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PNP 2015-028

Technical Specification 5.6.2

May 13, 2015

U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555-0001

Subject: 2014 Radiological Environmental Operating Report

Palisades Nuclear Plant
Docket 50-255
License No. DPR-20

Dear Sir or Madam:

Entergy Nuclear Operations, Inc. is submitting the enclosed Radiological Environmental Operating Report for the Palisades Nuclear Plant. This report was prepared in accordance with the requirements of Technical Specification 5.6.2. The period covered by the enclosed report is January 1, 2014, through December 31, 2014.

This letter contains no new commitments and no revision to existing commitments.

Sincerely,

A handwritten signature in black ink, appearing to read "JAH" followed by a stylized flourish.

JAH/bed

Enclosure 1: Annual Radiological Environmental Operating Report January 1, 2014,
Through December 31, 2014

CC Administrator, Region III, USNRC
Project Manager, Palisades, USNRC
Resident Inspector, Palisades, USNRC

**ANNUAL RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT
JANUARY 1, 2014 THROUGH DECEMBER 31, 2014**

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ENVIRONMENTAL ANNUAL RADIOLOGICAL OPERATING REPORT JANUARY 1, 2014 THROUGH DECEMBER 31, 2014

I. INTRODUCTION

The Radiological Environmental Operating Report provides a summary and data interpretation of the Palisades Nuclear Plant (PNP) Radiological Environmental Monitoring Program as conducted during the 2014 reporting period. This report was prepared in accordance with the requirements of Technical Specification 5.6.2.

II. NON-ROUTINE REPORTS

No reportable events occurred during this reporting period.

III. DISCUSSION AND INTERPRETATION OF RESULTS

A. Air Samples

There were 261 air samples collected and analyzed for gross beta and I-131. Air iodine/particulate samples are collected weekly from five air-sampling locations, with a sixth location added for the last two weeks of the reporting period. Air is metered into the sampling unit at an approximate one cubic foot per minute flow rate through a 47-mm air filter (air particulate) and an air iodine cartridge. Both filters are in-line with each other and housed within the same filter holder. Weekly samples were sent to GEL Laboratories for analysis.

Analysis of the airborne particulate sample data, between the five near-site indicator locations and the control location, demonstrated no statistical difference. The average concentration of gross beta for both indicator and control locations were 0.037 pCi/m³ and 0.036 pCi/m³, respectively. The indicator location 5PR had the highest average concentration of 0.043 pCi/m³. All I-131 activity results were below the Minimum Detectable Concentration (MDC) levels.

B. Lake Water (Surface Water)

Palisades' Lake In (Indicator) and Ludington (Control) lake water samples were collected daily and combined into monthly composite samples. One gallon each of Palisades Lake-In and Ludington Lake-in composites were sent to GEL Laboratories for monthly analysis for gross beta, gamma spectroscopy, and tritium. No treatment of the water samples with preservative was required.

No statistical difference was found between the indicator and control location samples and no PNP Offsite Dose Calculation Manual (ODCM) appendix A, reporting limits were exceeded.

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C. Drinking Water

Palisades' Domestic Water and South Haven Municipal Raw Water (Indicators) and Ludington (Control) water samples were collected daily and combined into monthly composite samples. One gallon each of these composites were sent to GEL Laboratories/Teledyne Brown for analysis and analyzed for gross beta, gamma emitters, and tritium. No treatment of the water samples with preservative was required. No tritium or gamma emitters were detected in these samples.

All freshwater samples, including the control sample, indicated gross beta greater than minimum detectable for the month of December 2014. This is attributed to a change in vendor performing analyses and how positive results are determined when each activity is compared to its listed minimum detectable concentration. Neither gamma emitters nor tritium were detected in any Indicator or Control samples.

D. Milk

There are no dairy farms meeting the sampling criteria of being within eight kilometers (km) of PNP. Because of a lack of dairy farms, PNP analyzes broad leaf vegetation samples as a substitute for milk sampling.

E. Thermoluminescent Dosimeters (TLD) - Gamma Dose

Environmental gamma doses are measured quarterly by placement of TLDs at designated locations. Sensitivity for the TLDs is 3 millirem, with a linear response of 1 millirem to 50 rem.

The PNP direct radiation monitoring program consists of TLDs placed at 23 locations. There are ten inner ring TLDs, one on-site TLD, nine outer ring TLDs and three control TLDs located in Grand Rapids, Kalamazoo and Dowagiac, MI.

92 Environmental TLDs were collected and analyzed during 2014. The on-site TLD is included with the inner ring (site boundary) TLDs for evaluating any dose effect that could be attributed to PNP operations.

The TLD data evaluations were performed by comparing the inner ring TLDs and the outer ring TLDs against the control TLDs.

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The quarterly average gamma readings in mrem were:

Inner Ring	9.1
Outer Ring	10.9
Control	10.7

The highest average reading was observed at outer ring location number 2 with a value of 13.4 mrem and a maximum reading of 14.48 mrem. This location is historically the highest above the outer ring average, but not attributed to plant operations, since the inner ring in the same sector is not significantly above the average reading of the inner ring. This location is on a dirt road by an animal farm which contributes to the higher natural background at this location due to radon daughter products.

The average control dose, 10.7 mrem, plus two standard deviations was 12.0 mrem. No Inner Ring reading exceeded this amount. This demonstrates that there was no direct radiation effect due to PNP operations.

Note: It should be noted that the critical aspect of environmental TLD monitoring is the comparison between Indicator and Control TLD dose in the same monitoring period – more so than the comparison from one year to the next.

F. Crops

Two principal area crops, apples and blueberries, were collected in 2014. Approximately 1 kg of sample is placed in a plastic bag for shipment to the vendor for analysis. No special treatment of the samples with a preservative is necessary.

Blueberries and apples were grown locally, and collected in the vicinity of indicator station 4-JS (3.5 miles SE). There was no activity detected in the blueberries and apple samples with the exception of naturally occurring K-40.

G. Sediment

Sediment samples are collected semi-annually from a location ½ mile north of the plant along the waterline. No treatment of the samples with a preservative is necessary prior to shipment to the vendor for analysis.

There was no activity detected in the sediment samples except for naturally occurring K-40.

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H. Fish

Fish samples are collected semi-annually. Samples consist of species of commercially and/or recreational important species near the plant discharge area. Control samples are obtained in an area not influenced by plant discharge. Each one-liter quantity of fish sample is frozen for preservation for shipment to GEL Laboratories for analysis.

Five fish samples were collected in the vicinity of PNP and six control samples were collected from Ludington Pumped Storage Facility. Cs-137 was detected in three of the five PNP samples with an average concentration of 5.19 pCi/kg, and four Ludington samples with an average concentration of 16.3 pCi/kg. The reporting level for Cs-137 in fish is 2000 pCi/kg. This is attributed to background radiation from Chernobyl and weapons testing, and not from plant operations as seen from the indicator samples being less than the control samples. No other activity was detected in fish samples with the exception of naturally occurring K-40.

I. Broad Leaf Vegetation

PNP derived an acceptance criterion for broadleaf sample Cs-137 results based upon background sampling done in association with CR-PLP-2011-2205, CA 24. The acceptance value has been determined to be 146 pCi/Kg, which is the background average plus one standard deviation. This means that any sample result above this would be statistically valid and would require additional evaluation pertaining to the source of activity.

In conclusion, there is ample documented evidence that Cs-137 exists in the environment from activities 25 to 50-plus years ago. Cs-137 has a 30.17 year half-life so there is still plenty of the originally estimated 2.45E7 Curies left in the biosphere. Cesium is readily transported through the environment due to its chemical properties. When in solution (during rainfall events) it can be efficiently taken up by plants. The evidence presented here documents the fact that there is a fairly wide ranging span of Cs-137 concentration in the environment that is far enough away from the site to not be associated with deposits from plant effluents.

In support of this conclusion is the fact that Location 1 is in a heavily wooded area where sample media would typically attain activity from the sediment rather than gaseous effluents. Location 2 and control are in areas that are more open and next to roads which has a better opportunity

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to receive activity from gaseous releases. I-131 was released during the course of the year at a consistent quantity and should have been detected in the foliage also if the Cs-137 was from plant gaseous effluents.

2014 samples results were reviewed and assessed based on the above criterion. Location 1, located in a wooded area, had Cs-137 identified in three samples collected in 2014 with an average of 45.5 pCi/Kg. Location 2, located near the site boundary and on the edge of a wooded area had one sample indicate Cs-137 at 4.61 pCi/Kg. No positives were indicated at the control location which is also on a wooded area edge. All positives are below the calculated environmental average of 55.4 pCi/Kg indicated in this section and well below the 146 pCi/Kg acceptance value.

J. Non-Routine Samples

Five monthly samples were taken from the closest commercial well water at the seasonal Palisades Park housing subdivision south of PNP. An additional five samples were taken from the community well at the seasonal Palisades Park facility. Wells are not turned on before April 15th and are secured by October 15th of each year. Samples were not collected in April or October of 2014. April samples were not collected due to Palisades Park not turning the wells on. The October samples were not collected due to the wells being secured early. These samples were sent to GEL Laboratories for analysis and analyzed for gross beta, gamma spectroscopy, and tritium. All analysis results were less than minimum detectable activity for all samples obtained.

K. Gaseous and Liquid Radwaste Effluent Composite Samples

Gaseous and liquid radwaste effluent composite samples were collected and analyzed on site and by GEL Laboratories. No special sample treatment with a preservative is required prior to laboratory analysis. The liquid effluent composite sample is produced from samples collected from each batch release. The gaseous radwaste effluent weekly composite sample results are based on analyzing weekly stack gas particulate and iodine filters.

Although not a direct reporting component in the PNP Annual Radiological Environmental Operating Report, results of the gaseous and liquid monthly radwaste effluent composite samples, in addition to normal release data, is evaluated against overall environmental trending data. This evaluation assists in determining isotopic dispersion and deposition patterns within the surrounding environment of PNP.

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IV. ASSESSMENT OF PALISADES OPERATION ENVIRONMENTAL IMPACT

In reviewing the 2014 PNP radiological environmental monitoring data, and comparing it to previous operational and pre-operational data, all trending parameters continue to indicate that the operation of PNP has minimal environmental impact. Most isotopic activity is at environmental background levels. Evidence of an overall environmental isotopic buildup attributable to plant effluents remains negligible as well. The positive Cs-137 results detected in crops, broadleaf, and fish samples are attributed to atmospheric weapons testing and Chernobyl accident source term.

Palisades Nuclear Plant, Van Buren County, MI Docket 50-255
Annual Radiological Environmental Operating Report

January 1, 2014 to December 31, 2014

Table 10.4-1
Sampling and Analysis Summary

Medium	Collection Description	Location	Number of Samples Collected	Type of Analysis	Frequency of Analysis
Air	Continuous at appx 1 cfm	Stations 4, 5, 8, 9, 10, and 19	261	Gross Beta, I-131	Weekly
Lake Water	1 gallon composite	Lake Intake	12	Gross Beta, Tritium	Monthly
Lake Water - Control	1 gallon composite	Ludington Lake In	12	Gross Beta, Tritium	Monthly
Drinking Water	1 gallon composite	South Haven Municipal (Domestic Water) and South Haven Raw	24	Gross Beta, Tritium	Monthly
TLD	Continuous	Inner Ring, Outer Ring, Controls	92	Gamma dose	Quarterly
Food Products	1 kg grab	4-JS, 3.5 miles SE	2	Gamma isotopic and I-131	At time of harvest
Sediment	1 L grab	Discharge 1/2 mile north of Palisades	2	Gamma isotopic	Semiannually
Fish	1 L grab	Discharge and Control	5 Control, 4 indicator	Gamma isotopic	Semiannually
Broad leaf Vegetation	1 kg grab	Plant boundary – S and SSE sectors, Control 9 to 18 miles NNE of plant	15	Gamma isotopic and I-131	Monthly during growing season

**Table 10.4-2
Sample Data Summary**

Name of Facility	Palisades Nuclear Plant	Docket No	50-255
Location of Facility (County, State)	Van Buren, Michigan	Reporting Period	Jan 1, 2014 to Dec 31, 2014

Medium or Pathway Sampled (Unit of Measure)	Type/Total Number of Analyses Performed	Lower Limit of Detection ^a	All Indicator Locations Mean (f) ^b Range ^b	Greatest Mean Name Distance & Direction	Greatest Mean (f) ^b Range ^b	Control Locations Mean (f) ^b Range ^b	Number of Reportable Occurrences
Air (pCi/m ³)	I-131 / 210	0.07	< MDC	NA	< MDC	< MDC	0
	Gross beta / 210	0.01	0.037 (210/210) 0.015 - 0.092	5PR 5.8 mi ESE	0.043 (52/52) 0.027 - 0.092	0.036 (51/51) 0.025-0.055	0
Lake Water (pCi/L) ^c	Gross beta / 24	4.0	3.37 (1/12)	Palisades LKIN	3.37 (1/12)	2.31 (1/12)	0
	Tritium / 24	2000	< MDC (0/12)	NA	< MDC (0/12)	< MDC (0/12)	0
Drinking Water (pCi/L) ^c	Gross beta / 36	4.0	2.87 (2/24)	South Haven RAW/Domestic	2.87 (2/24)	2.31 (1/12)	0
	Tritium / 36	2000	< MDC (0/24)	NA	< MDC (0/12)	< MDC (0/12)	0
Inner Ring TLD (Gamma mR) ^d	Gamma Dose / 56	Sensitivity of 3 per vendor	9.1 (44/44) 7.6-10.77	Station # 1 Palisades	10.3 (4/4) 9.95-10.77	10.7 (12/12) 10.05-12.25	0
Outer Ring (Gamma mR) ^d	Gamma Dose / 48	Sensitivity of 3 per vendor	10.9 (36/36) 8.81 - 14.48	Station # 2 5.6 miles S	13.4 (4/4) 11.11-14.48	10.7 (12/12) 10.05-12.25	0
Food Crops (pCi/kg wet)	I-131 / 2	60	< MDC (0/2)	NA	< MDC (0/2)	Control sample not required	0
	Cs-134 / 2	60	< MDC (0/2)	NA	< MDC (0/2)	Control sample not required	0
	Cs-137 / 2	80	< MDC (0/2)	NA	< MDC (0/2)	Control sample not required	0

Sediment (pCi/kg dry)	Cs-134 / 2	150	< MDC (0/2)	NA	< MDC (0/2)	Control sample not required	0
	Cs-137 / 2	180	< MDC (0/2)	NA	< MDC (0/2)	Control sample not required	0
Fish (pCi/kg wet)	Mn-54 / 11	130	< MDC (0/5)	NA	< MDC (0/11)	< MDC (0/6)	0
	Fe-59 / 11	260	< MDC (0/5)	NA	< MDC (0/11)	< MDC (0/6)	0
	Co-58 / 11	130	< MDC (0/5)	NA	< MDC (0/11)	< MDC (0/6)	0
	Co-60 / 11	130	< MDC (0/5)	NA	< MDC (0/11)	< MDC (0/6)	0
	Zn-65 / 11	260	< MDC (0/5)	NA	< MDC (0/11)	< MDC (0/6)	0
	Cs-134 / 11	130	< MDC (0/5)	NA	< MDC (0/11)	< MDC (0/6)	0
	Cs-137 / 11	150	7.6 (3/5) 6.9-10.4	Palisades	10.4 (1/5) 10.4	16.3 (4/6) 5.4-25.5	0
Broad Leaf Vegetation (pCi/kg wet)	I-131 / 15	60	< MDC (0/10)	NA	< MDC (0/8)	< MDC (0/5)	0
	Cs-134 / 15	60	< MDC (0/10)	NA	< MDC (0/8)	< MDC (0/5)	0
	Cs-137 / 15	80	28.7 (5/10) 28.7-62.0	BV1 0.5 miles SE	62.0 (1/5) 62.0	< MDC (0/5)	0

Table 10.4-3
Greatest Mean Sampling Location
 January 1, 2014 to December 31, 2014

Medium or Pathway Sampled (unit of measurement)	Type of Analysis	Location	High	Low	Mean
Air (pCi/m ³)	I-131	NA	< MDC	< MDC	< MDC
	Gross Beta	5PR	0.027	0.092	0.043
Lake Water (pCi/L)	Gross Beta	Palisades	3.37	3.37	3.37
	Tritium	NA	< MDC	< MDC	< MDC
Drinking Water (pCi/L)	Gross Beta	South Haven Raw/Domestic	2.87	2.87	2.87
	Tritium	NA	< MDC	< MDC	< MDC
Inner Ring TLD (gamma mR)	Quarterly	#1 (Palisades)	10.77	9.95	10.3
Outer Ring TLD (gamma mR)	Quarterly	# 2 5.6 miles S	14.48	11.11	13.4
Crops (pCi/kg wet)	I-131	NA	< MDC	< MDC	< MDC
	Other Gamma	NA	< MDC	< MDC	< MDC
Sediment (pCi/kg dry)	Gamma Emitters	NA	< MDC	< MDC	< MDC
Fish (pCi/gm wet)	Gamma Emitters	Palisades	10.4	10.4	10.4
Broad leaf vegetation (pCi/kg wet)	Gamma Emitters	Site Boundary South	62.0	62.0	62.0

a Nominal Lower Limit of Detection (LLD) as defined in table notation c of ODCM Appendix A Table E-3

b Mean and range based on detectable measurements only.

c The Lake Water and the Drinking Water totals in column 2 both account for the use of the same samples from Ludington Control.

d The Inner and Outer TLD totals in column 2 account for the use of the same control TLDs in both areas.

f Fraction of detectable measurements at specific locations is indicated in parenthesis

ATTACHMENT A

SAMPLE COLLECTION ANOMALIES

Sample Affected	Location	Date	Problem	Evaluation
Air Sample Stations	5PR	3/13/14	Pump Failure	Environmental air sample station sample pump was found not running during weekly filter change out. Pump was replaced same day. (CR-PLP-2014-01872)
Air Sample Stations	9TP	7/7/14	Momentary Loss of power	REMP air sample station #9TP momentarily lost power twice within the span of about ten minutes due to severe weather. The power returned on its own in both cases, and the sample pump continued to function normally. (CR-PLP-2014-03631)
Air Sample Stations	Station 8SP	11/10/14	Loss of offsite power	While performing weekly air sample change out, the chemistry technician noticed that the air pump for air sample station 8SP was not running. Upon further inspection it was noted that the offsite power had been lost to the air sample station. Power restored on 11/12/14. (CR-PLP-2014-05394)

ATTACHMENT B

PALISADES LAND USE CENSUS

2014 Land Use Census Report

The attached tables are the results of the Palisades Land Use Census conducted on September 29, 2014. The first table references the distance from Palisades Nuclear Plant (PNP) to the nearest residence, garden (greater than 500 square feet), beef cattle, dairy cattle and goat per meteorological sector. The next table identifies the locations of the nearest residence, garden, beef/dairy cattle and goats within a five mile radius of PNP per meteorological sector. The last table lists the critical receptor locations used to calculate offsite doses by the GASPARE computer program.

Closest Receptor by Sector

Sector	Residence	Garden	Beef Cattle	Dairy Cow	Goat
NNE	1.63	1.75	> 5	> 5	> 5
NE	1.13	1.67	> 5	> 5	2.45
ENE	1.19	2.62	> 5	> 5	2.62
E	1.61	2.57	> 5	> 5	3.49
ESE	0.99	1.74	> 5	> 5	> 5
SE	0.74	1.44	4.27	> 5	> 5
SSE	0.80	0.69	> 5	> 5	> 5
S	0.77	> 5	> 5	> 5	> 5
SSW	0.49	4.82	> 5	> 5	> 5

ATTACHMENT B

PALISADES LAND USE CENSUS

Locations

Sector	Location Description	Item	Distance from Plant (miles)
NNE	20275 Pine St	Residence	1.63
	SW corner of 20 th and O fire lane	Garden	1.75
NE	23960 Ruggles Road, State Park Manager	Residence	1.13
	21175 Blue Star Hwy	Garden	1.67
	75522 CR 380	Goat	2.45
ENE	77198 24 th Avenue	Residence	1.19
	74198 24 th Ave	Garden	2.62
	74198 24 th Ave	Goat	2.62
E	26450 76 th Street	Residence	1.61
	74183 28 th Avenue	Garden	2.57
	72375 28 th Avenue	Goat	3.49
ESE	77555 28 th Ave	Residence	0.99
	28650 76 th Street	Garden	1.74
SE	28563 29 th Ave	Residence	0.74
	30602 77 ½ Street	Garden	1.44
	72401 36 th Ave	Beef Cattle	4.27
SSE	78983 Ravine Way	Residence	0.80
	Palisades Park Community Garden	Garden	0.69
S	79299 Ravine Way, Palisades Park	Residence	0.77
SSW	Shorewood Walk, Palisades Park	Residence	0.49
	Corner of 82 nd and Blue Star Hwy	Garden	4.82

(Distance is in miles)
2014 Land Use Census Data

**ATTACHMENT B
PALISADES LAND USE CENSUS**

Critical Receptors

Sector	Item	Distance (miles)	X/Q (sec/m ³)	D/Q (1/m ²)
SSE	Site Boundary	0.48	2.28E-6	2.02E-8
SSW	Residence	0.49	1.22E-6	8.72E-9
SSE	Garden	0.69	1.31E-6	1.12E-8
NE	Goat	2.45	1.73E-7	6.25E-10
SE	Beef Cattle	4.27	8.01E-8	4.54E-10

Goats identified in sectors E and ENE both are on stored feed.

