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May 1, 2017

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RBG-47753
RBF1-17-050

Subject: Annual Radioactive Effluent Release Report
River Bend Station – Unit 1
License No. NPF-47
Docket No. 50-458

Dear Sir or Madam,

Enclosed is the River Bend Station (RBS) Annual Radioactive Effluent Release Report for 2016 for the period January 1, 2016 through December 31, 2016. This report is submitted in accordance with the RBS Technical Specifications, Section 5.6.2.

Should you have any questions regarding the enclosed, please contact Tim Schenk at (225) 381-4177.

Sincerely,

Tim Schenk
Manager-Regulatory Assurance

Enclosure

TE48
NRR

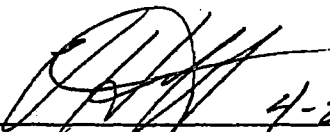
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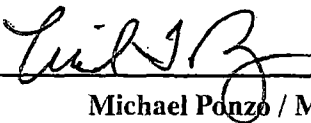
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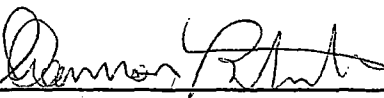
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RIVER BEND STATION
2016 ANNUAL RADIOLOGICAL EFFLUENT RELEASE
REPORT

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This is the Annual Radioactive Effluent Release Report for the period of January 1, 2016, through December 31, 2016. This report is submitted in accordance with Technical Specification 5.6.3 of Appendix A to River Bend Station (RBS) License Number NPF-47.

I. SUPPLEMENTAL INFORMATION

A. Regulatory Limits

1. 10CFR50, Appendix I Limits

a) Fission and Activation Gases

In accordance with Technical Requirement (TR) 3.11.2.2, the air dose due to noble gases released in gaseous effluent to areas at and beyond the SITE BOUNDARY shall be limited to:

$$\begin{aligned}
 D_{\text{Gamma-Air}} &= \text{gamma air dose from radioactive noble gases in millirad (mrad)} \\
 &= 3.17\text{E-}8 \sum_{i=1}^n \overline{M_i(X/Q)} Q_i \leq 5 \text{ mrad/qtr} \\
 &\leq 10 \text{ mrad/yr}
 \end{aligned}$$

$$\begin{aligned}
 D_{\text{Beta-Air}} &= \text{beta air dose from radioactive noble gases in millirad (mrad)} \\
 &= 3.17\text{E-}8 \sum_{i=1}^n \overline{N_i(X/Q)} Q_i \leq 10 \text{ mrad/qtr} \\
 &\leq 20 \text{ mrad/yr}
 \end{aligned}$$

b) Radioiodines (I-131 & I-133) and Particulate

In accordance with Technical Requirement 3.11.2.3, the dose to a MEMBER OF THE PUBLIC from radioiodines (I-131 and I-133), tritium (H-3) and all radionuclides in particulate form with half-lives greater than 8 days, in gaseous effluent releases to areas at and beyond the SITE BOUNDARY shall be limited to:

$D_{I\&8DP\tau}$ = Dose in mrem to the organ (τ) for the age group of interest from radioiodine (I-131, I-133, tritium, and 8 day particulate via the pathway of interest.)

$$\begin{aligned}
 &= 3.17\text{E-}08 (F_o) \sum_{i=1}^n P_{i\tau} (X/Q) Q_i \text{ and}
 \end{aligned}$$

$$= 3.17E-08 (F_o) \sum_{i=1}^n R_{ir} (D/Q) Q_i \quad \text{and}$$

$$D_{\tau} = \sum_{z=1}^n D_{I\&8DP\tau} \leq 7.5 \text{ mrem/qtr} \\ \leq 15 \text{ mrem/yr}$$

(above terms defined in the RBS ODCM)

c) Liquid Effluent

In accordance with Technical Requirement 3.11.1.2, the dose or dose commitment to a MEMBER OF THE PUBLIC from radioactive materials in liquid effluent released to UNRESTRICTED AREAS shall be limited to:

$$D_{ir} = \frac{A_{ir} \Delta t Q_i}{(DF) D_w}$$

and

$$D_{TOTAL\tau} = \sum_{i=1}^n D_{ir}$$

$D_{TOTAL\tau}$ = Total dose commitment to the organ (τ) due to all releases during the desired time interval in mrem

and

$$D_{TOTAL} \quad \text{Total Body} \leq 1.5 \text{ mrem/qtr} \\ \leq 3 \text{ mrem/yr}$$

$$D_{TOTAL} \quad \text{Any Organ} \leq 5 \text{ mrem/qtr} \\ \leq 10 \text{ mrem/yr}$$

(above terms defined in RBS ODCM)

2. 40CFR190 Limits

In accordance with Technical Requirement 3.11.4, the annual (calendar year) dose or dose commitment to any MEMBER OF THE PUBLIC, due to releases of radioactivity

and to radiation from uranium fuel cycle sources, shall be limited to:

≤ 25 mrem to the total body or any organ (except the thyroid)

≤ 75 mrem to the thyroid

3. Miscellaneous Limits

a. Technical Requirement 3.11.2.1 - Fission and Activation Gases

In accordance with Technical Requirement 3.11.2.1, the dose rate due to radioactive materials released in gaseous effluents from the site to areas at and beyond the SITE BOUNDARY shall be less than or equal to 500 millirems/year (mrem/yr) to the total body and less than or equal to 3000 mrem/yr to the skin:

DR_{TB} = Dose rate to the total body in mrem/yr

$$= \sum_{i=1}^n K_i \overline{(X/Q)} Q_i \leq 500 \text{ mrem/yr and}$$

DR_{SKIN} = Dose rate to the skin in mrem/yr

$$= \sum_{i=1}^n L_i + 1.1M_i \overline{(X/Q)} Q_i \leq 3000 \text{ mrem/yr}$$

(above terms defined in RBS ODCM)

b. Technical Requirement 3.11.2.1 - Radioiodine (I-131 & I-133) and Particulate

In accordance with Technical Requirement 3.11.2.1, the dose rate due to radioiodines, tritium, and all radionuclides in particulate form with half-lives greater than 8 days released in gaseous effluents from the site to areas at and beyond the SITE BOUNDARY shall be limited to less than or equal to 1500 mrem/yr to any organ:

$DR_{I\&8DP\tau}$ = Dose rate to the organ τ for the age pathway group of interest from Radioiodines (I-131 & I-133), tritium, and 8 day particulate via the inhalation pathway in mrem/yr.

$$DR_{I\&8DP\tau} = \sum_{i=1}^n P_i \overline{(X/Q)} Q_i \leq 1500 \text{ mrem/yr}$$

(above terms defined in RBS ODCM)

c. Technical Requirement 3.11.1.1 - Liquid Effluent

In accordance with Technical Requirement 3.11.1.1, the concentration of radioactive material released in liquid effluent to UNRESTRICTED AREAS shall be limited to ten times the concentrations specified in 10CFR20, Appendix B, Table 2, Column 2 for radionuclides other than dissolved or entrained noble gases. For dissolved or entrained noble gases, the concentration shall be limited to 2.0E-04 microcuries/milliliter total concentration.

d. Technical Requirement 3.11.2.5 - Ventilation Exhaust Treatment

In accordance with Technical Requirement 3.11.2.5, the VENTILATION EXHAUST TREATMENT SYSTEM shall be used to reduce radioactive materials in gaseous waste prior to their discharge when the projected doses, due to gaseous effluent releases to areas and beyond the SITE BOUNDARY would exceed 0.3 mrem to any organ in a 31-day period.

e. Technical Requirement 3.11.1.3 - Liquid Radwaste Treatment System

In accordance with Technical Requirement 3.11.1.3, the liquid radwaste treatment system shall be used to reduce the radioactive materials in liquid waste prior to their discharge when the projected doses, due to the liquid effluent, to UNRESTRICTED AREAS would exceed 0.06 mrem to the total body or 0.2 mrem to any organ in a 31-day period.

B. Effluent Concentration Limits

1. Gaseous Releases

The concentrations of radioactive gaseous releases are based on the dose rate restrictions in RBS Technical Requirements, rather than the Effluent Concentration Limits (ECL) listed in 10CFR20 Appendix B, Table 2, Column 1.

2. Liquid Releases

The Effluent Concentration Limits of radioactive materials in liquid effluents are limited to ten times 10CFR20, Appendix B, Table 2, Column 2.

C. Measurements and Approximations of Total Radioactivity

1. Gaseous Effluent

a. Fission and Activation Gases

Periodic grab samples are obtained from the Main Plant Exhaust Duct, Fuel Building Exhaust Vent and Radwaste Building Exhaust Vent. These samples are analyzed using high purity germanium detectors coupled to computerized pulse height analyzers. The sampling and analysis frequencies are described in Table 1F.

Sampling and analysis of these effluent streams provide noble gas radionuclide relative abundance that can then be applied to the noble gas gross activity and gross activity release rate to obtain nuclide specific activities and release rates. The noble gas gross activity released within a specific time period is determined by integrating the stack monitor release rate over the considered time period. If no activity was detected between the stack grab sample and a significant increase in hourly averages was recorded, the nuclide relative abundance of the last sample (or the last similar event), which indicated the presence of activity, was used to obtain nuclide specific activities. Correction factors for the monitors are derived and applied for each sampling period whenever noble gas radionuclides are detected in the effluent stream.

b. Particulate and Radioiodine (I-131 & I-133)

Particulates, Iodine-131 and Iodine-133 are continuously sampled from the three release points using a particulate filter and charcoal cartridge in line with a sample pump (stack monitor pump). These filters and charcoal cartridges are removed and analyzed in accordance with the frequencies specified in Table 1F. Analysis is performed to identify and quantify radionuclides using high purity germanium detectors coupled to computerized pulse height analyzers. Given the nuclide specific activity concentrations, process flow rate, and duration of the sample, the

nuclide specific activity released to the environment can be obtained. Due to the continuous sampling process, it is assumed that the radioactive material is released to the environment at a constant rate within the sampling period. Strontium-89 and Strontium-90 (Sr-89 and Sr-90) are quantitatively analyzed by counting by gas flow proportional counting. Gross alpha analysis is performed using a zinc sulfide scintillation counter.

c. Tritium

Tritium grab samples are obtained from the three gaseous release points at the specified frequencies listed in Table 1F using an ice bath condensation collection method. The collected sample is then analyzed using a liquid scintillation counter. Given the tritium concentration, process flow rate, and time period for which the sample is obtained, the tritium activity released to the environment can be determined. Due to the frequency of sampling, it is assumed that the tritium is released to the environment at a constant rate within the time period for which the sample is obtained.

d. Carbon-14 (C-14)

C-14 release details are discussed in Section V.

e. Nickel-63

No Nickel-63 was quantified in 2016.

2. Liquid Effluent

Representative grab samples are obtained from the appropriate sample recovery tank and analyzed prior to release of the tank in accordance with the frequencies listed in Table 2E. Analysis for gamma emitting nuclides (including dissolved and entrained noble gases) is performed using a high purity germanium detector coupled to a computerized pulse height analyzer. Tritium concentration is determined using a liquid scintillation counter. Strontium-89 and Strontium-90 are quantitatively analyzed by scintillation techniques (Cherenkov counting). Iron-55 is counted with a liquid scintillation counter after digestion of the iron. Gross alpha analysis is performed using a zinc sulfide scintillation counter. The activity of each nuclide released to the environment is determined from the nuclide specific concentration and total tank volume released.

D. Batch Releases

1. Liquid Effluents

Batch releases and receiving stream flow from River Bend Station during the reporting period of January 1, 2016, through December 31, 2016 are shown in Table 2D.

The Mississippi River stream flow is obtained by averaging data from the U. S. Army Corp of Engineers website using flow gauge data at Tarbert Landing.

2. Gaseous Effluents

There were no routine batch releases of gaseous effluents from River Bend Station during the reporting period of January 1, 2016, through December 31, 2016.

E. Abnormal Releases

There were no abnormal releases in 2016.

F. Estimate of Total Error

1. Liquid

The maximum error associated with sample collection, laboratory analysis, and discharge volume is collectively estimated to be:

Fission and Activation Products	$\pm 14.2\%$
Tritium	$\pm 14.2\%$
Dissolved and Entrained Noble Gases	$\pm 14.2\%$
Gross Alpha Radioactivity	$\pm 14.2\%$

2. Gaseous

The maximum error (not including sample line loss) associated with sample

flow, process flow, sample collection, monitor accuracy and laboratory analysis are collectively estimated to be:

Noble Gases	± 37.0%
Iodines	± 18.6%
Particulate	± 18.6%
Tritium	± 18.2%

3. Determination of Total Error

The total error (i.e., collective error due to sample collection, laboratory analysis, sample flow, process flow, monitor accuracy, etc.) is calculated using the following equation:

$$E_T = \sqrt{((E_1)^2 + (E_2)^2 + \dots (E_n)^2)}$$

where:

E_T = total error

$E_1, E_2 \dots E_n$ = individual errors due to sample collection, laboratory analysis, sample flow, process flow, monitor accuracy, etc.

II. GASEOUS EFFLUENT SUMMARY INFORMATION

Refer to the Table 1 series for the summation of gaseous releases. It should be noted that an entry of "0.00E+00" Curie (Ci) or microcurie/second (uCi/sec) in this section indicates that the concentration of the particular radionuclide was below the Lower Limit of Detection (LLD) as listed in Table 1F. Also, any nuclide not appearing in the tables was < LLD for all four quarters.

III. LIQUID EFFLUENT SUMMARY INFORMATION

Refer to the Table 2 series for the summation of liquid releases. It should be noted that an entry of "0.00E+00" Ci or uCi/ml in this section indicates that the concentration of the particular radionuclide was below the Lower Limit of Detection (LLD) as listed in Table 2E. Also, any nuclide not appearing in the tables was < LLD for all four quarters.

IV. SOLID WASTE

Refer to Table 3, for Solid Waste and Irradiated Fuel Shipments.

V. RADIOLOGICAL IMPACT ON MAN (40CFR190)

An assessment (see summary below) was made of radiation doses to the likely most-exposed member of the public from River Bend and other nearby uranium fuel cycle sources (none within five miles). The annual (calendar year) dose or dose commitment to any MEMBER OF THE PUBLIC, due to releases of radioactivity and to radiation from uranium fuel cycle sources, shall be limited to less than or equal to 25 mrem to the total body or any organ, except the thyroid, which shall be limited to less than or equal to 75 mrem.

Carbon-14 (C-14)

The bounding annual dose from C-14 was calculated using guidance from Regulatory Guide 1.21, Revision 2, NUREG-0016, and the methodology in Regulatory Guide 1.109. The C-14 source term of 11 curies was taken from the site calculation PR(C)-359-3A, Gaseous Releases per NUREG-0016 Revision 1. Carbon-14 does not have dose factors associated with standing on contaminated ground; therefore, no ground plane dose was calculated. There is no milk pathway within five miles of River Bend Station so this pathway is not evaluated. RBS does not take credit for decay in the X/Q. This calculation assumes the inhalation, meat and vegetation pathways are at the site boundary in the sector with the highest X/Q. The dose from liquid effluents is not calculated as the dose contribution from C-14 is considered to be insignificant as indicated in Regulatory Guide 1.21, Revision 2. According to EPRI 1021106, Estimation of Carbon-14 in Nuclear Power Plant Gaseous Effluents, 95% of the carbon released is in the form of carbon dioxide and this contributes the highest dose to man. The ingestion pathway, specifically vegetation, is the most likely route of intake for man. An assumption has been made for gaseous releases that plants obtain all of their C-14 from carbon dioxide.

Dose not including C-14:

Organ	mrem
Total Body	2.65E-01
Thyroid	5.31E-01
Other Organ	2.66E-01
Skin	4.55E-01

Bounding Dose from C-14 only:

Organ	mrem
Total Body	9.39E-01
Skin	0.00E+00
Thyroid	9.39E-01
Other Organ (bone)	4.70E+00

In addition, an assessment of doses was made for members of the public due to their activities inside the site boundary which can be found in Table 4. The maximally exposed member of the public was a member of the hunting club and is conservatively estimated to have been on site for approximately 10.7 days. It should be noted that liquid effluent pathway dose was not considered since this individual would not engage in activities that would allow exposure to this pathway.

VI. METEOROLOGICAL DATA

See Tables 5 and 6 for the cumulative joint frequency distributions and annual average data for continuous releases. The meteorological recovery for 2016 was 92.2%.

VII. RADIOACTIVE LIQUID EFFLUENT MONITORING INSTRUMENTATION OPERABILITY

The minimum number of channels required to be OPERABLE as described in Table 3.3.11.2-1 of Technical Requirement 3.3.11.2 were, if inoperable at any time in the period January 1, 2016, through December 31, 2016, restored to operable status within the required time.

VIII. RADIOACTIVE GASEOUS EFFLUENT MONITORING INSTRUMENTATION OPERABILITY

The minimum number of channels required to be OPERABLE as described in Table 3.3.11.3-1 of Technical Requirement 3.3.11.3 were, if inoperable at any time in the period January 1, 2016, through December 31, 2016, restored to operable status within the required time.

IX. LIQUID HOLD UP TANKS

The maximum quantity of radioactive material, excluding tritium and dissolved or entrained noble gases, contained in any unprotected outdoor tank during the period of January 1, 2016, through December 31, 2016 was less than or equal to the 10 curie limit as required by Technical Specification 5.5.8.b.

X. RADIOLOGICAL ENVIRONMENTAL MONITORING

There were no changes to the Radiological Environmental Monitoring Program during the reporting period January 1, 2016, through December 31, 2016.

XI. LAND USE CENSUS

The Land Use Census for 2016 was conducted in accordance with procedure ESP-8-051, as required by the Technical Requirements Manual (TRM) (TR 3.12.2). The results of the Land Use Census will be included in the Annual Radiological Environmental Operating Report pursuant to Technical Specification 5.6.2.

A garden census is not conducted pursuant to the note in the TRM 3.12.2 that allows the sampling of broadleaf vegetation in the highest calculated average ground-level D/Q sector near site boundary in lieu of the garden census.

The milk animal census identified no milk animals within 8 km (5 miles) of River Bend site. This information was verified by the County Agents from West Feliciana, East Feliciana and Pointe Coupee parishes.

No resident census changes were noted.

No locations were identified this period that would yield a calculated dose or dose commitment greater than those currently calculated in Requirement TSR 3.11.2.3.1.

The County Agents confirmed that there was no commercial harvesting of crawfish within the five-mile radius downstream of RBS. RBS conservatively uses the invertebrate pathway although not required by NUREG-0133 liquid dose factor methodology for fresh water nuclear power plants.

XII. OFFSITE DOSE CALCULATION MANUAL (ODCM)

There were no changes to the ODCM in 2016.

XIII. MAJOR CHANGES TO RADIOACTIVE LIQUID, GASEOUS, AND SOLID WASTE TREATMENT SYSTEMS

Engineering has performed a review of the Asset Suite database to evaluate non-administrative design changes completed or partially completed during 2016 involving the subject systems (i.e. changes classified as evaluations or nuclear changes). These design changes were then reviewed to determine if there have been any major changes to the subject systems. The review was based on a major change being defined as a

modification which affected the method of processing or the effluent from the system. Also, to be a "major change" the change must have affected the Updated Safety Analysis Report (USAR).

The Engineering Changes (EC's) to liquid, solid or gaseous radwaste systems implemented during this time period were:

Parent EC 16264 – Obsolete Item Replacement for Offgas Catalytic Recombiner Temperature Controller

Child EC 37069 – Offgas Catalytic Recombiner A Temperature Controller Replacement

Child EC 37070 – Offgas Catalytic Recombiner B Temperature Controller Replacement

These EC's provided a new model of temperature controller to replace the obsolete original model temperature controller for the Offgas Catalytic Recombiners. The replacement does not change the required operating temperature of the offgas recombiners and functions to control the recombiner heating elements in the same manner as the original controllers. No impact to Offgas effluent composition due to this change.

EC 58795 Add Drain Connections to Lines OFG-006-074-4 and OFG-006-078-4

This EC adds ¾" drain connections to the Offgas Dessicant Dryer, N64-DRYD030A and C 6" outlet piping to allow for draining and inspection. These drain connections are not equipped with an isolation valve and must be capped when the dryers are in service. These connections do not change the operational characteristics of the dryers and do not have a permanent interface with any other systems or components. No impact to Offgas effluent composition resulting from this change.

No EC was identified as being completed during this time period that modified any radioactive waste system major component such that the processing method or effluent was changed. Also no changes were identified affecting the method of processing solid, liquid or gaseous waste or the isotopic composition or the quantity of liquid, solid, or gaseous waste as described in the USAR.

In conclusion, no design changes were completed during the specified time period that constituted a major change to either the liquid, solid or gaseous radwaste treatment systems.

XIV. PROCESS CONTROL PROGRAM (PCP)

There were no changes to the Process Control Program (PCP) in 2016.

XV. INDUSTRY GROUND WATER PROTECTION INITIATIVE (GPI) – FINAL GUIDANCE DOCUMENT (NEI 07-07) OBJECTIVE ANNUAL REPORTING

Ground water samples were taken in support of the GPI. These samples are not part of the Radiological Environmental Monitoring Program. The sample results for 2016 are located in Table 7.

River Bend Station made no NEI 07-07 voluntary notifications in 2016.

