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Mr. Michael S. Strickland, Director
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PPPO-02-4076555-17A

Dear Mr. Strickland:

CONTRACT NO. DE-EM0001131, TASK ORDER DE-DT0007774: RESPONSE TO REVISED FLUOR FEDERAL SERVICES, INC. DELIVERABLE NO. 101 – ANNUAL REPORT ON EXTERNAL RADIATION MONITORING FOR CALENDAR YEAR 2016

Reference: Letter from M. Strickland to M. Fultz, “Fluor Federal Services Inc., Paducah Deactivation Project – Response to Comments on Deliverable No. 101 – *Annual Report on External Radiation Monitoring for Calendar Year 2016, Paducah Gaseous Diffusion Plant, Paducah, Kentucky, FPDP-RPT-0082,*” (FPAD-17-2782), dated May 22, 2017

The U.S. Department of Energy (DOE) has reviewed the Flour Federal Services, Inc. Deliverable No. 101 - Annual Report on External Radiation Monitoring for Calendar Year 2016. DOE has the following clarification:

The acronym for committed effective dose (CED) used on Page 1 of Section 1, Introduction, and the Acronym List, should be E₅₀. Please change the acronym if used in other places of the document as well.

DOE has no additional comments and the referenced document is hereby conditionally approved pending implementation of this clarification.

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

Sincerely,

Marcia D. Fultz
Contracting Officer
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**Annual Report on
External Radiation Monitoring
for Calendar Year 2016,
Paducah Gaseous Diffusion Plant,
Paducah, Kentucky**



This document is approved for public release per review by:

FPDP Classification Support

Date

**Annual Report on
External Radiation Monitoring
for Calendar Year 2016,
Paducah Gaseous Diffusion Plant,
Paducah, Kentucky**

Date Issued—August 2017

U.S. DEPARTMENT OF ENERGY
Office of Environmental Management

Prepared by
FLUOR FEDERAL SERVICES, INC.,
Paducah Deactivation Project
managing the
Deactivation Project at the
Paducah Gaseous Diffusion Plant
under Task Order DE-DT0007774

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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, 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 2016, 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 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 calendar year (CY) 2016 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 2016 Annual Site Environmental Report.

Monitoring results for CY 2016 indicate that 14 locations out of 51 were above the annualized background levels. These 14 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 2016, the potential radiation doses calculated at or in close proximity to the fence are not realistic. For CY 2016, 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 effective dose 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, 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 2016, 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. 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 dosimeter at location TLD-92 was found to be missing during the first quarter. Results were estimated using the average of 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 2016. In January 2016, 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 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 2016 was approximately 90 days. Sample results ranged from 14–666 mrem. The background samples ranged from 18–23 mrem. The mean background dose was 20 mrem.

The field blank measured dose of 11 mrem and the trip blank a dose of 13 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	199
TLD-2	252
TLD-5	22
TLD-7	23
TLD-13	22
TLD-16	22
TLD-25	24
TLD-35	23
TLD-40	24
TLD-50	40
TLD-53	97
TLD-60	289
TLD-61	666
TLD-70	36
TLD-71	24
TLD-76	21
TLD-77	21
TLD-78	22
TLD-81	108
TLD-82	25
TLD-83	55

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 2016 was approximately 97 days. Sample results ranged from 16–691 mrem. The background samples ranged from 20–25 mrem. The mean background dose was 22 mrem.

The field blank measured dose of 15 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 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	187
TLD-2	252
TLD-7	24
TLD-16	23
TLD-19	25
TLD-25	27
TLD-30	23
TLD-35	27
TLD-37	23
TLD-40	27
TLD-50	43
TLD-53	98
TLD-60	327
TLD-61	691
TLD-70	36
TLD-71	26
TLD-74	24
TLD-75	24
TLD-78	23
TLD-81	75
TLD-82	28
TLD-83	61

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

These 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 2016 was approximately 91 days. Sample results ranged from 15–718 mrem. The background samples ranged from 17–23 mrem. The mean background dose was 20 mrem.

The field blank measured dose of 13 mrem and the transit blank a dose of 13 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	213
TLD-2	254
TLD-7	25
TLD-16	24
TLD-19	23
TLD-25	30
TLD-35	23
TLD-38	23
TLD-40	22
TLD-50	43
TLD-53	102
TLD-60	317
TLD-61	718
TLD-66	22
TLD-70	41
TLD-71	24
TLD-72	21
TLD-74	22
TLD-78	22
TLD-81	68
TLD-82	25
TLD-83	49

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

These 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 2016 was approximately 91 days. Sample results ranged from 18–737 mrem. The background samples ranged from 21–27 mrem. The mean background dose was 24 mrem.

The field blank measured dose of 14 mrem, and the transit blank a dose of 14 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	217
TLD-2	300
TLD-3	26
TLD-7	30
TLD-13	25
TLD-16	25
TLD-25	32
TLD-40	31
TLD-50	50
TLD-53	117
TLD-60	343
TLD-61	737
TLD-68	26
TLD-70	46
TLD-71	30
TLD-74	28
TLD-78	26
TLD-81	84
TLD-82	26
TLD-83	56

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

These 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 2016 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 mrem. The mean background was subtracted from the annualized E to obtain a net annual E, attributed to PGDP operations for CY 2016, 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 4.52 mrem. Results greater than three standard deviations from the mean background measurement (i.e., 98 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 TED in excess of the mean background at 99.7% confidence were TLD-1, TLD-2, TLD-7, TLD-25, TLD-40, TLD-50, TLD-53, TLD-60, TLD-61, TLD-70, TLD-71, TLD-81, TLD-82, 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	807	98	85	722
TLD-2	1047	98	85	962
TLD-7	101	98	85	16
TLD-25	112	98	85	27
TLD-40	103	98	85	18
TLD-50	174	98	85	89
TLD-53	410	98	85	325
TLD-60	1266	98	85	1181
TLD-61	2789	98	85	2704
TLD-70	157	98	85	72
TLD-71	103	98	85	18
TLD-81	331	98	85	246
TLD-82	103	98	85	18
TLD-83	219	98	85	134

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

3.6 ANNUALIZED RESULTS FOR 2015 COMPARED TO 2016

Table 6 presents the results of a comparison between the annualized total gamma dose results for CY 2015 and for CY 2016. No new locations were added or discontinued in 2016. The locations with E in excess of background were mainly consistent between 2015 and 2016. No areas previously identified with elevated dose rates in 2015 had decreased dose rates below background in 2016. Two areas with dose rates below background in 2015 had elevated dose rates at a statistically significant level in 2016. Twenty-two locations remained statistically consistent ($\pm 5\%$) between 2015 and 2016. Radiation dose rates are subject to change as a result of plant operations such as UF₆ relocation. UF₆ cylinder yard operations were affected by shutdown of the DUF₆ plant in 2016. This likely is the result of decreased

readings. The DUF₆ plant operation resumed; next year, an increase of dose over 2016 results is expected.

Table 6. Effective Annual Gamma Dose of Common Monitoring Locations for CY 2015 and CY 2016

Common Location	2015 Annualized Effective Dose (mrem)	2016 Annualized Effective Dose (mrem)	Increase or Decrease from 2015 to 2016	% Difference
TLD-1	781	807	26	3.22
TLD-2	1048	1047	-1	-0.10
TLD-3	88	83	-5	-6.02
TLD-4	86	80	-6	-7.50
TLD-5	92	87	-5	-5.75
TLD-6	81	74	-7	-9.46
TLD-7	114	101	-13	-12.87
TLD-9	77	74	-3	-4.05
TLD-12	75	71	-4	-5.63
TLD-13	94	88	-6	-6.82
TLD-14	74	77	3	3.90
TLD-15	73	69	-4	-5.80
TLD-16	98	93	-5	-5.38
TLD-19	90	90	0	0.00
TLD-25	116	112	-4	-3.57
TLD-30	83	81	-2	-2.47
TLD-35	105	94	-11	-11.70
TLD-37	83	84	1	1.19
TLD-38	84	85	1	1.18
TLD-40	103	103	0	0.00
TLD-46	80	75	-5	-6.67
TLD-50	182	174	-8	-4.60
TLD-52	82	71	-11	-15.49
TLD-53	396	410	14	3.41
TLD-58	68	65	-3	-4.62
TLD-59	72	67	-5	-7.46
TLD-60	1276	1266	-10	-0.79
TLD-61	2460	2789	329	11.80
TLD-62	77	67	-10	-14.93
TLD-63	71	65	-6	-9.23
TLD-64	75	69	-6	-8.70
TLD-65	72	69	-3	-4.35
TLD-66	87	82	-5	-6.10
TLD-67	86	83	-3	-3.61
TLD-68	87	84	-3	-3.57
TLD-69	76	70	-6	-8.57
TLD-70	181	157	-24	-15.29
TLD-71	158	103	-55	-53.40
TLD-72	88	82	-6	-7.32
TLD-73	78	73	-5	-6.85

Table 6. Total Annual Gamma Dose of Common Monitoring Locations for CY 2015 and CY 2016 (Continued)

Common Location	2015 Annualized Effective Dose (mrem)	2016 Annualized Effective Dose (mrem)	Increase or Decrease from 2015 to 2016	% Difference
TLD-74	95	93	-2	-2.15
TLD-75	88	86	-2	-2.33
TLD-76	86	83	-3	-3.61
TLD-77	82	84	2	2.38
TLD-78	90	92	2	2.17
TLD-79	82	73	-9	-12.33
TLD-80	84	77	-7	-9.09
TLD-81	424	331	-93	-28.09
TLD-82	109	103	-6	-5.83
TLD-83	243	219	-24	-10.96
TLD-84	75	71	-4	-5.63

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 (ICRP) 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 effective dose. 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	722	0.082
TLD-2	962	0.110
TLD-7	16	0.002
TLD-25	27	0.003
TLD-40	18	0.002
TLD-50	89	0.010
TLD-53	325	0.037
TLD-60	1181	0.135
TLD-61	2704	0.309
TLD-70	72	0.008
TLD-71	18	0.002
TLD-81	246	0.028
TLD-82	18	0.002
TLD-83	134	0.015

Avg. = 0.053

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 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 accessible regularly to the public in CY 2016. 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. 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 4.24 mrem (0.053 mrem/hour × 80 hours) a year worst case, which is well below the 100 mrem limit for CY 2016.

