

Department of Energy



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Mr. Norm Sandlin, Prime Contract Manager Four Rivers Nuclear Partnership, LLC 5511 Hobbs Road Kevil, Kentucky 42053

Dear Mr. Sandlin:

CONTRACT NO. DE-EM0004895: APPROVAL OF DELIVERABLE NO. 37, ANNUAL REPORT ON EXTERNAL RADIATION MONITORING FOR CALENDAR YEAR 2017, FRNP-RPT-0023/FR1

The U.S. Department of Energy has reviewed and approves the Four Rivers Nuclear Partnership, LLC Deliverable No. 37, Annual Report on External Radiation Monitoring for calendar year 2017, FRNP-RPT-0023/FR1.

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

Sincerely,

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FRNP-RPT-0023/FR1

Annual Report on External Radiation Monitoring For Calendar Year 2017, Paducah Gaseous Diffusion Plant, Paducah, Kentucky

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Date

FRNP-RPT-0023/FR1

Annual Report on External Radiation Monitoring for Calendar Year 2017, Paducah Gaseous Diffusion Plant, Paducah, Kentucky

Date Issued—May 2018

U.S. DEPARTMENT OF ENERGY Office of Environmental Management

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

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ACRONYMS

calendar year
U.S. Department of Energy
effective dose
committed effective dose
Environmental Monitoring Plan
Optically Stimulated Luminescence
Paducah Gaseous Diffusion Plant
total effective dose
thermoluminescent dosimeter
West Kentucky Wildlife Management Area

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 2017, 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) 2017 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 2017 Annual Site Environmental Report.

Monitoring results for CY 2017 indicate that 15 locations out of 51 were above the annualized background levels. These 15 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 2017, the potential radiation doses calculated at or in close proximity to the fence are not realistic. For CY 2017, 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.

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 2017, 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.

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, two TLDs were discovered to be missing from their locations. 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-19 was found to be missing during the second and fourth quarter. Results were estimated using the average of the other two quarters of deep dose exposure per day. A map of the 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 2017. In January 2017, OSL dosimeters were received from Landauer to monitor for neutron radiation. TLDs were kept in their individual, flexible protective packaging and placed in wide mouth, plastic sample bottles when deployed to the monitoring location. A lid is screwed on each bottle, and a nylon wire tie was wound around each bottle (under the lid) to secure it to a fence or other fixed structure. The plastic packaging and sample bottle provide a sturdy weather-resistant package that does not significantly attenuate gamma radiation (i.e., induce a negative bias on the measurement).

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

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

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

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 2017 was approximately 85 days. Sample results ranged from 14–585 mrem. The background samples ranged from 19–24 mrem. The mean background dose was 21 mrem.

The field blank measured dose of 13 mrem and the trip blank a dose of 12 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.

Location	Effective Dose
TLD-1	156
TLD-2	272
TLD-7	31
TLD-13	23
TLD-19	24
TLD-25	27
TLD-30	23
TLD-35	23
TLD-40	22
TLD-50	40
TLD-53	94
TLD-60	286
TLD-61	585
TLD-70	46
TLD-71	39
TLD-74	22
TLD-75	23
TLD-76	23
TLD-77	23
TLD-78	26
TLD-81	101
TLD-82	26
TLD-83	51

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

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 (UF_6) cylinder storage yards.

3.2 SECOND QUARTER RESULTS

The gamma radiation dose time for the second quarter of CY 2017 was approximately 98 days. Sample results ranged from 17–575 mrem. The background samples ranged from 20–25 mrem. The mean background dose was 22 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 provided by the office building where they were kept. Table 2 identifies locations with annual gamma doses above background.

Location	Effective Dose
TLD-1	191
TLD-2	264
TLD-7	30
TLD-16	25
TLD-25	28
TLD-30	23
TLD-35	31
TLD-38	23
TLD-40	26
TLD-50	42
TLD-53	93
TLD-60	312
TLD-61	575
TLD-66	23
TLD-67	24
TLD-70	53
TLD-71	42
TLD-75	23
TLD-78	23
TLD-81	102
TLD-82	32
TLD-83	52

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

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

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

3.3 THIRD QUARTER RESULTS

The gamma radiation dose time for the third quarter of CY 2017 was approximately 92 days. Sample results ranged from 15–611 mrem. The background samples ranged from 17–24 mrem. The mean background dose was 20 mrem.

The field blank measured dose of 15 mrem and the transit blank a dose of 12 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.

Location	Effective Dose
TLD-1	216
TLD-2	250
TLD-5	23
TLD-7	28
TLD-13	22
TLD-16	23
TLD-25	27
TLD-35	28
TLD-38	21
TLD-40	26
TLD-50	43
TLD-53	105
TLD-60	243
TLD-61	611
TLD-70	52
TLD-71	39
TLD-74	23
TLD-78	23
TLD-81	92
TLD-82	27
TLD-83	45

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

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

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

3.4 FOURTH QUARTER RESULTS

The gamma radiation dose time for the fourth quarter of CY 2017 was approximately 92 days. Sample results ranged from 18–630 mrem. The background samples ranged from 23–28 mrem. The mean background dose was 25 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.

Location	Effective Dose
TLD-1	222
TLD-2	327
TLD-5	27
TLD-7	30
TLD-13	26
TLD-16	28
TLD-25	34
TLD-30	26
TLD-35	26
TLD-40	29
TLD-50	46
TLD-53	103
TLD-60	374
TLD-61	630
TLD-67	29
TLD-70	44
TLD-71	39
TLD-72	27
TLD-74	28
TLD-76	26
TLD-78	26
TLD-81	114
TLD-82	31
TLD-83	55

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

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

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

3.5 ANNUALIZED RESULTS

Annual gamma dose rates for CY 2017 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 87.37 mrem. The mean background was subtracted from the annualized E to obtain a net annual E, attributed to PGDP operations for CY 2017, 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 3.50 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 E in excess of the mean background at 99.7% confidence were TLD-1, TLD-2, TLD-7, TLD-25, TLD-35, 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.

Location	Annualized Effective Dose (mrem)	Mean Background Plus Three Standard Deviations (mrem)	Average Background (mrem)	Net Annual Dose (mrem)
TLD-1	781	98	87	694
TLD-2	1107	98	87	1020
TLD-7	118	98	87	31
TLD-25	115	98	87	28
TLD-35	107	98	87	20
TLD-40	102	98	87	15
TLD-50	170	98	87	83
TLD-53	393	98	87	306
TLD-60	1189	98	87	1102
TLD-61	2350	98	87	2263
TLD-70	194	98	87	107
TLD-71	158	98	87	71
TLD-81	407	98	87	320
TLD-82	115	98	87	28
TLD-83	202	98	87	115

Table 5. Gamma TLD Locations with Results above Background

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

3.6 ANNUALIZED RESULTS FOR 2016 COMPARED TO 2017

Table 6 presents the results of a comparison between the annualized total gamma dose results for CY 2016 and for CY 2017. No new locations were added or discontinued in 2017. The locations with E in

excess of background were mainly consistent between 2016 and 2017. No areas previously identified with elevated dose rates in 2016 had decreased dose rates below background in 2017. One area (TLD-35) with dose rates below background in 2016 had elevated dose rates at a statistically significant level in 2017. Twenty four locations remained statistically consistent (\pm 5%) between 2016 and 2017. Radiation dose rates are subject to change as a result of DUF₆ plant operations such as UF₆ relocation.

Common Location	2016 Annualized Effective Dose (mrem)	2017 Annualized Effective Dose (mrem)	Increase or Decrease from 2016 to 2017	% Change
TLD-1	807	781	-26	-3.22
TLD-2	1047	1107	60	5.73
TLD-3	83	86	3	3.61
TLD-4	80	84	4	5.00
TLD-5	87	91	4	4.60
TLD-6	74	75	1	1.35
TLD-7	101	118	17	16.83
TLD-9	74	75	1	1.35
TLD-12	71	78	7	9.86
TLD-13	88	92	4	4.55
TLD-14	77	75	-2	-2.60
TLD-15	69	72	3	4.35
TLD-16	93	96	3	3.23
TLD-19	90	83	-7	-7.78
TLD-25	112	115	3	2.68
TLD-30	81	91	10	12.35
TLD-35	94	107	13	13.83
TLD-37	84	83	-1	1.19
TLD-38	85	88	3	3.53
TLD-40	103	102	-1	-0.97
TLD-46	75	83	8	10.67
TLD-50	174	170	-4	-2.30
TLD-52	71	78	7	9.86
TLD-53	410	393	-17	-4.15
TLD-58	65	72	7	10.77
TLD-59	67	71	4	5.97
TLD-60	1266	1189	-77	-6.08
TLD-61	2789	2350	-439	-15.74
TLD-62	67	70	3	4.48
TLD-63	65	70	5	7.69
TLD-64	69	70	1	1.45
TLD-65	69	75	6	8.70
TLD-66	82	87	5	6.10
TLD-67	83	92	9	10.84
TLD-68	84	82	-2	-2.38
TLD-69	70	71	1	1.43
TLD-70	157	194	37	23.57

Table 6. Effective Annual Gamma Dose of Common Monitoring Locations for CY 2016 and CY 2017

Common Location	2016 Annualized Effective Dose (mrem)	2017 Annualized Effective Dose (mrem)	Increase or Decrease from 2016 to 2017	% Change
TLD-71	103	158	55	53.40
TLD-72	82	87	5	6.10
TLD-73	73	79	6	8.22
TLD-74	93	92	-1	-1.08
TLD-75	86	90	4	4.65
TLD-76	83	85	2	2.41
TLD-77	84	84	0	0.00
TLD-78	92	97	5	5.43
TLD-79	73	81	8	10.96
TLD-80	77	83	6	7.79
TLD-81	331	407	76	22.96
TLD-82	103	115	12	11.65
TLD-83	219	202	-17	-7.76
TLD-84	71	80	9	12.68

Table 6. Total Annual Gamma Dose of Common MonitoringLocations for CY 2016 and CY 2017 (Continued)

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

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.

Location	Net Annual Effective Doses (mrem)	Net Dose Rate (mrem/hour)
TLD-1	694	0.079
TLD-2	1020	0.116
TLD-7	31	0.004
TLD-25	28	0.003
TLD-35	20	0.002
TLD-40	15	0.002
TLD-50	83	0.009
TLD-53	306	0.035
TLD-60	1102	0.126
TLD-61	2263	0.258
TLD-70	107	0.012
TLD-71	71	0.008
TLD-81	320	0.037
TLD-82	28	0.003
TLD-83	115	0.013
	·	Avg. = 0.047

 Table 7. Net Annual Gamma Effective Doses

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.

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

Historic surveys of the plant perimeter fence indicate that the TLDs are located in the areas where the maximum doses are likely to occur. Since the fall of 2001, security controls have been in place to restrict public access to the DOE Reservation. While controls have relaxed somewhat, provisions remain in place to prohibit regular public access to areas adjacent to the security fence. As such, the locations listed in Table 7 and Table 8 were not regularly accessible to the public in CY 2017. The external radiation exposures at the locations not listed in Table 7, although accessible to the public, were not above background with 99.7% confidence. Calculation of a worst case dose, assuming that a member of the public spends 80 hours at the location of highest measured dose along the security fence at TLD-2, determined that a dose of 9 mrem (0.116 mrem/hour \times 80 hours) would be received. The DOE contribution of E from plant-derived gamma and neutron radiation that a member of the public received 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 3.76 mrem (0.047 mrem/hour \times 80 hours) a year worst case, which is well below the 100 mrem limit for CY 2017.

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 UF_6 cylinder storage yards. The nearest off-reservation measurement locations are found within land owned by the Commonwealth of Kentucky and are designated as part of the West Kentucky Wildlife Management Area (WKWMA). No residences or businesses are located in the WKWMA. The nearest private residences to TLD-1 and TLD-2 are approximately 6,500 and 5,500 feet away, respectively.

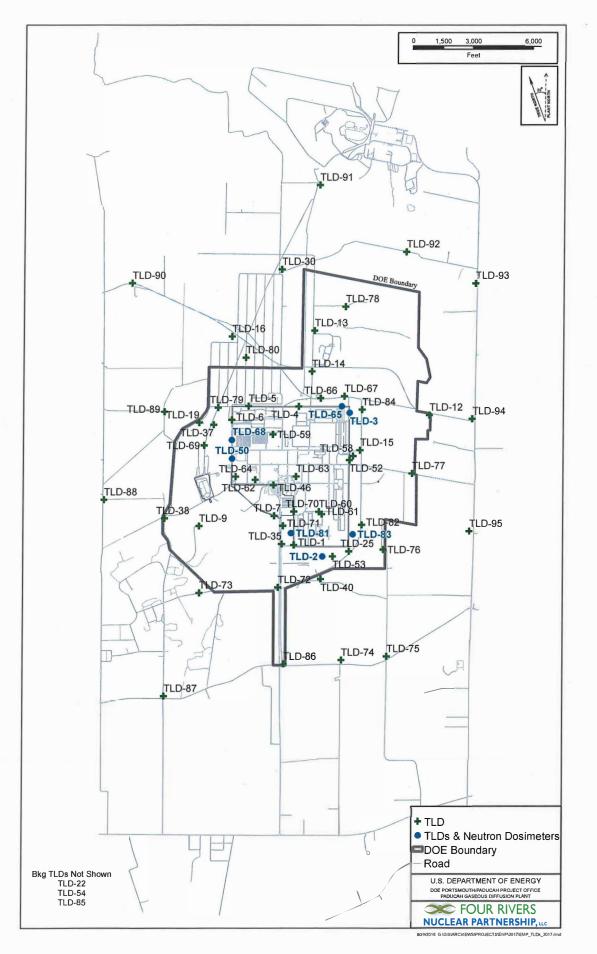
In CY 2009, security restrictions were eased to allow regular public access to Harmony Cemetery located at TLD-14. The annual dose to a member of public visiting the cemetery at TLD-14 was statistically equivalent to the average background in CY 2017. While this location is located physically closer to the plant than the residences described above, the time spent annually at the cemetery is much less than is postulated for a resident; therefore, for purposes of calculation, the maximally exposed member of the general public continues to reside at these residences. The measurement locations that are closer to TLD-1 and TLD-2 than the nearest residents did not yield external radiation exposures that were statistically different from background. As the dose is inversely proportional to the distance from the source, the E to the maximally exposed individual at the two public residences nearest TLD-1 and TLD-2 also is not different from background.

5. CONCLUSIONS

The public does not have regular access to the PGDP boundary fence; therefore, the radiation doses measured at the fence are not applicable to members of the public. Calculation of a worst case dose, assuming that a member of the public spends 80 hours at the location of highest measured dose along the security fence at TLD-2, determined that a dose of 9 mrem would be received. This is 11 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 2017, 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 2017, 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 2017, the E to the maximally exposed individual member of the public from DOE operations was below the applicable DOE limit of 100 mrem within a year, in accordance with DOE Order 458.1.

APPENDIX A

MAP OF MONITORING LOCATIONS



A-3

APPENDIX B

TLD PLACEMENT AND COLLECTION

Date/Time Issued/Badge ID	lssued By	a service of a light of a service of a service of	Collected By	Location Name	Description	NorthLong	West or East Lat	Xcoord	Ycoord	Comments
ssuedy bauge 1D	By	Conected	Бу	Name	Description	NorthEong	West of Last Lat	ACOULD	TCOORd	comments
					PGDP security fence west of C-745-					
					M near intersection of Patrol Road					
					and Alabama Avenue near pole 21-					
01/09/2017 08:51					20. Outside fence behind UDS dirt					
9604-625	JW	4/4/2017 9:18	JM	TLD-1	pile	N 37 06 16.66	W 088 48 55.18	-4172	-5856	N/A
					PGDP security fence south of C-745-					
01/09/2017 08:39					T near pole T20-6J. South Cylinder					
9605-626 1176	WL	4/4/2017 13:30	WL	TLD-2	Yard perimeter fence	N 37 06 02.15	W 088 48 43.07	-2740	-6427	N/A
					PGDP security fence east of C-745-			1		
01/09/2017 07:59					H near pole 23-31. Perimeter fence					
9606-627 1177	JW	4/4/2017 8:57	W	TLD-3	NE corner	N 37 07 04.17	W 088 47 57.21	-1399	739	N/A
01/09/2017 10:02					North PGDP security fence near					
9607-628	wL	4/4/2017 10:10	w	TLD-4	North-South Diversion Ditch.	N 37 07 15.74	W 088 48 25.56	-3957	1052	N/A
					North PGDP security fence north of	·······				
					C-747-A near pole T53A1P26G.					
01/09/2017 09:58	1		l		North perimeter fence between					
9608-629	wu	4/4/2017 10:06	wu	TLD-5	lagoon	N 37 07 24.38	W 088 48 54.58	-6464	1068	N/A
					West PGDP security fence west of C-					
01/09/2017 09:49					746-P1 near pole 22-4. 612					
9609-630	WL	4/4/2017 9:58	WL	TLD-6	perimeter fence.	N 37 07 20.85	W 088 49 07.22	-7303	382	N/A
					PGDP perimeter fence adjacent to					
					Curlee Road near entrance to DOE					
01/09/2017 09:08					building (C-103). Perimeter fence					
9610-631	WL	4/4/2017 9:32	WL	TLD-7	across from entrance to DOE bldg.	N 37 06 29.15	W 088 49 02.49	-5153	-4400	N/A
	1.				Fence around U.S.G.S. stream					
					gauging station at Bayou Creek and					
e*					South Acid Road. USGS fence West					
N/A	N/A	N/A	N/A	TLD-8	57 Acid Rd.	N 37 05 57.76	W 088 49 28.04	-6011	-8091	N/A
					Northeast corner of fence of old					
					KOW water treatment plant, near					
01/09/2017 12:07	1				Monitoring Well 309. Gate to					
9611-632	WL	4/4/2017 13:06	JM	TLD-9	MW305	N 37 06 37.12	W 088 49 48.11	-8901	-4907	N/A
					Outfall 011 - hung from side of					
					outfall sampling platform at about					
				TID 10	foot level, pole T19-15E. Gate	N 37 06 37 33	W 000 40 00 FC	602	2048	N/A
N/A	N/A	N/A	N/A	TLD-10	Outfall 011	N 37 06 27.22	W 088 48 03.56	-602	-2948	N/A

	1	T			1		l	T	T	
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
	1.00					1 37 00 28.88	W 0884741.08	1032	-2107	
					Institutional controls fence near					
					Monitoring Well 191 where Little					
					Bayou Creek crosses Hwy 358.					
01/09/2017 11:14					MW191, Little Bayou & Ogden					
9612-633	JM	4/4/2017 12:08	JW	TLD-12	Landing Rd.	N 37 06 49.62	W 088 47 11.44	2588	626	N/A
01/09/2017 11:18 9613-634	WL	4/4/2017 12:13	11.4/	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
5013-034	100	4/4/2017 12:15	100	1110-13		N 37 07 48.17	VV 088 48 00.01	-5162	4625	
					Institutional controls fence along					
					North-South Diversion Ditch on					
04 /00 /0047 07 50					west side of 14th street extension					
01/09/2017 07:53 9614-635	WL	4/4/2017 8:50	NA/	TLD-14	near Highway 358 (K003). Fence at North South ditch, north of MW353	N 27 07 20 75	W 088 48 10.58	-3302	2798	N/A
01/09/2017 07:35	100	4/4/2017 8:50	100	110-14	Northeast corner of C-755 fence	N 57 07 29.75	W 088 48 10.58	-5502	2/90	
9615-636	wL	4/4/2017 8:35	w	TLD-15	behind C-755-D	N 37 06 45.01	W 088 47 58.91	-864	-1129	N/A
		,			WKWMA Clubhouse on northwest					
01/09/2017 11:38					corner porch post. On porch					
9616-637	1W	4/4/2017 12:32	٦M	TLD-16	WKWMA Headquarters.	N 37 07 59.44	W 088 48 49.76	-7311	4533	N/A
					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					
N/A	N/A	N/A	N/A	TLD-17	Bridge by Lambs Garage	N 37 08 41.09	W 088 49 37.27	-12368	7174	N/A
					Suspended about 3 feet below the					
					U.S.G.S. stream gauging station					
					platform at Little Bayou Creek and					
		r			Anderson Road. USGS at Iron					
					Bridge Little Bayou Creek. Right @					
N/A	N/A	N/A	N/A	TLD-18	Tract 5 4-way Stop	N 37 08 22.09	W 088 47 25.71	-1702	9016	N/A
					Big Bayou Creek south of Transport Road BridgeLocated in tree to left	1				
01/09/2017 12:00					of the DOE barricade. Iron Bridge					
9617-638	wu	4/4/2017 13:00	wild	TLD-19	BBC, behind notice sign.	N 37 07 25.09	W 088 49 26.57	-8922	248	N/A
				1	1 ,		1			

