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MAY 07 2019

Mr. Norm Sandlin, Prime Contract Manager
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Dear Mr. Sandlin:

CONTRACT NO. DE-EM0004895: APPROVAL OF DELIVERABLE NO. 37, ANNUAL REPORT ON EXTERNAL RADIATION MONITORING FOR CALENDAR YEAR 2018, FRNP-RPT-0077

Reference: Letter from J. Bradford to M. Fultz, "Four Rivers Nuclear Partnership, LLC, Deliverable No. 37—Transmittal of Annual Report on External Radiation Monitoring for Calendar Year 2018, Paducah Gaseous Diffusion Plant, Paducah, Kentucky," (FRNP-19-2195), dated March 18, 2019

The U.S. Department of Energy reviewed and approves the Four Rivers Nuclear Partnership, LLC Deliverable No. 37, *Annual Report on External Radiation Monitoring for Calendar Year 2018, Paducah Gaseous Diffusion Plant, Paducah, Kentucky*, FRNP-RPT-0077.

If you have any questions or require additional information, please contact Gil Whitehurst at (740) 897-2948.

Sincerely,

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**Annual Report on
External Radiation Monitoring
for Calendar Year 2018,
Paducah Gaseous Diffusion Plant,
Paducah, Kentucky**

This document is approved for public release per review by:

FRNP Classification Support

Date

**Annual Report on
External Radiation Monitoring
for Calendar Year 2018,
Paducah Gaseous Diffusion Plant,
Paducah, Kentucky**

Date Issued—March 2019

U.S. DEPARTMENT OF ENERGY
Office of Environmental Management

Prepared by
FOUR RIVERS NUCLEAR PARTNERSHIP, LLC,
managing the
Deactivation and Remediation Project at the
Paducah Gaseous Diffusion Plant
under Contract DE-EM0004895

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ACRONYMS

CY	calendar year
DOE	U.S. Department of Energy
E	effective dose
E ₅₀	committed effective dose
EMP	Environmental Monitoring Plan
OSL	Optically Stimulated Luminescence
PGDP	Paducah Gaseous Diffusion Plant
TED	total effective dose
TLD	thermoluminescent dosimeter
WKWMA	West Kentucky Wildlife Management Area

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EXECUTIVE SUMMARY

U.S. Department of Energy (DOE) Order 458.1 establishes a radiation protection standard for members of the public. This standard requires that exposure of members of the public to radiation sources as a consequence of all routine DOE activities shall not cause, within a calendar year (CY), a total effective dose (TED) greater than 100 millirem (mrem). Monitoring of several media is conducted at select locations near the Paducah Gaseous Diffusion Plant (PGDP), in accordance with CP2-ES-0006, *Environmental Monitoring Plan Fiscal Year 2018, Paducah Gaseous Diffusion Plant, Paducah, Kentucky*, (EMP) to confirm that this DOE standard is met.

Program requirements for the annual external gamma radiation monitoring are outlined in the EMP. This program provides for the measurement of deep dose from gamma and neutron radiation. Effective dose (E) is the sum of deep dose from gamma radiation and deep dose from neutron radiation.

Results for external gamma and neutron radiation monitoring conducted in CY 2018 are summarized in this report. External gamma and neutron radiation monitoring consisted of quarterly placement, collection, and analysis of environmental thermoluminescence dosimeters (TLDs) and Optically Stimulated Luminescence (OSL) dosimeters. This information will be used to calculate TED, which will be presented in the CY 2018 Annual Site Environmental Report.

Monitoring results for CY 2018 indicate that 10 locations out of 51 were above the annualized background levels. These 10 locations were consistently the areas with the highest measured exposures throughout the monitoring period. These locations were adjacent to or in close proximity to the PGDP security fence in the vicinity of uranium hexafluoride storage cylinders. Because security protocols prohibited the public from gaining prolonged access to the PGDP boundary fence in CY 2018, the potential radiation doses calculated at or in close proximity to the fence are not realistic. For CY 2018, TLD-14, which is near Harmony Cemetery, located north of the plant security fence and south of Ogden Landing Road, represents the nearest location routinely accessible by the public. Measurements at this location indicated external radiation levels were at or below naturally occurring background radiation. In addition, the radiation exposure for the maximally exposed individual, a member of the public at the nearest local residence, was found to be equivalent to naturally occurring background.

Based on the results of measurements in areas accessible to the public or near the closest local residence, external radiation levels were found to be equivalent to naturally occurring background levels. Therefore, the E received by a member of the public from DOE operations is considered to be negligible.

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1. INTRODUCTION

U.S. Department of Energy (DOE) Order 458.1 establishes a radiation protection standard for members of the public. This order requires that exposure of members of the public to radiation sources as a consequence of all routine DOE activities shall not cause, within a calendar year (CY), a total effective dose (TED) greater than 100 mrem. One exposure pathway of concern for DOE operations at the Paducah Gaseous Diffusion Plant (PGDP) is direct external radiation exposure. External radiation exposure is defined as exposure attributed to radioactive sources outside the body.

The *Environmental Monitoring Plan, Fiscal Year 2018, Paducah Gaseous Diffusion Plant, Paducah, Kentucky*, CP2-ES-0006, establishes the DOE program for monitoring external radiation at areas readily accessible to members of the public. The external gamma radiation exposure monitoring program has the following five objectives:

1. Calculate the effective dose (E) to the maximally exposed individual member of the public;
2. Calculate the E to a member of the public in areas freely accessible to members of the public;
3. Calculate the E to a member of the public at the Paducah Site boundary;
4. Establish the dose potentially received by a member of the public visiting or passing through accessible portions of the DOE Reservation; and
5. Establish the radiation dose potentially received by a member of the public from direct exposure to DOE operations at the boundary of the PGDP perimeter fence.

In addition, the results stated in this report are presented using terms that are consistent with those found in DOE Order 458.1.

TED is the sum of E and committed effective dose (E_{50}). E_{50} is the dose received from internally deposited radionuclides and is addressed in the Annual Site Environmental Report. E is the dose directly attributed to external radiation exposure. This document summarizes E.

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2. METHODOLOGY

The external gamma and neutron radiation monitoring program is designed to provide data on external radiation exposure from DOE operations to members of the public. The primary factor in selecting the monitoring locations was the potential for a member of the public to be exposed to external radiation. Secondary factors in selecting monitoring locations were accessibility and representative exposure, potentially received by members of the public, and area monitoring for individuals passing through the DOE site.

Environmental thermoluminescence dosimeters (TLDs) with a calcium fluoride and lithium fluoride matrix were placed at the monitoring locations and collected and analyzed quarterly for a period of one year. When the TLDs were collected, the next quarter's TLDs were placed at the same locations when possible. During the course of the year, one TLD was discovered to be missing from its location at TLD-19 during the first quarter. This most likely is the result of vandalism or wildlife activity. When a TLD is reported missing multiple times, a new location is sought within the same area that is better hidden from normal view. The dosimeters at location TLD-58 and TLD-86 had suspect readings during the second quarter. TLD-92 could not be issued during the second quarter due to lack of access due to land excavation. TLD-1, TLD-2, and TLD-71 had suspect reading during the fourth quarter. Missing and suspect results were estimated using the average of the other three quarters of deep dose exposure per day. A map of the locations is provided in Appendix A, and the monitoring locations are described in Appendix B. Locations TLD-22, TLD-54, TLD-85, TLD-86, TLD-87, TLD-88, TLD-89, TLD-90, TLD-91, TLD-92, TLD-93, TLD-94, and TLD-95 are considered to be background locations (i.e., locations presumably unaffected by PGDP operations or other site-specific radiation sources).

Environmental gamma Model 110 TLDs were received from Mirion Technologies of Irvine, CA, beginning in January 2018. In January 2018, OSL dosimeters were received from Landauer to monitor for neutron radiation. TLDs were kept in their individual, flexible protective packaging and placed in wide mouth, plastic sample bottles when deployed to the monitoring location. A lid is screwed on each bottle, and a nylon wire tie was wound around each bottle (under the lid) to secure it to a fence or other fixed structure. The plastic packaging and sample bottle provide a sturdy weather-resistant package that does not significantly attenuate gamma radiation (i.e., induce a negative bias on the measurement).

One TLD per quarterly sampling event was designated as a field blank and was carried to all monitoring locations during placement and collection of the TLDs. One control TLD (i.e., trip blank TLD) was retained in the sampling field office and then used as a transit blank accompanying the TLDs when they were shipped off-site for analysis. A total of 64 gamma TLDs and 7 neutron TLDs/OSLs representing 65 locations each quarter, including background and trip blank locations, was placed, as described in the entry tables in Appendix B. In most cases, the TLDs were secured at a height of approximately 3–4 ft above ground.

Coordinates for monitoring locations were determined using a differential global positioning system and data were entered into the Paducah Site geographic information system. No dosimeters were placed in radiologically contaminated areas.

Appendix A contains a map of the sample locations. The dosimeters were placed, collected, and shipped for analysis on the dates indicated in Appendix B. Based on process knowledge from historical surveys and the siting of dosimeters outside the bounds of radiological contamination areas, the dosimeters are non-contaminated and non-regulated for the purposes of handling and shipping (i.e., contamination levels are below DOE release criteria and U.S. Department of Transportation levels for regulated materials). Analytical results are found in Appendix C.

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3. RESULTS

Complete laboratory analysis reports for each quarter are included in Appendix C.

3.1 FIRST QUARTER RESULTS

The gamma radiation dose time for the first quarter of CY 2018 was approximately 89 days. Sample results ranged from 16–483 mrem. The background samples ranged from 20–23 mrem. The mean background dose was 21 mrem.

The field blank measured dose of 13 mrem and the trip blank a dose of 15 mrem. These readings were indistinguishable from background, likely due to shielding provided by the office building where they were kept. Table 1 identifies locations with annual gamma doses above background.

Table 1. Locations with Annual Gamma Doses above Background for the 1st Quarter

Location	Effective Dose
TLD-1	206
TLD-2	229
TLD-3	23
TLD-5	23
TLD-7	26
TLD-13	23
TLD-16	24
TLD-25	30
TLD-35	26
TLD-37	22
TLD-38	23
TLD-40	27
TLD-50	42
TLD-53	107
TLD-60	260
TLD-61	483
TLD-67	24
TLD-70	45
TLD-71	35
TLD-72	23
TLD-74	24
TLD-78	25
TLD-80	22
TLD-81	84
TLD-82	29
TLD-83	50

There were no locations with positive neutron doses for the first quarter.

The gamma dosimeter locations with statistically significant values are located at or in close proximity to the PGDP security fence that is in adjacent to DOE uranium hexafluoride (UF₆) cylinder storage yards.

3.2 SECOND QUARTER RESULTS

The gamma radiation dose time for the second quarter of CY 2018 was approximately 83 days. Sample results ranged from 12–489 mrem. The background samples ranged from 16–31 mrem. The mean background dose was 19 mrem.

The field blank measured dose of 13 mrem and the transit blank a dose of 11 mrem. These readings were indistinguishable from background, likely due to shielding provided by the office building where they were kept. Table 2 identifies locations with annual gamma doses above background.

Table 2. Locations with Annual Gamma Doses above Background for the 2nd Quarter

Location	Effective Dose
TLD-1	183
TLD-2	229
TLD-3	21
TLD-7	20
TLD-16	21
TLD-25	23
TLD-35	24
TLD-40	23
TLD-50	36
TLD-53	81
TLD-60	282
TLD-61	489
TLD-67	21
TLD-70	42
TLD-71	31
TLD-81	78
TLD-82	22
TLD-83	37

There were no locations with positive neutron doses for the second quarter.

The gamma dosimeter locations with statistically significant values are located at or in close proximity to the PGDP security fence that is adjacent to DOE UF₆ cylinder storage yards.

3.3 THIRD QUARTER RESULTS

The gamma radiation dose time for the third quarter of CY 2018 was approximately 94 days. Sample results ranged from 16–664 mrem. The background samples ranged from 17–35 mrem. The mean background dose was 21 mrem.

The field blank measured dose of 19 mrem and the transit blank a dose of 14 mrem. These readings were indistinguishable from background, likely due to shielding provided by the office building where they were kept. Table 3 identifies locations with annual gamma doses above background.

Table 3. Locations with Annual Gamma Doses above Background for the 3rd Quarter

Location	Effective Dose
TLD-1	204
TLD-2	266
TLD-3	22
TLD-7	30
TLD-16	24
TLD-25	32
TLD-35	28
TLD-37	22
TLD-38	24
TLD-40	23
TLD-50	41
TLD-53	91
TLD-60	244
TLD-61	664
TLD-66	23
TLD-70	47
TLD-71	35
TLD-74	23
TLD-75	25
TLD-78	24
TLD-79	22
TLD-81	93
TLD-82	27
TLD-83	52

There were no locations with positive neutron doses for the third quarter.

The gamma dosimeter locations with statistically significant values are located at or in close proximity to the PGDP security fence that is adjacent to DOE UF₆ cylinder storage yards.

3.4 FOURTH QUARTER RESULTS

The gamma radiation dose time for the fourth quarter of CY 2018 was approximately 98 days. Sample results ranged from 15–687 mrem. The background samples ranged from 19–32 mrem. The mean background dose was 23 mrem.

The field blank measured dose of 11 mrem, and the transit blank a dose of 11 mrem. These readings were indistinguishable from background, likely due to shielding by the office building where they were kept. Table 4 identifies locations with annual gamma doses above background.

Table 4. Locations with Annual Gamma Doses above Background for the 4th Quarter

Location	Effective Dose
TLD-1	218
TLD-2	267
TLD-4	24
TLD-5	26
TLD-7	33
TLD-13	24
TLD-16	26
TLD-25	33
TLD-35	30
TLD-40	28
TLD-50	54
TLD-53	114
TLD-60	368
TLD-61	687
TLD-70	52
TLD-71	37
TLD-74	26
TLD-78	26
TLD-81	103
TLD-82	32
TLD-83	61

There were no locations with positive neutron doses for the 4th quarter.

The gamma locations with statistically significant values are located at or in close proximity to the PGDP security fence that is adjacent to DOE UF₆ cylinder storage yards.

3.5 ANNUALIZED RESULTS

Annual gamma dose rates for CY 2018 for the locations were calculated. Dose results for all four quarters were summed for each location and adjusted (annualized) to account for the number of days in the field,

varying from 365 (see Appendix D). The adjustment was calculated by adding the four quarters' results and multiplying the sum by 365, divided by the actual total days TLDs were in the field. The mean annual background E was determined to be 85.45 mrem. The mean background was subtracted from the annualized E to obtain a net annual E, attributed to PGDP operations for CY 2018, for each location.

To determine those data points that were statistically above background, the standard deviation of the background measurements was calculated using a normal distribution, yielding a result of 11.69 mrem. Results greater than three standard deviations from the mean background measurement (i.e., 120 mrem) are considered to be above background with 99.7% confidence. Due to the significance of these measurements, a high level of confidence has historically been applied to these statistical calculations in order to ensure doses to the public from plant related activities are accurately reported and to reduce the potential for reporting of "false positives." Locations with E in excess of the mean background at 99.7% confidence were TLD-1, TLD-2, TLD-50, TLD-53, TLD-60, TLD-61, TLD-70, TLD-71, TLD-81, and TLD-83. These locations are in proximity to DOE UF₆ cylinder storage yards.

Table 5 presents the gamma dosimeter locations where the annualized total dose (mrem) was found to exceed the background with 99.7% confidence. Annual total dose is based on 24 hours per day/365 days per year.

Table 5. Gamma TLD Locations with Results above Background

Location	Annualized Effective Dose (mrem)	Mean Background Plus Three Standard Deviations (mrem)	Average Background (mrem)	Net Annual Dose (mrem)
TLD-1	813	120	85	728
TLD-2	994	120	85	909
TLD-50	173	120	85	88
TLD-53	394	120	85	309
TLD-60	1180	120	85	1095
TLD-61	2375	120	85	2290
TLD-70	187	120	85	102
TLD-71	138	120	85	53
TLD-81	359	120	85	274
TLD-83	201	120	85	116

NOTE: For purposes of this report, all dose measurements at these locations are assumed to result from DOE operations.

3.6 ANNUALIZED RESULTS FOR 2017 COMPARED TO 2018

Table 6 presents the results of a comparison between the annualized total gamma dose results for CY 2017 and for CY 2018. No new locations were added or discontinued in 2018. On July 24, 2018, TLD-92 location was moved slightly west from its previous location to obtain site access due to construction activities. The locations with E in excess of background were mainly consistent between 2017 and 2018. Five areas (TLD-7, TLD-25, TLD-35, TLD-40, TLD-82) previously identified with elevated dose rates in 2017 had decreased dose rates below background at a statistically significant level in 2018. No areas with dose rates below background in 2017 had elevated dose rates at a statistically significant level in 2018. Twenty-nine locations remained statistically consistent ($\pm 5\%$) between 2017 and 2018. Radiation dose rates are subject to change as a result of DUF₆ plant operations such as UF₆ relocation.

Table 6. Effective Annual Gamma Dose of Common Monitoring Locations for CY 2017 and CY 2018

Common Location	2017 Annualized Effective Dose (mrem)	2018 Annualized Effective Dose (mrem)	Increase or Decrease from 2017 to 2018	% Change
TLD-1	781	813	32	4.10
TLD-2	1107	994	-113	-10.21
TLD-3	86	87	1	1.16
TLD-4	84	81	-3	-3.57
TLD-5	91	87	-4	-4.40
TLD-6	75	73	-2	-2.67
TLD-7	118	109	-9	-7.63
TLD-9	75	73	-2	-2.67
TLD-12	78	78	0	0.00
TLD-13	92	85	-7	-7.61
TLD-14	75	74	-1	-1.33
TLD-15	72	66	-6	-8.33
TLD-16	96	95	-1	-1.04
TLD-19	83	74	-9	-10.84
TLD-25	115	118	3	2.61
TLD-30	91	81	-10	-10.99
TLD-35	107	108	1	0.93
TLD-37	83	83	0	0.00
TLD-38	88	88	0	0.00
TLD-40	102	101	-1	-0.98
TLD-46	83	70	-13	-15.66
TLD-50	170	173	3	1.76
TLD-52	78	73	-5	-6.41
TLD-53	393	394	1	0.25
TLD-58	72	66	-6	-8.33
TLD-59	71	66	-5	-7.04
TLD-60	1189	1180	-9	-0.76
TLD-61	2350	2375	25	1.06
TLD-62	70	66	-4	-5.71
TLD-63	70	65	-5	-7.14
TLD-64	70	66	-4	-5.71
TLD-65	75	65	-10	-13.33
TLD-66	87	81	-6	-6.90
TLD-67	92	89	-3	-3.26
TLD-68	82	80	-2	-2.44
TLD-69	71	66	-5	-7.04
TLD-70	194	187	-7	-3.61
TLD-71	158	138	-20	-12.66
TLD-72	87	81	-6	-6.90
TLD-73	79	73	-6	-7.59
TLD-74	92	92	0	0.00
TLD-75	90	86	-4	-4.44

Table 6. Total Annual Gamma Dose of Common Monitoring Locations for CY 2017 and CY 2018 (Continued)

Common Location	2017 Annualized Effective Dose (mrem)	2018 Annualized Effective Dose (mrem)	Increase or Decrease from 2017 to 2018	% Change
TLD-76	85	83	-2	-2.35
TLD-77	84	77	-7	-8.33
TLD-78	97	94	-3	-3.09
TLD-79	81	80	-1	-1.23
TLD-80	83	82	-1	-1.20
TLD-81	407	359	-48	-11.79
TLD-82	115	110	-5	-4.35
TLD-83	202	201	-1	-0.50
TLD-84	80	74	-6	-7.50

NOTE: The locations that are **bolded** are where the annualized total mrem was above the maximum background with 99% confidence.

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4. ANALYSIS

Effective dose is a calculated quantity, expressed in rem, developed by the International Commission on Radiation Protection for purposes of radiation protection. The E is assumed to be related to the risk of a radiation-induced cancer or a severe hereditary effect. It takes into account (1) the absorbed doses that will be delivered to the separate organs or tissues of the body during the lifetime of an individual due to intakes of radioactive materials; (2) the absorbed doses due to irradiation by external sources; (3) the relative effectiveness of different radiation types in inducing cancers or severe hereditary effects; (4) the susceptibility of individual organs to develop a radiation-related cancer or severe hereditary effect; (5) considerations of the relative importance of fatal and non-fatal effects; and, (6) the average years of life lost from a fatal health effect. Thus, the E is a quantity calculated by multiplying the equivalent dose received by every significantly irradiated tissue in the body by a respective tissue weighting factor (this factor reflects the risk of radiation-induced cancer to that tissue) and summing together the individual tissue results to obtain the E. Such a dose, in theory, carries with it the same risk of cancer as would an equal equivalent dose delivered uniformly to the whole body (Health Physics Society, PS-005, 2009). The TLDs used are designed to measure the dose due to external gamma radiation or neutron radiation. The vendors use industry standard conversions to calculate the E received from the external exposure. As such, the results from the analysis of the TLDs are presented in units of E (mrem). DOE's limiting values for members of the public are in units of TED (DOE Order 458.1).

Table 7 provides calculated values of E rate in mrem/hour for those locations with results statistically above background based on the net annual gamma doses determined and reported in Table 5.

Table 7. Net Annual Gamma Effective Doses

Location	Net Annual Effective Doses (mrem)	Net Dose Rate (mrem/hour)
TLD-1	728	0.083
TLD-2	909	0.104
TLD-50	88	0.010
TLD-53	309	0.035
TLD-60	1095	0.125
TLD-61	2290	0.261
TLD-70	102	0.012
TLD-71	53	0.006
TLD-81	274	0.031
TLD-83	116	0.013
		Avg = 0.068

Table 8 provides calculated values of equivalent dose in mrem/hour for annual neutron doses as determined by neutron monitoring locations and data reported in Appendix E.