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 ft 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 2016. 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

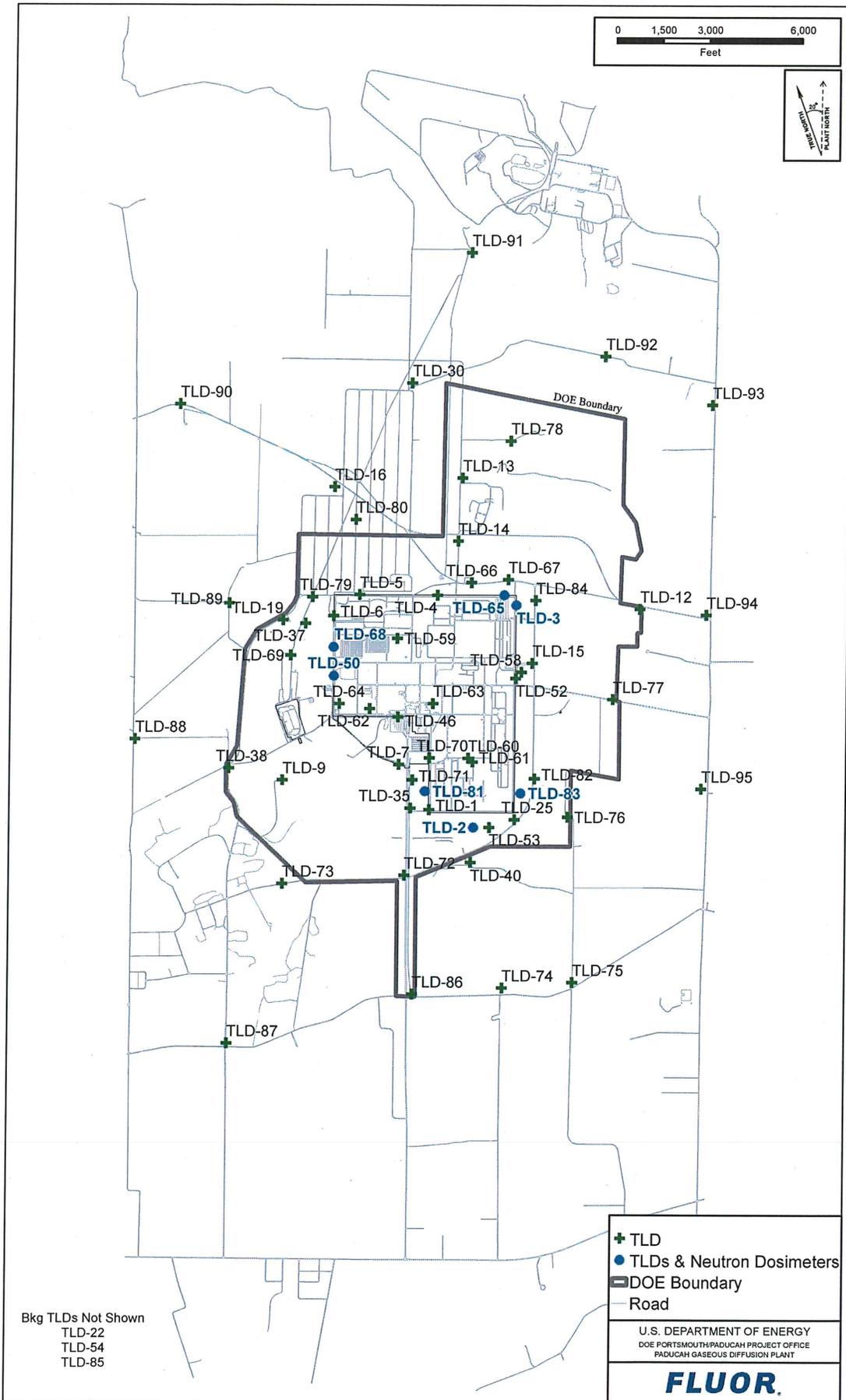
The public does not have regular access to the PGDP boundary fence; therefore, the radiation doses measured at the fence are not applicable to members of the public. Calculation of a worst case dose, assuming that a member of the public spends 80 hours at the location of highest measured dose along the security fence, determined that a dose of 4 mrem would be received. This is 25 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 4 mrem a year in a worst case scenario. In 2016, 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 2016, 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 slightly above 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 2016, the ED 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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APPENDIX B

TLD PLACEMENT AND COLLECTION

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Date/Time Issued/Badge ID	Issued By	Date/Time Collected	Collected By	Location Name	Description	NorthLong	West or East Lat	Xcoord	Ycoord	Comments
01/06/2016 09:53 868-627	JW	4/5/2016 9:57	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 UDS dirt pile	N 37 06 16.66	W 088 48 55.18	-4172	-5856	N/A
01/06/2016 11:33 869-628 1127	JW	4/5/2016 9:51	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
01/06/2016 09:28 870-629 1126	JW	4/5/2016 8:52	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
01/07/2016 11:12 871-630	JW	4/5/2016 14:22	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
01/07/2016 11:05 872-631	JW	4/5/2016 14:16	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
01/06/2016 10:54 873-632	JW	4/5/2016 10:47	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
01/06/2016 10:09 874-633	JW	4/5/2016 10:14	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
01/06/2016 16:07 875-634	JW	4/5/2016 15:35	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 & McCall Rd.	N 37 06 28.88	W 088 47 41.08	1052	-2167	N/A
01/06/2016 14:58 876-635	JW	4/5/2016 12:39	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
01/06/2016 15:03 877-636	JW	4/5/2016 12:43	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
01/06/2016 09:21 878-637	JW	4/5/2016 8:46	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
01/06/2016 09:03 879-638	JW	4/5/2016 8:27	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
01/06/2016 15:28 880-639	JW	4/5/2016 13:05	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
01/06/2016 16:14 881-640	JW	4/5/2016 13:41	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

B-4

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
01/07/2016 11:51 882-641	JW	4/5/2016 11:31	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
01/06/2016 09:40 883-642	JW	4/5/2016 9:06	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

01/06/2016 15:23 884-643	JW	4/5/2016 13:01	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
01/06/2016 10:07 885-644	JW	4/5/2016 10:11	JW	TLD-35	Outfall 017 off of Plant Access Road. Outfall 017 UDS 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
01/06/2016 10:51 886-645	JW	4/5/2016 10:45	JW	TLD-37	KPDES Outfall 001 behind Vortec facility. K001	N 37 07 18.600	W 088 49 15.660	-8202	138	N/A

01/06/2016 16:03 887-646	JW	4/5/2016 13:30	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
01/06/2016 09:47 888-647	JW	4/5/2016 9:07	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
01/06/2016 10:15 890-649	JW	4/5/2016 10:17	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
01/06/2016 10:44 889-648 1128	JW	4/5/2016 10:39	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
01/06/2016 09:07 891-650	JW	4/5/2016 8:33	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

01/06/2016 11:32 892-651	JW	4/5/2016 9:51	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
01/08/2016 07:00 893-652	KA	4/8/2016 15:00	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	N/A
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
01/06/2016 08:55 894-653	JW	4/5/2016 8:25	JW	TLD-58	West Central C-755 Complex	N 59 07 98.00	E 22 88 70.74	-1209	-1422	N/A
01/07/2016 10:23 895-654	JW	4/6/2016 9:55	JW	TLD-59	C-752A Break Area	N 59 15 61.62	E 22 78 55.79	-5234	-339	N/A
01/07/2016 10:36 896-655	JW	4/5/2016 14:40	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
01/07/2016 10:37 897-656	JW	4/5/2016 14:41	JW	TLD-61	West of C-746Q Light Pole #14	N 59 01 58.14	E 22 80 98.35	-2778	-4315	N/A
01/07/2016 10:11 898-657	JW	4/5/2016 14:54	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
01/07/2016 10:30 899-658	JW	4/5/2016 14:46	JW	TLD-63	C-412 HP Break Trailer	N 59 08 36.46	E 22 79 46.95	-4069	-2435	N/A
01/07/2016 10:56 900-659	JW	4/5/2016 14:31	JW	TLD-64	C-764 T-6 Trailer	N 59 11 77.55	E 22 70 88.88	-7098	-2447	N/A
01/06/2016 09:31 901-660 1122	JW	4/5/2016 8:56	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
01/06/2016 09:18 902-661	JW	4/5/2016 8:44	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
01/06/2016 09:14 903-662	JW	4/5/2016 8:41	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
01/06/2016 10:47 904-663 1123	JW	4/5/2016 10:36	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
01/06/2016 10:20 905-664	JW	4/5/2016 10:29	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