В-4

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					Center of fence at north side of				Υ	Т
N/A	N/A	N/A	N/A	TLD-20	water treatment plant	N 37 06 59.83	W 088 49 36.29	-8788	-2421	N/A
					Residence, Oaks Road, Paducah,					
N/A	N/A	N/A	N/A	TLD-21	Kentucky	N 36 58 12.77	W 088 32 52.01	85990	-24497	N/A
					Outside of the fence of the locked					
01/00/2017 10.20					air sampling station at the rear corner of the Bethel Cumberland					
01/09/2017 10:26	1	4/4/2017 11:15	13.47	TID 22		N 37 00 05.36	W 088 52 36.29	9150	-46801	N/A
9618-639	JW	4/4/2017 11:15	100	TLD-22	Presbyterian Church Cemetery Outside of the fence of the locked	N 37 00 05.36	VV U88 52 30.29	-8159	-46801	
					air sampling station at the					
					northwest corner of the Heath				45.00	
N/A	N/A	N/A	N/A	TLD-23	ballpark fields	N 37 05 50.80	W 088 46 57.78	5667	-4583	N/A
1					BJC Kevil facility on stairway					
					handrail outside southwest corner				.	
N/A	N/A	N/A	N/A	TLD-24	of building	N 37 04 39.52	W 088 52 51.97	N/A	N/A	N/A
01/09/2017 08:11					On power line tower nearest Dykes					
9620-641	٦W	4/4/2017 9:09	JM	TLD-25	Road southeast of C-745-T	N 37 06 00.02	W 088 48 26.49	-1401	-6172	N/A
					Massac Creek to left of path in tree.					
					Highway 62 Bridge past Sunshine					
N/A	N/A	N/A	N/A	TLD-26	Dairy	N 36 57 31.92	W 088 25 13.90	122314	-15495	N/A
					"Do not block entrance" sign on					
					Plant Access Road near Post 15 and					
					motorcycle parking area (C-800).					
N/A	N/A	N/A	N/A	TLD-27	Motorcycle Shed, Post 15	N 37 06 40.78	W 088 48 54.33	-4883	-3431	N/A
					Bethel Church Road, turn right on					
					Bobo Road, left on intersection,					
					located in trees at Monitoring Well					
					194. Sign near staircase on Big					
N/A	N/A	N/A	N/A	TLD-28	Bayou, MW194	N 37 07 44.580	W 088 49 34.140	-10105	1884	N/A
			1							
					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					
N/A	N/A	N/A	N/A	TLD-29	of horse barn, west wall	N 37 07 55.380	W 088 48 41.820	-6503	4306	N/A

				1		······································	T	T		
01/09/2017 11:34 9621-642	w	4/4/2017 12:28	W	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
					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					
N/A	N/A	N/A	N/A	TLD-31	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	/ / /	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
01/09/2017 09:06 9622-643	WL	4/4/2017 9:30	w	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
N/A 01/09/2017 09:47				110-50	KPDES Outfall 001 behind Vortec	37 00 30.040	VV 000 43 23.040	-/ 321	-2005	
9623-644	wu	4/4/2017 9:51	WL	TLD-37	facility. KOO1	N 37 07 18.600	W 088 49 15.660	-8202	138	N/A

01/09/2017 12:04					Five-Points Creek with concrete					
624-645	JW	4/4/2017 13:04	JW	TLD-38	bridge, on tree behnd 2A sign.	N 37 06 43.320	W 088 50 09.000	-10630	-4528	N/A
					Outfall 10 off Dykes Road near C-					
N/A	N/A	N/A	N/A	TLD-39	· ·	N 37 06 33.540	W 088 48 00.900	-612.5	-2231.25	N/A
						······································				
					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					
01/09/2017 08:13					on left. Orange sign on blocked					
9625-646	w	4/4/2017 9:12	IW	TLD-40	road, east of 57 off Dykes Rd.	N 37 05 52.200	W 088 48 52.20	-2818	-7551	N/A
		1, 1, 2027, 5122								
			•		Acid Road near old monitoring well					
					past bridge. Acid Rd by COE					
N/A	N/A	N/A	N/A	TLD-41	monitoring well.	N 37 06 07.800	W 088 50 18.360	-10116	-6298	N/A
					Ogden Landing Road, past landfill,		×.			
					at Northeast Plume, on "No					
N/A	N/A	N/A	N/A	TLD-42	Tresspassing" sign	N 37 06 55.380	W 088 47 19.080	-1219	-1701	N/A
NI/A	N/A	N/A	NI / A	TLD-43	Monitoring Well 98 on road past landfill, in the trees	N 37 08 12.240	W 088 47 50.700	2125	65.69	N/A
N/A		N/A	N/A	1110-43		N 37 08 12.240	VV 088 47 50.700	-3125	-6568	
					Outside security fence west of					
	1				Lasagna site on the corner post of					
N/A	N/A	N/A	N/A	TLD-44	posted area - southeast corner	N 37 07 08.880	W 088 49 12.780	-7337	-1591	N/A
					At C-743 trailer complex at walk-in					
N/A	N/A	N/A	N/A	TLD-45	gate	N 37 06 45.900	W 088 49 04.620	-7337	-474	N/A
01/09/2017 09:12										
9626-647	JW	4/4/2017 9:35	1M	TLD-46	Truck entrance at receiving C-720	N 37 06 44.700	W 088 49 00.120	-5198	-2865	NA
					Tree line south of C-745-T Cylinder					
					Storage Yard. First road on left on					
					Dykes Rd past 57. Last tree on right					
N/A	N/A	N/A	N/A	TLD-47	before clearing	N 37 06 00.300	W 088 48.49.380	-3156	-6777	N/A
					Tree line along the security fence					
					east of C-745-H. Gate 44 road, NE					
N/A	N/A	N/A	N/A	TLD-48	corner of fence	N 37 07 06.60	W 088 47.53.82	-1225	1064	N/A
					Outfall 001 Posted Area. Power					
N/A	N/A	N/A	N/A	TLD-49	pole North C-612 T1	N 37 07 26.52	W 088 49.04.92	-7325	984	N/A
01/00/2017 00 10										
01/09/2017 09:40		4/4/2017 0 17			West Patrol Road fence across from		W 000 40 45 40	7207	15 47	
9627-648 1178 N/A	JW N/A	4/4/2017 9:47 N/A	JW N/A	TLD-50 TLD-51	C-745-A Outfall 015 Posted Area	N 37 07 02.88 N 37 07 07.02	W 088 49.15.18	-7287 -7316	-1547 -1112	N/A
01/09/2017 07:39				110-51	East Patrol Road fence across from	11 3/ 0/ 0/.02	W 088 49.13.68	-1210	-1112	N/A
9628-649	w	4/4/2017 8:40		TLD-52	C-745-E.	N 37 06 42.18	W 088 48.07.20	-1397	-1628	N/A

	1	1		1	Security fence at southeast corner			T		Т
01/09/2017 08:40					of C-745-T Yard. Down fence line					
629-650	WL	4/4/2017 13:35	WL	TLD-53	away from TLD-2.	N 37 06 00.42	W 088 48.37.02	-2220	-6423	N/A
01/10/2017 06:30										
9630-651	КА	4/10/2017 21:00	КА	TLD-54	Residence; Jalusian Trail	N 57 87 72.16	E 23 93 13.48	45296	-25254	N/A
										Discontinued
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	7/10/2014
N/A	N/A	N/A	N/A	TLD-56	O/S C-410 Truck Alley Facing C-412		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
01/09/2017 07:27								1.000		
9631-652	JW	4/4/2017 8:32	1W	TLD-58	West Central C-755 Complex	N 59 07 98.00	E 22 88 70.74	-1209	-1422	N/A
01/09/2017 14:46										
9632-653	JW.	4/4/2017 14:09	1M	TLD-59	C-752A Break Area	N 59 15 61.62	E 22 78 55.79	-5234	-339	N/A
01/09/2017 13:42	1		.		C-333A Light Pole on Fence Pole		5 00 00 74 60		1	
9633-654	JW	4/4/2017 14:01	1W	TLD-60	#16	N 59 02 07.10	E 22 80 71.62	-2919	-4199	N/A
01/09/2017 13:49	1						5 33 33 33 35	2770	4245	
9634-655	JW.	4/4/2017 14:02	JW	TLD-61	West of C-746Q Light Pole #14	N 59 01 58.14	E 22 80 98.35	-2778	-4315	N/A
01/09/2017 14:56		4/4/2047 45 24			C-743 Trailer Complex Light Pole	1 50 10 20 10	5 22 72 40 91	C111	2007	N1/A
9635-656	JW	4/4/2017 15:34	JW	TLD-62	#336,behind Trailer #3.	N 59 10 20.18	E 22 73 49.81	-6111	-2607	N/A
01/09/2017 14:00	w	4/4/201714.20				N 59 08 36.46	E 22 79 46.95	-4069	-2435	N/A
9636-657	1.00	4/4/2017 14:30	100	TLD-63	C-412 HP Break Trailer	N 59 08 30.40	E 22 79 40.95	-4069	-2455	
01/09/2017 09:33							5 22 70 00 00	7000	2447	NI / A
9637-658	JW	4/4/2017 10:21	100	TLD-64	C-764 T-6 Trailer	N 59 11 77.55	E 22 70 88.88	-7098	-2447	N/A
					Leasted O/C of North Security fores					
01/09/2017 08:02					Located O/S of North Security fence North of C-745H Cylinder Yard;	N 37 07 08.54386	W 088 48 00.45376			
9638-659 1179	w	4/4/2017 9:01		TLD-65	South of C-762 Laydown Yard			-1795	1062	N/A
9028-029 11/9	100	4/4/2017 9:01		1110-05	South of C-762 Laydown Fard			-1/95	1002	
					Located on tree @Southeast corner					
					of New Harmony Cemetery;	N 37 07 15.80859	W 088 48 11.08836			
01/09/2017 07:49					adjacent to last concrete barrier &	1 37 07 13.80833	W 088 48 11.08850			
9639-660	w	4/4/2017 8:48		TLD-66	large metal post			-2856	1457	N/A
3033-000		4/4/2017 0.40	1.1.1.1	120-00	Located on "No Trespassing" sign				1457	
					North side of Dykes Rd next to					
01/09/2017 07:47			1		Security Fence North of C-762	N 37 07 12.70502	W 088 47 56.75697			
9640-661	w	4/4/2017 8:46		TLD-67	Laydown yard			-1658	1560	N/A
9040-001		4/4/2017 8.40	1100	110-07	West Security Fence West of C-			-1038	1300	
01/09/2017 09:44					745B Cylinder Yard & Southeast of	N 37 07 11 60797	W 088 49 11.43416			
9641-662 1180	wL	4/4/2017 9:50		TLD-68	Vortec Site	3/0/11.00/9/	10 000 43 11.43410	-7302	-617	N/A
2041-002 1100			7			<u> </u>		-7302		
					Wooden utility pole (T12-15 H)					
01/09/2017 09:23	1				next to gravel road @Northeast	N 37 07 13.70394	W 088 49 28.37928			
9642-663	w	4/4/2017 9:40		TLD-69	corner of pond North of C-611			-8664	-888	N/A
5042-003		<u> </u>		110-09				1-0004	-000	

	TT	I			O/S of West Security Fence				T	T
					Southeast of C-333 midway					
01/09/2017 09:03					between C810 parking area &	N 37 06 27.82855	W 088 48 50.25203			
9643-664	w	4/4/2017 9:26	w	TLD-70	North BWCS Security Fence			-4173	-4189	N/A
					O/S of West Security Fence of					
					BWCS under security light,					
01/09/2017 08:58					Northeast of wooden utility pole	N 37 06 23.05971	W 088 48 59.65074	1		
9644-665	w	4/4/2017 9:24	IW	TLD-71	(11056 KU 78487)			-4723	-4903	N/A
		1, 1, 2027 5121			North Side of Air Monitoring			11/25		
01/09/2017 08:48					Station AMD57, Northwest of Post	N 37 05 55.32798	W 088 49 15.28582			
9645-666	w	4/4/2017 9:14	1147	TLD-72	57	1 37 03 33.32730	VV 000 45 15.20502	-4952	-7972	N/A
5045-000	500						+	+332	-1512	
01/09/2017 12:12					Eastern "Railroad Crossing" sign	N 37 06 06.14205	W 088 50 02.01070			
9646-667	wL	4/4/2017 13:10	15.47	TLD-73	@train tracks on Acid Road	N 37 00 00.14203	W 088 30 02.01070	-8883	-8241	N/A
5040-007	1100	4/4/2017 13.10	Jvv					-0005	-0241	
i i					Located on "Warning Siren" sign					
01/00/2017 10.42						N 37 05 10.96196	W 088 48 53.61411			
01/09/2017 10:43		4/4/2017 11.22		TID 74	@turnoff North of Magruder &			1705	11500	
9647-668	WL	4/4/2017 11:33	100	TLD-74	Woodville intersection			-1765	-11586	N/A
01/00/2017 10.45					Located on "Warning Siren" sign	N 27 05 04 04525	W 000 40 00 00 45			
01/09/2017 10:45					@North of Kelley Rd & Woodville	N 37 05 04.94525	W 088 48 26.65157	100	1	
9648-669	WL	4/4/2017 11:36	JM	TLD-75	Rd intersection			496	-11409	N/A
					Located on "Tract A" sign below					
					power lines southside of Kelley Rd	N 37 05 55.05466	W 088 48 06.27328			
01/09/2017 10:49					in sharp curve between Woodville			240	6000	
9649-670		4/4/2017 11:41	JW	TLD-76	& McCaw Rds	ļ		310	-6082	N/A
					Located on "Warning Siren" sign					
01/09/2017 10:54					North side of McCaw Rd east of	N 37 06 25.46598	W 088 47 33.66599			
9650-671	WL	4/4/2017 11:46	JW .	TLD-77	Kelley Rd intersection			1737	-2287	N/A
01/09/2017 11:22					Northeast Corner of C-746U Landfill	N 37 07 54.00752	W 088 47 37.45924			
9651-672	JW	4/4/2017 12:16	JW	TLD-78	Security Fence			-1622	6020	N/A
					Located on left post of the "Wildlife	1				
					Management" gate on New	N 37 07 28.86304	W 88 49 12.50003			
01/09/2017 09:55					Waterline Rd Southwest of Plant					
9652-673	JW	4/4/2017 10:02	1M	TLD-79	gate 41A west of C-612			-7981	993	N/A
					Located on "Cattle" gate west of	N 37 07 47.29850	W 088 48 46.10944			
01/09/2017 11:41					MW 453 & MW 454 on gravel rd	1.2707 47.25050				
9653-674	JW	4/4/2017 12:35	JM	TLD-80	east of New Waterline Rd			-6612	3477	N/A
	1									
					Southeast corner of BWCS security	N 37 06 18.33947	W 088 48 56.42591			
01/09/2017 08:55					fence next to gate V1 East of New	1, 37 00 10.3334/	1000 40 30.42391	1		
9654-675 1181	WL	4/4/2017 9:21	WL	TLD-81	Waterline East of C1100			-4314	-5262	N/A
01/09/2017 08:08					Short wooden pole East of Dykes	N 37 06 10.13175	W 088 48 13.53048			
9655-676	WL	4/4/2017 9:07	JW	TLD-82	Rd North of Outfall 13	14 37 00 10.13173	VV 000 40 15.55048	-765	-4851	N/A

	Т			1	Г	r				
)1/09/2017 08:22					Large metal power pole West of	N 37 06 07.30640	W 088 48 20.71726			
656-677 1182	WL	4/4/2017 13:14	IW/	TLD-83	Dykes Rd South of Outfall 13	1 37 00 07.30040	VV 066 46 20.71720	-1214	-5319	N/A
1/09/2017 07:42		1, 1, 2027 2012 1			Located @MW496 on the East Side				-5515	
657-678	w	4/4/2017 9:44	JW	TLD-84	of Dykes Rd	N 37 07 03.50589	W 088 47 49.26485	-769	894	N/A
1/09/2017 16:30		., .,			Residence; corner of Springwell and					
658-679	so	4/4/2017 17:00	so	TLD-85	Buckner Lane	N 37 03 27.9036	W 088 40 43.9638	39082	-7750	N/A
				1	Plant Entrance, Gravel Construction					
1/09/2017 10:40					Rd. Right side on orange warning					
659-680	w	4/4/2017 11:30	WL	TLD-86	signal sign	N 37° 5' 18.8622"	W 088 49 28.2282	-4676	-11794	N/A
					KOW Entrance north of Woodville					
1/09/2017 12:16					Rd north of Kevil Eagles. Right side				1	
660-681	WL	4/4/2017 13:14	WL	TLD-87	on orange warning signal sign	N 37 05 24.2802	W 088 50 43.9548	-10629	-13381	N/A
					Bethel Church Road KOW entrance.					
01/09/2017 11:54					North of Massay Rd, right side on					
9661-682	WL	4/4/2017 12:51	WL	TLD-88	yellow post	N 37 07 05.4876	W 088 50 37.9608	-13677	-3597	N/A
					Bobo Rd, off of Bethel Church Rd.					
					Continue east 200 yds past end of					
L/09/2017 11:50					asphalt. At intersection on orange					
9662-683	JW	4/4/2017 12:47	JW	TLD-89	warning signal sign	N 37 07 35.9976	W 088 49 44.3922	-10657	788	N/A
					Bridge on Ogden Landing Rd east of					
01/09/2017 11:46					Lamb's garage. On NE corner of					
9663-684	JW	4/4/2017 12:41	JW	TLD-90	bridge on contaminated creek sign	N 37 08 54.6714	W 088 47 27.2472	-12310	7182	N/A
					Boldry School Rd on KOW at					
01/09/2017 11:31					Shawnee plant entrance. On cattle					
9664-685	JW	4/4/2017 12:24	JW	TLD-91	gate road on hill, right side	N 37 08 40.9884	W 088 49 36.5232	-2952	12069	N/A
					Anderson Road off Metropolis Lake					
					Rd. follow West until road ends					
01/09/2017 11:03					@Railroad tracks. On left crossing					
9665-686	JW	4/4/2017 11:59	N/A	TLD-92	gate post.	N 37 07 42.7866	W 088 46 17.1438	1392	8745	N/A
					MW 100, North on Metropolis Lake					
01/09/2017 11:02					Rd past railroad tracks on left side					
9666-687	JM	4/4/2017 11:55	WL W	TLD-93	on Well bollard	N 37 08 09.0744	W 088 46 50.9304	4874	7186	N/A
01/09/2017 11:12		4/4/2017 45 55			Residence; corner of Ogden					
9667-688	N	4/4/2017 12:06	hw	TLD-94	Landing Rd & Metropolis Lake Rd	N 37 05 48.9294	W 088 47 12.4332	4740	436	N/A
01/00/0017 10:57					West McCracken Health Clinic,					
01/09/2017 10:57	l	4/4/2017 44 12	J		Metropolis Lake Rd. On Light Pole					
9668-689	1M	4/4/2017 11:49	νμw	TLD-95	in SW corner of parking lot	N 37 06 40.5468	W 088 46 47.2872	4617	-5167	N/A

					Taken along while placing and collecting all other samples - stored					
01/09/2017 16:00					in "lead box" at C-101 Dosimetry					
9669-690	WL	4/4/2017 16:00	WL	TLD-FB	office	N/A	N/A	NA	NA	N/A
01/09/2017 07:00					Stored in "lead box" at C-101					
9670-691	WL	4/4/2017 7:00	JW	TLD-TB	Dosimetry office	N/A	N/A	NA	NA	N/A
9671-692	WL	N/A	N/A	SPARE	Lead Box in C-101 Dosimetry office	N/A	N/A	N/A	N/A	N/A
9672-693	wı	N/A	N/A	SPARE	Lead Box in C-101 Dosimetry office	N/A	N/A	N/A	N/A	N/A
9673-694	w	N/A	N/A	SPARE	Lead Box in C-101 Dosimetry office	N/A	N/A	N/A	N/A	N/A
9674-695	w	N/A	N/A	SPARE	Lead Box in C-101 Dosimetry office	N/A	N/A	N/A	N/A	N/A
9675-696	w	N/A	N/A	SPARE	Lead Box in C-101 Dosimetry office	N/A	N/A	N/A	N/A	N/A
9619-640	w	N/A	N/A	SPARE	Lead Box in C-101 Dosimetry office	N/A	N/A	N/A	N/A	N/A