TABLE 1A

GASEOUS EFFLUENTS - SUMMATION OF ALL RELEASES

REPORT FOR 2016	Units	QTR 1	QTR 2	QTR 3	QTR 4	YEAR
Fission and Activation Gases						
1. Total Release	Ci	1.96E+02	1.76E+02	2.11E+01	2.53E+01	4.18E+02
2. Avg. Release Rate	uCi/sec	2.49E+01	2.24E+01	2.66E+00	3.18E+00	1.32E+01
3. % Applicable Limit % (1)		1.92E+00	2.18E+00	5.90E-01	6.25E-01	2.66E+00
Iodine-131						
1. Total Release	Ci	8.99E-04	2.08E-03	1.38E-03	2.46E-03	6.83E-03
2. Avg. Release Rate	uCi/sec	1.14E-04	2.65E-04	1.74E-04	3.10E-04	2.16E-04
3. % Applicable Limit % (2)		3.92E-01	9.22E-01	6.23E-01	1.06E+00	1.50E+00
Particulates Half Life >= 8 days						
1. Total Release	Ci	6.66E-05	2.01E-04	2.64E-04	4.36E-04	9.68E-04
2. Avg. Release Rate	uCi/sec	8.47E-06	2.56E-05	3.32E-05	5.49E-05	3.06E-05
3. % Applicable Limit % (2)		3.59E-02	9.84E-02	1.52E-01	2.75E-01	2.81E-01
Tritium						
1. Total Release	Ci	2.45E+00	4.84E+00	7.06E+00	3.54E+00	1.79E+01
2. Avg. Release Rate	uCi/sec	3.11E-01	6.16E-01	8.88E-01	4.45E-01	5.66E-01
3. % Applicable Limit % (2)		3.38E-02	4.54E-02	4.75E-02	3.82E-02	8.27E-02

- 1) Either the gamma air dose limit of 5 mrad/qtr or beta air dose limit of 10 mrad/qtr (T.R. 3.11.2.2.a), whichever is most limiting.
- 2) The % of applicable limit is determined by comparing the dose contribution to the critical organ limits of TRM 3.11.2.3.

TABLE 1B
GASEOUS EFFLUENTS - GROUND RELEASES - CONTINUOUS MODE

REPORT FOR 2016	Units	QTR 1	QTR 2	QTR 3	QTR 4	YEAR
Fission and Activation Gases						
KR-88	Ci	0.00E+00	0.00E+00	0.00E+00	3.33E-01	3.33E-01
XE-131M	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
XE-133	Ci	1.19E+01	5.05E+00	2.12E+00	0.00E+00	1.90E+01
XE-133M	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
XE-135	Ci	3.07E+00	8.80E+00	3.40E+00	1.72E+00	1.70E+01
XE-135M	Ci	1.34E+00	5.34E-01	3.90E+00	3.00E+00	8.78E+00
Totals for Period...	Ci	1.63E+01	1.44E+01	9.41E+00	5.06E+00	4.51E+01
Iodines						
I-131	Ci	9.38E-06	3.62E-05	3.39E-05	1.76E-05	9.71E-05
I-133	Ci	3.23E-07	1.88E-05	6.25E-05	5.73E-06	8.73E-05
Totals for Period...	Ci	9.70E-06	5.50E-05	9.64E-05	2.33E-05	1.84E-04
Particulates Half Life >= 8 days						
CE-141	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CO-57	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CO-58	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CO-60	Ci	1.06E-06	0.00E+00	1.30E-06	0.00E+00	2.36E-06
CR-51	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CS-137	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
FE-59	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MN-54	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
NB-95	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
NI-63	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
RU-103	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
RU-106	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SB-125	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SR-89	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
ZN-65	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Totals for Period...	Ci	1.06E-06	0.00E+00	1.30E-06	0.00E+00	2.36E-06
Tritium						
H-3	Ci	3.40E-01	3.25E-01	1.69E-01	3.21E-01	1.15E+00
Totals for Period...	Ci	3.40E-01	3.25E-01	1.69E-01	3.21E-01	1.15E+00

TABLE 1C
GASEOUS EFFLUENTS - GROUND RELEASES - BATCH MODE

REPORT FOR 2016	Units	QTR 1	QTR 2	QTR 3	QTR 4	YEAR
Fission and Activation Gases						
XE-133	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
XE-135	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
XE-135M	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Totals for Period...	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Iodines						
I-131	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
I-133	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Totals for Period...	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Particulates Half Life >= 8 days						
BA-140	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CO-60	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MN-54	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SR-89	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SR-90	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
ZN-65	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Totals for Period...	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Tritium						
H-3	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Totals for Period...	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

TABLE 1D

GASEOUS EFFLUENTS - MIXED MODE RELEASES - CONTINUOUS MODE

REPORT FOR 2016	Units	QTR 1	QTR 2	QTR 3	QTR 4	YEAR
Fission and Activation Gases						
AR-41	Ci	1.22E+01	0.00E+00	0.00E+00	0.00E+00	1.22E+01
KR-85	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
KR-85M	Ci	9.30E+00	4.45E+00	2.68E-03	0.00E+00	1.38E+01
KR-87	Ci	1.04E+01	1.17E+01	1.24E-02	0.00E+00	2.22E+01
KR-88	Ci	2.12E+01	1.11E+01	9.96E-03	0.00E+00	3.22E+01
XE-131M	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
XE-133	Ci	6.30E+01	2.35E+01	6.14E-01	0.00E+00	8.71E+01
XE-133M	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
XE-135	Ci	4.66E+01	4.18E+01	1.08E+01	1.38E+01	1.13E+02
XE-135M	Ci	7.51E+00	1.68E+01	8.36E-03	3.96E+00	2.83E+01
XE-137	Ci	0.00E+00	1.26E+01	1.34E-01	0.00E+00	1.27E+01
XE-138	Ci	9.01E+00	4.00E+01	1.02E-01	2.53E+00	5.17E+01
Totals for Period...	Ci	1.79E+02	1.62E+02	1.17E+01	2.03E+01	3.73E+02
Iodines						
I-131	Ci	8.90E-04	2.05E-03	1.35E-03	2.45E-03	6.73E-03
I-133	Ci	2.88E-03	8.20E-03	1.25E-02	2.38E-02	4.73E-02
Totals for Period...	Ci	3.77E-03	1.02E-02	1.39E-02	2.62E-02	5.41E-02
Particulates Half Life >= 8 days						
AG-110M	Ci	0.00E+00	8.94E-07	0.00E+00	0.00E+00	8.94E-07
BA-140	Ci	6.84E-06	7.77E-05	1.71E-04	2.54E-04	5.10E-04
CE-139	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CE-141	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CO-58	Ci	4.45E-06	4.27E-06	0.00E+00	0.00E+00	8.73E-06
CO-60	Ci	1.27E-05	1.45E-05	1.48E-05	2.73E-06	4.48E-05
CR-51	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CS-134	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CS-137	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
FE-59	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MN-54	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
RU-103	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SR-89	Ci	4.15E-05	1.04E-04	7.62E-05	1.80E-04	4.02E-04
SR-90	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
ZN-65	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Totals for Period...	Ci	6.55E-05	2.01E-04	2.62E-04	4.36E-04	9.66E-04
Tritium						
H-3	Ci	2.11E+00	4.52E+00	6.89E+00	3.22E+00	1.67E+01
Carbon-14						
C-14	Ci	2.73E+00	2.73E+00	2.77E+00	2.77E+00	1.10E+01

TABLE 1E

SUPPLEMENTAL INFORMATION

GASEOUS EFFLUENTS - BATCH MODE

REPORT FOR 2016	Units	QTR 1	QTR 2	QTR 3	QTR 4	YEAR
Number of releases		0	0	0	0	0
Total release time	minutes	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Maximum release time	minutes	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Average release time	minutes	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Minimum release time	minutes	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

TABLE 1F
RADIOACTIVE GASEOUS WASTE SAMPLING AND ANALYSIS PROGRAM

Gaseous Release Type	Sampling Frequency	Minimum Analysis Frequency	Type of Activity Analysis	Lower Limit of Detection (LLD) uCi/ml
A. Main Plant Exhaust Duct	M Grab Sample	M	Principal Gamma Emitters	1.00E-04
			H-3	1.00E-06
B. Fuel Building Ventilation Exhaust Duct	M Grab Sample	M	Principal Gamma Emitters	1.00E-04
			H-3	1.00E-06
C. Radwaste Building Ventilation Exhaust Duct	M Grab Sample	M	Principal Gamma Emitters	1.00E-04
D. All Release Types as listed in A, B, & C above	Continuous	W Charcoal Sample	I-131	1.00E-12
			I-133	1.00E-10
	Continuous	W Particulate Sample	Principal Gamma Emitters (I-131, Others)	1.00E-11
			Gross Alpha	1.00E-11
	Continuous	Q Composite Particulate Sample	Sr-89, Sr-90	1.00E-11
			Noble Gas Monitor	1.00E-06
			Gross Beta or Gamma	

W = At least once per 7 days

M = At least once per 31 days

Q = At least once per 92 days

TABLE 1G

2016 GASEOUS ANNUAL DOSE SUMMARY REPORT

=== I&P DOSE LIMIT ANALYSIS =====

Period-Limit	Age Group	Organ	Dose (mrem)	Limit (mrem)	Max % of Limit
Q1 - T.Spec Any Organ	CHILD	THYROID	3.46E-02	7.50E+00	4.61E-01
Q2 - T.Spec Any Organ	CHILD	THYROID	7.99E-02	7.50E+00	1.07E+00
Q3 - T.Spec Any Organ	CHILD	THYROID	6.17E-02	7.50E+00	8.23E-01
Q4 - T.Spec Any Organ	CHILD	THYROID	1.03E-01	7.50E+00	1.38E+00
Yr - T.Spec Any Organ	CHILD	THYROID	2.80E-01	1.50E+01	1.86E+00

Carbon-14 (Bounding calculation)=====

Period-Limit	Age Group	Organ	Dose (mrem)	Limit (mrem)	Max % of Limit
Q1 - T.Spec Any Organ	CHILD	BONE	1.17E+00	7.50E+00	1.56E+01
Q2 - T.Spec Any Organ	CHILD	BONE	1.17E+00	7.50E+00	1.56E+01
Q3 - T.Spec Any Organ	CHILD	BONE	1.18E+00	7.50E+00	1.58E+01
Q4 - T.Spec Any Organ	CHILD	BONE	1.18E+00	7.50E+00	1.58E+01
Yr - T.Spec Any Organ	CHILD	BONE	4.70E+00	1.50E+01	3.13E+01

=== NG DOSE LIMIT ANALYSIS =====

Period-Limit	Dose (mrad)	Limit (mrad)	% of Limit
Q1 - T.Spec Gamma	9.62E-02	5.00E+00	1.92E+00
Q1 - T.Spec Beta	7.60E-02	1.00E+01	7.60E-01
Q2 - T.Spec Gamma	1.09E-01	5.00E+00	2.18E+00
Q2 - T.Spec Beta	1.05E-01	1.00E+01	1.05E+00
Q3 - T.Spec Gamma	2.95E-02	5.00E+00	5.90E-01
Q3 - T.Spec Beta	2.11E-02	1.00E+01	2.11E-01
Q4 - T.Spec Gamma	3.12E-02	5.00E+00	6.25E-01
Q4 - T.Spec Beta	1.50E-02	1.00E+01	1.50E-01
Yr - T.Spec Gamma	2.66E-01	1.00E+01	2.66E+00
Yr - T.Spec Beta	2.17E-01	2.00E+01	1.08E+00

TABLE 2A

LIQUID EFFLUENTS - SUMMATION OF ALL RELEASES

REPORT FOR 2016	Units	QTR 1	QTR 2	QTR 3	QTR 4	YEAR
Fission and Activation Gases						
1. Total Release	Ci	7.44E-04	1.28E-03	3.45E-03	7.80E-04	6.25E-03
2. Avg. Diluted Conc.	uCi/ml	7.63E-10	1.08E-09	2.41E-09	5.86E-10	1.27E-09
3. % Applicable Limit %		9.65E-04	1.28E-03	1.09E-02	1.12E-03	5.98E-03
Tritium						
1. Total Release	Ci	1.67E+01	2.19E+01	2.39E+01	1.62E+01	7.87E+01
2. Avg. Diluted Conc.	uCi/ml	1.72E-05	1.85E-05	1.67E-05	1.22E-05	1.60E-05
3. % Applicable Limit %		4.19E-04	5.72E-04	9.28E-04	3.65E-04	1.12E-04
Dissolved and Entrained Gases						
1. Total Release	Ci	7.85E-03	7.15E-03	5.00E-02	3.12E-02	9.62E-02
2. Avg. Diluted Conc.	uCi/ml	8.05E-09	6.04E-09	3.49E-08	2.35E-08	1.96E-08
3. % Applicable Limit %		4.04E-03	3.03E-03	1.75E-02	1.17E-02	9.80E-03
Gross Alpha Radioactivity						
1. Total Release	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Volume of liquid waste	liters	1.98E+06	2.59E+06	4.61E+06	2.47E+06	1.17E+07
Volume of dil. water	liters	9.73E+08	1.18E+09	1.43E+09	1.33E+09	4.91E+09

(1) The most limiting dose compared to the total body and critical organ limits of TRM 3.11.1.2.a.

(2) Technical Requirement 3.11.1.1 limit of 2.00E-04 uCi/ml for dissolved and entrained noble gases in liquid effluent.

TABLE 2B

LIQUID EFFLUENTS - CONTINUOUS MODE

REPORT FOR 2016	Units	QTR 1	QTR 2	QTR 3	QTR 4	YEAR

Fission and Activation Gases						
** No Nuclide Activities **	
Tritium						
** No Nuclide Activities **	
Dissolved and Entrained Gases						
** No Nuclide Activities **	
Gross Alpha Radioactivity						
** No Nuclide Activities **	

TABLE 2C

LIQUID EFFLUENTS - BATCH MODE

REPORT FOR 2016	Units	QTR 1	QTR 2	QTR 3	QTR 4	YEAR
Fission and Activation Gases						
AG-110M	Ci	0.00E+00	0.00E+00	1.38E-05	0.00E+00	1.38E-05
BA-142	Ci	0.00E+00	0.00E+00	1.15E-03	0.00E+00	1.15E-03
CE-141	Ci	0.00E+00	0.00E+00	6.93E-06	0.00E+00	6.93E-06
CE-143	Ci	0.00E+00	0.00E+00	2.90E-06	0.00E+00	2.90E-06
CO-58	Ci	4.01E-06	1.52E-06	8.35E-06	1.25E-06	1.51E-05
CO-60	Ci	5.59E-04	9.09E-04	1.80E-03	6.21E-04	3.89E-03
CR-51	Ci	0.00E+00	0.00E+00	1.51E-05	0.00E+00	1.51E-05
CS-134	Ci	2.58E-06	3.64E-06	4.79E-06	0.00E+00	1.10E-05
CS-136	Ci	0.00E+00	0.00E+00	1.43E-06	0.00E+00	1.43E-06
CS-137	Ci	3.48E-06	8.87E-06	1.18E-05	2.46E-06	2.66E-05
CS-138	Ci	0.00E+00	0.00E+00	0.00E+00	5.11E-05	5.11E-05
FE-59	Ci	0.00E+00	0.00E+00	2.83E-06	0.00E+00	2.83E-06
HF-181	Ci	0.00E+00	0.00E+00	1.54E-06	0.00E+00	1.54E-06
I-131	Ci	4.51E-06	1.05E-05	4.93E-06	3.67E-06	2.36E-05
I-133	Ci	0.00E+00	0.00E+00	0.00E+00	2.62E-06	2.62E-06
I-134	Ci	2.19E-06	0.00E+00	0.00E+00	0.00E+00	2.19E-06
K-40	Ci	0.00E+00	0.00E+00	1.59E-05	0.00E+00	1.59E-05
LA-140	Ci	0.00E+00	4.81E-05	2.47E-05	5.01E-06	7.78E-05
LA-142	Ci	0.00E+00	0.00E+00	0.00E+00	3.60E-06	3.60E-06
MN-54	Ci	4.13E-05	4.60E-05	3.28E-04	5.11E-05	4.66E-04
MO-99	Ci	0.00E+00	0.00E+00	1.40E-05	0.00E+00	1.40E-05
NB-97	Ci	0.00E+00	0.00E+00	4.48E-06	0.00E+00	4.48E-06
RH-105	Ci	0.00E+00	0.00E+00	8.78E-06	0.00E+00	8.78E-06
RU-105	Ci	0.00E+00	0.00E+00	7.33E-06	0.00E+00	7.33E-06
SB-124	Ci	1.16E-05	1.71E-05	0.00E+00	0.00E+00	2.87E-05
SB-125	Ci	1.12E-04	2.27E-04	0.00E+00	0.00E+00	3.39E-04
SR-91	Ci	0.00E+00	0.00E+00	4.02E-06	0.00E+00	4.02E-06
TC-99M	Ci	0.00E+00	0.00E+00	0.00E+00	8.02E-06	8.02E-06
TE-132	Ci	0.00E+00	0.00E+00	2.50E-06	0.00E+00	2.50E-06
ZN-65	Ci	3.42E-06	4.32E-06	1.97E-05	3.03E-05	5.77E-05
Totals for Period...	Ci	7.44E-04	1.28E-03	3.45E-03	7.80E-04	6.25E-03
Tritium						
H-3	Ci	1.67E+01	2.19E+01	2.39E+01	1.62E+01	7.87E+01
Totals for Period...	Ci	1.67E+01	2.19E+01	2.39E+01	1.62E+01	7.87E+01
Dissolved and Entrained Gases						
KR-88	Ci	0.00E+00	0.00E+00	1.43E-05	0.00E+00	1.43E-05
XE-133	Ci	5.85E-03	4.40E-03	2.84E-02	1.77E-02	5.63E-02
XE-133M	Ci	1.83E-04	3.83E-05	9.46E-04	4.85E-04	1.65E-03
XE-135	Ci	1.82E-03	2.71E-03	2.06E-02	1.31E-02	3.82E-02
Totals for Period...	Ci	7.85E-03	7.15E-03	5.00E-02	3.12E-02	9.62E-02

TABLE 2D
EFFLUENT AND WASTE DISPOSAL REPORT
SUPPLEMENTAL INFORMATION
LIQUID EFFLUENTS - BATCH MODE

REPORT FOR 2016	Units	QTR 1	QTR 2	QTR 3	QTR 4	YEAR
Number of releases		36	45	79	42	202
Total release time	minutes	1.08E+04	1.35E+04	2.43E+04	1.29E+04	6.15E+04
Maximum release time	minutes	4.00E+02	3.55E+02	5.09E+02	4.75E+02	5.09E+02
Average release time	minutes	3.00E+02	3.01E+02	3.07E+02	3.07E+02	3.04E+02
Minimum release time	minutes	2.08E+02	2.25E+02	1.88E+02	2.44E+02	1.88E+02
Average Mississippi River stream flow during periods of release of effluent into a flowing stream.	ft ³ /sec	<u>QTR 1</u> 978,978	<u>QTR 2</u> 690,769	<u>QTR 3</u> 421,554	<u>QTR 4</u> 304,593	

TABLE 2E
RADIOACTIVE LIQUID WASTE SAMPLING AND ANALYSIS PROGRAM

Liquid Release Type	Sampling Frequency	Minimum Analysis Frequency	Type of Activity Analysis	Lower Limit of Detection (LLD) uCi/ml
A. Batch Waste Release (Liquid Radwaste Recovery Sample Tanks)	P Each Batch	P Each Batch	Principal Gamma Emitters: except for Ce-144	5.00E-07
			I-131	1.00E-06
			Dissolved and Entrained Gases (Gamma Emitters)	1.00E-05
	P Each Batch	M Composite	H-3	1.00E-05
			Gross Alpha	1.00E-07
	P Each Batch	Q Composite	Sr-89, Sr-90	5.00E-08
			Fe-55	1.00E-06

P = Prior to each radioactive release

M = At least once per 31 days

Q = At least once per 92 days

TABLE 2F
LIQUID ANNUAL DOSE SUMMARY REPORT

Report for: 2016

Release ID: 10 All Liquid Release Points

Liquid Receptor

=== SITE DOSE LIMIT ANALYSIS =====						
Period - Limit	Age Group	Organ	Dose (mrem)	Limit (mrem)	Max % of Limit	
Qtr 1 - T.Spec Any Organ	ADULT	GILLI	5.46E-05	5.00E+00	1.09E-03	
Qtr 1 - T.Spec Total Body	ADULT	TBODY	1.40E-05	1.50E+00	9.37E-04	
Qtr 2 - T.Spec Any Organ	ADULT	GILLI	7.25E-05	5.00E+00	1.45E-03	
Qtr 2 - T.Spec Total Body	ADULT	TBODY	2.14E-05	1.50E+00	1.43E-03	
Qtr 3 - T.Spec Any Organ	ADULT	GILLI	5.58E-04	5.00E+00	1.12E-02	
Qtr 3 - T.Spec Total Body	ADULT	TBODY	6.82E-05	1.50E+00	4.55E-03	
Qtr 4 - T.Spec Any Organ	ADULT	GILLI	6.17E-05	5.00E+00	1.23E-03	
Qtr 4 - T.Spec Total Body	ADULT	TBODY	1.29E-05	1.50E+00	8.62E-04	
2016 - T.Spec Any Organ	ADULT	GILLI	6.32E-04	1.00E+01	6.32E-03	
2016 - T.Spec Total Body	ADULT	TBODY	1.06E-04	3.00E+00	3.54E-03	

TABLE 3
Effluent and Waste Disposal Annual Report 2016 Year
Solid Waste and Irradiated Fuel Shipments
Reporting Period from 01/01/16 to 12/31/16

A. Solid Waste Shipped for Burial or Disposal (Not Irradiated Fuel)

1. <u>Type of Waste</u>	<u>Units</u>	<u>12 Month Period</u>	<u>Waste Class</u>	<u>Estimated Error %</u>
Spent Resins, Filter	m3	5.52E+01	A	± 25%
Sludges, Evaporator	Ci	4.55E+01	A	
Bottoms, Etc.	m3	7.79E+00	B	
	Ci	6.52E+02	B	
	m3	0.00E+00	C	
	Ci	0.00E+00	C	
<hr/>				
Dry Compressible Wastes,	m3	7.04E+02	A	± 25%
Contaminated Equipment	Ci	2.42E+00	A	
Etc.	<hr/>			
Irradiated Components,	m3	1.15E+00	C	
	Control Rods, Etc.	Ci	6.42E+04	
<hr/>				
Other	m3	1.59E+01	A	± 25%
	(Water, EHC, Waste Oil,	Ci	1.24E-02	
etc.)	<hr/>			

Note: Volume considered being the total disposal volume of the container.