01/06/2016 10:03 906-665	JW	4/5/2016 10:08	JW	TLD-70	O/S of West Security Fence Southeast of C-333 midway between C810 parking area & North BWCS Security Fence	N 37 06 27.82855	W 088 48 50.25203	-4173	-4189	N/A
01/06/2016 10:00 907-666	JW	4/5/2016 10:05	JW	TLD-71	O/S of West Security Fence of BWCS 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
01/06/2016 09:50 908-667	JW	4/5/2016 9:54	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
01/06/2016 16:23 909-668	JW	4/5/2016 13:57	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
01/06/2016 14:14 910-669	JW	4/5/2016 11:52	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
01/06/2016 14:20 911-670	JW	4/5/2016 11:55	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
01/06/2016 14:25 912-671	JW	4/5/2016 12:01	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
01/06/2016 14:31 913-672	JW	4/5/2016 12:07	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
01/06/2016 15:09 914-673	JW	4/5/2016 12:46	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
01/07/2016 11:01 915-674	JW	4/5/2016 14:12	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
01/06/2016 15:31 916-675	JW	4/5/2016 13:08	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
01/06/2016 09:57 917-676 1125	JW	4/5/2016 10:01	JW	TLD-81	Southeast corner of BWCS 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
01/06/2016 09:43 918-677	JW	4/5/2016 9:22	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

01/06/2016 11:23 919-678 1124	JW	4/5/2016 9:27	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
01/06/2016 09:12 920-679	JW	4/5/2016 8:39	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
01/06/2016 16:50 921-680	SO	4/5/2016 16:00	SO	TLD-85	Residence; corner of Springwell and Buckner Lane	N 37 03 27.9036	W 088 40 43.9638	39082	-7750	N/A
01/06/2016 14:11 922-681	JW	4/5/2016 11:49	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
01/06/2016 16:27 923-682	JW	4/5/2016 13:52	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
01/06/2016 15:58 924-683	JW	4/5/2016 13:26	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
01/06/2016 15:52 925-684	JW	4/5/2016 13:22	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
01/06/2016 15:36 926-685	JW	4/5/2016 13:16	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
01/06/2016 15:17 927-686	JW	4/5/2016 12:55	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
01/06/2016 14:46 928-687	JW	Lost	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	found lost 04/05/2016
01/06/2016 14:42 929-688	JW	4/5/2016 12:17	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
01/06/2016 14:53 930-689	JW	4/5/2016 12:37	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
01/06/2016 14:36 931-690	JW	4/5/2016 12:11	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

01/07/2016 12:15 866-625	JW	4/6/2016 10:55	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
01/06/2016 08:00 867-626	JW	4/5/2016 7:30	JW	TLD-TB	Stored in "lead box" at C-101 Dosimetry office	N/A	N/A	NA	NA	N/A
932-691	JW	N/A	N/A	SPARE	Lead Box in C-101 Dosimetry office	N/A	N/A	N/A	N/A	N/A
933-692	JW	N/A	N/A	SPARE	Lead Box in C-101 Dosimetry office	N/A	N/A	N/A	N/A	N/A
934-693	JW	N/A	N/A	SPARE	Lead Box in C-101 Dosimetry office	N/A	N/A	N/A	N/A	N/A
935-694	JW	N/A	N/A	SPARE	Lead Box in C-101 Dosimetry office	N/A	N/A	N/A	N/A	N/A
936-695	JW	N/A	N/A	SPARE	Lead Box in C-101 Dosimetry office	N/A	N/A	N/A	N/A	N/A
937-696	JW	N/A	N/A	SPARE	Lead Box in C-101 Dosimetry office	N/A	N/A	N/A	N/A	N/A

Date/Time Issued/Badge ID	Issued By	Date/Time Collected	Collected By	Location Name	Description	NorthLong	West or East Lat	Xcoord	Ycoord	Comments
04/05/2016 09:57 3218-625	JW	7/11/2016 9:44	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 UDS dirt pile	N 37 06 16.66	W 088 48 55.18	-4172	-5856	N/A
04/05/2016 09:51 3219-626 1375	JW	7/12/2016 7:40	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
04/05/2016 08:52 3220-627 1376	JW	7/11/2016 9:16	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
04/05/2016 14:22 3221-628	JW	7/11/2016 10:55	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
04/05/2016 14:16 3222-629	JW	7/11/2016 10:50	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
04/05/2016 10:47 3223-630	JW	7/11/2016 10:42	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
04/05/2016 10:14 3224-631	JW	7/11/2016 10:06	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
04/05/2016 15:35 3225-632	JW	7/11/2016 14:22	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 & McCall Rd.	N 37 06 28.88	W 088 47 41.08	1052	-2167	N/A
04/05/2016 12:39 3226-633	JW	7/11/2016 13:16	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
04/05/2016 12:43 3227-634	JW	7/11/2016 13:21	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
04/05/2016 08:46 3228-635	JW	7/11/2016 9:08	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
04/05/2016 08:27 3229-636	JW	7/11/2016 8:39	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
04/05/2016 13:05 3230-637	JW	7/11/2016 13:44	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
04/05/2016 13:41 3231-638	JW	7/11/2016 14:30	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
04/05/2016 11:31 3232-639	JW	7/11/2016 12:12	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
04/05/2016 09:06 3233-640	JW	7/11/2016 9:35	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

04/05/2016 13:01 3234-641	JW	7/11/2016 13:38	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
04/05/2016 10:11 3235-642	JW	7/11/2016 10:01	JW	TLD-35	Outfall 017 off of Plant Access Road. Outfall 017 UDS 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
04/05/2016 10:45 3236-643	JW	7/11/2016 10:40	JW	TLD-37	KPDES Outfall 001 behind Vortec facility. K001	N 37 07 18.600	W 088 49 15.660	-8202	138	N/A

04/05/2016 13:30 3237-644	JW	7/11/2016 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
04/05/2016 09:07 3238-645	JW	7/11/2016 9:38	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
04/05/2016 10:17 3239-646	JW	7/11/2016 10:09	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
04/05/2016 10:39 3240-647 1377	JW	7/11/2016 10:32	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
04/05/2016 08:33 3241-648	JW	7/11/2016 8:43	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

04/05/2016 09:51 3242-649	JW	7/12/2016 9:47	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
04/08/2016 15:00 3243-650	KA	7/12/2016 6:00	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
04/05/2016 08:25 3244-651	JW	7/11/2016 8:34	JW	TLD-58	West Central C-755 Complex	N 59 07 98.00	E 22 88 70.74	-1209	-1422	N/A
04/06/2016 09:55 3245-652	JW	7/12/2016 8:20	JW	TLD-59	C-752A Break Area	N 59 15 61.62	E 22 78 55.79	-5234	-339	N/A
04/05/2016 14:40 3246-653	JW	7/11/2016 15:02	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
04/05/2016 14:41 3247-654	JW	7/11/2016 15:04	JW	TLD-61	West of C-746Q Light Pole #14	N 59 01 58.14	E 22 80 98.35	-2778	-4315	N/A
04/05/2016 14:54 3248-655	JW	7/11/2016 15:20	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
04/05/2016 14:46 3249-656	JW	7/11/2016 15:35	JW	TLD-63	C-412 HP Break Trailer	N 59 08 36.46	E 22 79 46.95	-4069	-2435	N/A
04/05/2016 14:31 3250-657	JW	7/11/2016 11:05	JW	TLD-64	C-764 T-6 Trailer	N 59 11 77.55	E 22 70 88.88	-7098	-2447	N/A
04/05/2016 08:56 3251-658 1378	JW	7/11/2016 9:26	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
04/05/2016 08:44 3252-659	JW	7/11/2016 9:05	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
04/05/2016 08:41 3253-660	JW	7/11/2016 9:02	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
04/05/2016 10:36 3254-661 1379	JW	7/11/2016 10:35	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
04/05/2016 10:29 3255-662	JW	7/11/2016 10:23	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

04/05/2016 10:08 3256-663	JW	7/11/2016 9:57	JW	TLD-70	O/S of West Security Fence Southeast of C-333 midway between C810 parking area & North BWCS Security Fence	N 37 06 27.82855	W 088 48 50.25203	-4173	-4189	N/A
04/05/2016 10:05 3257-664	JW	7/11/2016 9:54	JW	TLD-71	O/S of West Security Fence of BWCS 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
04/05/2016 09:54 3258-665	JW	7/11/2016 9:40	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
04/05/2016 13:57 3259-666	JW	7/11/2016 14:37	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
04/05/2016 11:52 3260-667	JW	7/11/2016 12:35	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
04/05/2016 11:55 3261-668	JW	7/11/2016 12:37	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
04/05/2016 12:01 3262-669	JW	7/11/2016 12:45	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
04/05/2016 12:07 3263-670	JW	7/11/2016 12:48	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
04/05/2016 12:46 3264-671	JW	7/11/2016 13:23	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
04/05/2016 14:12 3265-672	JW	7/11/2016 10:48	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
04/05/2016 13:08 3266-673	JW	7/11/2016 13:50	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
04/05/2016 10:01 3267-674 1380	JW	7/11/2016 9:51	JW	TLD-81	Southeast corner of BWCS 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
04/05/2016 09:22 3268-675	JW	7/11/2016 9:30	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