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Date/Time	Issued	Date/Time	Collected	Location						
Issued/Badge ID	Ву	Collected	Вү	Name	Description	NorthLong	West or East Lat	Xcoord	Ycoord	Comments
					PGDP security fence west of C-745-					
					M near intersection of Patrol Road					
					and Alabama Avenue near pole 21-					
04/04/2017 09:18	Í	İ	İ	Í	20. Outside fence behind UDS dirt					
1707-625	wu	7/11/2017 9:24	w	TLD-1	pile	N 37 06 16.66	W 088 48 55.18	-4172	-5856	N/A
~ / ~ / ~ ~ ~ ~ ~ ~ ~ ~			1		PGDP security fence south of C-745-					
04/04/2017 13:30	wL	7/11/2017 14:45		TLD-2	T near pole T20-6J. South Cylinder	N 37 06 02.15	W 099 49 42 07	-2740	-6427	
1708-626 1175	1100	7/11/2017 14:45	100		Yard perimeter fence PGDP security fence east of C-745-	N 370602.15	W 088 48 43.07	1-2/40	1-6427	N/A
04/04/2017 08-57					·					
04/04/2017 08:57 1709-627 1176	w	7/11/2017 0:00	11.47	TLD-3	H near pole 23-31. Perimeter fence NE corner	N 37 07 04.17	W 088 47 57.21	-1399	739	N/A
1/09-02/ 11/0	1.00	7/11/2017 9:00	100			N 37 07 04.17	W 088 47 57.21	-1399	/39	IN/A
04/04/2017 10:10					North PGDP security fence near					
1710-628	w	7/11/2017 10:33	IW	TLD-4	North-South Diversion Ditch.	N 37 07 15.74	W 088 48 25.56	-3957	1052	N/A
1/10 020		//11/2017 10:55			North PGDP security fence north of				1002	
					C-747-A near pole T53A1P26G.					
04/04/2017 10:06	İ	İ	İ	İ	North perimeter fence between					
1711-629	WL	7/11/2017 10:29	WL	TLD-5	lagoon	N 37 07 24.38	W 088 48 54.58	-6464	1068	N/A
					West PGDP security fence west of C-			i	† –	1
04/04/2017 09:58				ĺ	746-P1 near pole 22-4. 612					
1712-630	WL	7/11/2017 10:24	JW	TLD-6	perimeter fence.	N 37 07 20.85	W 088 49 07.22	-7303	382	N/A
		e.							1	
					PGDP perimeter fence adjacent to					
04/04/2017 00.22	1				Curlee Road near entrance to DOE					
04/04/2017 09:32 1713-631	w	7/11/2017 9:52	1	TLD-7	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
1/13-031	1,00	1 1/11/2017 5.52			Fence around U.S.G.S. stream	N 37 00 23.15	10084902.49	-5155	1-4400	1
					gauging station at Bayou Creek and					
					South Acid Road. USGS fence West					
N/A	I N/A	I IN/A	 N/A	I Itld-8	57 Acid Rd.	N 37 05 57.76	W 088 49 28.04	-6011	-8091	N/A
					Northeast corner of fence of old			1.0011	1	1
					KOW water treatment plant, near					
04/04/2017 1306	Ì	Ì			Monitoring Well 309. Gate to					
1714-632	WL	7/11/2017 13:54	WL	TLD-9	MW305	N 37 06 37.12	W 088 49 48.11	-8901	-4907	N/A
	1	1	1	1	Outfall 011 - hung from side of		Í	† –	† – – –	1
					outfall sampling platform at about					
					foot level, pole T19-15E. Gate				l	
N/A	N/A	N/A	N/A	TLD-10	Outfall 011	N 37 06 27.22	W 088 48 03.56	-602	-2948	N/A

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	T			r			1	T		
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
					Institutional controls fence near					
					Monitoring Well 191 where Little					
04/04/2017 12:09					Bayou Creek crosses Hwy 358.					
04/04/2017 12:08 1715-633	w	7/11/2017 12:45	1)//	TLD-12	MW191, Little Bayou & Ogden Landing Rd.	N 27.06 40.62	W 000 47 11 44		696	
04/04/2017 12:13		//11/201/ 12.43	100	1110-12	West fence of C-746-U landfill near	N 37 06 49.62	W 088 47 11.44	2588	626	N/A
1716-634	wL	7/11/2017 12:49	w	TLD-13	entrance gate	N 37 07 48.17	W 088 48 00.61	-3182	4825	N/A
									1010	
					Institutional controls fence along					
					North-South Diversion Ditch on west side of 14th street extension					
04/04/2017 08:50					near Highway 358 (K003). Fence at					
1717-635	WL	7/11/2017 8:53	w	TLD-14	North South ditch, north of MW353	N 37 07 29.75	W 088 48 10.58	-3302	2798	N/A
04/04/2017 08:35					Northeast corner of C-755 fence					
1718-636	WL	7/11/2017 8:34	JM	TLD-15	behind C-755-D	N 37 06 45.01	W 088 47 58.91	-864	-1129	N/A
					WKWMA Clubhouse on northwest					
04/04/2017 12:32					corner porch post. On porch					
1719-637	WL	7/11/2017 13:10	١W	TLD-16	WKWMA Headquarters.	N 37 07 59.44	W 088 48 49.76	-7311	4533	N/A
					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					
N/A	N/A	N/A	N/A	TLD-17	Bridge by Lambs Garage	N 37 08 41.09	W 088 49 37.27	-12368	7174	N/A
l					Current de la curto 2 fante la curto a					
					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 @					
N/A	N/A	N/A	N/A	TLD-18	Tract 5 4-way Stop	N 37 08 22.09	W 088 47 25.71	-1702	9016	N/A
					Big Bayou Creek south of Transport					
04/04/2017 13:00					Road BridgeLocated in tree to left of the DOE barricade. Iron Bridge					
1720-638	μw	lost	JW	TLD-19	BBC, behind notice sign.	N 37 07 25.09	W 088 49 26.57	-8922	248	N/A
			<u> </u>	1.0-13	poc, bennu nouce sign.	14 3/0/23.09	IVV U88 49 20.57	F8922	248	IN/A

		[Center of fence at north side of		T	T	1	T
N/A	N/A	N/A	N/A	TLD-20	water treatment plant	N 37 06 59.83	W 088 49 36.29	-8788	-2421	N/A
					Residence, Oaks Road, Paducah,					
N/A	N/A	N/A	N/A	TLD-21	Kentucky	N 36 58 12.77	W 088 32 52.01	85990	-24497	N/A
					Outside of the fence of the locked					
04/04/2017 11:15					air sampling station at the rear corner of the Bethel Cumberland					
1721-639	w	7/11/2017 11:40	15.47	TLD-22		N 37 00 05.36	W 088 52 36.29	-8159	40001	N/A
1/21-039		//11/201/11:40	100		Presbyterian Church Cemetery Outside of the fence of the locked	N 37 00 05.36	W 088 52 36.29	-8128	-46801	N/A
					air sampling station at the					
				1	northwest corner of the Heath					
N/A	N/A	N/A	N/A	TLD-23	ballpark fields	N 37 05 50.80	W 088 46 57.78	5667	-4583	N/A
				1110-23	BJC Kevil facility on stairway	1 37 03 30.80	VV 088 40 57.78	5007	-4365	
					handrail outside southwest corner					
N/A	N/A	N/A	N/A	TLD-24	of building	N 37 04 39.52	W 000 F2 F1 07		N/A	N1/A
N/A				TLD-24		1 37 04 39.52	W 088 52 51.97	N/A		N/A
04/04/2017 09:09					On power line tower nearest Dykes					
1722-640	w	7/11/2017 14:38		TLD-25	Road southeast of C-745-T	N 37 06 00.02	W 000 40 0C 40	-1401	-6172	N/A
1/22-040	100	//11/201/ 14:56	100	1110-23	Massac Creek to left of path in tree.		W 088 48 26.49	-1401	-01/2	
					-					
N/A	N/A	N/A	N/A	TLD-26	Highway 62 Bridge past Sunshine Dairy	N 36 57 31.92	W 088 25 12 00	122314	-15495	N/A
				1110-20		N 50 57 51.92	W 088 25 13.90	122514	-13495	
					"Do not block entrance" sign on					
					Plant Access Road near Post 15 and					
					motorcycle parking area (C-800).					
N/A	N/A	N/A	N/A	TLD-27	Motorcycle Shed, Post 15	N 37 06 40.78	W 088 48 54.33	-4883	-3431	N/A
				1120-27		1 37 00 40.78	VV 088 48 54.55	-4005	-3431	
					Bethel Church Road, turn right on					
					Bobo Road, left on intersection,					
					located in trees at Monitoring Well					
					194. Sign near staircase on Big					
N/A	N/A	N/A	N/A	TLD-28	Bayou, MW194	N 37 07 44.580	W 088 49 34.140	-10105	1884	N/A
				1110-20		14 37 07 44.380	VV 000 45 54.140	-10103	1004	
					First bunker off Ogden Landing					
			1		Road, across from WKWMA					
			1		Clubhouse, placed at the back side					
					rafter, inside the window on the					
					overhang. Inside the bunker, south					
N/A	N/A	N/A	N/A	70 20	of horse barn, west wall	N 37 07 55.380	W 088 48 41.820	-6503	4306	N/A
IVA	IN/A		IN/A	TLD-29	of horse barn, west wall	085.56 10 57.580	100 000 40 41.820	-0505	4500	IV/A

	1	1		1			1		T	<u>т </u>
04/04/2017 12:28 1723-641	W	7/11/2017 13:06	W	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
					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					
N/A	N/A	N/A	N/A	TLD-31	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		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	N/A N/A	TLD-33	Dykes Road back side of PGDP, across from Monitoring Well 145, Monitoring Well 144 on the gravel road	N 3706 58.440	W 088 48 52.320	-779	940	N/A
04/04/2017 09:30 1724-642	WI	7/11/2017 9:44	DA/	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
1/24-042	100	//11/201/ 9:44	144	110-35		IN 57 00 21.480	100 49 03.900	-4//3	-3000	
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
04/04/2017 09:51	15.47	7/10/2017 10:22	11.47	TID 27	KPDES Outfall 001 behind Vortec	N 37 07 18 600	W 088 40 15 660	8202	120	N/A
1725-643	WL	7/19/2017 10:22	hw	TLD-37	facility. K001	N 37 07 18.600	W 088 49 15.660	-8202	138	INVA

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Od/04/2017 09:12 JW 7/11/2017 9:10 JW Turn north on Kelly Road off Woodville Road, go about 1/2 mile, on Kelly road and turn left, go about 1/2 miles, LD placed in trees on left. Orange sign on blocked N 37 05 52.200 W 088 48 52.20 -2818 -7551 N/A	•••••••••••••••••••••••••••••••••••••••		1			1	[1	1
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 04/04/2017 09:12 Turn north on Kelly Road off Woodville Road, pa about 1/2 mile, on Kelly road and turn left, go about 1/2 mile, TLD placed in trees on left. Orage sign on blocked N 37 06 33.540 W 088 48 00.900 -612.5 -2231.25 04/04/2017 09:12 Turn north on Kelly Road off Woodville Road, pa about 1/2 mile, on kelly road and turn left, go about 1/2 mile, TLD placed in trees on left. Orage sign on blocked N 37 05 52.200 W 088 48 52.20 -2818 -7551 N/A N/A N/A N/A TLD-40 Transpection blocked romotioning well. N 37 06 07.800 W 088 01 8.360 -10116 -6298 N/A N/A N/A N/A TLD-41 Tresspassing* ign N 37 06 05.380 W 088 47 19.080 -1219 -1701 N/A N/A N/A N/A TLD-43 Tresspassing* ign N 37 06 55.380 W 088 49 12.780 -3215 -5568 N/A N/A N/A N/A N/A TLD-43 Tresspassing* ign	04/04/2017 13:04					Five-Points Creek with concrete					
N/A N/A N/A N/A N/A TD-39 755 complex. Outfall 010 N 37 06 33.540 W 088 48 00.900 612.5 2231.25 04/04/2017 09:12 Image: Stand	1726-644	WL	7/11/2017 13:52	JW	TLD-38	bridge, on tree behnd 2A sign.	N 37 06 43.320	W 088 50 09.000	-10630	-4528	N/A
N/A N/A N/A N/A TD-39 755 complex. Outfall 010 N 37 06 33.540 W 088 48 00.900 612.5 2231.25 04/04/2017 09:12 Image: Stand Sta						Outfall 10 off Dykes Boad near C-					
O4/04/2017 09:12 JW 7/11/2017 9:10 W TUD-40 read and turn left, go about 1/2 mile, no about 1/2 mile, TUD placed in trees on left. Orange sign on blocked on struct 1/2 mile, TUD placed in trees on left. Orange sign on blocked on struct 1/2 mile, TUD placed in trees on left. Orange sign on blocked on struct 1/2 mile, TUD placed in trees on left. Orange sign on blocked on struct 1/2 mile, TUD placed in trees on left. Orange sign on blocked on struct 1/2 mile, TUD placed in trees on left. Orange sign on blocked on struct 1/2 mile, TUD placed in trees on left. Orange sign on blocked on struct 1/2 mile, TUD placed in trees on left. Orange sign on blocked on struct 1/2 mile, TUD placed in trees on left. Orange sign on blocked on struct 1/2 mile, TUD placed in trees on left. Orange sign on blocked on struct 1/2 mile, TUD placed in trees on struct 1/2 mile, TUD placed in trees on struct 1/2 mile, TUD placed in trees on struct 1/2 mile, TUD placed in trees on struct 1/2 mile, TUD placed in trees on the corner post of past 1/2 placed in trees on struct 1/2 mile, TUD placed in trees on the corner post of past 1/2 placed in trees on the corner post of past 1/2 placed in trees on the corner post of past 1/2 placed in trees on the corner post of past 1/2 placed in trees on the corner post of past 1/2 placed in trees 1/2 placed in the corner post of past 1/2 placed in the corner post of past 1/2 placed in trees 1/2 placed in the corner post of past 1/2 placed in the corner post of past 1/2 placed in trees 1/2 placed in the corner post of past 1/2 placed in trees 1/2 placed in the corner post of past 1/2 placed in trees 1/2 placed in the corner post of past 1/2 placed in the corner post of past 1/2 placed in the corner post of 1/2 placed in the corner post of 1/2 placed in the corner post of 1/2 placed in the corner post of 1/2 placed in the corner post of 1/2 placed in the corner post of 1/2 placed in the corner post of	N/A	N/A	N/A	N/A	TLD-39	-	N 37 06 33.540	W 088 48 00.900	-612.5	-2231.25	N/A
O4/04/2017 09:12 JW 7/11/2017 9:10 W TUD-40 read and turn left, go about 1/2 mile, no about 1/2 mile, TUD placed in trees on left. Orange sign on blocked on struct 1/2 mile, TUD placed in trees on left. Orange sign on blocked on struct 1/2 mile, TUD placed in trees on left. Orange sign on blocked on struct 1/2 mile, TUD placed in trees on left. Orange sign on blocked on struct 1/2 mile, TUD placed in trees on left. Orange sign on blocked on struct 1/2 mile, TUD placed in trees on left. Orange sign on blocked on struct 1/2 mile, TUD placed in trees on left. Orange sign on blocked on struct 1/2 mile, TUD placed in trees on left. Orange sign on blocked on struct 1/2 mile, TUD placed in trees on left. Orange sign on blocked on struct 1/2 mile, TUD placed in trees on left. Orange sign on blocked on struct 1/2 mile, TUD placed in trees on struct 1/2 mile, TUD placed in trees on struct 1/2 mile, TUD placed in trees on struct 1/2 mile, TUD placed in trees on struct 1/2 mile, TUD placed in trees on the corner post of past 1/2 placed in trees on struct 1/2 mile, TUD placed in trees on the corner post of past 1/2 placed in trees on the corner post of past 1/2 placed in trees on the corner post of past 1/2 placed in trees on the corner post of past 1/2 placed in trees on the corner post of past 1/2 placed in trees 1/2 placed in the corner post of past 1/2 placed in the corner post of past 1/2 placed in trees 1/2 placed in the corner post of past 1/2 placed in the corner post of past 1/2 placed in trees 1/2 placed in the corner post of past 1/2 placed in trees 1/2 placed in the corner post of past 1/2 placed in trees 1/2 placed in the corner post of past 1/2 placed in the corner post of past 1/2 placed in the corner post of 1/2 placed in the corner post of 1/2 placed in the corner post of 1/2 placed in the corner post of 1/2 placed in the corner post of 1/2 placed in the corner post of 1/2 placed in the corner post of											
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04/04/2017 09:12 1727-645 Iw 7/11/2017 9:10 Iw 7/11/2017 9:10 Iw about 1/2 miles, TLD placed in trees on left. Orange sign on blocked read, east of 57 off bykes Rd. N 37 05 52.200 W 088.48 52.20 -2818 -7551 N/A N/A N/A N/A N/A N/A N/A N/A -7551 N/A N/A N/A N/A N/A N/A -7551 N/A N/A N/A N/A N/A -7551 -7551 N/A N/A N/A N/A N/A N/A -7051 -2818 -7551 N/A N/A N/A N/A N/A N/A -7051 -7551 N/A N/A N/A N/A N/A N/A -7011 -6598 N/A N/A N/A N/A N/A N/A -737 -7511 N/A N/A N/A N/A N/A N/A -737 -7512 N/A N/A N/A N/A N/											
04/04/2017 09:12 1727-645 IW 7/11/2017 9:10 JW TLD-40 on left. Orange sign on blocked road, east of 57 off Dykes Rd. N 37 05 52.200 W 088 48 52.20 -281.8 -755.1 N/A											
1727-645 JW 7/11/2017 9:10 JW TLD-40 road, east of 57 off Dykes Rd. N 37 05 52.200 W 088 48 52.20 -2818 -7551 N/A N/	04/04/2017 09:12	2									
N/A N/A N/A N/A TLD-41 past bridge. Acid Rd by COE monitoring well. N 37 06 07.800 W 088 50 18.360 -1016 -6298 N/A N/A N/A N/A N/A Ogden Landing Road, past landfill, at Northeast Plume, on "No Tresspassing" sign N 37 06 07.800 W 088 50 18.360 -1219 -1701 N/A N/A N/A N/A N/A TLD-42 Tresspassing" 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 Iandfill, in the trees N 37 08 12.240 W 088 47 19.080 -1219 -5568 N/A N/A N/A N/A TLD-43 Iandfill, in the trees N 37 07 08.880 W 088 49 12.780 -7337 -1591 N/A N/A N/A N/A TLD-44 Tub-44 gate N 37 06 45.900 W 088 49 04.620 -7337 -1591 N/A N/A N/A N/A TLD-45 gate N 37 06 45.900 W 088 49 04.20 -7337 -474 <td></td> <td></td> <td>7/11/2017 9:10</td> <td>w</td> <td>TLD-40</td> <td></td> <td>N 37 05 52.200</td> <td>W 088 48 52.20</td> <td>-2818</td> <td>-7551</td> <td>N/A</td>			7/11/2017 9:10	w	TLD-40		N 37 05 52.200	W 088 48 52.20	-2818	-7551	N/A
N/A N/A N/A TLD-41 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 Ogden Landing Road, past landfill, at Northeast Plume, on "No N 37 06 57.800 W 088 50 18.360 -1219 -1701 N/A N/A N/A N/A TLD-42 Tresspassing "sign Anothcoring Well 98 on road past landfill, in the trees N 37 06 55.380 W 088 47 19.080 -1219 -1701 N/A N/A N/A N/A TLD-43 landfill, in the trees N 37 06 55.380 W 088 47 19.080 -1219 -1701 N/A N/A N/A TLD-43 landfill, in the trees N 37 06 55.380 W 088 49 12.780 -7337 -1591 N/A N/A N/A N/A TLD-44 potted area - southeast corner N 37 06 45.900 W 088 49 04.620 -7337 -1591 N/A N/A N/A N/A N/A TLD-45 gate N 37 06 45.900 W 088 49 04.620 -7337 -474 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>											
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N/A N/A N/A N/A N/A TLD-44 Outside security fence west of Lasgna site on the corner post of posted area - southeast corner N 37 07 08.80 W 088 49 12.780 -7337 -1591 N/A N/A N/A N/A N/A N/A N/A -7337 -1591 N/A N/A N/A N/A N/A N/A At C-743 trailer complex at walkin gate N 37 06 45.900 W 088 49 04.620 -7337 -474 04/04/2017 09:35 JW 7/11/2017 9:57 JW TLD-46 Truck entrance at receiving C-720 N 37 06 44.700 W 088 49 00.120 -5198 -2865 1728-646 JW 7/11/2017 9:57 JW TLD-46 Truck entrance at receiving C-720 N 37 06 44.700 W 088 49.01.20 -5198 -2865 N/A N/A N/A TLD-46 Truck entrance at receiving C-720 N 37 06 60.300 W 088 49.01.20 -5198 -2865 N/A N/A N/A TLD-47 before clearing N 37 06 00.300 W 088 49.03.20 -3156 -6777 <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>											
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N/A N/A N/A N/A ILD-44 Lasgna 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 ILD-45 At C-743 trailer complex at walk-in gate N 37 06 45.900 W 088 49 04.620 -7337 -474 04/04/2017 09:35 JW 7/11/2017 9:57 JW TLD-46 Truck entrance at receiving C-720 N 37 06 44.700 W 088 49 00.120 -5198 -2865 1728-646 JW 7/11/2017 9:57 JW TLD-46 Truck entrance at receiving C-720 N 37 06 44.700 W 088 49 00.120 -5198 -2865 N/A N/A N/A N/A TLD-47 before clearing N 37 06 04.700 W 088 48.49.380 -3156 -6777 N/A N/A N/A N/A TLD-47 before clearing N 37 06 00.300 W 088 48.49.380 -3156 -6777 N/A N/A N/A N/A TLD-48 Corner of fine N 37 07 06.60 W 088 47.53.82 -1225 1064 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>											
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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 04/04/2017 09:35 JW 7/11/2017 9:57 JW TLD-46 Truck entrance at receiving C-720 N 37 06 44.700 W 088 49 00.120 -5198 -2865 1728-646 JW 7/11/2017 9:57 JW TLD-46 Truck entrance at receiving C-720 N 37 06 44.700 W 088 49 00.120 -5198 -2865 N/A N/A N/A N/A TLD-46 Truck entrance at receiving C-720 N 37 06 44.700 W 088 49 00.120 -5198 -2865 N/A N/A N/A N/A TLD-47 before clearing N 37 06 00.300 W 088 48.49.380 -3156 -6777 N/A N/A N/A TLD-48 corner of fence N 37 07 06.60 W 088 49.04.92 -7325 1064 N/A N/A N/A TLD-49 Outfall 001 Posted Area. Power pole North C-612 T1 N 37 07 06.60 W 088 49.04.92 -7325 984 04/04	N/A	N/A	N/A	N/A	TLD-44		N 37 07 08.880	W 088 49 12.780	-7337	-1591	N/A
04/04/2017 09:35 1728-646 JW 7/11/2017 9:57 JW TLD-46 Truck entrance at receiving C-720 N 37 06 44.700 W 088 49 00.120 -5198 -2865 Interview In	·										†-
1728-646 JW 7/11/2017 9:57 JW TLD-46 Truck entrance at receiving C-720 N 37 06 44.700 W 088 49 00.120 -5198 -2865 Image: Start Sta			N/A	N/A	TLD-45	gate	N 37 06 45.900	W 088 49 04.620	-7337	-474	N/A
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N/A N/A N/A N/A N/A N/A TLD-47 before clearing before clearing N 37 06 00.300 W 088 48.49.380 -3156 -6777 N/A N/A N/A TLD-47 before clearing N 37 06 00.300 W 088 48.49.380 -3156 -6777 N/A N/A N/A TLD-47 before clearing N 37 07 06.60 W 088 48.49.380 -3156 -6777 N/A N/A N/A TLD-48 corner of fence N 37 07 06.60 W 088 47.53.82 -1225 1064 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 04/04/2017 09:47 N N/A N/A TLD-50 C-745-A N 37 07 02.88 W 088 49.15.18 -7287 -1547 N/A N/A N/A TLD-51 Outfall 015 Posted Area N 37 07 07.02 W 088 49.13.68 -7316 -1112						Tree line south of C-745-T Cylinder					
N/A N/A N/A N/A TLD-47 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 TLD-47 before clearing N 37 06 00.300 W 088 48.49.380 -3156 -6777 N/A N/A N/A N/A TLD-47 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 TLD-48 corner of fence N 37 07 06.60 W 088 47.53.82 -1225 1064 N/A N/A N/A TLD-48 corner of fence N 37 07 06.60 W 088 49.04.92 -7325 984 04/04/2017 09:47 N/A N/A TLD-49 Outfall 001 Posted Area. Power pole North C-612 T1 N 37 07 02.88 W 088 49.04.92 -7325 984 04/04/2017 09:47 JW 7/11/2017 10:18 JW TLD-50 C-745-A N 37 07 02.88 W 088 49.15.18 -7287 -1547 N/A N/A N/A N/A											
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04/04/2017 09:47 N N 7/11/2017 10:18 N TLD-50 C-745-A N 37 07 02.88 W 088 49.15.18 -7287 -1547 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	N/A	N/A				N 27 07 26 52	W 088 49 04 92	7225	081	N/A
1729-647 1177 JW 7/11/2017 10:18 JW TLD-50 C-745-A N 37 07 02.88 W 088 49.15.18 -7287 -1547 N/A N/A N/A TLD-51 Outfall 015 Posted Area N 37 07 07.02 W 088 49.13.68 -7316 -1112					110-49		11 37 07 20.32	<u>vv</u> 000 45.04.52	-1323	304	
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	04/04/2017 09:4	7				West Patrol Road fence across from					
	1729-647 1177		7/11/2017 10:18		TLD-50	C-745-A		W 088 49.15.18	-7287		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
04/04/2017 08:40 East Patrol Road fence across from 1730-648 JW 7/11/2017 8:39 JW TLD-52 C-745-E. N 37 06 42.18 W 088 48.07.20 -1397 -1628	04/04/2017 08:4					East Patrol Road fence across from					N/A