Radwaste Estimated Error %:

Waste types considered are processed solid waste (i.e. resin, filter media) and non-compactible/compactible dry active waste.

1. Possible Errors

- a. Volume
- b. Representative Sampling
- c. Instrument/Counting
- d. Dose to Curie Calculations

2. Volume Error

Level indication for processed resins can be determined to +/- 0.5 inches. This correlates to approximately 1.0%. Container manufacturer stated design tolerance allows for 1.0% deviation from container dimensions. Volume error is not applicable to dry active waste.

3. Representative Sampling Error

Sampling error for processed resins is based upon obtaining a representative sample from the waste being processed using an iso-lock sampler. Sampling error from dry active waste is based upon obtaining a representative sample from the material being packaged. This error is estimated to be +/- 10% for all waste types, which is consistent with industry standards.

**Effluent and Waste Disposal Annual Report 2014 Year
Solid Waste and Irradiated Fuel Shipments
Reporting Period from 01/01/16 to 12/31/16
Table 3 (continued)**

4. Instrument/Counting Error

The error caused by sample geometry, counting time, sample activity and instrument background is estimated to be +/- 10%. The error for radiological survey instrumentation is estimated to be +/- 20%. This error is applicable to all waste types.

5. Dose to Curie Calculations Error

The Dose to Curie method used to calculate activity suffers from analytical accuracy in that certain important parameters are neglected. These parameters are geometry of package, measuring instrument characteristics, build-up, internal attenuation effect, and external media attenuation. An activity correction factor is applied to provide adjustment for these factors. This error is applicable to all waste types.

2. Estimates of Major Nuclides by Waste Stream

Resins; Filters, Evaporator Bottoms, Etc. (Min 1%)			Dry Compressible Wastes, Contaminated Equipment, Etc. (Min 1%)			Other Water, EHC, Waste Oil, Etc. (Min 1%)			Irradiated Components (Min 1%)		
Isotope	%Abundance	Curies	Isotope	%Abundance	Curies	Isotope	%Abundance	Curies	Isotope	%Abundance	Curies
MN-54	3.96	2.76E+01	MN-54	4.06	9.90E-02	MN-54	3.85	4.81E-04	Fe-55	27.4	1.76E+04
FE-55	4.04	2.82E+01	FE-55	30.83	7.52E-01	FE-55	30.89	3.87E-03	Co-60	61.73	3.96E+04
CO-60	83.63	5.83E+02	CO-58	1.91	4.66E-02	CO-58	1.31	1.64E-04	Ni-63	10.48	6.73E+03
ZN-65	4.34	3.02E+01	CO-60	57.57	1.46E+00	CO-60	58.6	7.33E-03			
CS-137	1.72	1.20E+01	ZN-65	2.50	6.09E-02	ZR-95	2.31	2.89E-04			
			CS-137	1.01	2.46E-02	CS-137	3.85	1.30E-04			

Determined by Measurement & Correlation.
Packaged in Strong, Tight Liners.

No Solidification Agent or Absorbent Used.

3. Solid Waste Disposition

<u>Number of Shipments</u>	<u>Mode of Transportation</u>	<u>Destination</u>
8	Truck	Energy Solutions, LLC (Clive) - Clive, UT
22	Truck	Energy Solutions (Bear Creek) - Oak Ridge, TN
1	Truck	Erwin ResinSolutions, LLC (Erwin) - Erwin, TN
7	Truck	Waste Control Specialist - Andrews, Tx

B. Irradiated Fuel Shipments Disposition

No Irradiated Fuel Shipment for 2016

<u>Number of Shipments</u>	<u>Mode of Transportation</u>	<u>Destination</u>
N/A	N/A	N/A

TABLE 4
MEMBERS OF THE PUBLIC ON SITE DOSE
ASSUMPTIONS/PARAMETERS

MEMBER OF THE PUBLIC	LOCATION	DISTANCE ⁽¹⁾ METERS	SECTOR	DURATION (HR/YEAR) ⁽²⁾
People Entering Site Without Consent	Alligator Bayou	2500	SW	40
National Guard	Activity Center	994	WNW	0 ⁽³⁾
Workers staying onsite	Activity Center Trailer City	994	WNW	0 ⁽⁴⁾
Deer Hunters	Activity Center	994	WNW	256 ⁽⁵⁾

- (1) The approximate distances from main plant vent exhaust to location.
- (2) Liquid dose pathway is not considered due to the nature of activities that individuals are engaged in.
- (3) National Guard/State Police are being evaluated, if applicable, for dose while stationed on site as members of the public. The adult age group is the only age group considered in this category. No National Guard in 2016.
- (4) Workers have been permitted to stay long term at the Activity Center Trailer City beginning April 10, 2007. Effective August 15, 2014, site management closed the Activity Center Trailer City and all trailers were removed. Trailers are allowed 30 days prior to and must be removed 14 days following refueling outages. There was not a refueling outage in 2016, therefore the duration is 0. The adult age group is the only age group considered for this activity.
- (5) Employees are allowed to deer hunt on company property. Since the hunters are spread out all over the site, those workers are conservatively evaluated at the activity center using occupancy information provided by the Bow Club.

**MEMBERS OF THE PUBLIC ON SITE DOSE
FROM GASEOUS RELEASES 2016**

<u>Location</u>	<u>Critical Organ Dose Annual (mrem)</u>	<u>Total Body Dose Annual (mrem)</u>	<u>Skin Dose Annual (mrem)</u>	<u>Annual Duration Factor</u>
Alligator Bayou	1.31E-04	1.37E-04	2.46E-04	4.57E-03
Deer Hunters	7.54E-04	7.34E-03	1.33E-02	2.92E-02

TABLE 5
2016 YEAR METEOROLOGICAL DATA - JOINT FREQUENCY TABLES

RIVER BEND STATION
 JOINT FREQUENCY TABLE
 ALL STABILITY CLASSES
 FROM 1/01/16 0:00 TO 12/31/16 23:00

PRIMARY SENSORS - 30 FOOT

WIND SPEED (METERS/SECOND)

WIND DIR	.22-.50	.51-.75	.76-1.0	1.1-1.5	1.6-2.0	2.1-3.0	3.1-5.0	5.1-7.0	7.1-10.0	10.1-13.0	13.1-18.0	>18	TOT.
N	130	63	71	151	131	179	70	0	0	0	0	0	795
NNE	88	48	59	138	102	94	23	0	0	0	0	0	552
NE	81	51	62	125	111	60	5	0	0	0	0	0	495
ENE	78	78	63	93	80	51	8	0	0	0	0	0	451
E	70	79	70	82	54	19	0	0	0	0	0	0	374
ESE	50	75	64	104	102	43	3	0	0	0	0	0	441
SE	37	57	107	242	198	235	38	1	0	0	0	0	915
SSE	25	44	76	179	181	257	129	8	0	0	0	0	899
S	17	30	44	119	128	170	74	2	0	0	0	0	584
SSW	9	15	35	95	76	86	50	0	0	0	0	0	366
SW	15	22	28	54	39	48	8	0	0	0	0	0	214
WSW	13	24	18	36	53	71	13	0	0	0	0	0	228
W	31	31	22	56	68	72	16	0	0	0	0	0	296
WNW	49	58	35	41	52	39	30	3	0	0	0	0	307
NW	80	65	40	70	53	44	55	9	0	0	0	0	416
NNW	106	57	52	72	74	100	44	2	0	0	0	0	507
TOTAL	879	797	846	1657	1502	1568	566	25	0	0	0	0	7840

NUMBER OF CALMS: 257

NUMBER OF INVALID HOURS: 687

NUMBER OF VALID HOURS: 8097

TOTAL HOURS⁹ FOR THE PERIOD: 8784
 RIVER BEND STATION

JOINT FREQUENCY TABLE

STABILITY CLASS A

FROM 1/01/16 0:00 TO 12/31/16 23:00

PRIMARY SENSORS - 30 FOOT

WIND SPEED (METERS/SECOND)

WIND	.22-	.51-	.76-	1.1-	1.6-	2.1-	3.1-	5.1-	7.1-	10.1-	13.1-	>18	TOT.
DIR	.50	.75	1.0	1.5	2.0	3.0	5.0	7.0	10.0	13.0	18.0		
N	0	0	1	16	32	50	16	0	0	0	0	0	115
NNE	0	0	2	17	27	39	10	0	0	0	0	0	95
NE	0	0	1	13	40	27	1	0	0	0	0	0	82
ENE	0	0	2	10	34	24	0	0	0	0	0	0	70
E	0	0	2	11	22	10	0	0	0	0	0	0	45
ESE	0	0	1	12	29	15	0	0	0	0	0	0	57
SE	0	0	6	21	45	99	11	0	0	0	0	0	182
SSE	0	1	1	13	49	97	43	2	0	0	0	0	206
S	0	0	1	14	26	70	23	0	0	0	0	0	134
SSW	0	0	1	11	32	36	20	0	0	0	0	0	100
SW	0	0	1	18	18	22	1	0	0	0	0	0	60
WSW	0	0	1	17	29	41	11	0	0	0	0	0	99
W	0	0	1	21	45	48	13	0	0	0	0	0	128
WNW	0	0	2	10	28	18	8	2	0	0	0	0	68
NW	0	0	2	11	25	22	14	5	0	0	0	0	79
NNW	0	0	3	10	25	51	24	2	0	0	0	0	115
TOTAL	0	1	28	225	506	669	195	11	0	0	0	0	1635

NUMBER OF CALMS: 0

NUMBER OF INVALID HOURS: 0

NUMBER OF VALID HOURS: 1635

TOTAL HOURS FOR THE PERIOD: 1635

RIVER BEND STATION

JOINT FREQUENCY TABLE

STABILITY CLASS B

FROM 1/01/16 0:00 TO 12/31/16 23:00

PRIMARY SENSORS - 30 FOOT

WIND SPEED (METERS/SECOND)

WIND DIR	.22-.50	.51-.75	.76-1.0	1.1-1.5	1.6-2.0	2.1-3.0	3.1-5.0	5.1-7.0	7.1-10.0	10.1-13.0	13.1-18.0	>18	TOT.
N	0	0	0	4	9	8	5	0	0	0	0	0	26
NNE	0	0	0	4	6	4	1	0	0	0	0	0	15
NE	0	0	0	4	9	2	0	0	0	0	0	0	15
ENE	0	0	0	3	2	2	0	0	0	0	0	0	7
E	0	0	0	2	1	0	0	0	0	0	0	0	3
ESE	0	0	2	2	6	2	0	0	0	0	0	0	12
SE	0	0	2	4	3	7	2	0	0	0	0	0	18
SSE	0	0	0	4	6	13	4	0	0	0	0	0	27
S	0	0	0	0	9	6	4	0	0	0	0	0	19
SSW	0	0	0	3	2	4	3	0	0	0	0	0	12
SW	0	0	1	3	4	7	2	0	0	0	0	0	17
WSW	0	0	0	1	4	8	1	0	0	0	0	0	14
W	0	0	0	6	3	5	1	0	0	0	0	0	15
WNW	0	0	1	0	2	1	0	0	0	0	0	0	4
NW	0	0	0	1	0	4	2	0	0	0	0	0	7
NNW	0	0	0	3	2	9	2	0	0	0	0	0	16
TOTAL	0	0	6	44	68	82	27	0	0	0	0	0	227

NUMBER OF CALMS: 0

NUMBER OF INVALID HOURS: 0

NUMBER OF VALID HOURS: 227

TOTAL HOURS FOR THE PERIOD: 227

RIVER BEND STATION

JOINT FREQUENCY TABLE

STABILITY CLASS C

FROM 1/01/16 0:00 TO 12/31/16 23:00

PRIMARY SENSORS - 30 FOOT

WIND SPEED (METERS/SECOND)

WIND	.22-	.51-	.76-	1.1-	1.6-	2.1-	3.1-	5.1-	7.1-	10.1-	13.1-	>18	TOT.
DIR	.50	.75	1.0	1.5	2.0	3.0	5.0	7.0	10.0	13.0	18.0		
N	0	0	0	7	15	7	7	0	0	0	0	0	36
NNE	0	0	2	10	9	8	4	0	0	0	0	0	33
NE	0	1	2	9	5	7	1	0	0	0	0	0	25
ENE	0	0	1	3	4	1	0	0	0	0	0	0	9
E	0	0	2	7	3	0	0	0	0	0	0	0	12
ESE	0	1	6	7	2	1	0	0	0	0	0	0	17
SE	0	0	1	15	13	16	4	0	0	0	0	0	49
SSE	0	0	3	6	5	14	12	0	0	0	0	0	40
S	0	0	0	6	5	18	5	0	0	0	0	0	34
SSW	0	0	0	8	8	8	9	0	0	0	0	0	33
SW	0	0	1	4	3	3	1	0	0	0	0	0	12
WSW	0	0	1	3	5	10	0	0	0	0	0	0	19
W	0	0	3	5	5	10	0	0	0	0	0	0	23
WNW	0	0	1	3	4	1	1	1	0	0	0	0	11
NW	0	0	1	6	6	4	2	0	0	0	0	0	19
NNW	0	0	2	2	2	6	3	0	0	0	0	0	15
TOTAL	0	2	26	101	94	114	49	1	0	0	0	0	387

NUMBER OF CALMS: 0

NUMBER OF INVALID HOURS: 0

NUMBER OF VALID HOURS: 387

TOTAL HOURS FOR THE PERIOD: 387

RIVER BEND STATION
JOINT FREQUENCY TABLE
STABILITY CLASS D

FROM 1/01/16 0:00 TO 12/31/16 23:00

PRIMARY SENSORS - 30 FOOT

WIND SPEED (METERS/SECOND)

WIND DIR	.22-.50	.51-.75	.76-1.0	1.1-1.5	1.6-2.0	2.1-3.0	3.1-5.0	5.1-7.0	7.1-10.0	10.1-13.0	13.1-18.0	>18	TOT.
N	1	1	6	39	42	76	38	0	0	0	0	0	203
NNE	1	8	11	34	23	35	8	0	0	0	0	0	120
NE	0	5	12	24	21	12	2	0	0	0	0	0	76
ENE	1	5	9	19	9	11	1	0	0	0	0	0	55
E	0	14	16	21	12	0	0	0	0	0	0	0	63
ESE	0	8	12	22	25	6	2	0	0	0	0	0	75
SE	2	7	20	59	48	47	8	0	0	0	0	0	191
SSE	1	4	10	38	38	55	49	5	0	0	0	0	200
S	1	7	3	23	25	40	34	2	0	0	0	0	135
SSW	0	1	7	15	18	19	14	0	0	0	0	0	74
SW	0	6	2	7	7	10	4	0	0	0	0	0	36
WSW	0	2	2	8	7	10	1	0	0	0	0	0	30
W	0	0	5	11	8	8	0	0	0	0	0	0	32
WNW	0	2	4	11	10	8	15	0	0	0	0	0	50
NW	0	1	5	17	13	6	31	4	0	0	0	0	77
NNW	0	3	4	15	21	23	11	0	0	0	0	0	77
TOTAL	7	74	128	363	327	366	218	11	0	0	0	0	1494

NUMBER OF CALMS: 0

NUMBER OF INVALID HOURS: 0

NUMBER OF VALID HOURS: 1494

TOTAL HOURS FOR THE PERIOD: 1494

RIVER BEND STATION
JOINT FREQUENCY TABLE
STABILITY CLASS E

FROM 1/01/16 0:00 TO 12/31/16 23:00

PRIMARY SENSORS - 30 FOOT

WIND SPEED (METERS/SECOND)

WIND	.22-	.51-	.76-	1.1-	1.6-	2.1-	3.1-	5.1-	7.1-	10.1-	13.1-	>18	TOT.
DIR	.50	.75	1.0	1.5	2.0	3.0	5.0	7.0	10.0	13.0	18.0		
N	7	20	24	59	30	38	4	0	0	0	0	0	182
NNE	10	11	19	62	37	8	0	0	0	0	0	0	147
NE	13	28	31	58	31	10	1	0	0	0	0	0	172
ENE	19	38	28	38	25	13	7	0	0	0	0	0	168
E	19	34	32	35	15	7	0	0	0	0	0	0	142
ESE	19	27	26	55	39	18	1	0	0	0	0	0	185
SE	12	29	56	120	83	65	13	1	0	0	0	0	379
SSE	9	23	42	85	73	78	21	1	0	0	0	0	332
S	4	11	32	61	62	36	8	0	0	0	0	0	214
SSW	1	9	23	47	14	19	4	0	0	0	0	0	117
SW	5	8	16	17	6	6	0	0	0	0	0	0	58
WSW	2	8	12	4	8	1	0	0	0	0	0	0	35
W	7	9	6	11	6	1	2	0	0	0	0	0	42
WNW	5	9	12	10	7	11	6	0	0	0	0	0	60
NW	5	9	14	23	7	8	6	0	0	0	0	0	72
NNW	6	12	11	24	23	11	4	0	0	0	0	0	91
TOTAL	143	285	384	709	466	330	77	2	0	0	0	0	2396

NUMBER OF CALMS: 22

NUMBER OF INVALID HOURS: 0

NUMBER OF VALID HOURS: 2418

TOTAL HOURS FOR THE PERIOD: 2418

RIVER BEND STATION
JOINT FREQUENCY TABLE
STABILITY CLASS F
FROM 1/01/16 0:00 TO 12/31/16 23:00

PRIMARY SENSORS - 30 FOOT

WIND SPEED (METERS/SECOND)

WIND DIR	.22- .50	.51- .75	.76- 1.0	1.1- 1.5	1.6- 2.0	2.1- 3.0	3.1- 5.0	5.1- 7.0	7.1- 10.0	10.1- 13.0	13.1- 18.0	>18	TOT.
N	25	12	21	22	3	0	0	0	0	0	0	0	83
NNE	13	9	19	11	0	0	0	0	0	0	0	0	52
NE	15	8	9	13	5	2	0	0	0	0	0	0	52
ENE	24	14	13	19	6	0	0	0	0	0	0	0	76
E	26	12	10	5	1	1	0	0	0	0	0	0	55
ESE	21	31	15	5	1	1	0	0	0	0	0	0	74
SE	16	13	19	22	6	1	0	0	0	0	0	0	77
SSE	9	11	18	29	10	0	0	0	0	0	0	0	77
S	5	6	8	11	1	0	0	0	0	0	0	0	31
SSW	6	3	4	11	2	0	0	0	0	0	0	0	26
SW	4	7	5	4	1	0	0	0	0	0	0	0	21
WSW	8	11	2	3	0	1	0	0	0	0	0	0	25
W	10	9	3	2	1	0	0	0	0	0	0	0	25
WNW	14	23	7	7	1	0	0	0	0	0	0	0	52
NW	22	16	7	11	2	0	0	0	0	0	0	0	58
NNW	21	10	12	10	1	0	0	0	0	0	0	0	54
TOTAL	239	195	172	185	41	6	0	0	0	0	0	0	838

NUMBER OF CALMS: 66

NUMBER OF INVALID HOURS: 0

NUMBER OF VALID HOURS: 904

TOTAL HOURS FOR THE PERIOD: 904

RIVER BEND STATION
 JOINT FREQUENCY TABLE
 STABILITY CLASS G
 FROM 1/01/16 0:00 TO 12/31/16 23:00

PRIMARY SENSORS -- 30 FOOT

WIND SPEED (METERS/SECOND)

WIND DIR	.22-.50	.51-.75	.76-1.0	1.1-1.5	1.6-2.0	2.1-3.0	3.1-5.0	5.1-7.0	7.1-10.0	10.1-13.0	13.1-18.0	>18	TOT.
N	97	30	19	4	0	0	0	0	0	0	0	0	150
NNE	64	20	6	0	0	0	0	0	0	0	0	0	90
NE	53	9	7	4	0	0	0	0	0	0	0	0	73
ENE	34	21	10	1	0	0	0	0	0	0	0	0	66
E	25	19	8	1	0	1	0	0	0	0	0	0	54
ESE	10	8	2	1	0	0	0	0	0	0	0	0	21
SE	7	8	3	1	0	0	0	0	0	0	0	0	19
SSE	6	5	2	4	0	0	0	0	0	0	0	0	17
S	7	6	0	4	0	0	0	0	0	0	0	0	17
SSW	2	2	0	0	0	0	0	0	0	0	0	0	4
SW	6	1	2	1	0	0	0	0	0	0	0	0	10
WSW	3	3	0	0	0	0	0	0	0	0	0	0	6
W	14	13	4	0	0	0	0	0	0	0	0	0	31
WNW	30	24	8	0	0	0	0	0	0	0	0	0	62
NW	53	39	11	1	0	0	0	0	0	0	0	0	104
NNW	79	32	20	8	0	0	0	0	0	0	0	0	139
TOTAL	490	240	102	30	0	1	0	0	0	0	0	0	863

NUMBER OF CALMS: 169

NUMBER OF INVALID HOURS: 0

NUMBER OF VALID HOURS: 1032

TOTAL HOURS FOR THE PERIOD: 1032

RIVER BEND STATION

JOINT FREQUENCY TABLE

ALL STABILITY CLASSES

FROM 1/01/16 0:00 TO 12/31/16 23:00

PRIMARY SENSORS - 150 FOOT

WIND SPEED (METERS/SECOND)