New goats identified in NE sector.

Several smaller gardens were noted in multiple different sectors. These gardens were smaller than the 50 square meters required by CH 6.41.

There are no dairy cows within a five mile radius of PNP.

ATTACHMENT C

**CHEMISTRY PROCEDURE CH 6.10
"RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM"**

TITLE: RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM

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ATTACHMENTS

- Attachment 1, "Environmental Sample Collection Schedule"
- Attachment 2, "REMP Sample Locations"
- Attachment 3, "Sample Shipment Identification"
- Attachment 4, "Sample Packaging and Shipment"
- Attachment 5, "Environmental Air Sample Data Sheet"
- Attachment 6, "REMP Sample Collection Checklist"
- Attachment 7, "REMP Analytical Requirements"
- Attachment 8, "Environmental Monitoring Locations"

TITLE: RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM

REFERENCE USE

- **Procedure and Procedure Precautions and Limitations are at the work location for reference.**
- **Review and understand segments before performing any steps.**
- **Signoff steps are completed, when included, before starting the next step.**
- **Place keep in accordance with EN-HU-106, "Procedure and Work Instruction Use and Adherence."**
- **Review the Procedure to verify segments have been completed.**

1.0 PURPOSE

This procedure provides instructions for collection of environmental samples in support of the Radiological Environmental Monitoring Program (REMP) as required by the Offsite Dose Calculation Manual (ODCM). In addition to the ODCM required samples, additional required sampling is listed.

2.0 REFERENCES

2.1 SOURCE DOCUMENTS

- 2.1.1 Reg Guide 4.15 (Revision 2, July 2007), "Quality Assurance for Radiological Monitoring Programs (Inception through Normal Operations to License Termination) - Effluent Streams and the Environment"
- 2.1.2 10CFR50, Appendix I, "Numerical Guides for Design Objectives and Limiting Conditions for Operation to Meet the Criterion 'As Low as is Reasonably Achievable' for Radioactive Material in Light-Water-Cooled Nuclear Power Reactor Effluents"
- 2.1.3 Offsite Dose Calculation Manual (ODCM) and Appendix A
- 2.1.4 Branch Technical Position (Revision 1, 1979), "Radiological Portion of the Environmental Monitoring Program"
- 2.1.5 NRC IE Bulletin 80-10 (May 1980), "Contamination of Nonradioactive System and Resulting Potential for Unmonitored, Uncontrolled Release of Radioactivity to Environment"

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2.2 REFERENCE DOCUMENTS

- 2.2.1 Palisades ODCM, Appendix A, Sections III.J, IV.C, and Tables E-1, E-2, and E-3
- 2.2.2 Entergy Procedure EN-AD-103, "Document Control and Records Management Programs"
- 2.2.3 Chemistry Procedure CH 1.5, "Chemistry Logs, Records, and Data Management"
- 2.2.4 Chemistry Procedure CH 4.39, "Gamma Ray Spectroscopy System"
- 2.2.5 Chemistry Procedure CH 6.50, "Annual Radiological Environmental Operating Report"
- 2.2.6 Entergy Procedure EN-HU-106, "Procedure and Work Instruction Use and Adherence"

2.3 COMMITMENTS

- 2.3.1 CMT 022011097, IE Bulletin 80-10 Response - "Contamination of Nonradioactive System and Resulting Potential for Unmonitored, Uncontrolled Release of Radioactivity to Environment"
- 2.3.2 CMT 032011144, IE Bulletin 80-10 Response - "Contamination of Nonradioactive System and Resulting Potential for Unmonitored, Uncontrolled Release of Radioactivity to Environment"

3.0 PREREQUISITES

None

4.0 PRECAUTIONS AND LIMITATIONS

- 4.1 Any revisions to this procedure shall be reviewed against Palisades ODCM Specifications to verify compliance to all requirements.
- 4.2 Deviations from the required sampling schedule shall be documented in the Annual Radiological Environmental Operating Report.
- 4.3 Every effort shall be made to complete corrective action on malfunctioning sampling equipment prior to the end of the next sampling period.

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- 4.4 If it is not possible to obtain the required samples, suitable alternative media and locations shall be substituted within 30 days.
- 4.5 Samples shall be collected, prepared, and shipped for analysis in a timely manner to ensure detection requirements are met. Other specific handling precautions for sample media are indicated in Section 5.0 as required.
- 4.6 Any deviation in the Radiological Environmental Monitoring Program including missing samples, unusual analytical results, elevated LLDs, etc, shall be investigated, evaluated, corrected, and documented.
- 4.7 If an air sampling unit is discovered not operating, attempt to find the cause and repair. If this cannot be done, replace applicable component and document on air sample collection data sheet.
- 4.8 Calibrate airflow meters every two years.
- 4.9 Change out airflow meters prior to the expiration of calibration dates.
- 4.10 Change out air sample pumps every two years.
- 4.11 Ensure trees and bushes in the vicinity of air sampler locations are removed, along with any branches extending over the top of the sampler. The goal is to keep every station away from the drip line.
- 4.12 In the event that the Radiological Environmental Monitoring Programs sampling are not substantially conducted as described in Palisades ODCM Appendix A, Specification III.J, or an unusual or important event occurs from Plant operation that causes a significant environmental impact or affects a potential environmental impact, a report shall be submitted to the NRC within 30 days.
- 4.13 Record sample collected or shipped in Chemistry Database Management System (NuclearQ).
- 4.14 All shipping time frames listed in this procedure are administrative in nature and do not need to be strictly adhered to in order to meet the intent of this procedure. Time frames are listed to ensure prompt shipping in order to avoid delays and reduce the possibility of not meeting LLD requirements. Time frames should be met every time if possible or inform the REMP Analyst as to the cause of the delay.

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5.0 PROCEDURE

REFERENCE USE

- **Procedure and Procedure Precautions and Limitations are at the work location for reference.**
- **Review and understand segments before performing any steps.**
- **Signoff steps are completed, when included, before starting the next step.**
- **Place keep in accordance with EN-HU-106, "Procedure and Work Instruction Use and Adherence."**
- **Review the Procedure to verify segments have been completed.**

5.1 LAKE-IN WATER SAMPLE COLLECTION - DAILY - ODCM REQUIRED (CMT 032011144)

- 5.1.1 **FILL** a 500 ml sample bottle from water downstream of "bio-box" located in the screen house.
- 5.1.2 **ADD** the sample to the composite container (carboy).

NOTE: At the end of each month, check the composite container (carboy), the field sampling bottle and the graduated cylinder for cleanliness (ie, no excessive algae growth, excessively dirty or broken) and clean or replace as necessary.

- 5.1.3 At end of the month, **OBTAIN** a 1-gallon sample from carboy.
- 5.1.4 **PACKAGE AND SHIP** sample per Attachment 4 within 5 days of sampling.

5.2 DRINKING WATER SAMPLE COLLECTION - DAILY - ODCM REQUIRED

- 5.2.1 **OBTAIN** a 500 ml sample from any potable water sink.
- 5.2.2 **ADD** the sample to the monthly sample container (carboy).

NOTE: At the end of each month, check the composite container (carboy), the field sampling bottle and the graduated cylinder for cleanliness (ie, no excessive algae growth, excessively dirty or broken) and clean or replace as necessary.

- 5.2.3 At end of the month, **OBTAIN** a 1-gallon sample from carboy.
- 5.2.4 **PACKAGE AND SHIP** sample per Attachment 4 within 5 days of sampling.

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5.3 ENVIRONMENTAL AIR SAMPLE COLLECTION - WEEKLY - ODCM REQUIRED

5.3.1 **OPEN** cover at air sample station.

5.3.2 **DETERMINE** "As Found Leakage" by blocking air flow and checking air flow meter for movement.

a. IF no leakage, THEN MARK N in As Found Leakage column on Air Sample Data Sheet.

b. IF leakage is indicated, THEN MARK Y in As Found Leakage column, determine cause and repair.

5.3.3 **REMOVE** old sampler assembly.

5.3.4 **REMOVE** protective cover from new sampler assembly and place on old sampler assembly.

5.3.5 **INSTALL** new sampler assembly.

5.3.6 **DETERMINE** "As Left Leakage" by blocking air flow and checking air flow meter for movement.

a. IF no leakage, THEN MARK N in As Left Leakage column.

b. IF leakage is indicated, THEN DETERMINE cause AND REPAIR.

5.3.7 **RECORD** the Flow Meter Cal Due Date, Removed Date, Removed Time, Removed Meter Reading (ft³) and Pump Replacement Date.

5.3.8 **CLOSE AND LATCH** the air sample station cover.

5.3.9 **PROCEED** to the next station and continue process.

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- 5.3.10 After completing air sample change out, **COMPLETE** the following for each sampler assembly:
- a. **REMOVE** particulate filter and place in glassine envelope.
 - b. **PLACE** filter envelope and charcoal cartridge in labeled zip-lock bag.
 - c. **CLEAN** out any residue or moisture buildup in sampler head.
 - d. **CHECK** condition of O-rings AND **REPLACE** if necessary.
- 5.3.11 **PLACE** new particulate filter (fuzzy side out) and charcoal cartridge in sampler assembly AND **SCREW** on cap.
- 5.3.12 **PLACE** protective cover on sampler assembly.
- 5.3.13 **PREPARE** new air sample packages for following week.
- 5.3.14 **TRANSFER** data to vendor Chain of Custody sample data sheet.
- a. **OPEN** network folder J:/Chem_Rad/RETS/Environmental Air Samples.
 - b. **OPEN** the folder for the current year.
 - c. **SELECT** AND **OPEN** the previous week's Excel spreadsheet.
 - d. **SELECT** Save-As from the File dropdown menu.
 - e. **SAVE** the file as ASxxyyzz (where xx is the two digit month, yy is the two digit day and zz is the two digit year).
 - f. **COPY** the cells in F11-F15.

<p>NOTE: Copy the cells, do not Cut the cells as this will change the formatting.</p>
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- g. **PASTE** the cells into D11-D15. This will copy over the previous data in those cells.
- h. **DELETE** the information in cells F11-F15.
- i. **COPY** the cells in S11-S15.

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- j. **PASTE** the cells into R11-R15.
- k. **DELETE** the information in S11-S15.
- l. **ENTER** the monitoring stop Date/Time as appropriate into cells F11-F15.
- m. **ENTER** the Stop Meter Reading into cells S11-S15 as appropriate.
- n. **IF** volume is less than 100 m³, **THEN NOTIFY** REMP/RETS analyst.

NOTE: Sample volumes as low as 60 m ³ have been found to meet LLDs provided there is no delay in shipping and count times are met.
--

- o. **CHANGE** the "Collected By" cell, as appropriate.
- p. **SAVE** the spreadsheet.
- q. **PRINT** the spreadsheet.
- r. **SIGN** in the Relinquished box under Chain of Custody **AND ASSIGN** the current date and time.
- s. **PACKAGE** the printout with the air samples for shipping.

5.3.15 **WHEN** control air sample is obtained, **THEN PACKAGE AND SHIP** samples per Attachment 4 within 2 days of sampling.

**5.4 SOUTH HAVEN RAW WATER SAMPLE COLLECTION
(SHRAW) - MONTHLY - ODCM REQUIRED**

NOTE: Water treatment plant personnel add approximately 125 ml of raw water per day to sample containers.
--

- 5.4.1 **PREPARE** a 1-gallon container labeled "SHRAW," "PAL," month and year.
- 5.4.2 **DROP OFF** container at the South Haven Municipal Water Treatment Plant.
- 5.4.3 **PICK UP** previous month's container.
- 5.4.4 **PACKAGE AND SHIP** samples per Attachment 4 within 5 days of obtaining.

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5.5 BROADLEAF VEGETATION SAMPLE COLLECTION - MONTHLY - ODCM REQUIRED

5.5.1 **VALIDATE** with REMP/RETS Analyst that the denoted sectors are still the highest D/Q (SE and SSE) and a least prevalent D/Q (NE or NNE).

5.5.2 **OBTAIN** 1 kg (2.2 lbs) samples of three different kinds of broadleaf vegetation in both the SE and SSE sectors. BV-1 is collected on the trail in the woods near the site boundary in the SSE quadrant. BV-2 is collected near the site boundary in the empty lot just off of Blue Star Highway in the SE quadrant.

5.5.3 **OBTAIN** 1 kg (2.2 lbs) samples of the similar broadleaf vegetation 15 - 30 km (9.3 to 18.6 miles) distant in the NNE or NE sector (this is the BV-C sample).

5.5.4 **OBTAIN** samples monthly during growing season.

5.5.5 **PACKAGE AND SHIP** samples per Attachment 4 within 2 days of sampling.

5.6 ENVIRONMENTAL TLD COLLECTION - QUARTERLY - ODCM REQUIRED

5.6.1 Upon receipt of TLDs from the laboratory contractor, **INVENTORY** all TLDs AND PLACE in lead cave.

NOTE: Field TLDs are removed from the lead cave only for delivery to their proper locations. All control TLDs remain in the lead cave throughout the entire exposure period.

5.6.2 **CHANGE-OUT** TLDs at each sample location. The TLD should be displayed so that it is visible from the side and not tucked up under the spherical cap.

5.6.3 For any missing TLDs, then:

a. **SEARCH** immediate area.

b. IF lost TLD is found, THEN COLLECT it AND PERFORM standard change out procedure.

c. IF lost TLD is not found, THEN POST the new TLD in proper location.

5.6.4 **STORE** collected field TLDs in lead cave along with control TLDs until ready for mailing to laboratory contractor.

5.6.5 **PACKAGE AND SHIP** samples per Attachment 4 within 5 days of changeout.

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5.7 PLANT AIR SAMPLE COLLECTION - QUARTERLY - NON-ODCM REQUIRED (CMT 0220011097)

5.7.1 **OBTAIN** 1-liter air samples from Air Receiver Tanks T-8A, 8B and 8C.

5.7.2 **COUNT** samples per the posting on the MCA or CH 4.39, "Gamma Ray Spectroscopy System," to ensure LLD's are met.

5.7.3 **REVIEW** printout AND **FORWARD** to REMP Specialist.

5.8 SEPTIC SYSTEM SAMPLE COLLECTION - QUARTERLY - NON-ODCM REQUIRED

5.8.1 **OBTAIN** a 1 liter liquid sample from sanitary system septic tank.

5.8.2 **COUNT** sample per the posting on the MCA or CH 4.39, "Gamma Ray Spectroscopy System," to ensure LLD's are met.

5.8.3 **PACKAGE** AND **SHIP** samples per Attachment 4 within 5 days of sampling.

5.9 FISH SAMPLE COLLECTION - IN SEASON - ODCM REQUIRED

5.9.1 Precautions

a. At least one individual in the collection party is required to have Michigan Department of Environmental Quality (MDEQ) Cultural and Scientific Fish Collectors Permit if gill net is used.

b. IF logistical problems prevent use of a boat to set gill nets from the lake side of Palisades, THEN the nets can be set offshore from the site boundary (by wading). **NOTIFY** Security prior to using offshore wading method for beach access.

5.9.2 **NOTIFY** district MDEQ Fisheries biologist prior to sample collection.

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- 5.9.3 **COLLECT** samples twice during the season of greatest abundance (typically May through October) as follows:
- a. **COLLECT** at least two species of commercially and/or recreationally important fish in the vicinity of the Plant discharge area and the same species in an area not influenced by the Plant discharge (eg, Ludington Pump Storage Plant). One liter of flesh should be collected for each species caught for analysis accuracy.
 - b. Normally fish will be collected first from the vicinity of the discharge, then the same or similar species at Ludington Pump Storage or other area not influenced by Palisades Plant effluents.
- 5.9.4 **LABEL** all containers with sample type, location, and date.
- 5.9.5 **FOLLOW UP** with the individual collecting the samples or the receiving lab every two weeks after expected shipping to ensure samples and controls are being shipped in a timely manner.
- 5.10 SEDIMENT SAMPLE COLLECTION - SEMIANNUALLY - ODCM REQUIRED**
- 5.10.1 **COLLECT** a 1-liter sediment sample semiannually 1/2 mile north of discharge.
- 5.10.2 **COLLECT** a 1-liter sediment sample semiannually south of discharge near site boundary (Non-ODCM Required).
- 5.10.3 **LABEL** containers with sample type, location, and date.
- 5.10.4 **PACKAGE AND SHIP** samples per Attachment 4 within 5 days of sampling.
- 5.11 FOOD PRODUCT SAMPLE COLLECTION - YEARLY - ODCM REQUIRED**
- 5.11.1 **OBTAIN** one sample each of approximately 1 kg each of blueberries and apples from the Arellanos' store, or other local service in appropriate section.
- 5.11.2 **LABEL** containers with sample type, location, and date.
- 5.11.3 **PACKAGE AND SHIP** samples per Attachment 4 within 5 days of sampling.

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5.12 PALISADES PARK SAMPLES - MONTHLY WHILE IN SERVICE - ODCM REQUIRED

5.12.1 **CALL** Palisades Park Manager (Jim Thornton) at 269-214-2011 to align sampling.

5.12.2 **COLLECT** 1 gallon of sample from each well (1 - Community Well, 1 - Commercial Well)

5.12.3 **PACKAGE AND SHIP** samples per Attachment 4 within 5 days of sampling.

5.13 MISCELLANEOUS SAMPLES - ODCM REQUIRED

5.13.1 Ludington - Control Lake-In daily composite samples are collected daily and shipped to Palisades monthly.

5.13.2 **PACKAGE AND SHIP** samples per Attachment 4 within 5 days of receiving.

5.14 MONTHLY SAMPLE COLLECTION VERIFICATION

5.14.1 Attachment 6, "REMP Sample Collection Checklist," may be used to track collection and shipment of Environmental Samples.

5.14.2 **VERIFY** that the indicated number and type of samples required by the ODCM were collected.

a. **DOCUMENT** any unusual collection conditions or missing samples.

5.14.3 **IDENTIFY** new locations for obtaining replacement samples **AND ADD** them to the Radiological Environmental Monitoring Program (REMP) within thirty (30) days if milk or fresh leafy vegetable samples become unavailable from one or more of the sample locations. The specific locations from which samples were unavailable may then be deleted from the monitoring program.

a. Identify the cause(s) of sample unavailability **AND LIST** the new location(s) for obtaining replacement samples in the next Annual Radiological Environmental Operating Report.

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5.15 REVIEW OF SAMPLE ANALYSIS RESULTS

- 5.15.1 The sample analysis results should be reviewed by the REMP/RETS Analyst upon receipt of the analyses from the laboratory contractor.
- 5.15.2 **COMPARE** the monthly analytical results to the appropriate ODCM requirements (Attachment 7 of this procedure) to verify the following:
- a. The required analyses were performed.
 - b. Any results exceeding the action level shall be checked against ODCM Specification reporting requirements.
 - c. LLD sensitivity levels were reached. If sample LLDs are not reached, **EVALUATE AND DOCUMENT** contributing factors.
 - d. The action taken if either isotopic action levels and/or NRC reporting levels are exceeded.
 - e. Any specific types of evaluation required.
 - f. Any action related to unusual or missing sample results.

5.16 AIR FLOW METER CALIBRATION

- 5.16.1 WHEN Air flow meter calibration due date is approaching, THEN SHIP a spare flow meter for calibration, approximately two weeks in advance to allow for time to calibrate and return. Calibration frequency is currently every two years.
- 5.16.2 **SHIP** the meter that requires calibration to the following address:
- Meter Technology Center
1975 W Parnell Road
Jackson, Mi 49201
- 5.16.3 Calibration takes place at this facility in accordance with Department of Consumer and Industry Services Public Service Commission Technical Standards for Gas Service and then returned for use.
- 5.16.4 As found documentation should accompany flow meters back and be retained or submitted as records.

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5.17 SPECIAL REPORT

5.17.1 **PREPARE AND SUBMIT** to the NRC (within 30 days) a special report identifying the following, if the level of radioactivity as a result of Plant effluents in an environmental sampling medium at a specified location exceeds Palisades ODCM, Appendix A, Table E-2, reporting levels when averaged over any calendar quarter.

- a. The cause(s) for exceeding the limit(s).
- b. Corrective action(s) taken to reduce radioactive effluents.

5.17.2 The NRC Special Report shall be submitted if more than one (1) of the radionuclides listed in the specifications (Palisades ODCM, Appendix A, Table E-2) are detected in an environmental sample medium and:

$$\frac{\text{Concentration (1)}}{\text{Reporting Level (1)}} + \frac{\text{Concentration (2)}}{\text{Reporting Level (2)}} + \dots \geq 1.0$$

The quarterly sum of fractions calculation shall be completed within 90 days of end of quarter.