04/05/2016 09:27 3269-676 1381	JW	7/12/2016 8:05	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
04/05/2016 08:39 3270-677	JW	7/11/2016 8:47	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
04/05/2016 16:00 3271-678	SO	7/11/2016 12:00	SO	TLD-85	Residence; corner of Springwell and Buckner Lane	N 37 03 27.9036	W 088 40 43.9638	39082	-7750	N/A
04/05/2016 11:49 3272-679	JW	7/11/2016 12:29	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
04/05/2016 13:52 3273-680	JW	7/11/2016 14:47	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
04/05/2016 13:26 3274-681	JW	7/11/2016 14:07	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
04/05/2016 13:22 3275-682	JW	7/11/2016 14:04	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
04/05/2016 13:16 3276-683	JW	7/11/2016 13:55	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
04/05/2016 12:55 3277-684	JW	7/11/2016 13:33	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
04/05/2016 12:23 3278-685	JW	7/11/2016 13:07	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
04/05/2016 12:17 3279-686	JW	7/11/2016 12:59	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
04/05/2016 12:37 3280-687	JW	7/11/2016 13:14	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
04/05/2016 12:11 3281-688	JW	7/11/2016 12:52	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

04/06/2016 10:55 3282-689	JW	7/12/2016 10:00	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
04/05/2016 07:30 3283-690	JW	7/11/2016 7:00	JW	TLD-TB	Stored in "lead box" at C-101 Dosimetry office	N/A	N/A	NA	NA	N/A
3284-691	JW	N/A	N/A	SPARE	Lead Box in C-101 Dosimetry office	N/A	N/A	N/A	N/A	N/A
3285-692	JW	N/A	N/A	SPARE	Lead Box in C-101 Dosimetry office	N/A	N/A	N/A	N/A	N/A
3286-693	JW	N/A	N/A	SPARE	Lead Box in C-101 Dosimetry office	N/A	N/A	N/A	N/A	N/A
3287-694	JW	N/A	N/A	SPARE	Lead Box in C-101 Dosimetry office	N/A	N/A	N/A	N/A	N/A
3288-695	JW	N/A	N/A	SPARE	Lead Box in C-101 Dosimetry office	N/A	N/A	N/A	N/A	N/A
3289-696	JW	N/A	N/A	SPARE	Lead Box in C-101 Dosimetry office	N/A	N/A	N/A	N/A	N/A

Date/Time Issued/Badge ID	Issued By	Date/Time Collected	Collected By	Location Name	Description	NorthLong	West or East Lat	Xcoord	Ycoord	Comments
07/11/2016 09:44 5383-625	JW	10/10/2016 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 UDS dirt pile	N 37 06 16.66	W 088 48 55.18	-4172	-5856	N/A
7/12/2016 07:40 5384-626 1071	JW	10/10/2016 12:22	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
07/11/2016 09:16 5385-627 1072	JW	10/10/2016 8:43	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
07/11/2016 10:55 5386-628	JW	10/10/2016 10:26	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
07/11/2016 10:50 5387-629	JW	10/10/2016 10:22	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
07/11/2016 10:42 5388-630	JW	10/10/2016 10:12	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
07/11/2016 10:06 5389-631	JW	10/10/2016 9:32	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
07/11/2016 14:22 5390-632	JW	10/10/2016 14:59	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 & McCall Rd.	N 37 06 28.88	W 088 47 41.08	1052	-2167	N/A
07/11/2016 13:16 5391-633	JW	10/10/2016 13:49	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
07/11/2016 13:21 5392-634	JW	10/10/2016 13:53	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
07/11/2016 09:08 5393-635	JW	10/10/2016 8:37	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
07/11/2016 08:39 5394-636	JW	10/10/2016 8:04	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
07/11/2016 13:44 5395-637	JW	10/10/2016 14:12	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
07/11/2016 14:30 5396-638	JW	10/10/2016 14:51	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
07/11/2016 12:12 5397-639	JW	10/10/2016 11:55	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
07/11/2016 09:35 5398-640	JW	10/10/2016 9:00	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

07/11/2016 13:38 5399-641	JW	10/10/2016 14:07	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
07/11/2016 10:01 5400-642	JW	10/10/2016 9:29	JW	TLD-35	Outfall 017 off of Plant Access Road. Outfall 017 UDS 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
07/11/2016 10:40 5401-643	JW	10/10/2016 10:09	JW	TLD-37	KPDES Outfall 001 behind Vortec facility. K001	N 37 07 18.600	W 088 49 15.660	-8202	138	N/A

07/11/2016 14:16 5402-644	JW	10/10/2016 14:56	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
07/11/2016 09:38 5403-645	JW	10/10/2016 9:03	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
07/11/2016 10:09 5404-646	JW	10/10/2016 9:36	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
07/11/2016 10:32 5405-647 1073	JW	10/10/2016 10:37	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
07/11/2016 08:43 5406-648	JW	10/10/2016 8:26	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

07/12/2016 09:47 5407-649	JW	10/10/2016 12:26	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
07/12/2016 06:00 5408-650	KA	10/12/2016 7:00	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
07/11/2016 08:34 5409-651	JW	10/10/2016 8:02	JW	TLD-58	West Central C-755 Complex	N 59 07 98.00	E 22 88 70.74	-1209	-1422	N/A
07/12/2016 08:20 5410-652	JW	10/11/2016 10:15	JW	TLD-59	C-752A Break Area	N 59 15 61.62	E 22 78 55.79	-5234	-339	N/A
07/11/2016 15:02 5411-653	JW	10/11/2016 9:17	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
07/11/2016 15:04 5412-654	JW	10/11/2019 9:19	JW	TLD-61	West of C-746Q Light Pole #14	N 59 01 58.14	E 22 80 98.35	-2778	-4315	N/A
07/11/2016 15:20 5413-655	JW	10/10/2016 15:37	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
07/11/2016 15:35 5414-656	JW	10/11/2016 9:55	JW	TLD-63	C-412 HP Break Trailer	N 59 08 36.46	E 22 79 46.95	-4069	-2435	N/A
07/11/2016 11:05 5415-657	JW	10/10/2016 10:46	JW	TLD-64	C-764 T-6 Trailer	N 59 11 77.55	E 22 70 88.88	-7098	-2447	N/A
07/11/2016 09:26 5416-658 1074	JW	10/10/2016 8:47	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
07/11/2016 09:05 5417-659	JW	10/10/2016 8:33	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
07/11/2016 09:02 5418-660	JW	10/10/2016 8:32	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
07/11/2016 10:35 5419-661 1075	JW	10/10/2016 10:03	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
07/11/2016 10:23 5420-662	JW	10/10/2016 9:56	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

07/11/2016 09:57 5421-663	JW	10/10/2016 9:26	JW	TLD-70	O/S of West Security Fence Southeast of C-333 midway between C810 parking area & North BWCS Security Fence	N 37 06 27.82855	W 088 48 50.25203	-4173	-4189	N/A
07/11/2016 09:54 5422-664	JW	10/10/2016 9:22	JW	TLD-71	O/S of West Security Fence of BWCS 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
07/11/2016 09:40 5423-665	JW	10/10/2016 9:06	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
07/11/2016 14:37 5424-666	JW	10/10/2016 15:04	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
07/11/2016 12:35 5425-667	JW	10/10/2016 12:57	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
07/11/2016 12:37 5426-668	JW	10/10/2016 13:01	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
07/11/2016 12:45 5427-669	JW	10/10/2016 13:14	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
07/11/2016 12:48 5428-670	JW	10/10/2016 13:21	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
07/11/2016 13:23 5429-671	JW	10/10/2016 13:56	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
07/11/2016 10:48 5430-672	JW	10/10/2016 10:19	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
07/11/2016 13:50 5431-673	JW	10/10/2016 14:15	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
07/11/2016 09:51 5432-674 1076	JW	10/10/2016 9:16	JW	TLD-81	Southeast corner of BWCS 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
07/11/2016 09:30 5433-675	JW	10/10/2016 8:58	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

07/12/2016 08:05 5434-676 1077	JW	10/10/2016 12:40	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
07/11/2016 08:47 5435-677	JW	10/10/2016 8:30	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
07/11/2016 12:00 5436-678	SO	10/10/2016 16:30	SO	TLD-85	Residence; corner of Springwell and Buckner Lane	N 37 03 27.9036	W 088 40 43.9638	39082	-7750	N/A
07/11/2016 12:29 5437-679	JW	10/12/2016 13:20	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
07/11/2016 14:47 5438-680	JW	10/10/2016 15:11	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
07/11/2016 14:07 5439-681	JW	10/10/2016 14:41	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
07/11/2016 14:04 5440-682	JW	10/10/2016 14:32	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
07/11/2016 13:55 5441-683	JW	10/10/2016 14:26	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
07/11/2016 13:33 5442-684	JW	10/10/2016 14:02	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
07/11/2016 13:07 5443-685	JW	10/10/2016 13:38	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
07/11/2016 12:59 5444-686	JW	10/10/2016 13:32	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
07/11/2016 13:14 5445-687	JW	10/10/2016 13:45	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
07/11/2016 12:52 5446-688	JW	10/10/2016 13:25	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

07/12/2016 10:00 5447-689	JW	10/11/2016 10:30	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
07/11/2016 07:00 5448-690	JW	10/10/2016 7:00	JW	TLD-TB	Stored in "lead box" at C-101 Dosimetry office	N/A	N/A	NA	NA	N/A
5449-691	JW	N/A	N/A	SPARE	Lead Box in C-101 Dosimetry office	N/A	N/A	N/A	N/A	N/A
5450-692	JW	N/A	N/A	SPARE	Lead Box in C-101 Dosimetry office	N/A	N/A	N/A	N/A	N/A
5451-693	JW	N/A	N/A	SPARE	Lead Box in C-101 Dosimetry office	N/A	N/A	N/A	N/A	N/A
5452-694	JW	N/A	N/A	SPARE	Lead Box in C-101 Dosimetry office	N/A	N/A	N/A	N/A	N/A
5453-695	JW	N/A	N/A	SPARE	Lead Box in C-101 Dosimetry office	N/A	N/A	N/A	N/A	N/A
5454-696	JW	N/A	N/A	SPARE	Lead Box in C-101 Dosimetry office	N/A	N/A	N/A	N/A	N/A