WIND	.22-	.51-	.76-	1.1-	1.6-	2.1-	3.1-	5.1-	7.1-	10.1-	13.1-	>18	TOT.
DIR	.50	.75	1.0	1.5	2.0	3.0	5.0	7.0	10.0	13.0	18.0		
N	2	3	6	26	47	218	278	30	0	0	0	0	610
NNE	2	3	12	37	58	247	243	16	0	0	0	0	618
NE	1	5	7	48	63	145	239	9	0	0	0	0	517
ENE	1	3	6	46	63	161	178	39	10	0	0	0	507
E	6	4	17	66	75	123	117	35	5	0	0	0	448
ESE	0	2	10	49	76	282	495	122	12	0	0	0	1048
SE	2	9	13	34	68	221	323	46	8	0	0	0	724
SSE	2	3	10	37	81	250	280	96	12	0	0	0	771
S	3	5	5	35	81	201	251	36	1	0	0	0	618
SSW	2	3	2	24	62	156	146	34	2	0	0	0	431
SW	1	5	8	21	45	93	77	4	0	0	0	0	254
WSW	0	2	6	30	61	103	72	9	0	0	0	0	283
W	0	2	8	36	59	148	74	6	4	0	0	0	337
WNW	1	4	3	21	28	104	42	32	18	2	0	0	255
NW	1	0	8	27	47	84	80	27	5	0	0	0	279
NNW	0	4	6	23	36	118	177	23	0	0	0	0	387
TOTAL	24	57	127	560	950	2654	3072	564	77	2	0	0	8087

NUMBER OF CALMS: 10

NUMBER OF INVALID HOURS: 687

NUMBER OF VALID HOURS: 8097

TOTAL HOURS FOR THE PERIOD: 8784

RIVER BEND STATION
JOINT FREQUENCY TABLE
STABILITY CLASS A

FROM 1/01/16 0:00 TO 12/31/16 23:00

PRIMARY SENSORS - 150 FOOT

WIND SPEED (METERS/SECOND)

WIND	.22-	.51-	.76-	1.1-	1.6-	2.1-	3.1-	5.1-	7.1-	10.1-	13.1-	>18	TOT.
DIR	.50	.75	1.0	1.5	2.0	3.0	5.0	7.0	10.0	13.0	18.0		
N	0	0	0	7	4	42	41	2	0	0	0	0	96
NNE	0	0	0	7	11	38	42	6	0	0	0	0	104
NE	0	0	1	5	13	35	33	1	0	0	0	0	88
ENE	0	0	1	4	4	34	47	4	0	0	0	0	94
E	0	0	4	1	4	26	20	0	0	0	0	0	55
ESE	0	0	0	2	13	39	84	21	1	0	0	0	160
SE	1	0	3	6	9	51	53	5	1	0	0	0	129
SSE	0	0	0	4	12	53	60	30	2	0	0	0	161
S	0	1	0	5	18	34	51	6	0	0	0	0	115
SSW	0	0	0	6	17	29	28	13	0	0	0	0	93
SW	0	0	3	9	12	20	14	1	0	0	0	0	59
WSW	0	0	0	8	25	33	34	4	0	0	0	0	104
W	0	1	1	8	26	69	34	5	0	0	0	0	144
WNW	0	0	0	5	8	30	6	6	7	1	0	0	63
NW	0	0	1	5	14	24	27	7	3	0	0	0	81
NNW	0	0	1	6	8	19	45	10	0	0	0	0	89
TOTAL	1	2	15	88	198	576	619	121	14	1	0	0	1635

NUMBER OF CALMS: 0

NUMBER OF INVALID HOURS: 0

NUMBER OF VALID HOURS: 1635

TOTAL HOURS FOR THE PERIOD: 1635

RIVER BEND STATION

JOINT FREQUENCY TABLE

STABILITY CLASS B

FROM 1/01/16 0:00 TO 12/31/16 23:00

PRIMARY SENSORS - 150 FOOT

WIND SPEED (METERS/SECOND)

WIND DIR.	.22-.50	.51-.75	.76-1.0	1.1-1.5	1.6-2.0	2.1-3.0	3.1-5.0	5.1-7.0	7.1-10.0	10.1-13.0	13.1-18.0	>18	TOT.
N	0	0	0	2	3	7	6	2	0	0	0	0	20
NNE	0	0	0	0	5	10	5	1	0	0	0	0	21
NE	0	0	0	1	2	4	5	0	0	0	0	0	12
ENE	0	0	1	0	1	3	6	1	0	0	0	0	12
E	1	0	0	1	2	0	2	0	0	0	0	0	6
ESE	0	0	0	1	2	6	8	6	1	0	0	0	24
SE	0	0	0	1	3	6	6	0	0	0	0	0	16
SSE	0	0	0	0	3	7	5	4	0	0	0	0	19
S	0	0	0	1	2	5	9	0	0	0	0	0	17
SSW	0	0	0	2	4	2	3	1	0	0	0	0	12
SW	0	0	0	2	1	4	7	1	0	0	0	0	15
WSW	0	0	0	2	1	6	4	1	0	0	0	0	14
W	0	0	1	0	4	5	5	0	0	0	0	0	15
WNW	0	0	0	0	0	1	1	0	0	0	0	0	2
NW	0	0	0	0	2	3	3	1	0	0	0	0	9
NNW	0	0	0	1	0	1	9	2	0	0	0	0	13
TOTAL	1	0	2	14	35	70	84	20	1	0	0	0	227

NUMBER OF CALMS: 0

NUMBER OF INVALID HOURS: 0

NUMBER OF VALID HOURS: 227

TOTAL HOURS FOR THE PERIOD: 227

RIVER BEND STATION
JOINT FREQUENCY TABLE
STABILITY CLASS C

FROM 1/01/16 0:00 TO 12/31/16 23:00

PRIMARY SENSORS - 150 FOOT

WIND SPEED (METERS/SECOND)

WIND	.22-	.51-	.76-	1.1-	1.6-	2.1-	3.1-	5.1-	7.1-	10.1-	13.1-	>18	TOT.
DIR	.50	.75	1.0	1.5	2.0	3.0	5.0	7.0	10.0	13.0	18.0		
N	0	1	1	2	4	14	6	3	0	0	0	0	31
NNE	0	0	0	3	5	12	9	3	0	0	0	0	32
NE	0	0	0	5	3	5	11	1	0	0	0	0	25
ENE	0	1	0	1	3	3	6	0	0	0	0	0	14
E	0	0	1	3	3	5	3	0	0	0	0	0	15
ESE	0	0	0	5	6	5	14	7	2	0	0	0	39
SE	0	0	2	1	4	8	18	5	0	0	0	0	38
SSE	0	0	0	6	3	11	6	9	1	0	0	0	36
S	0	0	1	2	3	8	11	2	0	0	0	0	27
SSW	0	0	0	4	2	9	10	5	0	0	0	0	30
SW	0	0	0	2	0	5	5	2	0	0	0	0	14
WSW	0	0	1	3	4	3	6	0	0	0	0	0	17
W	0	0	0	3	4	16	1	0	0	0	0	0	24
WNW	0	0	0	2	2	1	3	2	0	1	0	0	11
NW	0	0	0	1	3	9	1	1	0	0	0	0	15
NNW	0	1	2	2	3	2	7	2	0	0	0	0	19
TOTAL	0	3	8	45	52	116	117	42	3	1	0	0	387

NUMBER OF CALMS: 0

NUMBER OF INVALID HOURS: 0

NUMBER OF VALID HOURS: 387

TOTAL HOURS FOR THE PERIOD: 387

RIVER BEND STATION

JOINT FREQUENCY TABLE

STABILITY CLASS D

FROM 1/01/16 0:00 TO 12/31/16 23:00

PRIMARY SENSORS - 150 FOOT

WIND SPEED (METERS/SECOND)

WIND	.22-	.51-	.76-	1.1-	1.6-	2.1-	3.1-	5.1-	7.1-	10.1-	13.1-	>18	TOT.
DIR	.50	.75	1.0	1.5	2.0	3.0	5.0	7.0	10.0	13.0	18.0		
N	1	0	1	5	12	43	92	18	0	0	0	0	172
NNE	0	2	2	8	11	52	60	6	0	0	0	0	141
NE	0	0	5	18	12	16	30	4	0	0	0	0	85
ENE	0	0	1	9	6	27	34	12	0	0	0	0	89
E	0	0	3	18	11	10	30	4	0	0	0	0	76
ESE	0	1	3	9	9	49	68	30	1	0	0	0	170
SE	0	0	0	10	3	28	49	16	4	0	0	0	110
SSE	0	2	1	5	10	42	65	35	7	0	0	0	167
S	0	1	1	9	15	33	43	25	1	0	0	0	128
SSW	0	0	0	2	5	15	34	10	1	0	0	0	67
SW	0	0	0	4	6	9	22	0	0	0	0	0	41
WSW	0	0	1	3	6	8	11	3	0	0	0	0	32
W	0	0	1	6	3	15	14	1	1	0	0	0	41
WNW	0	0	0	4	5	11	9	17	9	0	0	0	55
NW	0	0	2	5	7	13	12	16	1	0	0	0	56
NNW	0	1	0	2	4	23	28	6	0	0	0	0	64
TOTAL	1	7	21	117	125	394	601	203	25	0	0	0	1494

NUMBER OF CALMS: 0

NUMBER OF INVALID HOURS: 0

NUMBER OF VALID HOURS: 1494

TOTAL HOURS FOR THE PERIOD: 1494

RIVER BEND STATION
JOINT FREQUENCY TABLE

STABILITY CLASS E

FROM 1/01/16 0:00 TO 12/31/16 23:00

PRIMARY SENSORS - 150 FOOT

WIND SPEED (METERS/SECOND)

WIND DIR	.22-.50	.51-.75	.76-1.0	1.1-1.5	1.6-2.0	2.1-3.0	3.1-5.0	5.1-7.0	7.1-10.0	10.1-13.0	13.1-18.0	>18	TOT.
N	1	1	4	4	8	53	71	5	0	0	0	0	147
NNE	1	0	4	8	13	61	91	0	0	0	0	0	178
NE	0	2	1	13	18	42	94	2	0	0	0	0	172
ENE	1	0	1	17	20	54	51	17	10	0	0	0	171
E	3	4	7	19	32	46	40	27	4	0	0	0	182
ESE	0	0	4	18	25	121	224	57	7	0	0	0	456
SE	0	5	1	8	22	57	108	20	3	0	0	0	224
SSE	0	0	3	7	22	68	120	18	2	0	0	0	240
S	1	1	1	7	21	74	97	3	0	0	0	0	205
SSW	2	0	1	3	11	56	57	5	1	0	0	0	136
SW	1	1	0	1	5	22	19	0	0	0	0	0	49
WSW	0	1	0	3	13	23	8	1	0	0	0	0	49
W	0	1	0	7	8	7	16	0	3	0	0	0	42
WNW	0	1	1	4	4	17	10	7	2	0	0	0	46
NW	0	0	1	7	5	11	16	2	1	0	0	0	43
NNW	0	1	1	6	7	19	40	3	0	0	0	0	77
TOTAL	10	18	30	132	234	731	1062	167	33	0	0	0	2417

NUMBER OF CALMS: 1

NUMBER OF INVALID HOURS: 0

NUMBER OF VALID HOURS: 2418

TOTAL HOURS FOR THE PERIOD: 2418

RIVER BEND STATION

JOINT FREQUENCY TABLE

STABILITY CLASS F

FROM 1/01/16 0:00 TO 12/31/16 23:00

PRIMARY SENSORS - 150 FOOT

WIND SPEED (METERS/SECOND)

WIND	.22-	.51-	.76-	1.1-	1.6-	2.1-	3.1-	5.1-	7.1-	10.1-	13.1-	>18	TOT.
DIR	.50	.75	1.0	1.5	2.0	3.0	5.0	7.0	10.0	13.0	18.0		
N	0	0	0	2	6	18	29	0	0	0	0	0	55
NNE	0	1	2	3	4	27	20	0	0	0	0	0	57
NE	1	0	0	2	7	23	31	1	0	0	0	0	65
ENE	0	1	1	9	18	16	22	4	0	0	0	0	71
E	1	0	2	11	10	18	12	3	1	0	0	0	58
ESE	0	1	1	9	17	32	56	1	0	0	0	0	117
SE	0	3	4	7	17	36	50	0	0	0	0	0	117
SSE	1	0	2	7	13	36	11	0	0	0	0	0	70
S	1	0	0	5	12	16	28	0	0	0	0	0	62
SSW	0	2	0	5	10	28	12	0	0	0	0	0	57
SW	0	1	1	2	15	19	7	0	0	0	0	0	45
WSW	0	0	1	5	4	16	5	0	0	0	0	0	31
W	0	0	2	5	5	6	0	0	0	0	0	0	18
WNW	0	0	1	1	4	10	3	0	0	0	0	0	19
NW	0	0	3	3	4	7	9	0	0	0	0	0	26
NNW	0	0	2	1	7	14	11	0	0	0	0	0	35
TOTAL	4	9	22	77	153	322	306	9	1	0	0	0	903

NUMBER OF CALMS: 1

NUMBER OF INVALID HOURS: 0

NUMBER OF VALID HOURS: 904

TOTAL HOURS FOR THE PERIOD: 904

RIVER BEND STATION

JOINT FREQUENCY TABLE

STABILITY CLASS G

FROM 1/01/16 0:00 TO 12/31/16 23:00

PRIMARY SENSORS - 150 FOOT

WIND SPEED (METERS/SECOND)

WIND	.22-	.51-	.76-	1.1-	1.6-	2.1-	3.1-	5.1-	7.1-	10.1-	13.1-	>18	TOT.
DIR	.50	.75	1.0	1.5	2.0	3.0	5.0	7.0	10.0	13.0	18.0		
N	0	1	0	4	10	41	33	0	0	0	0	0	89
NNE	1	0	4	8	9	47	16	0	0	0	0	0	85
NE	0	3	0	4	8	20	35	0	0	0	0	0	70
ENE	0	1	1	6	11	24	12	1	0	0	0	0	56
E	1	0	0	13	13	18	10	1	0	0	0	0	56
ESE	0	0	2	5	4	30	41	0	0	0	0	0	82
SE	1	1	3	1	10	35	39	0	0	0	0	0	90
SSE	1	1	4	8	18	33	13	0	0	0	0	0	78
S	1	2	2	6	10	31	12	0	0	0	0	0	64
SSW	0	1	1	2	13	17	2	0	0	0	0	0	36
SW	0	3	4	1	6	14	3	0	0	0	0	0	31
WSW	0	1	3	6	8	14	4	0	0	0	0	0	36
W	0	0	3	7	9	30	4	0	0	0	0	0	53
WNW	1	3	1	5	5	34	10	0	0	0	0	0	59
NW	1	0	1	6	12	17	12	0	0	0	0	0	49
NNW	0	1	0	5	7	40	37	0	0	0	0	0	90
TOTAL	7	18	29	87	153	445	283	2	0	0	0	0	1024

NUMBER OF CALMS: 8

NUMBER OF INVALID HOURS: 0

NUMBER OF VALID HOURS: 1032

TOTAL HOURS FOR THE PERIOD: 1032

**TABLE 6
ATMOSPHERIC DISPERSION AND DEPOSITION RATES FOR
THE MAXIMUM INDIVIDUAL DOSE CALCULATIONS**

Analysis	Location (meters)	Ground Level Releases	Mixed Mode Releases
Gamma air dose (3) and Beta Air Dose	994 m WNW (Containment)	CHI/Q - 421.0	CHI/Q - 33.1
Maximum Receptor (4)	994 m WNW	CHI/Q - 421.0	CHI/Q - 33.1
Resident		D/Q - 50.3	D/Q - 18.0
Garden			
Meat animal			
Immersion			
Milk animal (5)	7,000 m WNW	CHI/Q - 3.58 D/Q - 0.38	CHI/Q - .870 D/Q - .223
Other on-site Receptors	115 m ENE	CHI/Q - 5977.0 D/Q - 529.7	CHI/Q - 407.5 D/Q - 46.9
	275 m N	CHI/Q - 1644.0 D/Q - 345.6	CHI/Q - 169.1 D/Q - 68.4
	2500 SW	CHI/Q - 34.45 D/Q - 3.35	CHI/Q - 4.65 D/Q - 1.40

Notes:

(1) All CHI/Q = 10^{-7} sec/m³

(2) All D/Q = 10^{-9} m⁻²

(3) Maximum offsite location (property boundary) with highest CHI/Q (unoccupied).

(4) Maximum hypothetical occupied offsite location with highest CHI/Q and D/Q.

(5) No milk animal within 5 miles radius, hypothetical location in worst sector.

(6) Other onsite receptors

(7) Revisions to X/Q and D/Q can be performed using NUREG/CR-2919, XOQDOQ, Computer Program for the Meteorological Evaluation of Routine Effluent Releases at Nuclear Power Stations

TABLE 7
GROUNDWATER MONITORING WELL SAMPLE RESULTS

Station ID	Start Date	Analysis	Reportable Results	Units
MW-04	5/18/2016	H-3 (DIST)	< 500	pCi/L
MW-04-DUP	5/18/2016	H-3 (DIST)	< 500	pCi/L
MW-05	5/18/2016	H-3 (DIST)	< 500	pCi/L
MW-05	8/31/2016	H-3 (DIST)	< 660	pCi/L
MW-05	11/3/2016	H-3 (DIST)	< 670	pCi/L
MW-06	11/3/2016	H-3 (DIST)	< 690	pCi/L
MW-08	5/18/2016	H-3 (DIST)	< 510	pCi/L
MW-08	8/31/2016	H-3 (DIST)	< 670	pCi/L
MW-08	11/2/2016	H-3 (DIST)	< 680	pCi/L
MW-100	2/4/2016	H-3 (DIST)	< 690	pCi/L
MW-100	5/18/2016	H-3 (DIST)	< 700	pCi/L
MW-100	8/31/2016	H-3 (DIST)	< 690	pCi/L
MW-100	11/2/2016	H-3 (DIST)	< 670	pCi/L
MW-103	2/2/2016	H-3 (DIST)	< 710	pCi/L
MW-103	5/17/2016	H-3 (DIST)	< 500	pCi/L
MW-103	8/31/2016	H-3 (DIST)	< 710	pCi/L
MW-103	11/1/2016	H-3 (DIST)	< 650	pCi/L
MW-104	5/18/2016	H-3 (DIST)	< 500	pCi/L
MW-104	11/3/2016	H-3 (DIST)	< 670	pCi/L
MW-106	2/3/2016	H-3 (DIST)	< 700	pCi/L
MW-106	5/18/2016	H-3 (DIST)	< 690	pCi/L
MW-106	8/31/2016	H-3 (DIST)	< 640	pCi/L
MW-106	11/2/2016	H-3 (DIST)	< 620	pCi/L
MW-106-DUP	8/31/2016	H-3 (DIST)	< 630	pCi/L
MW-107	11/2/2016	H-3 (DIST)	< 620	pCi/L
MW-108	11/3/2016	H-3 (DIST)	< 660	pCi/L
MW-110	2/3/2016	H-3 (DIST)	44000	pCi/L
MW-110	5/17/2016	H-3 (DIST)	31000	pCi/L
MW-110	8/31/2016	H-3 (DIST)	38000	pCi/L
MW-110	11/2/2016	H-3 (DIST)	48000	pCi/L
MW-111	5/18/2016	H-3 (DIST)	< 730	pCi/L
MW-111	11/2/2016	H-3 (DIST)	< 620	pCi/L
MW-112	2/2/2016	H-3 (DIST)	11000	pCi/L
MW-112	5/17/2016	H-3 (DIST)	11000	pCi/L
MW-112	8/30/2016	H-3 (DIST)	9700	pCi/L
MW-112	11/2/2016	H-3 (DIST)	8100	pCi/L
MW-114	2/2/2016	H-3 (DIST)	3200	pCi/L
MW-114	5/17/2016	H-3 (DIST)	2900	pCi/L
MW-114	8/30/2016	H-3 (DIST)	2600	pCi/L
MW-114	11/2/2016	H-3 (DIST)	2200	pCi/L

Station ID	Start Date	Analysis	Reportable Results	Units
MW-116	2/3/2016	H-3 (DIST)	2200	pCi/L
MW-116	5/17/2016	H-3 (DIST)	1700	pCi/L
MW-116	8/30/2016	H-3 (DIST)	2800	pCi/L
MW-116	11/2/2016	H-3 (DIST)	3700	pCi/L
MW-116-DUP	5/17/2016	H-3 (DIST)	1700	pCi/L
MW-118	2/2/2016	H-3 (DIST)	3300	pCi/L
MW-118	5/17/2016	H-3 (DIST)	3300	pCi/L
MW-118	8/31/2016	H-3 (DIST)	2500	pCi/L
MW-118	11/2/2016	H-3 (DIST)	2600	pCi/L
MW-120	2/3/2016	H-3 (DIST)	< 690	pCi/L
MW-120	5/18/2016	H-3 (DIST)	< 500	pCi/L
MW-120	8/31/2016	H-3 (DIST)	< 620	pCi/L
MW-120	11/2/2016	H-3 (DIST)	< 640	pCi/L
MW-120-DUP	2/3/2016	H-3 (DIST)	< 680	pCi/L
MW-120-DUP	11/2/2016	H-3 (DIST)	< 630	pCi/L
MW-122R	2/3/2016	H-3 (DIST)	< 680	pCi/L
MW-122R	5/18/2016	H-3 (DIST)	< 500	pCi/L
MW-122R	8/31/2016	H-3 (DIST)	< 630	pCi/L
MW-122R	11/2/2016	H-3 (DIST)	< 630	pCi/L
MW-126	2/4/2016	H-3 (DIST)	< 690	pCi/L
MW-126	5/18/2016	H-3 (DIST)	< 690	pCi/L
MW-126	8/31/2016	H-3 (DIST)	< 640	pCi/L
MW-126	11/2/2016	H-3 (DIST)	< 690	pCi/L
MW-128	2/4/2016	H-3 (DIST)	< 690	pCi/L
MW-128	5/18/2016	H-3 (DIST)	< 740	pCi/L
MW-128	8/31/2016	H-3 (DIST)	< 620	pCi/L
MW-128	11/2/2016	H-3 (DIST)	< 680	pCi/L
MW-130	2/4/2016	H-3 (DIST)	< 680	pCi/L
MW-130	5/18/2016	H-3 (DIST)	< 510	pCi/L
MW-130	8/31/2016	H-3 (DIST)	< 670	pCi/L
MW-130	11/2/2016	H-3 (DIST)	< 670	pCi/L
MW-131	2/4/2016	H-3 (DIST)	< 690	pCi/L
MW-131	5/18/2016	H-3 (DIST)	< 640	pCi/L
MW-131	8/31/2016	H-3 (DIST)	< 670	pCi/L
MW-131	11/2/2016	H-3 (DIST)	< 690	pCi/L
MW-131-DUP	2/4/2016	H-3 (DIST)	< 680	pCi/L
MW-131-DUP	5/18/2016	H-3 (DIST)	< 700	pCi/L
MW-132	2/3/2016	H-3 (DIST)	< 680	pCi/L
MW-132	5/18/2016	H-3 (DIST)	< 510	pCi/L
MW-132	8/31/2016	H-3 (DIST)	< 650	pCi/L