Table 8. Neutron Effective Doses

Location	Annual Neutron Effective Dose (mrem)	Neutron Dose Rate (mrem/hour)
TLD-2	0	0.000
TLD-3	0	0.000
TLD-50	0	0.000
TLD-65	0	0.000
TLD-68	0	0.000
TLD-81	0	0.000
TLD-83	0	0.000
		Avg = 0.000

Historic surveys of the plant perimeter fence indicate that the TLDs are located in the areas where the maximum doses are likely to occur. Since the fall of 2001, security controls have been in place to restrict public access to the DOE Reservation. While controls have relaxed somewhat, provisions remain in place to prohibit regular public access to areas adjacent to the security fence. As such, the locations listed in Table 7 and Table 8 were not regularly accessible to the public in CY 2018. The external radiation exposures at the locations not listed in Table 7, although accessible to the public, were not above background with 99.7% confidence. Calculation of a worst case dose, assuming that a member of the public spends 80 hours at the location of highest measured dose along the security fence at TLD-2, determined that a dose of 8 mrem ($0.104 \text{ mrem/hour} \times 80 \text{ hours}$) would be received. The DOE contribution of E from plant-derived gamma and neutron radiation that a member of the public received visiting or passing through accessible portions of the DOE Reservation (outside the PGDP security fence) was calculated by taking the average of the net gamma exposure rates in Table 7 plus average neutron exposure in Table 8 multiplied by an occupancy factor of 80 hours per year for an outdoor site visitor. An outdoor site visitor would receive 5 mrem ($0.068 \text{ mrem/hour} \times 80 \text{ hours}$) a year worst case, which is well below the 100 mrem limit for CY 2018.

Historically, the two locations with the highest measured exposures (TLD-1 and TLD-2) are approximately 1,800 and 600 ft, respectively, from the nearest locations off the DOE property boundary. TLD-1 and TLD-2 both are in close proximity to the PGDP security perimeter fence in the vicinity of UF₆ cylinder storage yards. The nearest off-reservation measurement locations are found within land owned by the Commonwealth of Kentucky and are designated as part of the West Kentucky Wildlife Management Area (WKWMA). No residences or businesses are located in the WKWMA. The nearest private residences to TLD-1 and TLD-2 are approximately 6,500 and 5,500 feet away, respectively.

In CY 2009, security restrictions were eased to allow regular public access to Harmony Cemetery located at TLD-14. The annual dose to a member of public visiting the cemetery at TLD-14 was statistically equivalent to the average background in CY 2018. While this location is located physically closer to the plant than the residences described above, the time spent annually at the cemetery is much less than is postulated for a resident; therefore, for purposes of calculation, the maximally exposed member of the general public continues to reside at these residences. The measurement locations that are closer to TLD-1 and TLD-2 than the nearest residents did not yield external radiation exposures that were statistically different from background. As the dose is inversely proportional to the distance from the source, the E to the maximally exposed individual at the two public residences nearest TLD-1 and TLD-2 also is not different from background.

5. CONCLUSIONS

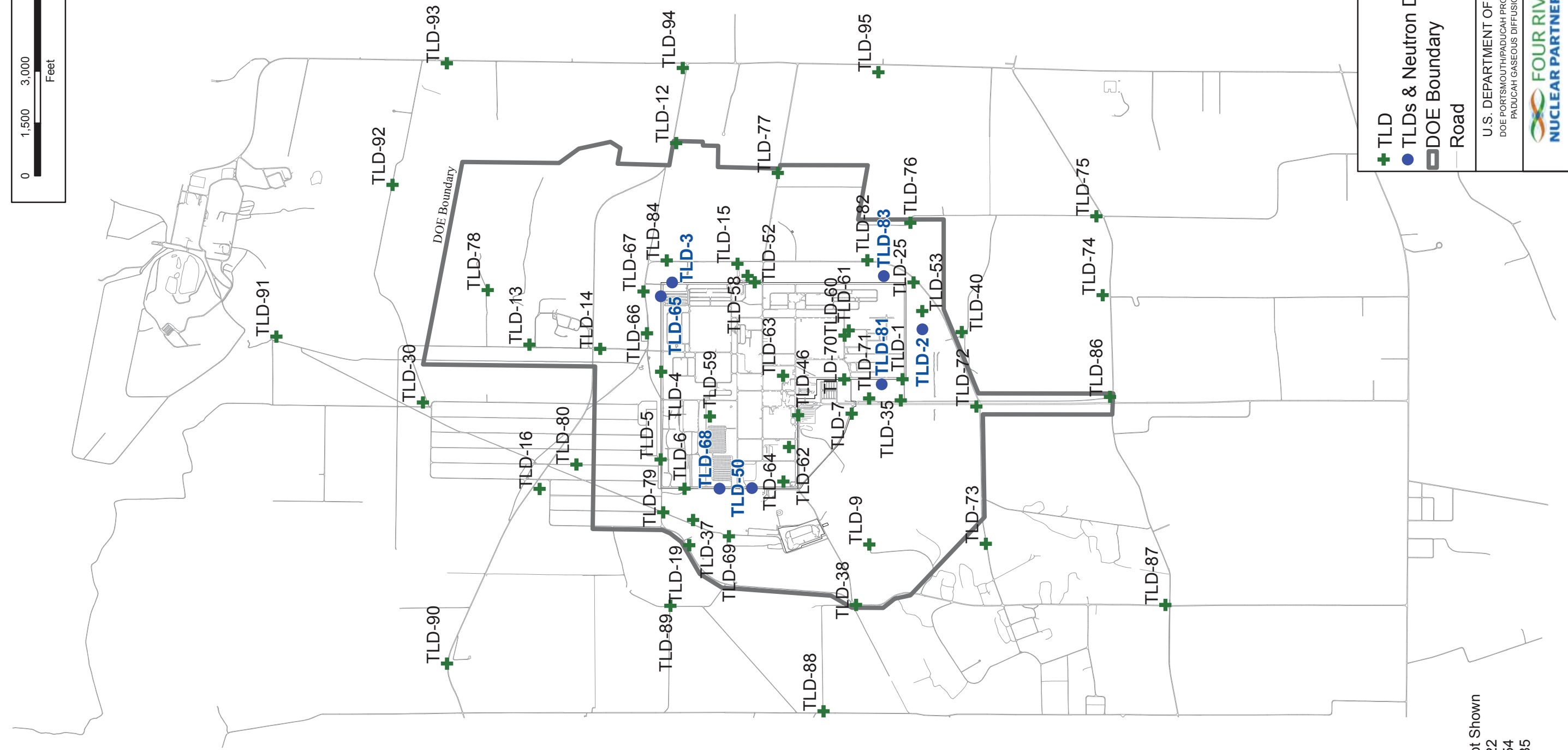
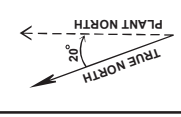
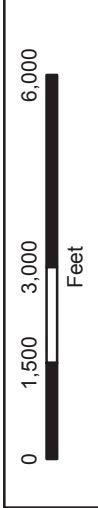
The public does not have regular access to the PGDP boundary fence; therefore, the radiation doses measured at the fence are not applicable to members of the public. Calculation of a worst case dose, assuming that a member of the public spends 80 hours at the location of highest measured dose along the security fence at TLD-2, determined that a dose of 8 mrem would be received. This is 12 times less than the DOE public dose limit of 100 mrem/yr. Due to the PGDP security protocols, no members of the public regularly access areas adjacent to the security fence. The external radiation doses measured by TLDs in areas accessible to the public were not statistically above background; therefore, the E potentially received by a member of the public passing through accessible portions of the DOE Reservation would receive 5 mrem a year in a worst case scenario. In 2018, TLD-14 and TLD-40 represented the closest locations that would be accessible to the public. TLD-14 is near Harmony Cemetery, located north of the plant security fence and south of Ogden Landing Road. Measurements at this location indicated external radiation doses statistically equivalent to background radiation level. In 2018, TLD-40 located on the DOE Reservation boundary within the DOE leased WKWMA area off of Dyke Road indicated external radiation dose measured to be statistically equivalent to background levels. The maximally exposed individual at the private residences also was calculated to be at background levels. Based on the results of the gamma and neutron radiation dose measurements made during CY 2018, the E to the maximally exposed individual member of the public from DOE operations was below the applicable DOE limit of 100 mrem within a year, in accordance with DOE Order 458.1.

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APPENDIX A

MAP OF MONITORING LOCATIONS

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Bkg TLDs Not Shown
 TLD-22
 TLD-54
 TLD-85

TLD	TLDs & Neutron Dosimeters
DOE Boundary	Road
U.S. DEPARTMENT OF ENERGY DOE PORTSMOUTH/PADUCAH PROJECT OFFICE PADUCAH GASEOUS DIFFUSION PLANT	

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APPENDIX B

TLD PLACEMENT AND COLLECTION

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1st Quarter CY 2018 TLD Location Information

Date/Time Issued/Badge ID	Issued By	Date/Time Collected	Collected By	Location Name	Description	NorthLong	West or East Lat	Xcoord	Ycoord	Comments
01/11/2018 09:22 7618-625	JW	4/10/2018 8:50	JW	TLD-1	PGDP security fence west of C-745-M near intersection of Patrol Road and Alabama Avenue near pole 21-20. Outside fence behind DuF6 dirt pile	N 37 06 16.66	W 088 48 55.18	-4172	-5856	N/A
01/11/2018 09:00 7619-626 2882	JW	4/10/2018 8:33	JW	TLD-2	PGDP security fence south of C-745-T near pole T20-6J. South Cylinder Yard perimeter fence	N 37 06 02.15	W 088 48 43.07	-2740	-6427	N/A
01/11/2018 08:24 7620-627 2883	JW	4/9/2018 15:30	JW	TLD-3	PGDP security fence east of C-745-H near pole 23-31. Perimeter fence NE corner	N 37 07 04.17	W 088 47 57.21	-1399	739	N/A
01/11/2018 10:34 7621-628	JW	4/10/2018 9:54	JW	TLD-4	North PGDP security fence near North-South Diversion Ditch.	N 37 07 15.74	W 088 48 25.56	-3957	1052	N/A
01/11/2018 10:26 7622-629	JW	4/10/2018 9:46	JW	TLD-5	North PGDP security fence north of C-747-A near pole T53A1P26G. North perimeter fence between lagoon	N 37 07 24.38	W 088 48 54.58	-6464	1068	N/A
01/11/2018 10:18 7623-630	JW	4/10/2018 9:40	JW	TLD-6	West PGDP security fence west of C-746-P1 near pole 22-4. 612 perimeter fence.	N 37 07 20.85	W 088 49 07.22	-7303	382	N/A
01/11/2018 09:50 7624-631	JW	4/10/2018 9:10	JW	TLD-7	PGDP perimeter fence adjacent to Curlee Road near entrance to DOE building (C-103). Perimeter fence across from entrance to DOE bldg.	N 37 06 29.15	W 088 49 02.49	-5153	-4400	N/A

1st Quarter CY 2018 TLD Location Information

Date/Time Issued/Badge ID	Issued By	Date/Time Collected	Collected By	Location Name	Description	NorthLong	West or East Lat	Xcoord	Ycoord	Comments
N/A	N/A	N/A	N/A	TLD-8	Fence around U.S.G.S. stream gauging station at Bayou Creek and South Acid Road. USGS fence West 57 Acid Rd.	N 37 05 57.76	W 088 49 28.04	-6011	-8091	N/A
01/11/2018 15:44 7625-632	JW	04/10/2018 14:08	JW	TLD-9	Northeast corner of fence of old KOW water treatment plant, near Monitoring Well 309. Gate to MW305	N 37 06 37.12	W 088 49 48.11	-8901	-4907	N/A
N/A	N/A	N/A	N/A	TLD-10	Outfall 011 - hung from side of outfall sampling platform at about foot level, pole T19-15E. Gate Outfall 011	N 37 06 27.22	W 088 48 03.56	-602	-2948	N/A
N/A	N/A	N/A	N/A	TLD-11	Institutional controls fence on north side of McCall Road at Little Bayou Creek crossing. Little Bayou Creek & McCaw Rd.	N 37 06 28.88	W 088 47 41.08	1052	-2167	N/A
01/11/2018 14:29 7626-633	JW	4/10/2018 12:51	JW	TLD-12	Institutional controls fence near Monitoring Well 191 where Little Bayou Creek crosses Hwy 358. MW191, Little Bayou & Ogden Landing Rd.	N 37 06 49.62	W 088 47 11.44	2588	626	N/A
01/11/2018 14:33 7627-634	JW	4/10/2018 12:59	JW	TLD-13	West fence of C-746-U landfill near entrance gate	N 37 07 48.17	W 088 48 00.61	-3182	4825	N/A
01/11/2018 08:17 7628-635	JW	4/9/2018 15:21	JW	TLD-14	Institutional controls fence along North-South Diversion Ditch on west side of 14th street extension near Highway 358 (K003). Fence at North South ditch, north of MW353	N 37 07 29.75	W 088 48 10.58	-3302	2798	N/A
01/11/2018 07:50 7629-636	JW	4/9/2018 14:49	JW	TLD-15	Northeast corner of C-755 fence behind C-755-D	N 37 06 45.01	W 088 47 58.91	-864	-1129	N/A

1st Quarter CY 2018 TLD Location Information

Date/Time Issued/Badge ID	Issued By	Date/Time Collected	Collected By	Location Name	Description	NorthLong	West or East Lat	Xcoord	Ycoord	Comments
01/11/2018 14:50 7630-637	JW	4/10/2018 13:18	JW	TLD-16	WKWMA Clubhouse on northwest corner porch post. On porch WKWMA Headquarters.	N 37 07 59.44	W 088 48 49.76	-7311	4533	N/A
N/A	N/A	N/A	N/A	TLD-17	Suspended from the U.S.G.S. stream gauging station about 3 feet below the north side of the Highway 358 bridge over Big Bayou Creek. USGS at Big Bayou Creek Bridge by Lambs Garage	N 37 08 41.09	W 088 49 37.27	-12368	7174	N/A
N/A	N/A	N/A	N/A	TLD-18	Suspended about 3 feet below the U.S.G.S. stream gauging station platform at Little Bayou Creek and Anderson Road. USGS at Iron Bridge Little Bayou Creek. Right @ Tract 5 4-way Stop	N 37 08 22.09	W 088 47 25.71	-1702	9016	N/A
01/11/2018 15:30 7631-638	JW	lost	JW	TLD-19	Big Bayou Creek south of Transport Road Bridge-- Located in tree to left of the DOE barricade. Iron Bridge BBC, behind notice sign.	N 37 07 25.09	W 088 49 26.57	-8922	248	N/A
N/A	N/A	N/A	N/A	TLD-20	Center of fence at north side of water treatment plant	N 37 06 59.83	W 088 49 36.29	-8788	-2421	N/A
N/A	N/A	N/A	N/A	TLD-21	Residence, Oaks Road, Paducah, Kentucky	N 36 58 12.77	W 088 32 52.01	85990	-24497	N/A
01/11/2018 13:18 7632-639	JW	4/10/2018 10:26	JW	TLD-22	Outside of the fence of the locked air sampling station at the rear corner of the Bethel Cumberland Presbyterian Church Cemetery	N 37 00 05.36	W 088 52 36.29	-8159	-46801	N/A

1st Quarter CY 2018 TLD Location Information

Date/Time Issued/Badge ID	Issued By	Date/Time Collected	Collected By	Location Name	Description	NorthLong	West or East Lat	Xcoord	Ycoord	Comments
N/A	N/A	N/A	N/A	TLD-23	Outside of the fence of the locked air sampling station at the northwest corner of the Heath ballpark fields	N 37 05 50.80	W 088 46 57.78	5667	-4583	N/A
N/A	N/A	N/A	N/A	TLD-24	BJC Kevil facility on stairway handrail outside southwest corner of building	N 37 04 39.52	W 088 52 51.97	N/A	N/A	N/A
01/11/2018 08:54 7633-640	JW	4/10/2018 8:22	JW	TLD-25	On power line tower nearest Dykes Road southeast of C-745-T	N 37 06 00.02	W 088 48 26.49	-1401	-6172	N/A
N/A	N/A	N/A	N/A	TLD-26	Massac Creek to left of path in tree. Highway 62 Bridge past Sunshine Dairy	N 36 57 31.92	W 088 25 13.90	122314	-15495	N/A
N/A	N/A	N/A	N/A	TLD-27	"Do not block entrance" sign on Plant Access Road near Post 15 and motorcycle parking area (C-800). Motorcycle Shed, Post 15	N 37 06 40.78	W 088 48 54.33	-4883	-3431	N/A
N/A	N/A	N/A	N/A	TLD-28	Bethel Church Road, turn right on Bobo Road, left on intersection, located in trees at Monitoring Well 194. Sign near staircase on Big Bayou, MW194	N 37 07 44.580	W 088 49 34.140	-10105	1884	N/A
N/A	N/A	N/A	N/A	TLD-29	First bunker off Ogden Landing Road, across from WKWMA Clubhouse, placed at the back side rafter, inside the window on the overhang. Inside the bunker, south of horse barn, west wall	N 37 07 55.380	W 088 48 41.820	-6503	4306	N/A

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1st Quarter CY 2018 TLD Location Information

Date/Time Issued/Badge ID	Issued By	Date/Time Collected	Collected By	Location Name	Description	NorthLong	West or East Lat	Xcoord	Ycoord	Comments
01/11/2018 14:46 7634-641	JW	4/10/2018 13:14	JW	TLD-30	Take the road by the PGDP landfills, drive past Monitoring Well 98, turn left at three-way, Monitoring Well 235 intersection at Tract 7 sign. The TLD is hung on the inside of the sign. Boldry School Rd., Tract 7 sign, west of MW381	N 37 08 21.060	W 088 45 09.060	-4836	7876	N/A
N/A	N/A	N/A	N/A	TLD-31	Boldry School Road straight through gravel road, turn right at Tract 6 gate, turn left at intersection, back to circle at dirt road, (L241) about 30 feet off road in a tree. Top of hill at pipeline in tree. (Green Scorpion)	N 37 09 02.580	W 088 47 25.620	-3201	12751	N/A
N/A	N/A	N/A	N/A	TLD-32	Boldry School Road, past Ducks Unlimited Area on Tract 6, located in a tree on the side of the road. South Dead Dog Rd in tree East side of road. 30 yds prior to Tract 6 Sign	N 37 09 50.040	W 088 48 03.480	-5489	15453	N/A
N/A	N/A	N/A	N/A	TLD-33	Harmony Cemetery off Dykes Road behind PGDP, on the large tree in the center	N 37 07 17.580	W 088 48 12.540	-2886	1553	N/A
N/A	N/A	N/A	N/A	TLD-34	Dykes Road back side of PGDP, across from Monitoring Well 145, Monitoring Well 144 on the gravel road	N 37 06 58.440	W 088 48 52.320	-779	940	N/A
01/11/2018 09:43 7635-642	JW	4/10/2018 9:06	JW	TLD-35	Outfall 017 off of Plant Access Road. Outfall 017 DUF6 laydown yard	N 37 06 21.480	W 088 49 03.960	-4773	-5806	N/A

1st Quarter CY 2018 TLD Location Information

Date/Time Issued/Badge ID	Issued By	Date/Time Collected	Collected By	Location Name	Description	NorthLong	West or East Lat	Xcoord	Ycoord	Comments
N/A	N/A	N/A	N/A	TLD-36	PGDP plant access road, turn at DOE, turn towards Northwest Plume facility, turn towards landfill (C-746-K) at creek on road and the end of the bridge.	N 37 06 50.640	W 088 49 23.040	-7321	-2865	N/A
01/11/2018 10:14 7636-643	JW	4/10/2018 9:37	JW	TLD-37	KPDES Outfall 001 behind Vortec facility K001	N 37 07 18.600	W 088 49 15.660	-8202	138	N/A
01/11/2018 15:42 7637-644	JW	4/10/2018 14:01	JW	TLD-38	Five-Points Creek with concrete bridge, on tree behind 2A sign.	N 37 06 43.320	W 088 50 09.000	-10630	-4528	N/A
N/A	N/A	N/A	N/A	TLD-39	Outfall 10 off Dykes Road near C-755 complex. Outfall 010	N 37 06 33.540	W 088 48 00.900	-612.5	-2231.25	N/A
01/11/2018 08:36 7638-645	JW	4/10/2018 8:34	JW	TLD-40	Turn north on Kelly Road off Woodville Road, go about 1/2 mile on Kelly road and turn left, go about 1/2 miles, TLD placed in trees on left. Orange sign on blocked road, east of 57 off Dykes Rd.	N 37 05 52.200	W 088 48 52.20	-2818	-7551	N/A
N/A	N/A	N/A	N/A	TLD-41	Acid Road near old monitoring well past bridge. Acid Rd by COE monitoring well.	N 37 06 07.800	W 088 50 18.360	-10116	-6298	N/A
N/A	N/A	N/A	N/A	TLD-42	Ogden Landing Road, past landfill, at Northeast Plume, on "No Trespassing" sign	N 37 06 55.380	W 088 47 19.080	-1219	-1701	N/A
N/A	N/A	N/A	N/A	TLD-43	Monitoring Well 98 on road past landfill, in the trees	N 37 08 12.240	W 088 47 50.700	-3125	-6568	N/A
N/A	N/A	N/A	N/A	TLD-44	Outside security fence west of Lasagna site on the corner post of posted area - southeast corner	N 37 07 08.880	W 088 49 12.780	-7337	-1591	N/A
N/A	N/A	N/A	N/A	TLD-45	At C-743 trailer complex at walk-in gate	N 37 06 45.900	W 088 49 04.620	-7337	-474	N/A