Date/Time Issued/Badge ID	Issued By	Date/Time Collected	Collected By	Location Name	Description	NorthLong	West or East Lat	Xcoord	Ycoord	Comments
10/10/2016 09:12 7450-625	JW	1/9/2017 8:51	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 UDS dirt pile	N 37 06 16.66	W 088 48 55.18	-4172	-5856	N/A
10/10/2016 12:22 7451-626 1159	JW	1/9/2017 8:39	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
10/10/2016 08:43 7452-627 1160	JW	1/9/2017 7:59	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
10/10/2016 10:26 7453-628	JW	1/9/2017 10:02	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
10/10/2016 10:22 7454-629	JW	1/9/2017 9:58	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
10/10/2016 10:12 7455-630	JW	1/9/2017 9:49	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
10/10/2016 09:32 7456-631	JW	1/9/2017 9:08	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
10/10/2016 14:59 7457-632	JW	1/9/2017 12:07	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 & McCall Rd.	N 37 06 28.88	W 088 47 41.08	1052	-2167	N/A
10/10/2016 13:49 7458-633	JW	1/9/2017 11:14	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
10/10/2016 13:53 7459-634	JW	1/9/2017 11:18	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
10/10/2016 08:37 7460-635	JW	1/9/2017 7:53	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
10/10/2016 08:04 7461-636	JW	1/9/2017 7:35	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
10/10/2016 14:12 7462-637	JW	1/9/2017 11:38	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
10/10/2016 14:51 7463-638	JW	1/9/2017 12:00	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
10/10/2016 11:55 7464-639	JW	1/9/2017 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
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
10/10/2016 09:00 7465-640	JW	1/9/2017 8:11	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

10/10/2016 14:07 7466-641	JW	1/9/2017 11:34	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
10/10/2016 09:29 7467-642	JW	1/9/2017 9:06	JW	TLD-35	Outfall 017 off of Plant Access Road. Outfall 017 UDS 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
10/10/2016 10:09 7468-643	JW	1/9/2017 9:47	JW	TLD-37	KPDES Outfall 001 behind Vortec facility. K001	N 37 07 18.600	W 088 49 15.660	-8202	138	N/A

10/10/2016 14:56 7469-644	JW	1/9/2017 12:04	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
10/10/2016 09:03 7470-645	JW	1/9/2017 8:13	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
10/10/2016 09:36 7471-646	JW	1/9/2017 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
10/10/2016 10:37 7472-647 1161	JW	1/9/2017 9:40	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
10/10/2016 08:26 7473-648	JW	1/9/2017 7:39	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

10/10/2016 12:26 7474-649	JW	1/9/2017 8:40	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
10/12/2016 07:00 7475-650	KA	1/10/2017 6:30	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
10/10/2016 08:02 7476-651	JW	1/9/2017 7:27	JW	TLD-58	West Central C-755 Complex	N 59 07 98.00	E 22 88 70.74	-1209	-1422	N/A
10/11/2016 10:15 7477-652	JW	1/9/2017 14:46	JW	TLD-59	C-752A Break Area	N 59 15 61.62	E 22 78 55.79	-5234	-339	N/A
10/11/2016 09:17 7478-653	JW	1/9/2017 13:42	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
10/11/2016 09:19 7479-654	JW	1/9/2017 13:49	JW	TLD-61	West of C-746Q Light Pole #14	N 59 01 58.14	E 22 80 98.35	-2778	-4315	N/A
10/10/2016 15:37 7480-655	JW	1/9/2017 14:56	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
10/11/2016 09:55 7481-656	JW	1/9/2017 14:00	JW	TLD-63	C-412 HP Break Trailer	N 59 08 36.46	E 22 79 46.95	-4069	-2435	N/A
10/10/2016 10:46 7482-657	JW	1/9/2017 9:33	JW	TLD-64	C-764 T-6 Trailer	N 59 11 77.55	E 22 70 88.88	-7098	-2447	N/A
10/10/2016 08:47 7483-658 1162	JW	1/9/2017 8:02	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
10/10/2016 08:33 7484-659	JW	1/9/2017 7:49	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
10/10/2016 08:32 7485-660	JW	1/9/2017 7:47	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
10/10/2016 10:03 7486-661 1163	JW	1/9/2017 9:44	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
10/10/2016 09:56 7487-662	JW	1/9/2017 9:23	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

10/10/2016 09:26 7488-663	JW	1/9/2017 9:03	JW	TLD-70	O/S of West Security Fence Southeast of C-333 midway between C810 parking area & North BWCS Security Fence	N 37 06 27.82855	W 088 48 50.25203	-4173	-4189	N/A
10/10/2016 09:22 7489-664	JW	1/9/2017 8:58	JW	TLD-71	O/S of West Security Fence of BWCS 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
10/10/2016 09:06 7490-665	JW	1/9/2017 8:48	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
10/10/2016 15:04 7491-666	JW	1/9/2017 12:12	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
10/10/2016 12:57 7492-667	JW	1/9/2017 10:43	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
10/10/2016 13:01 7493-668	JW	1/9/2017 10:45	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
10/10/2016 13:14 7494-669	JW	1/9/2017 10:49	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
10/10/2016 13:21 7495-670	JW	1/9/2017 10:54	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
10/10/2016 13:56 7496-671	JW	1/9/2017 11:22	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
10/10/2016 10:19 7497-672	JW	1/9/2017 9:55	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
10/10/2016 14:15 7498-673	JW	1/9/2017 11:41	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
10/10/2016 09:16 7499-674 1164	JW	1/9/2017 8:55	JW	TLD-81	Southeast corner of BWCS 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
10/10/2016 08:58 7500-675	JW	1/9/2017 8:08	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

10/10/2016 12:40 7501-676 1165	JW	1/9/2017 8:22	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
10/10/2016 08:30 7502-677	JW	1/9/2017 7:42	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
10/10/2016 16:30 7503-678	SO	1/9/2017 16:30	SO	TLD-85	Residence; corner of Springwell and Buckner Lane	N 37 03 27.9036	W 088 40 43.9638	39082	-7750	N/A
10/12/2016 13:20 7504-679	JW	1/9/2017 10:40	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
10/10/2016 15:11 7505-680	JW	1/9/2017 12:16	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
10/10/2016 14:41 7506-681	JW	1/9/2017 11:54	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
10/10/2016 14:32 7507-682	JW	1/9/2017 11:50	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
10/10/2016 14:26 7508-683	JW	1/9/2017 11:46	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
10/10/2016 14:02 7509-684	JW	1/9/2017 11:31	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
10/10/2016 13:38 7510-685	JW	1/9/2017 11:03	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
10/10/2016 13:32 7511-686	JW	1/9/2017 11:02	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
10/10/2016 13:45 7512-687	JW	1/9/2017 11:12	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
10/10/2016 13:25 7513-688	JW	1/9/2017 10:57	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

10/11/2016 10:30 7514-689	JW	1/9/2017 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
10/10/2016 07:00 7515-690	JW	1/9/2017 7:00	JW	TLD-TB	Stored in "lead box" at C-101 Dosimetry office	N/A	N/A	NA	NA	N/A
7516-691	JW	N/A	N/A	SPARE	Lead Box in C-101 Dosimetry office	N/A	N/A	N/A	N/A	N/A
7517-692	JW	N/A	N/A	SPARE	Lead Box in C-101 Dosimetry office	N/A	N/A	N/A	N/A	N/A
7518-693	JW	N/A	N/A	SPARE	Lead Box in C-101 Dosimetry office	N/A	N/A	N/A	N/A	N/A
7519-694	JW	N/A	N/A	SPARE	Lead Box in C-101 Dosimetry office	N/A	N/A	N/A	N/A	N/A
7520-695	JW	N/A	N/A	SPARE	Lead Box in C-101 Dosimetry office	N/A	N/A	N/A	N/A	N/A
7521-696	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 PADUCAH REMEDIATION SERVICES
Location	00000LAT
Monitoring Period	1/1/2016
Process	0229838

Badge Number	Name	Exposure mR*
	CONTROL	12
	CONTROL	12
625	ENVIRONMENTAL	11
626	ENVIRONMENTAL	13
627	ENVIRONMENTAL	199
628	ENVIRONMENTAL	252
629	ENVIRONMENTAL	18
630	ENVIRONMENTAL	19
631	ENVIRONMENTAL	22
632	ENVIRONMENTAL	19
633	ENVIRONMENTAL	23
634	ENVIRONMENTAL	16
635	ENVIRONMENTAL	16
636	ENVIRONMENTAL	22
637	ENVIRONMENTAL	19
638	ENVIRONMENTAL	16
639	ENVIRONMENTAL	22
640	ENVIRONMENTAL	19
641	ENVIRONMENTAL	19
642	ENVIRONMENTAL	24
643	ENVIRONMENTAL	18
644	ENVIRONMENTAL	23
645	ENVIRONMENTAL	19

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

Global Dosimetry Solutions Environmental Report

Account	98365 PADUCAH REMEDIATION SERVICES
Location	00000LAT
Monitoring Period	1/1/2016
Process	0229838