Station ID	Start Date	Analysis	Reportable Results	Units
MW-132	11/3/2016	H-3 (DIST)	< 630	pCi/L
MW-134	2/3/2016	H-3 (DIST)	< 690	pCi/L
MW-134	5/18/2016	H-3 (DIST)	< 510	pCi/L
MW-134	8/31/2016	H-3 (DIST)	< 620	pCi/L
MW-134	11/3/2016	H-3 (DIST)	< 650	pCi/L
MW-137	2/3/2016	H-3 (DIST)	24000	pCi/L
MW-137	5/17/2016	H-3 (DIST)	34000	pCi/L
MW-137	8/31/2016	H-3 (DIST)	23000	pCi/L
MW-137	11/2/2016	H-3 (DIST)	23000	pCi/L
MW-137-DUP	8/31/2016	H-3 (DIST)	22000	pCi/L
MW-139	2/3/2016	H-3 (DIST)	1600	pCi/L
MW-139	5/17/2016	H-3 (DIST)	1500	pCi/L
MW-139	8/30/2016	H-3 (DIST)	1300	pCi/L
MW-139	11/1/2016	H-3 (DIST)	1100	pCi/L
MW-139-DUP	2/3/2016	H-3 (DIST)	2100	pCi/L
MW-14	5/19/2016	H-3 (DIST)	< 700	pCi/L
MW-14	9/5/2016	H-3 (DIST)	< 660	pCi/L
MW-14	11/3/2016	H-3 (DIST)	< 750	pCi/L
MW-141	2/3/2016	H-3 (DIST)	1600	pCi/L
MW-141	5/17/2016	H-3 (DIST)	1800	pCi/L
MW-141	8/31/2016	H-3 (DIST)	1500	pCi/L
MW-141	11/1/2016	H-3 (DIST)	1800	pCi/L
MW-142	2/4/2016	H-3 (DIST)	< 690	pCi/L
MW-142	5/17/2016	H-3 (DIST)	< 730	pCi/L
MW-142	8/30/2016	H-3 (DIST)	< 680	pCi/L
MW-142	11/1/2016	H-3 (DIST)	< 660	pCi/L
MW-144	2/4/2016	H-3 (DIST)	< 690	pCi/L
MW-144	5/17/2016	H-3 (DIST)	< 510	pCi/L
MW-144	8/30/2016	H-3 (DIST)	< 620	pCi/L
MW-144	11/1/2016	H-3 (DIST)	4200	pCi/L
MW-146	2/4/2016	H-3 (DIST)	110000	pCi/L
MW-146	5/17/2016	H-3 (DIST)	110000	pCi/L
MW-146	8/30/2016	H-3 (DIST)	940	pCi/L
MW-146	11/1/2016	H-3 (DIST)	160000	pCi/L
MW-146-DUP	11/1/2016	H-3 (DIST)	200000	pCi/L
MW-147	2/4/2016	H-3 (DIST)	87000	pCi/L
MW-147	5/17/2016	H-3 (DIST)	71000	pCi/L
MW-147	8/30/2016	H-3 (DIST)	110000	pCi/L
MW-147	11/1/2016	H-3 (DIST)	25000	pCi/L
MW-148	2/4/2016	H-3 (DIST)	< 690	pCi/L

Station ID	Start Date	Analysis	Reportable Results	Units
MW-148	5/17/2016	H-3 (DIST)	< 500	pCi/L
MW-148	8/30/2016	H-3 (DIST)	< 670	pCi/L
MW-148	11/1/2016	H-3 (DIST)	< 620	pCi/L
MW-151	2/2/2016	H-3 (DIST)	< 670	pCi/L
MW-151	5/18/2016	H-3 (DIST)	< 700	pCi/L
MW-151	8/31/2016	H-3 (DIST)	< 660	pCi/L
MW-151	11/2/2016	H-3 (DIST)	< 630	pCi/L
MW-153	2/3/2016	H-3 (DIST)	1100	pCi/L
MW-153	5/17/2016	H-3 (DIST)	870	pCi/L
MW-153	8/30/2016	H-3 (DIST)	950	pCi/L
MW-153	11/1/2016	H-3 (DIST)	1200	pCi/L
MW-153-DUP	5/17/2016	H-3 (DIST)	810	pCi/L
MW-155	2/4/2016	H-3 (DIST)	27000	pCi/L
MW-155	5/18/2016	H-3 (DIST)	30000	pCi/L
MW-155	8/30/2016	H-3 (DIST)	200000	pCi/L
MW-155	11/1/2016	H-3 (DIST)	100000	pCi/L
MW-155-DUP	5/18/2016	H-3 (DIST)	30000	pCi/L
MW-155-DUP	8/30/2016	H-3 (DIST)	190000	pCi/L
MW-156	2/4/2016	H-3 (DIST)	1200	pCi/L
MW-156	5/18/2016	H-3 (DIST)	1900	pCi/L
MW-156	8/30/2016	H-3 (DIST)	< 700	pCi/L
MW-156	11/1/2016	H-3 (DIST)	1700	pCi/L
MW-157	2/4/2016	H-3 (DIST)	130000	pCi/L
MW-157	5/18/2016	H-3 (DIST)	140000	pCi/L
MW-157	8/31/2016	H-3 (DIST)	110000	pCi/L
MW-157	11/1/2016	H-3 (DIST)	87000	pCi/L
MW-157-DUP	5/18/2016	H-3 (DIST)	130000	pCi/L
MW-158	2/4/2016	H-3 (DIST)	820000	pCi/L
MW-158	5/17/2016	H-3 (DIST)	690000	pCi/L
MW-158	8/30/2016	H-3 (DIST)	570000	pCi/L
MW-158	11/1/2016	H-3 (DIST)	690000	pCi/L
MW-159	2/4/2016	H-3 (DIST)	9800	pCi/L
MW-159	5/17/2016	H-3 (DIST)	3900	pCi/L
MW-159	8/30/2016	H-3 (DIST)	21000	pCi/L
MW-159	11/1/2016	H-3 (DIST)	6400	pCi/L
MW-161	2/3/2016	H-3 (DIST)	< 680	pCi/L
MW-161	5/18/2016	H-3 (DIST)	< 690	pCi/L
MW-161	8/31/2016	H-3 (DIST)	< 630	pCi/L
MW-161	11/3/2016	H-3 (DIST)	1100	pCi/L
MW-162	2/4/2016	H-3 (DIST)	< 700	pCi/L

Station ID	Start Date	Analysis	Reportable Results	Units
MW-162	5/17/2016	H-3 (DIST)	< 700	pCi/L
MW-162	8/30/2016	H-3 (DIST)	< 660	pCi/L
MW-162	11/1/2016	H-3 (DIST)	< 680	pCi/L
MW-162-DUP	2/4/2016	H-3 (DIST)	< 680	pCi/L
MW-164	11/2/2016	H-3 (DIST)	< 640	pCi/L
MW-165	11/2/2016	H-3 (DIST)	< 620	pCi/L
MW-167	2/4/2016	H-3 (DIST)	< 680	pCi/L
MW-167	5/18/2016	H-3 (DIST)	< 510	pCi/L
MW-167	8/31/2016	H-3 (DIST)	< 640	pCi/L
MW-167	11/3/2016	H-3 (DIST)	< 630	pCi/L
MW-169	2/3/2016	H-3 (DIST)	< 690	pCi/L
MW-169	5/18/2016	H-3 (DIST)	< 510	pCi/L
MW-169	8/31/2016	H-3 (DIST)	850	pCi/L
MW-169	11/1/2016	H-3 (DIST)	< 670	pCi/L
MW-169-DUP	11/1/2016	H-3 (DIST)	< 680	pCi/L
MW-170	2/3/2016	H-3 (DIST)	< 680	pCi/L
MW-170	5/18/2016	H-3 (DIST)	< 700	pCi/L
MW-170	8/31/2016	H-3 (DIST)	< 630	pCi/L
MW-170	11/3/2016	H-3 (DIST)	< 700	pCi/L
MW-170-DUP	5/18/2016	H-3 (DIST)	< 580	pCi/L
MW-170-DUP	8/31/2016	H-3 (DIST)	< 630	pCi/L
MW-172	2/3/2016	H-3 (DIST)	< 690	pCi/L
MW-172	5/18/2016	H-3 (DIST)	< 700	pCi/L
MW-172	9/1/2016	H-3 (DIST)	< 650	pCi/L
MW-172	11/2/2016	H-3 (DIST)	< 630	pCi/L
MW-172-DUP	2/3/2016	H-3 (DIST)	< 690	pCi/L
MW-172-DUP	9/1/2016	H-3 (DIST)	< 660	pCi/L
MW-174	2/3/2016	H-3 (DIST)	< 690	pCi/L
MW-174	5/18/2016	H-3 (DIST)	< 680	pCi/L
MW-174	8/31/2016	H-3 (DIST)	< 700	pCi/L
MW-174	11/2/2016	H-3 (DIST)	< 620	pCi/L
MW-174-DUP	5/18/2016	H-3 (DIST)	< 700	pCi/L
MW-174-DUP	11/2/2016	H-3 (DIST)	< 630	pCi/L
MW-178	11/2/2016	H-3 (DIST)	45000	pCi/L
MW-179	11/2/2016	H-3 (DIST)	290000	pCi/L
MW-18	5/18/2016	H-3 (DIST)	< 500	pCi/L
MW-180	2/3/2016	H-3 (DIST)	< 690	pCi/L
MW-180	5/18/2016	H-3 (DIST)	< 720	pCi/L
MW-180	8/31/2016	H-3 (DIST)	< 620	pCi/L
MW-180	11/3/2016	H-3 (DIST)	< 680	pCi/L

Station ID	Start Date	Analysis	Reportable Results	Units
MW-182	2/3/2016	H-3 (DIST)	< 690	pCi/L
MW-182	5/18/2016	H-3 (DIST)	< 510	pCi/L
MW-182	8/31/2016	H-3 (DIST)	< 620	pCi/L
MW-182	11/2/2016	H-3 (DIST)	< 670	pCi/L
MW-182-DUP	11/2/2016	H-3 (DIST)	< 690	pCi/L
MW-185	2/4/2016	H-3 (DIST)	< 690	pCi/L
MW-185	5/18/2016	H-3 (DIST)	< 700	pCi/L
MW-185	8/31/2016	H-3 (DIST)	< 640	pCi/L
MW-185	11/2/2016	H-3 (DIST)	< 740	pCi/L
MW-185-PUP	11/2/2016	H-3 (DIST)	< 590	pCi/L
MW-186	11/2/2016	H-3 (DIST)	< 690	pCi/L
MW-187	11/2/2016	H-3 (DIST)	< 670	pCi/L
MW-188	2/3/2016	H-3 (DIST)	< 690	pCi/L
MW-188	5/18/2016	H-3 (DIST)	< 730	pCi/L
MW-188	8/31/2016	H-3 (DIST)	< 640	pCi/L
MW-188	11/3/2016	H-3 (DIST)	< 630	pCi/L
MW-20	11/3/2016	H-3 (DIST)	< 690	pCi/L
MW-6	5/18/2016	H-3 (DIST)	< 500	pCi/L
PZ-01	2/2/2016	H-3 (DIST)	12000	pCi/L
PZ-01	5/18/2016	H-3 (DIST)	23000	pCi/L
PZ-01	8/31/2016	H-3 (DIST)	28000	pCi/L
PZ-01	11/1/2016	H-3 (DIST)	36000	pCi/L
PZ-02	5/18/2016	H-3 (DIST)	< 500	pCi/L
PZ-03	2/4/2016	H-3 (DIST)	< 690	pCi/L
PZ-03	5/18/2016	H-3 (DIST)	< 510	pCi/L
PZ-03	8/31/2016	H-3 (DIST)	< 670	pCi/L
PZ-03	11/2/2016	H-3 (DIST)	< 670	pCi/L
SW-101	2/4/2016	H-3 (DIST)	< 690	pCi/L
SW-101	5/18/2016	H-3 (DIST)	< 720	pCi/L
SW-101	9/1/2016	H-3 (DIST)	< 630	pCi/L
SW-102	2/4/2016	H-3 (DIST)	< 680	pCi/L
SW-102	5/18/2016	H-3 (DIST)	< 730	pCi/L
SW-102	9/1/2016	H-3 (DIST)	< 630	pCi/L
SW-102	11/3/2016	H-3 (DIST)	< 580	pCi/L
SW-103	2/4/2016	H-3 (DIST)	< 690	pCi/L
SW-103	5/18/2016	H-3 (DIST)	< 690	pCi/L
SW-103	9/1/2016	H-3 (DIST)	< 670	pCi/L
SW-103	11/3/2016	H-3 (DIST)	< 750	pCi/L
SW-104	2/4/2016	H-3 (DIST)	< 690	pCi/L
SW-104	5/18/2016	H-3 (DIST)	< 720	pCi/L

Station ID	Start Date	Analysis	Reportable Results	Units
SW-104	9/1/2016	H-3 (DIST)	< 630	pCi/L
T-14	5/19/2016	H-3 (DIST)	< 710	pCi/L

Hard-To-Detects				
Station	Start Date	Analysis	Reportable Results	Units
MW-158 HTD	2/4/2016	FE-55	< 72	pCi/L
MW-158 HTD	2/4/2016	NI-63	< 16	pCi/L
MW-158 HTD	2/4/2016	SR-89	< 7.4	pCi/L
MW-158 HTD	2/4/2016	SR-90	< 2	pCi/L
MW-158 HTD	2/4/2016	CM-242 (AS)	< 0.091	pCi/L
MW-158 HTD	2/4/2016	CM-243/244 (AS)	< 0.066	pCi/L

Station ID	Date	MN-54	CO-58	FE-59	CO-60	ZN-65	NB-95	ZR-95	I-131	CS-134	CS-137	BA-140	LA-140
MW-04	5/18/2016	< 1.5E+00	< 1.8E+00	< 4.2E+00	< 2.2E+00	< 3.6E+00	< 1.9E+00	< 3.3E+00	< 1.2E+01	< 1.6E+00	< 1.6E+00	< 2.0E+01	< 6.7E+00
MW-04-DUP	5/18/2016	< 1.8E+00	< 1.8E+00	< 4.5E+00	< 1.9E+00	< 3.5E+00	< 2.0E+00	< 3.5E+00	< 1.3E+01	< 1.5E+00	< 1.9E+00	< 2.4E+01	< 7.5E+00
MW-05	5/18/2016	< 1.6E+00	< 1.9E+00	< 4.0E+00	< 1.6E+00	< 3.4E+00	< 2.0E+00	< 3.5E+00	< 1.2E+01	< 1.6E+00	< 1.7E+00	< 2.0E+01	< 6.1E+00
MW-05	8/31/2016	< 2.2E+00	< 2.4E+00	< 5.9E+00	< 2.1E+00	< 4.5E+00	< 2.6E+00	< 4.5E+00	< 1.5E+01	< 2.2E+00	< 2.3E+00	< 2.4E+01	< 7.4E+00
MW-05	11/3/2016	< 1.4E+00	< 1.5E+00	< 3.3E+00	< 1.3E+00	< 3.0E+00	< 1.6E+00	< 2.7E+00	< 7.6E+00	< 1.3E+00	< 1.4E+00	< 1.4E+01	< 4.2E+00
MW-06	11/3/2016	< 1.6E+00	< 1.7E+00	< 3.9E+00	< 1.6E+00	< 3.0E+00	< 1.9E+00	< 3.4E+00	< 9.6E+00	< 1.5E+00	< 1.7E+00	< 1.7E+01	< 4.6E+00
MW-08	5/18/2016	< 1.8E+00	< 2.2E+00	< 5.0E+00	< 1.8E+00	< 3.8E+00	< 2.4E+00	< 3.9E+00	< 1.5E+01	< 1.8E+00	< 2.0E+00	< 2.4E+01	< 7.2E+00
MW-08	8/31/2016	< 2.3E+00	< 2.8E+00	< 6.5E+00	< 2.2E+00	< 4.9E+00	< 2.7E+00	< 4.7E+00	< 1.5E+01	< 2.3E+00	< 2.5E+00	< 2.5E+01	< 8.4E+00
MW-08	11/2/2016	< 2.1E+00	< 2.3E+00	< 5.1E+00	< 2.0E+00	< 4.4E+00	< 2.5E+00	< 4.2E+00	< 1.2E+01	< 2.0E+00	< 2.2E+00	< 2.0E+01	< 6.7E+00
MW-100	2/4/2016	< 4.4E+00	< 5.1E+00	< 9.1E+00	< 4.3E+00	< 8.0E+00	< 4.7E+00	< 7.3E+00	< 1.2E+01	< 4.4E+00	< 4.3E+00	< 2.8E+01	< 9.6E+00
MW-100	5/18/2016	< 2.6E+00	< 3.0E+00	< 6.7E+00	< 2.7E+00	< 5.5E+00	< 3.1E+00	< 5.3E+00	< 1.1E+01	< 2.5E+00	< 2.6E+00	< 2.3E+01	< 8.0E+00
MW-100	8/31/2016	< 1.8E+00	< 1.9E+00	< 4.3E+00	< 1.8E+00	< 3.6E+00	< 2.2E+00	< 3.5E+00	< 1.1E+01	< 1.6E+00	< 1.8E+00	< 2.0E+01	< 6.2E+00
MW-100	11/2/2016	< 1.3E+00	< 1.5E+00	< 3.6E+00	< 1.5E+00	< 2.8E+00	< 1.9E+00	< 2.8E+00	< 1.4E+01	< 1.2E+00	< 1.5E+00	< 1.8E+01	< 5.0E+00
MW-103	2/2/2016	< 5.1E+00	< 5.2E+00	< 1.1E+01	< 4.2E+00	< 1.0E+01	< 6.1E+00	< 1.0E+01	< 1.2E+01	< 5.2E+00	< 5.2E+00	< 2.7E+01	< 9.6E+00
MW-103	5/17/2016	< 6.3E+00	< 6.9E+00	< 1.2E+01	< 6.2E+00	< 1.2E+01	< 8.0E+00	< 1.1E+01	< 1.2E+01	< 5.2E+00	< 7.1E+00	< 3.2E+01	< 8.1E+00
MW-103	8/31/2016	< 6.5E+00	< 6.1E+00	< 1.2E+01	< 8.4E+00	< 8.6E+00	< 5.3E+00	< 1.2E+01	< 1.3E+01	< 5.8E+00	< 7.7E+00	< 3.3E+01	< 1.1E+01
MW-103	11/1/2016	< 2.4E+00	< 2.5E+00	< 5.4E+00	< 2.2E+00	< 5.0E+00	< 3.0E+00	< 4.5E+00	< 9.5E+00	< 2.2E+00	< 2.5E+00	< 1.9E+01	< 6.0E+00
MW-104	5/18/2016	< 1.9E+00	< 2.2E+00	< 5.0E+00	< 2.1E+00	< 4.0E+00	< 2.1E+00	< 4.0E+00	< 1.4E+01	< 1.8E+00	< 2.0E+00	< 2.2E+01	< 6.7E+00
MW-104	11/3/2016	< 1.5E+00	< 1.9E+00	< 4.5E+00	< 1.7E+00	< 3.3E+00	< 2.1E+00	< 3.8E+00	< 1.5E+01	< 1.6E+00	< 1.8E+00	< 2.2E+01	< 7.0E+00
MW-106	2/3/2016	< 3.7E+00	< 4.2E+00	< 8.4E+00	< 3.9E+00	< 8.2E+00	< 4.3E+00	< 7.1E+00	< 1.2E+01	< 3.9E+00	< 3.9E+00	< 2.5E+01	< 9.3E+00
MW-106	5/18/2016	< 2.0E+00	< 2.3E+00	< 5.0E+00	< 1.8E+00	< 3.8E+00	< 2.5E+00	< 4.5E+00	< 1.5E+01	< 1.9E+00	< 2.4E+00	< 2.3E+01	< 5.8E+00
MW-106	8/31/2016	< 1.7E+00	< 1.7E+00	< 4.1E+00	< 1.7E+00	< 3.5E+00	< 2.0E+00	< 3.3E+00	< 8.9E+00	< 1.5E+00	< 1.7E+00	< 1.7E+01	< 5.3E+00
MW-106	11/2/2016	< 8.2E+00	< 8.7E+00	< 1.6E+01	< 7.3E+00	< 1.4E+01	< 7.3E+00	< 1.2E+01	< 1.5E+01	< 6.9E+00	< 8.3E+00	< 4.5E+01	< 1.1E+01
MW-106-DUP	8/31/2016	< 1.9E+00	< 2.1E+00	< 5.1E+00	< 1.9E+00	< 3.4E+00	< 2.2E+00	< 3.6E+00	< 9.8E+00	< 1.7E+00	< 1.8E+00	< 1.8E+01	< 5.9E+00
MW-107	11/2/2016	< 6.3E+00	< 6.5E+00	< 1.3E+01	< 5.6E+00	< 1.2E+01	< 6.6E+00	< 1.0E+01	< 1.4E+01	< 8.8E+00	< 6.6E+00	< 3.5E+01	< 9.2E+00
MW-108	11/3/2016	< 1.7E+00	< 2.0E+00	< 4.7E+00	< 1.7E+00	< 3.5E+00	< 2.2E+00	< 3.5E+00	< 1.5E+01	< 1.6E+00	< 1.8E+00	< 2.3E+01	< 7.6E+00
MW-110	2/3/2016	< 6.4E+00	< 7.6E+00	< 1.1E+01	< 6.4E+00	< 9.5E+00	< 8.5E+00	< 1.1E+01	< 1.3E+01	< 6.9E+00	< 6.5E+00	< 3.4E+01	< 1.4E+01
MW-110	5/17/2016	< 5.7E+00	< 5.9E+00	< 1.2E+01	< 5.6E+00	< 1.2E+01	< 6.0E+00	< 1.0E+01	< 1.1E+01	< 4.7E+00	< 5.6E+00	< 2.8E+01	< 9.6E+00
MW-110	8/31/2016	< 6.4E+00	< 6.7E+00	< 1.3E+01	< 6.9E+00	< 1.3E+01	< 7.5E+00	< 1.1E+01	< 1.2E+01	< 6.0E+00	< 6.3E+00	< 3.1E+01	< 1.4E+01