				1	Security fence at southeast corner	<u> </u>	1	T		<u> </u>
04/04/2017 13:35					of C-745-T Yard. Down fence line					
1731-649	w	7/11/2017 14:47	w	TLD-53	away from TLD-2.	N 37 06 00.42	W 088 48.37.02	-2220	-6423	N/A
04/10/2017 21:00										
1732-650	КА	7/15/2017 6:30	ка	TLD-54	Residence; Jalusian Trail	N 57 87 72.16	E 23 93 13.48	45296	-25254	N/A
<u></u>										Discontinued
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	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
04/04/2017 08:32										
1733-651	JW	7/11/2017 8:29	JW	TLD-58	West Central C-755 Complex	N 59 07 98.00	E 22 88 70.74	-1209	-1422	N/A
04/04/2017 14:09						,				
1734-652	JW	7/12/2017 12:30	JW	TLD-59	C-752A Break Area	N 59 15 61.62	E 22 78 55.79	-5234	-339	N/A
04/04/2017 14:01					C-333A Light Pole on Fence Pole					
1735-653	JW	7/11/2017 15:12	JW	TLD-60	#16	N 59 02 07.10	E 22 80 71.62	-2919	-4199	N/A
04/04/2017 14:02										
1736-654	JW	7/11/2017 15:14	JW	TLD-61	West of C-746Q Light Pole #14	N 59 01 58.14	E 22 80 98.35	-2778	-4315	N/A
04/04/2017 15:34					C-743 Trailer Complex Light Pole					
1737-655	JW	7/11/2017 15:52	JW	TLD-62	#336,behind Trailer #3.	N 59 10 20.18	E 22 73 49.81	-6111	-2607	N/A
04/04/2017 14:30										
1738-656	JW	7/11/2017 15:44	WL	TLD-63	C-412 HP Break Trailer	N 59 08 36.46	E 22 79 46.95	-4069	-2435	N/A
04/04/2017 10:21										
1739-657	JW	7/11/2017 10:40	WL	TLD-64	C-764 T-6 Trailer	N 59 11 77.55	E 22 70 88.88	-7098	-2447	N/A
					Located O/S of North Security fence	N 37 07 08.54386	W 088 48 00.45376			
04/04/2017 09:01					North of C-745H Cylinder Yard;					
1740-658 1178	JW	7/11/2017 9:03	ML	TLD-65	South of C-762 Laydown Yard	+		-1795	1062	N/A
					Located on tree @Southeast corner					
					of New Harmony Cemetery;	N 37 07 15.80859	W 088 48 11.08836			
04/04/2017 08:48		- // / / //			adjacent to last concrete barrier &			0.055		
1741-659	JW	7/11/2017 8:48	3 JW	TLD-66	large metal post			-2856	1457	N/A
					Located on "No Trespassing" sign					
					North side of Dykes Rd next to	N 37 07 12.70502	W 088 47 56.75697			
04/04/2017 08:46					Security Fence North of C-762					
1742-660	JW	7/11/2017 8:46	JW	TLD-67	Laydown yard			-1658	1560	N/A
					West Security Fence West of C-					
04/04/2017 09:50		7/11/2017 10 0		TI D 60	745B Cylinder Yard & Southeast of	N 37 07 11.60797	W 088 49 11.43416	7202	617	N/A
1743-661 1179	JW	7/11/2017 10:20		TLD-68	Vortec Site			-7302	-617	N/A
04/04/2017 00 10					Wooden utility pole (T12-15 H)	N 37 07 13.70394	W 088 49 28.37928			
04/04/2017 09:40		7/11/2017 10:1			next to gravel road @Northeast			0000	000	N/A
1744-662	WL	7/11/2017 10:1	2 JW	TLD-69	corner of pond North of C-611			-8664	-888	N/A

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04/04/2017 09:26 1745-663	Mſ	7/11/2017 9:40	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
04/04/2017 09:24 1746-664	M	7/11/2017 9:30	JM	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
04/04/2017 09:14 1747-665	WL	7/11/2017 9:20	JM	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
04/04/2017 13:10 1748-666	M٢	7/11/2017 13:59	W	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
04/04/2017 11:33 1749-667	WL	7/11/2017 12:00	1)\\/	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
04/04/2017 1136 1750-668	JW .	7/11/2017 12:03		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
04/04/2017 11:41		- ((Located on "Tract A" sign below power lines southside of Kelley Rd in sharp curve between Woodville	N 37 05 55.05466	W 088 48 06.27328	24.0	6000	
1751-669 04/04/2017 11:46 1752-670	WI	7/11/2017 12:08		TLD-76 TLD-77	& McCaw Rds 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	310	-6082	N/A
04/04/2017 12:16 1753-671	w	7/11/2017 12:52		TLD-78	Northeast Corner of C-746U Landfill Security Fence	N 37 07 54.00752	W 088 47 37.45924	-1622	6020	N/A
04/04/2017 10:02 1754-672	J.W.	7/11/2017 10:27	W	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
04/04/2017 12:35 1755-673	WL	7/11/2017 13:14	٨ſ	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
04/04/2017 09:21 1756-674 1180	Mſ	7/11/2017 9:27	Mſ	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
04/04/2017 09:07 1757-675	WL	7/11/2017 9:11	WL	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

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04/04/2017 13:14 1758-676 1181	W	7/11/2017 14:33	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
04/04/2017 09:44 1759-677	WL	7/11/2017 8:43		TLD-84	Located @MW496 on the East Side of Dykes Rd	N 37 07 03.50589	W 088 47 49.26485	-769	894	N/A
04/04/2017 17 00					Residence; corner of Springwell and			1		
1760-678	so	7/11/2017 17:00	SO	TLD-85	Buckner Lane	N 37 03 27.9036	W 088 40 43.9638	39082	-7750	N/A
					Plant Entrance, Gravel Construction					
04/04/2017 11:30					Rd. Right side on orange warning					
1761-679	JW	7/11/2017 14:06	JW	TLD-86	signal sign	N 37° 5' 18.8622"	W 088 49 28.2282	-4676	-11794	N/A
04/04/2017 1314					KOW Entrance north of Woodville					
1762-680	w	7/11/2017 14:03	11.47	TLD-87	Rd north of Kevil Eagles. Right side	N 27 05 24 2002	W 000 FO 42 0F 40	-10629	-13381	N1/A
1/02-080	100	//11/201/ 14:05	, vv		on orange warning signal sign Bethel Church Road KOW entrance.	N 37 05 24.2802	W 088 50 43.9548	-10629	-13381	N/A
04/04/2017 12:51					North of Massay Rd, right side on					
1763-681	WL	7/11/2017 13:30	11.47	TLD-88	yellow post	N 37 07 05.4876	W 088 50 37.9608	-13677	-3597	N/A
1/03-001		//11/201/ 15.50	<u> </u>	120-00		1 37 07 03.4870	W 088 30 37.9008	-13077	-5597	
					Bobo Rd, off of Bethel Church Rd.					
					Continue east 200 yds past end of					
04/04/2017 12:47					asphalt. At intersection on orange					
1764-682	wu	7/11/2017 13:26	w	TLD-89	warning signal sign	N 37 07 35.9976	W 088 49 44.3922	-10657	788	N/A
		<u> </u>								
					Bridge on Ogden Landing Rd east of					
04/04/2017 12:41					Lamb's garage. On NE corner of					
1765-683	w	7/11/2017 13:20	w	TLD-90	bridge on contaminated creek sign	N 37 08 54.6714	W 088 47 27.2472	-12310	7182	N/A
					Boldry School Rd on KOW at					
04/04/2017 12:24					Shawnee plant entrance. On cattle					
1766-684	JW	7/11/2017 13:00	JW	TLD-91	gate road on hill, right side	N 37 08 40.9884	W 088 49 36.5232	-2952	12069	N/A
					Anderson Road off Metropolis Lake					
					Rd. follow West until road ends					
04/04/2017 11:59					@Railroad tracks. On left crossing					
1767-685	JW	7/11/2017 12:31	N/A	TLD-92	gate post.	N 37 07 42.7866	W 088 46 17 .14 38	1392	8745	N/A
					MW 100, North on Metropolis Lake					
04/04/2017 11:55					Rd past railroad tracks on left side					
1768-686	JW	7/11/2017 12:27	JW	TLD-93	on Well bollard	N 37 08 09.0744	W 088 46 50.9304	4874	7186	N/A
04/04/2017 12 55				1						
04/04/2017 12:06		7/11/2017 12 11			Residence; corner of Ogden					
1769-687		7/11/2017 12:41	1M	TLD-94	Landing Rd & Metropolis Lake Rd	N 37 05 48.9294	W 088 47 12.4332	4740	436	N/A
				1	West McGracken Health Chain					
04/04/2017 11:49					West McCracken Health Clinic, Metropolis Lake Rd. On Light Pole					
1770-688	w	7/11/2017 12:19	1.1.1	TLD-95	in SW corner of parking lot	N 37 06 40.5468	W 088 46 47.2872	4617	-5167	N/A
1110-000	100	//11/201/12:19	1.44	110-95	In Sw comer of parking lot	UN 37 UD 40.5468	VV U00 40 47.2872	401/	-2101	

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	T				Taken along while placing and					
					collecting all other samples - stored					
04/04/2017 16:00					in "lead box" at C-101 Dosimetry					
1771-689	WL	7/11/2017 16:00	JW	TLD-FB	office	N/A	N/A	NA	NA	N/A
04/04/2017 07:00					Stored in "lead box" at C-101					
1772-690	WL	7/11/20177:00	WL	TLD-TB	Dosimetry office	N/A	N/A	NA	NA	N/A
1773-691	w	N/A	N/A	SPARE	Lead Box in C-101 Dosimetry office	N/A	N/A	N/A	N/A	N/A
1774-692	wı	N/A	N/A	SPARE	Lead Box in C-101 Dosimetry office	N/A	N/A	N/A	N/A	N/A
1775-693	١W	N/A	N/A	SPARE	Lead Box in C-101 Dosimetry office	N/A	N/A	N/A	N/A	N/A
1776-694	w	N/A	N/A	SPARE	Lead Box in C-101 Dosimetry office	N/A	N/A	N/A	N/A	N/A
1777-695	wı	N/A	N/A	SPARE	Lead Box in C-101 Dosimetry office	N/A	N/A	N/A	N/A	N/A
1778-696	w	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		Collected	Location						
Issued/Badge ID	Ву	Date/Time Collected	Ву	Name	Description	NorthLong	West or East Lat	Xcoord	Ycoord	Comments
					PGDP security fence west of C-745-					
					M near intersection of Patrol Road					
				1	and Alabama Avenue near pole 21-					
07/11/2017 09:24					20. Outside fence behind UDS dirt					
3619-625		10/11/2017 8:50	JW	TLD-1	pile	N 37 06 16.66	W 088 48 55.18	-4172	-5856	N/A
					PGDP security fence south of C-745-					
07/11/2017 14:45	İ		İ	Í	T near pole T20-6J. South Cylinder					
3620-626 1177	WL	10/11/2017 8:40	wu	TLD-2		N 37 06 02.15	W 088 48 43.07	-2740	-6427	N/A
					PGDP security fence east of C-745-	······				
07/11/2017 09:00					H near pole 23-31. Perimeter fence					
3621-627 1178	w	10/11/20178:13	WL	TLD-3		N 37 07 04.17	W 088 47 57.21	-1399	739	N/A
07/11/2017 10:33	1				North PGDP security fence near					
3622-628	JW	10/11/2017 9:58	JM	TLD-4	North-South Diversion Ditch.	N 370715.74	W 088 48 25.56	-3957	1052	N/A
					North PGDP security fence north of					
					C-747-A near pole T53A1P26G.					
07/11/2017 10:29					North perimeter fence between					
3623-629	JW	10/11/2017 9:49	JW	TLD-5	lagoon	N 37 07 24.38	W 088 48 54.58	-6464	1068	N/A
					West PGDP security fence west of C					
07/11/2017 10:24					746-P1 near pole 22-4. 612					
3624-630		10/11/2017 9:39	WL	TLD-6	perimeter fence.	N 37 07 20.85	W 088 49 07.22	-7303	382	N/A
					PGDP perimeter fence adjacent to					
					Curlee Road near entrance to DOE					
07/11/2017 09:52	1			1	building (C-103). Perimeter fence					
3625-631	WL	10/11/2017 9:05	11.47	TLD-7		N 37 06 29.15	W 088 49 02.49	-5153	-4400	N/A
5025-051		10/11/201/ 9.05	1		Fence around U.S.G.S. stream	N 37 00 23.13	VV 088 49 02.49	-5155	-4400	
					gauging station at Bayou Creek and					
					South Acid Road. USGS fence West					
N/A	N/A	N/A	N/A	TLD-8	57 Acid Rd.	N 37 05 57.76	W 088 49 28.04	-6011	-8091	N/A
					Northeast corner of fence of old	N 370337.70	VV 088 49 28.04	-6011	-8091	
07/11/2017 12.54					KOW water treatment plant, near					
07/11/2017 13:54	1	10/11/2017 12:52	11.4/		Monitoring Well 309. Gate to MW305	N 27 06 27 12	W 099 40 49 11	-8901	4007	N/A
3626-632	JW	10/11/2017 13:52	1100	TLD-9		N 37 06 37.12	W 088 49 48.11	-8901	-4907	
					Outfall 011 - hung from side of					
					outfall sampling platform at about					
NI / A					foot level, pole T19-15E. Gate	1	W 000 40 00 FC	602	2048	
N/A	N/A	N/A	N/A	TLD-10	Outfall 011	N 37 06 27.22	W 088 48 03.56	-602	-2948	N/A

h <u>utu</u>	·	T		1			·····			
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 370628.88	W 088 47 41.08	1052	-2167	N/A
07/11/2017 12:45					Institutional controls fence near Monitoring Well 191 where Little Bayou Creek crosses Hwy 358. MW191, Little Bayou & Ogden					
3627-633	WL	10/11/2017 12:22	JW	TLD-12		N 37 06 49.62	W 088 47 11.44	2588	626	N/A
07/11/2017 12:49 3628-634	WL	10/11/2017 12:25			West fence of C-746-U landfill near					
3628-634	100	10/11/2017 12:25	1W	TLD-13	entrance gate	N 37 07 48.17	W 088 48 00.61	-3182	4825	N/A
07/11/2017 08:53 3629-635	1W	10/11/2017 8:04	W	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
07/11/2017 08:34 3630-636	w	10/11/2017 9:50	١W	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
07/11/2017 13:10 3631-637	W	10/11/2017 12:54	M	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
07/11/2017 13:48 3632-638	JW	10/11/2017 13:41		TLD-19	Big Bayou Creek south of Transport Road BridgeLocated in tree to left of the DOE barricade. Iron Bridge BBC, behind notice sign.					
				1.0.13		N 37 07 25.09	W 088 49 26.57	8922	248	N/A