Badge Number	Name	Exposure mR*
646	ENVIRONMENTAL	19
647	ENVIRONMENTAL	24
648	ENVIRONMENTAL	40
649	ENVIRONMENTAL	18
650	ENVIRONMENTAL	17
651	ENVIRONMENTAL	97
652	ENVIRONMENTAL	22
653	ENVIRONMENTAL	15
654	ENVIRONMENTAL	15
655	ENVIRONMENTAL	289
656	ENVIRONMENTAL	666
657	ENVIRONMENTAL	16
658	ENVIRONMENTAL	14
659	ENVIRONMENTAL	16
660	ENVIRONMENTAL	17
661	ENVIRONMENTAL	18
662	ENVIRONMENTAL	18
663	ENVIRONMENTAL	19
664	ENVIRONMENTAL	16
665	ENVIRONMENTAL	36
666	ENVIRONMENTAL	24
667	ENVIRONMENTAL	20
668	ENVIRONMENTAL	17

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

Global Dosimetry Solutions Environmental Report

Account	98365	PADUCAH REMEDIATION SERVICES
Location	00000LAT	
Monitoring Period	1/1/2016	
Process	0229838	

Badge Number	Name	Exposure mR*
669	ENVIRONMENTAL	20
670	ENVIRONMENTAL	20
671	ENVIRONMENTAL	21
672	ENVIRONMENTAL	21
673	ENVIRONMENTAL	22
674	ENVIRONMENTAL	17
675	ENVIRONMENTAL	17
676	ENVIRONMENTAL	108
677	ENVIRONMENTAL	25
678	ENVIRONMENTAL	55
679	ENVIRONMENTAL	17
680	ENVIRONMENTAL	19
681	ENVIRONMENTAL	18
682	ENVIRONMENTAL	18
683	ENVIRONMENTAL	18
684	ENVIRONMENTAL	19
685	ENVIRONMENTAL	20
686	ENVIRONMENTAL	19
688	ENVIRONMENTAL	22
689	ENVIRONMENTAL	20
690	ENVIRONMENTAL	20
691	ENVIRONMENTAL	12
692	ENVIRONMENTAL	12

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

Global Dosimetry Solutions Environmental Report

Account	98365 PADUCAH REMEDIATION SERVICES
Location	00000LAT
Monitoring Period	1/1/2016
Process	0229838

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

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

Global Dosimetry Solutions Environmental Report

Account	98365	PADUCAH REMEDIATION SERVICES
Location	00000LAT	
Monitoring Period	4/1/2016	
Process	0230937	

Badge Number	Name	Exposure mR*
	CONTROL	14
	CONTROL	15
625	ENVIRONMENTAL	187
626	ENVIRONMENTAL	252
627	ENVIRONMENTAL	20
628	ENVIRONMENTAL	20
629	ENVIRONMENTAL	22
630	ENVIRONMENTAL	18
631	ENVIRONMENTAL	24
632	ENVIRONMENTAL	19
633	ENVIRONMENTAL	18
634	ENVIRONMENTAL	22
635	ENVIRONMENTAL	21
636	ENVIRONMENTAL	17
637	ENVIRONMENTAL	23
638	ENVIRONMENTAL	25
639	ENVIRONMENTAL	21
640	ENVIRONMENTAL	27
641	ENVIRONMENTAL	23
642	ENVIRONMENTAL	27
643	ENVIRONMENTAL	23
644	ENVIRONMENTAL	22
645	ENVIRONMENTAL	27

*- 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 PADUCAH REMEDIATION SERVICES
Location	00000LAT
Monitoring Period	4/1/2016
Process	0230937

Badge Number	Name	Exposure mR*
646	ENVIRONMENTAL	19
647	ENVIRONMENTAL	43
648	ENVIRONMENTAL	18
649	ENVIRONMENTAL	98
650	ENVIRONMENTAL	24
651	ENVIRONMENTAL	17
652	ENVIRONMENTAL	17
653	ENVIRONMENTAL	327
654	ENVIRONMENTAL	691
655	ENVIRONMENTAL	16
656	ENVIRONMENTAL	18
657	ENVIRONMENTAL	18
658	ENVIRONMENTAL	18
659	ENVIRONMENTAL	21
660	ENVIRONMENTAL	22
661	ENVIRONMENTAL	21
662	ENVIRONMENTAL	16
663	ENVIRONMENTAL	36
664	ENVIRONMENTAL	26
665	ENVIRONMENTAL	22
666	ENVIRONMENTAL	19
667	ENVIRONMENTAL	24
668	ENVIRONMENTAL	24

*- 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 PADUCAH REMEDIATION SERVICES
Location	00000LAT
Monitoring Period	4/1/2016
Process	0230937

Badge Number	Name	Exposure mR*
669	ENVIRONMENTAL	21
670	ENVIRONMENTAL	22
671	ENVIRONMENTAL	23
672	ENVIRONMENTAL	18
673	ENVIRONMENTAL	20
674	ENVIRONMENTAL	75
675	ENVIRONMENTAL	28
676	ENVIRONMENTAL	61
677	ENVIRONMENTAL	18
678	ENVIRONMENTAL	20
679	ENVIRONMENTAL	20
680	ENVIRONMENTAL	22
681	ENVIRONMENTAL	21
682	ENVIRONMENTAL	21
683	ENVIRONMENTAL	24
684	ENVIRONMENTAL	22
685	ENVIRONMENTAL	24
686	ENVIRONMENTAL	21
687	ENVIRONMENTAL	23
688	ENVIRONMENTAL	25
689	ENVIRONMENTAL	15
690	ENVIRONMENTAL	14
691	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 PADUCAH REMEDIATION SERVICES
Location	00000LAT
Monitoring Period	4/1/2016
Process	0230937

Badge Number	Name	Exposure mR*
692	ENVIRONMENTAL	14
693	ENVIRONMENTAL	15
694	ENVIRONMENTAL	14
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	PADUCAH REMEDIATION SERVICES
Location	00000LAT	
Monitoring Period	7/1/2016	
Process	0232156	

Badge Number	Name	Exposure mR*
	CONTROL	13
	CONTROL	13
625	ENVIRONMENTAL	213
626	ENVIRONMENTAL	254
627	ENVIRONMENTAL	20
628	ENVIRONMENTAL	19
629	ENVIRONMENTAL	20
630	ENVIRONMENTAL	16
631	ENVIRONMENTAL	25
632	ENVIRONMENTAL	18
633	ENVIRONMENTAL	17
634	ENVIRONMENTAL	20
635	ENVIRONMENTAL	17
636	ENVIRONMENTAL	16
637	ENVIRONMENTAL	24
638	ENVIRONMENTAL	23
639	ENVIRONMENTAL	19
640	ENVIRONMENTAL	30
641	ENVIRONMENTAL	19
642	ENVIRONMENTAL	23
643	ENVIRONMENTAL	19
644	ENVIRONMENTAL	23
645	ENVIRONMENTAL	22

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



Global Dosimetry Solutions Environmental Report

Account	98365	PADUCAH REMEDIATION SERVICES
Location	00000LAT	
Monitoring Period	7/1/2016	
Process	0232156	

Badge Number	Name	Exposure mR*
646	ENVIRONMENTAL	18
647	ENVIRONMENTAL	43
648	ENVIRONMENTAL	17
649	ENVIRONMENTAL	102
650	ENVIRONMENTAL	20
651	ENVIRONMENTAL	15
652	ENVIRONMENTAL	17
653	ENVIRONMENTAL	317
654	ENVIRONMENTAL	718
655	ENVIRONMENTAL	16
656	ENVIRONMENTAL	16
657	ENVIRONMENTAL	18
658	ENVIRONMENTAL	16
659	ENVIRONMENTAL	22
660	ENVIRONMENTAL	20
661	ENVIRONMENTAL	19
662	ENVIRONMENTAL	17
663	ENVIRONMENTAL	41
664	ENVIRONMENTAL	24
665	ENVIRONMENTAL	21
666	ENVIRONMENTAL	17
667	ENVIRONMENTAL	22
668	ENVIRONMENTAL	19

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



Global Dosimetry Solutions Environmental Report

Account	98365	PADUCAH REMEDIATION SERVICES
Location	00000LAT	
Monitoring Period	7/1/2016	
Process	0232156	

Badge Number	Name	Exposure mR*
669	ENVIRONMENTAL	19
670	ENVIRONMENTAL	19
671	ENVIRONMENTAL	22
672	ENVIRONMENTAL	18
673	ENVIRONMENTAL	19
674	ENVIRONMENTAL	68
675	ENVIRONMENTAL	25
676	ENVIRONMENTAL	49
677	ENVIRONMENTAL	16
678	ENVIRONMENTAL	17
679	ENVIRONMENTAL	21
680	ENVIRONMENTAL	20
681	ENVIRONMENTAL	21
682	ENVIRONMENTAL	22
683	ENVIRONMENTAL	23
684	ENVIRONMENTAL	21
685	ENVIRONMENTAL	21
686	ENVIRONMENTAL	18
687	ENVIRONMENTAL	19
688	ENVIRONMENTAL	18
689	ENVIRONMENTAL	13
690	ENVIRONMENTAL	13
691	ENVIRONMENTAL	13

*- 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	PADUCAH REMEDIATION SERVICES
Location	00000LAT	
Monitoring Period	7/1/2016	
Process	0232156	

Badge Number	Name	Exposure mR*
692	ENVIRONMENTAL	12
693	ENVIRONMENTAL	12
694	ENVIRONMENTAL	14
695	ENVIRONMENTAL	14
696	ENVIRONMENTAL	12