1st Quarter CY 2018 TLD Location Information

Date/Time Issued/Badge ID	Issued By	Date/Time Collected	Collected By	Location Name	Description	NorthLong	West or East Lat	Xcoord	Ycoord	Comments
01/11/2018 09:53 7639-646	JW	4/10/2018 9:12	JW	TLD-46	Truck entrance at receiving C-720	N 37 06 44.700	W 088 49 00.120	-5198	-2865	NA
N/A	N/A	N/A	N/A	TLD-47	Tree line south of C-745-T Cylinder Storage Yard. First road on left on Dykes Rd past 57. Last tree on right before clearing	N 37 06 00.300	W 088 48.49.380	-3156	-6777	N/A
N/A	N/A	N/A	N/A	TLD-48	Tree line along the security fence east of C-745-H. Gate 44 road, NE corner of fence	N 37 07 06.60	W 088 47.53.82	-1225	1064	N/A
N/A	N/A	N/A	N/A	TLD-49	Outfall 001 Posted Area. Power pole North C-612 T1	N 37 07 26.52	W 088 49.04.92	-7325	984	N/A
01/11/2018 10:08 7640-647 2884	JW	4/10/2018 9:31	JW	TLD-50	West Patrol Road fence across from C-745-A	N 37 07 02.88	W 088 49.15.18	-7287	-1547	N/A
N/A	N/A	N/A	N/A	TLD-51	Outfall 015 Posted Area	N 37 07 07.02	W 088 49.13.68	-7316	-1112	N/A
01/11/2018 07:53 7641-648	JW	4/9/2018 14:52	JW	TLD-52	East Patrol Road fence across from C-745-E.	N 37 06 42.18	W 088 48.07.20	-1397	-1628	N/A
01/11/2018 09:06 7642-649	JW	4/10/2018 8:43	JW	TLD-53	Security fence at southeast corner of C-745-T Yard. Down fence line away from TLD-2.	N 37 06 00.42	W 088 48.37.02	-2220	-6423	N/A
01/18/2018 05:30 7643-650	KA	4/4/2018 16:00	KA	TLD-54	Residence; Jalusian Trail	N 57 87 72.16	E 23 93 13.48	45296	-25254	N/A
N/A	N/A	N/A	N/A	TLD-55	C-410/420 Office/BCS	N 59 10 67.99	E 22 80 74.83	-3963	-1574	Discontinued 7/10/2014
N/A	N/A	N/A	N/A	TLD-56	O/S C-410 Truck Alley Facing C-412	N 59 09 84.68	E 22 81 16.67	-3733	-1776	N/A
N/A	N/A	N/A	N/A	TLD-57	C-340 Foyer	N 59 04 60.56	E 22 85 14.19	-1882	-2886	N/A
01/11/2018 07:45 7644-651	JW	4/9/2018 14:45	JW	TLD-58	West Central C-755 Complex	N 59 07 98.00	E 22 88 70.74	-1209	-1422	N/A
01/17/2018 12:50 7645-652	JW	4/10/2018 14:28	JW	TLD-59	C-752A Break Area	N 59 15 61.62	E 22 78 55.79	-5234	-339	N/A
01/17/2018 12:30 7646-653	JW	4/10/2018 14:37	JW	TLD-60	C-333A Light Pole on Fence Pole #16	N 59 02 07.10	E 22 80 71.62	-2919	-4199	N/A

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1st Quarter CY 2018 TLD Location Information

Date/Time Issued/Badge ID	Issued By	Date/Time Collected	Collected By	Location Name	Description	NorthLong	West or East Lat	Xcoord	Ycoord	Comments
01/17/2018 12:35 7647-654	JW	4/10/2018 14:42	JW	TLD-61	West of C-746Q Light Pole #14	N 59 01 58.14	E 22 80 98.35	-2778	-4315	N/A
01/17/2018 13:05 7648-655	JW	4/10/2018 14:33	JW	TLD-62	C-743 Trailer Complex Light Pole #336,behind Trailer #3.	N 59 10 20.18	E 22 73 49.81	-6111	-2607	N/A
01/17/2018 13:30 7649-656	JW	4/10/2018 14:46	JW	TLD-63	C-412 HP Break Trailer	N 59 08 36.46	E 22 79 46.95	-4069	-2435	N/A
01/11/2018 10:43 7650-657	JW	4/10/2018 10:05	JW	TLD-64	C-764 T-6 Trailer	N 59 11 77.55	E 22 70 88.88	-7098	-2447	N/A
01/11/2018 08:29 7651-658 2885	JW	4/9/2018 15:35	JW	TLD-65	Located O/S of North Security fence North of C-745H Cylinder Yard; South of C-762 Laydown Yard	N 37 07 08.54386	W 088 48 00.45376	-1795	1062	N/A
01/11/2018 08:13 7652-659	JW	4/9/2018 15:15	JW	TLD-66	Located on tree @Southeast corner of New Harmony Cemetery; adjacent to last concrete barrier & large metal post	N 37 07 15.80859	W 088 48 11.08836	-2856	1457	N/A
01/11/2018 8:10 7653-660	JW	4/9/2018 15:04	JW	TLD-67	Located on "No Trespassing" sign North side of Dykes Rd next to Security Fence North of C-762 Laydown yard	N 37 07 12.70502	W 088 47 56.75697	-1658	1560	N/A
01/11/2018 10:12 7654-661 2886	JW	4/10/2018 9:35	JW	TLD-68	West Security Fence West of C-745B Cylinder Yard & Southeast of Vortec Site	N 37 07 11.60797	W 088 49 11.43416	-7302	-617	N/A
01/11/2018 09:59 7655-662	JW	4/10/2018 9:26	JW	TLD-69	Wooden utility pole (T12-15 H) next to gravel road @Northeast corner of pond North of C-611	N 37 07 13.70394	W 088 49 28.37928	-8664	-888	N/A
01/11/2018 09:38 7656-663	JW	4/10/2018 9:02	JW	TLD-70	O/S of West Security Fence Southeast of C-333 midway between C810 parking area & North DUF6 Security Fence	N 37 06 27.82855	W 088 48 50.25203	-4173	-4189	N/A
01/11/2018 09:33 7657-664	JW	4/10/2018 8:59	JW	TLD-71	O/S of West Security Fence of DuF6 under security light, Northeast of wooden utility pole (11056 KU 78487)	N 37 06 23.05971	W 088 48 59.65074	-4723	-4903	N/A

1st Quarter CY 2018 TLD Location Information

Date/Time Issued/Badge ID	Issued By	Date/Time Collected	Collected By	Location Name	Description	NorthLong	West or East Lat	Xcoord	Ycoord	Comments
01/11/2018 09:18 7658-665	JW	4/10/2018 8:47	JW	TLD-72	North Side of Air Monitoring Station AMD57, Northwest of Post 57	N 37 05 55.32798	W 088 49 15.28582	-4952	-7972	N/A
01/11/2018 15:49 7659-666	JW	4/10/2018 14:12	JW	TLD-73	Eastern "Railroad Crossing" sign @train tracks on Acid Road	N 37 06 06.14205	W 088 50 02.01070	-8883	-8241	N/A
01/11/2018 13:41 7660-667	JW	4/10/2018 12:05	JW	TLD-74	Located on "Warning Siren" sign @turnoff North of Magruder & Woodville intersection	N 37 05 10.96196	W 088 48 53.61411	-1765	-11586	N/A
01/11/2018 13:44 7661-668	JW	4/10/2018 12:09	JW	TLD-75	Located on "Warning Siren" sign @North of Kelley Rd & Woodville Rd intersection	N 37 05 04.94525	W 088 48 26.65157	496	-11409	N/A
01/24/2018 08:30 7662-669	JW	4/10/2018 12:15	JW	TLD-76	Located on "Tract A" sign below power lines southside of Kelley Rd in sharp curve between Woodville & McCaw Rds	N 37 05 55.05466	W 088 48 06.27328	310	-6082	N/A
01/11/2018 13:54 7663-670	JW	4/10/2018 12:19	JW	TLD-77	Located on "Warning Siren" sign North side of McCaw Rd east of Kelley Rd intersection	N 37 06 25.46598	W 088 47 33.66599	1737	-2287	N/A
01/11/2018 14:36 7664-671	JW	4/10/2018 13:05	JW	TLD-78	Northeast Corner of C-746U Landfill Security Fence	N 37 07 54.00752	W 088 47 37.45924	-1622	6020	N/A
01/11/2018 10:22 7665-672	JW	4/10/2018 9:43	JW	TLD-79	Located on left post of the "Wildlife Management" gate on New Waterline Rd Southwest of Plant gate 41A west of C-612	N 37 07 28.86304	W 88 49 12.50003	-7981	993	N/A
01/11/2018 14:54 7666-673	JW	4/10/2018 13:20	JW	TLD-80	Located on "Cattle" gate west of MW 453 & MW 454 on gravel rd east of New Waterline Rd	N 37 07 47.29850	W 088 48 46.10944	-6612	3477	N/A

1st Quarter CY 2018 TLD Location Information

Date/Time Issued/Badge ID	Issued By	Date/Time Collected	Collected By	Location Name	Description	NorthLong	West or East Lat	Xcoord	Ycoord	Comments
01/11/2018 09:25 7667-674 2887	JW	4/10/2018 8:57	JW	TLD-81	Southeast corner of DuF6 security fence next to gate V1 East of New Waterline East of C1100	N 37 06 18.33947	W 088 48 56.42591	-4314	-5262	N/A
01/11/2018 08:41 7668-675	JW	4/9/2018 15:47	JW	TLD-82	Short wooden pole East of Dykes Rd North of Outfall 13	N 37 06 10.13175	W 088 48 13.53048	-765	-4851	N/A
01/11/2018 08:49 7669-676 2888	JW	4/10/2018 8:18	JW	TLD-83	Large metal power pole West of Dykes Rd South of Outfall 13	N 37 06 07.30640	W 088 48 20.71726	-1214	-5319	N/A
01/11/2018 08:06 7670-677	JW	4/9/2018 15:00	JW	TLD-84	Located @MW496 on the East Side of Dykes Rd	N 37 07 03.50589	W 088 47 49.26485	-769	894	N/A
01/17/2018 17:00 7671-678	SO	4/4/2018 17:00	SO	TLD-85	Residence; corner of Springwell and Buckner Lane	N 37 03 27.9036	W 088 40 43.9638	39082	-7750	N/A
01/11/2018 13:30 7672-679	JW	4/10/2018 12:03	JW	TLD-86	Plant Entrance, Gravel Construction Rd. Right side on orange warning signal sign	N 37° 5' 18.8622"	W 088 49 28.2282	-4676	-11794	N/A
01/11/2018 15:43 7673-680	JW	4/10/2018 14:17	JW	TLD-87	KOW Entrance north of Woodville Rd north of Kevil Eagles. Right side on orange warning signal sign	N 37 05 24.2802	W 088 50 43.9548	-10629	-13381	N/A
01/11/2018 15:11 7674-681	JW	4/10/2018 13:44	JW	TLD-88	Bethel Church Road KOW entrance. North of Massay Rd, right side on yellow post	N 37 07 05.4876	W 088 50 37.9608	-13677	-3597	N/A
01/11/2018 15:06 7675-682	JW	4/10/2018 13:32	JW	TLD-89	Bobo Rd, off of Bethel Church Rd. Continue east 200 yds past end of asphalt. At intersection on orange warning signal sign	N 37 07 35.9976	W 088 49 44.3922	-10657	788	N/A
01/11/2018 14:58 7676-683	JW	4/10/2018 13:27	JW	TLD-90	Bridge on Ogden Landing Rd east of Lamb's garage. On NE corner of bridge on contaminated creek sign	N 37 08 54.6714	W 088 47 27.2472	-12310	7182	N/A

1st Quarter CY 2018 TLD Location Information

Date/Time Issued/Badge ID	Issued By	Date/Time Collected	Collected By	Location Name	Description	NorthLong	West or East Lat	Xcoord	Ycoord	Comments
01/11/2018 14:42 7677-684	JW	4/10/2018 13:11	JW	TLD-91	Boldry School Rd on KOW at Shawnee plant entrance. On cattle gate road on hill, right side	N 37 08 40.9884	W 088 49 36.5232	-2952	12069	N/A
01/11/2018 14:19 7678-685	JW	4/10/2018 12:40	N/A	TLD-92	Anderson Road off Metropolis Lake Rd. follow West until road ends @Railroad tracks. On left crossing gate post.	N 37 07 42.7866	W 088 46 17.1438	1392	8745	N/A
01/11/2018 14:03 7679-686	JW	4/10/2018 12:29	JW	TLD-93	MW 100, North on Metropolis Lake Rd past railroad tracks on left side on Well bollard	N 37 08 09.0744	W 088 46 50.9304	4874	7186	N/A
01/11/2018 14:26 7680-687	JW	4/10/2018 12:51	JW	TLD-94	Residence; corner of Ogden Landing Rd & Metropolis Lake Rd	N 37 05 48.9294	W 088 47 12.4332	4740	436	N/A
01/11/2018 13:58 7681-688	JW	4/10/2018 12:23	JW	TLD-95	West McCracken Health Clinic, Metropolis Lake Rd. On Light Pole in SW corner of parking lot	N 37 06 40.5468	W 088 46 47.2872	4617	-5167	N/A
01/11/2018 16:00 7682-689	JW	4/10/2018 15:00	JW	TLD-FB	Taken along while placing and collecting all other samples - stored in "lead box" at C-101 Dosimetry office	N/A	N/A	NA	NA	N/A
01/11/2018 07:00 7683-690	JW	4/9/2017 7:00	JW	TLD-TB	Stored in "lead box" at C-101 Dosimetry office	N/A	N/A	NA	NA	N/A
7684-691	JW	N/A	N/A	SPARE	Lead Box in C-101 Dosimetry office	N/A	N/A	N/A	N/A	N/A
7685-692	JW	N/A	N/A	SPARE	Lead Box in C-101 Dosimetry office	N/A	N/A	N/A	N/A	N/A
7686-693	JW	N/A	N/A	SPARE	Lead Box in C-101 Dosimetry office	N/A	N/A	N/A	N/A	N/A
7687-694	JW	N/A	N/A	SPARE	Lead Box in C-101 Dosimetry office	N/A	N/A	N/A	N/A	N/A
7688-695	JW	N/A	N/A	SPARE	Lead Box in C-101 Dosimetry office	N/A	N/A	N/A	N/A	N/A

1st Quarter CY 2018 TLD Location Information

Date/Time Issued/Badge ID	Issued By	Date/Time Collected	Collected By	Location Name	Description	NorthLong	West or East Lat	Xcoord	Ycoord	Comments
7689-696	JW	N/A	N/A	SPARE	Lead Box in C-101 Dosimetry office	N/A	N/A	N/A	N/A	N/A

2nd Quarter CY 2018 TLD Location Information

Date/Time Issued/Badge ID	Issued By	Date/Time Collected	Collected By	Location Name	Description	NorthLong	West or East Lat	Xcoord	Ycoord	Comments
04/10/2018 08:50 9930-625	JW	7/2/2018 8:15	JW	TLD-1	PGDP security fence west of C-745-M near intersection of Patrol Road and Alabama Avenue near pole 21-20. Outside fence behind DuF6 dirt pile	N 37 06 16.66	W 088 48 55.18	-4172	-5856	N/A
04/10/2018 08:33 9931-626 2882	JW	7/2/2018 14:22	JW	TLD-2	PGDP security fence south of C-745-T near pole T20-6J. South Cylinder Yard perimeter fence	N 37 06 02.15	W 088 48 43.07	-2740	-6427	N/A
04/09/2018 15:30 9932-627 2883	JW	7/2/2018 7:34	JW	TLD-3	PGDP security fence east of C-745-H near pole 23-31. Perimeter fence NE corner	N 37 07 04.17	W 088 47 57.21	-1399	739	N/A
04/10/2018 09:54 9933-628	JW	7/2/2018 9:01	JW	TLD-4	North PGDP security fence near North-South Diversion Ditch.	N 37 07 15.74	W 088 48 25.56	-3957	1052	N/A
04/10/2018 09:46 9934-629	JW	7/2/2018 8:57	JW	TLD-5	North PGDP security fence north of C-747-A near pole T53A1P26G. North perimeter fence between lagoon	N 37 07 24.38	W 088 48 54.58	-6464	1068	N/A
04/10/2018 09:40 9935-630	JW	7/2/2018 8:53	JW	TLD-6	West PGDP security fence west of C-746-P1 near pole 22-4. 612 perimeter fence.	N 37 07 20.85	W 088 49 07.22	-7303	382	N/A
04/10/2018 09:10 9936-631	JW	7/2/2018 8:32	JW	TLD-7	PGDP perimeter fence adjacent to Curlee Road near entrance to DOE building (C-103). Perimeter fence across from entrance to DOE bldg.	N 37 06 29.15	W 088 49 02.49	-5153	-4400	N/A
N/A	N/A	N/A	N/A	TLD-8	Fence around U.S.G.S. stream gauging station at Bayou Creek and South Acid Road. USGS fence West 57 Acid Rd.	N 37 05 57.76	W 088 49 28.04	-6011	-8091	N/A

2nd Quarter CY 2018 TLD Location Information

Date/Time Issued/Badge ID	Issued By	Date/Time Collected	Collected By	Location Name	Description	NorthLong	West or East Lat	Xcoord	Ycoord	Comments
04/10/2018 14:08 9937-632	JW	7/2/2018 13:25	JW	TLD-9	Northeast corner of fence of old KOW water treatment plant, near Monitoring Well 309. Gate to MW305	N 37 06 37.12	W 088 49 48.11	-8901	-4907	N/A
N/A	N/A	N/A	N/A	TLD-10	Outfall 011 - hung from side of outfall sampling platform at about foot level, pole T19-15E. Gate Outfall 011	N 37 06 27.22	W 088 48 03.56	-602	-2948	N/A
N/A	N/A	N/A	N/A	TLD-11	Institutional controls fence on north side of McCall Road at Little Bayou Creek crossing. Little Bayou Creek & McCaw Rd.	N 37 06 28.88	W 088 47 41.08	1052	-2167	N/A
04/10/2018 12:51 9938-633	JW	7/2/2018 12:23	JW	TLD-12	Institutional controls fence near Monitoring Well 191 where Little Bayou Creek crosses Hwy 358. MW191, Little Bayou & Ogden Landing Rd.	N 37 06 49.62	W 088 47 11.44	2588	626	N/A
04/10/2018 12:59 9939-634	JW	7/2/2018 12:28	JW	TLD-13	West fence of C-746-U landfill near entrance gate. Institutional controls fence	N 37 07 48.17	W 088 48 00.61	-3182	4825	N/A
04/09/2018 15:21 9940-635	JW	7/2/2018 7:31	JW	TLD-14	along North-South Diversion Ditch on west side of 14th street extension near Highway 358 (K003). Fence at North South ditch, north of MW353	N 37 07 29.75	W 088 48 10.58	-3302	2798	N/A
04/09/2018 14:49 9941-636	JW	7/2/2018 7:22	JW	TLD-15	Northeast corner of C-755 fence behind C-755-D	N 37 06 45.01	W 088 47 58.91	-864	-1129	N/A

2nd Quarter CY 2018 TLD Location Information

Date/Time Issued/Badge ID	Issued By	Date/Time Collected	Collected By	Location Name	Description	NorthLong	West or East Lat	Xcoord	Ycoord	Comments
04/10/2018 13:18 9942-637	JW	7/2/2018 12:46	JW	TLD-16	WKWMA Clubhouse on northwest corner porch post. On porch WKWMA Headquarters.	N 37 07 59.44	W 088 48 49.76	-7311	4533	N/A
N/A	N/A	N/A	N/A	TLD-17	Suspended from the U.S.G.S. stream gauging station about 3 feet below the north side of the Highway 358 bridge over Big Bayou Creek. USGS at Big Bayou Creek Bridge by Lambs Garage	N 37 08 41.09	W 088 49 37.27	-12368	7174	N/A
N/A	N/A	N/A	N/A	TLD-18	Suspended about 3 feet below the U.S.G.S. stream gauging station platform at Little Bayou Creek and Anderson Road. USGS at Iron Bridge Little Bayou Creek. Right @ Tract 5 4-way Stop	N 37 08 22.09	W 088 47 25.71	-1702	9016	N/A
04/10/2018 13:50 9943-638	JW	7/2/2018 13:17	JW	TLD-19	Passed pond on right "A" sign next to MW 426	N 37 07 24.43	W 088 49 33.11	-9398	2	N/A
N/A	N/A	N/A	N/A	TLD-20	Center of fence at north side of water treatment plant	N 37 06 59.83	W 088 49 36.29	-8788	-2421	N/A
N/A	N/A	N/A	N/A	TLD-21	Residence, Oaks Road, Paducah, Kentucky	N 36 58 12.77	W 088 32 52.01	85990	-24497	N/A
04/10/2018 10:26 9944-639	JW	7/2/2018 9:34	JW	TLD-22	Outside of the fence of the locked air sampling station at the rear corner of the Bethel Cumberland Presbyterian Church Cemetery	N 37 00 05.36	W 088 52 36.29	-8159	-46801	N/A
N/A	N/A	N/A	N/A	TLD-23	Outside of the fence of the locked air sampling station at the northwest corner of the Heath ballpark fields	N 37 05 50.80	W 088 46 57.78	5667	-4583	N/A

2nd Quarter CY 2018 TLD Location Information

Date/Time Issued/Badge ID	Issued By	Date/Time Collected	Collected By	Location Name	Description	NorthLong	West or East Lat	Xcoord	Ycoord	Comments
N/A	N/A	N/A	N/A	TLD-24	BJC Kevill facility on stairway handrail outside southwest corner of building	N 37 04 39.52	W 088 52 51.97	N/A	N/A	N/A
04/10/2018 08:22 9945-640	JW	7/2/2018 14:10	JW	TLD-25	On power line tower nearest Dykes Road southeast of C-745-T	N 37 06 00.02	W 088 48 26.49	-1401	-6172	N/A
N/A	N/A	N/A	N/A	TLD-26	Massac Creek to left of path in tree. Highway 62 Bridge past Sunshine Dairy	N 36 57 31.92	W 088 25 13.90	122314	-15495	N/A
N/A	N/A	N/A	N/A	TLD-27	"Do not block entrance" sign on Plant Access Road near Post 15 and motorcycle parking area (C-800). Motorcycle Shed, Post 15	N 37 06 40.78	W 088 48 54.33	-4883	-3431	N/A
N/A	N/A	N/A	N/A	TLD-28	Bethel Church Road, turn right on Bobo Road, left on intersection, located in trees at Monitoring Well 194. Sign near staircase on Big Bayou, MW194	N 37 07 44.580	W 088 49 34.140	-10105	1884	N/A
N/A	N/A	N/A	N/A	TLD-29	First bunker off Ogden Landing Road, across from WKWMA Clubhouse, placed at the back side rafter, inside the window on the overhang. Inside the bunker, south of horse barn, west wall	N 37 07 55.380	W 088 48 41.820	-6503	4306	N/A