Station ID	Date	MN-54	CO-58	FE-59	CO-60	ZN-65	NB-95	ZR-95	I-131	CS-134	CS-137	BA-140	LA-140
MW-110	11/2/2016	< 4.2E+00	< 4.1E+00	< 9.4E+00	< 4.3E+00	< 7.3E+00	< 5.1E+00	< 7.3E+00	< 1.5E+01	< 3.5E+00	< 4.2E+00	< 2.8E+01	< 1.1E+01
MW-111	5/18/2016	< 2.4E+00	< 2.4E+00	< 5.2E+00	< 2.3E+00	< 4.2E+00	< 2.5E+00	< 4.4E+00	< 1.5E+01	< 2.0E+00	< 2.3E+00	< 2.4E+01	< 7.8E+00
MW-111	11/2/2016	< 6.3E+00	< 5.2E+00	< 1.2E+01	< 6.6E+00	< 1.4E+01	< 7.7E+00	< 1.1E+01	< 1.3E+01	< 6.2E+00	< 6.8E+00	< 3.6E+01	< 1.3E+01
MW-112	2/2/2016	< 4.3E+00	< 4.9E+00	< 1.0E+01	< 5.5E+00	< 1.2E+01	< 6.8E+00	< 8.8E+00	< 1.2E+01	< 4.9E+00	< 5.8E+00	< 2.9E+01	< 9.0E+00
MW-112	5/17/2016	< 4.6E+00	< 6.4E+00	< 1.1E+01	< 5.8E+00	< 9.1E+00	< 5.9E+00	< 9.5E+00	< 1.2E+01	< 5.3E+00	< 5.4E+00	< 2.8E+01	< 9.1E+00
MW-112	8/30/2016	< 7.5E+00	< 5.9E+00	< 1.5E+01	< 6.0E+00	< 1.2E+01	< 7.4E+00	< 9.5E+00	< 1.2E+01	< 6.0E+00	< 7.0E+00	< 3.6E+01	< 7.7E+00
MW-112	11/2/2016	< 3.9E+00	< 4.2E+00	< 8.1E+00	< 3.8E+00	< 7.3E+00	< 4.2E+00	< 6.8E+00	< 1.5E+01	< 3.9E+00	< 3.5E+00	< 2.6E+01	< 9.1E+00
MW-114	2/2/2016	< 6.5E+00	< 7.3E+00	< 1.6E+01	< 6.4E+00	< 1.1E+01	< 6.9E+00	< 1.1E+01	< 1.3E+01	< 5.9E+00	< 7.3E+00	< 3.7E+01	< 1.2E+01
MW-114	5/17/2016	< 5.8E+00	< 6.6E+00	< 1.2E+01	< 6.9E+00	< 1.2E+01	< 6.7E+00	< 1.1E+01	< 1.3E+01	< 6.4E+00	< 7.0E+00	< 3.0E+01	< 1.0E+01
MW-114	8/30/2016	< 8.4E+00	< 9.5E+00	< 1.7E+01	< 7.4E+00	< 1.6E+01	< 8.3E+00	< 1.4E+01	< 1.4E+01	< 5.3E+00	< 7.7E+00	< 3.6E+01	< 1.2E+01
MW-114	11/2/2016	< 3.5E+00	< 3.8E+00	< 9.0E+00	< 3.5E+00	< 8.2E+00	< 4.2E+00	< 7.1E+00	< 1.4E+01	< 3.6E+00	< 3.9E+00	< 2.8E+01	< 9.4E+00
MW-116	2/3/2016	< 5.9E+00	< 5.9E+00	< 1.4E+01	< 6.0E+00	< 1.0E+01	< 7.0E+00	< 1.1E+01	< 1.2E+01	< 6.0E+00	< 6.4E+00	< 3.2E+01	< 1.1E+01
MW-116	5/17/2016	< 6.2E+00	< 6.2E+00	< 1.3E+01	< 6.6E+00	< 1.2E+01	< 6.4E+00	< 1.2E+01	< 1.3E+01	< 4.3E+00	< 5.5E+00	< 3.6E+01	< 1.3E+01
MW-116	8/30/2016	< 9.2E+00	< 6.7E+00	< 1.8E+01	< 8.2E+00	< 1.9E+01	< 1.0E+01	< 1.4E+01	< 1.4E+01	< 8.3E+00	< 9.1E+00	< 4.7E+01	< 1.4E+01
MW-116	11/2/2016	< 4.2E+00	< 4.6E+00	< 9.9E+00	< 4.1E+00	< 1.2E+01	< 6.2E+00	< 7.2E+00	< 1.5E+01	< 4.4E+00	< 4.3E+00	< 3.1E+01	< 1.1E+01
MW-116-DUP	5/17/2016	< 6.9E+00	< 6.2E+00	< 1.4E+01	< 6.0E+00	< 1.5E+01	< 8.6E+00	< 1.0E+01	< 1.3E+01	< 6.4E+00	< 7.5E+00	< 3.6E+01	< 1.0E+01
MW-118	2/2/2016	< 5.3E+00	< 5.9E+00	< 9.8E+00	< 5.8E+00	< 1.2E+01	< 6.8E+00	< 1.0E+01	< 1.3E+01	< 5.9E+00	< 6.8E+00	< 2.8E+01	< 1.1E+01
MW-118	5/17/2016	< 6.2E+00	< 5.4E+00	< 1.5E+01	< 6.4E+00	< 9.1E+00	< 7.1E+00	< 1.0E+01	< 1.4E+01	< 6.2E+00	< 6.6E+00	< 3.1E+01	< 1.2E+01
MW-118	8/31/2016	< 5.4E+00	< 6.0E+00	< 1.4E+01	< 7.5E+00	< 1.3E+01	< 7.6E+00	< 1.2E+01	< 1.3E+01	< 5.9E+00	< 6.9E+00	< 3.6E+01	< 9.5E+00
MW-118	11/2/2016	< 4.0E+00	< 3.5E+00	< 8.8E+00	< 4.2E+00	< 7.9E+00	< 5.1E+00	< 7.2E+00	< 1.5E+01	< 4.2E+00	< 4.2E+00	< 2.9E+01	< 1.1E+01
MW-120	2/3/2016	< 5.1E+00	< 5.1E+00	< 1.3E+01	< 5.4E+00	< 9.9E+00	< 5.4E+00	< 9.1E+00	< 1.5E+01	< 4.9E+00	< 5.2E+00	< 3.3E+01	< 1.1E+01
MW-120	5/18/2016	< 1.5E+00	< 1.6E+00	< 3.5E+00	< 1.4E+00	< 3.1E+00	< 1.6E+00	< 2.8E+00	< 1.1E+01	< 1.3E+00	< 1.6E+00	< 1.8E+01	< 5.3E+00
MW-120	8/31/2016	< 3.7E+00	< 4.0E+00	< 8.8E+00	< 3.0E+00	< 8.2E+00	< 4.8E+00	< 7.6E+00	< 1.5E+01	< 3.6E+00	< 3.7E+00	< 3.0E+01	< 8.3E+00
MW-120	11/2/2016	< 5.1E+00	< 5.2E+00	< 1.2E+01	< 4.6E+00	< 1.2E+01	< 7.0E+00	< 1.1E+01	< 1.2E+01	< 6.2E+00	< 6.0E+00	< 2.8E+01	< 9.4E+00
MW-120-DUP	2/3/2016	< 4.5E+00	< 3.7E+00	< 9.6E+00	< 3.4E+00	< 8.9E+00	< 4.2E+00	< 8.2E+00	< 1.3E+01	< 4.5E+00	< 5.1E+00	< 3.0E+01	< 8.7E+00
MW-120-DUP	11/2/2016	< 7.3E+00	< 8.2E+00	< 1.5E+01	< 8.3E+00	< 1.7E+01	< 7.8E+00	< 1.2E+01	< 1.5E+01	< 6.5E+00	< 7.3E+00	< 3.9E+01	< 1.4E+01
MW-122R	2/3/2016	< 3.6E+00	< 3.7E+00	< 8.4E+00	< 4.2E+00	< 7.8E+00	< 3.8E+00	< 6.2E+00	< 1.1E+01	< 3.7E+00	< 4.2E+00	< 2.5E+01	< 7.7E+00
MW-122R	5/18/2016	< 1.3E+00	< 1.9E+00	< 3.4E+00	< 1.7E+00	< 2.8E+00	< 1.7E+00	< 3.0E+00	< 1.2E+01	< 1.4E+00	< 1.5E+00	< 1.9E+01	< 5.9E+00
MW-122R	8/31/2016	< 4.0E+00	< 4.8E+00	< 1.0E+01	< 3.9E+00	< 7.5E+00	< 5.2E+00	< 8.5E+00	< 1.5E+01	< 4.5E+00	< 5.0E+00	< 3.3E+01	< 1.2E+01
MW-122R	11/2/2016	< 7.3E+00	< 6.9E+00	< 1.4E+01	< 6.4E+00	< 1.4E+01	< 6.2E+00	< 1.1E+01	< 1.3E+01	< 7.6E+00	< 7.8E+00	< 3.9E+01	< 1.1E+01
MW-126	2/4/2016	< 3.8E+00	< 4.0E+00	< 1.0E+01	< 4.4E+00	< 8.9E+00	< 5.3E+00	< 6.9E+00	< 1.3E+01	< 4.3E+00	< 4.4E+00	< 2.9E+01	< 8.5E+00

Station ID	Date	MN-54	CO-58	FE-59	CO-60	ZN-65	NB-95	ZR-95	I-131	CS-134	CS-137	BA-140	LA-140
MW-126	5/18/2016	< 2.5E+00	< 2.6E+00	< 6.0E+00	< 3.2E+00	< 5.2E+00	< 2.7E+00	< 4.9E+00	< 1.1E+01	< 2.1E+00	< 2.5E+00	< 2.1E+01	< 7.1E+00
MW-126	8/31/2016	< 3.4E+00	< 4.2E+00	< 8.9E+00	< 4.0E+00	< 7.9E+00	< 4.5E+00	< 7.4E+00	< 1.5E+01	< 3.8E+00	< 4.0E+00	< 3.2E+01	< 1.1E+01
MW-126	11/2/2016	< 1.7E+00	< 1.9E+00	< 4.5E+00	< 2.1E+00	< 3.7E+00	< 2.2E+00	< 3.6E+00	< 1.1E+01	< 1.7E+00	< 1.7E+00	< 1.8E+01	< 5.4E+00
MW-128	2/4/2016	< 5.6E+00	< 5.6E+00	< 1.4E+01	< 4.6E+00	< 1.2E+01	< 5.9E+00	< 9.6E+00	< 1.4E+01	< 4.9E+00	< 5.2E+00	< 3.4E+01	< 1.0E+01
MW-128	5/18/2016	< 1.5E+00	< 1.7E+00	< 3.9E+00	< 1.6E+00	< 3.1E+00	< 1.8E+00	< 2.8E+00	< 7.0E+00	< 1.4E+00	< 1.6E+00	< 1.4E+01	< 4.7E+00
MW-128	8/31/2016	< 4.3E+00	< 5.3E+00	< 1.2E+01	< 4.3E+00	< 9.6E+00	< 4.8E+00	< 8.3E+00	< 1.5E+01	< 3.8E+00	< 4.4E+00	< 3.4E+01	< 1.0E+01
MW-128	11/2/2016	< 1.4E+00	< 1.7E+00	< 3.9E+00	< 1.5E+00	< 3.1E+00	< 1.9E+00	< 3.1E+00	< 1.4E+01	< 1.4E+00	< 1.6E+00	< 2.2E+01	< 7.4E+00
MW-130	2/4/2016	< 4.2E+00	< 4.8E+00	< 8.9E+00	< 4.0E+00	< 7.5E+00	< 4.5E+00	< 8.1E+00	< 1.3E+01	< 4.4E+00	< 3.6E+00	< 3.3E+01	< 9.0E+00
MW-130	5/18/2016	< 2.3E+00	< 2.6E+00	< 6.7E+00	< 2.6E+00	< 5.0E+00	< 2.8E+00	< 4.8E+00	< 1.5E+01	< 2.0E+00	< 2.3E+00	< 2.6E+01	< 9.3E+00
MW-130	8/31/2016	< 1.8E+00	< 2.0E+00	< 4.7E+00	< 2.4E+00	< 3.5E+00	< 2.0E+00	< 3.6E+00	< 1.1E+01	< 1.8E+00	< 1.8E+00	< 1.8E+01	< 5.7E+00
MW-130	11/2/2016	< 1.3E+00	< 1.5E+00	< 3.1E+00	< 1.4E+00	< 2.7E+00	< 1.7E+00	< 2.7E+00	< 7.6E+00	< 1.3E+00	< 1.5E+00	< 1.3E+01	< 4.4E+00
MW-131	2/4/2016	< 3.4E+00	< 3.6E+00	< 7.3E+00	< 3.3E+00	< 7.0E+00	< 3.8E+00	< 6.5E+00	< 1.0E+01	< 3.6E+00	< 3.6E+00	< 2.5E+01	< 7.1E+00
MW-131	5/18/2016	< 4.2E+00	< 4.2E+00	< 8.9E+00	< 5.5E+00	< 8.3E+00	< 5.6E+00	< 7.3E+00	< 1.4E+01	< 4.1E+00	< 4.0E+00	< 3.4E+01	< 1.0E+01
MW-131	8/31/2016	< 1.4E+00	< 1.6E+00	< 3.5E+00	< 1.3E+00	< 2.9E+00	< 1.7E+00	< 2.7E+00	< 8.8E+00	< 1.3E+00	< 1.4E+00	< 1.5E+01	< 4.4E+00
MW-131	11/2/2016	< 1.9E+00	< 2.1E+00	< 4.5E+00	< 1.7E+00	< 3.8E+00	< 2.3E+00	< 3.7E+00	< 1.1E+01	< 1.8E+00	< 1.9E+00	< 1.8E+01	< 5.7E+00
MW-131-DUP	2/4/2016	< 5.7E+00	< 4.9E+00	< 8.4E+00	< 4.9E+00	< 7.7E+00	< 4.7E+00	< 8.0E+00	< 1.4E+01	< 4.3E+00	< 4.8E+00	< 3.0E+01	< 7.2E+00
MW-131-DUP	5/18/2016	< 3.9E+00	< 4.1E+00	< 1.1E+01	< 5.2E+00	< 6.9E+00	< 4.2E+00	< 7.5E+00	< 1.4E+01	< 3.7E+00	< 4.0E+00	< 3.0E+01	< 8.7E+00
MW-132	2/3/2016	< 4.3E+00	< 5.6E+00	< 1.2E+01	< 4.6E+00	< 7.2E+00	< 5.4E+00	< 8.9E+00	< 1.3E+01	< 4.9E+00	< 5.8E+00	< 2.9E+01	< 1.2E+01
MW-132	5/18/2016	< 3.9E+00	< 4.2E+00	< 9.2E+00	< 4.5E+00	< 8.4E+00	< 4.8E+00	< 8.1E+00	< 1.5E+01	< 4.1E+00	< 4.4E+00	< 3.2E+01	< 1.1E+01
MW-132	8/31/2016	< 1.9E+00	< 2.1E+00	< 4.7E+00	< 1.9E+00	< 3.8E+00	< 2.2E+00	< 3.6E+00	< 1.1E+01	< 1.7E+00	< 2.0E+00	< 2.2E+01	< 5.9E+00
MW-132	11/3/2016	< 5.9E+00	< 6.3E+00	< 1.2E+01	< 5.9E+00	< 1.5E+01	< 9.0E+00	< 1.0E+01	< 1.5E+01	< 5.2E+00	< 6.1E+00	< 3.3E+01	< 1.3E+01
MW-134	2/3/2016	< 3.2E+00	< 3.7E+00	< 7.2E+00	< 3.8E+00	< 6.7E+00	< 3.6E+00	< 6.6E+00	< 1.0E+01	< 3.5E+00	< 3.5E+00	< 2.4E+01	< 7.8E+00
MW-134	5/18/2016	< 3.9E+00	< 4.4E+00	< 1.0E+01	< 4.7E+00	< 8.4E+00	< 4.6E+00	< 7.1E+00	< 1.5E+01	< 4.0E+00	< 4.0E+00	< 3.2E+01	< 1.1E+01
MW-134	8/31/2016	< 3.8E+00	< 3.9E+00	< 7.8E+00	< 2.6E+00	< 7.1E+00	< 4.0E+00	< 6.8E+00	< 1.5E+01	< 3.4E+00	< 3.5E+00	< 2.7E+01	< 8.7E+00
MW-134	11/3/2016	< 4.9E+00	< 5.8E+00	< 1.3E+01	< 5.4E+00	< 7.9E+00	< 6.8E+00	< 9.4E+00	< 1.0E+01	< 4.1E+00	< 5.2E+00	< 3.5E+01	< 1.4E+01
MW-137	2/3/2016	< 5.4E+00	< 5.4E+00	< 1.1E+01	< 5.9E+00	< 9.3E+00	< 5.2E+00	< 9.6E+00	< 9.9E+00	< 5.3E+00	< 6.0E+00	< 3.0E+01	< 9.0E+00
MW-137	5/17/2016	< 5.9E+00	< 5.7E+00	< 1.5E+01	< 5.2E+00	< 1.2E+01	< 5.8E+00	< 9.1E+00	< 1.1E+01	< 5.2E+00	< 5.6E+00	< 2.8E+01	< 9.3E+00
MW-137	8/31/2016	< 7.1E+00	< 6.3E+00	< 1.2E+01	< 7.0E+00	< 1.5E+01	< 6.9E+00	< 1.5E+01	< 1.4E+01	< 7.7E+00	< 8.8E+00	< 3.8E+01	< 1.4E+01
MW-137	11/2/2016	< 3.7E+00	< 3.9E+00	< 8.1E+00	< 4.3E+00	< 7.7E+00	< 4.3E+00	< 6.8E+00	< 1.4E+01	< 3.6E+00	< 3.5E+00	< 2.9E+01	< 8.4E+00
MW-137-DUP	8/31/2016	< 5.6E+00	< 5.7E+00	< 1.1E+01	< 5.6E+00	< 1.1E+01	< 6.3E+00	< 1.0E+01	< 1.1E+01	< 5.2E+00	< 6.0E+00	< 3.2E+01	< 8.5E+00
MW-139	2/3/2016	< 4.5E+00	< 5.4E+00	< 7.4E+00	< 5.7E+00	< 9.9E+00	< 4.7E+00	< 1.0E+01	< 1.2E+01	< 4.2E+00	< 4.4E+00	< 3.7E+01	< 4.6E+00