5.17.3 If radionuclides other than those listed in the specifications (Palisades ODCM, Appendix A, Table E-2), are detected and are the result of Plant effluents, the NRC Special Report shall be submitted if the potential annual dose to a member of the public is equal to or greater than the calendar year limits specifications (Palisades ODCM, Appendix A, III.H, III.C, and III.D). An NRC Special Report is not required if the measured level of radioactivity is not the result of Plant effluents. The condition shall be described in the Annual Radiological Environmental Operating Report.

Under all conditions, any radiological environmental surveillance sample possessing sufficient isotopic activity above the action level where an action level is listed in Attachment 2 but still below ODCM reporting requirements shall be evaluated. If no action level is listed in Attachment 2, any isotopic activity trending up shall be evaluated.

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6.0 ATTACHMENTS AND RECORDS

6.1 ATTACHMENTS

- 6.1.1 Attachment 1, "Environmental Sample Collection Schedule"
- 6.1.2 Attachment 2, "REMP Sample Locations"
- 6.1.3 Attachment 3, "Sample Shipment Identification"
- 6.1.4 Attachment 4, "Sample Packaging and Shipment"
- 6.1.5 Attachment 5, "Environmental Air Sample Data Sheet"
- 6.1.6 Attachment 6, "REMP Sample Collection Checklist"
- 6.1.7 Attachment 7, "REMP Analytical Requirements"
- 6.1.8 Attachment 8, "Environmental Monitoring Locations"

6.2 RECORDS

- 6.2.1 Analytical Results and Special Reports are included in the Annual Radiological Operating Report (Chemistry Procedure CH 6.50, "Annual Radiological Environmental Operating Report"); this report is sent to Records per Entergy Procedure EN-AD-103, "Document Control and Records Management Programs." Attachment 3, "Sample Shipment Identification," Attachment 5, "Environmental Air Sample Data Sheet," and Attachment 6, "REMP Sample Collection Checklist," are considered guidelines and are not considered to be Plant Records. Sample activities/schedules are listed in Chemistry Database Management System (NuclearIQ) in accordance with CH 1.5, "Chemistry Logs, Records, and Data Management." NuclearIQ Reports will be generated for submittals in accordance with Entergy Procedure EN-AD-103.

7.0 SPECIAL REVIEWS

None

ENVIRONMENTAL SAMPLE COLLECTION SCHEDULEProc No CH 6.10
Attachment 1
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Sample	Number of Samples and Locations	Sample Type	Collection/Analysis Frequency
Airborne Particulates and Iodines	4 within a 10 km radius 1 at 25 - 82 km distant	Continuous at approximately 1 cfm	Weekly
Drinking Water	1 - South Haven Municipal - Raw	Daily 125 sample collection to obtain a one-gallon composite	Monthly
Drinking Water	1 - Plant drinking water	Daily 500 sample collection to obtain a one-gallon composite	Monthly
Lake Surface	1 - Lake In, Screen-house downstream of "bio-box"	Daily 500 sample collection to obtain a one-gallon composite	Monthly
Lake Surface	1 - Control at Ludington	Daily composite to obtain one-gallon sample	Monthly
Sediment	Sediment - ½ mile north of plant	One-liter grab	Semi-annually
Food Products	1 sample each of blueberries and apples	1 kg grab sample	At time of harvest

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ENVIRONMENTAL SAMPLE COLLECTION SCHEDULE

Sample	Number of Samples and Locations	Sample Type	Collection/Analysis Frequency
Food Products	1 sample each of three different kinds of broadleaf vegetation in two sectors near plant boundary 1 - sample of each of similar broadleaf vegetation 15 - 30 km distant (9 to 18 miles)	1 kg grab samples	Monthly during growing season
Fish	2 - location in vicinity of plant discharge 2 - Ludington Control	One-liter of fish flesh from two different species. Obtain same species from control location (if available)	Sample in season or semiannually if they are not seasonal
TLD	11 - General vicinity of Site Boundary 9 - Within 12 km radius 3 - Control Stations	Continuous	Quarterly
Waste Water	1 - Septic system	1 liter grab	Quarterly
Plant Air	3 - T-8A, B & C	1 liter grab	Quarterly
Ground Water	1-Palisades Park Community Well 1-Palisades Park Commercial Well	1 Gallon Carboy from each well	Monthly while wells are in Service

REMP SAMPLE LOCATIONS

Station	Code *		Location *	Air Part and Iodine	Lake Water	Milk	Food Products	Sediment	TLD	Fish	Ground Water
1	ST	Palisades Nuclear Plant	Onsite, on tree near nw corner of bag crew bldg.		X				X		
1	ST	Palisades Nuclear Plant	Plant discharge area.							X	
2	TH	RR 3 Coloma, MI 5.6 miles S	TLD located on Becht Road, west side on post, 50 yards south of 48 th Ave.						X		
3	HS	76182 48th Ave Covert, MI 5.8 miles SSE	Along 48th Ave, 1/4 mile west of 76th St. In barnyard 50 yds off north side of road.						X		
4	JS	36197 M-140 Hwy Covert, MI 3-1/2 miles SE	Just north of Arellannos fruit stand, in grape arbor.				X		X		
4	JS	36 th Avenue, 1/2 miles east of M-140	South side of road.	X							
5	PR	72723 CR 378 Covert, MI 3-1/2 miles ESE	Along CR 378, 3/4 mile east of M-140, 30 ft off north side of road. TLD located at Paul Rood residence; on tree in back yard just past driveway.	X					X		
6	RB	RR 3 South Haven, MI 4-1/2 miles NE	Along 12th Ave (CR 384), turn nw past maple grove, go 1/4 mile located in orchard on north side of road.						X		
7	SN21	Emergency Siren 21 4.1 miles NNE	On Monroe Blvd, at corner of 76 th and 11th Street.						X		
8	SP	State Park 1 mile N	Onsite along the dump road, north of Plant. One mile from main gate. Near State Park boundary, on side of road as road turns west.	X					X		

*Distances listed in Code/Location are approximates, and actual are listed in Attachment 8.

REMP SAMPLE LOCATIONS

Station	Code *		Location *	Air Part and Iodine	Lake Water	Milk	Food Products	Sediment	TLD	Fish	Ground Water
9	TP	Covert Township Park 1.5 miles SSW	Along 32nd Ave, 1/4 mile west of Blue Star Hwy. 5 ft off south side of road. TLD located at end of road, at entrance to residence on beach, attached to emergency siren SN38.	X					X		
10	GR	Grand Rapids, MI 55 miles NNE	Grand Rapids Service Center, in storage area. Air sample on west side near shed. Control TLD 100 feet north of air sample station.	X					X		
11	KZ	Kalamazoo, MI 35 miles E	Kalamazoo Service Center, in parking area on post in SE corner Control TLD.						X		
12	DG	58399 Wilbur Road, Dowagiac, MI 30 miles SSE	TLD located on pole approx 20 yards from road, NE of house.						X		
13	ST	Perimeter of Palisades NNE	Past #8 along dirt road. Proceed west up dune path at right of containment test structure. At first crest, turn north and proceed up adjacent hill to #13 at top (approx 50 yds from crest). Near State Park fence line.						X		
14	ST	Perimeter of Palisades NE	25 yards of east of Station #34 between State Park and DFS Building.						X		
15	ST	Perimeter of Palisades E	North along Blue Star Hwy, 0.75 miles from access road, 10 ft off west side of road.						X		
16	ST	Perimeter of Palisades E	North along Blue Star Hwy, 0.4 miles from access road, 50 ft off west side of road.						X		
17	ST	Perimeter of Palisades ESE	Along access road, 25 yds south of southern power line, 15 yds off east side of road.						X		

*Distances listed in Code/Location are approximates, and actual are listed in Attachment 8.

REMP SAMPLE LOCATIONS

Station	Code *		Location *	Air Part and Iodine	Lake Water	Milk	Food Products	Sediment	TLD	Fish	Ground Water
18	ST	Perimeter of Palisades SE	20 yds from access road along south road. 40 yds off south road.						X		
19	ST	Perimeter of Palisades SSE	0.2 miles along south road from access road, 30 ft off north side of road. TLD 30 ft off south side of road	X					X		
20	ST	Perimeter of Palisades S	0.4 miles along south road from access road, 20 ft off south side of road.						X		
21	ST	Perimeter of Palisades SSW	0.7 miles along south road from access road, just past top of hill. Near Lake Michigan Bluff.						X		
22	PW	Palisades Warehouse	Control TLD in lead cave.						X		
23	SN19	Emergency Siren 19 3 miles ENE	On CR 380.						X		
24	SN26	Emergency Siren 26 6 miles E	On 67th Street.						X		
25	SH	South Haven, MI 5-1/2 miles NNE	South Haven Water Treatment Plant.		X						
30	STN	1/2 mile N of discharge						X			
32	LP	Ludington Pumped Storage 125 Miles N			X					X	
46	PP	Palisades Park - Community Well	South of Plant.								X
47	PP	Palisades Park - Commercial Well	South of Plant.								X

*Distances listed in Code/Location are approximates, and actual are listed in Attachment 8.

SAMPLE SHIPMENT IDENTIFICATION

Palisades

Location	Type	Date	Amount	Remarks
South Haven	Raw Water	Monthly Composite -	1 Gallon	
Lake In	Lake Water	Monthly Composite -	1 Gallon	
Plant Drinking Water	Domestic Water	Monthly Composite -	1 Gallon	
Ludington - Lake	Control Sample	Monthly Composite -	1 Gallon	
½ mile N of Plant	Sediment		1 Liter	
Sanitary Wastewater	Wastewater		1 liter	
Palisades Perimeter	Vegetation		6 kg	
Control	Vegetation		3 kg	
Arellannos Market	Blueberries		1 kg	
Arellannos Market	Apples		1 kg	
Palisades	Fish		1 kg	
Control	Fish		1 kg	
Palisades Park - Community Well	Drinking Water		1 Gallon	
Palisades Park - Commercial Well	Drinking Water		1 Gallon	

This form is not required to be retained as a quality record.

SAMPLE PACKAGING AND SHIPMENT

1. Label samples clearly as to their contents.
2. Seal liquid sample containers with tape to prevent leakage.
3. Use sufficient packing material to avoid sample container damage during shipment.
4. Package air filters in glassine or plastic envelopes.
5. For TLD shipments, ensure that vendor's shipment instructions are followed.
6. Ship samples to vendor laboratory with minimal delay after collection so as to avoid elevated analytical levels of detection.
7. Record sample information on a shipping record located in the J/ChemRad/RETS/GEL folder per vendor's instructions as applicable. Include applicable form with shipment.

ENVIRONMENTAL AIR SAMPLE DATA SHEET

Proc No CH 6.10
Attachment 5
Revision 12
Page 1 of 1

PALISADES

A/S Station	As Found Leakage (Y / N)	As Left Leakage (Y / N)	Removed Date	Removed Time	Flow Meter Reading (ft ³)	Flow Meter Cal Due Date	Pump Replacement Date
8SP							
9TP							
4JS							
5PR							
GR10							
19ST							

Comments _____

Completed By _____ Date _____

Reviewed By _____ Date _____

This form is not required to be retained as a quality record.

REMP SAMPLE COLLECTION CHECKLIST

Month _____ Year _____

	Collected	Shipped
WEEKLY		
Air Samples		
Week 1	_____	_____
Week 2	_____	_____
Week 3	_____	_____
Week 4	_____	_____
Week 5	_____	_____
MONTHLY		
Broadleaf Veg	_____	_____
Lake In	_____	_____
Drinking Water	_____	_____
SHRAW	_____	_____
Ludington Ctrl	_____	_____
Palisades Park	_____	_____

This form is not required to be retained as a quality record.

REMP SAMPLE COLLECTION CHECKLIST

Year _____

	Collected	Shipped
QUARTERLY		
TLDs		
1Q	_____	_____
2Q	_____	_____
3Q	_____	_____
4Q	_____	_____
Sanitary Wastewater		
1Q	_____	_____
2Q	_____	_____
3Q	_____	_____
4Q	_____	_____
Plant Air		
1Q	_____	
2Q	_____	
3Q	_____	
4Q	_____	
SEMI-ANNUAL		
Sediment		
1	_____	_____
2	_____	_____
Fish - Indicator		
1	_____	_____
2	_____	_____
Fish - Control		
1	_____	_____
2	_____	_____
ANNUAL		
Blueberries	_____	_____
Apples	_____	_____

This form is not required to be retained as a quality record.

REMP ANALYTICAL REQUIREMENTS

<u>Media</u>	<u>Sampling Interval</u>	<u>Required Analysis</u>	<u>LLD</u>	<u>NRC^f Reporting Levels</u>	<u>Unusual Results^h</u>		
					<u>Action Level</u>	<u>Action Required</u>	
Direct by TLD	Quarterly	Gamma Dose	10 mR				
Air Gaseous	Weekly	I-131	0.07 pCi/m ³	0.9 pCi/m ³	0.2 pCi/m ³	Notify	
Air Particulate	Weekly	Gross Beta Gamma ^{a,j} Cs-134 Cs-137	0.01 pCi/m ³ 0.05 pCi/m ³ 0.06 pCi/m ³	10 pCi/m ³ 20 pCi/m ³	See note g 5 pCi/m ³ 5 pCi/m ³	Notify and perform gamma isotopic.	
Water Surface Drinking	Monthly	H-3 ⁱ	2000 pCi/L	20,000 pCi/L	1000 pCi/L	Notify Notify within 24 h if beta ≥10 pCi/L. Perform gamma analysis.	
		Gross Beta Gamma ^{a,j}	4 pCi/L		10 pCi/L		
		Mn-54	15 pCi/L	1000 pCi/L			
		Fe-59	30 pCi/L	400 pCi/L			
		Co-58	15 pCi/L	1000 pCi/L			
		Co-60	15 pCi/L	300 pCi/L			
		Zn-65	30 pCi/L	300 pCi/L		Any gamma ≥ 30 pCi/L	Notify
		Zr-95	30 pCi/L	400 pCi/L			
		Nb-95	15 pCi/L	400 pCi/L			
		Cs-134	15 pCi/L	30 pCi/L			
Cs-137	18 pCi/L	50 pCi/L					
Ba-140	60 pCi/L	200 pCi/L					
La-140	15 pCi/L	200 pCi/L					
I-131	1 pCi/L	2 pCi/L		2 pCi/L	Notify		
Sediment	Semiannual	Gamma ^l Cs-134 Cs-137	150 pCi/g 180 pCi/g		Any gamma ≥ 1 pCi/g	Notify	

REMP ANALYTICAL REQUIREMENTS

^aSupplementary analysis only.

^dRadioactivity levels may cause LLD levels to be exceeded.

^eMonthly composite of weekly filters.

^fReporting levels per ODCM, Appendix A, Section III.J and Table E-2.

^gIf gross beta activity is greater than or equal to 1 pCi/m³ or greater than or equal to ten times last year's mean of control samples, perform gamma analysis on the individual samples.

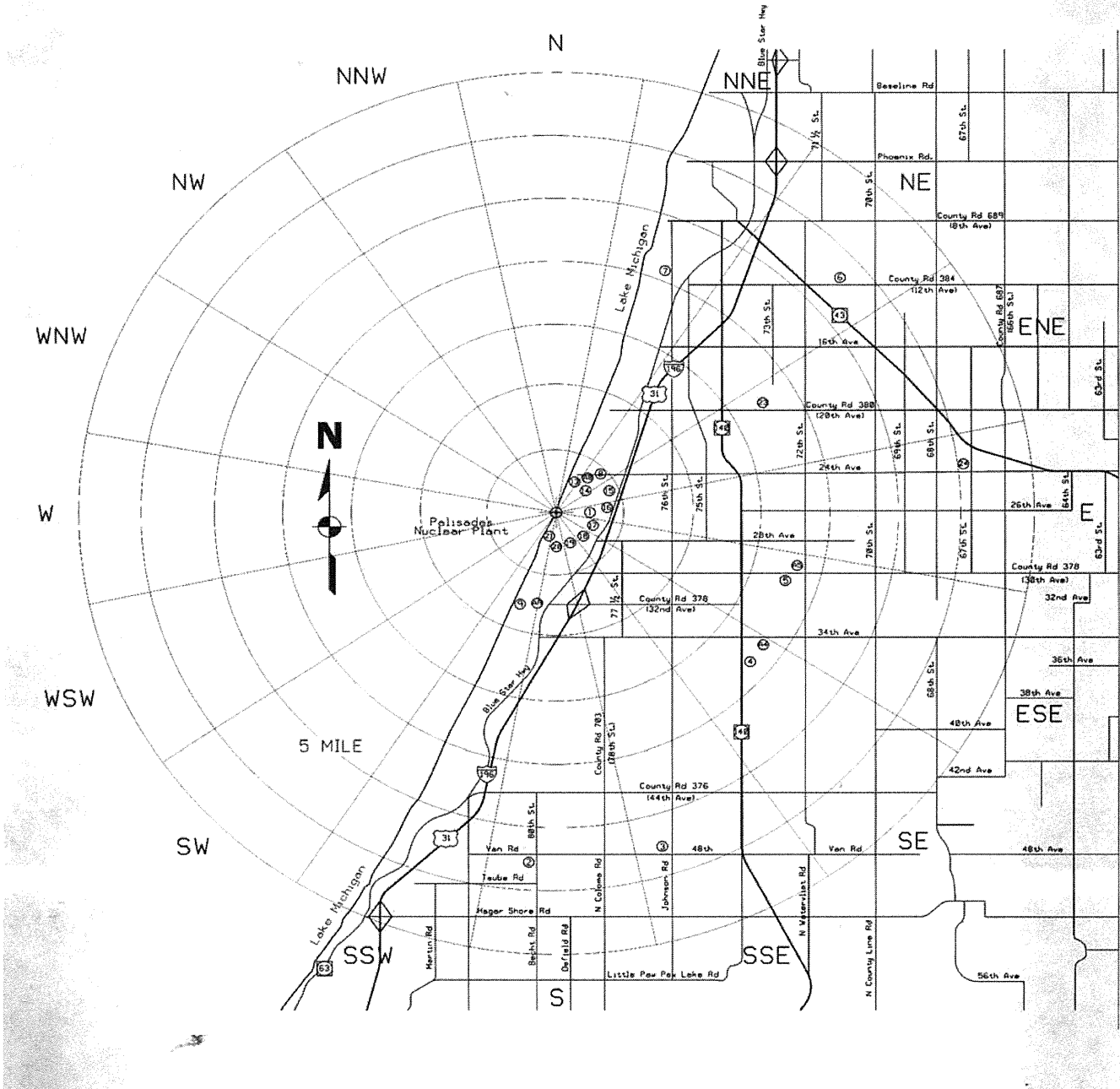
^hWhenever the Unusual Results Action Level is reached or exceeded, the word "Notify" under the Action Required column signifies that the Contract Laboratory performing the analysis is required to notify Palisades.

ⁱNot required for South Haven raw water sample.

^jGamma isotopic analysis means the identification and quantification of gamma emitting radionuclides that may be attributable to the effluents from the facility.

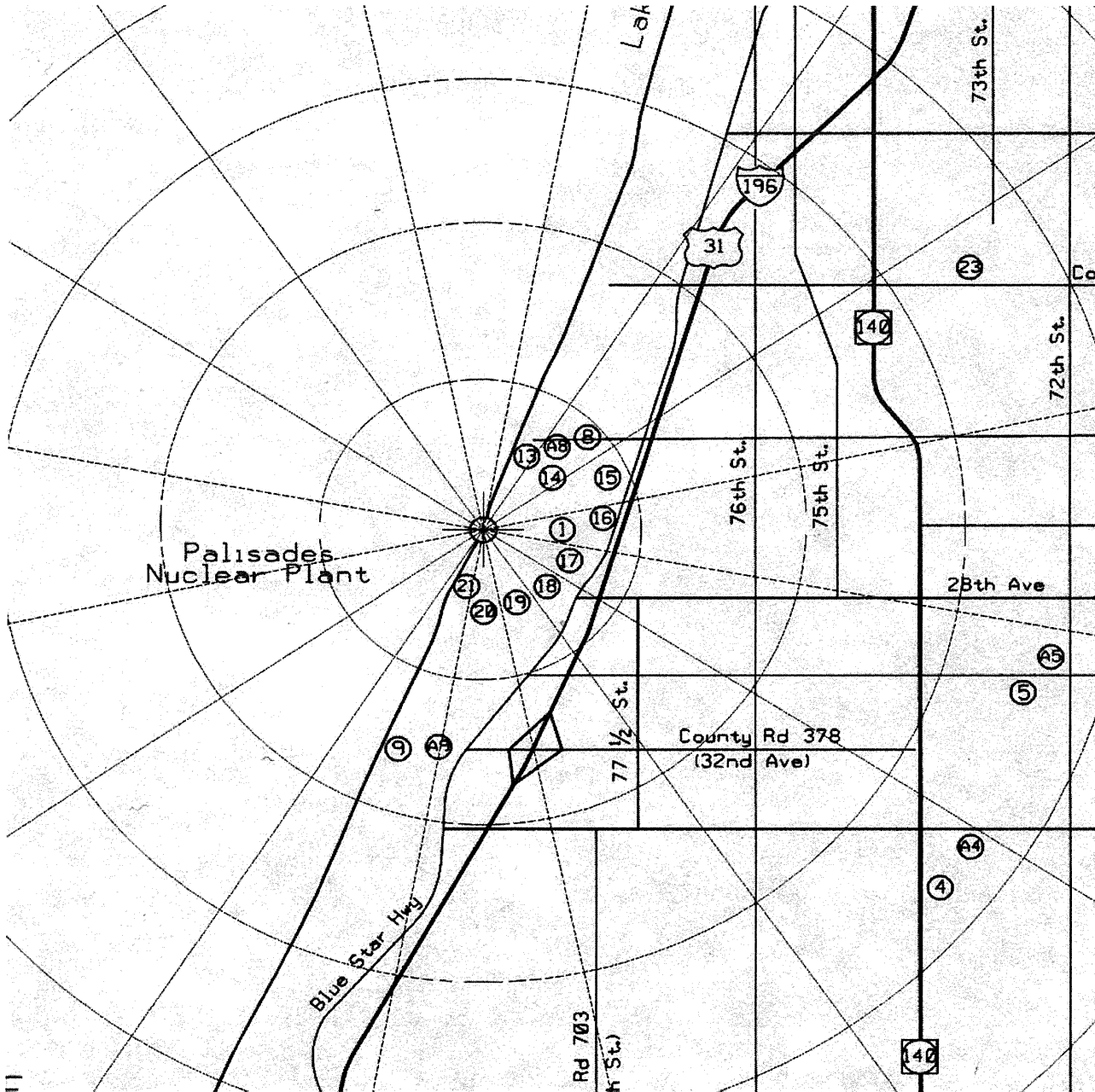
* Acceptance is < Average Background concentration plus 1 Standard Deviation. Current Values Documented in WT-WTPLP-2013-00125.