2nd Quarter CY 2018 TLD Location Information

Date/Time Issued/Badge ID	Issued By	Date/Time Collected	Collected By	Location Name	Description	NorthLong	West or East Lat	Xcoord	Ycoord	Comments
4/10/2018 13:14 9946-641	JW	7/2/2018 12:42	JW	TLD-30	Take the road by the PGDP landfills, drive past Monitoring Well 98, turn left at three-way, Monitoring Well 235 intersection at Tract 7 sign. The TLD is hung on the inside of the sign. Boldry School Rd., Tract 7 sign, west of MW381	N 37 08 21.060	W 088 45 09.060	-4836	7876	N/A
N/A	N/A	N/A	N/A	TLD-31	Boldry School Road straight through gravel road, turn right at Tract 6 gate, turn left at intersection, back to circle at dirt road, (L241) about 30 feet off road in a tree. Top of hill at pipeline in tree. (Green Scorpion)	N 37 09 02.580	W 088 47 25.620	-3201	12751	N/A
N/A	N/A	N/A	N/A	TLD-32	Boldry School Road, past Ducks Unlimited Area on Tract 6, located in a tree on the side of the road. South Dead Dog Rd in tree East side of road. 30 yds prior to Tract 6 Sign	N 37 09 50.040	W 088 48 03.480	-5489	15453	N/A
N/A	N/A	N/A	N/A	TLD-33	Harmony Cemetery off Dykes Road behind PGDP, on the large tree in the center	N 37 07 17.580	W 088 48 12.540	-2886	1553	N/A
N/A	N/A	N/A	N/A	TLD-34	Dykes Road back side of PGDP, across from Monitoring Well 145, Monitoring Well 144 on the gravel road	N 37 06 58.440	W 088 48 52.320	-779	940	N/A
04/10/2018 09:06 9947-642	JW	7/2/2018 8:29	JW	TLD-35	Outfall 017 off of Plant Access Road. Outfall 017 DuF6 laydown yard	N 37 06 21.480	W 088 49 03.960	-4773	-5806	N/A

2nd Quarter CY 2018 TLD Location Information

Date/Time Issued/Badge ID	Issued By	Date/Time Collected	Collected By	Location Name	Description	NorthLong	West or East Lat	Xcoord	Ycoord	Comments
N/A	N/A	N/A	N/A	TLD-36	PGDP plant access road, turn at DOE, turn towards Northwest Plume facility, turn towards landfill (C-746-K) at creek on road and the end of the bridge. Randy Bridge	N 37 06 50.640	W 088 49 23.040	-7321	-2865	N/A
04/10/2018 09:37 9948-643	JW	7/2/2018 8:49	JW	TLD-37	KPDES Outfall 001 behind Vortec facility. K001	N 37 07 18.600	W 088 49 15.660	-8202	138	N/A
04/10/2018 14:01 9949-644	JW	7/2/2018 13:22	JW	TLD-38	Five-Points Creek with concrete bridge, on tree behnd 2A sign.	N 37 06 43.320	W 088 50 09.000	-10630	-4528	N/A
N/A	N/A	N/A	N/A	TLD-39	Outfall 10 off Dykes Road near C-755 complex. Outfall 010	N 37 06 33.540	W 088 48 00.900	-612.5	-2231.25	N/A
04/10/2018 08:34 9950-645	JW	7/2/2018 7:56	JW	TLD-40	Turn north on Kelly Road off Woodville Road, go about 1/2 mile on Kelly road and turn left, go about 1/2 miles, TLD placed in trees on left. Orange sign on blocked road, east of 57 off Dykes Rd.	N 37 05 52.200	W 088 48 52.20	-2818	-7551	N/A
N/A	N/A	N/A	N/A	TLD-41	Acid Road near old monitoring well past bridge. Acid Rd by COE monitoring well.	N 37 06 07.800	W 088 50 18.360	-10116	-6298	N/A
N/A	N/A	N/A	N/A	TLD-42	Ogden Landing Road, past landfill, at Northeast Plume, on "No Trespassing" sign	N 37 06 55.380	W 088 47 19.080	-1219	-1701	N/A
N/A	N/A	N/A	N/A	TLD-43	Monitoring Well 98 on road past landfill, in the trees	N 37 08 12.240	W 088 47 50.700	-3125	-6568	N/A

2nd Quarter CY 2018 TLD Location Information

Date/Time Issued/Badge ID	Issued By	Date/Time Collected	Collected By	Location Name	Description	NorthLong	West or East Lat	Xcoord	Ycoord	Comments
N/A	N/A	N/A	N/A	TLD-44	Outside security fence west of Lasagna site on the corner post of posted area - southeast corner	N 37 07 08.880	W 088 49 12.780	-7337	-1591	N/A
N/A	N/A	N/A	N/A	TLD-45	At C-743 trailer complex at walk-in gate	N 37 06 45.900	W 088 49 04.620	-7337	-474	N/A
04/10/2018 09:12 9951-646	JW	7/2/2018 8:36	JW	TLD-46	Truck entrance at receiving C-720	N 37 06 44.700	W 088 49 00.120	-5198	-2865	NA
N/A	N/A	N/A	N/A	TLD-47	Tree line south of C-745-T Cylinder Storage Yard. First road on left on Dykes Rd past 57. Last tree on right before clearing	N 37 06 00.300	W 088 48.49.380	-3156	-6777	N/A
N/A	N/A	N/A	N/A	TLD-48	Tree line along the security fence east of C-745-H. Gate 44 road, NE corner of fence	N 37 07 06.60	W 088 47.53.82	-1225	1064	N/A
N/A	N/A	N/A	N/A	TLD-49	Outfall 001 Posted Area. Power pole North C-612 T1	N 37 07 26.52	W 088 49.04.92	-7325	984	N/A
04/10/2018 09:31 9952-647 2884	JW	7/2/2018 8:46	JW	TLD-50	West Patrol Road fence across from C-745-A	N 37 07 02.88	W 088 49.15.18	-7287	-1547	N/A
N/A	N/A	N/A	N/A	TLD-51	Outfall 015 Posted Area	N 37 07 07.02	W 088 49.13.68	-7316	-1112	N/A
04/09/2018 14:52 9953-648	JW	7/2/2018 7:10	JW	TLD-52	East Patrol Road fence across from C-745-E.	N 37 06 42.18	W 088 48.07.20	-1397	-1628	N/A
04/10/2018 08:43 9954-649	JW	7/2/2018 14:27	JW	TLD-53	Security fence at southeast corner of C-745-T Yard. Down fence line away from TLD-2.	N 37 06 00.42	W 088 48.37.02	-2220	-6423	N/A
04/04/2018 16:00 9955-650	KA	7/2/2018 10:28	KA	TLD-54	Residence; Jalusian Trail	N 57 87 72.16	E 23 93 13.48	45296	-25254	N/A
N/A	N/A	N/A	N/A	TLD-55	C-410/420 Office/BCS	N 59 10 67.99	E 22 80 74.83	-3963	-1574	Discontinued 7/10/2014

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2nd Quarter CY 2018 TLD Location Information

Date/Time Issued/Badge ID	Issued By	Date/Time Collected	Collected By	Location Name	Description	NorthLong	West or East Lat	Xcoord	Ycoord	Comments
N/A	N/A	N/A	N/A	TLD-56	O/S C-410 Truck Alley Facing C-412	N 59 09 84.68	E 22 81 16.67	-3733	-1776	N/A
N/A	N/A	N/A	N/A	TLD-57	C-340 Foyer	N 59 04 60.56	E 22 85 14.19	-1882	-2886	N/A
04/09/2018 14:45 9956-651	JW	7/2/2018 7:15	JW	TLD-58	West Central C-755 Complex	N 59 07 98.00	E 22 88 70.74	-1209	-1422	N/A
04/10/2018 14:28 9957-652	JW	7/3/2018 7:15	JW	TLD-59	C-752A Break Area	N 59 15 61.62	E 22 78 55.79	-5234	-339	N/A
04/10/2018 14:37 9958-653	JW	7/2/2018 15:13	JW	TLD-60	C-333A Light Pole on Fence Pole #16	N 59 02 07.10	E 22 80 71.62	-2919	-4199	N/A
04/10/2018 14:42 9959-654	JW	7/2/2018 15:14	JW	TLD-61	West of C-746Q Light Pole #14	N 59 01 58.14	E 22 80 98.35	-2778	-4315	N/A
04/10/2018 14:33 9960-655	JW	7/2/2018 15:27	JW	TLD-62	C-743 Trailer Complex Light Pole #336, behind Trailer #3.	N 59 10 20.18	E 22 73 49.81	-6111	-2607	N/A
04/10/2018 14:46 9961-656	JW	7/2/2018 15:32	JW	TLD-63	C-412 HP Break Trailer	N 59 08 36.46	E 22 79 46.95	-4069	-2435	N/A
04/10/2018 10:05 9962-657	JW	7/2/2018 9:13	JW	TLD-64	C-764 T-6 Trailer	N 59 11 77.55	E 22 70 88.88	-7098	-2447	N/A
04/09/2018 15:35 9963-658 2885	JW	7/2/2018 7:39	JW	TLD-65	Located O/S of North Security fence North of C-745H Cylinder Yard; South of C-762 Laydown Yard	N 37 07 08.54386	W 088 48 00.45376	-1795	1062	N/A
04/09/2018 15:15 9964-659	JW	7/2/2018 7:28	JW	TLD-66	Located on tree @Southeast corner of New Harmony Cemetery; adjacent to last concrete barrier & large metal post	N 37 07 15.80859	W 088 48 11.08836	-2856	1457	N/A
04/09/2018 15:04 9965-660	JW	7/2/2018 7:27	JW	TLD-67	Located on "No Trespassing" sign North side of Dykes Rd next to Security Fence North of C-762 Laydown yard	N 37 07 12.70502	W 088 47 56.75697	-1658	1560	N/A

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2nd Quarter CY 2018 TLD Location Information

Date/Time Issued/Badge ID	Issued By	Date/Time Collected	Collected By	Location Name	Description	NorthLong	West or East Lat	Xcoord	Ycoord	Comments
04/10/2018 09:35 9966-661 2886	JW	7/2/2018 8:48	JW	TLD-68	West Security Fence West of C-745B Cylinder Yard & Southeast of Vortec Site	N 37 07 11.60797	W 088 49 11.43416	-7302	-617	N/A
04/10/2018 09:26 9967-662	JW	7/2/2018 8:41	JW	TLD-69	Wooden utility pole (T12-15 H) next to gravel road @Northeast corner of pond North of C-611	N 37 07 13.70394	W 088 49 28.37928	-8664	-888	N/A
04/10/2018 09:02 9968-663	JW	7/2/2018 8:25	JW	TLD-70	O/S of West Security Fence Southeast of C-333 midway between C810 parking area & North DuF6 Security Fence	N 37 06 27.82855	W 088 48 50.25203	-4173	-4189	N/A
04/10/2018 08:59 9969-664	JW	7/2/2018 8:22	JW	TLD-71	O/S of West Security Fence of DuF6 under security light, Northeast of wooden utility pole (11056 KU 78487)	N 37 06 23.05971	W 088 48 59.65074	-4723	-4903	N/A
04/10/2018 08:47 9970-665	JW	7/2/2018 8:12	JW	TLD-72	North Side of Air Monitoring Station AMD57, Northwest of Post 57	N 37 05 55.32798	W 088 49 15.28582	-4952	-7972	N/A
04/10/2018 14:12 9971-666	JW	7/2/2018 13:31	JW	TLD-73	Eastern "Railroad Crossing" sign @train tracks on Acid Road	N 37 06 06.14205	W 088 50 02.01070	-8883	-8241	N/A
04/10/2018 12:05 9972-667	JW	7/2/2018 11:57	JW	TLD-74	Located on "Warning Siren" sign @turnoff North of Magruder & Woodville intersection	N 37 05 10.96196	W 088 48 53.61411	-1765	-11586	N/A
04/10/2018 12:09 9973 668	JW	7/2/2018 12:00	JW	TLD-75	Located on "Warning Siren" sign @North of Kelley Rd & Woodville Rd intersection	N 37 05 04.94525	W 088 48 26.65157	496	-11409	N/A
04/10/2018 12:15 9974-669	JW	7/2/2018 12:04	JW	TLD-76	Located on "Tract A" sign below power lines southside of Kelley Rd in sharp curve between Woodville & McCaw Rds	N 37 05 55.05466	W 088 48 06.27328	310	-6082	N/A

2nd Quarter CY 2018 TLD Location Information

Date/Time Issued/Badge ID	Issued By	Date/Time Collected	Collected By	Location Name	Description	NorthLong	West or East Lat	Xcoord	Ycoord	Comments
04/10/2018 12:19 9975-670	JW	7/2/2018 12:08	JW	TLD-77	Located on "Warning Siren" sign North side of McCaw Rd east of Kelley Rd intersection	N 37 06 25.46598	W 088 47 33.66599	1737	-2287	N/A
04/10/2018 13:05 9976-671	JW	7/2/2018 12:30	JW	TLD-78	Northeast Corner of C-746U Landfill Security Fence	N 37 07 54.00752	W 088 47 37.45924	-1622	6020	N/A
04/10/2018 09:43 9977-672	JW	7/2/2018 8:55	JW	TLD-79	Located on left post of the "Wildlife Management" gate on New Waterline Rd Southwest of Plant gate 41A west of C-612	N 37 07 28.86304	W 88 49 12.50003	-7981	993	N/A
04/10/2018 13:20 9978-673	JW	7/2/2018 12:49	JW	TLD-80	Located on "Cattle" gate west of MW 453 & MW 454 on gravel rd east of New Waterline Rd	N 37 07 47.29850	W 088 48 46.10944	-6612	3477	N/A
04/10/2018 08:57 9979-674 2887	JW	7/2/2018 8:19	JW	TLD-81	Southeast corner of DuF6 security fence next to gate V1 East of New Waterline East of C1100	N 37 06 18.33947	W 088 48 56.42591	-4314	-5262	N/A
04/09/2018 15:47 9980-675	JW	7/2/2018 7:47	JW	TLD-82	Short pole East of Dykes Rd North of Outfall 13	N 37 06 10.13175	W 088 48 13.53048	-765	-4851	N/A
04/10/2018 08:18 9981-676 2888	JW	7/2/2018 14:44	JW	TLD-83	Large metal power pole West of Dykes Rd South of Outfall 13	N 37 06 07.30640	W 088 48 20.71726	-1214	-5319	N/A
04/09/2018 15:00 9982-677	JW	7/2/2018 7:25	JW	TLD-84	Located @MW496 on the East Side of Dykes Rd	N 37 07 03.50589	W 088 47 49.26485	-769	894	N/A
04/04/2018 17:00 9983-678	SO	7/2/2018 9:58	SO	TLD-85	Residence; corner of Springwell and Buckner Lane	N 37 03 27.9036	W 088 40 43.9638	39082	-7750	N/A
04/10/2018 12:03 9984-679	JW	7/2/2018 11:54	JW	TLD-86	Plant Entrance, Gravel Construction Rd. Right side on orange warning signal sign	N 37° 5' 18.8622"	W 088 49 28.2282	-4676	-11794	N/A

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2nd Quarter CY 2018 TLD Location Information

Date/Time Issued/Badge ID	Issued By	Date/Time Collected	Collected By	Location Name	Description	NorthLong	West or East Lat	Xcoord	Ycoord	Comments
04/10/2018 14:17 9985-680	JW	7/2/2018 13:37	JW	TLD-87	KOW Entrance north of Woodville Rd north of Kevil Eagles. Right side on orange warning signal sign	N 37 05 24.2802	W 088 50 43.9548	-10629	-13381	N/A
04/10/2018 13:44 9986-681	JW	7/2/2018 13:09	JW	TLD-88	Bethel Church Road KOW entrance. North of Massay Rd, right side on yellow post	N 37 07 05.4876	W 088 50 37.9608	-13677	-3597	N/A
04/10/2018 13:32 9987-682	JW	7/2/2018 13:05	JW	TLD-89	Bobo Rd, off of Bethel Church Rd. Continue east 200 yds past end of asphalt. At intersection on orange warning signal sign	N 37 07 35.9976	W 088 49 44.3922	-10657	788	N/A
04/10/2018 13:27 9988-683	JW	7/2/2018 12:56	JW	TLD-90	Bridge on Ogden Landing Rd east of Lamb's garage. On NE corner of bridge on contaminated creek sign	N 37 08 54.6714	W 088 47 27.2472	-12310	7182	N/A
04/10/2018 13:11 9989-684	JW	7/2/2018 12:38	JW	TLD-91	Boldry School Rd on KOW at Shawnee plant entrance. On cattle gate road on hill, right side	N 37 08 40.9884	W 088 49 36.5232	-2952	12069	N/A
N/A	JW	N/A	N/A	TLD-92	Anderson Road off Metropolis Lake Rd. follow West until road ends @Railroad tracks. On left crossing gate post.	N 37 07 42.7866	W 088 46 17.1438	1392	8745	N/A
04/10/2018 12:29 9991-686	JW	7/2/2018 12:18	JW	TLD-93	MW 100, North on Metropolis Lake Rd past railroad tracks on left side on Well bollard	N 37 08 09.0744	W 088 46 50.9304	4874	7186	N/A
04/10/2018 12:51 992-687	JW	7/2/2018 12:21	JW	TLD-94	Residence; corner of Ogden Landing Rd & Metropolis Lake Rd	N 37 05 48.9294	W 088 47 12.4332	4740	436	N/A

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2nd Quarter CY 2018 TLD Location Information

Date/Time Issued/Badge ID	Issued By	Date/Time Collected	Collected By	Location Name	Description	NorthLong	West or East Lat	Xcoord	Ycoord	Comments
04/10/2018 12:23 9993-688	JW	7/2/2018 12:12	JW	TLD-95	West McCracken Health Clinic, Metropolis Lake Rd. On Light Pole in SW corner of parking lot	N 37 06 40.5468	W 088 46 47.2872	4617	-5167	N/A
04/10/2018 15:00 9994-689	JW	7/3/2018 7:15	JW	TLD-FB	Taken along while placing and collecting all other samples - stored in "lead box" at C-101 Dosimetry office	N/A	N/A	NA	NA	N/A
04/09/2018 07:00 9995-690	JW	7/2/2018 7:00	JW	TLD-TB	Stored in "lead box" at C-101 Dosimetry office	N/A	N/A	NA	NA	N/A
9996-691	JW	N/A	N/A	SPARE	Lead Box in C-101 Dosimetry office	N/A	N/A	N/A	N/A	N/A
9997-692	JW	N/A	N/A	SPARE	Lead Box in C-101 Dosimetry office	N/A	N/A	N/A	N/A	N/A
9998-693	JW	N/A	N/A	SPARE	Lead Box in C-101 Dosimetry office	N/A	N/A	N/A	N/A	N/A
9999-694	JW	N/A	N/A	SPARE	Lead Box in C-101 Dosimetry office	N/A	N/A	N/A	N/A	N/A
0000-695	JW	N/A	N/A	SPARE	Lead Box in C-101 Dosimetry office	N/A	N/A	N/A	N/A	N/A
0001-696	JW	N/A	N/A	SPARE	Lead Box in C-101 Dosimetry office	N/A	N/A	N/A	N/A	N/A
9990-685	JW	N/A	N/A	SPARE	Lead Box in C-101 Dosimetry office	N/A	N/A	N/A	N/A	N/A

3rd Quarter CY 2018 TLD Location Information

Date/Time Issued/Badge ID	Issued By	Date/Time Collected	Collected By	Location Name	Description	NorthLong	West or East Lat	Xcoord	Ycoord	Comments
07/02/2018 08:15 2018-625	JW	10/4/2018 9:12	JW	TLD-1	PGDP security fence west of C-745-M near intersection of Patrol Road and Alabama Avenue near pole 21-20. Outside fence behind DuF6 dirt pile	N 37 06 16.66	W 088 48 55.18	-4172	-5856	N/A
07/02/2018 14:22 2019-626 2882	JW	10/4/2018 15:40	JW	TLD-2	PGDP security fence south of C-745-T near pole T20-6J. South Cylinder Yard perimeter fence	N 37 06 02.15	W 088 48 43.07	-2740	-6427	N/A
07/02/2018 07:34 2020-627 2883	JW	10/4/2018 8:47	JW	TLD-3	PGDP security fence east of C-745-H near pole 23-31. Perimeter fence NE corner	N 37 07 04.17	W 088 47 57.21	-1399	739	N/A
07/02/2018 09:01 2021-628	JW	10/4/2018 11:48	JW	TLD-4	North PGDP security fence near North-South Diversion Ditch.	N 37 07 15.74	W 088 48 25.56	-3957	1052	N/A
07/02/2018 08:57 2022-629	JW	10/4/2018 11:44	JW	TLD-5	North PGDP security fence north of C-747-A near pole T53A1P26G. North perimeter fence between lagoon	N 37 07 24.38	W 088 48 54.58	-6464	1068	N/A
07/02/2018 08:53 2023-630	JW	10/4/2018 9:58	JW	TLD-6	West PGDP security fence west of C-746-P1 near pole 22-4. 612 perimeter fence.	N 37 07 20.85	W 088 49 07.22	-7303	382	N/A
07/02/2018 08:32 2024-631	JW	10/4/2018 9:28	JW	TLD-7	PGDP perimeter fence adjacent to Curlee Road near entrance to DOE building (C-103). Perimeter fence across from entrance to DOE bldg	N 37 06 29.15	W 088 49 02.49	-5153	-4400	N/A

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3rd Quarter CY 2018 TLD Location Information

Date/Time Issued/Badge ID	Issued By	Date/Time Collected	Collected By	Location Name	Description	NorthLong	West or East Lat	Xcoord	Ycoord	Comments
N/A	N/A	N/A	N/A	TLD-8	Fence around U.S.G.S. stream gauging station at Bayou Creek and South Acid Road. USGS fence West 57 Acid Rd.	N 37 05 57.76	W 088 49 28.04	-6011	-8091	N/A
07/02/2018 13:25 2025-632	JW	10/4/2018 14:18	JW	TLD-9	Northeast corner of fence of old KOW water treatment plant, near Monitoring Well 309. Gate to MW305	N 37 06 37.12	W 088 49 48.11	-8901	-4907	N/A
N/A	N/A	N/A	N/A	TLD-10	Outfall 011 - hung from side of outfall sampling platform at about foot level, pole T19-15E. Gate Outfall 011	N 37 06 27.22	W 088 48 03.56	-602	-2948	N/A
N/A	N/A	N/A	N/A	TLD-11	Institutional controls fence on north side of McCall Road at Little Bayou Creek crossing. Little Bayou Creek & McCaw Rd	N 37 06 28.88	W 088 47 41.08	1052	-2167	N/A
07/02/2018 12:23 2026-633	JW	10/4/2018 12:58	JW	TLD-12	Institutional controls fence near Monitoring Well 191 where Little Bayou Creek crosses Hwy 358. MW191, Little Bayou & Ogden Landing Rd.	N 37 06 49.62	W 088 47 11.44	2588	626	N/A
07/02/2018 12:28 2027-634	JW	10/4/2018 13:04	JW	TLD-13	West fence of C-746-U landfill near entrance gate	N 37 07 48.17	W 088 48 00.61	-3182	4825	N/A