Station ID	Date	MN-54	CO-58	FE-59	CO-60	ZN-65	NB-95	ZR-95	I-131	CS-134	CS-137	BA-140	LA-140
MW-139	5/17/2016	< 6.6E+00	< 5.8E+00	< 1.5E+01	< 6.1E+00	< 1.3E+01	< 6.3E+00	< 1.1E+01	< 1.4E+01	< 5.4E+00	< 6.5E+00	< 3.7E+01	< 8.3E+00
MW-139	8/30/2016	< 5.9E+00	< 6.5E+00	< 1.2E+01	< 6.8E+00	< 1.2E+01	< 7.3E+00	< 1.2E+01	< 1.4E+01	< 7.4E+00	< 7.2E+00	< 3.4E+01	< 9.4E+00
MW-139	11/1/2016	< 3.5E+00	< 3.5E+00	< 8.6E+00	< 3.9E+00	< 6.7E+00	< 4.1E+00	< 6.7E+00	< 1.5E+01	< 3.1E+00	< 3.8E+00	< 2.7E+01	< 1.1E+01
MW-139-DUP	2/3/2016	< 5.8E+00	< 6.9E+00	< 1.6E+01	< 7.8E+00	< 1.3E+01	< 8.4E+00	< 1.3E+01	< 1.5E+01	< 6.9E+00	< 7.1E+00	< 4.0E+01	< 1.3E+01
MW-14	5/19/2016	< 2.0E+00	< 2.3E+00	< 5.0E+00	< 1.9E+00	< 4.2E+00	< 2.5E+00	< 4.3E+00	< 9.5E+00	< 1.8E+00	< 2.2E+00	< 1.9E+01	< 5.9E+00
MW-14	9/5/2016	< 2.1E+00	< 2.4E+00	< 4.9E+00	< 2.1E+00	< 4.2E+00	< 2.5E+00	< 4.2E+00	< 8.8E+00	< 2.0E+00	< 2.2E+00	< 1.8E+01	< 6.1E+00
MW-14	11/3/2016	< 1.7E+00	< 2.0E+00	< 4.6E+00	< 2.0E+00	< 3.6E+00	< 2.2E+00	< 3.9E+00	< 1.0E+01	< 1.7E+00	< 1.9E+00	< 1.8E+01	< 5.0E+00
MW-141	2/3/2016	< 4.3E+00	< 4.0E+00	< 9.3E+00	< 5.2E+00	< 8.0E+00	< 4.2E+00	< 8.0E+00	< 9.4E+00	< 4.3E+00	< 3.9E+00	< 2.2E+01	< 8.0E+00
MW-141	5/17/2016	< 5.1E+00	< 6.3E+00	< 1.1E+01	< 5.5E+00	< 1.1E+01	< 6.3E+00	< 1.1E+01	< 1.3E+01	< 5.7E+00	< 6.2E+00	< 3.1E+01	< 8.9E+00
MW-141	8/31/2016	< 5.9E+00	< 7.9E+00	< 1.6E+01	< 7.5E+00	< 1.5E+01	< 8.8E+00	< 1.1E+01	< 1.4E+01	< 7.2E+00	< 7.4E+00	< 3.6E+01	< 1.2E+01
MW-141	11/1/2016	< 4.3E+00	< 3.3E+00	< 8.4E+00	< 3.5E+00	< 7.2E+00	< 4.1E+00	< 7.3E+00	< 1.3E+01	< 3.9E+00	< 3.8E+00	< 2.9E+01	< 1.0E+01
MW-142	2/4/2016	< 4.0E+00	< 5.1E+00	< 8.8E+00	< 3.9E+00	< 7.2E+00	< 4.7E+00	< 7.6E+00	< 1.2E+01	< 4.1E+00	< 4.5E+00	< 2.9E+01	< 6.3E+00
MW-142	5/17/2016	< 2.5E+00	< 2.8E+00	< 7.2E+00	< 2.6E+00	< 5.5E+00	< 2.8E+00	< 4.9E+00	< 1.5E+01	< 2.0E+00	< 2.7E+00	< 2.6E+01	< 9.3E+00
MW-142	8/30/2016	< 2.0E+00	< 2.3E+00	< 5.1E+00	< 2.2E+00	< 4.1E+00	< 2.5E+00	< 3.8E+00	< 1.5E+01	< 2.0E+00	< 2.2E+00	< 2.3E+01	< 7.4E+00
MW-142	11/1/2016	< 1.5E+00	< 1.8E+00	< 4.2E+00	< 1.5E+00	< 3.2E+00	< 2.0E+00	< 3.2E+00	< 1.5E+01	< 1.5E+00	< 1.6E+00	< 2.2E+01	< 7.2E+00
MW-144	2/4/2016	< 5.8E+00	< 5.9E+00	< 1.5E+01	< 4.1E+00	< 1.2E+01	< 5.7E+00	< 1.2E+01	< 1.3E+01	< 5.2E+00	< 6.5E+00	< 3.4E+01	< 1.2E+01
MW-144	5/17/2016	< 5.7E+00	< 5.1E+00	< 1.3E+01	< 6.6E+00	< 1.2E+01	< 5.7E+00	< 9.7E+00	< 1.1E+01	< 5.0E+00	< 7.1E+00	< 2.8E+01	< 1.3E+01
MW-144	8/30/2016	< 6.6E+00	< 4.7E+00	< 1.1E+01	< 8.5E+00	< 1.5E+01	< 6.1E+00	< 1.2E+01	< 1.1E+01	< 6.1E+00	< 5.4E+00	< 4.0E+01	< 5.4E+00
MW-144	11/1/2016	< 2.5E+00	< 2.7E+00	< 6.0E+00	< 2.5E+00	< 5.3E+00	< 2.8E+00	< 4.9E+00	< 1.0E+01	< 2.3E+00	< 2.8E+00	< 2.0E+01	< 6.1E+00
MW-146	2/4/2016	< 7.4E+00	< 6.9E+00	< 1.4E+01	< 7.5E+00	< 1.3E+01	< 8.0E+00	< 1.2E+01	< 1.5E+01	< 6.0E+00	< 7.0E+00	< 3.2E+01	< 1.1E+01
MW-146	5/17/2016	< 6.9E+00	< 6.1E+00	< 1.2E+01	< 5.3E+00	< 1.2E+01	< 5.9E+00	< 1.2E+01	< 1.4E+01	< 5.9E+00	< 6.1E+00	< 3.0E+01	< 1.4E+01
MW-146	8/30/2016	< 5.6E+00	< 6.5E+00	< 1.4E+01	< 5.3E+00	< 1.3E+01	< 6.8E+00	< 9.9E+00	< 1.4E+01	< 6.5E+00	< 8.0E+00	< 3.2E+01	< 1.2E+01
MW-146	11/1/2016	< 2.7E+00	< 3.0E+00	< 6.1E+00	< 2.5E+00	< 5.7E+00	< 3.2E+00	< 5.5E+00	< 1.3E+01	< 3.2E+00	< 2.9E+00	< 2.5E+01	< 5.9E+00
MW-146-DUP	11/1/2016	< 2.6E+00	< 2.8E+00	< 5.6E+00	< 2.9E+00	< 5.8E+00	< 3.2E+00	< 5.4E+00	< 1.1E+01	< 2.6E+00	< 2.8E+00	< 2.2E+01	< 7.3E+00
MW-147	2/4/2016	< 7.7E+00	< 5.2E+00	< 1.3E+01	< 6.6E+00	< 1.6E+01	< 6.6E+00	< 1.4E+01	< 1.3E+01	< 6.6E+00	< 7.5E+00	< 4.4E+01	< 1.2E+01
MW-147	5/17/2016	< 5.6E+00	< 6.1E+00	< 1.4E+01	< 6.7E+00	< 1.3E+01	< 7.0E+00	< 1.1E+01	< 1.5E+01	< 5.8E+00	< 7.5E+00	< 2.8E+01	< 1.2E+01
MW-147	8/30/2016	< 6.9E+00	< 8.0E+00	< 1.4E+01	< 6.7E+00	< 1.2E+01	< 7.2E+00	< 1.3E+01	< 1.5E+01	< 6.9E+00	< 6.8E+00	< 4.2E+01	< 1.3E+01
MW-147	11/1/2016	< 1.5E+00	< 1.6E+00	< 3.7E+00	< 1.4E+00	< 2.9E+00	< 1.7E+00	< 3.0E+00	< 9.4E+00	< 1.4E+00	< 1.5E+00	< 1.7E+01	< 5.4E+00
MW-148	2/4/2016	< 5.0E+00	< 5.2E+00	< 9.9E+00	< 4.5E+00	< 8.9E+00	< 5.7E+00	< 9.0E+00	< 1.3E+01	< 4.4E+00	< 4.5E+00	< 3.0E+01	< 9.6E+00
MW-148	5/17/2016	< 4.5E+00	< 4.9E+00	< 9.3E+00	< 5.2E+00	< 8.6E+00	< 6.2E+00	< 9.6E+00	< 1.2E+01	< 4.9E+00	< 6.8E+00	< 3.0E+01	< 9.4E+00
MW-148	8/30/2016	< 2.2E+00	< 2.7E+00	< 6.2E+00	< 2.2E+00	< 4.4E+00	< 2.9E+00	< 5.0E+00	< 1.5E+01	< 2.2E+00	< 2.4E+00	< 2.5E+01	< 8.3E+00

Station ID	Date	MN-54	CO-58	FE-59	CO-60	ZN-65	NB-95	ZR-95	I-131	CS-134	CS-137	BA-140	LA-140
MW-148	11/1/2016	< 3.7E+00	< 4.0E+00	< 8.8E+00	< 4.2E+00	< 9.2E+00	< 5.2E+00	< 8.0E+00	< 1.5E+01	< 3.6E+00	< 3.9E+00	< 3.0E+01	< 1.1E+01
MW-151	2/2/2016	< 3.6E+00	< 3.8E+00	< 9.1E+00	< 3.4E+00	< 7.1E+00	< 4.0E+00	< 6.4E+00	< 1.3E+01	< 3.3E+00	< 3.1E+00	< 2.5E+01	< 5.6E+00
MW-151	5/18/2016	< 2.4E+00	< 2.5E+00	< 5.6E+00	< 2.2E+00	< 4.3E+00	< 2.6E+00	< 4.7E+00	< 1.5E+01	< 2.2E+00	< 2.5E+00	< 2.6E+01	< 8.0E+00
MW-151	8/31/2016	< 2.1E+00	< 2.1E+00	< 5.1E+00	< 1.9E+00	< 4.2E+00	< 2.4E+00	< 4.0E+00	< 1.3E+01	< 2.1E+00	< 2.1E+00	< 2.1E+01	< 7.3E+00
MW-151	11/2/2016	< 4.8E+00	< 4.7E+00	< 8.5E+00	< 4.1E+00	< 7.6E+00	< 5.1E+00	< 8.3E+00	< 1.1E+01	< 4.8E+00	< 5.0E+00	< 2.7E+01	< 7.7E+00
MW-153	2/3/2016	< 3.2E+00	< 3.7E+00	< 8.0E+00	< 3.1E+00	< 6.8E+00	< 3.6E+00	< 6.3E+00	< 9.4E+00	< 3.3E+00	< 3.3E+00	< 2.2E+01	< 7.0E+00
MW-153	5/17/2016	< 5.8E+00	< 6.2E+00	< 1.0E+01	< 5.9E+00	< 9.7E+00	< 6.0E+00	< 9.6E+00	< 1.2E+01	< 5.8E+00	< 6.3E+00	< 3.5E+01	< 8.5E+00
MW-153	8/30/2016	< 6.0E+00	< 6.7E+00	< 1.4E+01	< 7.6E+00	< 1.4E+01	< 9.3E+00	< 1.2E+01	< 1.4E+01	< 8.2E+00	< 6.3E+00	< 2.9E+01	< 1.2E+01
MW-153	11/1/2016	< 2.5E+00	< 2.5E+00	< 6.0E+00	< 2.7E+00	< 4.8E+00	< 2.9E+00	< 4.9E+00	< 1.1E+01	< 2.3E+00	< 2.6E+00	< 2.1E+01	< 7.7E+00
MW-153-DUP	5/17/2016	< 5.9E+00	< 6.0E+00	< 1.3E+01	< 5.3E+00	< 9.6E+00	< 6.2E+00	< 1.1E+01	< 1.2E+01	< 5.4E+00	< 7.5E+00	< 3.5E+01	< 1.3E+01
MW-155	2/4/2016	< 5.8E+00	< 5.1E+00	< 1.1E+01	< 6.5E+00	< 9.8E+00	< 6.0E+00	< 8.2E+00	< 1.1E+01	< 5.3E+00	< 5.9E+00	< 3.0E+01	< 1.0E+01
MW-155	5/18/2016	< 9.4E+00	< 7.0E+00	< 1.7E+01	< 8.0E+00	< 1.7E+01	< 9.4E+00	< 1.1E+01	< 1.4E+01	< 8.0E+00	< 8.4E+00	< 4.1E+01	< 1.2E+01
MW-155	8/30/2016	< 6.2E+00	< 6.2E+00	< 1.7E+01	< 6.2E+00	< 1.4E+01	< 7.7E+00	< 1.2E+01	< 1.3E+01	< 5.9E+00	< 5.8E+00	< 3.5E+01	< 1.0E+01
MW-155	11/1/2016	< 1.9E+00	< 2.2E+00	< 4.5E+00	< 2.1E+00	< 3.6E+00	< 2.2E+00	< 3.9E+00	< 7.4E+00	< 1.8E+00	< 1.9E+00	< 1.5E+01	< 5.2E+00
MW-155-DUP	5/18/2016	< 7.2E+00	< 8.7E+00	< 1.7E+01	< 7.9E+00	< 1.6E+01	< 7.7E+00	< 1.4E+01	< 1.3E+01	< 7.3E+00	< 8.0E+00	< 3.8E+01	< 1.5E+01
MW-155-DUP	8/30/2016	< 6.8E+00	< 6.9E+00	< 1.6E+01	< 6.2E+00	< 1.4E+01	< 8.0E+00	< 1.3E+01	< 1.3E+01	< 6.6E+00	< 6.7E+00	< 3.3E+01	< 1.4E+01
MW-156	2/4/2016	< 7.3E+00	< 5.3E+00	< 1.4E+01	< 5.5E+00	< 1.2E+01	< 8.4E+00	< 1.3E+01	< 9.1E+00	< 4.4E+00	< 7.2E+00	< 3.2E+01	< 9.7E+00
MW-156	5/18/2016	< 6.0E+00	< 6.8E+00	< 1.5E+01	< 6.2E+00	< 1.1E+01	< 5.8E+00	< 1.0E+01	< 1.2E+01	< 5.2E+00	< 6.4E+00	< 2.9E+01	< 8.4E+00
MW-156	8/30/2016	< 7.7E+00	< 6.9E+00	< 1.7E+01	< 8.4E+00	< 1.1E+01	< 7.6E+00	< 1.6E+01	< 1.5E+01	< 5.8E+00	< 8.6E+00	< 3.6E+01	< 5.1E+00
MW-156	11/1/2016	< 2.4E+00	< 2.5E+00	< 5.9E+00	< 2.6E+00	< 5.3E+00	< 2.9E+00	< 5.2E+00	< 1.0E+01	< 2.5E+00	< 2.4E+00	< 2.2E+01	< 7.6E+00
MW-157	2/4/2016	< 4.9E+00	< 4.5E+00	< 8.7E+00	< 5.0E+00	< 1.0E+01	< 4.8E+00	< 9.0E+00	< 1.0E+01	< 4.8E+00	< 4.8E+00	< 2.6E+01	< 7.7E+00
MW-157	5/18/2016	< 6.4E+00	< 4.6E+00	< 1.2E+01	< 8.3E+00	< 8.5E+00	< 5.6E+00	< 1.1E+01	< 1.0E+01	< 5.8E+00	< 5.8E+00	< 3.2E+01	< 1.3E+01
MW-157	8/31/2016	< 8.1E+00	< 9.4E+00	< 1.9E+01	< 8.1E+00	< 1.6E+01	< 8.6E+00	< 1.3E+01	< 1.3E+01	< 6.4E+00	< 9.8E+00	< 3.5E+01	< 1.2E+01
MW-157	11/1/2016	< 4.0E+00	< 4.6E+00	< 9.3E+00	< 3.9E+00	< 7.3E+00	< 4.8E+00	< 9.0E+00	< 1.5E+01	< 3.4E+00	< 3.5E+00	< 3.0E+01	< 8.1E+00
MW-157-DUP	5/18/2016	< 4.3E+00	< 4.2E+00	< 9.9E+00	< 3.7E+00	< 8.7E+00	< 4.9E+00	< 9.0E+00	< 1.0E+01	< 4.9E+00	< 4.1E+00	< 2.1E+01	< 8.4E+00
MW-158	2/4/2016	< 6.6E+00	< 7.0E+00	< 1.6E+01	< 7.9E+00	< 1.3E+01	< 7.9E+00	< 1.3E+01	< 1.3E+01	< 6.2E+00	< 7.5E+00	< 3.4E+01	< 9.1E+00
MW-158	5/17/2016	< 6.4E+00	< 6.6E+00	< 1.3E+01	< 8.8E+00	< 1.3E+01	< 6.4E+00	< 1.3E+01	< 1.3E+01	< 6.9E+00	< 6.5E+00	< 3.2E+01	< 1.4E+01
MW-158	8/30/2016	< 4.9E+00	< 6.0E+00	< 1.6E+01	< 7.4E+00	< 1.2E+01	< 7.4E+00	< 8.9E+00	< 1.4E+01	< 7.1E+00	< 8.2E+00	< 4.0E+01	< 1.1E+01
MW-158	11/1/2016	< 3.3E+00	< 3.5E+00	< 9.4E+00	< 4.3E+00	< 7.5E+00	< 4.4E+00	< 7.3E+00	< 1.5E+01	< 3.7E+00	< 4.1E+00	< 2.8E+01	< 9.6E+00
MW-159	2/4/2016	< 5.4E+00	< 5.9E+00	< 1.4E+01	< 6.2E+00	< 1.2E+01	< 5.8E+00	< 1.1E+01	< 1.5E+01	< 5.0E+00	< 5.7E+00	< 3.4E+01	< 1.4E+01
MW-159	5/17/2016	< 5.2E+00	< 6.7E+00	< 1.5E+01	< 6.2E+00	< 1.2E+01	< 9.0E+00	< 9.8E+00	< 1.4E+01	< 7.3E+00	< 7.2E+00	< 3.4E+01	< 1.3E+01