ENVIRONMENTAL MONITORING LOCATIONS

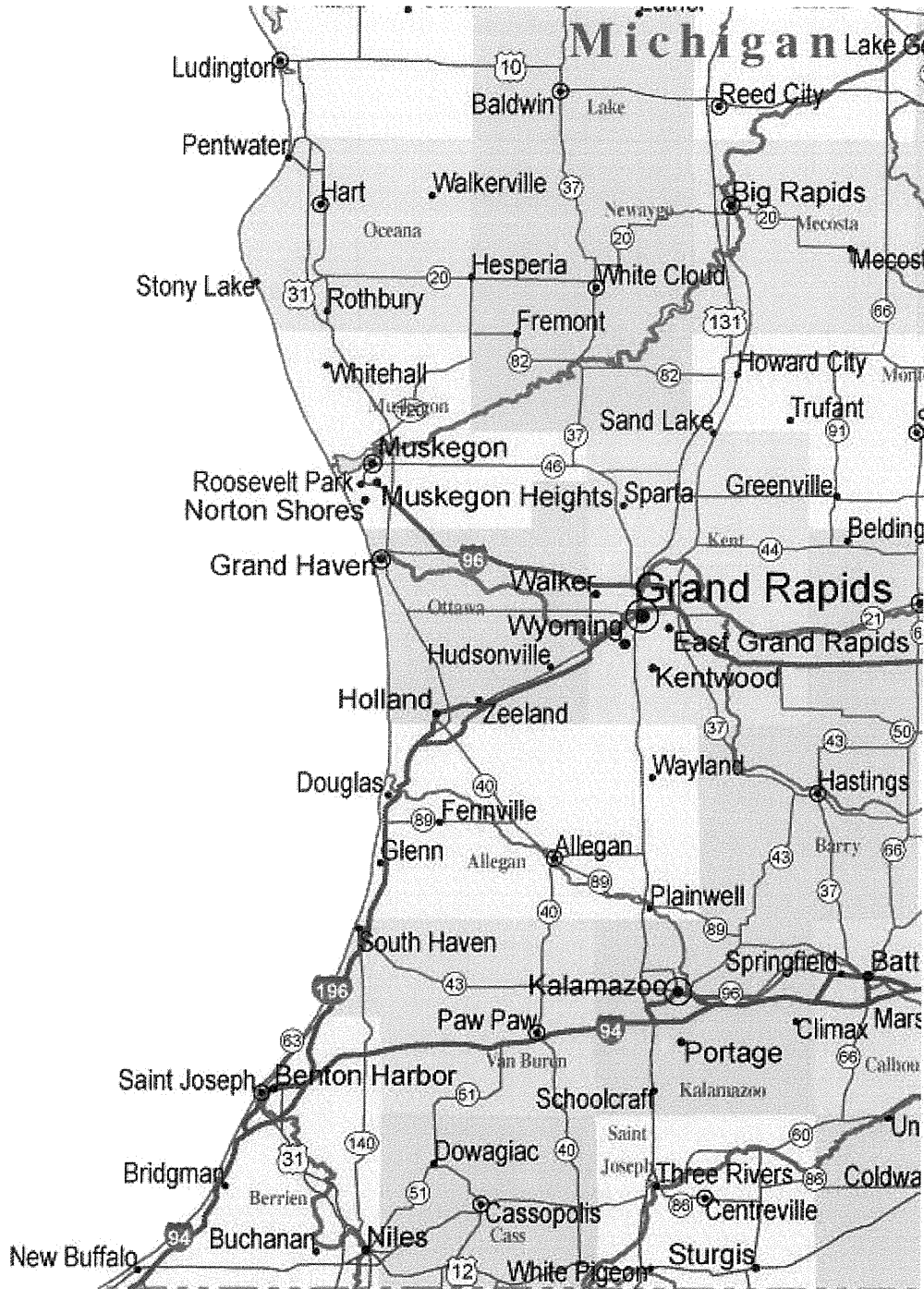


Google Earth/MAP were used to update coordinates and distances between stack and location.

ENVIRONMENTAL MONITORING LOCATIONS



ENVIRONMENTAL MONITORING LOCATIONS



Google Earth/MAP were used to update coordinates and distances between stack and location.

ENVIRONMENTAL MONITORING LOCATIONS

TLDs

Location	Coordinates	Distance (mi)	Degrees	Sector
Stack	N 42 19 22.5 W 86 18 50.8			
1	N 42 19 20.5 W 86 18 36.1	0.213	100.36	E
Inner Ring				
13	N 42 19 47.2 W 86 18 34.1	0.530	26.56	NNE
8	N 42 19 46.8 W 86 18 24.0	0.602	39.19	NE
14	N 42 19 41.1 W 86 18 21.2	0.551	49.64	NE
15	N 42 19 41.7 W 86 17 58.1	0.834	63.76	ENE
16	N 42 19 28.0 W 86 17 54.6	0.804	82.45	E
17	N 42 19 10.5 W 86 18 13.9	0.572	113.74	ESE
18	N 42 19 4.2 W 86 18 28.9	0.469	138.49	SE
19	N 42 19 0.9 W 86 18 39.7	0.443	159.19	SSE
20	N 42 19 1.1 W 86 18 48.8	0.412	176.05	S
21	N 42 19 3.4 W 86 18 58.4	0.382	196.40	SSW
Outer Ring				
7	N 42 22 40.8 W 86 17 0.4	4.115	22.35	NNE
6	N 42 22 30.6 W 86 14 15.9	5.314	47.18	NE
23	N 42 20 44.6 W 86 15 35.4	3.189	60.37	ENE
24	N 42 19 59.5 W 86 11 49.4	6.021	83.19	E
5	N 42 18 27.6 W 86 14 57.5	3.475	107.63	ESE
4	N 42 17 10.8 W 86 15 43.5	3.668	133.54	SE
3	N 42 14 37.9 W 86 16 60.0	5.684	163.92	SSE
2	N 42 14 33.4 W 86 19 16.4	5.560	183.75	S

ENVIRONMENTAL MONITORING LOCATIONS

Location	Coordinates	Distance (mi)	Degrees	Sector
9	N 42 18 1.73 W 86 19 34.6	1.670	201.86	SSW
Control TLDs				
10	N 42 53 16.7 W 85 40 35.9	50.746	39.49	NE
11	N 42 15 24.5 W 85 32 49.3	39.472	96.39	E
12	N 41 56 54.3 W 86 6 24.5	27.971	157.61	SSE

TLD # 10 is located within the Consumers Energy Grand Rapids service facility attached to a pole located adjacent to the south fence.

TLD # 11 is located within the Consumers Energy Kalamazoo service facility attached to a pole in the far NE corner of the facility - past the employee parking lot.

TLD # 12 is located approximately 30 yards from the road, NE and next to a private residence located at 58399 Wilbur Road, Dowagiac, MI.

Air Sample Stations

Location	Coordinates	Distance (mi)	Degrees	Sector
A8 (State Park)	N 42 19 46.8 W 86 18 24.8	0.595	38.34	NE
A9 (Township Park)	N 42 18 4.6 W 86 19 12.0	1.525	191.38	SSW
A4 (Covert)	N 42 17 12.1 W 86 15 21.7	3.882	130.12	SE
A5 (Rood)	N 42 18 30.5 W 86 14 47.8	3.590	106.12	ESE
A10 (Grand Rapids)	N 42 53 16.7 W 85 40 33.8	50.765	39.52	NE
A19 (Walking Trail)	N 42 19 3.65 W 86 18 35.30	4.23	148.70	SSE

Air Sample Station # 10 is located within the Consumers Energy Grand Rapids service facility, south side, next to a small service building and due East of TLD # 10.

Control fish and water samples are normally obtained from the Consumers Energy Pump Storage Facility located in Ludington, MI, or another location not influenced by Palisades Plant Discharge.

ENVIRONMENTAL MONITORING LOCATIONS

Palisades Park Wells

Location	Coordinates	Distance (mi)	Degrees	Sector
Community Well	N 42 18 47.5 W 86 19 11.4	.729	203.63	SSW
Commercial Well	N 42 18 48.5 W 86 18 46.8	.652	175.06	S

The Community Well services the community residents with well water to their homes; the Commercial Well services the community garden and drinking fountains on the east side of the property.

ATTACHMENT D

**YEAR-END REPORT FOR PALISADES
RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM (REMP)
AS PROVIDED BY GEL LABORATORIES, LLC**

36 Pages Follow

REMP Year End Report for PALI for 2014
Palisades REMP

10GR
AC

Sample Name	Date Collected	Nuclide	Result	2 Sigma Uncert	MDC	LLD	2 Sigma TPU	Units
10GR(341372012) - AC	4-Jan-14	Iodine-131	-2.39E-02	3.03E-02	4.35E-02	7.00E-02	3.22E-02	pCi/m3
10GR(341675010) - AC	9-Jan-14	Iodine-131	9.35E-04	1.25E-02	2.13E-02	7.00E-02	1.25E-02	pCi/m3
10GR(341925010) - AC	16-Jan-14	Iodine-131	-4.35E-03	2.89E-02	4.77E-02	7.00E-02	2.89E-02	pCi/m3
10GR(342379010) - AC	23-Jan-14	Iodine-131	1.19E-02	2.41E-02	3.96E-02	7.00E-02	2.47E-02	pCi/m3
10GR(342873010) - AC	30-Jan-14	Iodine-131	3.19E-03	2.58E-02	4.15E-02	7.00E-02	2.59E-02	pCi/m3
10GR(343103010) - AC	6-Feb-14	Iodine-131	4.40E-03	1.17E-02	2.09E-02	7.00E-02	1.18E-02	pCi/m3
10GR(343583010) - AC	13-Feb-14	Iodine-131	-1.60E-03	1.96E-02	3.33E-02	7.00E-02	1.96E-02	pCi/m3
10GR(343903010) - AC	20-Feb-14	Iodine-131	1.99E-03	1.40E-02	2.36E-02	7.00E-02	1.40E-02	pCi/m3
10GR(344418010) - AC	28-Feb-14	Iodine-131	-1.27E-02	1.76E-02	1.72E-02	7.00E-02	1.85E-02	pCi/m3
10GR(345016010) - AC	8-Mar-14	Iodine-131	9.45E-03	2.07E-02	3.73E-02	7.00E-02	2.12E-02	pCi/m3
10GR(345332010) - AC	15-Mar-14	Iodine-131	-2.74E-03	2.08E-02	3.35E-02	7.00E-02	2.08E-02	pCi/m3
10GR(345801010) - AC	21-Mar-14	Iodine-131	-1.60E-02	2.16E-02	3.19E-02	7.00E-02	2.28E-02	pCi/m3
10GR(346554010) - AC	27-Mar-14	Iodine-131	5.83E-03	2.84E-02	5.16E-02	7.00E-02	2.85E-02	pCi/m3
10GR(346906010) - AC	3-Apr-14	Iodine-131	3.51E-02	3.15E-02	6.97E-02	7.00E-02	3.54E-02	pCi/m3
10GR(347479010) - AC	12-Apr-14	Iodine-131	2.53E-04	1.27E-02	2.20E-02	7.00E-02	1.27E-02	pCi/m3
10GR(347952010) - AC	19-Apr-14	Iodine-131	-8.30E-03	3.26E-02	5.30E-02	7.00E-02	3.28E-02	pCi/m3
10GR(348326010) - AC	24-Apr-14	Iodine-131	3.74E-03	1.76E-02	3.05E-02	7.00E-02	1.77E-02	pCi/m3
10GR(348772010) - AC	1-May-14	Iodine-131	-9.98E-03	3.85E-02	5.81E-02	7.00E-02	3.87E-02	pCi/m3
10GR(349185010) - AC	9-May-14	Iodine-131	-8.18E-03	2.40E-02	3.65E-02	7.00E-02	2.43E-02	pCi/m3
10GR(349843010) - AC	17-May-14	Iodine-131	-8.02E-03	2.52E-02	3.34E-02	7.00E-02	2.54E-02	pCi/m3
10GR(350164010) - AC	24-May-14	Iodine-131	1.71E-02	2.38E-02	4.41E-02	7.00E-02	2.51E-02	pCi/m3
10GR(350705010) - AC	30-May-14	Iodine-131	1.21E-02	3.71E-02	6.71E-02	7.00E-02	3.75E-02	pCi/m3
10GR(351077010) - AC	6-Jun-14	Iodine-131	1.02E-02	2.54E-02	4.55E-02	7.00E-02	2.58E-02	pCi/m3
10GR(351568010) - AC	12-Jun-14	Iodine-131	-1.01E-03	2.99E-02	4.95E-02	7.00E-02	2.99E-02	pCi/m3
10GR(352093010) - AC	19-Jun-14	Iodine-131	-1.31E-03	2.77E-02	4.59E-02	7.00E-02	2.77E-02	pCi/m3
10GR(352546010) - AC	27-Jun-14	Iodine-131	-4.69E-03	3.00E-02	4.96E-02	7.00E-02	3.00E-02	pCi/m3
10GR(352838010) - AC	3-Jul-14	Iodine-131	-1.16E-02	3.85E-02	5.88E-02	7.00E-02	3.89E-02	pCi/m3
10GR(353510010) - AC	10-Jul-14	Iodine-131	1.46E-04	2.26E-02	3.84E-02	7.00E-02	2.26E-02	pCi/m3
10GR(353952010) - AC	17-Jul-14	Iodine-131	7.96E-03	2.46E-02	4.21E-02	7.00E-02	2.49E-02	pCi/m3
10GR(354342010) - AC	24-Jul-14	Iodine-131	-5.08E-03	4.00E-02	6.36E-02	7.00E-02	4.00E-02	pCi/m3
10GR(354723010) - AC	1-Aug-14	Iodine-131	6.35E-03	1.56E-02	2.81E-02	7.00E-02	1.58E-02	pCi/m3
10GR(355396010) - AC	8-Aug-14	Iodine-131	-9.19E-03	3.54E-02	5.54E-02	7.00E-02	3.56E-02	pCi/m3
10GR(355765010) - AC	14-Aug-14	Iodine-131	-1.12E-02	2.74E-02	4.30E-02	7.00E-02	2.79E-02	pCi/m3
10GR(356093010) - AC	21-Aug-14	Iodine-131	2.66E-02	2.61E-02	4.63E-02	7.00E-02	2.62E-02	pCi/m3
10GR(356772010) - AC	29-Aug-14	Iodine-131	1.34E-02	3.37E-02	6.20E-02	7.00E-02	3.42E-02	pCi/m3
10GR(357020010) - AC	5-Sep-14	Iodine-131	6.11E-03	2.10E-02	2.36E-02	7.00E-02	2.10E-02	pCi/m3
10GR(357508010) - AC	12-Sep-14	Iodine-131	-2.51E-03	2.42E-02	3.89E-02	7.00E-02	2.42E-02	pCi/m3
10GR(357894010) - AC	18-Sep-14	Iodine-131	4.25E-03	2.79E-02	4.18E-02	7.00E-02	2.80E-02	pCi/m3
10GR(358775010) - AC	26-Sep-14	Iodine-131	-2.06E-03	1.35E-02	2.16E-02	7.00E-02	1.35E-02	pCi/m3
10GR(359608010) - AC	3-Oct-14	Iodine-131	6.22E-03	4.11E-02	5.84E-02	7.00E-02	4.12E-02	pCi/m3
10GR(359808010) - AC	9-Oct-14	Iodine-131	-4.43E-03	2.54E-02	4.03E-02	7.00E-02	2.55E-02	pCi/m3
10GR(360399010) - AC	16-Oct-14	Iodine-131	-3.84E-03	2.88E-02	4.83E-02	7.00E-02	2.88E-02	pCi/m3

**REMP Year End Report for PALI for 2014
Palisades REMP**

10GR(360700010) - AC	23-Oct-14	Iodine-131	6.07E-03	1.50E-02	2.37E-02	7.00E-02	1.53E-02	pCi/m3
10GR(361400010) - AC	31-Oct-14	Iodine-131	-3.57E-03	3.35E-02	5.42E-02	7.00E-02	3.35E-02	pCi/m3
10GR(361660010) - AC	6-Nov-14	Iodine-131	-2.42E-03	1.72E-02	2.77E-02	7.00E-02	1.72E-02	pCi/m3
10GR(362122010) - AC	14-Nov-14	Iodine-131	1.06E-03	1.44E-02	2.39E-02	7.00E-02	1.44E-02	pCi/m3
10GR(362511010) - AC	21-Nov-14	Iodine-131	3.54E-03	3.31E-02	5.66E-02	7.00E-02	3.32E-02	pCi/m3
10GR(363124010) - AC	27-Nov-14	Iodine-131	-1.50E-03	2.12E-02	3.60E-02	7.00E-02	2.12E-02	pCi/m3
10GR(363446010) - AC	4-Dec-14	Iodine-131	-7.66E-03	1.85E-02	2.92E-02	7.00E-02	1.89E-02	pCi/m3
10GR(363814011) - AC	11-Dec-14	Iodine-131	2.20E-02	3.28E-02	3.30E-02	7.00E-02	3.28E-02	pCi/m3
10GR(364513011) - AC	19-Dec-14	Iodine-131	1.75E-02	2.91E-02	5.45E-02	7.00E-02	3.02E-02	pCi/m3