3rd Quarter CY 2018 TLD Location Information

Date/Time Issued/Badge ID	Issued By	Date/Time Collected	Collected By	Location Name	Description	NorthLong	West or East Lat	Xcoord	Ycoord	Comments
07/02/2018 07:31 2028-635	JW	10/4/2018 8:43	JW	TLD-14	Institutional controls fence along North-South Diversion Ditch on west side of 14th street extension near Highway 358 (K003). Fence at North South ditch, north of MW353	N 37 07 29.75	W 088 48 10.58	-3302	2798	N/A
07/02/2018 07:22 2029-636	JW	10/4/2018 8:30	JW	TLD-15	Northeast corner of C-755 fence behind C-755-D	N 37 06 45.01	W 088 47 58.91	-864	-1129	N/A
07/02/2018 12:46 2030-637	JW	10/4/2018 13:34	JW	TLD-16	WKWMA Clubhouse on northwest corner porch post. On porch WKWMA Headquarters.	N 37 07 59.44	W 088 48 49.76	-7311	4533	N/A
N/A	N/A	N/A	N/A	TLD-17	Suspended from the U.S.G.S. stream gauging station about 3 feet below the north side of the Highway 358 bridge over Big Bayou Creek. USGS at Big Bayou Creek Bridge by Lambs Garage	N 37 08 41.09	W 088 49 37.27	-12368	7174	N/A
N/A	N/A	N/A	N/A	TLD-18	Suspended about 3 feet below the U.S.G.S. stream gauging station platform at Little Bayou Creek and Anderson Road. USGS at Iron Bridge Little Bayou Creek. Right @ Tract 5 4-way Stop	N 37 08 22.09	W 088 47 25.71	-1702	9016	N/A
07/02/2018 13:17 2031-638	JW	10/4/2018 14:00	JW	TLD-19	Passed pond on right "A" sign next to MW 426	N 37 07 24.43	W 088 49 33.11	-9398	2	N/A

3rd Quarter CY 2018 TLD Location Information

Date/Time Issued/Badge ID	Issued By	Date/Time Collected	Collected By	Location Name	Description	NorthLong	West or East Lat	Xcoord	Ycoord	Comments
N/A	N/A	N/A	N/A	TLD-20	Center of fence at north side of water treatment plant	N 37 06 59.83	W 088 49 36.29	-8788	-2421	N/A
N/A	N/A	N/A	N/A	TLD-21	Residence, Oaks Road, Paducah, Kentucky	N 36 58 12.77	W 088 32 52.01	85990	-24497	N/A
07/02/2018 09:34 2032-639	JW	10/4/2018 11:17	JW	TLD-22	Outside of the fence of the locked air sampling station at the rear corner of the Bethel Cumberland Presbyterian Church Cemetery	N 37 00 05.36	W 088 52 36.29	-8159	-46801	N/A
N/A	N/A	N/A	N/A	TLD-23	Outside of the fence of the locked air sampling station at the northwest corner of the Heath ballpark fields	N 37 05 50.80	W 088 46 57.78	5667	-4583	N/A
N/A	N/A	N/A	N/A	TLD-24	BJC Kevil facility on stairway handrail outside southwest corner of building	N 37 04 39.52	W 088 52 51.97	N/A	N/A	N/A
07/02/2018 14:10 2033-640	JW	10/4/2018 15:25	JW	TLD-25	On power line tower nearest Dykes Road southeast of C-745-T	N 37 06 00.02	W 088 48 26.49	-1401	-6172	N/A
N/A	N/A	N/A	N/A	TLD-26	Massac Creek to left of path in tree. Highway 62 Bridge past Sunshine Dairy	N 36 57 31.92	W 088 25 13.90	122314	-15495	N/A
N/A	N/A	N/A	N/A	TLD-27	"Do not block entrance" sign on Plant Access Road near Post 15 and motorcycle parking area (C-800). Motorcycle Shed, Post 15	N 37 06 40.78	W 088 48 54.33	-4883	-3431	N/A

3rd Quarter CY 2018 TLD Location Information

Date/Time Issued/Badge ID	Issued By	Date/Time Collected	Collected By	Location Name	Description	NorthLong	West or East Lat	Xcoord	Ycoord	Comments
N/A	N/A	N/A	N/A	TLD-28	Bethel Church Road, turn right on Bobo Road, left on intersection, located in trees at Monitoring Well 194. Sign near staircase on Big Bayou, MW194	N 37 07 44.580	W 088 49 34.140	-10105	1884	N/A
N/A	N/A	N/A	N/A	TLD-29	First bunker off Ogden Landing Road, across from WKWMA Clubhouse, placed at the back side rafter, inside the window on the overhang. Inside the bunker, south of horse barn, west wall	N 37 07 55.380	W 088 48 41.820	-6503	4306	N/A
07/02/2018 12:42 2034-641	JW	10/4/2018 13:30	JW	TLD-30	Take the road by the PGDP landfills, drive past Monitoring Well 98, turn left at three-way, Monitoring Well 235 intersection at Tract 7 sign. The TLD is hung on the inside of the sign. Boldry School Rd., Tract 7 sign, west of MW381	N 37 08 21.060	W 088 45 09.060	-4836	7876	N/A
N/A	N/A	N/A	N/A	TLD-31	Boldry School Road straight through gravel road, turn right at Tract 6 gate, turn left at intersection, back to circle at dirt road, (L241) about 30 feet off road in a tree. Top of hill at pipeline in tree. (Green Scorpion)	N 37 09 02.580	W 088 47 25.620	-3201	12751	N/A

3rd Quarter CY 2018 TLD Location Information

Date/Time Issued/Badge ID	Issued By	Date/Time Collected	Collected By	Location Name	Description	NorthLong	West or East Lat	Xcoord	Ycoord	Comments
N/A	N/A	N/A	N/A	TLD-32	Boldry School Road, past Ducks Unlimited Area on Tract 6, located in a tree on the side of the road. South Dead Dog Rd in tree East side of road. 30 yds prior to Tract 6 Sign	N 37 09 50.040	W 088 48 03.480	-5489	15453	N/A
N/A	N/A	N/A	N/A	TLD-33	Harmony Cemetery off Dykes Road behind PGDP, on the large tree in the center	N 37 07 17.580	W 088 48 12.540	-2886	1553	N/A
N/A	N/A	N/A	N/A	TLD-34	Dykes Road back side of PGDP, across from Monitoring Well 145, Monitoring Well 144 on the gravel road	N 37 06 58.440	W 088 48 52.320	-779	940	N/A
07/02/2018 08:29 2035-642	JW	10/4/2018 9:25	JW	TLD-35	Outfall 017 off of Plant Access Road. Outfall 017 DuF6 laydown yard	N 37 06 21.480	W 088 49 03.960	-4773	-5806	N/A
N/A	N/A	N/A	N/A	TLD-36	PGDP plant access road, turn at DOE, turn towards Northwest Plume facility, turn towards landfill (C-746-K) at creek on road and the end of the bridge. Randy Bridge	N 37 06 50.640	W 088 49 23.040	-7321	-2865	N/A
07/02/2018 08:49 2036-643	JW	10/4/2018 9:56	JW	TLD-37	KPDES Outfall 001 behind Vortec facility. K001	N 37 07 18.600	W 088 49 15.660	-8202	138	N/A
07/02/2018 13:22 2037-644	JW	10/4/2018 14:16	JW	TLD-38	Five-Points Creek with concrete bridge, on tree behind 2A sign.	N 37 06 43.320	W 088 50 09.000	-10630	-4528	N/A
N/A	N/A	N/A	N/A	TLD-39	Outfall 10 off Dykes Road near C-755 complex. Outfall 010	N 37 06 33.540	W 088 48 00.900	-612.5	-2231.25	N/A

3rd Quarter CY 2018 TLD Location Information

Date/Time Issued/Badge ID	Issued By	Date/Time Collected	Collected By	Location Name	Description	NorthLong	West or East Lat	Xcoord	Ycoord	Comments
07/02/2018 07:56 2038-645	JW	10/4/2018 12:19	JW	TLD-40	off Woodville Road, go about 1/2 mile on Kelly road and turn left, go about 1/2 miles, TLD placed in trees on left. Orange sign on blocked road, east of 57 off Dykes Rd.	N 37 05 52.200	W 088 48 52.20	-2818	-7551	N/A
N/A	N/A	N/A	N/A	TLD-41	Acid Road near old monitoring well past bridge. Acid Rd by COE monitoring well.	N 37 06 07.800	W 088 50 18.360	-10116	-6298	N/A
N/A	N/A	N/A	N/A	TLD-42	Ogden Landing Road, past landfill, at Northeast Plume, on "No Trespassing" sign	N 37 06 55.380	W 088 47 19.080	-1219	-1701	N/A
N/A	N/A	N/A	N/A	TLD-43	Monitoring Well 98 on road past landfill, in the trees	N 37 08 12.240	W 088 47 50.700	-3125	-6568	N/A
N/A	N/A	N/A	N/A	TLD-44	Outside security fence west of Lasagna site on the corner post of posted area - southeast corner	N 37 07 08.880	W 088 49 12.780	-7337	-1591	N/A
N/A	N/A	N/A	N/A	TLD-45	At C-743 trailer complex at walk-in gate	N 37 06 45.900	W 088 49 04.620	-7337	-474	N/A
07/02/2018 08:36 2039-646	JW	10/4/2018 9:31	JW	TLD-46	Truck entrance at receiving C-720	N 37 06 44.700	W 088 49 00.120	-5198	-2865	NA
N/A	N/A	N/A	N/A	TLD-47	Tree line south of C-745-T Cylinder Storage Yard. First road on left on Dykes Rd past 57. Last tree on right before clearing	N 37 06 00.300	W 088 48.49.380	-3156	-6777	N/A

3rd Quarter CY 2018 TLD Location Information

Date/Time Issued/Badge ID	Issued By	Date/Time Collected	Collected By	Location Name	Description	NorthLong	West or East Lat	Xcoord	Ycoord	Comments
N/A	N/A	N/A	N/A	TLD-48	Tree line along the security fence east of C-745-H. Gate 44 road, NE corner of fence	N 37 07 06.60	W 088 47.53.82	-1225	1064	N/A
N/A	N/A	N/A	N/A	TLD-49	Outfall 001 Posted Area. Power pole North C-612 T1	N 37 07 26.52	W 088 49.04.92	-7325	984	N/A
07/02/2018 08:46 2040-647 2884	JW	10/4/2018 9:49	JW	TLD-50	West Patrol Road fence across from C-745-A	N 37 07 02.88	W 088 49.15.18	-7287	-1547	N/A
N/A	N/A	N/A	N/A	TLD-51	Outfall 015 Posted Area	N 37 07 07.02	W 088 49.13.68	-7316	-1112	N/A
07/02/2018 07:10 2041-648	JW	10/4/2018 8:28	JW	TLD-52	East Patrol Road fence across from C-745-E.	N 37 06 42.18	W 088 48.07.20	-1397	-1628	N/A
07/02/2018 14:27 2042-649	JW	10/4/2018 15:35	JW	TLD-53	Security fence at southeast corner of C-745-T Yard. Down fence line away from TLD-2.	N 37 06 00.42	W 088 48.37.02	-2220	-6423	N/A
07/02/2018 10:28 2043-650	KA	10/4/2018 10:27	KA	TLD-54	Residence; Jalusian Trail	N 57 87 72.16	E 23 93 13.48	45296	-25254	N/A
N/A	N/A	N/A	N/A	TLD-55	C-410/420 Office/BCS	N 59 10 67.99	E 22 80 74.83	-3963	-1574	Discontinued 7/10/2014
N/A	N/A	N/A	N/A	TLD-56	O/S C-410 Truck Alley Facing C-412	N 59 09 84.68	E 22 81 16.67	-3733	-1776	N/A
N/A	N/A	N/A	N/A	TLD-57	C-340 Foyer	N 59 04 60.56	E 22 85 14.19	-1882	-2886	N/A
07/02/2018 07:15 2044-651	JW	10/4/2018 9:50	JW	TLD-58	West Central C-755 Complex	N 59 07 98.00	E 22 88 70.74	-1209	-1422	N/A
07/03/2018 07:15 2045-652	JW	10/8/2018 13:30	JW	TLD-59	C-752A Break Area	N 59 15 61.62	E 22 78 55.79	-5234	-339	N/A
07/02/2018 15:13 2046-653	JW	10/4/2018 16:01	JW	TLD-60	C-333A Light Pole on Fence Pole #16	N 59 02 07.10	E 22 80 71.62	-2919	-4199	N/A

3rd Quarter CY 2018 TLD Location Information

Date/Time Issued/Badge ID	Issued By	Date/Time Collected	Collected By	Location Name	Description	NorthLong	West or East Lat	Xcoord	Ycoord	Comments
07/02/2018 15:14 2047-654	JW	10/4/2018 16:02	JW	TLD-61	West of C-746Q Light Pole #14	N 59 01 58.14	E 22 80 98.35	-2778	-4315	N/A
07/02/2018 15:27 2048-655	JW	10/8/2018 13:48	JW	TLD-62	C-743 Trailer Complex Light Pole #336,behind Trailer #3.	N 59 10 20.18	E 22 73 49.81	-6111	-2607	N/A
07/02/2018 15:32 2049-656	JW	10/8/2018 12:33	JW	TLD-63	C-412 HP Break Trailer	N 59 08 36.46	E 22 79 46.95	-4069	-2435	N/A
07/02/2018 09:13 2050-657	JW	10/4/2018 12:00	JW	TLD-64	C-764 T-6 Trailer	N 59 11 77.55	E 22 70 88.88	-7098	-2447	N/A
07/02/2018 07:39 2051-658 2885	JW	10/4/2018 8:55	JW	TLD-65	Located O/S of North Security fence North of C-745H Cylinder Yard; South of C-762 Laydown Yard	N 37 07 08.54386	W 088 48 00.45376	-1795	1062	N/A
07/02/2018 07:28 2052-659	JW	10/4/2018 8:41	JW	TLD-66	Located on tree @Southeast corner of New Harmony Cemetery; adjacent to last concrete barrier & large metal post	N 37 07 15.80859	W 088 48 11.08836	-2856	1457	N/A
07/02/2018 07:27 2053-660	JW	10/4/2018 8:39	JW	TLD-67	Located on "No Trespassing" sign North side of Dykes Rd next to Security Fence North of C-762 Laydown yard	N 37 07 12.70502	W 088 47 56.75697	-1658	1560	N/A
07/02/2018 08:48 2054-661 2886	JW	10/4/2018 9:53	JW	TLD-68	West Security Fence West of C-745B Cylinder Yard & Southeast of Vortec Site	N 37 07 11.60797	W 088 49 11.43416	-7302	-617	N/A
07/02/2018 08:41 2055-662	JW	10/4/2018 9:40	JW	TLD-69	Wooden utility pole (T12-15 H) next to gravel road @Northeast corner of pond North of C-611	N 37 07 13.70394	W 088 49 28.37928	-8664	-888	N/A

3rd Quarter CY 2018 TLD Location Information

Date/Time Issued/Badge ID	Issued By	Date/Time Collected	Collected By	Location Name	Description	NorthLong	West or East Lat	Xcoord	Ycoord	Comments
07/02/2018 08:15 2018-625	JW	10/4/2018 9:12	JW	TLD-1	PGDP security fence west of C-745-M near intersection of Patrol Road and Alabama Avenue near pole 21-20. Outside fence behind DuF6 dirt pile	N 37 06 16.66	W 088 48 55.18	-4172	-5856	N/A
07/02/2018 14:22 2019-626 2882	JW	10/4/2018 15:40	JW	TLD-2	PGDP security fence south of C-745-T near pole T20-6J. South Cylinder Yard perimeter fence	N 37 06 02.15	W 088 48 43.07	-2740	-6427	N/A
07/02/2018 07:34 2020-627 2883	JW	10/4/2018 8:47	JW	TLD-3	PGDP security fence east of C-745-H near pole 23-31. Perimeter fence NE corner	N 37 07 04.17	W 088 47 57.21	-1399	739	N/A
07/02/2018 09:01 2021-628	JW	10/4/2018 11:48	JW	TLD-4	North PGDP security fence near North-South Diversion Ditch.	N 37 07 15.74	W 088 48 25.56	-3957	1052	N/A
07/02/2018 08:57 2022-629	JW	10/4/2018 11:44	JW	TLD-5	North PGDP security fence north of C-747-A near pole T53A1P26G. North perimeter fence between lagoon	N 37 07 24.38	W 088 48 54.58	-6464	1068	N/A
07/02/2018 08:53 2023-630	JW	10/4/2018 9:58	JW	TLD-6	West PGDP security fence west of C-746-P1 near pole 22-4. 612 perimeter fence.	N 37 07 20.85	W 088 49 07.22	-7303	382	N/A
07/02/2018 08:32 2024-631	JW	10/4/2018 9:28	JW	TLD-7	PGDP perimeter fence adjacent to Curlee Road near entrance to DOE building (C-103). Perimeter fence across from entrance to DOE bldg.	N 37 06 29.15	W 088 49 02.49	-5153	-4400	N/A

3rd Quarter CY 2018 TLD Location Information

Date/Time Issued/Badge ID	Issued By	Date/Time Collected	Collected By	Location Name	Description	NorthLong	West or East Lat	Xcoord	Ycoord	Comments
07/02/2018 08:55 2065-672	JW	10/4/2018 10:01	JW	TLD-79	Located on left post of the "Wildlife Management" gate on New Waterline Rd Southwest of Plant gate 41A west of C-612	N 37 07 28.86304	W 88 49 12.50003	-7981	993	N/A
07/02/2018 12:49 2066-673	JW	10/4/2018 13:37	JW	TLD-80	Located on "Cattle" gate west of MW 453 & MW 454 on gravel rd east of New Waterline Rd	N 37 07 47.29850	W 088 48 46.10944	-6612	3477	N/A
07/02/2018 08:19 2067-674 2887	JW	10/4/2018 9:18	JW	TLD-81	Southeast corner of DuF6 security fence next to gate V1 East of New Waterline East of C1100	N 37 06 18.33947	W 088 48 56.42591	-4314	-5262	N/A
07/02/2018 07:47 2068-675	JW	10/4/2018 9:01	JW	TLD-82	Short pole East of Dykes Rd North of Outfall 13	N 37 06 10.13175	W 088 48 13.53048	-765	-4851	N/A
07/02/2018 14:44 2069-676 2888	JW	10/4/2018 15:20	JW	TLD-83	Large metal power pole West of Dykes Rd South of Outfall 13	N 37 06 07.30640	W 088 48 20.71726	-1214	-5319	N/A
07/02/2018 07:25 2070-677	JW	10/4/2018 8:37	JW	TLD-84	Located @MW496 on the East Side of Dykes Rd	N 37 07 03.50589	W 088 47 49.26485	-769	894	N/A
07/02/2018 09:58 2071-678	SO	10/4/2018 17:00	SO	TLD-85	Residence; corner of Springwell and Buckner Lane	N 37 03 27.9036	W 088 40 43.9638	39082	-7750	N/A
07/02/2018 11:54 2072-679	JW	10/4/2018 12:07	JW	TLD-86	Plant Entrance, Gravel Construction Rd. Right side on orange warning signal sign	N 37 5 18.8622	W 088 49 28.2282	-4676	-11794	N/A
07/02/2018 13:37 2073-680	JW	10/4/2018 14:29	JW	TLD-87	KOW Entrance north of Woodville Rd north of Kevil Eagles. Right side on orange warning signal sign	N 37 05 24.2802	W 088 50 43.9548	-10629	-13381	N/A

3rd Quarter CY 2018 TLD Location Information

Date/Time Issued/Badge ID	Issued By	Date/Time Collected	Collected By	Location Name	Description	NorthLong	West or East Lat	Xcoord	Ycoord	Comments
07/02/2018 13:09 2074-681	JW	10/4/2018 14:58	JW	TLD-88	Bethel Church Road KOW entrance. North of Massay Rd, right side on yellow post	N 37 07 05.4876	W 088 50 37.9608	-13677	-3597	N/A
07/02/2018 13:05 2075-682	JW	10/4/2018 13:51	JW	TLD-89	Bobo Rd, off of Bethel Church Rd. Continue east 200 yds past end of asphalt. At intersection on orange warning signal sign	N 37 07 35.9976	W 088 49 44.3922	-10657	788	N/A
07/02/2018 12:56 2076-683	JW	10/4/2018 13:41	JW	TLD-90	Bridge on Ogden Landing Rd east of Lamb's garage. On NE corner of bridge on contaminated creek sign	N 37 08 54.6714	W 088 47 27.2472	-12310	7182	N/A
07/02/2018 12:38 2077-684	JW	10/4/2018 13:22	JW	TLD-91	Boldry School Rd on KOW at Shawnee plant entrance. On cattle gate road on hill, right side	N 37 08 40.9884	W 088 49 36.5232	-2952	12069	N/A
07/24/2018 08:45 2083-690	JW	10/4/2018 13:13	N/A	TLD-92	First left road past C-746-U Landfill, cross Iron Bridge, on ICM-01 Notice Sign across from MW 133	N 37 08 23.18	W 088 47 25.41	9125	-1717	N/A
07/02/2018 12:18 2078-685	JW	10/4/2018 12:49	JW	TLD-93	MW 100, North on Metropolis Lake Rd past railroad tracks on left side on Well bollard	N 37 08 09.0744	W 088 46 50.9304	4874	7186	N/A
07/02/2018 12:21 2079-686	JW	10/4/2018 12:52	JW	TLD-94	Residence; corner of Ogden Landing Rd & Metropolis Lake Rd	N 37 05 48.9294	W 088 47 12.4332	4740	436	N/A
07/02/2018 12:12 2080-687	JW	10/4/2018 12:44	JW	TLD-95	West McCracken Health Clinic, Metropolis Lake Rd. On Light Pole in SW corner of parking lot	N 37 06 40.5468	W 088 46 47.2872	4617	-5167	N/A

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3rd Quarter CY 2018 TLD Location Information