					Center of fence at north side of					
N/A	N/A	N/A	N/A	TLD-20	water treatment plant	N 37 06 59.83	W 088 49 36.29	-8788	-2421	N/A
					Residence, Oaks Road, Paducah,					
N/A	N/A	N/A	N/A	TLD-21	Kentucky	N 36 58 12.77	W 088 32 52.01	85990	-24497	N/A
					Outside of the fence of the locked					
					air sampling station at the rear					
07/11/2017 11:40					corner of the Bethel Cumberland					
3633-639	JW	10/11/2017 10:42	JW	TLD-22	Presbyterian Church Cemetery	N 37 00 05.36	W 088 52 36.29	-8159	-46801	N/A
					Outside of the fence of the locked					
					air sampling station at the					
					northwest corner of the Heath					
N/A	N/A	N/A	N/A	TLD-23	ballpark fields	N 37 05 50.80	W 088 46 57.78	5667	-4583	N/A
					BJC Kevil facility on stairway		1			
					handrail outside southwest corner					
N/A	N/A	N/A	N/A	TLD-24	of building	N 37 04 39.52	W 088 52 51.97	N/A	N/A	N/A
07/11/2017 14:38					On power line tower nearest Dykes					
3634-640	w	10/11/2017 8:33	Jw	TLD-25	Road southeast of C-745-T	N 37 06 00.02	W 088 48 26.49	-1401	-6172	N/A
					Massac Creek to left of path in tree.					
			[Highway 62 Bridge past Sunshine				· ·	
N/A	N/A	N/A	N/A	TLD-26	Dairy	N 36 57 31.92	W 088 25 13.90	122314	-15495	N/A
					"Do not block entrance" sign on					
					Plant Access Road near Post 15 and					
					motorcycle parking area (C-800).					
N/A	N/A	N/A	N/A	TLD-27	Motorcycle Shed, Post 15	N 37 06 40.78	W 088 48 54.33	-4883	-3431	N/A
						1 37 00 40.78	VV 000 40 54.55	-4005		
					Bethel Church Road, turn right on					
					Bobo Road, left on intersection,					1
					located in trees at Monitoring Well					
					_					
				TID 20	194. Sign near staircase on Big	N 27 07 44 590	W 088 49 34.140	-10105	1884	N/A
N/A	N/A	N/A	N/A	TLD-28	Bayou, MW194	N 37 07 44.580	VV 088 49 54.140	-10105	1004	
					First bunker off Ogden Landing					
					Road, across from WKWMA					
					Clubhouse, placed at the back side					
					rafter, inside the window on the					ļ
					overhang. Inside the bunker, south					
N/A	N/A	N/A	N/A	TLD-29	of horse barn, west wall	N 37 07 55.380	W 088 48 41.820	-6503	4306	N/A

	1	1		·····			[1		
07/11/2017 13:04 3635-641	w	10/11/2017 12:46	WL	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
	1							1000	/0/0	17.0
					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					
N/A		N/A			in a tree. Top of hill at pipeline in					
N/A	N/A	N/A	N/A	TLD-31	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
					Harmony Cemetery off Dykes Road					
N/A	N/A	N/A	N/A	TLD-33	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
07/11/2017 00:44					Outfall 017 off of Plant Access					
07/11/2017 09:44 3636-642	JW	10/11/2017 9:03	IW/	TLD-35	Road. Outfall 017 UDS laydown yard	N 27.06 21 490	W 088 40 02 050	4770	5000	
	- ''	10/11/2017 3.03	P * *	110-35		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
07/19/2017 11:08					KPDES Outfall 001 behind Vortec					
3637-643	IW	10/11/2017 9:35	W	TLD-37	facility. KOO1	N 37 07 18.600	W 088 49 15.660	-8202	138	N/A

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07/11/2017 13:52					Five-Points Creek with concrete					
3638-644	JW	10/11/2017 13:47	JW	TLD-38	bridge, on tree behnd 2A sign.	N 37 06 43.320	W 088 50 09.000	-10630	-4528	N/A
					Outfall 10 off Dykes Road near C-					
N/A	N/A	N/A	N/A	TLD-39	755 complex. Outfall 010	N 37 06 33.540	W 088 48 00.900	-612.5	-2231.25	N/A
					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					
07/11/2017 09:10					on left. Orange sign on blocked					
3639-645	w	10/11/2017 8:44	w	TLD-40		N 37 05 52.200	W 088 48 52.20	-2818	-7551	N/A
l					Acid Road near old monitoring well					
					past bridge. Acid Rd by COE					
N/A	N/A	N/A	N/A	TLD-41	monitoring well.	N 37 06 07.800	W 088 50 18.360	-10116	-6298	N/A
					Ogden Landing Road, past landfill,	· · · · · · · · · · · · · · · · · · ·				
					at Northeast Plume, on "No					
N/A	N/A	N/A	N/A	TLD-42	Tresspassing" sign	N 37 06 55.380	W 088 47 19.080	-1219	-1701	N/A
					Monitoring Well 98 on road past					
N/A	N/A	N/A	N/A	TLD-43	landfill, in the trees	N 37 08 12.240	W 088 47 50.700	-3125	-6568	N/A
					Outside security fence west of					
					Lasagna site on the corner post of					
N/A	N/A	N/A	N/A	TLD-44	posted area - southeast corner	N 37 07 08.880	W 088 49 12.780	-7337	-1591	N/A
				TID 45	At C-743 trailer complex at walk-in	1 27 05 45 000		7007	1.74	
N/A 07/11/2017 09:57	N/A	N/A	N/A	TLD-45	gate	N 37 06 45.900	W 088 49 04.620	-7337	-474	N/A
3640-646	w	10/11/2017 9:08	1	TLD-46	Truck entrance at receiving C-720	N 37 06 44.700	W 088 49 00.120	-5198	-2865	NA
5040-040		10/11/2017 9.08	100	110-40	Thuck entrance at receiving C-720	N 37 00 44.700	VV 088 49 00.120	-3130	-2803	
					Tree line south of C-745-T Cylinder					
					Storage Yard. First road on left on					
					Dykes Rd past 57. Last tree on right					
N/A	N/A	N/A	N/A	TLD-47	before clearing	N 37 06 00.300	W 088 48.49.380	-3156	-6777	N/A
			<u> </u>		Tree line along the security fence		·····			
					east of C-745-H. Gate 44 road, NE					
N/A	N/A	N/A	N/A	TLD-48	corner of fence	N 37 07 06.60	W 088 47.53.82	-1225	1064	N/A
					Outfall 001 Posted Area. Power					
N/A	N/A	N/A	N/A	TLD-49	pole North C-612 T1	N 37 07 26.52	W 088 49.04.92	-7325	984	N/A
07/11/2017 10:18					West Patrol Road fence across from					
3641-647 1179	JW	10/11/2017 9:30		TLD-50	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
07/11/2017 08:39					East Patrol Road fence across from					
3642-648	JW	10/11/2017 7:53	μw	TLD-52	C-745-E.	N 37 06 42.18	W 088 48.07.20	-1397	-1628	N/A

······	T	1		T	Security fence at southeast corner	[1	T
07/11/2017 14:47					of C-745-T Yard. Down fence line					
3643-649	w	10/11/2017 8:38	IW	TLD-53	away from TLD-2.	N 37 06 00.42	W 088 48.37.02	-2220	-6423	N/A
07/15/2017 06:30		10/11/2017 0.50				1 37 00 00.42	<u>W 000 40.57.02</u>	-2220	-0425	1
3644-650	ка	10/12/2017 5:30	ка	TLD-54	Residence; Jalusian Trail	N 57 87 72.16	E 23 93 13.48	45296	-25254	N/A
	1									Discontinued
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	7/10/2014
			1	-						
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
07/11/2017 08:29			T							
3645-651	WL	10/11/2017 7:45	WL	TLD-58	West Central C-755 Complex	N 59 07 98.00	E 22 88 70.74	-1209	-1422	N/A
07/12/2017 12:30										
3646-652	WL	10/11/2017 14:42	JW	TLD-59	C-752A Break Area	N 59 15 61.62	E 22 78 55.79	-5234	-339	N/A
07/11/2017 15:12					C-333A Light Pole on Fence Pole					
3647-653	WL	10/11/2017 14:33	WL	TLD-60	#16	N 59 02 07.10	E 22 80 71.62	-2919	-4199	N/A
07/11/2017 15:14										
3648-654	WL	10/11/2017 14:35	WL	TLD-61	West of C-746Q Light Pole #14	N 59 01 58.14	E 22 80 98.35	-2778	-4315	N/A
07/11/2017 15:52					C-743 Trailer Complex Light Pole					
3649-655	WL	10/11/2017 14:47	WL	TLD-62	#336,behind Trailer #3.	N 59 10 20.18	E 22 73 49.81	-6111	-2607	N/A
07/11/2017 15:44										
3650-656	JW	10/11/2017 14:52	ML 2	TLD-63	C-412 HP Break Trailer	N 59 08 36.46	E 22 79 46.95	-4069	-2435	N/A
07/11/2017 10:40										
3651-657	WL	10/11/2017 10:05	WL	TLD-64	C-764 T-6 Trailer	N 59 11 77.55	E 22 70 88.88	-7098	-2447	N/A
					Located O/S of North Security fence	N 37 07 08.54386	W 088 48 00.45376			
07/11/2017 09:03					North of C-745H Cylinder Yard;	11 37 07 00.34300	10 000 40 00.45570			
3652-658-1180	JW	10/11/2017 8:16	ML	TLD-65	South of C-762 Laydown Yard			-1795	1062	N/A
					Located on tree @Southeast corner					
					of New Harmony Cemetery;	N 37 07 15.80859	W 088 48 11.08836			
07/11/2017 08:48					adjacent to last concrete barrier &					
3653-659	JW	10/11/2017 8:01	ML	TLD-66	large metal post			-2856	1457	N/A
					Located on "No Trespassing" sign					
					North side of Dykes Rd next to	N 37 07 12.70502	W 088 47 56.75697			
07/11/2017 08:46					Security Fence North of C-762					
3654-660	JW	10/11/2017 7:59	MI	TLD-67	Laydown yard			-1658	1560	N/A
					West Security Fence West of C-					
07/11/2017 10:20					745B Cylinder Yard & Southeast of	N 37 07 11.60797	W 088 49 11.43416			
3655-661 1181	JW	10/11/2017 9:32	2 JW	TLD-68	Vortec Site			-7302	-617	N/A
					Wooden utility pole (T12-15 H)	N 37 07 13.70394	W 088 49 28.37928			
07/11/217 10:12					next to gravel road @Northeast					
3656-662	JW	10/11/2017 9:14	4 hw	TLD-69	corner of pond North of C-611			-8664	-888	N/A

					O/S of West Security Fence Southeast of C-333 midway			1		
07/11/2017 09:40 3657-663	WL	10/11/2017 8:59	1\\/	TLD-70	between C810 parking area & North BWCS Security Fence	N 37 06 27.82855	W 088 48 50.25203	-4173	-4189	N/A
07/11/2017 09:30		10/11/2017 0.55			O/S of West Security Fence of BWCS under security light, Northeast of wooden utility pole	N 37 06 23.05971	W 088 48 59.65074	-41/3	-4185	
3658-664	w	10/11/2017 8:56	JW	TLD-71	(11056 KU 78487)			-4723	-4903	N/A
07/11/2017 09:20 3659-665	WL	10/11/2017 8:47	W	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
07/11/2017 13:59 3660-666	M۲	10/11/2017 14:00	۸ſ	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
07/11/2017 12:00					Located on "Warning Siren" sign @turnoff North of Magruder &	N 37 05 10.96196	W 088 48 53.61411			
3661-667 07/11/2017 12:03		10/11/2017 11:39	W	TLD-74	Woodville intersection Located on "Warning Siren" sign @North of Kelley Rd & Woodville	N 37 05 04.94525	W 088 48 26.65157	-1765	-11586	N/A
3662-668	JW	10/11/2017 11:42	WL	TLD-75	Rd intersection			496	-11409	N/A
07/11/2017 12:08					Located on "Tract A" sign below power lines southside of Kelley Rd in sharp curve between Woodville	N 37 05 55.05466	W 088 48 06.27328			
3663-669	WL	10/11/2017 11:47	WL	TLD-76	& McCaw Rds			310	-6082	N/A
07/11/2017 12:14 3664-670	JW	10/11/2017 11:55	٨٢	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
07/11/2017 12:52 3665-671	١W	10/11/2017 12:32	WL	TLD-78	Northeast Corner of C-746U Landfill Security Fence	N 37 07 54.00752	W 088 47 37.45924	-1622	6020	N/A
07/11/2017 10:27 3666-672	W	10/11/20179:45	114/	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
07/11/2017 13:14 3667-673		10/11/2017 12:57		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
07/11/2017 09:27					Southeast corner of BWCS security fence next to gate V1 East of New	N 37 06 18.33947	W 088 48 56.42591			
3668-674 1182 07/11/2017 09:11 3669-675		10/11/2017 8:54 10/11/2017 8:25		TLD-81 TLD-82	Waterline East of C1100 Short wooden pole East of Dykes Rd North of Outfall 13	N 37 06 10.13175	W 088 48 13.53048	-4314 -765	-5262 -4851	N/A N/A

		r				T				
07/11/2017 14:33					Large metal power pole West of	N 37 06 07.30640	W 088 48 20.71726			
670-676 1183	WL	10/11/2017 8:30	١W	TLD-83	Dykes Rd South of Outfall 13			-1214	-5319	N/A
7/11/2017 08:43				1	Located @MW496 on the East Side					
671-677	JW	10/11/2017 7:56	JW	TLD-84	of Dykes Rd	N 37 07 03.50589	W 088 47 49.26485	-769	894	N/A
7/11/2017 17:00					Residence; corner of Springwell and					
672-678	SO	10/10/2017 17:00	SO	TLD-85	Buckner Lane	N 37 03 27.9036	W 088 40 43.9638	39082	-7750	N/A
					Plant Entrance, Gravel Construction					
07/11/2017 14:06					Rd. Right side on orange warning					
3673-679	JW	10/11/2017 11:35	JW	TLD-86	signal sign	N 37° 5' 18.8622"	W 088 49 28.2282	-4676	-11794	N/A
×										
					KOW Entrance north of Woodville					
07/11/2017 14:03					Rd north of Kevil Eagles. Right side					
3674-680	JW	10/11/2017 14:07	JW	TLD-87	on orange warning signal sign	N 37 05 24.2802	W 088 50 43.9548	-10629	-13381	N/A
					Bethel Church Road KOW entrance.					
07/11/2017 13:30					North of Massay Rd, right side on					
3675-681	JW	10/11/2017 13:20	١W	TLD-88	yellow post	N 37 07 05.4876	W 088 50 37.9608	-13677	-3597	N/A
					Bobo Rd, off of Bethel Church Rd.					
					Continue east 200 yds past end of					
07/11/2017 13:26					asphalt. At intersection on orange					
3676-682	JW	10/11/2017 13:11	JW	TLD-89	warning signal sign	N 37 07 35.9976	W 088 49 44.3922	-10657	788	N/A
					Bridge on Ogden Landing Rd east of					
07/11/2017 13:20					Lamb's garage. On NE corner of					
3677-683	JW	10/11/2017 13:00	1M	TLD-90	bridge on contaminated creek sign	N 37 08 54.6714	W 088 47 27.2472	-12310	7182	N/A
2 /11 /2017 12:00					Boldry School Rd on KOW at					
07/11/2017 13:00		10/11/2017 12:41		TI D 01	Shawnee plant entrance. On cattle	N 27 00 40 0004	W 000 40 36 5333	2052	12000	
3678-684	WL	10/11/2017 12:41	. J VV	TLD-91	gate road on hill, right side	N 37 08 40.9884	W 088 49 36.5232	-2952	12069	N/A
					Anderson Road off Metropolis Lake					
07/11/2017 12:21					Rd. follow West until road ends					
07/11/2017 12:31		10/11/2017 12:12			@Railroad tracks. On left crossing	N 27 07 42 7066	W 000 46 17 1 420	1202	0745	N/A
3679-685	WL	10/11/2017 12:12	N/A	TLD-92	gate post.	N 37 07 42.7866	W 088 46 17.1438	1392	8745	N/A
07/11/2017 12:27				1	MW 100, North on Metropolis Lake					
07/11/2017 12:27		40/44/2047 10 0			Rd past railroad tracks on left side					
3680-686	WL	10/11/2017 12:07	μW	TLD-93	on Well bollard	N 37 08 09.0744	W 088 46 50.9304	4874	7186	N/A
07/11/2017 12:41										
07/11/2017 12:41		10/11/2017 12 22			Residence; corner of Ogden	N 37 05 40 0304		1.740	126	N/A
3681-687	JW	10/11/2017 12:20	1100	TLD-94	Landing Rd & Metropolis Lake Rd	N 37 05 48.9294	W 088 47 12.4332	4740	436	N/A
			1		West McGracker Health Clinit					
07/11/2017 12:10					West McCracken Health Clinic,					
07/11/2017 12:19		10/11/2017 12:00			Metropolis Lake Rd. On Light Pole	N 37 0C 40 54 CO	W 000 46 47 2672	1.617	5107	21/2
3682-688	JW	10/11/2017 12:01	.hw	TLD-95	in SW corner of parking lot	N 37 06 40.5468	W 088 46 47.2872	4617	-5167	N/A

	T				Taken along while placing and					
					collecting all other samples - stored					
07/11/2017 16:00					in "lead box" at C-101 Dosimetry					
3683-689	WL	10/11/2017 15:00	WL	TLD-FB	office	N/A	N/A	NA	NA	N/A
07/11/2017 07:00					Stored in "lead box" at C-101					
3684-690	JW	10/11/2017 7:00	WL	TLD-TB	Dosimetry office	N/A	N/A	NA	NA	N/A
3685-691	w	N/A	N/A	SPARE	Lead Box in C-101 Dosimetry office	N/A	N/A	N/A	N/A	N/A
3686-692	w	N/A	N/A	SPARE	Lead Box in C-101 Dosimetry office	N/A	N/A	N/A	N/A	N/A
3687-693	w	N/A	N/A	SPARE	Lead Box in C-101 Dosimetry office	N/A	N/A	N/A	N/A	N/A
3688-694	wı	N/A	N/A	SPARE	Lead Box in C-101 Dosimetry office	N/A	N/A	N/A	N/A	N/A
3689-695	wı	N/A	N/A	SPARE	Lead Box in C-101 Dosimetry office	N/A	N/A	N/A	N/A	N/A
3690-696	wt	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	Date/Time	Collected	Location						
Issued/Badge ID	Ву	Collected	Ву	Name	Description	NorthLong	West or East Lat	Xcoord	Ycoord	Comments
					PGDP security fence west of C-745-					
					M near intersection of Patrol Road					
10/11/2017 09-50					and Alabama Avenue near pole 21- 20. Outside fence behind UDS dirt					
10/11/2017 08:50 5596-625	wL	1/11/2018 9:22	1\A/	TLD-1		N 37 06 16.66	W 088 48 55.18	-4172	-5856	N/A
		1/11/2010 5.22			pile	1 37 00 10.00	W 000 40 55.10	-41/2	-3830	
					PGDP security fence south of C-745-					
10/11/2017 08:40				İ	T near pole T20-6J. South Cylinder					
5597-626 1400	wu	1/11/2018 9:00	w	TLD-2	Yard perimeter fence	N 37 06 02.15	W 088 48 43.07	-2740	-6427	N/A
	1				PGDP security fence east of C-745-			1		
10/11/2017 08:13					H near pole 23-31. Perimeter fence					
5598-627 1401	WL	1/11/2018 8:24	JW	TLD-3	NE corner	N 37 07 04.17	W 088 47 57.21	-1399	739	N/A
10/11/2017 09:58					North PGDP security fence near					
5599-628	WL	1/11/2018 10:34	JW	TLD-4		N 37 07 15.74	W 088 48 25.56	-3957	1052	N/A
					North PGDP security fence north of					
10/11/2017 00.40					C-747-A near pole T53A1P26G.					
10/11/2017 09:49 5600-629	w	1/11/2018 10:26	114/	TLD-5	North perimeter fence between lagoon	N 37 07 24.38	W 088 48 54.58	-6464	1068	N/A
5000-025	100	1/11/2018 10:20	100		West PGDP security fence west of C-		VV 088 48 34.38	-0404	1008	
10/11/2017 09:39					746-P1 near pole 22-4. 612					
5601-630	WL	1/11/2018 10:18	w	TLD-6	perimeter fence.	N 37 07 20.85	W 088 49 07.22	-7303	382	N/A
									1	
					PGDP perimeter fence adjacent to					
					Curlee Road near entrance to DOE					
10/11/2017 09:05					building (C-103). Perimeter fence					
5602-631	JW	1/11/2018 9:50	JW	TLD-7	across from entrance to DOE bldg.	N 37 06 29.15	W 088 49 02.49	-5153	-4400	N/A
					Fence around U.S.G.S. stream					
					gauging station at Bayou Creek and					
					South Acid Road. USGS fence West					
N/A	N/A	N/A	N/A	TLD-8	57 Acid Rd.	N 37 05 57.76	W 088 49 28.04	-6011	-8091	N/A
					Northeast corner of fence of old					
10/11/2017 13:52					KOW water treatment plant, near Monitoring Well 309. Gate to					
5603-632	wL	1/11/2018 15:44	Jw	TLD-9	MW305	N 37 06 37.12	W 088 49 48.11	-8901	-4907	N/A
		-,,		+	Outfall 011 - hung from side of				1	
					outfall sampling platform at about		×.			
					foot level, pole T19-15E. Gate					
N/A	N/A	N/A	N/A	TLD-10	Outfall 011	N 37 06 27.22	W 088 48 03.56	-602	-2948	N/A