10GR
AP

Sample Name	Date Collected	Nuclide	Result	2 Sigma Uncert	MDC	LLD	2 Sigma TPU	Units
10GR(341372006) - AP	4-Jan-14	BETA	4.25E-02	8.96E-03	4.09E-03	1.00E-02	9.00E-03	pCi/m3
10GR(341675005) - AP	9-Jan-14	BETA	4.18E-02	5.58E-03	1.87E-03	1.00E-02	5.64E-03	pCi/m3
10GR(341925005) - AP	16-Jan-14	BETA	4.16E-02	5.46E-03	1.80E-03	1.00E-02	5.53E-03	pCi/m3
10GR(342379005) - AP	23-Jan-14	BETA	2.93E-02	4.68E-03	1.61E-03	1.00E-02	4.72E-03	pCi/m3
10GR(342873005) - AP	30-Jan-14	BETA	3.87E-02	5.39E-03	1.82E-03	1.00E-02	5.45E-03	pCi/m3
10GR(343103005) - AP	6-Feb-14	BETA	3.38E-02	4.99E-03	1.82E-03	1.00E-02	5.03E-03	pCi/m3
10GR(343583005) - AP	13-Feb-14	BETA	4.14E-02	5.54E-03	1.77E-03	1.00E-02	5.60E-03	pCi/m3
10GR(343903005) - AP	20-Feb-14	BETA	4.60E-02	5.83E-03	1.77E-03	1.00E-02	5.91E-03	pCi/m3
10GR(344418005) - AP	28-Feb-14	BETA	4.97E-02	5.51E-03	1.44E-03	1.00E-02	5.60E-03	pCi/m3
10GR(345016005) - AP	8-Mar-14	BETA	4.10E-02	4.95E-03	1.48E-03	1.00E-02	5.02E-03	pCi/m3
10GR(345332005) - AP	15-Mar-14	BETA	3.01E-02	5.68E-03	2.55E-03	1.00E-02	5.71E-03	pCi/m3
10GR(345801005) - AP	21-Mar-14	BETA	3.70E-02	5.74E-03	2.11E-03	1.00E-02	5.79E-03	pCi/m3
10GR(346554005) - AP	27-Mar-14	BETA	4.14E-02	5.56E-03	1.78E-03	1.00E-02	5.63E-03	pCi/m3
10GR(346906005) - AP	3-Apr-14	BETA	3.13E-02	4.87E-03	1.89E-03	1.00E-02	4.91E-03	pCi/m3
10GR(347479005) - AP	12-Apr-14	BETA	3.57E-02	4.37E-03	1.28E-03	1.00E-02	4.43E-03	pCi/m3
10GR(347952005) - AP	19-Apr-14	BETA	4.29E-02	7.73E-03	3.53E-03	1.00E-02	7.78E-03	pCi/m3
10GR(348326005) - AP	24-Apr-14	BETA	3.46E-02	5.18E-03	2.01E-03	1.00E-02	5.23E-03	pCi/m3
10GR(348772005) - AP	1-May-14	BETA	3.14E-02	5.01E-03	2.13E-03	1.00E-02	5.05E-03	pCi/m3
10GR(349185005) - AP	9-May-14	BETA	2.72E-02	4.29E-03	1.82E-03	1.00E-02	4.33E-03	pCi/m3
10GR(349843005) - AP	17-May-14	BETA	2.97E-02	4.85E-03	1.85E-03	1.00E-02	4.88E-03	pCi/m3
10GR(350164005) - AP	24-May-14	BETA	3.36E-02	5.24E-03	2.27E-03	1.00E-02	5.29E-03	pCi/m3
10GR(350705005) - AP	30-May-14	BETA	4.03E-02	5.70E-03	1.97E-03	1.00E-02	5.76E-03	pCi/m3
10GR(351077005) - AP	6-Jun-14	BETA	3.20E-02	5.48E-03	2.26E-03	1.00E-02	5.52E-03	pCi/m3
10GR(351568005) - AP	12-Jun-14	BETA	3.12E-02	5.05E-03	2.06E-03	1.00E-02	5.09E-03	pCi/m3
10GR(352093005) - AP	19-Jun-14	BETA	2.51E-02	4.60E-03	2.14E-03	1.00E-02	4.63E-03	pCi/m3
10GR(352546005) - AP	27-Jun-14	BETA	3.37E-02	5.25E-03	1.94E-03	1.00E-02	5.30E-03	pCi/m3
10GR(352838005) - AP	3-Jul-14	BETA	3.08E-02	4.68E-03	1.72E-03	1.00E-02	4.72E-03	pCi/m3
10GR(353510005) - AP	10-Jul-14	BETA	3.09E-02	4.66E-03	1.65E-03	1.00E-02	4.70E-03	pCi/m3
10GR(353952005) - AP	17-Jul-14	BETA	3.37E-02	4.79E-03	1.74E-03	1.00E-02	4.84E-03	pCi/m3
10GR(354342005) - AP	24-Jul-14	BETA	3.94E-02	5.05E-03	1.61E-03	1.00E-02	5.11E-03	pCi/m3
10GR(354723005) - AP	1-Aug-14	BETA	4.32E-02	5.15E-03	1.54E-03	1.00E-02	5.23E-03	pCi/m3
10GR(355396005) - AP	8-Aug-14	BETA	3.71E-02	5.45E-03	1.97E-03	1.00E-02	5.50E-03	pCi/m3

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10GR(355765005) - AP	14-Aug-14	BETA	3.95E-02	5.17E-03	1.68E-03	1.00E-02	5.23E-03	pCi/m3
10GR(356093005) - AP	21-Aug-14	BETA	4.27E-02	5.29E-03	1.63E-03	1.00E-02	5.36E-03	pCi/m3
10GR(356772005) - AP	29-Aug-14	BETA	3.30E-02	4.50E-03	1.50E-03	1.00E-02	4.55E-03	pCi/m3
10GR(357020005) - AP	5-Sep-14	BETA	3.21E-02	4.63E-03	1.62E-03	1.00E-02	4.68E-03	pCi/m3
10GR(357508005) - AP	12-Sep-14	BETA	2.55E-02	4.43E-03	1.87E-03	1.00E-02	4.46E-03	pCi/m3
10GR(357894005) - AP	18-Sep-14	BETA	4.30E-02	5.41E-03	1.59E-03	1.00E-02	5.48E-03	pCi/m3
10GR(358775005) - AP	26-Sep-14	BETA	3.52E-02	4.52E-03	1.53E-03	1.00E-02	4.58E-03	pCi/m3
10GR(359608005) - AP	3-Oct-14	BETA	3.22E-02	6.07E-03	2.30E-03	1.00E-02	6.11E-03	pCi/m3
10GR(359808005) - AP	9-Oct-14	BETA	3.71E-02	6.00E-03	1.82E-03	1.00E-02	6.05E-03	pCi/m3
10GR(360399005) - AP	16-Oct-14	BETA	3.18E-02	4.56E-03	1.60E-03	1.00E-02	4.61E-03	pCi/m3
10GR(360700005) - AP	23-Oct-14	BETA	3.14E-02	4.52E-03	1.59E-03	1.00E-02	4.56E-03	pCi/m3
10GR(361400005) - AP	31-Oct-14	BETA	2.72E-02	4.14E-03	1.58E-03	1.00E-02	4.17E-03	pCi/m3
10GR(361660005) - AP	6-Nov-14	BETA	3.02E-02	4.48E-03	1.62E-03	1.00E-02	4.52E-03	pCi/m3
10GR(362122005) - AP	14-Nov-14	BETA	3.25E-02	4.12E-03	1.24E-03	1.00E-02	4.17E-03	pCi/m3
10GR(362511005) - AP	21-Nov-14	BETA	4.29E-02	5.88E-03	1.91E-03	1.00E-02	5.94E-03	pCi/m3
10GR(363124005) - AP	27-Nov-14	BETA	3.76E-02	4.94E-03	1.52E-03	1.00E-02	5.00E-03	pCi/m3
10GR(363446005) - AP	4-Dec-14	BETA	5.46E-02	5.80E-03	1.48E-03	1.00E-02	5.91E-03	pCi/m3
10GR(363814005) - AP	11-Dec-14	BETA	5.23E-02	5.65E-03	1.58E-03	1.00E-02	5.75E-03	pCi/m3
10GR(364513005) - AP	19-Dec-14	BETA	3.45E-02	4.64E-03	1.60E-03	1.00E-02	4.70E-03	pCi/m3
10GR(347224005) - AP	8-Feb-14	Beryllium-7	1.02E-01	2.28E-02	1.44E-02		2.51E-02	pCi/m3
10GR(353853005) - AP	8-May-14	Beryllium-7	1.33E-01	2.77E-02	1.81E-02		3.02E-02	pCi/m3
10GR(360219005) - AP	7-Aug-14	Beryllium-7	1.47E-01	2.81E-02	2.39E-02		3.11E-02	pCi/m3
10GR(365223005) - AP	6-Nov-14	Beryllium-7	9.07E-02	1.25E-02	8.65E-03		1.51E-02	pCi/m3
10GR(347224005) - AP	8-Feb-14	Cesium-134	1.10E-05	4.79E-04	7.21E-04	5.00E-02	4.79E-04	pCi/m3
10GR(353853005) - AP	8-May-14	Cesium-134	-7.37E-06	5.07E-04	8.63E-04	5.00E-02	5.07E-04	pCi/m3
10GR(360219005) - AP	7-Aug-14	Cesium-134	2.24E-04	6.29E-04	1.11E-03	5.00E-02	6.37E-04	pCi/m3
10GR(365223005) - AP	6-Nov-14	Cesium-134	6.68E-05	2.94E-04	5.04E-04	5.00E-02	2.95E-04	pCi/m3
10GR(347224005) - AP	8-Feb-14	Cesium-137	-2.81E-04	5.83E-04	7.25E-04	6.00E-02	5.98E-04	pCi/m3
10GR(353853005) - AP	8-May-14	Cesium-137	1.59E-04	3.74E-04	6.83E-04	6.00E-02	3.81E-04	pCi/m3
10GR(360219005) - AP	7-Aug-14	Cesium-137	8.67E-05	3.63E-04	6.43E-04	6.00E-02	3.66E-04	pCi/m3
10GR(365223005) - AP	6-Nov-14	Cesium-137	-5.35E-05	2.39E-04	3.63E-04	6.00E-02	2.40E-04	pCi/m3

19ST

AC

Sample Name	Date Collected	Nuclide	Result	2 Sigma Uncert	MDC	LLD	2 Sigma TPU	Units
19ST(363814012) - AC	19-Dec-14	Iodine-131	-2.98E-04	1.97E-02	3.36E-02	7.00E-02	1.97E-02	pCi/m3
19ST(364513012) - AC	26-Dec-14	Iodine-131	4.29E-03	2.33E-02	4.09E-02	7.00E-02	2.34E-02	pCi/m3

19ST

AP

Sample Name	Date Collected	Nuclide	Result	2 Sigma Uncert	MDC	LLD	2 Sigma TPU	Units
19ST(363814006) - AP	19-Dec-14	BETA	3.52E-02	4.82E-03	1.68E-03	1.00E-02	4.87E-03	pCi/m3
19ST(364513006) - AP	26-Dec-14	BETA	4.39E-02	4.96E-03	1.46E-03	1.00E-02	5.04E-03	pCi/m3

4JS

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AC

Sample Name	Date Collected	Nuclide	Result	2 Sigma Uncert	MDC	LLD	2 Sigma TPU	Units
4JS(341372009) - AC	3-Jan-14	Iodine-131	6.34E-03	1.11E-02	1.98E-02	7.00E-02	1.14E-02	pCi/m3
4JS(341675008) - AC	10-Jan-14	Iodine-131	4.55E-03	1.17E-02	2.04E-02	7.00E-02	1.19E-02	pCi/m3
4JS(341925008) - AC	16-Jan-14	Iodine-131	1.62E-02	2.91E-02	5.45E-02	7.00E-02	3.00E-02	pCi/m3
4JS(342379008) - AC	23-Jan-14	Iodine-131	1.17E-02	1.54E-02	2.82E-02	7.00E-02	1.63E-02	pCi/m3
4JS(342873008) - AC	30-Jan-14	Iodine-131	-2.82E-03	1.65E-02	2.61E-02	7.00E-02	1.66E-02	pCi/m3
4JS(343103008) - AC	6-Feb-14	Iodine-131	-4.87E-03	1.16E-02	1.85E-02	7.00E-02	1.18E-02	pCi/m3
4JS(343583008) - AC	13-Feb-14	Iodine-131	-1.44E-03	3.32E-02	5.49E-02	7.00E-02	3.32E-02	pCi/m3
4JS(343903008) - AC	20-Feb-14	Iodine-131	-1.32E-02	1.43E-02	2.15E-02	7.00E-02	1.55E-02	pCi/m3
4JS(344418008) - AC	27-Feb-14	Iodine-131	-1.42E-02	2.45E-02	3.13E-02	7.00E-02	2.53E-02	pCi/m3
4JS(345019007) - AC	6-Mar-14	Iodine-131	-3.42E-03	1.82E-02	3.00E-02	7.00E-02	1.82E-02	pCi/m3
4JS(345016008) - AC	14-Mar-14	Iodine-131	1.35E-03	8.06E-03	1.36E-02	7.00E-02	8.09E-03	pCi/m3
4JS(345332008) - AC	21-Mar-14	Iodine-131	-1.50E-03	9.63E-03	1.34E-02	7.00E-02	9.65E-03	pCi/m3
4JS(345801008) - AC	27-Mar-14	Iodine-131	-3.47E-03	9.85E-03	1.53E-02	7.00E-02	9.98E-03	pCi/m3
4JS(346554008) - AC	3-Apr-14	Iodine-131	-3.10E-03	1.67E-02	2.67E-02	7.00E-02	1.67E-02	pCi/m3
4JS(346906008) - AC	10-Apr-14	Iodine-131	8.08E-03	1.84E-02	3.47E-02	7.00E-02	1.88E-02	pCi/m3
4JS(347479008) - AC	18-Apr-14	Iodine-131	7.70E-03	9.95E-03	1.86E-02	7.00E-02	1.06E-02	pCi/m3
4JS(347952008) - AC	25-Apr-14	Iodine-131	1.15E-02	2.01E-02	3.66E-02	7.00E-02	2.08E-02	pCi/m3
4JS(348326008) - AC	1-May-14	Iodine-131	-1.96E-02	1.72E-02	1.89E-02	7.00E-02	1.94E-02	pCi/m3
4JS(348772008) - AC	8-May-14	Iodine-131	-4.78E-03	2.05E-02	3.30E-02	7.00E-02	2.06E-02	pCi/m3
4JS(349185008) - AC	15-May-14	Iodine-131	-2.91E-03	1.35E-02	2.16E-02	7.00E-02	1.35E-02	pCi/m3
4JS(349843008) - AC	23-May-14	Iodine-131	-4.58E-03	1.28E-02	2.00E-02	7.00E-02	1.30E-02	pCi/m3
4JS(350164008) - AC	30-May-14	Iodine-131	-4.35E-03	2.45E-02	3.86E-02	7.00E-02	2.45E-02	pCi/m3
4JS(350705008) - AC	5-Jun-14	Iodine-131	-1.90E-03	1.65E-02	2.70E-02	7.00E-02	1.65E-02	pCi/m3
4JS(351077008) - AC	12-Jun-14	Iodine-131	2.81E-02	2.36E-02	5.01E-02	7.00E-02	2.69E-02	pCi/m3
4JS(351568008) - AC	19-Jun-14	Iodine-131	-1.05E-03	1.42E-02	2.40E-02	7.00E-02	1.42E-02	pCi/m3
4JS(352093008) - AC	26-Jun-14	Iodine-131	-8.36E-03	2.16E-02	3.38E-02	7.00E-02	2.19E-02	pCi/m3
4JS(352546008) - AC	3-Jul-14	Iodine-131	-1.53E-03	1.24E-02	1.74E-02	7.00E-02	1.24E-02	pCi/m3
4JS(352838008) - AC	10-Jul-14	Iodine-131	6.16E-03	2.97E-02	5.28E-02	7.00E-02	2.98E-02	pCi/m3
4JS(353510008) - AC	17-Jul-14	Iodine-131	-2.77E-02	3.19E-02	3.47E-02	7.00E-02	3.43E-02	pCi/m3
4JS(353952008) - AC	24-Jul-14	Iodine-131	2.25E-02	2.36E-02	5.17E-02	7.00E-02	2.58E-02	pCi/m3
4JS(354342008) - AC	31-Jul-14	Iodine-131	2.09E-03	2.12E-02	3.57E-02	7.00E-02	2.12E-02	pCi/m3
4JS(354723008) - AC	7-Aug-14	Iodine-131	2.89E-03	1.26E-02	2.23E-02	7.00E-02	1.27E-02	pCi/m3
4JS(355396008) - AC	14-Aug-14	Iodine-131	-3.42E-03	1.62E-02	2.51E-02	7.00E-02	1.63E-02	pCi/m3
4JS(355765008) - AC	22-Aug-14	Iodine-131	5.68E-03	1.98E-02	3.56E-02	7.00E-02	1.99E-02	pCi/m3
4JS(356093008) - AC	29-Aug-14	Iodine-131	-1.00E-02	1.55E-02	2.19E-02	7.00E-02	1.62E-02	pCi/m3
4JS(356772008) - AC	5-Sep-14	Iodine-131	2.87E-03	2.00E-02	3.39E-02	7.00E-02	2.01E-02	pCi/m3
4JS(357020008) - AC	11-Sep-14	Iodine-131	2.09E-03	1.72E-02	3.00E-02	7.00E-02	1.72E-02	pCi/m3
4JS(357508008) - AC	18-Sep-14	Iodine-131	2.21E-03	1.22E-02	2.12E-02	7.00E-02	1.22E-02	pCi/m3
4JS(357894008) - AC	25-Sep-14	Iodine-131	-1.59E-03	2.40E-02	3.93E-02	7.00E-02	2.40E-02	pCi/m3
4JS(358775008) - AC	2-Oct-14	Iodine-131	4.69E-03	1.43E-02	2.58E-02	7.00E-02	1.45E-02	pCi/m3
4JS(359608008) - AC	10-Oct-14	Iodine-131	1.26E-03	1.74E-02	2.51E-02	7.00E-02	1.74E-02	pCi/m3
4JS(359808008) - AC	17-Oct-14	Iodine-131	1.28E-02	1.81E-02	3.40E-02	7.00E-02	1.91E-02	pCi/m3
4JS(360399008) - AC	23-Oct-14	Iodine-131	8.93E-03	1.48E-02	2.76E-02	7.00E-02	1.49E-02	pCi/m3

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4JS(360700008) - AC	30-Oct-14	Iodine-131	8.94E-04	9.94E-03	1.72E-02	7.00E-02	9.95E-03	pCi/m3
4JS(361400008) - AC	6-Nov-14	Iodine-131	-5.05E-03	2.69E-02	4.32E-02	7.00E-02	2.70E-02	pCi/m3
4JS(361660008) - AC	13-Nov-14	Iodine-131	-6.42E-03	1.23E-02	1.43E-02	7.00E-02	1.27E-02	pCi/m3
4JS(362122008) - AC	20-Nov-14	Iodine-131	1.86E-03	1.22E-02	2.06E-02	7.00E-02	1.23E-02	pCi/m3
4JS(362511008) - AC	27-Nov-14	Iodine-131	-7.29E-03	1.77E-02	2.75E-02	7.00E-02	1.80E-02	pCi/m3
4JS(363124008) - AC	4-Dec-14	Iodine-131	1.66E-02	2.11E-02	3.94E-02	7.00E-02	2.24E-02	pCi/m3
4JS(363446008) - AC	11-Dec-14	Iodine-131	8.22E-03	1.11E-02	2.19E-02	7.00E-02	1.17E-02	pCi/m3
4JS(363814009) - AC	18-Dec-14	Iodine-131	7.36E-03	1.72E-02	3.05E-02	7.00E-02	1.75E-02	pCi/m3
4JS(364513009) - AC	26-Dec-14	Iodine-131	-2.89E-03	3.34E-02	5.57E-02	7.00E-02	3.34E-02	pCi/m3

4JS

AP

Sample Name	Date Collected	Nuclide	Result	2 Sigma Uncert	MDC	LLD	2 Sigma TPU	Units
4JS(341372003) - AP	3-Jan-14	BETA	4.03E-02	4.79E-03	1.30E-03	1.00E-02	4.86E-03	pCi/m3
4JS(341675003) - AP	10-Jan-14	BETA	4.54E-02	5.83E-03	1.89E-03	1.00E-02	5.90E-03	pCi/m3
4JS(341925003) - AP	16-Jan-14	BETA	4.35E-02	5.15E-03	1.55E-03	1.00E-02	5.23E-03	pCi/m3
4JS(342379003) - AP	23-Jan-14	BETA	2.79E-02	4.22E-03	1.38E-03	1.00E-02	4.26E-03	pCi/m3
4JS(342873003) - AP	30-Jan-14	BETA	3.60E-02	4.73E-03	1.51E-03	1.00E-02	4.79E-03	pCi/m3
4JS(343103003) - AP	6-Feb-14	BETA	3.25E-02	4.55E-03	1.58E-03	1.00E-02	4.60E-03	pCi/m3
4JS(343583003) - AP	13-Feb-14	BETA	4.67E-02	5.35E-03	1.48E-03	1.00E-02	5.43E-03	pCi/m3
4JS(343903003) - AP	20-Feb-14	BETA	4.16E-02	5.16E-03	1.53E-03	1.00E-02	5.23E-03	pCi/m3
4JS(344418003) - AP	27-Feb-14	BETA	4.97E-02	5.42E-03	1.40E-03	1.00E-02	5.52E-03	pCi/m3
4JS(345019003) - AP	6-Mar-14	BETA	4.27E-02	5.29E-03	1.62E-03	1.00E-02	5.36E-03	pCi/m3
4JS(345016003) - AP	14-Mar-14	BETA	3.06E-02	4.10E-03	1.35E-03	1.00E-02	4.15E-03	pCi/m3
4JS(345332003) - AP	21-Mar-14	BETA	3.54E-02	5.22E-03	1.88E-03	1.00E-02	5.27E-03	pCi/m3
4JS(345801003) - AP	27-Mar-14	BETA	3.15E-02	4.44E-03	1.50E-03	1.00E-02	4.48E-03	pCi/m3
4JS(346554003) - AP	3-Apr-14	BETA	3.31E-02	4.71E-03	1.59E-03	1.00E-02	4.76E-03	pCi/m3
4JS(346906003) - AP	10-Apr-14	BETA	3.08E-02	4.49E-03	1.65E-03	1.00E-02	4.53E-03	pCi/m3
4JS(347479003) - AP	18-Apr-14	BETA	3.69E-02	4.63E-03	1.39E-03	1.00E-02	4.69E-03	pCi/m3
4JS(347952003) - AP	25-Apr-14	BETA	2.37E-02	4.29E-03	1.97E-03	1.00E-02	4.32E-03	pCi/m3
4JS(348326003) - AP	1-May-14	BETA	2.26E-02	3.94E-03	1.75E-03	1.00E-02	3.97E-03	pCi/m3
4JS(348772003) - AP	8-May-14	BETA	2.67E-02	4.29E-03	1.83E-03	1.00E-02	4.32E-03	pCi/m3
4JS(349185003) - AP	15-May-14	BETA	2.96E-02	4.52E-03	1.86E-03	1.00E-02	4.56E-03	pCi/m3
4JS(349843003) - AP	23-May-14	BETA	3.41E-02	4.47E-03	1.40E-03	1.00E-02	4.52E-03	pCi/m3
4JS(350164003) - AP	30-May-14	BETA	2.54E-02	4.65E-03	2.31E-03	1.00E-02	4.68E-03	pCi/m3
4JS(350705003) - AP	5-Jun-14	BETA	2.59E-02	4.22E-03	1.66E-03	1.00E-02	4.25E-03	pCi/m3
4JS(351077003) - AP	12-Jun-14	BETA	2.31E-02	4.05E-03	1.71E-03	1.00E-02	4.08E-03	pCi/m3
4JS(351568003) - AP	19-Jun-14	BETA	2.53E-02	4.15E-03	1.71E-03	1.00E-02	4.18E-03	pCi/m3
4JS(352093003) - AP	26-Jun-14	BETA	2.67E-02	4.44E-03	1.90E-03	1.00E-02	4.47E-03	pCi/m3
4JS(352546003) - AP	3-Jul-14	BETA	2.72E-02	4.28E-03	1.60E-03	1.00E-02	4.31E-03	pCi/m3
4JS(352838003) - AP	10-Jul-14	BETA	2.56E-02	4.29E-03	1.72E-03	1.00E-02	4.32E-03	pCi/m3
4JS(353510003) - AP	17-Jul-14	BETA	2.74E-02	4.32E-03	1.59E-03	1.00E-02	4.36E-03	pCi/m3
4JS(353952003) - AP	24-Jul-14	BETA	3.85E-02	5.20E-03	1.80E-03	1.00E-02	5.26E-03	pCi/m3
4JS(354342003) - AP	31-Jul-14	BETA	3.51E-02	4.82E-03	1.63E-03	1.00E-02	4.87E-03	pCi/m3
4JS(354723003) - AP	7-Aug-14	BETA -	3.68E-02	5.10E-03	1.75E-03	1.00E-02	5.16E-03	pCi/m3