Date/Time Issued/Badge ID	Issued By	Date/Time Collected	Collected By	Location Name	Description	NorthLong	West or East Lat	Xcoord	Ycoord	Comments
07/03/2018 07:15 2081-688	JW	10/4/2018 16:00	JW	TLD-FB	Taken along while placing and collecting all other samples - stored in "lead box" at C-101 Dosimetry office	N/A	N/A	NA	NA	N/A
07/02/2018 07:00 2082-689	JW	10/4/2018 8:00	JW	TLD-TB	Stored in "lead box" at C-101 Dosimetry office	N/A	N/A	NA	NA	N/A
2084-691	JW	N/A	N/A	SPARE	Lead Box in C-101 Dosimetry office	N/A	N/A	N/A	N/A	N/A
2085-692	JW	N/A	N/A	SPARE	Lead Box in C-101 Dosimetry office	N/A	N/A	N/A	N/A	N/A
2086-693	JW	N/A	N/A	SPARE	Lead Box in C-101 Dosimetry office	N/A	N/A	N/A	N/A	N/A
2087-694	JW	N/A	N/A	SPARE	Lead Box in C-101 Dosimetry office	N/A	N/A	N/A	N/A	N/A
2088-695	JW	N/A	N/A	SPARE	Lead Box in C-101 Dosimetry office	N/A	N/A	N/A	N/A	N/A
2089-696	JW	N/A	N/A	SPARE	Lead Box in C-101 Dosimetry office	N/A	N/A	N/A	N/A	N/A

4th Quarter CY 2018 TLD Location Information

Date/Time Issued/Badge ID	Issued By	Date/Time Collected	Collected By	Location Name	Description	NorthLong	West or East Lat	Xcoord	Ycoord	Comments
10/04/2018 09:12 3968-625	JW	1/10/2019 8:34	JW	TLD-1	PGDP security fence west of C-745-M near intersection of Patrol Road and Alabama Avenue near pole 21-20. Outside fence behind DuF6 dirt pile	N 37 06 16.66	W 088 48 55.18	-4172	-5856	N/A
10/04/2018 15:40 3972-626 2882	JW	1/10/2019 8:20	JW	TLD-2	PGDP security fence south of C-745-T near pole T20-6J. South Cylinder Yard perimeter fence	N 37 06 02.15	W 088 48 43.07	-2740	-6427	N/A
10/14/2018 08:47 3973-627 2883	JW	1/14/2019 10:45	JW	TLD-3	PGDP security fence east of C-745-H near pole 23-31. Perimeter fence NE corner	N 37 07 04.17	W 088 47 57.21	-1399	739	N/A
10/04/2018 11:48 3974-628	JW	1/10/2019 13:57	JW	TLD-4	North PGDP security fence near North-South Diversion Ditch.	N 37 07 15.74	W 088 48 25.56	-3957	1052	N/A
10/04/2018 11:44 3975-629	JW	1/10/2019 14:22	JW	TLD-5	North PGDP security fence north of C-747-A near pole T53A1P26G. North perimeter fence between lagoon	N 37 07 24.38	W 088 48 54.58	-6464	1068	N/A
10/04/2018 09:58 3976-630	JW	1/10/2019 9:16	JW	TLD-6	West PGDP security fence west of C-746-P1 near pole 22-4. 612 perimeter fence.	N 37 07 20.85	W 088 49 07.22	-7303	382	N/A
10/04/2018 09:28 3977-631	JW	1/10/2019 8:51	JW	TLD-7	PGDP perimeter fence adjacent to Curlee Road near entrance to DOE building (C-103). Perimeter fence across from entrance to DOE bldg.	N 37 06 29.15	W 088 49 02.49	-5153	-4400	N/A
N/A	N/A	N/A	N/A	TLD-8	Fence around U.S.G.S. stream gauging station at Bayou Creek and South Acid Road. USGS fence West 57 Acid Rd.	N 37 05 57.76	W 088 49 28.04	-6011	-8091	N/A

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4th Quarter CY 2018 TLD Location Information

Date/Time Issued/Badge ID	Issued By	Date/Time Collected	Collected By	Location Name	Description	NorthLong	West or East Lat	Xcoord	Ycoord	Comments
10/04/2018 14:18 3978-632	JW	1/10/2019 12:51	JW	TLD-9	Northeast corner of fence of old KOW water treatment plant, near Monitoring Well 309. Gate to MW305	N 37 06 37.12	W 088 49 48.11	-8901	-4907	N/A
N/A	N/A	N/A	N/A	TLD-10	Outfall 011 - hung from side of outfall sampling platform at about foot level, pole T19-15E. Gate Outfall 011	N 37 06 27.22	W 088 48 03.56	-602	-2948	N/A
N/A	N/A	N/A	N/A	TLD-11	Institutional controls fence on north side of McCall Road at Little Bayou Creek crossing. Little Bayou Creek & McCaw Rd.	N 37 06 28.88	W 088 47 41.08	1052	-2167	N/A
10/04/2018 12:58 3979-633	JW	1/10/2019 11:36	JW	TLD-12	Institutional controls fence near Monitoring Well 191 where Little Bayou Creek crosses Hwy 358. MW191, Little Bayou & Ogden Landing Rd.	N 37 06 49.62	W 088 47 11.44	2588	626	N/A
10/04/2018 13:04 3980-634	JW	1/10/2019 11:53	JW	TLD-13	West fence of C-746-U landfill near entrance gate	N 37 07 48.17	W 088 48 00.61	-3182	4825	N/A
10/04/2018 08:43 3981-635	JW	1/10/2019 11:51	JW	TLD-14	Institutional controls fence along North-South Diversion Ditch on west side of 14th street extension near Highway 358 (K003). Fence at North South ditch, north of MW353	N 37 07 29.75	W 088 48 10.58	-3302	2798	N/A
10/04/2018 08:30 3982-636	JW	1/10/2019 7:52	JW	TLD-15	Northeast corner of C-755 fence behind C-755-D	N 37 06 45.01	W 088 47 58.91	-864	-1129	N/A

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4th Quarter CY 2018 TLD Location Information

Date/Time Issued/Badge ID	Issued By	Date/Time Collected	Collected By	Location Name	Description	NorthLong	West or East Lat	Xcoord	Ycoord	Comments
10/04/2018 13:34 3983-637	JW	1/10/2019 12:16	JW	TLD-16	WKWMA Clubhouse on northwest corner porch post. On porch WKWMA Headquarters.	N 37 07 59.44	W 088 48 49.76	-7311	4533	N/A
N/A	N/A	N/A	N/A	TLD-17	Suspended from the U.S.G.S. stream gauging station about 3 feet below the north side of the Highway 358 bridge over Big Bayou Creek. USGS at Big Bayou Creek Bridge by Lambs Garage	N 37 08 41.09	W 088 49 37.27	-12368	7174	N/A
N/A	N/A	N/A	N/A	TLD-18	Suspended about 3 feet below the U.S.G.S. stream gauging station platform at Little Bayou Creek and Anderson Road. USGS at Iron Bridge Little Bayou Creek. Right @ Tract 5 4-way Stop	N 37 08 22.09	W 088 47 25.71	-1702	9016	N/A
10/04/2018 14:00 3984-638	JW	1/10/2019 12:41	JW	TLD-19	Passed pond on right "A" sign next to MW 426	N 37 07 24.43	W 088 49 33.11	-9398	2	N/A
N/A	N/A	N/A	N/A	TLD-20	Center of fence at north side of water treatment plant	N 37 06 59.83	W 088 49 36.29	-8788	-2421	N/A
N/A	N/A	N/A	N/A	TLD-21	Residence, Oaks Road, Paducah, Kentucky	N 36 58 12.77	W 088 32 52.01	85990	-24497	N/A
10/04/2018 11:17 3985-639	JW	1/10/2019 10:39	JW	TLD-22	Outside of the fence of the locked air sampling station at the rear corner of the Bethel Cumberland Presbyterian Church Cemetery	N 37 00 05.36	W 088 52 36.29	-8159	-46801	N/A

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4th Quarter CY 2018 TLD Location Information

Date/Time Issued/Badge ID	Issued By	Date/Time Collected	Collected By	Location Name	Description	NorthLong	West or East Lat	Xcoord	Ycoord	Comments
N/A	N/A	N/A	N/A	TLD-23	Outside of the fence of the locked air sampling station at the northwest corner of the Heath ballpark fields	N 37 05 50.80	W 088 46 57.78	5667	-4583	N/A
N/A	N/A	N/A	N/A	TLD-24	BJC Kevil facility on stairway handrail outside southwest corner of building	N 37 04 39.52	W 088 52 51.97	N/A	N/A	N/A
10/04/2018 15:25 3986-640	JW	1/10/2019 8:07	JW	TLD-25	On power line tower nearest Dykes Road southeast of C-745-T	N 37 06 00.02	W 088 48 26.49	-1401	-6172	N/A
N/A	N/A	N/A	N/A	TLD-26	Massac Creek to left of path in tree. Highway 62 Bridge past Sunshine Dairy	N 36 57 31.92	W 088 25 13.90	122314	-15495	N/A
N/A	N/A	N/A	N/A	TLD-27	"Do not block entrance" sign on Plant Access Road near Post 15 and motorcycle parking area (C-800). Motorcycle Shed, Post 15	N 37 06 40.78	W 088 48 54.33	-4883	-3431	N/A
N/A	N/A	N/A	N/A	TLD-28	Bethel Church Road, turn right on Bobo Road, left on intersection, located in trees at Monitoring Well 194. Sign near staircase on Big Bayou, MW194	N 37 07 44.580	W 088 49 34.140	-10105	1884	N/A
N/A	N/A	N/A	N/A	TLD-29	First bunker off Ogden Landing Road, across from WKWMA Clubhouse, placed at the back side rafter, inside the window on the overhang. Inside the bunker, south of horse barn, west wall	N 37 07 55.380	W 088 48 41.820	-6503	4306	N/A

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4th Quarter CY 2018 TLD Location Information

Date/Time Issued/Badge ID	Issued By	Date/Time Collected	Collected By	Location Name	Description	NorthLong	West or East Lat	Xcoord	Ycoord	Comments
10/04/2018 13:30 3987-641	JW	1/10/2019 12:13	JW	TLD-30	Take the road by the PGDP landfills, drive past Monitoring Well 98, turn left at three-way, Monitoring Well 235 intersection at Tract 7 sign. The TLD is hung on the inside of the sign. Boldry School Rd., Tract 7 sign, west of MW381	N 37 08 21.060	W 088 45 09.060	-4836	7876	N/A
N/A	N/A	N/A	N/A	TLD-31	Boldry School Road straight through gravel road, turn right at Tract 6 gate, turn left at intersection, back to circle at dirt road, (L241) about 30 feet off road in a tree. Top of hill at pipeline in tree. (Green Scorpion)	N 37 09 02.580	W 088 47 25.620	-3201	12751	N/A
N/A	N/A	N/A	N/A	TLD-32	Boldry School Road, past Ducks Unlimited Area on Tract 6, located in a tree on the side of the road. South Dead Dog Rd in tree East side of road. 30 yds prior to Tract 6 Sign	N 37 09 50.040	W 088 48 03.480	-5489	15453	N/A
N/A	N/A	N/A	N/A	TLD-33	Harmony Cemetery off Dykes Road behind PGDP, on the large tree in the center	N 37 07 17.580	W 088 48 12.540	-2886	1553	N/A
N/A	N/A	N/A	N/A	TLD-34	Dykes Road back side of PGDP, across from Monitoring Well 145, Monitoring Well 144 on the gravel road	N 37 06 58.440	W 088 48 52.320	-779	940	N/A

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4th Quarter CY 2018 TLD Location Information

Date/Time Issued/Badge ID	Issued By	Date/Time Collected	Collected By	Location Name	Description	NorthLong	West or East Lat	Xcoord	Ycoord	Comments
10/04/2018 09:25 3988-642	JW	1/10/2019 8:49	JW	TLD-35	Outfall 017 off of Plant Access Road. Outfall 017 DuF6 laydown yard	N 37 06 21.480	W 088 49 03.960	-4773	-5806	N/A
N/A	N/A	N/A	N/A	TLD-36	PGDP plant access road, turn at DOE, turn towards Northwest Plume facility, turn towards landfill (C-746-K) at creek on road and the end of the bridge. Randy Bridge	N 37 06 50.640	W 088 49 23.040	-7321	-2865	N/A
10/04/2018 09:56 3989-643	JW	1/10/2019 9:13	JW	TLD-37	KPDES Outfall 001 behind Vortec facility. K001	N 37 07 18.600	W 088 49 15.660	-8202	138	N/A
10/04/2018 14:16 3990-644	JW	1/10/2019 12:49	JW	TLD-38	Five-Points Creek with concrete bridge, on tree behnd 2A sign.	N 37 06 43.320	W 088 50 09.000	-10630	-4528	N/A
N/A	N/A	N/A	N/A	TLD-39	Outfall 10 off Dykes Road near C-755 complex. Outfall 010	N 37 06 33.540	W 088 48 00.900	-612.5	-2231.25	N/A
10/04/2018 12:19 3991-645	JW	1/10/2019 8:11	JW	TLD-40	Turn north on Kelly Road off Woodville Road, go about 1/2 mile on Kelly road and turn left, go about 1/2 miles, TLD placed in trees on left. Orange sign on blocked road, east of 57 off Dykes Rd.	N 37 05 52.200	W 088 48 52.20	-2818	-7551	N/A
N/A	N/A	N/A	N/A	TLD-41	Acid Road near old monitoring well past bridge. Acid Rd by COE monitoring well.	N 37 06 07.800	W 088 50 18.360	-10116	-6298	N/A
N/A	N/A	N/A	N/A	TLD-42	Ogden Landing Road, past landfill, at Northeast Plume, on "No Tresspassing" sign	N 37 06 55.380	W 088 47 19.080	-1219	-1701	N/A

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4th Quarter CY 2018 TLD Location Information

Date/Time Issued/Badge ID	Issued By	Date/Time Collected	Collected By	Location Name	Description	NorthLong	West or East Lat	Xcoord	Ycoord	Comments
N/A	N/A	N/A	N/A	TLD-43	Monitoring Well 98 on road past landfill, in the trees	N 37 08 12.240	W 088 47 50.700	-3125	-6568	N/A
N/A	N/A	N/A	N/A	TLD-44	Outside security fence west of Lasagna site on the corner post of posted area - southeast corner	N 37 07 08.880	W 088 49 12.780	-7337	-1591	N/A
N/A	N/A	N/A	N/A	TLD-45	At C-743 trailer complex at walk-in gate	N 37 06 45.900	W 088 49 04.620	-7337	-474	N/A
10/04/2018 09:31 3992-646	JW	1/10/2019 8:55	JW	TLD-46	Truck entrance at receiving C-720	N 37 06 44.700	W 088 49 00.120	-5198	-2865	NA
N/A	N/A	N/A	N/A	TLD-47	Tree line south of C-745-T Cylinder Storage Yard. First road on left on Dykes Rd past 57. Last tree on right before clearing	N 37 06 00.300	W 088 48.49.380	-3156	-6777	N/A
N/A	N/A	N/A	N/A	TLD-48	Tree line along the security fence east of C-745-H. Gate 44 road, NE corner of fence	N 37 07 06.60	W 088 47.53.82	-1225	1064	N/A
N/A	N/A	N/A	N/A	TLD-49	Outfall 001 Posted Area. Power pole North C-612 T1	N 37 07 26.52	W 088 49.04.92	-7325	984	N/A
10/04/2018 09:49 3993-647 2884	JW	1/10/2019 9:05	JW	TLD-50	West Patrol Road fence across from C-745-A	N 37 07 02.88	W 088 49.15.18	-7287	-1547	N/A
N/A	N/A	N/A	N/A	TLD-51	Outfall 015 Posted Area	N 37 07 07.02	W 088 49.13.68	-7316	-1112	N/A
10/04/2018 08:28 3994-648	JW	1/10/2019 7:54	JW	TLD-52	East Patrol Road fence across from C-745-E.	N 37 06 42.18	W 088 48.07.20	-1397	-1628	N/A
10/04/2018 15:35 3995-649	JW	1/10/2019 8:18	JW	TLD-53	Security fence at southeast corner of C-745-T Yard. Down fence line away from TLD-2.	N 37 06 00.42	W 088 48.37.02	-2220	-6423	N/A

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4th Quarter CY 2018 TLD Location Information

Date/Time Issued/Badge ID	Issued By	Date/Time Collected	Collected By	Location Name	Description	NorthLong	West or East Lat	Xcoord	Ycoord	Comments
10/04/2018 10:27 3996-650	KA	1/10/2019 10:00	KA	TLD-54	Residence; Jalusian Trail	N 57 87 72.16	E 23 93 13.48	45296	-25254	N/A
N/A	N/A	N/A	N/A	TLD-55	C-410/420 Office/BCS	N 59 10 67.99	E 22 80 74.83	-3963	-1574	Discontinued 7/10/2014
N/A	N/A	N/A	N/A	TLD-56	O/S C-410 Truck Alley Facing C-412	N 59 09 84.68	E 22 81 16.67	-3733	-1776	N/A
N/A	N/A	N/A	N/A	TLD-57	C-340 Foyer	N 59 04 60.56	E 22 85 14.19	-1882	-2886	N/A
10/04/2018 09:50 3997-651	JW	1/10/2019 7:50	JW	TLD-58	West Central C-755 Complex	N 59 07 98.00	E 22 88 70.74	-1209	-1422	N/A
10/08/2018 13:30 3998-652	JW	1/9/2019 14:40	JW	TLD-59	C-752A Break Area	N 59 15 61.62	E 22 78 55.79	-5234	-339	N/A
10/04/2018 16:01 3999-653	JW	1/9/2019 14:30	JW	TLD-60	C-333A Light Pole on Fence Pole #16	N 59 02 07.10	E 22 80 71.62	-2919	-4199	N/A
10/04/2018 16:02 4000-654	JW	1/9/2019 14:33	JW	TLD-61	West of C-746Q Light Pole #14	N 59 01 58.14	E 22 80 98.35	-2778	-4315	N/A
10/08/2018 13:48 4001-655	JW	1/9/2019 13:05	JW	TLD-62	C-743 Trailer Complex Light Pole #336,behind Trailer #3.	N 59 10 20.18	E 22 73 49.81	-6111	-2607	N/A
10/08/2018 12:33 4002-656	JW	1/9/2019 14:47	JW	TLD-63	C-412 HP Break Trailer	N 59 08 36.46	E 22 79 46.95	-4069	-2435	N/A
10/04/2018 12:00 4003-657	JW	1/10/2019 9:30	JW	TLD-64	C-764 T-6 Trailer	N 59 11 77.55	E 22 70 88.88	-7098	-2447	N/A
10/04/2018 08:55 4004-658 2885	JW	1/10/2019 13:44	JW	TLD-65	Located O/S of North Security fence North of C- 745H Cylinder Yard; South of C-762 Laydown Yard	N 37 07 08.54386	W 088 48 00.45376	-1795	1062	N/A
10/04/2018 08:41 4005-659	JW	1/10/2019 11:49	JW	TLD-66	Located on tree @Southeast corner of New Harmony Cemetery; adjacent to last concrete barrier & large metal post	N 37 07 15.80859	W 088 48 11.08836	-2856	1457	N/A

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4th Quarter CY 2018 TLD Location Information

Date/Time Issued/Badge ID	Issued By	Date/Time Collected	Collected By	Location Name	Description	NorthLong	West or East Lat	Xcoord	Ycoord	Comments
10/04/2018 08:39 4006-660	JW	1/10/2019 11:46	JW	TLD-67	Located on "No Trespassing" sign North side of Dykes Rd next to Security Fence North of C-762 Laydown yard	N 37 07 12.70502	W 088 47 56.75697	-1658	1560	N/A
10/04/2018 09:53 4007-661 2886	JW	1/10/2019 9:07	JW	TLD-68	West Security Fence West of C-745B Cylinder Yard & Southeast of Vortec Site	N 37 07 11.60797	W 088 49 11.43416	-7302	-617	N/A
10/04/2018 09:40 4008-662	JW	1/10/2019 9:00	JW	TLD-69	Wooden utility pole (T12-15 H) next to gravel road @Northeast corner of pond North of C-611	N 37 07 13.70394	W 088 49 28.37928	-8664	-888	N/A
10/04/2018 09:23 4009-663	JW	1/10/2019 8:46	JW	TLD-70	O/S of West Security Fence Southeast of C-333 midway between C810 parking area & North DuF6 Security Fence	N 37 06 27.82855	W 088 48 50.25203	-4173	-4189	N/A
10/04/2018 09:21 4010-664	JW	1/10/2019 8:43	JW	TLD-71	O/S of West Security Fence of DuF6 under security light, Northeast of wooden utility pole (11056 KU 78487)	N 37 06 23.05971	W 088 48 59.65074	-4723	-4903	N/A
10/04/2018 09:07 4011-665	JW	1/10/2019 9:39	JW	TLD-72	North Side of Air Monitoring Station AMD57, Northwest of Post 57	N 37 05 55.32798	W 088 49 15.28582	-4952	-7972	N/A
10/04/2018 14:24 4012-666	JW	1/10/2019 12:56	JW	TLD-73	Eastern "Railroad Crossing" sign @train tracks on Acid Road	N 37 06 06.14205	W 088 50 02.01070	-8883	-8241	N/A
10/04/2018 12:12 4013-667	JW	1/10/2019 11:04	JW	TLD-74	Located on "Warning Siren" sign @turnoff North of Magruder & Woodville intersection	N 37 05 10.96196	W 088 48 53.61411	-1765	-11586	N/A

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4th Quarter CY 2018 TLD Location Information