	T	1						1	1	T
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
					Institutional controls fence near					
					Monitoring Well 191 where Little					
					Bayou Creek crosses Hwy 358.					
10/11/2017 12:22	WL	1/11/2018 14:20	11.47	TID 12	MW191, Little Bayou & Ogden	N 27 0C 40 C2	W 000 47 11 44	25.00	COC.	21/0
5604-633 10/11/2017 12:25	100	1/11/2018 14:29	100	TLD-12	Landing Rd. West fence of C-746-U landfill near	N 37 06 49.62	W 088 47 11.44	2588	626	N/A
10/11/2017 12:25	WL	1/11/2018 14:33	WL	TLD-13		N 370748.17	W 088 48 00.61	-3182	4825	N/A
		1,11,201011.00		100 10				10102	1020	
					Institutional controls fence along					
					North-South Diversion Ditch on					
40/44/2047 00 04					west side of 14th street extension					
10/11/2017 08:04 5606-635	w	1/11/2018 8:17	11.4/	TLD-14	near Highway 358 (K003). Fence at North South ditch, north of MW353	N 27 07 20 75	W 088 48 10.58	-3302	2798	N/A
10/11/2017 09:50	100	1/11/20188.1/	100	110-14	Northeast corner of C-755 fence	N 37 07 29.75	VV 088 48 10.38	-5502	2790	
5607-636	w	1/11/2018 7:50	w	TLD-15	behind C-755-D	N 370645.01	W 088 47 58.91	-864	-1129	N/A
									1	
					WKWMA Clubhouse on northwest					
10/11/2017 12:54					corner porch post. On porch					
5608-637	M	1/11/201814:50	1M	TLD-16	WKWMA Headquarters.	N 37 07 59.44	W 088 48 49.76	-7311	4533	N/A
					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					
N/A	N/A	N/A	N/A	TLD-17	Bridge by Lambs Garage	N 37 08 41.09	W 088 49 37.27	-12368	7174	N/A
					Suspended about 3 feet below the U.S.G.S. stream gauging station					
					platform at Little Bayou Creek and				1	
					Anderson Road. USGS at Iron					
					Bridge Little Bayou Creek. Right @					
N/A	N/A	N/A	N/A	TLD-18	Tract 5 4-way Stop	N 37 08 22.09	W 088 47 25.71	-1702	9016	N/A
							1.000.00			
					Big Bayou Creek south of Transport				1	
10/11/2017 13:41					Road BridgeLocated in tree to left of the DOE barricade. Iron Bridge					
5609-638	wı	lost	w	TLD-19	BBC, behind notice sign.	N 37 07 25.09	W 088 49 26.57	-8922	248	N/A
			<u> </u>	1,00-13	Doc, bennu notice sign.	<u> </u>	1. 000 +3 20.37	-0522	1270	177

					Center of fence at north side of					T
N/A	N/A	N/A	N/A	TLD-20	water treatment plant	N 37 06 59.83	W 088 49 36.29	-8788	-2421	N/A
					Residence, Oaks Road, Paducah,					
N/A	N/A	N/A	N/A	TLD-21	Kentucky	N 365812.77	W 088 32 52.01	85990	-24497	N/A
					Outside of the fence of the locked					
					air sampling station at the rear					
10/11/2017 10:42					corner of the Bethel Cumberland					
5610-639	JW	1/11/2018 13:18	1W	TLD-22	Presbyterian Church Cemetery	N 37 00 05.36	W 088 52 36.29	-8159	-46801	N/A
					Outside of the fence of the locked					
					air sampling station at the					
					northwest corner of the Heath					
N/A	N/A	N/A	N/A	TLD-23	ballpark fields	N 37 05 50.80	W 088 46 57.78	5667	-4583	N/A
					BJC Kevil facility on stairway					
					handrail outside southwest corner					
N/A	N/A	N/A	N/A	TLD-24	of building	N 37 04 39.52	W 088 52 51.97	N/A	N/A	N/A
				1						
10/11/2017 08:33					On power line tower nearest Dykes					
5611-640	JW	1/11/2018 8:54	JW	TLD-25	Road southeast of C-745-T	N 37 06 00.02	W 088 48 26.49	-1401	-6172	N/A
					Massac Creek to left of path in tree.					
					Highway 62 Bridge past Sunshine					
N/A	N/A	N/A	N/A	TLD-26	Dairy	N 36 57 31.92	W 088 25 13.90	122314	-15495	N/A
					"Do not block entrance" sign on					
					Plant Access Road near Post 15 and					
					motorcycle parking area (C-800).					
N1/A	N/A	N/A	N/A	TLD-27	Motorcycle Shed, Post 15	N 37 06 40.78	W 088 48 54.33	-4883	-3431	N/A
N/A					Wiotorcycle Sned, Post 15	N 57 06 40.78	VV 088 48 54.55	-4005	-5451	
					Bethel Church Road, turn right on					
					Bobo Road, left on intersection,					
					located in trees at Monitoring Well					
					194. Sign near staircase on Big					
N/A	N/A	N/A	N/A	TLD-28	Bayou, MW194	N 37 07 44.580	W 088 49 34.140	-10105	1884	N/A
						11 37 07 44.500	W 000 +3 34.140		1001	
					First bunker off Ogden Landing					
					Road, across from WKWMA					
					Clubhouse, placed at the back side					
					rafter, inside the window on the					l
					overhang. Inside the bunker, south					
N/A	N/A	N/A	N/A	TLD-29	of horse barn, west wall	N 37 07 55.380	W 088 48 41.820	-6503	4306	N/A
11/7			1.1.2	10-29	or noise barn, west wait	1. 57 67 55.500		0000	-300	

5612-641 IV 1/11/2013 14-46 IV TD-30 sign, vest of MV381 N 37 08 21.060 W 088 45 09.060 -4836 7876 N/A N/A I/I			r r				· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·		1	
N/AN/AN/AN/AN/AItrough gravel road, turn right at intersection, back to crice at dirt road, (L24) sbout 30 feet off road in a tree. Top of hill at biolene in in tree. Top of hill at biolene in tree. Top of hill at biolene in a tree. Top of hill at biolene in a tree. Top of hill at biolene in a tree. Top of hill at biolene in a tree. Top of hill at biolene in a tree. Green Scorpion)N 37 09 02.580W 088 47 25.620320112751N/AN/AN/AN/ATLD-31Boldry School Road, past Ducks Unlimited Area on Tract 6, located in a tree on the side of the road. South Dead Dog fail three feat side South Dead Dog fail three feat side South Dead Dog fail three feat side beind PCDP, on the large tree in the center of POXes Road beind PCDP, on the large tree in the centerN 37 09 50.040W 088 48 03.480548915453N/AN/AN/AN/ATLD-32of road. 30 vds prior to Tract 6 Sign the centerN 37 07 17.580W 088 48 12.54028861553N/AN/AN/AN/ATLD-34Dykes Road back side of PODP, across from Monitoring Well 154, Monitoring Well 124, Monitoring Well 124N 37 06 58.440W 088 48 52.320779940N/AN/AN/AN/ATLD-34Outfal 017 off of Plant Access Road. Outfal 017 off of Plant Access Road. Outfal 017 off of Plant Access Road. Outfal 017 UDS Isydown PLUTE featility. Unt woords Isind Hill C-746-K) at creek on road and the end of the fride, kand words Isind Hill C-746-K) at creek on road and the end of the fight, many words Isind Hill C-746-K) at creek on road and the end of the fight, min words Isind Hil	10/11/2017 12:46 5612-641	w	1/11/2018 14:46	JW	TLD-30	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	N 37 08 21.060	W 088 45 09.060	-4836	7876	N/A
N/AN/AN/AN/AN/AItrough gravel road, turn right at intersection, back to crice at dirt road, (L24) sbout 30 feet off road in a tree. Top of hill at biolene in in tree. Top of hill at biolene in tree. Top of hill at biolene in a tree. Top of hill at biolene in a tree. Top of hill at biolene in a tree. Top of hill at biolene in a tree. Top of hill at biolene in a tree. Green Scorpion)N 37 09 02.580W 088 47 25.620320112751N/AN/AN/AN/ATLD-31Boldry School Road, past Ducks Unlimited Area on Tract 6, located in a tree on the side of the road. South Dead Dog fail three feat side South Dead Dog fail three feat side South Dead Dog fail three feat side 											
N/A N/A <td>N/A</td> <td>N/A</td> <td>N/A</td> <td>N/A</td> <td>TI D-31</td> <td>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</td> <td>N 37 09 02 580</td> <td>W 088 47 25 620</td> <td>-3201</td> <td>12751</td> <td>N/A</td>	N/A	N/A	N/A	N/A	TI D-31	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	N 37 09 02 580	W 088 47 25 620	-3201	12751	N/A
N/AN/AN/AN/ATLD-32Unlimited 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 vds prior to Tract 6 SignN 37 09 50.040W 088 48 03.480S489IS453N/AN/AN/AN/ATLD-33Harmony Cemetery off Dykes Road behind PGDP, on the large tree in the centerN 37 07 17.580W 088 48 03.480-54891553N/AN/AN/AN/ATLD-33HererN 37 07 17.580W 088 48 12.540-28861553N/AN/AN/AN/ATLD-34Dykes Road back side of PGDP, across from Monitoring Well 145, Monitoring Well 145, Monitoring Well 145N 37 07 17.580W 088 48 12.540-28861553N/AN/AN/AN/ATLD-34Dykes Road back side of PGDP, across from Monitoring Well 145, Monitoring Well 145, Monitoring Well 144 on the gravel roadN 37 06 58.440W 088 48 52.320-779940N/A10/11/2017 09:03JW1/11/2018 9:43JWTLD-36Outfall 017 off of Plant Access 					110-51		1 37 09 02.380	VV 088 47 23.020	-5201	12751	
N/AN/AN/ATLD-33behind PGDP, on the large tree in the centerN 3 7 07 17.580W 088 48 12.540.28801553N/AN/AN/AN/ATLD-34Dykes Road back side of PGDP, across from Monitoring Well 144 on the gravel roadN 3 7 06 58.440W 088 48 52.320.779940N/A10/11/2017 09:03 5613-642N/A1/11/2018 9:43JWTLD-34Outfall 017 off Plant Access Road. Outfall 017 Off of Plant Access Road. Outfall 017 Off of Plant Access Road. Outfall 017 UDS laydown yardN 3 706 51.480W 088 49 03.960.4773.5806N/AN/AN/ATLD-35PGDP plant access road, turn at DoF, turn towards Northwest Plum faitity, turn towards Northwest Plum faitity, turn towards Northwest Plum faitity, turn towards Northwest Plum faitity, turn towards Northwest Plum faitity, turn towards Northwest Plum faitity, turn towards Northwest Plum faitity, turn towards Northwest Plum faitity, turn towards Northwest Plum faitity, turn towards Northwest Plum faitity, turn towards Northwest Plum faitity, turn towards Northwest Plum faitity, turn towards Northwest Plum faitity, turn towards Northwest Plum faitity, turn towards Northwest N 3706 50.640W 088 49 23.040.7321.2650N/AN/AN/AN/ATLD-36KPDES Outfall 001 behind VorteeN 3706 50.640W 088 49 23.040.7321.2650N/A	N/A	N/A	N/A	N/A	TLD-32	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 TLD-33 the center N 37 07 17.580 W 088 48 12.540 -2886 1553 N/A N/A											
N/AN/AN/AIndexArross from Monitoring Well 144 on the gravel roadN 37 06 58.440N 088 48 52.320-779940N/A10/11/2017 09:03 5613-642JW1/11/2018 9:43JWIndexArross Road. Outfall 017 Off of Plant Access Road. Outfall 017 UDS laydown yardN 37 06 51.460W 088 49 03.960-4773-5806N/A10/11/2017 09:03 5613-642JW1/11/2018 9:43JWIndexFinal Arrows yardN 37 06 21.480W 088 49 03.960-4773-5806N/AN/AN/AN/ATLD-36PGDP plant access road, turn at DOE, turn towards Northwest Plume facility, turn towards Iandfill 	N/A	N/A	N/A	N/A	TLD-33	-	N 37 07 17.580	W 088 48 12.540	-2886	1553	N/A
10/11/2017 09:03 5613-642JW1/11/2018 9:43JWTLD-35Road. Outfall 017 UDS laydown yrdN 37 06 21.480W 088 49 03.960-4773-5806N/AN/ANN <t< td=""><td>N/A</td><td>N/A</td><td>N/A</td><td>N/A</td><td>TLD-34</td><td>across from Monitoring Well 145, Monitoring Well 144 on the gravel road</td><td>N 37 06 58.440</td><td>W 088 48 52.320</td><td>-779</td><td>940</td><td>N/A</td></t<>	N/A	N/A	N/A	N/A	TLD-34	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
5613-642 JW 1/11/2018 9:43 JW TLD-35 yard N 37 06 21.480 W 088 49 03.960 -4773 -5806 N/A S613-642 JW JW ILD-35 yard N S7 06 21.480 W 088 49 03.960 -4773 -5806 N/A N/A N/A N/A N/A N/A N/A 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 10/11/2017 09:35 Image: Second se	10/11/2017 00:02										
N/AN/AN/AN/ATLD-36PGDP 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 BridgeN 37 06 50.640W 088 49 23.040-7321-2865N/A10/11/2017 09:35KPDES Outfall 001 behind VortecKPDES Outfall 001 behind VortecKPDES Outfall 001 behind VortecKPDES Outfall 001 behind Vortec		w	1/11/2018 9:43	w	TLD-35		N 37 06 21.480	W 088 49 03.960	-4773	-5806	N/A
10/11/2017 09:35 KPDES Outfall 001 behind Vortec						PGDP plant access road, turn at DOE, turn towards Northwest Plume facility, turn towards landfill					
	N/A	N/A	N/A	N/A	TLD-36		N 37 06 50.640	W 088 49 23.040	-7321	-2865	N/A
5614-643 JW 1/11/2018 10:14 JW TLD-37 facility. K001 N 37 07 18.600 W 088 49 15.660 -8202 138 N/A	10/11/2017 09:35 5614-643	W	1/11/2018 10.14	IW	TLD-37	KPDES Outfall 001 behind Vortec facility. K001	N 37 07 18.600	W 088 49 15.660	-8202	138	N/A

					T .					
10/11/2017 13:47					Five-Points Creek with concrete					
5615-644	JW	1/11/2018 15:42	JW	TLD-38	bridge, on tree behnd 2A sign.	N 37 06 43.320	W 088 50 09.000	-10630	-4528	N/A
					Outfall 10 off Dykes Road near C-					
N/A	N/A	N/A	N/A	TLD-39	755 complex. Outfall 010	N 370633.540	W 088 48 00.900	-612.5	-2231.25	N/A
					Turn north on Kelly Road off					
					Woodville Road, go about 1/2 mile					
					on Kelly road and turn left, go					
	1				about 1/2 miles, TLD placed in trees					
10/11/2017 08:44	WL	1/11/2010 0.20	15.47	TLD-40	on left. Orange sign on blocked	N 37 05 52.200	W/ 088 48 53 30	-2818	-7551	N/A
5616-645	100	1/11/2018 8:36	JVV	1LD-40	road, east of 57 off Dykes Rd.	N 37 05 52.200	W 088 48 52.20	-2818	-7551	
					Acid Road near old monitoring well					
					past bridge. Acid Rd by COE					
N/A	N/A	N/A	N/A	TLD-41	monitoring well.	N 37 06 07.800	W 088 50 18.360	-10116	-6298	N/A
					Ogden Landing Road, past landfill,					
					at Northeast Plume, on "No					
N/A	N/A	N/A	N/A	TLD-42	Tresspassing" sign	N 37 06 55.380	W 088 47 19.080	-1219	-1701	N/A
					Monitoring Well 98 on road past					
N/A	N/A	N/A	N/A	TLD-43	landfill, in the trees	N 37 08 12.240	W 088 47 50.700	-3125	-6568	N/A
					Outside security fence west of					
					Lasagna site on the corner post of					
N/A	N/A	N/A	N/A	TLD-44	posted area - southeast corner	N 37 07 08.880	W 088 49 12.780	-7337	-1591	N/A
.,,					At C-743 trailer complex at walk-in					
N/A	N/A	N/A	N/A	TLD-45	gate	N 37 06 45.900	W 088 49 04.620	-7337	-474	N/A
10/11/2017 09:08										
5617-646	JW	1/11/2018 9:53	JW	TLD-46	Truck entrance at receiving C-720	N 37 06 44.700	W 088 49 00.120	-5198	-2865	NA
					Tree line couth of C 745 T Culinder					
					Tree line south of C-745-T Cylinder Storage Yard. First road on left on					
					Dykes Rd past 57. Last tree on right					
N/A	N/A	N/A	N/A	TLD-47	before clearing	N 37 06 00.300	W 088 48.49.380	-3156	-6777	N/A
					Tree line along the security fence					
					east of C-745-H. Gate 44 road, NE					
N/A	N/A	N/A	N/A	TLD-48	corner of fence	N 37 07 06.60	W 088 47.53.82	-1225	1064	N/A
					Outfall 001 Posted Area. Power					
N/A	N/A	N/A	N/A	TLD-49	pole North C-612 T1	N 37 07 26.52	W 088 49.04.92	-7325	984	N/A
10/11/2017 00.20					Wast Patrol Poad fance across from					
10/11/2017 09:30 5618-647 1402	WL	1/11/2018 10:08		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-50	Outfall 015 Posted Area	N 37 07 07.02	W 088 49.13.18 W 088 49.13.68	-7316	-1347	N/A
10/11/2017 07:53					East Patrol Road fence across from					
5619-648	w	1/11/2018 7:53	wu	TLD-52	C-745-E.	N 37 06 42.18	W 088 48.07.20	-1397	-1628	N/A

	T			Т	Security fence at southeast corner	·····	T	1		
10/11/2017 08:38					of C-745-T Yard. Down fence line					
5620-649	WL	1/11/2018 9:06	W	TLD-53	away from TLD-2.	N 37 06 00.42	W 088 48.37.02	-2220	-6423	N/A
10/12/2017 05:30										
5621-650	КА	1/18/2018 5:30	КА	TLD-54	Residence; Jalusian Trail	N 57 87 72.16	E 23 93 13.48	45296	-25254	N/A
				T						Discontinued
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	7/10/2014
N/A	N/A	N/A	N/A	TLD-56	O/S C-410 Truck Alley Facing C-412		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
10/11/2017 07:45										
5622-651	JW	1/11/2018 7:45	JM	TLD-58	West Central C-755 Complex	N 59 07 98.00	E 22 88 70.74	-1209	-1422	N/A
10/11/2017 14:42										
5623-652	JW	1/17/2018 12:50		TLD-59	C-752A Break Area	N 59 15 61.62	E 22 78 55.79	-5234	-339	N/A
10/11/2017 14:33					C-333A Light Pole on Fence Pole					
5624-653	WL	1/17/2018 12:30	M	TLD-60	#16	N 59 02 07.10	E 22 80 71.62	-2919	-4199	N/A
10/11/2017 14:35										
5625-654	WL	1/17/2018 12:35	1M	TLD-61	West of C-746Q Light Pole #14	N 59 01 58.14	E 22 80 98.35	-2778	-4315	N/A
10/11/2017 14:47					C-743 Trailer Complex Light Pole					
5626-655	WL	1/17/2018 13:05	JW	TLD-62	#336,behind Trailer #3.	N 59 10 20.18	E 22 73 49.81	-6111	-2607	N/A
10/11/2017 14:52		4/47/2010 42 20					5 22 72 45 25	1.000	0.005	
5627-656	JW.	1/17/2018 13:30	1W	TLD-63	C-412 HP Break Trailer	N 59 08 36.46	E 22 79 46.95	-4069	-2435	N/A
10/11/2017 10:05										
5628-657	JM	1/11/2018 10:43	MI M	TLD-64	C-764 T-6 Trailer	N 59 11 77.55	E 22 70 88.88	-7098	-2447	N/A
10/11/2017 09.16					Located O/S of North Security fence	N 37 07 08.54386	W 088 48 00.45376			
10/11/2017 08:16		1/11/2018 8-20			North of C-745H Cylinder Yard;			1705	1052	N/A
5629-658 1403	JW	1/11/2018 8:29	1.00	TLD-65	South of C-762 Laydown Yard			-1795	1062	
					Located on tree @Southeast corner of New Harmony Cemetery;	N 37 07 15.80859	W 088 48 11.08836			
10/11/2017 08:01					adjacent to last concrete barrier &	10 37 07 15.80859	VV 088 48 11.08836			
5630-659	w	1/11/2018 8:13	1	TLD-66	large metal post			-2856	1457	N/A
3030-039		1/11/2018 8.13		1110-00	Located on "No Trespassing" sign			-2650	1437	
					1					
10/11/2017 07:50					1 '	N 37 07 12.70502	W 088 47 56.75697			
	11.4/	1/11/2019 9.10						1659	1560	NI/A
5051-000		1/11/2018 8:10	1100	110-67				-1058	1200	
10/11/2017 00.22]			N 27 07 11 60707	W 088 40 11 42416			
	11.47	1/11/2018 10:12				11 21 01 11.00/9/	VV 000 49 11.45410	7202	-617	
JUSZ-001 1404		1/11/2010 10:12		110-00		·		-/302	-01/	
					Wooden utility pole (T12-15 H)					
10/11/2017 09.14						N 37 07 13.70394	W 088 49 28.37928			
5633-662	w	1/11/2018 9:59		TLD-69	corner of pond North of C-611			-8664	-888	N/A
10/11/2017 07:59 5631-660 10/11/2017 09:32 5632-661 1404 10/11/2017 09:14		1/11/2018 8:10	MI 5	TLD-67 TLD-68	North side of Dykes Rd next to Security Fence North of C-762 Laydown yard West Security Fence West of C- 745B Cylinder Yard & Southeast of Vortec Site Wooden utility pole (T12-15 H) next to gravel road @Northeast	N 37 07 11.60797	W 088 49 11.43416	-1658 -7302	-617	N/A N/A