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4JS(355396003) - AP	14-Aug-14	BETA	3.40E-02	4.79E-03	1.66E-03	1.00E-02	4.84E-03	pCi/m3
4JS(355765003) - AP	22-Aug-14	BETA	4.54E-02	5.28E-03	1.54E-03	1.00E-02	5.36E-03	pCi/m3
4JS(356093003) - AP	29-Aug-14	BETA	3.05E-02	4.54E-03	1.66E-03	1.00E-02	4.59E-03	pCi/m3
4JS(356772003) - AP	5-Sep-14	BETA	3.89E-02	5.63E-03	1.97E-03	1.00E-02	5.68E-03	pCi/m3
4JS(357020003) - AP	11-Sep-14	BETA	2.49E-02	4.12E-03	1.63E-03	1.00E-02	4.15E-03	pCi/m3
4JS(357508003) - AP	18-Sep-14	BETA	3.92E-02	5.12E-03	1.67E-03	1.00E-02	5.18E-03	pCi/m3
4JS(357894003) - AP	25-Sep-14	BETA	3.66E-02	4.94E-03	1.55E-03	1.00E-02	5.00E-03	pCi/m3
4JS(358775003) - AP	2-Oct-14	BETA	2.35E-02	4.03E-03	1.76E-03	1.00E-02	4.06E-03	pCi/m3
4JS(359608003) - AP	10-Oct-14	BETA	2.75E-02	4.87E-03	1.74E-03	1.00E-02	4.90E-03	pCi/m3
4JS(359808003) - AP	17-Oct-14	BETA	3.50E-02	6.45E-03	2.21E-03	1.00E-02	6.49E-03	pCi/m3
4JS(360399003) - AP	23-Oct-14	BETA	3.42E-02	4.74E-03	1.62E-03	1.00E-02	4.80E-03	pCi/m3
4JS(360700003) - AP	30-Oct-14	BETA	2.51E-02	4.06E-03	1.59E-03	1.00E-02	4.09E-03	pCi/m3
4JS(361400003) - AP	6-Nov-14	BETA	2.70E-02	4.21E-03	1.64E-03	1.00E-02	4.24E-03	pCi/m3
4JS(361660003) - AP	13-Nov-14	BETA	3.48E-02	4.80E-03	1.63E-03	1.00E-02	4.86E-03	pCi/m3
4JS(362122003) - AP	20-Nov-14	BETA	4.15E-02	5.20E-03	1.55E-03	1.00E-02	5.27E-03	pCi/m3
4JS(362511003) - AP	27-Nov-14	BETA	3.77E-02	4.97E-03	1.55E-03	1.00E-02	5.03E-03	pCi/m3
4JS(363124003) - AP	4-Dec-14	BETA	3.67E-02	4.86E-03	1.50E-03	1.00E-02	4.91E-03	pCi/m3
4JS(363446003) - AP	11-Dec-14	BETA	4.84E-02	5.65E-03	1.57E-03	1.00E-02	5.73E-03	pCi/m3
4JS(363814003) - AP	18-Dec-14	BETA	3.24E-02	4.54E-03	1.62E-03	1.00E-02	4.59E-03	pCi/m3
4JS(364513003) - AP	26-Dec-14	BETA	3.76E-02	4.67E-03	1.50E-03	1.00E-02	4.73E-03	pCi/m3
4JS(347224003) - AP	13-Feb-14	Beryllium-7	1.08E-01	1.69E-02	1.11E-02		2.04E-02	pCi/m3
4JS(353853003) - AP	15-May-14	Beryllium-7	1.29E-01	2.36E-02	1.50E-02		2.65E-02	pCi/m3
4JS(360219003) - AP	14-Aug-14	Beryllium-7	1.49E-01	2.50E-02	1.70E-02		2.83E-02	pCi/m3
4JS(365223003) - AP	14-Nov-14	Beryllium-7	6.95E-02	1.09E-02	7.25E-03		1.25E-02	pCi/m3
4JS(347224003) - AP	13-Feb-14	Cesium-134	8.67E-05	4.16E-04	7.17E-04	5.00E-02	4.18E-04	pCi/m3
4JS(353853003) - AP	15-May-14	Cesium-134	-2.32E-04	5.72E-04	8.63E-04	5.00E-02	5.82E-04	pCi/m3
4JS(360219003) - AP	14-Aug-14	Cesium-134	2.14E-04	5.10E-04	9.35E-04	5.00E-02	5.19E-04	pCi/m3
4JS(365223003) - AP	14-Nov-14	Cesium-134	-1.76E-04	3.25E-04	5.09E-04	5.00E-02	3.35E-04	pCi/m3
4JS(347224003) - AP	13-Feb-14	Cesium-137	2.24E-05	3.53E-04	6.03E-04	6.00E-02	3.54E-04	pCi/m3
4JS(353853003) - AP	15-May-14	Cesium-137	-5.62E-05	4.44E-04	7.29E-04	6.00E-02	4.45E-04	pCi/m3
4JS(360219003) - AP	14-Aug-14	Cesium-137	-1.75E-04	4.04E-04	6.20E-04	6.00E-02	4.12E-04	pCi/m3
4JS(365223003) - AP	14-Nov-14	Cesium-137	-8.73E-05	3.15E-04	5.22E-04	6.00E-02	3.18E-04	pCi/m3

5PR
AC

Sample Name	Date Collected	Nuclide	Result	2 Sigma Uncert	MDC	LLD	2 Sigma TPU	Units
5PR(341372010) - AC	3-Jan-14	Iodine-131	1.11E-03	2.28E-02	3.86E-02	7.00E-02	2.28E-02	pCi/m3
5PR(341675009) - AC	10-Jan-14	Iodine-131	1.05E-02	3.83E-02	5.96E-02	7.00E-02	3.86E-02	pCi/m3
5PR(341925009) - AC	16-Jan-14	Iodine-131	-9.11E-03	2.50E-02	3.66E-02	7.00E-02	2.53E-02	pCi/m3
5PR(342379009) - AC	23-Jan-14	Iodine-131	2.38E-02	3.40E-02	6.06E-02	7.00E-02	3.57E-02	pCi/m3
5PR(342873009) - AC	30-Jan-14	Iodine-131	7.90E-04	4.07E-02	6.86E-02	7.00E-02	4.07E-02	pCi/m3
5PR(343103009) - AC	6-Feb-14	Iodine-131	1.86E-02	2.84E-02	5.25E-02	7.00E-02	2.96E-02	pCi/m3
5PR(343583009) - AC	13-Feb-14	Iodine-131	2.46E-02	2.83E-02	5.48E-02	7.00E-02	3.04E-02	pCi/m3
5PR(343903009) - AC	20-Feb-14	Iodine-131	-1.50E-02	3.33E-02	5.28E-02	7.00E-02	3.40E-02	pCi/m3
5PR(344418009) - AC	27-Feb-14	Iodine-131	9.06E-03	3.17E-02	5.37E-02	7.00E-02	3.20E-02	pCi/m3

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5PR(345019008) - AC	6-Mar-14	Iodine-131	-7.46E-04	2.86E-02	4.88E-02	7.00E-02	2.86E-02	pCi/m3
5PR(345016009) - AC	14-Mar-14	Iodine-131	-4.34E-03	1.02E-02	1.58E-02	7.00E-02	1.04E-02	pCi/m3
5PR(345332009) - AC	21-Mar-14	Iodine-131	3.00E-03	1.93E-02	3.31E-02	7.00E-02	1.93E-02	pCi/m3
5PR(345801009) - AC	27-Mar-14	Iodine-131	1.09E-02	2.64E-02	2.80E-02	7.00E-02	2.65E-02	pCi/m3
5PR(346554009) - AC	3-Apr-14	Iodine-131	1.63E-02	1.79E-02	3.39E-02	7.00E-02	1.94E-02	pCi/m3
5PR(346906009) - AC	10-Apr-14	Iodine-131	-8.95E-03	2.22E-02	3.13E-02	7.00E-02	2.26E-02	pCi/m3
5PR(347479009) - AC	18-Apr-14	Iodine-131	5.46E-03	1.71E-02	2.94E-02	7.00E-02	1.73E-02	pCi/m3
5PR(347952009) - AC	25-Apr-14	Iodine-131	1.19E-02	2.35E-02	4.28E-02	7.00E-02	2.42E-02	pCi/m3
5PR(348326009) - AC	1-May-14	Iodine-131	-1.54E-02	1.50E-02	2.03E-02	7.00E-02	1.66E-02	pCi/m3
5PR(348772009) - AC	8-May-14	Iodine-131	-1.84E-02	2.02E-02	2.45E-02	7.00E-02	2.19E-02	pCi/m3
5PR(349185009) - AC	15-May-14	Iodine-131	-7.08E-03	2.09E-02	3.29E-02	7.00E-02	2.12E-02	pCi/m3
5PR(349843009) - AC	23-May-14	Iodine-131	5.29E-03	1.91E-02	3.38E-02	7.00E-02	1.93E-02	pCi/m3
5PR(350164009) - AC	30-May-14	Iodine-131	3.40E-02	3.17E-02	5.97E-02	7.00E-02	3.54E-02	pCi/m3
5PR(350705009) - AC	5-Jun-14	Iodine-131	2.59E-03	2.42E-02	4.24E-02	7.00E-02	2.42E-02	pCi/m3
5PR(351077009) - AC	12-Jun-14	Iodine-131	-9.85E-03	2.66E-02	3.92E-02	7.00E-02	2.70E-02	pCi/m3
5PR(351568009) - AC	19-Jun-14	Iodine-131	5.65E-03	1.03E-02	1.85E-02	7.00E-02	1.06E-02	pCi/m3
5PR(352093009) - AC	26-Jun-14	Iodine-131	1.28E-04	2.74E-02	4.57E-02	7.00E-02	2.74E-02	pCi/m3
5PR(352546009) - AC	3-Jul-14	Iodine-131	-1.21E-02	1.80E-02	2.58E-02	7.00E-02	1.88E-02	pCi/m3
5PR(352838009) - AC	10-Jul-14	Iodine-131	-7.73E-03	2.68E-02	4.12E-02	7.00E-02	2.71E-02	pCi/m3
5PR(353510009) - AC	17-Jul-14	Iodine-131	-7.30E-03	2.66E-02	4.22E-02	7.00E-02	2.68E-02	pCi/m3
5PR(353952009) - AC	24-Jul-14	Iodine-131	2.88E-02	3.11E-02	6.54E-02	7.00E-02	3.38E-02	pCi/m3
5PR(354342009) - AC	31-Jul-14	Iodine-131	3.95E-03	1.66E-02	2.85E-02	7.00E-02	1.67E-02	pCi/m3
5PR(354723009) - AC	7-Aug-14	Iodine-131	6.40E-03	1.76E-02	3.08E-02	7.00E-02	1.78E-02	pCi/m3
5PR(355396009) - AC	14-Aug-14	Iodine-131	4.46E-03	1.48E-02	2.68E-02	7.00E-02	1.50E-02	pCi/m3
5PR(355765009) - AC	22-Aug-14	Iodine-131	-2.60E-02	2.50E-02	1.02E-02	7.00E-02	2.77E-02	pCi/m3
5PR(356093009) - AC	29-Aug-14	Iodine-131	1.64E-02	2.32E-02	4.39E-02	7.00E-02	2.45E-02	pCi/m3
5PR(356772009) - AC	5-Sep-14	Iodine-131	-4.88E-03	2.82E-02	4.48E-02	7.00E-02	2.83E-02	pCi/m3
5PR(357020009) - AC	11-Sep-14	Iodine-131	-5.24E-03	1.16E-02	1.56E-02	7.00E-02	1.19E-02	pCi/m3
5PR(357508009) - AC	18-Sep-14	Iodine-131	-2.04E-03	1.85E-02	3.00E-02	7.00E-02	1.85E-02	pCi/m3
5PR(357894009) - AC	25-Sep-14	Iodine-131	8.63E-03	1.43E-02	2.74E-02	7.00E-02	1.48E-02	pCi/m3
5PR(358775009) - AC	2-Oct-14	Iodine-131	1.20E-03	1.85E-02	3.17E-02	7.00E-02	1.85E-02	pCi/m3
5PR(359608009) - AC	10-Oct-14	Iodine-131	5.03E-03	1.15E-02	2.06E-02	7.00E-02	1.17E-02	pCi/m3
5PR(359808009) - AC	17-Oct-14	Iodine-131	1.91E-02	3.04E-02	5.58E-02	7.00E-02	3.16E-02	pCi/m3
5PR(360399009) - AC	23-Oct-14	Iodine-131	-2.67E-03	2.61E-02	3.81E-02	7.00E-02	2.62E-02	pCi/m3
5PR(360700009) - AC	30-Oct-14	Iodine-131	-9.32E-03	1.01E-02	1.34E-02	7.00E-02	1.10E-02	pCi/m3
5PR(361400009) - AC	6-Nov-14	Iodine-131	-5.71E-03	2.93E-02	4.65E-02	7.00E-02	2.95E-02	pCi/m3
5PR(361660009) - AC	13-Nov-14	Iodine-131	-1.36E-02	2.37E-02	3.54E-02	7.00E-02	2.46E-02	pCi/m3
5PR(362122009) - AC	20-Nov-14	Iodine-131	-2.25E-03	9.30E-03	1.52E-02	7.00E-02	9.36E-03	pCi/m3
5PR(362511009) - AC	27-Nov-14	Iodine-131	-4.10E-03	3.06E-02	4.99E-02	7.00E-02	3.07E-02	pCi/m3
5PR(363124009) - AC	4-Dec-14	Iodine-131	1.96E-03	1.88E-02	3.23E-02	7.00E-02	1.88E-02	pCi/m3
5PR(363446009) - AC	11-Dec-14	Iodine-131	-4.38E-03	1.91E-02	3.15E-02	7.00E-02	1.92E-02	pCi/m3
5PR(363814010) - AC	18-Dec-14	Iodine-131	4.90E-03	1.51E-02	2.68E-02	7.00E-02	1.52E-02	pCi/m3
5PR(364513010) - AC	26-Dec-14	Iodine-131	-2.00E-02	4.10E-02	5.99E-02	7.00E-02	4.20E-02	pCi/m3

5PR

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AP

Sample Name	Date Collected	Nuclide	Result	2 Sigma Uncert	MDC	LLD	2 Sigma TPU	Units
5PR(341372004) - AP	3-Jan-14	BETA	7.07E-02	8.73E-03	2.46E-03	1.00E-02	8.85E-03	pCi/m3
5PR(341675004) - AP	10-Jan-14	BETA	6.63E-02	1.11E-02	4.57E-03	1.00E-02	1.12E-02	pCi/m3
5PR(341925004) - AP	16-Jan-14	BETA	6.78E-02	8.77E-03	2.85E-03	1.00E-02	8.88E-03	pCi/m3
5PR(342379004) - AP	23-Jan-14	BETA	4.99E-02	9.10E-03	3.54E-03	1.00E-02	9.16E-03	pCi/m3
5PR(342873004) - AP	30-Jan-14	BETA	6.45E-02	8.62E-03	2.79E-03	1.00E-02	8.72E-03	pCi/m3
5PR(343103004) - AP	6-Feb-14	BETA	6.17E-02	9.84E-03	3.85E-03	1.00E-02	9.92E-03	pCi/m3
5PR(343583004) - AP	13-Feb-14	BETA	6.73E-02	8.60E-03	2.63E-03	1.00E-02	8.71E-03	pCi/m3
5PR(343903004) - AP	20-Feb-14	BETA	7.13E-02	1.05E-02	3.68E-03	1.00E-02	1.06E-02	pCi/m3
5PR(344418004) - AP	27-Feb-14	BETA	9.22E-02	1.40E-02	5.27E-03	1.00E-02	1.41E-02	pCi/m3
5PR(345019004) - AP	6-Mar-14	BETA	5.68E-02	8.64E-03	3.20E-03	1.00E-02	8.71E-03	pCi/m3
5PR(345016004) - AP	14-Mar-14	BETA	4.76E-02	6.30E-03	2.05E-03	1.00E-02	6.37E-03	pCi/m3
5PR(345332004) - AP	21-Mar-14	BETA	5.41E-02	9.24E-03	3.80E-03	1.00E-02	9.31E-03	pCi/m3
5PR(345801004) - AP	27-Mar-14	BETA	6.58E-02	7.83E-03	2.26E-03	1.00E-02	7.95E-03	pCi/m3
5PR(346554004) - AP	3-Apr-14	BETA	4.72E-02	7.90E-03	3.09E-03	1.00E-02	7.95E-03	pCi/m3
5PR(346906004) - AP	10-Apr-14	BETA	4.64E-02	6.59E-03	2.36E-03	1.00E-02	6.66E-03	pCi/m3
5PR(347479004) - AP	18-Apr-14	BETA	4.99E-02	7.55E-03	2.71E-03	1.00E-02	7.62E-03	pCi/m3
5PR(347952004) - AP	25-Apr-14	BETA	4.29E-02	7.02E-03	2.95E-03	1.00E-02	7.07E-03	pCi/m3
5PR(348326004) - AP	1-May-14	BETA	3.06E-02	6.39E-03	3.31E-03	1.00E-02	6.42E-03	pCi/m3
5PR(348772004) - AP	8-May-14	BETA	3.70E-02	5.94E-03	2.54E-03	1.00E-02	5.99E-03	pCi/m3
5PR(349185004) - AP	15-May-14	BETA	3.46E-02	6.84E-03	3.52E-03	1.00E-02	6.88E-03	pCi/m3
5PR(349843004) - AP	23-May-14	BETA	3.48E-02	5.33E-03	1.93E-03	1.00E-02	5.37E-03	pCi/m3
5PR(350164004) - AP	30-May-14	BETA	3.46E-02	7.33E-03	4.10E-03	1.00E-02	7.36E-03	pCi/m3
5PR(350705004) - AP	5-Jun-14	BETA	3.11E-02	5.41E-03	2.26E-03	1.00E-02	5.45E-03	pCi/m3
5PR(351077004) - AP	12-Jun-14	BETA	3.04E-02	5.70E-03	2.55E-03	1.00E-02	5.74E-03	pCi/m3
5PR(351568004) - AP	19-Jun-14	BETA	2.73E-02	4.30E-03	1.71E-03	1.00E-02	4.34E-03	pCi/m3
5PR(352093004) - AP	26-Jun-14	BETA	3.08E-02	5.55E-03	2.55E-03	1.00E-02	5.58E-03	pCi/m3
5PR(352546004) - AP	3-Jul-14	BETA	3.06E-02	4.54E-03	1.61E-03	1.00E-02	4.59E-03	pCi/m3
5PR(352838004) - AP	10-Jul-14	BETA	3.09E-02	5.46E-03	2.30E-03	1.00E-02	5.49E-03	pCi/m3
5PR(353510004) - AP	17-Jul-14	BETA	3.54E-02	4.86E-03	1.58E-03	1.00E-02	4.92E-03	pCi/m3
5PR(353952004) - AP	24-Jul-14	BETA	4.57E-02	6.58E-03	2.42E-03	1.00E-02	6.65E-03	pCi/m3
5PR(354342004) - AP	31-Jul-14	BETA	3.14E-02	4.55E-03	1.62E-03	1.00E-02	4.59E-03	pCi/m3
5PR(354723004) - AP	7-Aug-14	BETA	3.93E-02	6.15E-03	2.36E-03	1.00E-02	6.20E-03	pCi/m3
5PR(355396004) - AP	14-Aug-14	BETA	2.68E-02	4.25E-03	1.65E-03	1.00E-02	4.29E-03	pCi/m3
5PR(355765004) - AP	22-Aug-14	BETA	4.22E-02	5.94E-03	2.07E-03	1.00E-02	6.01E-03	pCi/m3
5PR(356093004) - AP	29-Aug-14	BETA	3.32E-02	4.73E-03	1.66E-03	1.00E-02	4.78E-03	pCi/m3
5PR(356772004) - AP	5-Sep-14	BETA	3.75E-02	6.46E-03	2.66E-03	1.00E-02	6.51E-03	pCi/m3
5PR(357020004) - AP	11-Sep-14	BETA	2.74E-02	4.28E-03	1.61E-03	1.00E-02	4.32E-03	pCi/m3
5PR(357508004) - AP	18-Sep-14	BETA	4.56E-02	6.42E-03	2.24E-03	1.00E-02	6.48E-03	pCi/m3
5PR(357894004) - AP	25-Sep-14	BETA	3.41E-02	4.76E-03	1.54E-03	1.00E-02	4.81E-03	pCi/m3
5PR(358775004) - AP	2-Oct-14	BETA	2.89E-02	5.16E-03	2.34E-03	1.00E-02	5.19E-03	pCi/m3
5PR(359608004) - AP	10-Oct-14	BETA	2.79E-02	4.90E-03	1.74E-03	1.00E-02	4.93E-03	pCi/m3
5PR(359808004) - AP	17-Oct-14	BETA	2.93E-02	6.87E-03	2.91E-03	1.00E-02	6.90E-03	pCi/m3
5PR(360399004) - AP	23-Oct-14	BETA	3.18E-02	4.56E-03	1.60E-03	1.00E-02	4.61E-03	pCi/m3