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



Global Dosimetry Solutions Environmental Report

Account	98365	PADUCAH REMEDIATION SERVICES
Location	00000LAT	
Monitoring Period	10/1/2016	
Process	0233244	

Badge Number	Name	Exposure mR*
	CONTROL	15
	CONTROL	16
625	ENVIRONMENTAL	217
626	ENVIRONMENTAL	300
627	ENVIRONMENTAL	26
628	ENVIRONMENTAL	23
629	ENVIRONMENTAL	24
630	ENVIRONMENTAL	22
631	ENVIRONMENTAL	30
632	ENVIRONMENTAL	22
633	ENVIRONMENTAL	21
634	ENVIRONMENTAL	25
635	ENVIRONMENTAL	21
636	ENVIRONMENTAL	21
637	ENVIRONMENTAL	25
638	ENVIRONMENTAL	24
639	ENVIRONMENTAL	26
640	ENVIRONMENTAL	32
641	ENVIRONMENTAL	22
642	ENVIRONMENTAL	22
643	ENVIRONMENTAL	24
644	ENVIRONMENTAL	22
645	ENVIRONMENTAL	31

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

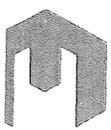


Global Dosimetry Solutions Environmental Report

Account	98365 PADUCAH REMEDIATION SERVICES
Location	00000LAT
Monitoring Period	10/1/2016
Process	0233244

Badge Number	Name	Exposure mR*
646	ENVIRONMENTAL	21
647	ENVIRONMENTAL	50
648	ENVIRONMENTAL	20
649	ENVIRONMENTAL	117
650	ENVIRONMENTAL	27
651	ENVIRONMENTAL	19
652	ENVIRONMENTAL	19
653	ENVIRONMENTAL	343
654	ENVIRONMENTAL	737
655	ENVIRONMENTAL	20
656	ENVIRONMENTAL	18
657	ENVIRONMENTAL	18
658	ENVIRONMENTAL	19
659	ENVIRONMENTAL	22
660	ENVIRONMENTAL	24
661	ENVIRONMENTAL	26
662	ENVIRONMENTAL	22
663	ENVIRONMENTAL	46
664	ENVIRONMENTAL	30
665	ENVIRONMENTAL	20
666	ENVIRONMENTAL	21
667	ENVIRONMENTAL	28
668	ENVIRONMENTAL	24

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



Global Dosimetry Solutions Environmental Report

Account	98365	PADUCAH REMEDIATION SERVICES
Location	00000LAT	
Monitoring Period	10/1/2016	
Process	0233244	

Badge Number	Name	Exposure mR*
669	ENVIRONMENTAL	23
670	ENVIRONMENTAL	23
671	ENVIRONMENTAL	26
672	ENVIRONMENTAL	21
673	ENVIRONMENTAL	22
674	ENVIRONMENTAL	84
675	ENVIRONMENTAL	26
676	ENVIRONMENTAL	56
677	ENVIRONMENTAL	21
678	ENVIRONMENTAL	22
679	ENVIRONMENTAL	23
680	ENVIRONMENTAL	21
681	ENVIRONMENTAL	22
682	ENVIRONMENTAL	23
683	ENVIRONMENTAL	25
684	ENVIRONMENTAL	23
685	ENVIRONMENTAL	24
686	ENVIRONMENTAL	24
687	ENVIRONMENTAL	24
688	ENVIRONMENTAL	23
689	ENVIRONMENTAL	14
690	ENVIRONMENTAL	14
691	ENVIRONMENTAL	14

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



Global Dosimetry Solutions Environmental Report

Account	98365	PADUCAH REMEDIATION SERVICES
Location	00000LAT	
Monitoring Period	10/1/2016	
Process	0233244	

Badge Number	Name	Exposure mR*
692	ENVIRONMENTAL	14
693	ENVIRONMENTAL	17
694	ENVIRONMENTAL	14
695	ENVIRONMENTAL	15
696	ENVIRONMENTAL	13