		T		1						
10/11/2017 08:59 5634-663	w	1/11/2018 9:38	IW	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
10/11/2017 08:56 5635-664	JW	1/11/2018 9:33		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
10/11/2017 08:47 5636-665	JW	1/11/20189:18	W	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
10/11/2017 14:00 5637-666	WL	1/11/2018 15:49	W	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
10/11/2017 11:39 5638-667	W	1/11/2018 13:41	114/	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
10/11/2017 11:42 5639-668	JW	1/11/2018 13:44		TLD-74	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
10/11/2017 11:47					Located on "Tract A" sign below power lines southside of Kelley Rd in sharp curve between Woodville	N 37 05 55.05466	W 088 48 06.27328			
5640-669	WL	1/24/2018 8:30	w	TLD-76	& McCaw Rds			310	-6082	N/A
10/11/2017 11:55 5641-670	WI	1/11/2018 13:54	WL	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
10/11/2017 12:32 5642-671	WL	1/11/2018 14:36	w	TLD-78	Northeast Corner of C-746U Landfill Security Fence	N 37 07 54.00752	W 088 47 37.45924	-1622	6020	N/A
10/11/2017 09:45 5643-672	WL	1/11/2018 10:22	W	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
10/11/2017 12:57 5644-673	WL	1/11/2018 14:54	W	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
10/11/2017 08:54 5645-674 1405	WL	1/11/2018 9:25	WL	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
10/11/2017 08:25 5646-675	wı	1/11/2018 8:41	M	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

	1			1	1		T		1	T
10/11/2017 08:30					Large metal power pole West of	N 37 06 07.30640	W 088 48 20.71726			
5647-676 1406	w	1/11/2018 8:49	iw	TLD-83	Dykes Rd South of Outfall 13	1 37 00 07.50040	W 000 40 20.71720	-1214	-5319	N/A
10/11/2017 07:56		1,11,2010 0.15		120 00	Located @MW496 on the East Side			1214	- 5515	
5648-677	w	1/11/2018 8:06	IW	TLD-84	of Dykes Rd	N 37 07 03.50589	W 088 47 49.26485	-769	894	N/A
10/10/2047 17:00					Residence; corner of Springwell and					
5649-678	so	1/17/2018 17:00	50	TLD-85		N 37 03 27.9036	W 088 40 43.9638	39082	-7750	N/A
				1 20 05	Plant Entrance, Gravel Construction	1137 03 2713030		55002	1130	
10/11/2017 11:35					Rd. Right side on orange warning					
5650-679	w	1/11/2018 13:30	11/1/	TLD-86	signal sign	N 37° 5' 18.8622"	W 088 49 28.2282	-4676	-11794	N/A
		1,11,2010 15:50		120 00	5161 5151	10.0022	11 000 49 20.2202	40/0	11/34	
					KOW Entrance north of Woodville					
10/11/2017 14:07					Rd north of Kevil Eagles. Right side					
5651-680	wL	1/11/2018 15:43	IW/	TLD-87	on orange warning signal sign	N 37 05 24.2802	W 088 50 43.9548	-10629	-13381	N/A
		1, 11, 2010 13.43			Bethel Church Road KOW entrance.		1. 000 30 43.3340	10025	13301	175
10/11/2017 13:20			1		North of Massay Rd, right side on					
5652-681	w	1/11/2018 15:11	11.47	TLD-88	yellow post	N 37 07 05.4876	W 088 50 37.9608	-13677	-3597	N/A
5052-081	100	1/11/2018 13.11	1.00	120-00		N 37 07 03.4870	W 088 50 57.5008	-13077	-5557	
					Bobo Rd, off of Bethel Church Rd.					
					Continue east 200 yds past end of					
10/11/2017 12:11										
10/11/2017 13:11		1/11/2019 15:00			asphalt. At intersection on orange	N 27 07 25 007C	N/ 088 40 44 2022	10057	700	N/A
5653-682	WL	1/11/2018 15:06	100	TLD-89	warning signal sign	N 37 07 35.9976	W 088 49 44.3922	-10657	788	
					Drides on Onder Londing Dd cost of					
10/11/2017 12:00					Bridge on Ogden Landing Rd east of Lamb's garage. On NE corner of					
10/11/2017 13:00		1/11/2010 14.50				N 27 00 54 6714		10010	7100	N/A
5654-683	WL	1/11/2018 14:58	100	TLD-90	bridge on contaminated creek sign	N 37 08 54.6714	W 088 47 27.2472	-12310	7182	
					Delder School Dd op KOW et					
10/11/2017 12:41					Boldry School Rd on KOW at					
10/11/2017 12:41 5655-684		1/11/2010 14:42		TI D 01	Shawnee plant entrance. On cattle	N 27 00 40 0004		2052	12069	N/A
5055-084		1/11/2018 14:42		TLD-91	gate road on hill, right side	N 37 08 40.9884	W 088 49 36.5232	-2952	12069	
					Anderson Road off Metropolis Lake					
					Rd. follow West until road ends					
10/11/2017 12:12					@Railroad tracks. On left crossing					
5656-685	JW	1/11/2018 14:19	N/A	TLD-92	gate post.	N 37 07 42.7866	W 088 46 17.1438	1392	8745	N/A
					MW 100, North on Metropolis Lake					
10/11/2017 12:07					Rd past railroad tracks on left side					
5657-686	JW	1/11/2018 14:03	JW	TLD-93	on Well bollard	N 37 08 09.0744	W 088 46 50.9304	4874	7186	N/A
10/11/2017 12:20					Residence; corner of Ogden					
5658-687	JW	1/11/2018 14:26	W	TLD-94	Landing Rd & Metropolis Lake Rd	N 37 05 48.9294	W 088 47 12.4332	4740	436	N/A
					West McCracken Health Clinic,					
10/11/2017 12:01					Metropolis Lake Rd. On Light Pole					
5659-688	JW	1/11/2018 13:58	3 JW	TLD-95	in SW corner of parking lot	N 37 06 40.5468	W 088 46 47.2872	4617	-5167	N/A

	ſ				Taken along while placing and					
					collecting all other samples - stored					
10/11/2017 15:00					in "lead box" at C-101 Dosimetry					
5660-689	WL	1/11/2017 16:00	WL	TLD-FB	office	N/A	N/A	NA	NA	N/A
10/11/2017 07:00					Stored in "lead box" at C-101					
5661-690	WL	1/11/2018 7:00	WL	TLD-TB	Dosimetry office	N/A	N/A	NA	NA	N/A
5662-691	w	N/A	N/A	SPARE	Lead Box in C-101 Dosimetry office	N/A	N/A	N/A	N/A	N/A
5663-692	w	N/A	N/A	SPARE	Lead Box in C-101 Dosimetry office	N/A	N/A	N/A	N/A	N/A
5664-693	w	N/A	N/A	SPARE	Lead Box in C-101 Dosimetry office	N/A	N/A	N/A	N/A	N/A
5665-694	wı	N/A	N/A	SPARE	Lead Box in C-101 Dosimetry office	N/A	N/A	N/A	N/A	N/A
5666-695	M	N/A	N/A	SPARE	Lead Box in C-101 Dosimetry office	N/A	N/A	N/A	N/A	N/A
5667-696	w	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	1/1/2017	
Process	0234377	

Badge Number	Name	Exposure mR*
	CONTROL	13
	CONTROL	13
625	ENVIRONMENTAL	156
626	ENVIRONMENTAL	272
627	ENVIRONMENTAL	21
628	ENVIRONMENTAL	20
629	ENVIRONMENTAL	20
630	ENVIRONMENTAL	19
631	ENVIRONMENTAL	31 ·
632	ENVIRONMENTAL	19
633	ENVIRONMENTAL	19
634	ENVIRONMENTAL	23
635	ENVIRONMENTAL	19
636	ENVIRONMENTAL	17
637	ENVIRONMENTAL	· 21
638	ENVIRONMENTAL	24 .
639	ENVIRONMENTAL	21
640	ENVIRONMENTAL	14
641	ENVIRONMENTAL	27
642	ENVIRONMENTAL	23
643	ENVIRONMENTAL	23
644	ENVIRONMENTAL	21
645	ENVIRONMENTAL	20

*- 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	ź
Location	00000LAT		
Monitoring Period	1/1/2017		•
Process	0234377		

Badge Number	Name	Exposure mR*
646	ENVIRONMENTAL	22
647	ENVIRONMENTAL	19
648	ENVIRONMENTAL	40
649	ENVIRONMENTAL	20
650	ENVIRONMENTAL	94
651	ENVIRONMENTAL	21
652	ENVIRONMENTAL	17
653	ENVIRONMENTAL	18
654	ENVIRONMENTAL	286
655	ENVIRONMENTAL	585
656	ENVIRONMENTAL	18
657	ENVIRONMENTAL	17
658	ENVIRONMENTAL	14
659	ENVIRONMENTAL	18
660	ENVIRONMENTAL	. 20
661	ENVIRONMENTAL	21
662	ENVIRONMENTAL	21
663	ENVIRONMENTAL	19
664	ENVIRONMENTAL	46
665	ENVIRONMENTAL	39
666	ENVIRONMENTAL	19
667	ENVIRONMENTAL	20
668	ENVIRONMENTAL	22

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

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Account	98365	PADUCAH REMEDIATION SERVICES
Location	00000LAT	
Monitoring Period	1/1/2017	}
Process	0234377	

Badge Number	Name	Exposure mR*
669	ENVIRONMENTAL	23
670	ENVIRONMENTAL	23
671	ENVIRONMENTAL	23
672	ENVIRONMENTAL	26
673	ENVIRONMENTAL	19
674	ENVIRONMENTAL	20
675	ENVIRONMENTAL	101
676	ENVIRONMENTAL	26
677	ENVIRONMENTAL	51
678	ENVIRONMENTAL	19
679	ENVIRONMENTAL	19
680	ENVIRONMENTAL	22
681	ENVIRONMENTAL	21
682	ENVIRONMENTAL	20
683	ENVIRONMENTAL	20
684	ENVIRONMENTAL	21
685	ENVIRONMENTAL	20
686	ENVIRONMENTAL	20
687	ENVIRONMENTAL	22
688	ENVIRONMENTAL	24
689	ENVIRONMENTAL	21
690	ENVIRONMENTAL	13
691	ENVIRONMENTAL	12

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Account	98365	PADUCAH REMEDIATION SERVICES
Location	00000LAT	
Monitoring Period	1/1/2017	
Process	0234377	

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

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Account	98365	PADUCAH REMEDIATION SERVICES
Location	00000LAT	
Monitoring Period	4/1/2017	
Process	0235618	

Badge Number	Name	Exposure mR*
	CONT ROL	16
	CO NROL	14
625	ENVI RONMENT AL	191
626	ENVI RONMENT AL	264
627	ENVI RONMENT AL	21
628	ENVI RONMENT AL	21
629	ENVI RONMENT AL	22
630	ENVI RONMENT AL	18
. 631	ENVI RONMENT AL	30
632	ENVI RONMENT AL	17 .
633	ENVI RONMENT AL	18
634	ENVI RONMENT AL	22
635	ENVI RONMENT AL	18
636	ENVI RONMENT AL	17
637	ENVI RONMENT AL	25
639	ENVI RONMENT AL	20
640	ENVI RONMENT AL	28
641	ENVIRONMENTAL	23
642	ENVI RONMENT AL	31
643	ENVI RONMENTAL	20
644	ENVI RONMENT AL	23
645	ENVI RONMENT AL	26
646	ENVIRONMENTAL	20

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

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Account	98365 PADUCAH REMEDIAT ON SERVICES
Location	00000LAT
Monitoring Period	4/1/2017
Process	0235618

Badge Number	Name	Exposure mR*
647	ENVIRONMENTAL	42
648	EENVRONMENTAL	19
649	ENVIRONMENTAL	93
650	ENVIRONMENTAL	25
651	ENVIRONMENTAL	17
652	ENVIRONMENTAL	18
653	ENVIRONMENTAL	312
654	ENVIRONMENTAL	575
655	ENVIRONMENTAL	17
656	ENVIRONMENTAL	19
657	ENVIRONMENTAL	18
658	ENVIRONMENTAL	18
659	ENVIRONMENTAL	23
660	ENVIR ONMENTAL	24
661	ENVIRONMENTAL	21
662	ENVIRONMENTAL	18
663	ENVIRONMENTAL	53
664	ENVIRONMENTAL	42
665	ENVIRONMENTAL	21
666	ENVIRONMENTAL	19
667	ENVIRONMENTAL	20
668	ENVIRONMENTAL	23
569	ENVIRONMENTAL	21

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Global Dosimetry Solutions Environmental Report

Account	98365	PADUCAH REMEDIATION SERVICES
Location	00000LAT	
Monitoring Period	4/1/2017	
Process	0235618	

Badge Number	Name	Exposure mR*
670	ENVIRONMENTAL	22
671	ENVIRONMENTAL	23
672	ENVIRONMENTAL	20
67 <u>3</u>	ENVIRONMENTAL	20
674	ENVIRONMENTAL	102
675	ENVIRONMENTAL	32
676	ENVIRONMENTAL	52
677	ENVIRONMENTAL	20
678	ENVIRONMENTAL	20
679	ENVIRONMENTAL	22
680	ENVIRONMENTAL	21
681	ENVIRONMENTAL	20
682	ENVIRONMENTAL	24
683	ENVIRONMENTAL	25
684	ENVIRONMENTAL	20
685	ENVIRONMENTAL	.23
686	ENV!RONMENTAL	22
687	ENVIRONMENTAL	23
688	ENVIRONMENTAL	24
689	ENVIRONMENTAL	14
690	ENVIRONMENTAL	14
691	ENVIRONMENTAL	13
692	ENVIRONMENTAL	14

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Global Dosimetry Solutions Environmental Report

Account	98365	PADUCAH REMEDIATION SERVICES
Location	00000LAT	
Monitoring Period	4/1/2017	
Process	0235618	

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

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

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Account	98365	PADUCAH REMEDIATION SERVICES
Location	00000LAT	
Monitoring Period	7/1/2017	
Process	0236511	

Badge Number	Name	Exposure mR*
	CONTROL	13
	CONTROL	14
625	ENVIRONMENTAL	216
626	ENVIRONMENTAL	250
627	ENVIRONMENTAL	19
628	ENVIRONMENTAL	18
629	ENVIRONMENTAL	23
630	ENVIRONMENTAL	16
631	ENVIRONMENTAL	28
632	ENVIRONMENTAL	15
633	ENVIRONMENTAL	17
634	ENVIRONMENTAL	22
635	ENVIRONMENTAL	15
636	ENVIRONMENTAL	17
637	ENVIRONMENTAL	23
638	ENVIRONMENTAL	17
639	ENVIRONMENTAL	20
640	ENVIRONMENTAL	27
641	ENVIRONMENTAL	20
642	ENVIRONMENTAL	28
643	ENVIRONMENTAL	19
644	ENVIRONMENTAL	21
645	ENVIRONMENTAL	26
		·

*- 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.

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Account	98365	PADUCAH REMEDIATION SERVICES
Location	00000LAT	
Monitoring Period	7/1/2017	
Process	0236511	

Badge Number	Name	Exposure mR*
646	ENVIRONMENTAL	19
647	ENVIRONMENTAL	43
648	ENVIRONMENTAL	17
649	ENVIRONMENTAL	105
650	ENVIRONMENTAL	24
651	ENVIRONMENTAL	16
652	ENVIRONMENTAL	16
653	ENVIRONMENTAL	243
654	ENVIRONMENTAL	611
655	ENVIRONMENTAL	16
656	ENVIRONMENTAL	16
657	ENVIRONMENTAL	17
658	ENVIRONMENTAL	17
659	ENVIRONMENTAL	19
660	ENVIRONMENTAL	19
661	ENVIRONMENTAL	ет сопуступлитически станов и станов и тере и на лики на на на на на на на на на на на на на
662	ENVIRONMENTAL	16
663	ENVIRONMENTAL	52
664	ENVIRONMENTAL	39
665	ENVIRONMENTAL	20
667	ENVIRONMENTAL	23
668	ENVIRONMENTAL	20
669	ENVIRONMENTAL	19

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Account	98365 PADUCAH REMEDIATION SERVICES
Location	DODODLAT
Monitoring Period	7/1/2017
Process	0236511

Badge Number	Name	Exposure mR*
670	ENVIRONMENTAL	16
671	ENVIRONMENTAL	23
672	ENVIRONMENTAL	20
673	ENVIRONMENTAL	19
674	ENVIRONMENTAL	92
675	ENVIRONMENTAL	27
676	ENVIRONMENTAL	45
677	ENVIRONMENTAL	16
678	ENVIRONMENTAL	18
679	ENVIRONMENTAL	21
680	ENVIRONMENTAL	17
681	ENVIRONMENTAL	21
682	ENVIRONMENTAL	20
683	ENVIRONMENTAL	18
684	ENVIRONMENTAL	18
685	ENVIRONMENTAL	22
686	ENVIRONMENTAL	21
687	ENVIRONMENTAL	18
688	ENVIRONMENTAL	18
689	ENVIRONMENTAL	15
690	ENVIRONMENTAL	12
691	ENVIRONMENTAL	13
692	ENVIRONMENTAL	12

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Account	98365	PADUCAH REMEDIATION SERVICES
Location	00000LAT	
Monitoring Period	7/1/2017	
Process	0236511	

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

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

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

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Account	98365	PADUCAH REMEDIATION SERVICES
Location	00000LAT	
Monitoring Period	10/1/2017	
Process	0236511	

Badge Number	Name	Exposure mR*
666	ENVIRONMENTAL	7

*- 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.

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Account	98365 Four Rivers Nuclear Partnership, L LC
Location	00000LAT
Monitoring Period	7/1/2017
Process	0237626

Badge Number	Name	Exposure mR*
666	ENVIRONMENTAL	28

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

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Account	98365	Four Rivers Nuclear Partnership, LLC
Location	00000LAT	
Monitoring Period	10/1/2017	
Process	0237626	

Badge Number	Name	Exposure mR*
	CONTROL	16
	CONTROL	17
625	ENVIRONMENTAL	222
626		327
627	ENVIRONMENTAL	25
628	ENVIRONMENTAL	25
629	ENVIRONMENTAL	27
63 0	ENVIRONMENTAL	22
631	ENVIRONMENTAL	30
632	ENVIRONMENTAL	24
633	ENVIRONMENTAL	24
634	ENVIRONMENTAL	26
635	ENVIRONMENTAL	23
636	ENVIRONMENTAL	21
637	ENVIRONMENTAL	28
639	ENVIRONMENTAL	26
640	ENVIRONMENTAL	34
641	ENVIRONMENTAL	26
642	ENVIRONMENTAL	26
643	ENVIRONMENTAL	23
644	ENVIRONMENTAL	24
645	ENVIRONMENTAL	29
646	EN VRONMENTAL	2 5

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Account	98365	Four Rivers Nuclear Partnership, LLC
Location	00000LAT	ease two parameters with all day and with day.
Monitoring Period	10/1/2017	من من المراجع المراجع المراجع المراجع المراجع المراجع المراجع المراجع المراجع المراجع المراجع المراجع المراجع ا مراجع المراجع المراجع المراجع المراجع المراجع المراجع المراجع المراجع المراجع المراجع المراجع المراجع المراجع ال
Process	0237626	

Badge Number	Name	Exposure mR*
647	ENVIRONMENTAL	46
648	ENVIRONMENTAL	22
649	ENVIRONMENTAL	103
650	ENVIRONMENTAL	26
651	ENVIRONMENTAL	22
652	ENVIRONMENTAL	21
653	ENVIRONMENTAL	374
654	ENVIRONMENTAL	630
655	ENVIRONMENTAL	21
656	ENVIRONMENTAL	20
657	ENVIRONMENTAL	21
658	ENVIRONMENTAL	22
659	ENVIRONMENTAL	25
660	ENVIRONMENTAL	29
661	ENVIRONMENTAL	24
662	ENVIRONMENTAL	18
663	ENVIRONMENTAL	44
664	ENVIRONMENTAL	39
665	ENVIRONMENTAL	27
667	ENVIRONMENTAL	28
668	ENVIRONMENTAL	. 24 .
669	ENVIRONMENTAL	26
670	ENVIRONMENTAL	23

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

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Global Dosimetry Solutions Environmental Report

Account	98365	Four Rivers Nuclear Partnership, LLC
Location	00000LAT	
Monitoring Period	10/1/2017	
Process	0237626	

Badge Number	Name	Exposure mR*
671	ENVIRONMENTAL	26
6 72	ENVIRONMENTAL	22
673	ENVIRONMENTAL	24
674	ENVIRONMENTAL	. 114
675	ENVIRONMENTAL	31
676	ENVIRONMENTAL	55
677	ENVIRONMENTAL	25
678	ENVIRONMENTAL	28
679	ENVIRONMENTAL	26
680	ENVIRONMENTAL	23
681	ENVIRONMENTAL	24
682	ENVIRONMENTAL	23
683	ENVIRONMENTAL	26
684	ENVIRONMENTAL	26
685	ENVIRONMENTAL	24
686	ENVIRONMENTAL	24
. 687	ENVIRONMENTAL	26
688	ENVIRONMENTAL	26
689	ENVIRONMENTAL	14
690	ENVIRONMENTAL	14
691	ENVIRONMENTAL	15
692	ENVIRONMENTAL	14
693	ENVIRONMENTAL	16

*- 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.