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5PR(360700004) - AP	30-Oct-14	BETA	3.13E-02	5.24E-03	2.11E-03	1.00E-02	5.27E-03	pCi/m3
5PR(361400004) - AP	6-Nov-14	BETA	2.69E-02	4.19E-03	1.63E-03	1.00E-02	4.22E-03	pCi/m3
5PR(361660004) - AP	13-Nov-14	BETA	2.76E-02	4.91E-03	2.09E-03	1.00E-02	4.94E-03	pCi/m3
5PR(362122004) - AP	20-Nov-14	BETA	4.22E-02	5.12E-03	1.48E-03	1.00E-02	5.19E-03	pCi/m3
5PR(362511004) - AP	27-Nov-14	BETA	4.07E-02	5.88E-03	2.01E-03	1.00E-02	5.94E-03	pCi/m3
5PR(363124004) - AP	4-Dec-14	BETA	3.68E-02	4.77E-03	1.45E-03	1.00E-02	4.83E-03	pCi/m3
5PR(363446004) - AP	11-Dec-14	BETA	4.44E-02	6.24E-03	2.06E-03	1.00E-02	6.30E-03	pCi/m3
5PR(363814004) - AP	18-Dec-14	BETA	3.33E-02	4.56E-03	1.59E-03	1.00E-02	4.61E-03	pCi/m3
5PR(364513004) - AP	26-Dec-14	BETA	4.75E-02	5.98E-03	1.94E-03	1.00E-02	6.06E-03	pCi/m3
5PR(347224004) - AP	13-Feb-14	Beryllium-7	1.34E-01	4.65E-02	4.08E-02		4.87E-02	pCi/m3
5PR(353853004) - AP	15-May-14	Beryllium-7	1.45E-01	3.22E-02	2.56E-02		3.46E-02	pCi/m3
5PR(360219004) - AP	14-Aug-14	Beryllium-7	1.28E-01	2.41E-02	1.58E-02		2.65E-02	pCi/m3
5PR(365223004) - AP	14-Nov-14	Beryllium-7	7.22E-02	1.19E-02	8.35E-03		1.37E-02	pCi/m3
5PR(347224004) - AP	13-Feb-14	Cesium-134	4.06E-05	1.14E-03	1.96E-03	5.00E-02	1.14E-03	pCi/m3
5PR(353853004) - AP	15-May-14	Cesium-134	3.17E-04	8.15E-04	1.47E-03	5.00E-02	8.28E-04	pCi/m3
5PR(360219004) - AP	14-Aug-14	Cesium-134	1.17E-06	5.46E-04	9.34E-04	5.00E-02	5.46E-04	pCi/m3
5PR(365223004) - AP	14-Nov-14	Cesium-134	-1.07E-04	3.43E-04	5.62E-04	5.00E-02	3.47E-04	pCi/m3
5PR(347224004) - AP	13-Feb-14	Cesium-137	1.09E-03	1.03E-03	1.83E-03	6.00E-02	1.03E-03	pCi/m3
5PR(353853004) - AP	15-May-14	Cesium-137	5.79E-04	7.72E-04	1.47E-03	6.00E-02	8.17E-04	pCi/m3
5PR(360219004) - AP	14-Aug-14	Cesium-137	-5.04E-04	5.43E-04	7.00E-04	6.00E-02	5.90E-04	pCi/m3
5PR(365223004) - AP	14-Nov-14	Cesium-137	3.21E-04	2.92E-04	4.22E-04	6.00E-02	2.94E-04	pCi/m3

8SP

AC

Sample Name	Date Collected	Nuclide	Result	2 Sigma Uncert	MDC	LLD	2 Sigma TPU	Units
8SP(341372007) - AC	3-Jan-14	Iodine-131	4.64E-03	1.15E-02	2.08E-02	7.00E-02	1.17E-02	pCi/m3
8SP(341675006) - AC	10-Jan-14	Iodine-131	3.08E-03	1.44E-02	2.48E-02	7.00E-02	1.45E-02	pCi/m3
8SP(341925006) - AC	16-Jan-14	Iodine-131	2.16E-03	1.81E-02	3.09E-02	7.00E-02	1.81E-02	pCi/m3
8SP(342379006) - AC	23-Jan-14	Iodine-131	7.23E-03	2.44E-02	4.22E-02	7.00E-02	2.46E-02	pCi/m3
8SP(342873006) - AC	30-Jan-14	Iodine-131	-3.70E-03	1.93E-02	3.14E-02	7.00E-02	1.93E-02	pCi/m3
8SP(343103006) - AC	6-Feb-14	Iodine-131	-7.99E-03	1.82E-02	2.81E-02	7.00E-02	1.86E-02	pCi/m3
8SP(343583006) - AC	13-Feb-14	Iodine-131	2.78E-02	1.97E-02	2.78E-02	7.00E-02	1.99E-02	pCi/m3
8SP(343903006) - AC	20-Feb-14	Iodine-131	1.20E-02	1.13E-02	2.16E-02	7.00E-02	1.25E-02	pCi/m3
8SP(344418006) - AC	27-Feb-14	Iodine-131	-1.00E-02	3.39E-02	5.27E-02	7.00E-02	3.42E-02	pCi/m3
8SP(345019005) - AC	6-Mar-14	Iodine-131	-2.24E-03	1.39E-02	2.30E-02	7.00E-02	1.40E-02	pCi/m3
8SP(345016006) - AC	14-Mar-14	Iodine-131	-5.87E-03	8.56E-03	1.23E-02	7.00E-02	8.98E-03	pCi/m3
8SP(345332006) - AC	21-Mar-14	Iodine-131	4.50E-04	9.00E-03	1.50E-02	7.00E-02	9.01E-03	pCi/m3
8SP(345801006) - AC	27-Mar-14	Iodine-131	-2.97E-03	1.11E-02	1.73E-02	7.00E-02	1.12E-02	pCi/m3
8SP(346554006) - AC	3-Apr-14	Iodine-131	-1.17E-03	1.71E-02	2.74E-02	7.00E-02	1.71E-02	pCi/m3
8SP(346906006) - AC	10-Apr-14	Iodine-131	1.81E-02	2.20E-02	4.56E-02	7.00E-02	2.35E-02	pCi/m3
8SP(347479006) - AC	18-Apr-14	Iodine-131	2.94E-03	1.24E-02	2.13E-02	7.00E-02	1.25E-02	pCi/m3
8SP(347952006) - AC	25-Apr-14	Iodine-131	-4.56E-05	1.21E-02	2.04E-02	7.00E-02	1.21E-02	pCi/m3
8SP(348326006) - AC	1-May-14	Iodine-131	3.69E-03	2.34E-02	4.16E-02	7.00E-02	2.35E-02	pCi/m3
8SP(348772006) - AC	8-May-14	Iodine-131	-9.56E-03	2.15E-02	3.06E-02	7.00E-02	2.20E-02	pCi/m3
8SP(349185006) - AC	15-May-14	Iodine-131	-2.69E-03	1.51E-02	2.46E-02	7.00E-02	1.52E-02	pCi/m3

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8SP(349843006) - AC	23-May-14	Iodine-131	-5.17E-03	1.46E-02	2.40E-02	7.00E-02	1.48E-02	pCi/m3
8SP(350164006) - AC	30-May-14	Iodine-131	1.22E-03	2.31E-02	4.00E-02	7.00E-02	2.31E-02	pCi/m3
8SP(350705006) - AC	5-Jun-14	Iodine-131	1.75E-02	1.21E-02	2.91E-02	7.00E-02	1.22E-02	pCi/m3
8SP(351077006) - AC	12-Jun-14	Iodine-131	-1.04E-02	2.49E-02	3.38E-02	7.00E-02	2.53E-02	pCi/m3
8SP(351568006) - AC	19-Jun-14	Iodine-131	-3.88E-03	1.21E-02	1.91E-02	7.00E-02	1.22E-02	pCi/m3
8SP(352093006) - AC	26-Jun-14	Iodine-131	-2.80E-03	2.03E-02	2.95E-02	7.00E-02	2.04E-02	pCi/m3
8SP(352546006) - AC	3-Jul-14	Iodine-131	2.52E-03	1.31E-02	2.09E-02	7.00E-02	1.31E-02	pCi/m3
8SP(352838006) - AC	10-Jul-14	Iodine-131	1.16E-02	1.86E-02	3.56E-02	7.00E-02	1.94E-02	pCi/m3
8SP(353510006) - AC	17-Jul-14	Iodine-131	-1.41E-02	1.92E-02	2.47E-02	7.00E-02	2.02E-02	pCi/m3
8SP(353952006) - AC	24-Jul-14	Iodine-131	5.53E-03	3.22E-02	5.72E-02	7.00E-02	3.23E-02	pCi/m3
8SP(354342006) - AC	31-Jul-14	Iodine-131	-2.33E-03	1.68E-02	2.72E-02	7.00E-02	1.68E-02	pCi/m3
8SP(354723006) - AC	7-Aug-14	Iodine-131	1.24E-02	1.21E-02	2.28E-02	7.00E-02	1.34E-02	pCi/m3
8SP(355396006) - AC	14-Aug-14	Iodine-131	5.36E-03	1.66E-02	2.69E-02	7.00E-02	1.68E-02	pCi/m3
8SP(355765006) - AC	22-Aug-14	Iodine-131	1.04E-02	1.93E-02	3.72E-02	7.00E-02	1.99E-02	pCi/m3
8SP(356093006) - AC	29-Aug-14	Iodine-131	4.92E-03	1.59E-02	2.77E-02	7.00E-02	1.61E-02	pCi/m3
8SP(356772006) - AC	5-Sep-14	Iodine-131	3.51E-03	2.32E-02	4.02E-02	7.00E-02	2.33E-02	pCi/m3
8SP(357020006) - AC	11-Sep-14	Iodine-131	-1.02E-02	2.33E-02	3.12E-02	7.00E-02	2.38E-02	pCi/m3
8SP(357508006) - AC	18-Sep-14	Iodine-131	4.09E-03	1.41E-02	2.18E-02	7.00E-02	1.42E-02	pCi/m3
8SP(357894006) - AC	25-Sep-14	Iodine-131	-2.88E-03	1.95E-02	3.26E-02	7.00E-02	1.95E-02	pCi/m3
8SP(358775006) - AC	2-Oct-14	Iodine-131	-5.65E-03	1.66E-02	2.55E-02	7.00E-02	1.68E-02	pCi/m3
8SP(359608006) - AC	10-Oct-14	Iodine-131	1.10E-02	1.48E-02	2.36E-02	7.00E-02	1.49E-02	pCi/m3
8SP(359808006) - AC	17-Oct-14	Iodine-131	-2.18E-03	1.39E-02	2.22E-02	7.00E-02	1.39E-02	pCi/m3
8SP(360399006) - AC	23-Oct-14	Iodine-131	-7.81E-04	1.92E-02	3.18E-02	7.00E-02	1.92E-02	pCi/m3
8SP(360700006) - AC	30-Oct-14	Iodine-131	3.44E-03	7.52E-03	1.36E-02	7.00E-02	7.68E-03	pCi/m3
8SP(361400006) - AC	7-Nov-14	Iodine-131	-2.79E-02	4.02E-02	5.12E-02	7.00E-02	4.21E-02	pCi/m3
8SP(361660006) - AC	13-Nov-14	Iodine-131	1.11E-02	1.59E-02	3.37E-02	7.00E-02	1.67E-02	pCi/m3
8SP(362122006) - AC	20-Nov-14	Iodine-131	-9.45E-04	9.93E-03	1.66E-02	7.00E-02	9.94E-03	pCi/m3
8SP(362511006) - AC	27-Nov-14	Iodine-131	2.80E-04	1.92E-02	3.27E-02	7.00E-02	1.92E-02	pCi/m3
8SP(363124006) - AC	4-Dec-14	Iodine-131	6.23E-03	1.17E-02	2.17E-02	7.00E-02	1.21E-02	pCi/m3
8SP(363446006) - AC	11-Dec-14	Iodine-131	1.67E-02	2.12E-02	4.12E-02	7.00E-02	2.25E-02	pCi/m3
8SP(363814007) - AC	18-Dec-14	Iodine-131	-4.83E-03	1.47E-02	2.22E-02	7.00E-02	1.49E-02	pCi/m3
8SP(364513007) - AC	26-Dec-14	Iodine-131	-1.15E-03	3.65E-02	5.91E-02	7.00E-02	3.65E-02	pCi/m3

8SP
AP

Sample Name	Date Collected	Nuclide	Result	2 Sigma Uncert	MDC	LLD	2 Sigma TPU	Units
8SP(341372001) - AP	3-Jan-14	BETA	3.70E-02	4.56E-03	1.28E-03	1.00E-02	4.62E-03	pCi/m3
8SP(341675001) - AP	10-Jan-14	BETA	3.92E-02	5.43E-03	1.89E-03	1.00E-02	5.49E-03	pCi/m3
8SP(341925001) - AP	16-Jan-14	BETA	4.02E-02	4.92E-03	1.52E-03	1.00E-02	4.99E-03	pCi/m3
8SP(342379001) - AP	23-Jan-14	BETA	2.76E-02	4.20E-03	1.38E-03	1.00E-02	4.24E-03	pCi/m3
8SP(342873001) - AP	30-Jan-14	BETA	3.12E-02	4.37E-03	1.48E-03	1.00E-02	4.41E-03	pCi/m3
8SP(343103001) - AP	6-Feb-14	BETA	3.34E-02	4.61E-03	1.58E-03	1.00E-02	4.66E-03	pCi/m3
8SP(343583001) - AP	13-Feb-14	BETA	3.93E-02	4.88E-03	1.45E-03	1.00E-02	4.94E-03	pCi/m3
8SP(343903001) - AP	20-Feb-14	BETA	3.55E-02	4.79E-03	1.55E-03	1.00E-02	4.85E-03	pCi/m3
8SP(344418001) - AP	27-Feb-14	BETA	4.91E-02	5.35E-03	1.38E-03	1.00E-02	5.45E-03	pCi/m3

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8SP(345019001) - AP	6-Mar-14	BETA	4.01E-02	5.13E-03	1.62E-03	1.00E-02	5.20E-03	pCi/m3
8SP(345016001) - AP	14-Mar-14	BETA	2.83E-02	3.92E-03	1.33E-03	1.00E-02	3.96E-03	pCi/m3
8SP(345332001) - AP	21-Mar-14	BETA	2.92E-02	4.74E-03	1.86E-03	1.00E-02	4.78E-03	pCi/m3
8SP(345801001) - AP	27-Mar-14	BETA	3.97E-02	4.94E-03	1.49E-03	1.00E-02	5.01E-03	pCi/m3
8SP(346554001) - AP	3-Apr-14	BETA	3.37E-02	4.78E-03	1.61E-03	1.00E-02	4.83E-03	pCi/m3
8SP(346906001) - AP	10-Apr-14	BETA	3.22E-02	4.55E-03	1.62E-03	1.00E-02	4.60E-03	pCi/m3
8SP(347479001) - AP	18-Apr-14	BETA	3.60E-02	4.59E-03	1.40E-03	1.00E-02	4.65E-03	pCi/m3
8SP(347952001) - AP	25-Apr-14	BETA	2.80E-02	4.63E-03	1.96E-03	1.00E-02	4.66E-03	pCi/m3
8SP(348326001) - AP	1-May-14	BETA	1.48E-02	3.25E-03	1.75E-03	1.00E-02	3.26E-03	pCi/m3
8SP(348772001) - AP	8-May-14	BETA	2.66E-02	4.27E-03	1.82E-03	1.00E-02	4.30E-03	pCi/m3
8SP(349185001) - AP	15-May-14	BETA	2.01E-02	3.80E-03	1.88E-03	1.00E-02	3.82E-03	pCi/m3
8SP(349843001) - AP	23-May-14	BETA	3.03E-02	4.21E-03	1.39E-03	1.00E-02	4.25E-03	pCi/m3
8SP(350164001) - AP	30-May-14	BETA	2.21E-02	4.35E-03	2.29E-03	1.00E-02	4.37E-03	pCi/m3
8SP(350705001) - AP	5-Jun-14	BETA	2.87E-02	4.41E-03	1.65E-03	1.00E-02	4.45E-03	pCi/m3
8SP(351077001) - AP	12-Jun-14	BETA	2.61E-02	4.31E-03	1.72E-03	1.00E-02	4.34E-03	pCi/m3
8SP(351568001) - AP	19-Jun-14	BETA	2.38E-02	4.02E-03	1.70E-03	1.00E-02	4.04E-03	pCi/m3
8SP(352093001) - AP	26-Jun-14	BETA	3.12E-02	4.77E-03	1.90E-03	1.00E-02	4.82E-03	pCi/m3
8SP(352546001) - AP	3-Jul-14	BETA	2.93E-02	4.45E-03	1.61E-03	1.00E-02	4.49E-03	pCi/m3
8SP(352838001) - AP	10-Jul-14	BETA	2.28E-02	4.06E-03	1.72E-03	1.00E-02	4.09E-03	pCi/m3
8SP(353510001) - AP	17-Jul-14	BETA	2.56E-02	4.17E-03	1.58E-03	1.00E-02	4.20E-03	pCi/m3
8SP(353952001) - AP	24-Jul-14	BETA	4.10E-02	5.40E-03	1.83E-03	1.00E-02	5.47E-03	pCi/m3
8SP(354342001) - AP	31-Jul-14	BETA	3.37E-02	4.72E-03	1.63E-03	1.00E-02	4.77E-03	pCi/m3
8SP(354723001) - AP	7-Aug-14	BETA	4.50E-02	5.67E-03	1.78E-03	1.00E-02	5.74E-03	pCi/m3
8SP(355396001) - AP	14-Aug-14	BETA	2.80E-02	4.36E-03	1.66E-03	1.00E-02	4.40E-03	pCi/m3
8SP(355765001) - AP	22-Aug-14	BETA	3.75E-02	4.83E-03	1.55E-03	1.00E-02	4.89E-03	pCi/m3
8SP(356093001) - AP	29-Aug-14	BETA	3.45E-02	4.84E-03	1.67E-03	1.00E-02	4.89E-03	pCi/m3
8SP(356772001) - AP	5-Sep-14	BETA	3.25E-02	5.22E-03	2.01E-03	1.00E-02	5.26E-03	pCi/m3
8SP(357020001) - AP	11-Sep-14	BETA	2.97E-02	4.48E-03	1.63E-03	1.00E-02	4.52E-03	pCi/m3
8SP(357508001) - AP	18-Sep-14	BETA	4.45E-02	5.49E-03	1.70E-03	1.00E-02	5.56E-03	pCi/m3
8SP(357894001) - AP	25-Sep-14	BETA	3.67E-02	4.93E-03	1.54E-03	1.00E-02	4.99E-03	pCi/m3
8SP(358775001) - AP	2-Oct-14	BETA	2.71E-02	4.35E-03	1.79E-03	1.00E-02	4.38E-03	pCi/m3
8SP(359608001) - AP	10-Oct-14	BETA	3.23E-02	4.29E-03	1.43E-03	1.00E-02	4.34E-03	pCi/m3
8SP(359808001) - AP	17-Oct-14	BETA	2.68E-02	4.67E-03	1.84E-03	1.00E-02	4.70E-03	pCi/m3
8SP(360399001) - AP	23-Oct-14	BETA	3.21E-02	4.60E-03	1.62E-03	1.00E-02	4.65E-03	pCi/m3
8SP(360700001) - AP	30-Oct-14	BETA	3.00E-02	4.44E-03	1.60E-03	1.00E-02	4.48E-03	pCi/m3
8SP(361400001) - AP	7-Nov-14	BETA	5.60E-02	8.95E-03	3.57E-03	1.00E-02	9.03E-03	pCi/m3
8SP(361660001) - AP	13-Nov-14	BETA	3.06E-02	4.54E-03	1.64E-03	1.00E-02	4.58E-03	pCi/m3
8SP(362122001) - AP	20-Nov-14	BETA	3.65E-02	4.77E-03	1.48E-03	1.00E-02	4.83E-03	pCi/m3
8SP(362511001) - AP	27-Nov-14	BETA	4.55E-02	5.40E-03	1.53E-03	1.00E-02	5.47E-03	pCi/m3
8SP(363124001) - AP	4-Dec-14	BETA	5.92E-02	5.99E-03	1.44E-03	1.00E-02	6.11E-03	pCi/m3
8SP(363446001) - AP	11-Dec-14	BETA	5.60E-02	6.07E-03	1.57E-03	1.00E-02	6.17E-03	pCi/m3
8SP(363814001) - AP	18-Dec-14	BETA	3.57E-02	4.71E-03	1.59E-03	1.00E-02	4.77E-03	pCi/m3
8SP(364513001) - AP	26-Dec-14	BETA	3.89E-02	4.73E-03	1.49E-03	1.00E-02	4.80E-03	pCi/m3
8SP(347224001) - AP	13-Feb-14	Beryllium-7	1.13E-01	1.98E-02	1.20E-02		2.27E-02	pCi/m3
8SP(353853001) - AP	15-May-14	Beryllium-7	1.31E-01	1.97E-02	1.18E-02		2.29E-02	pCi/m3