Station ID	Date	MN-54	CO-58	FE-59	CO-60	ZN-65	NB-95	ZR-95	I-131	CS-134	CS-137	BA-140	LA-140
MW-159	8/30/2016	< 7.0E+00	< 5.2E+00	< 1.5E+01	< 5.3E+00	< 1.1E+01	< 8.1E+00	< 1.3E+01	< 1.4E+01	< 6.3E+00	< 6.7E+00	< 3.1E+01	< 1.2E+01
MW-159	11/1/2016	< 4.6E+00	< 4.7E+00	< 9.5E+00	< 4.2E+00	< 7.5E+00	< 4.6E+00	< 7.2E+00	< 1.5E+01	< 4.5E+00	< 4.5E+00	< 3.2E+01	< 1.0E+01
MW-161	2/3/2016	< 4.3E+00	< 4.3E+00	< 1.1E+01	< 3.6E+00	< 8.8E+00	< 4.7E+00	< 7.2E+00	< 1.5E+01	< 4.2E+00	< 4.7E+00	< 3.2E+01	< 1.1E+01
MW-161	5/18/2016	< 1.8E+00	< 2.6E+00	< 4.6E+00	< 1.8E+00	< 4.3E+00	< 2.3E+00	< 4.1E+00	< 1.1E+01	< 2.0E+00	< 2.1E+00	< 1.9E+01	< 6.6E+00
MW-161	8/31/2016	< 3.0E+00	< 3.3E+00	< 9.2E+00	< 3.4E+00	< 7.2E+00	< 4.0E+00	< 6.9E+00	< 1.4E+01	< 3.4E+00	< 3.6E+00	< 2.8E+01	< 9.9E+00
MW-161	11/3/2016	< 1.6E+00	< 2.0E+00	< 4.3E+00	< 1.7E+00	< 3.9E+00	< 2.3E+00	< 3.6E+00	< 1.5E+01	< 1.6E+00	< 1.8E+00	< 2.3E+01	< 6.5E+00
MW-162	2/4/2016	< 6.3E+00	< 4.3E+00	< 1.5E+01	< 6.7E+00	< 8.5E+00	< 4.3E+00	< 1.3E+01	< 1.2E+01	< 6.9E+00	< 5.3E+00	< 2.9E+01	< 9.9E+00
MW-162	5/17/2016	< 2.3E+00	< 2.6E+00	< 5.7E+00	< 3.1E+00	< 4.7E+00	< 2.8E+00	< 4.7E+00	< 1.5E+01	< 2.3E+00	< 2.4E+00	< 2.6E+01	< 8.8E+00
MW-162	8/30/2016	< 1.7E+00	< 2.0E+00	< 4.5E+00	< 1.7E+00	< 3.5E+00	< 2.0E+00	< 3.5E+00	< 1.1E+01	< 1.6E+00	< 1.7E+00	< 1.9E+01	< 6.0E+00
MW-162	11/1/2016	< 1.4E+00	< 1.5E+00	< 3.8E+00	< 1.4E+00	< 2.9E+00	< 1.7E+00	< 2.8E+00	< 9.4E+00	< 1.3E+00	< 1.5E+00	< 1.6E+01	< 5.1E+00
MW-162-DUP	2/4/2016	< 6.5E+00	< 8.5E+00	< 1.6E+01	< 7.5E+00	< 1.4E+01	< 7.9E+00	< 1.4E+01	< 1.4E+01	< 7.3E+00	< 8.4E+00	< 3.7E+01	< 1.2E+01
MW-164	11/2/2016	< 6.5E+00	< 5.4E+00	< 1.4E+01	< 6.3E+00	< 1.3E+01	< 5.4E+00	< 1.0E+01	< 1.4E+01	< 5.7E+00	< 6.9E+00	< 3.6E+01	< 8.1E+00
MW-165	11/2/2016	< 6.1E+00	< 7.0E+00	< 1.7E+01	< 5.3E+00	< 1.5E+01	< 7.1E+00	< 1.2E+01	< 1.4E+01	< 6.9E+00	< 6.1E+00	< 3.5E+01	< 1.3E+01
MW-167	2/4/2016	< 5.1E+00	< 4.3E+00	< 8.3E+00	< 4.5E+00	< 9.9E+00	< 5.3E+00	< 8.7E+00	< 1.4E+01	< 4.2E+00	< 4.5E+00	< 2.4E+01	< 1.2E+01
MW-167	5/18/2016	< 1.6E+00	< 1.7E+00	< 4.0E+00	< 1.5E+00	< 3.1E+00	< 2.1E+00	< 3.5E+00	< 1.3E+01	< 1.5E+00	< 1.9E+00	< 2.0E+01	< 5.6E+00
MW-167	8/31/2016	< 3.3E+00	< 3.7E+00	< 7.1E+00	< 3.2E+00	< 7.4E+00	< 4.0E+00	< 6.4E+00	< 1.5E+01	< 4.0E+00	< 3.6E+00	< 2.9E+01	< 7.8E+00
MW-167	11/3/2016	< 5.2E+00	< 5.8E+00	< 1.0E+01	< 5.5E+00	< 1.1E+01	< 6.1E+00	< 1.0E+01	< 1.5E+01	< 5.3E+00	< 6.0E+00	< 3.4E+01	< 1.1E+01
MW-169	2/3/2016	< 4.5E+00	< 4.6E+00	< 9.0E+00	< 4.8E+00	< 9.7E+00	< 5.3E+00	< 8.7E+00	< 1.3E+01	< 4.7E+00	< 4.7E+00	< 2.8E+01	< 9.6E+00
MW-169	5/18/2016	< 4.1E+00	< 4.3E+00	< 7.8E+00	< 3.7E+00	< 8.7E+00	< 5.1E+00	< 7.4E+00	< 1.4E+01	< 3.8E+00	< 4.1E+00	< 2.9E+01	< 9.3E+00
MW-169	8/31/2016	< 2.0E+00	< 2.3E+00	< 4.4E+00	< 1.8E+00	< 3.9E+00	< 2.6E+00	< 4.1E+00	< 1.5E+01	< 2.2E+00	< 2.2E+00	< 2.4E+01	< 5.7E+00
MW-169	11/1/2016	< 2.3E+00	< 2.3E+00	< 5.9E+00	< 2.3E+00	< 5.0E+00	< 2.7E+00	< 4.7E+00	< 8.7E+00	< 2.2E+00	< 2.5E+00	< 1.8E+01	< 6.3E+00
MW-169-DUP	11/1/2016	< 2.5E+00	< 2.7E+00	< 6.4E+00	< 2.5E+00	< 5.7E+00	< 3.2E+00	< 5.0E+00	< 1.1E+01	< 2.5E+00	< 2.5E+00	< 2.1E+01	< 7.7E+00
MW-170	2/3/2016	< 5.0E+00	< 5.3E+00	< 1.2E+01	< 5.0E+00	< 1.2E+01	< 5.6E+00	< 1.0E+01	< 1.5E+01	< 4.3E+00	< 5.3E+00	< 3.5E+01	< 1.2E+01
MW-170	5/18/2016	< 2.1E+00	< 2.5E+00	< 5.7E+00	< 2.1E+00	< 4.5E+00	< 2.7E+00	< 4.6E+00	< 1.5E+01	< 2.1E+00	< 2.3E+00	< 2.4E+01	< 6.4E+00
MW-170	8/31/2016	< 4.9E+00	< 5.2E+00	< 1.1E+01	< 5.1E+00	< 7.4E+00	< 4.9E+00	< 8.7E+00	< 1.5E+01	< 4.1E+00	< 4.5E+00	< 3.2E+01	< 1.0E+01
MW-170	11/3/2016	< 1.9E+00	< 2.1E+00	< 4.8E+00	< 2.0E+00	< 4.0E+00	< 2.3E+00	< 3.8E+00	< 1.0E+01	< 1.8E+00	< 1.9E+00	< 1.8E+01	< 6.3E+00
MW-170-DUP	5/18/2016	< 1.7E+00	< 2.1E+00	< 4.7E+00	< 1.6E+00	< 3.4E+00	< 2.0E+00	< 3.7E+00	< 1.4E+01	< 1.8E+00	< 1.9E+00	< 2.3E+01	< 6.8E+00
MW-170-DUP	8/31/2016	< 3.9E+00	< 4.4E+00	< 9.8E+00	< 4.6E+00	< 7.4E+00	< 4.5E+00	< 8.3E+00	< 1.4E+01	< 3.4E+00	< 3.9E+00	< 2.9E+01	< 1.1E+01
MW-172	2/3/2016	< 3.5E+00	< 4.6E+00	< 9.5E+00	< 4.1E+00	< 9.0E+00	< 4.3E+00	< 6.7E+00	< 1.3E+01	< 3.7E+00	< 4.5E+00	< 2.7E+01	< 8.4E+00
MW-172	5/18/2016	< 2.2E+00	< 2.5E+00	< 5.4E+00	< 2.2E+00	< 4.2E+00	< 2.4E+00	< 4.3E+00	< 1.4E+01	< 2.0E+00	< 2.2E+00	< 2.5E+01	< 7.3E+00
MW-172	9/1/2016	< 1.4E+00	< 1.6E+00	< 3.7E+00	< 1.5E+00	< 3.1E+00	< 1.7E+00	< 2.9E+00	< 9.1E+00	< 1.4E+00	< 1.5E+00	< 1.6E+01	< 5.0E+00

Station ID	Date	MN-54	CO-58	FE-59	CO-60	ZN-65	NB-95	ZR-95	I-131	CS-134	CS-137	BA-140	LA-140
MW-172	11/2/2016	< 5.3E+00	< 4.5E+00	< 1.2E+01	< 5.0E+00	< 9.8E+00	< 6.4E+00	< 7.3E+00	< 1.4E+01	< 5.4E+00	< 4.7E+00	< 3.0E+01	< 1.0E+01
MW-172-DUP	2/3/2016	< 4.0E+00	< 5.0E+00	< 9.6E+00	< 4.1E+00	< 9.3E+00	< 5.2E+00	< 8.1E+00	< 1.3E+01	< 4.5E+00	< 4.5E+00	< 3.0E+01	< 9.2E+00
MW-172-DUP	9/1/2016	< 1.7E+00	< 1.9E+00	< 4.6E+00	< 2.0E+00	< 3.5E+00	< 2.1E+00	< 3.5E+00	< 1.1E+01	< 1.7E+00	< 1.8E+00	< 1.9E+01	< 5.9E+00
MW-174	2/3/2016	< 2.7E+00	< 3.7E+00	< 6.1E+00	< 2.6E+00	< 5.2E+00	< 3.7E+00	< 7.1E+00	< 9.8E+00	< 3.1E+00	< 3.7E+00	< 2.2E+01	< 4.5E+00
MW-174	5/18/2016	< 1.7E+00	< 1.9E+00	< 4.0E+00	< 1.7E+00	< 3.4E+00	< 2.0E+00	< 3.3E+00	< 8.2E+00	< 1.8E+00	< 1.8E+00	< 1.6E+01	< 4.7E+00
MW-174	8/31/2016	< 2.0E+00	< 2.4E+00	< 5.2E+00	< 2.0E+00	< 4.4E+00	< 2.5E+00	< 4.2E+00	< 1.3E+01	< 1.8E+00	< 2.0E+00	< 2.2E+01	< 7.0E+00
MW-174	11/2/2016	< 6.3E+00	< 6.4E+00	< 1.7E+01	< 6.3E+00	< 1.4E+01	< 6.2E+00	< 1.1E+01	< 1.4E+01	< 6.0E+00	< 7.0E+00	< 3.1E+01	< 1.2E+01
MW-174-DUP	5/18/2016	< 2.2E+00	< 2.5E+00	< 6.1E+00	< 2.1E+00	< 4.4E+00	< 2.7E+00	< 4.8E+00	< 1.5E+01	< 2.1E+00	< 2.3E+00	< 2.7E+01	< 7.8E+00
MW-174-DUP	11/2/2016	< 6.0E+00	< 6.3E+00	< 1.3E+01	< 5.2E+00	< 1.1E+01	< 6.7E+00	< 1.1E+01	< 1.2E+01	< 6.5E+00	< 6.3E+00	< 3.6E+01	< 1.1E+01
MW-178	11/2/2016	< 4.0E+00	< 4.0E+00	< 1.0E+01	< 4.4E+00	< 9.3E+00	< 5.1E+00	< 7.6E+00	< 1.4E+01	< 3.7E+00	< 4.1E+00	< 3.1E+01	< 8.9E+00
MW-179	11/2/2016	< 3.9E+00	< 4.6E+00	< 8.9E+00	< 4.4E+00	< 9.3E+00	< 5.9E+00	< 8.0E+00	< 1.5E+01	< 3.8E+00	< 4.4E+00	< 3.0E+01	< 1.0E+01
MW-18	5/18/2016	< 1.9E+00	< 2.1E+00	< 5.0E+00	< 1.9E+00	< 3.7E+00	< 2.3E+00	< 4.1E+00	< 1.5E+01	< 1.8E+00	< 2.1E+00	< 2.4E+01	< 7.4E+00
MW-180	2/3/2016	< 3.3E+00	< 3.4E+00	< 7.0E+00	< 3.2E+00	< 7.1E+00	< 4.1E+00	< 6.6E+00	< 1.2E+01	< 3.4E+00	< 4.0E+00	< 2.4E+01	< 7.3E+00
MW-180	5/18/2016	< 1.9E+00	< 2.1E+00	< 4.6E+00	< 2.1E+00	< 3.6E+00	< 2.4E+00	< 3.8E+00	< 1.3E+01	< 1.8E+00	< 1.9E+00	< 2.1E+01	< 6.7E+00
MW-180	8/31/2016	< 3.7E+00	< 3.5E+00	< 7.5E+00	< 4.1E+00	< 7.8E+00	< 4.3E+00	< 6.9E+00	< 1.5E+01	< 3.5E+00	< 4.0E+00	< 3.0E+01	< 9.0E+00
MW-180	11/3/2016	< 1.5E+00	< 1.6E+00	< 4.0E+00	< 1.5E+00	< 2.9E+00	< 1.8E+00	< 3.1E+00	< 9.1E+00	< 1.5E+00	< 1.5E+00	< 1.6E+01	< 5.0E+00
MW-182	2/3/2016	< 3.9E+00	< 4.2E+00	< 8.7E+00	< 4.0E+00	< 8.3E+00	< 4.5E+00	< 6.6E+00	< 1.1E+01	< 4.0E+00	< 4.3E+00	< 2.7E+01	< 1.0E+01
MW-182	5/18/2016	< 1.6E+00	< 1.8E+00	< 4.5E+00	< 1.4E+00	< 3.2E+00	< 2.0E+00	< 3.2E+00	< 1.2E+01	< 1.5E+00	< 1.7E+00	< 1.9E+01	< 5.9E+00
MW-182	8/31/2016	< 1.9E+00	< 2.2E+00	< 5.2E+00	< 2.0E+00	< 4.0E+00	< 2.3E+00	< 3.9E+00	< 1.1E+01	< 1.9E+00	< 2.1E+00	< 2.0E+01	< 6.4E+00
MW-182	11/2/2016	< 1.6E+00	< 1.8E+00	< 4.4E+00	< 1.7E+00	< 3.3E+00	< 2.0E+00	< 3.5E+00	< 1.0E+01	< 1.6E+00	< 1.8E+00	< 1.9E+01	< 5.9E+00
MW-182-DUP	11/2/2016	< 1.6E+00	< 1.8E+00	< 4.0E+00	< 1.5E+00	< 3.4E+00	< 2.0E+00	< 3.2E+00	< 9.6E+00	< 1.5E+00	< 1.7E+00	< 1.7E+01	< 5.8E+00
MW-185	2/4/2016	< 4.6E+00	< 4.6E+00	< 1.0E+01	< 6.0E+00	< 9.3E+00	< 5.1E+00	< 8.2E+00	< 1.4E+01	< 5.2E+00	< 5.3E+00	< 3.4E+01	< 1.3E+01
MW-185	5/18/2016	< 1.6E+00	< 1.8E+00	< 3.7E+00	< 1.7E+00	< 3.2E+00	< 1.7E+00	< 2.9E+00	< 7.2E+00	< 1.4E+00	< 1.7E+00	< 1.3E+01	< 5.1E+00
MW-185	8/31/2016	< 3.7E+00	< 4.1E+00	< 1.0E+01	< 3.6E+00	< 8.2E+00	< 4.9E+00	< 7.3E+00	< 1.5E+01	< 3.6E+00	< 4.3E+00	< 3.1E+01	< 9.4E+00
MW-185	11/2/2016	< 2.6E+00	< 2.9E+00	< 6.5E+00	< 2.7E+00	< 5.0E+00	< 3.3E+00	< 5.4E+00	< 1.5E+01	< 2.5E+00	< 2.8E+00	< 2.5E+01	< 8.0E+00
MW-185-DUP	11/2/2016	< 2.4E+00	< 2.4E+00	< 5.4E+00	< 2.2E+00	< 4.6E+00	< 2.4E+00	< 4.6E+00	< 1.3E+01	< 2.2E+00	< 2.3E+00	< 2.1E+01	< 6.5E+00
MW-186	11/2/2016	< 1.5E+00	< 1.6E+00	< 3.4E+00	< 1.4E+00	< 3.0E+00	< 1.7E+00	< 3.2E+00	< 1.2E+01	< 1.4E+00	< 1.6E+00	< 1.7E+01	< 5.2E+00
MW-187	11/2/2016	< 1.4E+00	< 1.7E+00	< 4.0E+00	< 1.7E+00	< 2.4E+00	< 1.8E+00	< 3.1E+00	< 1.4E+01	< 1.4E+00	< 1.4E+00	< 2.2E+01	< 5.4E+00
MW-188	2/3/2016	< 2.7E+00	< 2.8E+00	< 5.4E+00	< 2.5E+00	< 5.5E+00	< 3.1E+00	< 5.2E+00	< 8.7E+00	< 2.5E+00	< 2.9E+00	< 1.8E+01	< 5.5E+00
MW-188	5/18/2016	< 2.5E+00	< 2.8E+00	< 7.3E+00	< 2.8E+00	< 5.2E+00	< 2.9E+00	< 5.2E+00	< 1.4E+01	< 2.2E+00	< 2.3E+00	< 2.5E+01	< 9.2E+00
MW-188	8/31/2016	< 3.6E+00	< 4.0E+00	< 7.9E+00	< 3.6E+00	< 6.4E+00	< 4.5E+00	< 6.9E+00	< 1.5E+01	< 3.6E+00	< 3.7E+00	< 2.9E+01	< 7.5E+00

Station ID	Date	MN-54	CO-58	FE-59	CO-60	ZN-65	NB-95	ZR-95	I-131	CS-134	CS-137	BA-140	LA-140
MW-188	11/3/2016	< 5.4E+00	< 6.5E+00	< 1.1E+01	< 5.6E+00	< 1.5E+01	< 9.2E+00	< 1.0E+01	< 1.4E+01	< 5.9E+00	< 5.6E+00	< 3.4E+01	< 1.2E+01
MW-20	11/3/2016	< 2.0E+00	< 2.2E+00	< 5.2E+00	< 1.9E+00	< 4.2E+00	< 2.3E+00	< 3.9E+00	< 1.1E+01	< 1.9E+00	< 2.0E+00	< 2.0E+01	< 5.8E+00
MW-6	5/18/2016	< 1.6E+00	< 1.9E+00	< 3.9E+00	< 1.8E+00	< 3.4E+00	< 2.0E+00	< 3.4E+00	< 1.2E+01	< 1.6E+00	< 1.8E+00	< 2.1E+01	< 5.8E+00
PZ-01	2/2/2016	< 5.9E+00	< 8.6E+00	< 1.5E+01	< 6.1E+00	< 1.5E+01	< 7.8E+00	< 1.2E+01	< 1.5E+01	< 7.1E+00	< 7.1E+00	< 4.0E+01	< 1.1E+01
PZ-01	5/18/2016	< 1.9E+00	< 2.1E+00	< 4.3E+00	< 2.0E+00	< 3.8E+00	< 2.3E+00	< 3.9E+00	< 1.4E+01	< 1.8E+00	< 1.9E+00	< 2.2E+01	< 6.1E+00
PZ-01	8/31/2016	< 6.6E+00	< 8.1E+00	< 2.1E+01	< 9.0E+00	< 1.3E+01	< 8.2E+00	< 1.3E+01	< 1.4E+01	< 7.1E+00	< 9.8E+00	< 4.7E+01	< 1.3E+01
PZ-01	11/1/2016	< 3.2E+00	< 3.3E+00	< 7.6E+00	< 2.8E+00	< 6.4E+00	< 3.7E+00	< 5.9E+00	< 1.1E+01	< 2.8E+00	< 3.1E+00	< 2.5E+01	< 8.2E+00
PZ-02	5/18/2016	< 2.0E+00	< 2.4E+00	< 5.8E+00	< 2.3E+00	< 4.3E+00	< 2.6E+00	< 4.1E+00	< 1.4E+01	< 1.8E+00	< 2.0E+00	< 2.4E+01	< 8.4E+00
PZ-03	2/4/2016	< 2.8E+00	< 3.5E+00	< 7.1E+00	< 3.4E+00	< 6.4E+00	< 3.4E+00	< 6.0E+00	< 9.8E+00	< 3.0E+00	< 3.3E+00	< 2.0E+01	< 6.8E+00
PZ-03	5/18/2016	< 2.0E+00	< 2.3E+00	< 5.0E+00	< 1.9E+00	< 4.1E+00	< 2.3E+00	< 3.7E+00	< 9.2E+00	< 1.9E+00	< 2.1E+00	< 1.8E+01	< 5.7E+00
PZ-03	8/31/2016	< 1.6E+00	< 1.8E+00	< 4.1E+00	< 1.7E+00	< 3.3E+00	< 1.9E+00	< 3.2E+00	< 9.7E+00	< 1.5E+00	< 1.7E+00	< 1.7E+01	< 5.2E+00
PZ-03	11/2/2016	< 1.2E+00	< 1.4E+00	< 2.9E+00	< 1.2E+00	< 2.5E+00	< 1.5E+00	< 2.4E+00	< 7.4E+00	< 1.2E+00	< 1.2E+00	< 1.3E+01	< 4.3E+00
SW-101	2/4/2016	< 4.8E+00	< 5.2E+00	< 1.0E+01	< 4.5E+00	< 1.1E+01	< 5.6E+00	< 9.4E+00	< 1.4E+01	< 4.1E+00	< 5.1E+00	< 3.0E+01	< 1.1E+01
SW-101	5/18/2016	< 2.0E+00	< 2.4E+00	< 5.5E+00	< 1.9E+00	< 4.0E+00	< 2.4E+00	< 4.4E+00	< 1.4E+01	< 2.1E+00	< 2.3E+00	< 2.4E+01	< 6.7E+00
SW-101	9/1/2016	< 4.3E+00	< 4.3E+00	< 1.0E+01	< 4.0E+00	< 8.8E+00	< 5.0E+00	< 8.4E+00	< 1.5E+01	< 4.1E+00	< 4.4E+00	< 3.0E+01	< 1.0E+01
SW-102	2/4/2016	< 3.1E+00	< 3.2E+00	< 7.0E+00	< 2.6E+00	< 5.9E+00	< 3.8E+00	< 5.4E+00	< 9.8E+00	< 3.3E+00	< 3.7E+00	< 2.3E+01	< 5.6E+00
SW-102	9/1/2016	< 4.4E+00	< 4.6E+00	< 1.0E+01	< 5.0E+00	< 7.8E+00	< 4.9E+00	< 7.8E+00	< 1.4E+01	< 3.6E+00	< 4.3E+00	< 3.1E+01	< 1.1E+01
SW-102	11/3/2016	< 3.0E+00	< 3.4E+00	< 7.5E+00	< 3.0E+00	< 7.0E+00	< 3.6E+00	< 6.7E+00	< 1.5E+01	< 2.9E+00	< 3.5E+00	< 2.7E+01	< 8.2E+00
SW-103	2/4/2016	< 4.0E+00	< 4.5E+00	< 8.1E+00	< 4.1E+00	< 8.5E+00	< 4.7E+00	< 7.8E+00	< 1.2E+01	< 3.9E+00	< 4.7E+00	< 2.7E+01	< 8.5E+00
SW-103	5/18/2016	< 2.2E+00	< 2.5E+00	< 4.2E+00	< 2.3E+00	< 4.3E+00	< 2.6E+00	< 4.1E+00	< 1.4E+01	< 2.0E+00	< 2.2E+00	< 2.4E+01	< 8.1E+00
SW-103	9/1/2016	< 2.1E+00	< 2.5E+00	< 5.3E+00	< 2.4E+00	< 4.4E+00	< 2.6E+00	< 4.4E+00	< 1.3E+01	< 2.1E+00	< 2.2E+00	< 2.3E+01	< 8.3E+00
SW-103	11/3/2016	< 2.3E+00	< 2.7E+00	< 5.9E+00	< 2.4E+00	< 5.1E+00	< 2.9E+00	< 4.7E+00	< 1.2E+01	< 2.2E+00	< 2.5E+00	< 2.3E+01	< 7.7E+00
SW-104	2/4/2016	< 3.2E+00	< 3.4E+00	< 6.4E+00	< 3.0E+00	< 6.0E+00	< 3.4E+00	< 6.5E+00	< 8.9E+00	< 3.0E+00	< 3.3E+00	< 2.0E+01	< 6.6E+00
SW-104	5/18/2016	< 2.3E+00	< 2.5E+00	< 5.6E+00	< 2.5E+00	< 4.6E+00	< 2.7E+00	< 4.5E+00	< 1.4E+01	< 2.0E+00	< 2.2E+00	< 2.5E+01	< 9.0E+00
SW-104	9/1/2016	< 4.3E+00	< 4.5E+00	< 8.5E+00	< 4.6E+00	< 8.5E+00	< 5.8E+00	< 7.3E+00	< 1.5E+01	< 4.0E+00	< 4.0E+00	< 3.3E+01	< 1.2E+01
T-14	5/19/2016	< 1.6E+00	< 1.6E+00	< 3.8E+00	< 1.6E+00	< 3.1E+00	< 1.9E+00	< 3.3E+00	< 6.9E+00	< 1.5E+00	< 1.7E+00	< 1.3E+01	< 4.1E+00