Date/Time Issued/Badge ID	Issued By	Date/Time Collected	Collected By	Location Name	Description	NorthLong	West or East Lat	Xcoord	Ycoord	Comments
10/04/2018 12:15 4014-668	JW	1/10/2019 11:09	JW	TLD-75	Located on "Warning Siren" sign @North of Kelley Rd & Woodville Rd intersection	N 37 05 04.94525	W 088 48 26.65157	496	-11409	N/A
10/04/2018 12:26 4015-669	JW	1/10/2019 11:14	JW	TLD-76	Located on "Tract A" sign below power lines southside of Kelley Rd in sharp curve between Woodville & McCaw Rds	N 37 05 55.05466	W 088 48 06.27328	310	-6082	N/A
10/04/2018 12:30 4016-670	JW	1/10/2019 11:19	JW	TLD-77	Located on "Warning Siren" sign North side of McCaw Rd east of Kelley Rd intersection	N 37 06 25.46598	W 088 47 33.66599	1737	-2287	N/A
10/04/2018 13:06 4017-671	JW	1/10/2019 11:57	JW	TLD-78	Northeast Corner of C-746U Landfill Security Fence	N 37 07 54.00752	W 088 47 37.45924	-1622	6020	N/A
10/04/2018 10:01 4018-672	JW	1/10/2019 9:22	JW	TLD-79	Located on left post of the "Wildlife Management" gate on New Waterline Rd Southwest of Plant gate 41A west of C-612	N 37 07 28.86304	W 88 49 12.50003	-7981	993	N/A
10/04/2018 13:37 4019-673	JW	1/10/2019 12:22	JW	TLD-80	Located on "Cattle" gate west of MW 453 & MW 454 on gravel rd east of New Waterline Rd	N 37 07 47.29850	W 088 48 46.10944	-6612	3477	N/A
10/04/2018 09:18 4020-674 2887	JW	1/10/2019 8:35	JW	TLD-81	Southeast corner of DuF6 security fence next to gate V1 East of New Waterline East of C1100	N 37 06 18.33947	W 088 48 56.42591	-4314	-5262	N/A
10/04/2018 09:01 4021-675	JW	1/10/2019 7:58	JW	TLD-82	Short pole East of Dykes Rd North of Outfall 13	N 37 06 10.13175	W 088 48 13.53048	-765	-4851	N/A
10/04/2018 15:20 4022-676 2888	JW	1/10/2019 8:01	JW	TLD-83	Large metal power pole West of Dykes Rd South of Outfall 13	N 37 06 07.30640	W 088 48 20.71726	-1214	-5319	N/A

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4th Quarter CY 2018 TLD Location Information

Date/Time Issued/Badge ID	Issued By	Date/Time Collected	Collected By	Location Name	Description	NorthLong	West or East Lat	Xcoord	Ycoord	Comments
10/04/2018 08:37 4023-677	JW	1/10/2019 14:05	JW	TLD-84	Located @MW496 on the East Side of Dykes Rd	N 37 07 03.50589	W 088 47 49.26485	-769	894	N/A
10/04/2018 17:00 4024-678	SO	1/9/2019 17:00	SO	TLD-85	Residence; corner of Springwell and Buckner Lane	N 37 03 27.9036	W 088 40 43.9638	39082	-7750	N/A
10/04/2018 12:07 4025-679	JW	1/10/2019 10:59	JW	TLD-86	Plant Entrance, Gravel Construction Rd. Right side on orange warning signal sign	N 37 5 18.8622	W 088 49 28.2282	-4676	-11794	N/A
10/04/2018 14:29 4026-680	JW	1/10/2019 13:01	JW	TLD-87	KOW Entrance north of Woodville Rd north of Kevil Eagles. Right side on orange warning signal sign	N 37 05 24.2802	W 088 50 43.9548	-10629	-13381	N/A
10/04/2018 14:58 4027-681	JW	1/10/2019 12:35	JW	TLD-88	Bethel Church Road KOW entrance. North of Massay Rd, right side on yellow post	N 37 07 05.4876	W 088 50 37.9608	-13677	-3597	N/A
10/04/2018 13:51 4028-682	JW	1/10/2019 12:32	JW	TLD-89	Bobo Rd, off of Bethel Church Rd. Continue east 200 yds past end of asphalt. At intersection on orange warning signal sign	N 37 07 35.9976	W 088 49 44.3922	-10657	788	N/A
10/04/2018 13:41 4029-683	JW	1/10/2019 12:20	JW	TLD-90	Bridge on Ogden Landing Rd east of Lamb's garage. On NE corner of bridge on contaminated creek sign	N 37 08 54.6714	W 088 47 27.2472	-12310	7182	N/A
10/04/2018 13:22 4030-684	JW	1/10/2019 12:09	JW	TLD-91	Boldry School Rd on KOW at Shawnee plant entrance. On cattle gate road on hill, right side	N 37 08 40.9884	W 088 49 36.5232	-2952	12069	N/A

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4th Quarter CY 2018 TLD Location Information

Date/Time Issued/Badge ID	Issued By	Date/Time Collected	Collected By	Location Name	Description	NorthLong	West or East Lat	Xcoord	Ycoord	Comments
10/04/2018 13:13 4031-685	JW	1/10/2019 12:01	N/A	TLD-92	First left road past C-746-U Landfill,cross Iron Bridge, on ICM-01 Notice Sign across from MW 133	N 37 08 23.18	W 088 47 25.41	9125	-1717	N/A
10/04/2018 12:49 4032-686	JW	1/10/2019 11:29	JW	TLD-93	MW 100, North on Metropolis Lake Rd past railroad tracks on left side on Well bollard	N 37 08 09.0744	W 088 46 50.9304	4874	7186	N/A
10/04/2018 12:52 4033-687	JW	1/10/2019 11:33	JW	TLD-94	Residence; corner of Ogden Landing Rd & Metropolis Lake Rd	N 37 05 48.9294	W 088 47 12.4332	4740	436	N/A
10/04/2018 12:44 4034-688	JW	1/10/2019 11:22	JW	TLD-95	West McCracken Health Clinic, Metropolis Lake Rd. On Light Pole in SW corner of parking lot	N 37 06 40.5468	W 088 46 47.2872	4617	-5167	N/A
10/04/2018 16:00 4035-689	JW	1/10/2019 16:00	JW	TLD-FB	Taken along while placing and collecting all other samples - stored in "lead box" at C-101 Dosimetry office	N/A	N/A	NA	NA	N/A
10/04/2018 690 4036-690	JW	1/9/2019 7:00	JW	TLD-TB	Stored in "lead box" at C-101 Dosimetry office	N/A	N/A	NA	NA	N/A
4037-691	JW	N/A	N/A	SPARE	Lead Box in C-101 Dosimetry office	N/A	N/A	N/A	N/A	N/A
4038-692	JW	N/A	N/A	SPARE	Lead Box in C-101 Dosimetry office	N/A	N/A	N/A	N/A	N/A
4039-693	JW	N/A	N/A	SPARE	Lead Box in C-101 Dosimetry office	N/A	N/A	N/A	N/A	N/A
4040-694	JW	N/A	N/A	SPARE	Lead Box in C-101 Dosimetry office	N/A	N/A	N/A	N/A	N/A
4041-695	JW	N/A	N/A	SPARE	Lead Box in C-101 Dosimetry office	N/A	N/A	N/A	N/A	N/A
4042-696	JW	N/A	N/A	SPARE	Lead Box in C-101 Dosimetry office	N/A	N/A	N/A	N/A	N/A
3969-621	JW	N/A	N/A	SPARE	Lead Box in C-101 Dosimetry office	N/A	N/A	N/A	N/A	N/A

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4th Quarter CY 2018 TLD Location Information

Date/Time Issued/Badge ID	Issued By	Date/Time Collected	Collected By	Location Name	Description	NorthLong	West or East Lat	Xcoord	Ycoord	Comments
3970-622	JW	N/A	N/A	SPARE	Lead Box in C-101 Dosimetry office	N/A	N/A	N/A	N/A	N/A
3971-623	JW	N/A	N/A	SPARE	Lead Box in C-101 Dosimetry office	N/A	N/A	N/A	N/A	N/A
3967-624	JW	N/A	N/A	SPARE	Lead Box in C-101 Dosimetry office	N/A	N/A	N/A	N/A	N/A

APPENDIX C
TLD ANALYTICAL DATA

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Global Dosimetry Solutions Environmental Report

Account	98365 Four Rivers Nuclear Partnership, LLC
Location	00000LAT
Monitoring Period	1/1/2018
Process	0238432

Badge Number	Name	Exposure mR*
	CONTROL	12
	CONTROL	12
625	ENVIRONMENTAL	206
626	ENVIRONMENTAL	229
627	ENVIRONMENTAL	23
628	ENVIRONMENTAL	20
629	ENVIRONMENTAL	23
630	ENVIRONMENTAL	19
631	ENVIRONMENTAL	26
632	ENVIRONMENTAL	21
633	ENVIRONMENTAL	20
634	ENVIRONMENTAL	23
635	ENVIRONMENTAL	21
636	ENVIRONMENTAL	17
637	ENVIRONMENTAL	24
639	ENVIRONMENTAL	20
640	ENVIRONMENTAL	30
641	ENVIRONMENTAL	19
642	ENVIRONMENTAL	26
643	ENVIRONMENTAL	22
644	ENVIRONMENTAL	23
645	ENVIRONMENTAL	27
646	ENVIRONMENTAL	19

*- No control exposures have been subtracted, and only element, reader and fade corrections have been made.

+ - Unusual element result observed. D - Element damaged and cannot be evaluated.



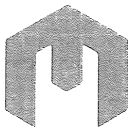
Global Dosimetry Solutions Environmental Report

Account	98365	Four Rivers Nuclear Partnership, LLC
Location	00000LAT	
Monitoring Period	1/1/2018	
Process	0238432	

Badge Number	Name	Exposure mR*
647	ENVIRONMENTAL	42
648	ENVIRONMENTAL	19
649	ENVIRONMENTAL	107
650	ENVIRONMENTAL	23
651	ENVIRONMENTAL	17
652	ENVIRONMENTAL	16
653	ENVIRONMENTAL	260
654	ENVIRONMENTAL	483
655	ENVIRONMENTAL	16
656	ENVIRONMENTAL	16
657	ENVIRONMENTAL	16
658	ENVIRONMENTAL	19
659	ENVIRONMENTAL	21
660	ENVIRONMENTAL	24
661	ENVIRONMENTAL	21
662	ENVIRONMENTAL	18
663	ENVIRONMENTAL	45
664	ENVIRONMENTAL	35
665	ENVIRONMENTAL	23
666	ENVIRONMENTAL	20
667	ENVIRONMENTAL	24
668	ENVIRONMENTAL	21
669	ENVIRONMENTAL	20

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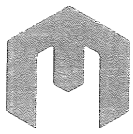
Global Dosimetry Solutions Environmental Report

Account	98365 Four Rivers Nuclear Partnership, LLC.
Location	00000LAT
Monitoring Period	1/1/2018
Process	0238432

Badge Number	Name	Exposure mR*
670	ENVIRONMENTAL	19
671	ENVIRONMENTAL	25
672	ENVIRONMENTAL	21
673	ENVIRONMENTAL	22
674	ENVIRONMENTAL	84
675	ENVIRONMENTAL	29
676	ENVIRONMENTAL	50
677	ENVIRONMENTAL	21
678	ENVIRONMENTAL	21
679	ENVIRONMENTAL	21
680	ENVIRONMENTAL	23
681	ENVIRONMENTAL	23
682	ENVIRONMENTAL	21
683	ENVIRONMENTAL	20
684	ENVIRONMENTAL	22
685	ENVIRONMENTAL	21
686	ENVIRONMENTAL	20
687	ENVIRONMENTAL	21
688	ENVIRONMENTAL	22
689	ENVIRONMENTAL	13
690	ENVIRONMENTAL	15
691	ENVIRONMENTAL	12
692	ENVIRONMENTAL	12

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Global Dosimetry Solutions Environmental Report

Account	98365	Four Rivers Nuclear Partnership, LLC
Location	00000LAT	
Monitoring Period	1/1/2018	
Process	0238432	

Badge Number	Name	Exposure mR*
693	ENVIRONMENTAL	12
694	E NVIRONMENTAL	13
695	ENVIRONMENTAL	12
696	ENVIRONMENTAL	12

*- No control exposures have been subtracted, and only element, reader and fade corrections have been made.

+ - Unusual element result observed. D - Element damaged and cannot be evaluated.



Global Dosimetry Solutions Environmental Report

Account	98365	Four Rivers Nuclear Partnership, LLC
Location	00000LAT	
Monitoring Period	4/1/2018	
Process	0239317	

Badge Number	Name	Exposure mR*
	CONTROL	11
	CONTROL	12
625	ENVIRONMENTAL	183
626	ENVIRONMENTAL	229
627	ENVIRONMENTAL	21
628	ENVIRONMENTAL	17
629	ENVIRONMENTAL	18
630	ENVIRONMENTAL	16
631	ENVIRONMENTAL	20
632	ENVIRONMENTAL	15
633	ENVIRONMENTAL	15
634	ENVIRONMENTAL	18
635	ENVIRONMENTAL	14
636	ENVIRONMENTAL	14
637	ENVIRONMENTAL	21
638	ENVIRONMENTAL	13
639	ENVIRONMENTAL	16
640	ENVIRONMENTAL	23
641	ENVIRONMENTAL	18
642	ENVIRONMENTAL	24
643	ENVIRONMENTAL	17
644	ENVIRONMENTAL	18
645	ENVIRONMENTAL	23

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Global Dosimetry Solutions Environmental Report

Account	98365	Four Rivers Nuclear Partnership, LLC
Location	00000LAT	
Monitoring Period	4/1/2018	
Process	0239317	

Badge Number	Name	Exposure mR*
646	ENVIRONMENTAL	12
647	ENVIRONMENTAL	36
648	ENVIRONMENTAL	16
649	ENVIRONMENTAL	81
650	ENVIRONMENTAL	31
651	ENVIRONMENTAL	280
652	ENVIRONMENTAL	15
653	ENVIRONMENTAL	282
654	ENVIRONMENTAL	489
655	ENVIRONMENTAL	15
656	ENVIRONMENTAL	15
657	ENVIRONMENTAL	16
658	ENVIRONMENTAL	15
659	ENVIRONMENTAL	17
660	ENVIRONMENTAL	21
661	ENVIRONMENTAL	17
662	ENVIRONMENTAL	14
663	ENVIRONMENTAL	42
664	ENVIRONMENTAL	31
665	ENVIRONMENTAL	16
666	ENVIRONMENTAL	15
667	ENVIRONMENTAL	19
668	ENVIRONMENTAL	19

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Global Dosimetry Solutions Environmental Report

Account	98365 Four Rivers Nuclear Partnership, LLC
Location	00000LAT
Monitoring Period	4/1/2018
Process	0239317

Badge Number	Name	Exposure mR*
669	ENVIRONMENTAL	17
670	ENVIRONMENTAL	16
671	ENVIRONMENTAL	19
672	ENVIRONMENTAL	16
673	ENVIRONMENTAL	18
674	ENVIRONMENTAL	78
675	ENVIRONMENTAL	22
676	ENVIRONMENTAL	37
677	ENVIRONMENTAL	15
678	ENVIRONMENTAL	16
679	ENVIRONMENTAL	+
680	ENVIRONMENTAL	17
681	ENVIRONMENTAL	18
682	ENVIRONMENTAL	18
683	ENVIRONMENTAL	17
684	ENVIRONMENTAL	17
685	ENVIRONMENTAL	12
686	ENVIRONMENTAL	16
687	ENVIRONMENTAL	18
688	ENVIRONMENTAL	17
689	ENVIRONMENTAL	13
690	ENVIRONMENTAL	11
691	ENVIRONMENTAL	12

*- No control exposures have been subtracted, and only element, reader and fade corrections have been made.

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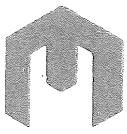
Global Dosimetry Solutions Environmental Report

Account	98365	Four Rivers Nuclear Partnership, LLC
Location	00000LAT	
Monitoring Period	4/1/2018	
Process	0239317	

Badge Number	Name	Exposure mR*
692	ENVIRONMENTAL	11
693	ENVIRONMENTAL	13
694	ENVIRONMENTAL	12
695	ENVIRONMENTAL	12
696	ENVIRONMENTAL	12

*- No control exposures have been subtracted, and only element, reader and fade corrections have been made.

+ - Unusual element result observed. D - Element damaged and cannot be evaluated.



Global Dosimetry Solutions Environmental Report

Account	98365	Four Rivers Nuclear Partnership, LLC
Location	00000LAT	
Monitoring Period	7/1/2018	
Process	0240435	

Badge Number	Name	Exposure mR*
	CONTROL	15
	CONTROL	14
625	ENVIRONMENTAL	204
626	ENVIRONMENTAL	266
627	ENVIRONMENTAL	22
628	ENVIRONMENTAL	20
629	ENVIRONMENTAL	20
630	ENVIRONMENTAL	17
631	ENVIRONMENTAL	30
632	ENVIRONMENTAL	17
633	ENVIRONMENTAL	20
634	ENVIRONMENTAL	20
635	ENVIRONMENTAL	17
636	ENVIRONMENTAL	16
637	ENVIRONMENTAL	24
638	ENVIRONMENTAL	21
639	ENVIRONMENTAL	19
640	ENVIRONMENTAL	32
641	ENVIRONMENTAL	21
642	ENVIRONMENTAL	28
643	ENVIRONMENTAL	22
644	ENVIRONMENTAL	24
645	ENVIRONMENTAL	23

* - No control exposures have been subtracted, and only element, reader and fade corrections have been made.

+ - Unusual element result observed. D - Element damaged and cannot be evaluated.



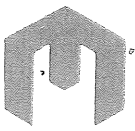
Global Dosimetry Solutions Environmental Report

Account	98365 Four Rivers Nuclear Partnership, LLC
Location	00000LAT
Monitoring Period	7/1/2018
Process	0240435

Badge Number	Name	Exposure mR*
646	ENVIRONMENTAL	18
647	ENVIRONMENTAL	41
648	ENVIRONMENTAL	16
649	ENVIRONMENTAL	91
650	ENVIRONMENTAL	35
651	ENVIRONMENTAL	15
652	ENVIRONMENTAL	16
653	ENVIRONMENTAL	244
654	ENVIRONMENTAL	664
655	ENVIRONMENTAL	16
656	ENVIRONMENTAL	18
657	ENVIRONMENTAL	18
658	ENVIRONMENTAL	16
659	ENVIRONMENTAL	23
660	ENVIRONMENTAL	21
661	ENVIRONMENTAL	20
662	ENVIRONMENTAL	16
663	ENVIRONMENTAL	47
664	ENVIRONMENTAL	35
665	ENVIRONMENTAL	20
666	ENVIRONMENTAL	18
667	ENVIRONMENTAL	23
668	ENVIRONMENTAL	25

* - No control exposures have been subtracted, and only element, reader and fade corrections have been made.

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Global Dosimetry Solutions Environmental Report

Account	98365	Four Rivers Nuclear Partnership, LLC
Location	00000LAT	
Monitoring Period	7/1/2018	
Process	0240435	

Badge Number	Name	Exposure mR*
669	ENVIRONMENTAL	20
670	ENVIRONMENTAL	21
671	ENVIRONMENTAL	24
672	ENVIRONMENTAL	22
673	ENVIRONMENTAL	20
674	ENVIRONMENTAL	93
675	ENVIRONMENTAL	27
676	ENVIRONMENTAL	52
677	ENVIRONMENTAL	19
678	ENVIRONMENTAL	17
679	ENVIRONMENTAL	21
680	ENVIRONMENTAL	21
681	ENVIRONMENTAL	21
682	ENVIRONMENTAL	22
683	ENVIRONMENTAL	20
684	ENVIRONMENTAL	20
685	ENVIRONMENTAL	22
686	ENVIRONMENTAL	22
687	ENVIRONMENTAL	20
688	ENVIRONMENTAL	19
689	ENVIRONMENTAL	14
690	ENVIRONMENTAL	19
691	ENVIRONMENTAL	13

*- No control exposures have been subtracted, and only element, reader and fade corrections have been made.

+ - Unusual element result observed. D - Element damaged and cannot be evaluated.



Global Dosimetry Solutions Environmental Report

Account	98365	Four Rivers Nuclear Partnership, LLC
Location	00000LAT	
Monitoring Period	7/1/2018	
Process	0240435	

Badge Number	Name	Exposure mR*
692	ENVIRONMENTAL	14
693	ENVIRONMENTAL	13
694	ENVIRONMENTAL	15
695	ENVIRONMENTAL	14
696	ENVIRONMENTAL	14

* - No control exposures have been subtracted, and only element, reader and fade corrections have been made.

+ - Unusual element result observed. D - Element damaged and cannot be evaluated.



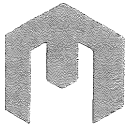
Global Dosimetry Solutions Environmental Report

Account	98365	Four Rivers Nuclear Partnership, LLC
Location	00000LAT	
Monitoring Period	7/1/2018	
Process	0240223	

Badge Number	Name	Exposure mR*
	CONTROL-DAILY	9
	CONTROL-DAILY	9
	CONTROL-DAILY	8
621	ENVIRONMENTAL	10
622	ENVIRONMENTAL	10
623	ENVIRONMENTAL	9
624	ENVIRONMENTAL	10

*- No control exposures have been subtracted, and only element, reader and fade corrections have been made.

+ - Unusual element result observed. D - Element damaged and cannot be evaluated.



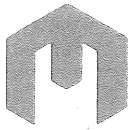
Global Dosimetry Solutions Environmental Report

Account	98365	Four Rivers Nuclear Partnership, LLC
Location	00000LAT	
Monitoring Period	10/1/2018	
Process	0241381	

Badge Number	Name	Exposure mR*
	CONTROL	12
	CONTROL	11
621	ENVIRONMENTAL	19
622	ENVIRONMENTAL	19
623	ENVIRONMENTAL	16
624	ENVIRONMENTAL	18
625	ENVIRONMENTAL	+
626	ENVIRONMENTAL	+
627	ENVIRONMENTAL	22
628	ENVIRONMENTAL	24
629	ENVIRONMENTAL	26
630	ENVIRONMENTAL	21
631	ENVIRONMENTAL	33
632	ENVIRONMENTAL	20
633	ENVIRONMENTAL	23
634	ENVIRONMENTAL	24
635	ENVIRONMENTAL	22
636	ENVIRONMENTAL	19
637	ENVIRONMENTAL	26
638	ENVIRONMENTAL	22
639	ENVIRONMENTAL	26
640	ENVIRONMENTAL	33
641	ENVIRONMENTAL	23

*- No control exposures have been subtracted, and only element, reader and fade corrections have been made.

+ - Unusual element result observed. D - Element damaged and cannot be evaluated.



Global Dosimetry Solutions Environmental Report

Account	98365 Four Rivers Nuclear Partnership, LLC
Location	00000LAT
Monitoring Period	10/1/2018
Process	0241381

Badge Number	Name	Exposure mR*
642	ENVIRONMENTAL	30
643	ENVIRONMENTAL	22
644	ENVIRONMENTAL	23
645	ENVIRONMENTAL	28
646	ENVIRONMENTAL	21
647	ENVIRONMENTAL	54
648	ENVIRONMENTAL	22
649	ENVIRONMENTAL	114
650	ENVIRONMENTAL	32
651	ENVIRONMENTAL	19
652	ENVIRONMENTAL	18
653	ENVIRONMENTAL	368
654	ENVIRONMENTAL	687
655	ENVIRONMENTAL	18
656	ENVIRONMENTAL	15
657	ENVIRONMENTAL	16
658	ENVIRONMENTAL	15
659	ENVIRONMENTAL	20
660	ENVIRONMENTAL	23
661	ENVIRONMENTAL	22
662	ENVIRONMENTAL	18
663	ENVIRONMENTAL	52
664	ENVIRONMENTAL	+

*- No control exposures have been subtracted, and only element, reader and fade corrections have been made.

