, Burlington, and a trailer park north of Burlington. These locations were 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. Drive-by information was collected for the nearest residences that did not return surveys.

The information collected was compiled and the results are identified in Tables 1-3. Calculations were performed so that garden locations could be ranked by their respective D/Q. These results are contained in Table 4.

RESULTS

NOTE: A Global Positioning System was used to verify residence distances and sectors.

Four changes were noted for the nearest occupied residences in each sector. Those changes were in sectors B, E, F and M.

Nine location changes were noted for the nearest garden producing broadleaf vegetation. These changes are identified in Table 3.

There were no changes regarding milk sample locations. Again, no locations were identified that routinely milked animals for human consumption.

TABLE 1

2009 Land Use Census Data

Location of Nearest:

Sector	Residence	Milking Animals	Broadleaf Garden
A	A2.60-17TE1520	None	A4.91-OXRD1940
B	B3.53-QURD1755	None	None
C	C1.92-16RD1655	None	C3.58-RERD1675
D	D2.03-QULA1571	None	D3.00-16RD1829
E	E1.78-QULA1451	None	E4.40-TRRD1551
F	F2.39-14RD1802	None	F2.39-14RD1802
G	G3.03-13RD1820	None	G3.77-12RD1831
H	H3.09-12RD1711	None	H3.30-QURD1175
J	J3.70-11RD1540	None	J3.90-11RD1531
K	K2.70-12LA1439	None	None
L	L2.10-NARD1339	None	L2.39-NARD1309
M	M2.34-14RD1330	None	M2.34-14RD1330
N	N1.71-NARD1441	None	N2.38-RODR9
P	P2.76-HW751534	None	P2.76-HW751534
Q	Q2.35-MILA1619	None	Q2.35-MILA1619
R	R2.08-NALN1650	None	None

Identifiers are based upon the following protocol:

EXAMPLE: A1.4-16RD1525

"A" = Sector A

"1.4" = 1.4 miles from the reactor

"16RD1525" = address

TABLE 2

SECTOR	2008 NEAREST RESIDENCE	2009 NEAREST RESIDENCE
A	A2.60-17TE1520	A2.60-17TE1520
B	B1.86-PLRD16XX	B3.53-QURD1755
C	C1.92-16RD1655	C1.92-16RD1655
D	D2.03-QULA1571	D2.03-QULA1571
E	E1.77-QULA1485	E1.78-QULA1451
F	F1.76-14RD1730	F2.39-14RD1802
G	G3.03-13RD1820	G3.03-13RD1820
H	H3.09-12RD1711	H3.09-12RD1711
J	J3.70-11RD1540	J3.70-11RD1540
K	K2.70-12LA1439	K2.70-12LA1439
L	L2.10-NARD1339	L2.10-NARD1339
M	M2.47-14RD1322	M2.34-14RD1330
N	N1.71-NARD1441	N1.71-NARD1441
P	P2.76-HW751534	P2.76-HW751534
Q	Q2.35-MILA1619	Q2.35-MILA1619
R	R2.08-NALN1650	R2.08-NALN1650

NOTE: Entries underlined indicate changes from the 2008 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 reactor.

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

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

TABLE 3

2009 Land Use Census Milk and Garden Data

SECTOR	2008 MILKING ANIMALS	2009 MILKING ANIMALS	2008 CLOSEST GARDEN PRODUCING BROADLEAF VEGETATION	2009 CLOSEST GARDEN PRODUCING BROADLEAF VEGETATION
A	None	None	A4.91-OXRD1940	A4.91-OXRD1940
B	None	None	B3.53-QURD1755	None
C	None	None	C3.16-QURD1712	C3.58-RERD1675
D	None	None	D3.00-16RD1829	D3.00-16RD1829
E	None	None	None	E4.40-TRRD1551
F	None	None	F2.44-RERD1391	F2.39-14RD1802
G	None	None	G3.66-12RD1814	G3.77-12RD1831
H	None	None	H3.30-QURD1175	H3.30-QURD1175
J	None	None	J3.80-11RD1535	J3.90-11RD1531
K	None	None	None	None
L	None	None	L2.83-NARD1250	L2.39-NARD1309
M	None	None	M3.78-LYRD1390	M2.34-14RD1330
N	None	None	N2.38-RODR9	N2.38-RODR9
P	None	None	P2.99-SOST100	P2.76-HW751534
Q	None	None	Q2.35-MILA1619	Q2.35-MILA1619
R	None	None	None	None

NOTE: Underlined entries indicate changes from the 2008 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 reactor.

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

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

TABLE 4

Information Used for D/Q Calculations

FROM LAND USE CENSUS			FROM SA-07-001 CAL						
	DIST	CALC	NEAR	NEAR	FAR	FAR		SECTOR	D/Q * 20%
SECTOR	(MI)	(METERS)	DIST	D / Q	DIST	D / Q	CALC	RANKING	
A	4.91	7902	7000	6.95E-10	8000	5.61E-10	5.74E-10	5	6.89E-10
B	0	0							
C	3.58	5761	5000	2.77E-10	6000	2.03E-10	2.21E-10	11	2.65E-10
D	3.00	4828	4000	2.71E-10	5000	1.85E-10	2.00E-10	12	2.40E-10
E	4.40	7081	7000	1.25E-10	8000	1.01E-10	1.23E-10	13	1.48E-10
F	2.39	3846	3000	6.99E-10	4000	4.20E-10	4.63E-10	8	5.556E-10
G	3.77	6067	6000	3.46E-10	7000	2.57E-10	3.40E-10	10	4.08E-10
H	3.30	5311	5000	5.66E-10	6000	4.16E-10	5.19E-10	7	6.23E-10
J	3.90	6276	6000	4.62E-10	7000	3.43E-10	4.29E-10	9	5.15E-10
K	0	0							
L	2.39	3846	3000	1.15E-09	4000	6.91E-10	7.62E-10	2	9.14E-10
M	2.34	3766	3000	8.54E-10	4000	5.13E-10	5.93E-10	4	7.12E-10
N	2.38	3830	3000	1.11E-09	4000	6.67E-10	7.42E-10	3	8.90E-10
P	2.76	4442	4000	6.23E-10	5000	4.24E-10	5.35E-10	6	6.42E-10
Q	2.35	3782	3000	1.45E-09	4000	8.68E-10	9.95E-10	1	1.19E-09
R	0	0							

Originated by: Teresa L. Rice Date: 09-17-2009

Verified by: Ralph L Ingalsbe Date: 09-29-2009