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Global Dosimetry Solutions Environmental Report

Account	98365	Four Rivers Nuclear Partnership, LLC
Location	00000LAT	
Monitoring Period	10/1/2017	•
Process	0237626	

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

*- 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.

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APPENDIX D

ENVIRONMENTAL TLD DATA

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	Quarter 1				Quarter 2				Quarter 3					Quarter 4					1									
TLD Number	TLD Location Number	Start E	nd Exposu	re Days Effective Dos (mrem)	e Normalized Effective Dose/day	TLD Location Number	n Start	End Expos	ure Days Effective Definition (mrem)	ose Normalized Effective Dose/day	TLD Locatio Number	n Start	End	Exposure Days	Effective Dose (mrem)	Normalized Effective Dose/day	TLD Location Number	Start	End Expo	Effective osure Days (mren	Dose Normalized Effective n) Dose/day	e Total Monitored Effecitve Dose (mrei		Annualized Effective Dose (mrem)	Net Annualized Effective Dose (mrem)	Net Annualized mrem/day	Net Annualize mrem/hr	d Comments
1	1	1/9/2017 4/4/	2017 8	5 156	1.84	1	4/4/2017 7	/11/2017	98 191	1.95	1	7/11/201	7 10/11/2017	92	216	2.35	1	10/11/2017	1/11/2018	92 222	2.41	785	367	781	694	1.901	0.079	
2	2	1/9/2017 4/4/		5 272 5 21	3.20	2	4/4/2017 7 4/4/2017 7	/11/2017 /11/2017	98 264 98 21	2.69	2	1 1 .	7 10/11/2017 7 10/11/2017	92	250 19	2.72	2	10/11/2017 10/11/2017	1 1	92 327 92 25	3.55	1113 86	367	1107 86	-1	-0.004	0.116	
4	4	1/9/2017 4/4/ 1/9/2017 4/4/		5 20 5 20	0.24	4		/11/2017	98 21 98 22	0.21	4	7/11/201	7 10/11/2017 7 10/11/2017	92	18 23	0.20	4	10/11/2017 10/11/2017	1/11/2018	92 25 92 27	0.27 0.29	84 92	367 367	84 91	-3	-0.009 0.012	0.000	
6	6	1/9/2017 4/4/	/2017 8	5 19	0.22	6	4/4/2017 7	/11/2017	98 18	0.18	6	7/11/201	7 10/11/2017	92	16	0.17	6	10/11/2017	1/11/2018	92 22	0.24	75	367	75	-12	-0.034	-0.001	
7 8	7	1/9/2017 4/4/ 1/9/2017 4/4/		5 31 5 19	0.36	7 9	4/4/2017 7 4/4/2017 7		98 30 98 17	0.31 0.17	7		7 10/11/2017 7 10/11/2017		28	0.30	7	10/11/2017 10/11/2017		92 30 92 24	0.33 0.26	119 75	367	118 75	-12	-0.034	-0.001	
9 10	12	1/9/2017 4/4/ 1/9/2017 4/4/		5 <u>19</u> 5 23	0.22	12	4/4/2017 7 4/4/2017 7		98 18 98 22	0.18	12 13		7 10/11/2017 7 10/11/2017	92 92	17	0.18	12 13	10/11/2017 10/11/2017		92 24 92 26	0.26	78	367 367	78 92	-9	-0.026 0.015	-0.001 0.001	
11	14	1/9/2017 4/4/	/2017 8	5 19	0.22	15	4/4/2017 7	/11/2017	98 18	0.18	14	7/11/201	7 10/11/2017	92	15	0.16	14	10/11/2017	1/11/2018	92 23	0.25	75	367	75	-12	-0.034	-0.001	
12	15	1/9/2017 4/4/ 1/9/2017 4/4/		-	0.20	15	4/4/2017 7 4/4/2017 7		98 17 98 25	0.17			7 10/11/2017 7 10/11/2017		23	0.18 0.25		10/11/2017 10/11/2017		92 21 92 28		72 97	367	72 96	-15 9	-0.042 0.026	-0.002	
																												The 2nd & 4th Qtr tld was found missing. Estimate of Effective Dose based on other
14	19 22	1/9/2017 4/4/ 1/9/2017 4/4/		5 24 5 21	0.28	19	4/4/2017 7 4/4/2017 7		98 21 98 20	0.21	19		7 10/11/2017 7 10/11/2017		17 20	0.18	19 22	10/11/2017 10/11/2017		92 21 92 26	0.23	83 87	367	83 87	-4	-0.012 -0.001	-0.001 0.000	two Qtr readings
16 17	25 30	1/9/2017 4/4/ 1/9/2017 4/4/		5 27 5 23	0.32	25 30	4/4/2017 7 4/4/2017 7		98 28 98 23	0.29 0.23	25		7 10/11/2017 7 10/11/2017	92 92	27 20	0.29	25 30	10/11/2017 10/11/2017		92 34 92 26	0.37 0.28	116 92	367 367	115 91	28	0.078	0.003	
18	35	1/9/2017 4/4/	/2017 8	5 23	0.27	35	4/4/2017 7	/11/2017	98 31	0.32	35	7/11/201	7 10/11/2017	92	28	0.30	35	10/11/2017	1/11/2018	92 26	0.28	108	367	107	20	0.056	0.002	
19 20	37 38	1/9/2017 4/4/ 1/9/2017 4/4/		5 21 5 20	0.25	37 38	4/4/2017 7 4/4/2017 7		106 20 98 23	0.19	37 38		7 10/11/2017 7 10/11/2017	92	19 21	0.23	37 38	10/11/2017 10/11/2017		92 23 92 24	0.25	83	367	83	-4	-0.012 0.001	-0.001 0.000	
21	40	1/9/2017 4/4/ 1/9/2017 4/4/		5 22 5 19	0.26	40	4/4/2017 7 4/4/2017 7		98 26 98 20	0.27	40 46		7 10/11/2017 7 10/11/2017	92 92	26 19	0.28		10/11/2017 10/11/2017	1/11/2018	92 29 92 25	0.32	103	367 367	102	-4	0.042	0.002	
22 23	50	1/9/2017 4/4/	/2017 8	5 40	0.47	50	4/4/2017 7	/11/2017	98 20 98 42	0.43	50	7/11/201	7 10/11/2017	92	43	0.21 0.47	50	10/11/2017	1/11/2018	92 46	0.50	171	367	170	83	0.228	0.009	
24	52	1/9/2017 4/4/ 1/9/2017 4/4/		5 20 5 94	0.24	52	4/4/2017 7 4/4/2017 7		98 19 98 93	0.19 0.95	52		7 10/11/2017 7 10/11/2017	92	17 105	0.18	52 53	10/11/2017 10/11/2017		92 22 92 103	0.24	78 395	367	78	-9 306	-0.026	-0.001 0.035	
26 27	54 58	1/10/2017 4/10 1/9/2017 4/4/		0 <u>21</u> 5 17	0.23	54	4/10/2017 7 4/4/2017 7	/15/2017	96 25 98 17	0.26	54 58	7/15/201	7 10/12/2017 7 10/11/2017	89 92	24 16	0.27	54 58	10/12/2017 10/11/2017	1/18/2018	98 26 92 22	0.27 0.24	96 72	373	94 72	7 -15	0.019 -0.042	0.001	
28	59	1/9/2017 4/4/	/2017 8	5 18	0.21	59	4/4/2017 7	/12/2017	99 18	0.18	59	7/12/201	7 10/11/2017		16	0.18	59	10/11/2017	1/17/2018	98 21	0.21	73	373	71	-16	-0.043	-0.002	
29 30	60 61	1/9/2017 4/4/ 1/9/2017 4/4/		5 286 5 585	3.36	60		/11/2017 /11/2017	98 312 98 575	3.18 5.87	60 61		7 10/11/2017 7 10/11/2017	92	243 611	2.64 6.64	60 61	10/11/2017 10/11/2017		98 374 98 630	3.82	1215 2401	373	2350	1102 2263	3.019 6.199	0.126	
31	62	1/9/2017 4/4/	/2017 8	5 18	0.21	62	4/4/2017 7	/11/2017	98 17	0.17	62	7/11/201	7 10/11/2017	92 92	16	0.17	62	10/11/2017	1/17/2018	98 21	0.21	72	373	70	-17	-0.045	-0.002	
32 33	63 64	1/9/2017 4/4/ 1/9/2017 4/4/		5 17 5 14	0.20	63 64		/11/2017 /11/2017	98 19 98 18	0.19 0.18	63 64		7 10/11/2017 7 10/11/2017	92 92	10	0.17 0.18	63 64	10/11/2017 10/11/2017		98 20 92 21	0.20	72	373 367	70	-17 -17	-0.045 -0.048	-0.002	
34	65	1/9/2017 4/4/ 1/9/2017 4/4/		5 18 5 20	0.21	65		/11/2017	98 18 98 23	0.18	65 66		7 10/11/2017 7 10/11/2017	92	17	0.18 0.21	65 66	10/11/2017 10/11/2017		92 22 92 25	0.24	75	367	75	-12	-0.034 -0.001	-0.001	
36	67	1/9/2017 4/4/ 1/9/2017 4/4/		5 21	0.25	67		, ==, ====	98 24	0.24	67 68	1 1 2	7 10/11/2017	92	19	0.21	67	10/11/2017	1/11/2018	92 29	0.32	93	367	92	5	0.015	0.001	
38	68 69	1/9/2017 4/4/	/2017 8	5 21 5 19	0.25	68 69	4/4/2017 7	, ==, ===:	98 21 98 18	0.21 0.18	69	7/11/201	7 10/11/2017 7 10/11/2017	92	16 16	0.17 0.17	68 69	10/11/2017 10/11/2017	1/11/2018	92 24 92 18	0.26	71	367	82 71	-5	-0.045	-0.002	
39 40	70	1/9/2017 4/4/ 1/9/2017 4/4/		5 46 5 39	0.54	70	4/4/2017 7 4/4/2017 7		98 53 98 42	0.54	70		7 10/11/2017 7 10/11/2017	92	52	0.57	70	10/11/2017 10/11/2017		92 44 92 39	0.48	195	367	194 158	107	0.293	0.012	
41	72	1/9/2017 4/4/		5 19	0.22	72	4/4/2017 7		98 21	0.21	72		7 10/11/2017		20	0.22	72	10/11/2017		92 27	0.29	87	367	87	0	-0.001	0.000	
42	73	1/9/2017 4/4/		5 20	0.24	73	4/4/2017 7		98 19	0.19			7 10/11/2017		20	0.22		10/11/2017	1/11/2018	92 20		79	367	79	-8	-0.023	-0.001	Dosimeter not exchanged for 3rd qtr, but read in 4th qrt. Estimate of Effective Dose for 3rd and 4th Qrt based on first two Qtr readngs
43	74	1/9/2017 4/4/ 1/9/2017 4/4/		5 22	0.26	74	4/4/2017 7 4/4/2017 7		98 20 98 23	0.20	74		7 10/11/2017 7 10/11/2017	92	23	0.25	74	10/11/2017 10/11/2017	, ,	92 28 92 24	0.30	93	367	92	5	0.015	0.001	
45 46	76	1/9/2017 4/4/ 1/9/2017 4/4/		5 23	0.27	76	4/4/2017 7 4/4/2017 7		98 21	0.21	76 77		7 10/11/2017 7 10/11/2017	92	19	0.21 0.17	76 77	10/11/2017		105 26	0.25	89	380	85	-2	-0.004 -0.009	0.000	
47	78	1/9/2017 4/4/	/2017 8		0.31	78	4/4/2017 7	/11/2017	98 23	0.23	78	7/11/201	7 10/11/2017	92	23	0.25	78	10/11/2017 10/11/2017	1/11/2018	92 26	0.25	98	367	97	10	0.029	0.001	
48 49	79 80	1/9/2017 4/4/ 1/9/2017 4/4/		5 19 5 20	0.22	79 80		/11/2017 /11/2017	98 20 98 20	0.20	79 80		7 10/11/2017 7 10/11/2017	92 92	20	0.22 0.21	79 80	10/11/2017 10/11/2017		92 22 92 24	0.24 0.26	81	367	81	-6 -4	-0.018 -0.012	-0.001	
50	81	1/9/2017 4/4/	/2017 8	5 101	1.19	81	4/4/2017 7	/11/2017	98 102	1.04	81	7/11/201	7 10/11/2017	92	92	1.00	81	10/11/2017	1/11/2018	92 114	1.24	409	367	407	320	0.876	0.037	
51	82	1/9/2017 4/4/	/2017 8	5 26	0.31	82	4/4/2017 7	/11/2017	98 32	0.33	82	7/11/201	7 10/11/2017	92	27	0.29	82	10/11/2017	1/11/2018	92 31	0.34	116	367	115	28	0.078	0.003	
52	83 84	1/9/2017 4/4/ 1/9/2017 4/4/		5 51 5 19	0.60	83	4/4/2017 7 4/4/2017 7	/11/2017	98 52 98 20	0.53	83 84		7 10/11/2017 7 10/11/2017	92	45	0.49	83 84	10/11/2017		92 55 92 25	0.60	203	367	202	-7	0.315	-0.001	
54	85	1/9/2017 4/4/ 1/9/2017 4/4/		5 <u>19</u> 5 22	0.22	85	4/4/2017 7 4/4/2017 7	/11/2017	98 20 98 22	0.20	85 86		7 10/10/2017 7 10/11/2017	91 92	18 21	0.20	85 86	10/10/2017		99 28 92 26	0.28	85 91	373 367	83 91	-4	-0.010 0.010	0.000	
56	86 87	1/9/2017 4/4/			0.25	86	4/4/2017 7			0.22 0.21		., ==, ===	7 10/11/2017		17	0.23 0.18		10/11/2017 10/11/2017		92 26 92 23		82	367	82	-5	-0.015	-0.001	
57	88	1/9/2017 4/4/			0.24		4/4/2017 7		98 20	0.20			7 10/11/2017		21	0.23		10/11/2017		92 24		85	367	85	-2	-0.007	0.000	
58 59	89 90	1/9/2017 4/4/ 1/9/2017 4/4/			0.24	89	4/4/2017 7 4/4/2017 7		98 24 98 25	0.24 0.26	89 90		7 10/11/2017 7 10/11/2017		20	0.22	90	10/11/2017 10/11/2017	1/11/2018	92 23 92 26	0.25	87 90	367	87 90	0 3	-0.001 0.007	0.000	
60 61	91 92	1/9/2017 4/4/ 1/9/2017 4/4/		5 20 5 20	0.24	91	4/4/2017 7 4/4/2017 7		98 20 98 23	0.20	91 92	7/11/201	7 10/11/2017 7 10/11/2017	92	18 22	0.20	91	10/11/2017 10/11/2017	1/11/2018	92 26 92 24		84 89	367 367	84 89	-3	-0.009	0.000	
62	93	1/9/2017 4/4/	/2017 8	5 22	0.26	93	4/4/2017 7	/11/2017	98 22	0.22	93	7/11/201	7 10/11/2017	92	21	0.23	93	10/11/2017	1/11/2018	92 24	0.26	89	367	89	2	0.004	0.000	
<u>63</u> 64	94 95	1/9/2017 4/4/ 1/9/2017 4/4/		5 24 5 21	0.28	94	4/4/2017 7 4/4/2017 7		98 23 98 24	0.23	94		7 10/11/2017 7 10/11/2017		18	0.20	94 95	10/11/2017 10/11/2017		92 26 92 26	0.28	91 89	367	91 89	2	0.010	0.000	
65 66	FB TB	1/9/2017 4/4/ 1/9/2017 4/4/	/2017 8	5 13 5 12	0.15	FB TB	4/4/2017 7 4/4/2017 7	/11/2017	98 14 98 14	0.14	FB TB	7/11/201	7 10/11/2017 7 10/11/2017	92	15 12	0.16	FB	10/11/2017 10/11/2017	1/11/2018	92 14 92 14	0.15	56 52	367 367	56 52	-31 -35	-0.086 -0.097	-0.004	
Background	Annualized Effective Dose											,, -01	., ., .,					., ,,										
22 54 85 86 87 88 89 90 91 92 93	8.51 88.51 83.54 85.51 84.54 85.53 89.51 83.54 88.51 85.51 85.51 85.51																											

88.51 90.50 88.51 87.37 10.49 76.88 97.87 3.50 94 95 Average Bkg DDE 3 sigma Lower Range Upper Range Standard Deviation

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APPENDIX E

NEUTRON AREA DOSIMETER DATA

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Environmental Dosimeter Report From 01/01/2017 to 12/31/2017

Participant Name, Number	TLD Location	Begin wear date	End wear date	Dosimeter Type	Total Neutron	Fast Neutron	Thermal Neutron
VISITOR,01176	TLD-2	1/1/2017	3/31/2017	Neutron	М	М	М
VISITOR,01177	TLD-3	1/1/2017	3/31/2017	Neutron	М	М	М
VISITOR,01178	TLD-50	1/1/2017	3/31/2017	Neutron	М	М	М
VISITOR,01179	TLD-65	1/1/2017	3/31/2017	Neutron	М	М	М
VISITOR,01180	TLD-68	1/1/2017	3/31/2017	Neutron	М	М	М
VISITOR,01181	TLD-81	1/1/2017	3/31/2017	Neutron	М	М	М
VISITOR,01182	TLD-83	1/1/2017	3/31/2017	Neutron	М	М	М
VISITOR,01175	TLD-2	4/1/2017	6/30/2017	Neutron	М	М	М
VISITOR,01176	TLD-3	4/1/2017	6/30/2017	Neutron	М	М	М
VISITOR,01177	TLD-50	4/1/2017	6/30/2017	Neutron	М	М	М
VISITOR,01178	TLD-65	4/1/2017	6/30/2017	Neutron	М	М	М
VISITOR,01179	TLD-68	4/1/2017	6/30/2017	Neutron	М	M	М
VISITOR,01180	TLD-81	4/1/2017	6/30/2017	Neutron	М	М	М
VISITOR,01181	TLD-83	4/1/2017	6/30/2017	Neutron	М	М	М
VISITOR,01177	TLD-2	7/1/2017	9/30/2017	Neutron	М	М	М
VISITOR,01178	TLD-3	7/1/2017	9/30/2017	Neutron	М	М	М
VISITOR,01179	TLD-50	7/1/2017	9/30/2017	Neutron	М	M	М
VISITOR,01180	TLD-65	7/1/2017	9/30/2017	Neutron	М	M	М
VISITOR,01181	TLD-68	7/1/2017	9/30/2017	Neutron	М	M	М
VISITOR,01182	TLD-81	7/1/2017	9/30/2017	Neutron	М	М	М
VISITOR,01183	TLD-83	7/1/2017	9/30/2017	Neutron	М	М	М
VISITOR,01400	TLD-2	10/1/2017	12/31/2017	Neutron	М	М	М
VISITOR,01401	TLD-3	10/1/2017	12/31/2017	Neutron	М	М	М
VISITOR,01402	TLD-50	10/1/2017	12/31/2017	Neutron	М	М	М
VISITOR,01403	TLD-65	10/1/2017	12/31/2017	Neutron	М	М	М
VISITOR,01404	TLD-68	10/1/2017	12/31/2017	Neutron	М	М	М
VISITOR,01405	TLD-81	10/1/2017	12/31/2017	Neutron	М	М	М
VISITOR,01406	TLD-83	10/1/2017	12/31/2017	Neutron	М	М	М

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

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