+ - Unusual element result observed. D - Element damaged and cannot be evaluated.



Global Dosimetry Solutions Environmental Report

Account	98365	Four Rivers Nuclear Partnership, LLC
Location	0000LAT	
Monitoring Period	10/1/2018	
Process	0241381	

Badge Number	Name	Exposure mR*
665	ENVIRONMENTAL	22
666	ENVIRONMENTAL	20
667	ENVIRONMENTAL	26
668	ENVIRONMENTAL	21
669	ENVIRONMENTAL	23
670	ENVIRONMENTAL	21
671	ENVIRONMENTAL	26
672	ENVIRONMENTAL	21
673	ENVIRONMENTAL	22
674	ENVIRONMENTAL	103
675	ENVIRONMENTAL	32
676	ENVIRONMENTAL	61
677	ENVIRONMENTAL	19
678	ENVIRONMENTAL	21
679	ENVIRONMENTAL	22
680	ENVIRONMENTAL	21
681	ENVIRONMENTAL	23
682	ENVIRONMENTAL	23
683	ENVIRONMENTAL	25
684	ENVIRONMENTAL	24
685	ENVIRONMENTAL	19
686	ENVIRONMENTAL	22
687	ENVIRONMENTAL	22

* - No control exposures have been subtracted, and only element, reader and fade corrections have been made.

+ - Unusual element result observed. D - Element damaged and cannot be evaluated.



Global Dosimetry Solutions Environmental Report

Account	98365	Four Rivers Nuclear Partnership, LLC
Location	00000LAT	
Monitoring Period	10/1/2018	
Process	0241381	

Badge Number	Name	Exposure mR*
688	ENVIRONMENTAL	23
689	ENVIRONMENTAL	11
690	ENVIRONMENTAL	11
691	ENVIRONMENTAL	11
692	ENVIRONMENTAL	12
693	ENVIRONMENTAL	11
694	ENVIRONMENTAL	12
695	ENVIRONMENTAL	10
696	ENVIRONMENTAL	12

* - No control exposures have been subtracted, and only element, reader and face corrections have been made.

† - Unusual element result observed. D - Element damaged and cannot be evaluated.

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APPENDIX D
ENVIRONMENTAL TLD DATA

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TLD Number	Quarter 1						Quarter 2					Quarter 3					Quarter 4					Total Monitored Effective Dose (mrem)	Total Exposure Days	Annualized Effective Dose (mrem)	Net Annualized Effective Dose (mrem)	Net Annualized mrem/day	Net Annualized mrem/hr	Comments			
	TLD Location Number	Start	End	Exposure Days	Effective Dose (mrem)	Normalized Effective Dose/day	TLD Location Number	Start	End	Exposure Days	Effective Dose (mrem)	Normalized Effective Dose/day	TLD Location Number	Start	End	Exposure Days	Effective Dose (mrem)	Normalized Effective Dose/day	TLD Location Number	Start	End								Exposure Days	Effective Dose (mrem)	Normalized Effective Dose/day
1	1	1/11/2018	4/10/2018	89	206	2.31	1	4/10/2018	7/2/2018	83	183	2.20	1	7/2/2018	10/4/2018	94	204	2.17	1	10/4/2018	1/10/2019	98	218	2.22	811	364	813	728	1.995	0.083	The 4th Quarter TLD had a processing center stated unusual element result observed. Estimate of Effective Dose based on other three quarter readings.
2	2	1/11/2018	4/10/2018	89	229	2.57	2	4/10/2018	7/2/2018	83	229	2.76	2	7/2/2018	10/4/2018	94	266	2.83	2	10/4/2018	1/10/2019	98	267	2.72	991	364	994	909	2.490	0.104	The 4th Quarter TLD had a processing center stated unusual element result observed. Estimate of Effective Dose based on other three quarter readings.
3	3	1/11/2018	4/9/2018	88	23	0.26	3	4/9/2018	7/2/2018	84	21	0.25	3	7/2/2018	10/4/2018	94	22	0.23	3	10/4/2018	1/14/2019	102	22	0.22	88	368	87	2	0.006	0.000	
4	4	1/11/2018	4/10/2018	89	20	0.22	4	4/10/2018	7/2/2018	83	17	0.20	4	7/2/2018	10/4/2018	94	20	0.21	4	10/4/2018	1/10/2019	98	24	0.24	81	364	81	-4	-0.010	0.000	
5	5	1/11/2018	4/10/2018	89	23	0.26	5	4/10/2018	7/2/2018	83	18	0.22	5	7/2/2018	10/4/2018	94	20	0.21	5	10/4/2018	1/10/2019	98	26	0.27	87	364	87	2	0.006	0.000	
6	6	1/11/2018	4/10/2018	89	19	0.21	6	4/10/2018	7/2/2018	83	16	0.19	6	7/2/2018	10/4/2018	94	17	0.18	6	10/4/2018	1/10/2019	98	21	0.21	73	364	73	-12	-0.032	-0.001	
7	7	1/11/2018	4/10/2018	89	26	0.29	7	4/10/2018	7/2/2018	83	20	0.24	7	7/2/2018	10/4/2018	94	30	0.32	7	10/4/2018	1/10/2019	98	33	0.34	109	364	109	24	0.067	0.003	
8	9	1/11/2018	4/10/2018	89	21	0.24	9	4/10/2018	7/2/2018	83	15	0.18	9	7/2/2018	10/4/2018	94	17	0.18	9	10/4/2018	1/10/2019	98	20	0.20	73	364	73	-12	-0.032	-0.001	
9	12	1/11/2018	4/10/2018	89	20	0.22	12	4/10/2018	7/2/2018	83	15	0.18	12	7/2/2018	10/4/2018	94	20	0.21	12	10/4/2018	1/10/2019	98	23	0.23	78	364	78	-7	-0.019	-0.001	
10	13	1/11/2018	4/10/2018	89	23	0.26	13	4/10/2018	7/2/2018	83	18	0.22	13	7/2/2018	10/4/2018	94	20	0.21	13	10/4/2018	1/10/2019	98	24	0.24	85	364	85	0	0.000	0.000	
11	14	1/11/2018	4/9/2018	88	21	0.24	14	4/9/2018	7/2/2018	84	14	0.17	14	7/2/2018	10/4/2018	94	17	0.18	14	10/4/2018	1/10/2019	98	22	0.22	74	364	74	-11	-0.030	-0.001	
12	15	1/11/2018	4/9/2018	88	17	0.19	15	4/9/2018	7/2/2018	84	14	0.17	15	7/2/2018	10/4/2018	94	16	0.17	15	10/4/2018	1/10/2019	98	19	0.19	66	364	66	-19	-0.052	-0.002	
13	16	1/11/2018	4/10/2018	89	24	0.27	16	4/10/2018	7/2/2018	83	21	0.25	16	7/2/2018	10/4/2018	94	24	0.26	16	10/4/2018	1/10/2019	98	26	0.27	95	364	95	10	0.028	0.001	
14	19	1/11/2018	4/10/2018	89	18	0.20	19	4/10/2018	7/2/2018	83	13	0.16	19	7/2/2018	10/4/2018	94	21	0.22	19	10/4/2018	1/10/2019	98	22	0.22	74	364	74	-11	-0.030	-0.001	The 1st Quarter TLD was found missing. Estimate of Effective Dose based on other three quarter readings.
15	22	1/11/2018	4/10/2018	89	20	0.25	22	4/10/2018	7/2/2018	83	16	0.19	22	7/2/2018	10/4/2018	94	19	0.20	22	10/4/2018	1/10/2019	98	26	0.27	81	364	81	-4	-0.010	0.000	
16	25	1/11/2018	4/10/2018	89	30	0.34	25	4/10/2018	7/2/2018	83	23	0.28	25	7/2/2018	10/4/2018	94	32	0.34	25	10/4/2018	1/10/2019	98	33	0.34	118	364	118	33	0.091	0.004	
17	30	1/11/2018	4/10/2018	89	19	0.21	30	4/10/2018	7/2/2018	83	18	0.22	30	7/2/2018	10/4/2018	94	21	0.22	30	10/4/2018	1/10/2019	98	23	0.23	81	364	81	-4	-0.010	0.000	
18	35	1/11/2018	4/10/2018	89	26	0.29	35	4/10/2018	7/2/2018	83	24	0.29	35	7/2/2018	10/4/2018	94	28	0.30	35	10/4/2018	1/10/2019	98	30	0.31	108	364	108	23	0.064	0.003	
19	37	1/11/2018	4/10/2018	89	22	0.25	37	4/10/2018	7/2/2018	83	17	0.20	37	7/2/2018	10/4/2018	94	22	0.23	37	10/4/2018	1/10/2019	98	22	0.22	83	364	83	-2	-0.005	0.000	
20	38	1/11/2018	4/10/2018	89	23	0.26	38	4/10/2018	7/2/2018	83	18	0.22	38	7/2/2018	10/4/2018	94	24	0.26	38	10/4/2018	1/10/2019	98	23	0.23	88	364	88	3	0.009	0.000	
21	40	1/11/2018	4/10/2018	89	27	0.30	40	4/10/2018	7/2/2018	83	23	0.28	40	7/2/2018	10/4/2018	94	23	0.24	40	10/4/2018	1/10/2019	98	28	0.29	101	364	101	16	0.045	0.002	
22	46	1/11/2018	4/10/2018	89	19	0.21	46	4/10/2018	7/2/2018	83	12	0.14	46	7/2/2018	10/4/2018	94	18	0.19	46	10/4/2018	1/10/2019	98	21	0.21	70	364	70	-15	-0.041	-0.002	
23	50	1/11/2018	4/10/2018	89	42	0.47	50	4/10/2018	7/2/2018	83	36	0.43	50	7/2/2018	10/4/2018	94	41	0.44	50	10/4/2018	1/10/2019	98	54	0.55	173	364	173	88	0.242	0.010	
24	52	1/11/2018	4/9/2018	88	19	0.22	52	4/9/2018	7/2/2018	84	16	0.19	52	7/2/2018	10/4/2018	94	16	0.17	52	10/4/2018	1/10/2019	98	22	0.22	73	364	73	-12	-0.032	-0.001	
25	53	1/11/2018	4/10/2018	89	107	1.20	53	4/10/2018	7/2/2018	83	81	0.98	53	7/2/2018	10/4/2018	94	91	0.97	53	10/4/2018	1/10/2019	98	114	1.16	393	364	394	309	0.847	0.035	
26	54	1/18/2018	4/4/2018	76	23	0.30	54	4/4/2018	7/2/2018	89	31	0.35	54	7/2/2018	10/4/2018	94	35	0.37	54	10/4/2018	1/10/2019	98	32	0.33	121	357	124	39	0.106	0.004	
27	58	1/11/2018	4/9/2018	88	17	0.19	58	4/9/2018	7/2/2018	84	15	0.18	58	7/2/2018	10/4/2018	94	15	0.16	58	10/4/2018	1/10/2019	98	19	0.19	66	364	66	-19	-0.052	-0.002	The 2nd Quarter TLD had a suspect read. Estimate of Effective Dose based on other three quarter readings.
28	59	1/17/2018	4/10/2018	83	16	0.19	59	4/10/2018	7/3/2018	84	15	0.18	59	7/3/2018	10/8/2018	97	16	0.16	59	10/8/2018	1/9/2019	93	18	0.19	65	357	66	-19	-0.051	-0.002	
29	60	1/17/2018	4/10/2018	83	260	3.13	60	4/10/2018	7/2/2018	83	282	3.40	60	7/2/2018	10/4/2018	94	244	2.60	60	10/4/2018	1/9/2019	97	368	3.79	1154	357	1180	1095	3.000	0.125	
30	61	1/17/2018	4/10/2018	83	483	5.82	61	4/10/2018	7/2/2018	83	489	5.89	61	7/2/2018	10/4/2018	94	664	7.06	61	10/4/2018	1/9/2019	97	687	7.08	2323	357	2375	2290	6.274	0.261	
31	62	1/17/2018	4/10/2018	83	16	0.19	62	4/10/2018	7/2/2018	83	15	0.18	62	7/2/2018	10/8/2018	98	16	0.16	62	10/8/2018	1/9/2019	93	18	0.19	65	357	66	-19	-0.051	-0.002	
32	63	1/17/2018	4/10/2018	83	16	0.19	63	4/10/2018	7/2/2018	83	15	0.18	63	7/2/2018	10/8/2018	98	18	0.18	63	10/8/2018	1/9/2019	93	15	0.16	64	357	65	-20	-0.054	-0.002	
33	64	1/11/2018	4/10/2018	89	16	0.18	64	4/10/2018	7/2/2018	83	16	0.19	64	7/2/2018	10/4/2018	94	18	0.19	64	10/4/2018	1/10/2019	98	16	0.16	66	364	66	-19	-0.052	-0.002	
34	65	1/11/2018	4/9/2018	88	19	0.22	65	4/9/2018	7/2/2018	84	15	0.18	65	7/2/2018	10/4/2018	94	16	0.17	65	10/4/2018	1/10/2019	98	15	0.15	65	364	65	-20	-0.054	-0.002	
35	66	1/11/2018	4/9/2018	88	21	0.24	66	4/9/2018	7/2/2018	84	17	0.20	66	7/2/2018	10/4/2018	94	23	0.24	66	10/4/2018	1/10/2019	98	20	0.20	81	364	81	-4	-0.010	0.000	
36	67	1/11/2018	4/9/2018	88	24	0.27	67	4/9/2018	7/2/2018	84	21	0.25	67	7/2/2018	10/4/2018	94	21	0.22	67	10/4/2018	1/10/2019	98	23	0.23	89	364	89	4	0.012	0.000	
37	68																														

TLD Number	Quarter 1						Quarter 2						Quarter 3						Quarter 4						Total Monitored Effective Dose (mrem)	Total Exposure Days	Annualized Effective Dose (mrem)	Net Annualized Effective Dose (mrem)	Net Annualized mrem/day	Net Annualized mrem/hr	Comments
	TLD Location Number	Start	End	Exposure Days	Effective Dose (mrem)	Normalized Effective Dose/day	TLD Location Number	Start	End	Exposure Days	Effective Dose (mrem)	Normalized Effective Dose/day	TLD Location Number	Start	End	Exposure Days	Effective Dose (mrem)	Normalized Effective Dose/day	TLD Location Number	Start	End	Exposure Days	Effective Dose (mrem)	Normalized Effective Dose/day							
55	86	1/11/2018	4/10/2018	89	21	0.24	86	4/10/2018	7/2/2018	83	19	0.23	86	7/2/2018	10/4/2018	94	21	0.22	86	10/4/2018	1/10/2019	98	22	0.22	83	364	83	-2	-0.005	0.000	The 2nd Quarter TLD had a processing center stated unusual element result observed. Estimate of Effective Dose based on other three quarter readings.
56	87	1/11/2018	4/10/2018	89	23	0.26	87	4/10/2018	7/2/2018	83	17	0.20	87	7/2/2018	10/4/2018	94	21	0.22	87	10/4/2018	1/10/2019	98	21	0.21	82	364	82	-3	-0.008	0.000	
57	88	1/11/2018	4/10/2018	89	23	0.26	88	4/10/2018	7/2/2018	83	18	0.22	88	7/2/2018	10/4/2018	94	21	0.22	88	10/4/2018	1/10/2019	98	23	0.23	85	364	85	0	0.001	0.000	
58	89	1/11/2018	4/10/2018	89	21	0.24	89	4/10/2018	7/2/2018	83	18	0.22	89	7/2/2018	10/4/2018	94	22	0.23	89	10/4/2018	1/10/2019	98	23	0.23	84	364	84	-1	-0.002	0.000	
59	90	1/11/2018	4/10/2018	89	20	0.22	90	4/10/2018	7/2/2018	83	17	0.20	90	7/2/2018	10/4/2018	94	20	0.21	90	10/4/2018	1/10/2019	98	25	0.26	82	364	82	-3	-0.008	0.000	
60	91	1/11/2018	4/10/2018	89	22	0.25	91	4/10/2018	7/2/2018	83	17	0.20	91	7/2/2018	10/4/2018	94	20	0.21	91	10/4/2018	1/10/2019	98	24	0.24	83	364	83	-2	-0.005	0.000	
61	92	1/11/2018	4/10/2018	89	21	0.24	92	4/10/2018	7/24/2018	105	24	0.23	92	7/24/2018	10/4/2018	72	19	0.26	92	10/4/2018	1/10/2019	98	19	0.19	83	364	83	-2	-0.005	0.000	
62	93	1/11/2018	4/10/2018	89	20	0.22	93	4/10/2018	7/2/2018	83	16	0.19	93	7/2/2018	10/4/2018	94	22	0.23	93	10/4/2018	1/10/2019	98	22	0.22	80	364	80	-5	-0.013	-0.001	The 2nd Quarter TLD could not be changed out due to TVA construction project. Estimate of Effective Dose based on other three quarter readings
63	94	1/11/2018	4/10/2018	89	21	0.24	94	4/10/2018	7/2/2018	83	18	0.22	94	7/2/2018	10/4/2018	94	22	0.23	94	10/4/2018	1/10/2019	98	22	0.22	83	364	83	-2	-0.005	0.000	
64	95	1/11/2018	4/10/2018	89	22	0.25	95	4/10/2018	7/2/2018	83	17	0.20	95	7/2/2018	10/4/2018	94	20	0.21	95	10/4/2018	1/10/2019	98	23	0.23	82	364	82	-3	-0.008	0.000	
65	FB	1/11/2018	4/10/2018	89	13	0.15	FB	4/10/2018	7/3/2018	84	13	0.15	FB	7/3/2018	10/4/2018	93	19	0.20	FB	10/4/2018	1/10/2019	98	11	0.11	56	364	56	-29	-0.079	-0.003	
66	TB	1/11/2018	4/9/2018	88	15	0.17	TB	4/9/2018	7/2/2018	84	11	0.13	TB	7/2/2018	10/4/2018	94	14	0.15	TB	10/4/2018	1/9/2018	268	11	0.04	51	534	35	-50	-0.137	-0.006	

Background Locations	Annualized Effective Dose	Background Locations	Annualized Effective Dose
22	81.22	22	81.22
54	123.71	54	123.71
85	76.68	85	76.68
86	83.23	86	83.23
87	82.23	87	82.23
88	85.23	88	85.23
89	84.23	89	84.23
90	82.23	90	82.23
91	83.23	91	83.23
92	83.23	92	83.23
93	80.22	93	80.22
94	83.23	94	83.23
95	82.23	95	82.23
Average Bkg DDE	85.45	Average Bkg DDE	85.45
3 sigma	35.06	3 sigma	35.06
Lower Range	50.40	Lower Range	50.40
Upper Range	120.51	Upper Range	120.51
Standard Deviation	11.69	Standard Deviation	11.69

APPENDIX E
NEUTRON AREA DOSIMETER DATA

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Neutron Area Dosimeter Report
From 01/01/2018 to 12/31/2018

Participant Name, Number	TLD Location	Begin wear date	End wear date	Dosimeter Type	Total Neutron	Fast Neutron	Thermal Neutron
VISITOR,02882	TLD-2	1/1/2018	3/31/2018	Neutron	M	M	M
VISITOR,02883	TLD-3	1/1/2018	3/31/2018	Neutron	M	M	M
VISITOR,02884	TLD-50	1/1/2018	3/31/2018	Neutron	M	M	M
VISITOR,02885	TLD-65	1/1/2018	3/31/2018	Neutron	M	M	M
VISITOR,02886	TLD-68	1/1/2018	3/31/2018	Neutron	M	M	M
VISITOR,02887	TLD-81	1/1/2018	3/31/2018	Neutron	M	M	M
VISITOR,02888	TLD-83	1/1/2018	3/31/2018	Neutron	M	M	M
VISITOR,02882	TLD-2	4/1/2018	6/30/2018	Neutron	M	M	M
VISITOR,02883	TLD-3	4/1/2018	6/30/2018	Neutron	M	M	M
VISITOR,02884	TLD-50	4/1/2018	6/30/2018	Neutron	M	M	M
VISITOR,02885	TLD-65	4/1/2018	6/30/2018	Neutron	M	M	M
VISITOR,02886	TLD-68	4/1/2018	6/30/2018	Neutron	M	M	M
VISITOR,02887	TLD-81	4/1/2018	6/30/2018	Neutron	M	M	M
VISITOR,02888	TLD-83	4/1/2018	6/30/2018	Neutron	M	M	M
VISITOR,02882	TLD-2	7/1/2018	9/30/2018	Neutron	M	M	M
VISITOR,02883	TLD-3	7/1/2018	9/30/2018	Neutron	M	M	M
VISITOR,02884	TLD-50	7/1/2018	9/30/2018	Neutron	M	M	M
VISITOR,02885	TLD-65	7/1/2018	9/30/2018	Neutron	M	M	M
VISITOR,02886	TLD-68	7/1/2018	9/30/2018	Neutron	M	M	M
VISITOR,02887	TLD-81	7/1/2018	9/30/2018	Neutron	M	M	M
VISITOR,02888	TLD-83	7/1/2018	9/30/2018	Neutron	M	M	M
VISITOR,02882	TLD-2	10/1/2018	12/31/2018	Neutron	M	M	M
VISITOR,02883	TLD-3	10/1/2018	12/31/2018	Neutron	M	M	M
VISITOR,02884	TLD-50	10/1/2018	12/31/2018	Neutron	M	M	M
VISITOR,02885	TLD-65	10/1/2018	12/31/2018	Neutron	M	M	M
VISITOR,02886	TLD-68	10/1/2018	12/31/2018	Neutron	M	M	M
VISITOR,02887	TLD-81	10/1/2018	12/31/2018	Neutron	M	M	M
VISITOR,02888	TLD-83	10/1/2018	12/31/2018	Neutron	M	M	M

E-3

Minimal Dose Equivalent Reported: Dose equivalents below the minimum measurable quantity for the current monitoring period are recorded as "M".

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