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

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 Does (mrem)	Net Annualized mrem/day	Net Annualized mrem/hr	Comments
	TLD Location Number	Start	End	Exposure Days	Effective Does (mrem)	Normalized Effective Dose/day	TLD Location Number	Start	End	Exposure Days	Effective Does (mrem)	Normalized Effective Dose/day	TLD Location Number	Start	End	Exposure Days	Effective Does (mrem)	Normalized Effective Dose/day	TLD Location Number	Start	End	Exposure Days	Effective Does (mrem)	Normalized Effective Dose/day							
1	1	1/6/2016	4/5/2016	90	199	2.21	1	4/5/2016	7/11/2016	97	187	1.93	1	7/11/2016	10/10/2016	91	213	2.34	1	10/10/2016	1/9/2017	91	217	2.38	816	369	807	722	1.979	0.082	
2	2	1/6/2016	4/5/2016	90	252	2.80	2	4/5/2016	7/12/2016	98	252	2.57	2	7/12/2016	10/10/2016	90	254	2.82	2	10/10/2016	1/9/2017	91	300	3.30	1058	369	1047	962	2.634	0.110	
3	3	1/6/2016	4/5/2016	90	18	0.20	3	4/5/2016	7/11/2016	97	20	0.21	3	7/11/2016	10/10/2016	91	20	0.22	3	10/10/2016	1/9/2017	91	26	0.29	84	369	83	-2	-0.005	0.000	
4	4	1/7/2016	4/5/2016	89	19	0.21	4	4/5/2016	7/11/2016	97	20	0.21	4	7/11/2016	10/10/2016	91	19	0.21	4	10/10/2016	1/9/2017	91	23	0.25	81	368	80	-5	-0.013	-0.001	
5	5	1/7/2016	4/5/2016	89	22	0.25	5	4/5/2016	7/11/2016	97	22	0.23	5	7/11/2016	10/10/2016	91	20	0.22	5	10/10/2016	1/9/2017	91	24	0.26	88	368	87	2	0.006	0.000	
6	6	1/6/2016	4/5/2016	90	19	0.21	6	4/5/2016	7/11/2016	97	18	0.19	6	7/11/2016	10/10/2016	91	16	0.18	6	10/10/2016	1/9/2017	91	22	0.24	75	369	74	-11	-0.030	-0.001	
7	7	1/6/2016	4/5/2016	90	23	0.26	7	4/5/2016	7/11/2016	97	24	0.25	7	7/11/2016	10/10/2016	91	25	0.27	7	10/10/2016	1/9/2017	91	30	0.33	102	369	101	16	0.044	0.002	
8	9	1/6/2016	4/5/2016	90	16	0.18	9	4/5/2016	7/11/2016	97	19	0.20	9	7/11/2016	10/10/2016	91	18	0.20	9	10/10/2016	1/9/2017	91	22	0.24	75	369	74	-11	-0.030	-0.001	
9	12	1/6/2016	4/5/2016	90	16	0.18	12	4/5/2016	7/11/2016	97	18	0.19	12	7/11/2016	10/10/2016	91	17	0.19	12	10/10/2016	1/9/2017	91	21	0.23	72	369	71	-14	-0.038	-0.002	
10	13	1/6/2016	4/5/2016	90	22	0.24	13	4/5/2016	7/11/2016	97	22	0.23	13	7/11/2016	10/10/2016	91	20	0.22	13	10/10/2016	1/9/2017	91	25	0.27	89	369	88	3	0.008	0.000	
11	14	1/6/2016	4/5/2016	90	19	0.21	14	4/5/2016	7/11/2016	97	21	0.22	14	7/11/2016	10/10/2016	91	17	0.19	14	10/10/2016	1/9/2017	91	21	0.23	78	369	77	-8	-0.021	-0.001	
12	15	1/6/2016	4/5/2016	90	18	0.18	15	4/5/2016	7/11/2016	97	17	0.18	15	7/11/2016	10/10/2016	91	16	0.18	15	10/10/2016	1/9/2017	91	21	0.23	70	369	69	-16	-0.043	-0.002	
13	16	1/6/2016	4/5/2016	90	22	0.24	16	4/5/2016	7/11/2016	97	23	0.24	16	7/11/2016	10/10/2016	91	24	0.26	16	10/10/2016	1/9/2017	91	25	0.27	94	369	93	8	0.022	0.001	
14	19	1/6/2016	4/5/2016	90	19	0.21	19	4/5/2016	7/11/2016	97	25	0.26	19	7/11/2016	10/10/2016	91	23	0.25	19	10/10/2016	1/9/2017	91	24	0.26	91	369	90	5	0.014	0.001	
15	22	1/7/2016	4/5/2016	89	19	0.25	22	4/5/2016	7/11/2016	97	21	0.22	22	7/11/2016	10/10/2016	91	19	0.21	22	10/10/2016	1/9/2017	91	26	0.29	85	368	84	-1	-0.002	0.000	
16	25	1/6/2016	4/5/2016	90	24	0.27	25	4/5/2016	7/11/2016	97	27	0.28	25	7/11/2016	10/10/2016	91	30	0.33	25	10/10/2016	1/9/2017	91	32	0.35	113	369	112	27	0.073	0.003	
17	30	1/6/2016	4/5/2016	90	18	0.20	30	4/5/2016	7/11/2016	97	23	0.24	30	7/11/2016	10/10/2016	91	19	0.22	30	10/10/2016	1/9/2017	91	22	0.24	82	369	81	-4	-0.011	0.000	
18	35	1/6/2016	4/5/2016	90	23	0.26	35	4/5/2016	7/11/2016	97	27	0.28	35	7/11/2016	10/10/2016	91	23	0.25	35	10/10/2016	1/9/2017	91	22	0.24	95	369	94	9	0.025	0.001	
19	37	1/6/2016	4/5/2016	90	19	0.21	37	4/5/2016	7/11/2016	97	23	0.24	37	7/11/2016	10/10/2016	91	19	0.21	37	10/10/2016	1/9/2017	91	24	0.26	85	369	84	-1	-0.003	0.000	
20	38	1/6/2016	4/5/2016	90	19	0.21	38	4/5/2016	7/11/2016	97	22	0.23	38	7/11/2016	10/10/2016	91	23	0.25	38	10/10/2016	1/9/2017	91	22	0.24	86	369	85	0	0.000	0.000	
21	40	1/6/2016	4/5/2016	90	24	0.27	40	4/5/2016	7/11/2016	97	27	0.28	40	7/11/2016	10/10/2016	91	22	0.24	40	10/10/2016	1/9/2017	91	31	0.34	104	369	103	18	0.049	0.002	
22	46	1/6/2016	4/5/2016	90	18	0.20	46	4/5/2016	7/11/2016	97	19	0.20	46	7/11/2016	10/10/2016	91	18	0.20	46	10/10/2016	1/9/2017	91	21	0.23	76	369	75	-10	-0.027	-0.001	
23	50	1/6/2016	4/5/2016	90	40	0.44	50	4/5/2016	7/11/2016	97	43	0.44	50	7/11/2016	10/10/2016	91	43	0.47	50	10/10/2016	1/9/2017	91	50	0.55	176	369	174	89	0.244	0.010	
24	52	1/6/2016	4/5/2016	90	17	0.19	52	4/5/2016	7/11/2016	97	18	0.19	52	7/11/2016	10/10/2016	91	17	0.19	52	10/10/2016	1/9/2017	91	20	0.22	72	369	71	-14	-0.038	-0.002	
25	53	1/6/2016	4/5/2016	90	97	1.08	53	4/5/2016	7/12/2016	98	98	1.00	53	7/12/2016	10/10/2016	90	102	1.13	53	10/10/2016	1/9/2017	91	117	1.29	414	369	410	325	0.889	0.037	
26	54	1/8/2016	4/8/2016	91	22	0.24	54	4/8/2016	7/12/2016	95	24	0.25	54	7/12/2016	10/12/2016	92	20	0.22	54	10/12/2016	1/9/2017	89	27	0.30	93	367	92	7	0.021	0.001	
28	58	1/6/2016	4/5/2016	90	15	0.17	58	4/5/2016	7/11/2016	97	17	0.18	58	7/11/2016	10/10/2016	91	15	0.16	58	10/10/2016	1/9/2017	91	19	0.21	66	369	65	-20	-0.054	-0.002	
29	59	1/7/2016	4/6/2016	90	15	0.17	59	4/6/2016	7/12/2016	97	17	0.18	59	7/12/2016	10/11/2016	91	17	0.19	59	10/11/2016	1/9/2017	90	19	0.21	68	368	67	-18	-0.048	-0.002	
30	60	1/7/2016	4/5/2016	89	289	3.25	60	4/5/2016	7/11/2016	97	327	3.37	60	7/11/2016	10/11/2016	92	317	3.45	60	10/11/2016	1/9/2017	90	343	3.81	1276	368	1266	1181	3.235	0.135	
31	61	1/7/2016	4/5/2016	89	666	7.48	61	4/5/2016	7/11/2016	97	691	7.12	61	7/11/2016	10/11/2016	92	718	7.80	61	10/11/2016	1/9/2017	90	737	8.19	2812	368	2789	2704	7.408	0.309	
32	62	1/7/2016	4/5/2016	89	16	0.18	62	4/5/2016	7/11/2016	97	16	0.16	62	7/11/2016	10/10/2016	91	16	0.18	62	10/10/2016	1/9/2017	91	20	0.22	68	368	67	-18	-0.048	-0.002	
33	63	1/7/2016	4/5/2016	89	14	0.16	63	4/5/2016	7/11/2016	97	18	0.19	63	7/11/2016	10/11/2016	92	16	0.17	63	10/11/2016	1/9/2017	90	18	0.20	66	368	65	-20	-0.054	-0.002	
34	64	1/7/2016	4/5/2016	89	16	0.18	64	4/5/2016	7/11/2016	97	18	0.19	64	7/11/2016	10/10/2016	91	18	0.20	64	10/10/2016	1/9/2017	91	18	0.20	70	368	69	-16	-0.043	-0.002	
35	65	1/6/2016	4/5/2016	90	17	0.19	65	4/5/2016	7/11/2016	97	18	0.19	65	7/11/2016	10/10/2016	91	16	0.18	65	10/10/2016	1/9/2017	91	19	0.21	70	369	69	-16	-0.043	-0.002	
36	66	1/6/2016	4/5/2016	90	18	0.20	66	4/5/2016	7/11/2016	97	21	0.22	66	7/11/2016	10/10/2016	91	22	0.24	66	10/10/2016	1/9/2017	91	22	0.24	83	369	82	-3	-0.008	0.000	
37	67	1/6/2016	4/5/2016	90	18	0.20	67	4/5/2016	7/11/2016	97	22	0.23	67	7/11/2016	10/10/2016	91	20	0.22	67	10/10/2016	1/9/2017	91	24	0.26	84	369	83	-2	-0.005	0.000	
38	68	1/6/2016	4/5/2016	90	19	0.21	68	4/5/2016	7/11/2016	97	21	0.22	68	7/11/2016	10/10/2016	91	19	0.21	68	10/10/2016	1/9/2017	91	26	0.29	85	369	84	-1	-0.003	0.000	
39	69	1/6/2016	4/5/2016	90	16	0.18	69	4/5/2016	7/11/2016	97	16	0.16	69	7/11/2016	10/10/2016	91	17	0.19	69	10/10/2016	1/9/2017	91	22	0.24	71	369	70	-15	-0.040	-0.002	
40	70	1/6/2016	4/5/2016	90	36	0.40	70	4/5/2016	7/11/2016	97	36	0.37	70	7/11/2016	10/10/2016	91	41	0.45	70	10/10/2016	1/9/2017	91	46	0.51	159	369	157	72	0.198	0.008	
41	71	1/6/2016	4/5/2016	90	24	0.27	71	4/5/2016	7/11/2016	97	26	0.27	71	7/11/2016	10/10/2016	91	24	0.26	71	10/10/2016	1/9/2017	91	30	0.33	104	369	103	18	0.049	0.002	
42	72	1/6/2016	4/5/2016	90	20	0.22	72	4/5/2016	7/11/2016	97	22	0.23	72	7/11/2016	10/1																

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APPENDIX E
NEUTRON AREA DOSIMETER DATA

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FPDP
Environmental Dosimeter Report
From 01/01/2016 to 12/31/2016

Participant Name, Number	Customer Reference	Begin wear date	End wear date	Dosimeter Type	Total Neutron	Fast Neutron	Thermal Neutron
VISITOR,01122	Environmental	1/1/2016	3/31/2016	Neutron	M	M	M
VISITOR,01123	Environmental	1/1/2016	3/31/2016	Neutron	M	M	M
VISITOR,01124	Environmental	1/1/2016	3/31/2016	Neutron	M	M	M
VISITOR,01125	Environmental	1/1/2016	3/31/2016	Neutron	M	M	M
VISITOR,01126	Environmental	1/1/2016	3/31/2016	Neutron	M	M	M
VISITOR,01127	Environmental	1/1/2016	3/31/2016	Neutron	M	M	M
VISITOR,01128	Environmental	1/1/2016	3/31/2016	Neutron	M	M	M
VISITOR,01375	Environmental	4/1/2016	6/30/2016	Neutron	M	M	M
VISITOR,01376	Environmental	4/1/2016	6/30/2016	Neutron	M	M	M
VISITOR,01377	Environmental	4/1/2016	6/30/2016	Neutron	M	M	M
VISITOR,01378	Environmental	4/1/2016	6/30/2016	Neutron	M	M	M
VISITOR,01379	Environmental	4/1/2016	6/30/2016	Neutron	M	M	M
VISITOR,01380	Environmental	4/1/2016	6/30/2016	Neutron	M	M	M
VISITOR,01381	Environmental	4/1/2016	6/30/2016	Neutron	M	M	M
VISITOR,01071	Environmental	7/1/2016	9/30/2016	Neutron	M	M	M
VISITOR,01072	Environmental	7/1/2016	9/30/2016	Neutron	M	M	M
VISITOR,01073	Environmental	7/1/2016	9/30/2016	Neutron	M	M	M
VISITOR,01074	Environmental	7/1/2016	9/30/2016	Neutron	M	M	M
VISITOR,01075	Environmental	7/1/2016	9/30/2016	Neutron	M	M	M
VISITOR,01076	Environmental	7/1/2016	9/30/2016	Neutron	M	M	M
VISITOR,01077	Environmental	7/1/2016	9/30/2016	Neutron	M	M	M
VISITOR,01159	Environmental	10/1/2016	12/31/2016	Neutron	M	M	M
VISITOR,01160	Environmental	10/1/2016	12/31/2016	Neutron	M	M	M
VISITOR,01161	Environmental	10/1/2016	12/31/2016	Neutron	M	M	M
VISITOR,01162	Environmental	10/1/2016	12/31/2016	Neutron	M	M	M
VISITOR,01163	Environmental	10/1/2016	12/31/2016	Neutron	M	M	M
VISITOR,01164	Environmental	10/1/2016	12/31/2016	Neutron	M	M	M
VISITOR,01165	Environmental	10/1/2016	12/31/2016	Neutron	M	M	M

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

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