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8SP(360219001) - AP	14-Aug-14	Beryllium-7	1.37E-01	3.28E-02	2.73E-02		3.60E-02	pCi/m3
8SP(365223001) - AP	14-Nov-14	Beryllium-7	8.73E-02	1.46E-02	1.08E-02		1.66E-02	pCi/m3
8SP(347224001) - AP	13-Feb-14	Cesium-134	-7.94E-05	3.26E-04	5.09E-04	5.00E-02	3.28E-04	pCi/m3
8SP(353853001) - AP	15-May-14	Cesium-134	-3.47E-04	4.79E-04	6.79E-04	5.00E-02	5.05E-04	pCi/m3
8SP(360219001) - AP	14-Aug-14	Cesium-134	-1.42E-04	7.15E-04	1.17E-03	5.00E-02	7.18E-04	pCi/m3
8SP(365223001) - AP	14-Nov-14	Cesium-134	2.04E-04	3.92E-04	6.20E-04	5.00E-02	4.03E-04	pCi/m3
8SP(347224001) - AP	13-Feb-14	Cesium-137	2.08E-05	4.16E-04	7.59E-04	6.00E-02	4.16E-04	pCi/m3
8SP(353853001) - AP	15-May-14	Cesium-137	-2.48E-04	3.15E-04	4.31E-04	6.00E-02	3.35E-04	pCi/m3
8SP(360219001) - AP	14-Aug-14	Cesium-137	4.59E-04	7.07E-04	1.29E-03	6.00E-02	7.38E-04	pCi/m3
8SP(365223001) - AP	14-Nov-14	Cesium-137	1.40E-04	3.67E-04	6.42E-04	6.00E-02	3.72E-04	pCi/m3

9TP

AC

Sample Name	Date Collected	Nuclide	Result	2 Sigma Uncert	MDC	LLD	2 Sigma TPU	Units
9TP(341372008) - AC	3-Jan-14	Iodine-131	2.91E-03	1.29E-02	2.22E-02	7.00E-02	1.30E-02	pCi/m3
9TP(341675007) - AC	10-Jan-14	Iodine-131	9.78E-04	1.20E-02	2.06E-02	7.00E-02	1.20E-02	pCi/m3
9TP(341925007) - AC	16-Jan-14	Iodine-131	6.38E-03	2.38E-02	4.31E-02	7.00E-02	2.40E-02	pCi/m3
9TP(342379007) - AC	23-Jan-14	Iodine-131	-1.75E-02	2.24E-02	3.27E-02	7.00E-02	2.38E-02	pCi/m3
9TP(342873007) - AC	30-Jan-14	Iodine-131	7.72E-03	1.89E-02	3.42E-02	7.00E-02	1.92E-02	pCi/m3
9TP(343103007) - AC	6-Feb-14	Iodine-131	-2.11E-03	9.51E-03	1.37E-02	7.00E-02	9.56E-03	pCi/m3
9TP(343583007) - AC	13-Feb-14	Iodine-131	-1.39E-02	1.90E-02	2.78E-02	7.00E-02	2.10E-02	pCi/m3
9TP(343903007) - AC	20-Feb-14	Iodine-131	5.85E-03	2.16E-02	3.76E-02	7.00E-02	2.08E-02	pCi/m3
9TP(344418007) - AC	27-Feb-14	Iodine-131	3.52E-03	2.79E-02	4.81E-02	7.00E-02	2.79E-02	pCi/m3
9TP(345019006) - AC	6-Mar-14	Iodine-131	8.45E-03	1.64E-02	3.02E-02	7.00E-02	1.69E-02	pCi/m3
9TP(345016007) - AC	14-Mar-14	Iodine-131	-1.68E-03	7.14E-03	1.16E-02	7.00E-02	7.18E-03	pCi/m3
9TP(345332007) - AC	21-Mar-14	Iodine-131	6.81E-03	1.02E-02	1.87E-02	7.00E-02	1.07E-02	pCi/m3
9TP(345801007) - AC	27-Mar-14	Iodine-131	-7.96E-04	1.18E-02	1.79E-02	7.00E-02	1.18E-02	pCi/m3
9TP(346554007) - AC	3-Apr-14	Iodine-131	-3.77E-03	1.57E-02	2.41E-02	7.00E-02	1.58E-02	pCi/m3
9TP(346906007) - AC	10-Apr-14	Iodine-131	3.42E-03	1.37E-02	2.46E-02	7.00E-02	1.38E-02	pCi/m3
9TP(347479007) - AC	18-Apr-14	Iodine-131	-1.70E-03	8.46E-03	1.37E-02	7.00E-02	8.50E-03	pCi/m3
9TP(347952007) - AC	25-Apr-14	Iodine-131	4.10E-03	1.32E-02	2.30E-02	7.00E-02	1.33E-02	pCi/m3
9TP(348326007) - AC	1-May-14	Iodine-131	-2.78E-04	1.76E-02	3.02E-02	7.00E-02	1.76E-02	pCi/m3
9TP(348772007) - AC	8-May-14	Iodine-131	-3.28E-02	2.53E-02	2.22E-02	7.00E-02	2.94E-02	pCi/m3
9TP(349185007) - AC	15-May-14	Iodine-131	-3.59E-03	1.57E-02	2.51E-02	7.00E-02	1.57E-02	pCi/m3
9TP(349843007) - AC	23-May-14	Iodine-131	-6.44E-03	1.04E-02	1.55E-02	7.00E-02	1.09E-02	pCi/m3
9TP(350164007) - AC	30-May-14	Iodine-131	1.50E-02	1.99E-02	4.28E-02	7.00E-02	2.10E-02	pCi/m3
9TP(350705007) - AC	5-Jun-14	Iodine-131	1.92E-02	2.69E-02	4.87E-02	7.00E-02	2.83E-02	pCi/m3
9TP(351077007) - AC	12-Jun-14	Iodine-131	-5.68E-03	1.68E-02	2.49E-02	7.00E-02	1.70E-02	pCi/m3
9TP(351568007) - AC	19-Jun-14	Iodine-131	8.28E-03	1.65E-02	2.90E-02	7.00E-02	1.69E-02	pCi/m3
9TP(352093007) - AC	26-Jun-14	Iodine-131	-4.96E-03	2.25E-02	3.63E-02	7.00E-02	2.26E-02	pCi/m3
9TP(352546007) - AC	3-Jul-14	Iodine-131	5.21E-03	9.14E-03	1.66E-02	7.00E-02	9.45E-03	pCi/m3
9TP(352838007) - AC	10-Jul-14	Iodine-131	2.66E-03	2.33E-02	4.02E-02	7.00E-02	2.33E-02	pCi/m3
9TP(353510007) - AC	17-Jul-14	Iodine-131	5.80E-03	1.87E-02	3.38E-02	7.00E-02	1.89E-02	pCi/m3
9TP(353952007) - AC	24-Jul-14	Iodine-131	1.02E-02	2.20E-02	4.18E-02	7.00E-02	2.25E-02	pCi/m3
9TP(354342007) - AC	31-Jul-14	Iodine-131	-1.56E-03	1.97E-02	3.32E-02	7.00E-02	1.98E-02	pCi/m3

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9TP(354723007) - AC	7-Aug-14	Iodine-131	-1.31E-03	1.47E-02	2.04E-02	7.00E-02	1.47E-02	pCi/m3
9TP(355396007) - AC	14-Aug-14	Iodine-131	8.15E-04	1.48E-02	2.48E-02	7.00E-02	1.48E-02	pCi/m3
9TP(355765007) - AC	22-Aug-14	Iodine-131	4.99E-03	2.87E-02	5.11E-02	7.00E-02	2.88E-02	pCi/m3
9TP(356093007) - AC	29-Aug-14	Iodine-131	4.91E-03	1.46E-02	2.55E-02	7.00E-02	1.48E-02	pCi/m3
9TP(356772007) - AC	5-Sep-14	Iodine-131	-1.37E-02	2.74E-02	4.18E-02	7.00E-02	2.81E-02	pCi/m3
9TP(357020007) - AC	11-Sep-14	Iodine-131	-2.24E-02	2.28E-02	2.54E-02	7.00E-02	2.50E-02	pCi/m3
9TP(357508007) - AC	18-Sep-14	Iodine-131	-4.77E-03	1.06E-02	1.59E-02	7.00E-02	1.08E-02	pCi/m3
9TP(357894007) - AC	25-Sep-14	Iodine-131	-8.80E-03	1.64E-02	1.90E-02	7.00E-02	1.69E-02	pCi/m3
9TP(358775007) - AC	2-Oct-14	Iodine-131	6.49E-03	1.65E-02	3.03E-02	7.00E-02	1.67E-02	pCi/m3
9TP(359608007) - AC	10-Oct-14	Iodine-131	9.11E-03	1.70E-02	2.09E-02	7.00E-02	1.70E-02	pCi/m3
9TP(359808007) - AC	17-Oct-14	Iodine-131	1.61E-02	2.08E-02	4.01E-02	7.00E-02	2.20E-02	pCi/m3
9TP(360399007) - AC	23-Oct-14	Iodine-131	-1.71E-02	1.90E-02	2.51E-02	7.00E-02	2.06E-02	pCi/m3
9TP(360700007) - AC	30-Oct-14	Iodine-131	1.09E-02	7.50E-03	1.85E-02	7.00E-02	7.56E-03	pCi/m3
9TP(361400007) - AC	6-Nov-14	Iodine-131	-7.39E-03	2.40E-02	3.63E-02	7.00E-02	2.43E-02	pCi/m3
9TP(361660007) - AC	13-Nov-14	Iodine-131	1.25E-02	1.55E-02	3.04E-02	7.00E-02	1.66E-02	pCi/m3
9TP(362122007) - AC	20-Nov-14	Iodine-131	-1.40E-02	1.54E-02	1.80E-02	7.00E-02	1.67E-02	pCi/m3
9TP(362511007) - AC	27-Nov-14	Iodine-131	5.14E-03	1.88E-02	3.37E-02	7.00E-02	1.89E-02	pCi/m3
9TP(363124007) - AC	4-Dec-14	Iodine-131	9.23E-03	1.19E-02	1.95E-02	7.00E-02	1.26E-02	pCi/m3
9TP(363446007) - AC	11-Dec-14	Iodine-131	2.78E-03	1.33E-02	2.34E-02	7.00E-02	1.34E-02	pCi/m3
9TP(363814008) - AC	18-Dec-14	Iodine-131	1.60E-02	2.17E-02	4.07E-02	7.00E-02	2.29E-02	pCi/m3
9TP(364513008) - AC	26-Dec-14	Iodine-131	1.26E-02	2.40E-02	4.71E-02	7.00E-02	2.46E-02	pCi/m3

9TP

AP

Sample Name	Date Collected	Nuclide	Result	2 Sigma Uncert	MDC	LLD	2 Sigma TPU	Units
9TP(341372002) - AP	3-Jan-14	BETA	3.75E-02	4.55E-03	1.26E-03	1.00E-02	4.62E-03	pCi/m3
9TP(341675002) - AP	10-Jan-14	BETA	3.92E-02	5.36E-03	1.84E-03	1.00E-02	5.42E-03	pCi/m3
9TP(341925002) - AP	16-Jan-14	BETA	3.99E-02	4.87E-03	1.50E-03	1.00E-02	4.94E-03	pCi/m3
9TP(342379002) - AP	23-Jan-14	BETA	2.72E-02	4.11E-03	1.34E-03	1.00E-02	4.14E-03	pCi/m3
9TP(342873002) - AP	30-Jan-14	BETA	3.13E-02	4.34E-03	1.46E-03	1.00E-02	4.39E-03	pCi/m3
9TP(343103002) - AP	6-Feb-14	BETA	3.57E-02	4.66E-03	1.52E-03	1.00E-02	4.72E-03	pCi/m3
9TP(343583002) - AP	13-Feb-14	BETA	4.13E-02	4.96E-03	1.43E-03	1.00E-02	5.03E-03	pCi/m3
9TP(343903002) - AP	20-Feb-14	BETA	3.50E-02	4.70E-03	1.51E-03	1.00E-02	4.76E-03	pCi/m3
9TP(344418002) - AP	27-Feb-14	BETA	4.65E-02	5.15E-03	1.35E-03	1.00E-02	5.24E-03	pCi/m3
9TP(345019002) - AP	6-Mar-14	BETA	3.21E-02	4.50E-03	1.55E-03	1.00E-02	4.55E-03	pCi/m3
9TP(345016002) - AP	14-Mar-14	BETA	3.09E-02	4.18E-03	1.39E-03	1.00E-02	4.22E-03	pCi/m3
9TP(345332002) - AP	21-Mar-14	BETA	2.74E-02	4.52E-03	1.80E-03	1.00E-02	4.55E-03	pCi/m3
9TP(345801002) - AP	27-Mar-14	BETA	3.64E-02	4.69E-03	1.45E-03	1.00E-02	4.74E-03	pCi/m3
9TP(346554002) - AP	3-Apr-14	BETA	3.32E-02	4.63E-03	1.53E-03	1.00E-02	4.68E-03	pCi/m3
9TP(346906002) - AP	10-Apr-14	BETA	3.27E-02	4.57E-03	1.61E-03	1.00E-02	4.62E-03	pCi/m3
9TP(347479002) - AP	18-Apr-14	BETA	3.12E-02	4.17E-03	1.33E-03	1.00E-02	4.22E-03	pCi/m3
9TP(347952002) - AP	25-Apr-14	BETA	2.61E-02	4.43E-03	1.92E-03	1.00E-02	4.46E-03	pCi/m3
9TP(348326002) - AP	1-May-14	BETA	1.74E-02	3.45E-03	1.71E-03	1.00E-02	3.46E-03	pCi/m3
9TP(348772002) - AP	8-May-14	BETA	3.06E-02	4.52E-03	1.79E-03	1.00E-02	4.56E-03	pCi/m3
9TP(349185002) - AP	15-May-14	BETA	2.73E-02	4.26E-03	1.79E-03	1.00E-02	4.30E-03	pCi/m3

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9TP(349843002) - AP	23-May-14	BETA	2.93E-02	4.09E-03	1.36E-03	1.00E-02	4.14E-03	pCi/m3
9TP(350164002) - AP	30-May-14	BETA	2.69E-02	4.65E-03	2.20E-03	1.00E-02	4.69E-03	pCi/m3
9TP(350705002) - AP	5-Jun-14	BETA	2.51E-02	4.08E-03	1.61E-03	1.00E-02	4.12E-03	pCi/m3
9TP(351077002) - AP	12-Jun-14	BETA	3.38E-02	4.81E-03	1.68E-03	1.00E-02	4.86E-03	pCi/m3
9TP(351568002) - AP	19-Jun-14	BETA	2.68E-02	4.26E-03	1.71E-03	1.00E-02	4.30E-03	pCi/m3
9TP(352093002) - AP	26-Jun-14	BETA	2.80E-02	4.50E-03	1.87E-03	1.00E-02	4.53E-03	pCi/m3
9TP(352546002) - AP	3-Jul-14	BETA	2.51E-02	4.13E-03	1.61E-03	1.00E-02	4.16E-03	pCi/m3
9TP(352838002) - AP	10-Jul-14	BETA	2.87E-02	4.48E-03	1.69E-03	1.00E-02	4.52E-03	pCi/m3
9TP(353510002) - AP	17-Jul-14	BETA	3.06E-02	4.56E-03	1.59E-03	1.00E-02	4.60E-03	pCi/m3
9TP(353952002) - AP	24-Jul-14	BETA	3.82E-02	5.18E-03	1.80E-03	1.00E-02	5.23E-03	pCi/m3
9TP(354342002) - AP	31-Jul-14	BETA	3.74E-02	4.97E-03	1.63E-03	1.00E-02	5.03E-03	pCi/m3
9TP(354723002) - AP	7-Aug-14	BETA	4.14E-02	5.37E-03	1.73E-03	1.00E-02	5.44E-03	pCi/m3
9TP(355396002) - AP	14-Aug-14	BETA	3.51E-02	4.90E-03	1.69E-03	1.00E-02	4.95E-03	pCi/m3
9TP(355765002) - AP	22-Aug-14	BETA	4.19E-02	5.46E-03	1.76E-03	1.00E-02	5.52E-03	pCi/m3
9TP(356093002) - AP	29-Aug-14	BETA	3.55E-02	4.90E-03	1.67E-03	1.00E-02	4.96E-03	pCi/m3
9TP(356772002) - AP	5-Sep-14	BETA	3.31E-02	5.21E-03	1.97E-03	1.00E-02	5.25E-03	pCi/m3
9TP(357020002) - AP	11-Sep-14	BETA	3.11E-02	4.58E-03	1.63E-03	1.00E-02	4.62E-03	pCi/m3
9TP(357508002) - AP	18-Sep-14	BETA	4.17E-02	5.28E-03	1.67E-03	1.00E-02	5.35E-03	pCi/m3
9TP(357894002) - AP	25-Sep-14	BETA	3.32E-02	4.72E-03	1.55E-03	1.00E-02	4.77E-03	pCi/m3
9TP(358775002) - AP	2-Oct-14	BETA	2.87E-02	4.42E-03	1.76E-03	1.00E-02	4.46E-03	pCi/m3
9TP(359608002) - AP	10-Oct-14	BETA	3.09E-02	5.16E-03	1.75E-03	1.00E-02	5.20E-03	pCi/m3
9TP(359808002) - AP	17-Oct-14	BETA	2.34E-02	5.33E-03	2.21E-03	1.00E-02	5.35E-03	pCi/m3
9TP(360399002) - AP	23-Oct-14	BETA	2.87E-02	4.38E-03	1.63E-03	1.00E-02	4.42E-03	pCi/m3
9TP(360700002) - AP	30-Oct-14	BETA	3.17E-02	4.54E-03	1.59E-03	1.00E-02	4.58E-03	pCi/m3
9TP(361400002) - AP	6-Nov-14	BETA	2.66E-02	4.20E-03	1.65E-03	1.00E-02	4.24E-03	pCi/m3
9TP(361660002) - AP	13-Nov-14	BETA	2.80E-02	4.28E-03	1.59E-03	1.00E-02	4.31E-03	pCi/m3
9TP(362122002) - AP	20-Nov-14	BETA	4.24E-02	5.17E-03	1.50E-03	1.00E-02	5.24E-03	pCi/m3
9TP(362511002) - AP	27-Nov-14	BETA	3.32E-02	4.61E-03	1.52E-03	1.00E-02	4.66E-03	pCi/m3
9TP(363124002) - AP	4-Dec-14	BETA	4.04E-02	5.03E-03	1.47E-03	1.00E-02	5.10E-03	pCi/m3
9TP(363446002) - AP	11-Dec-14	BETA	4.63E-02	5.51E-03	1.56E-03	1.00E-02	5.59E-03	pCi/m3
9TP(363814002) - AP	18-Dec-14	BETA	3.14E-02	4.45E-03	1.61E-03	1.00E-02	4.50E-03	pCi/m3
9TP(364513002) - AP	26-Dec-14	BETA	3.66E-02	4.56E-03	1.47E-03	1.00E-02	4.62E-03	pCi/m3
9TP(347224002) - AP	13-Feb-14	Beryllium-7	1.01E-01	1.90E-02	1.33E-02		2.09E-02	pCi/m3
9TP(353853002) - AP	15-May-14	Beryllium-7	1.31E-01	2.60E-02	2.01E-02		2.96E-02	pCi/m3
9TP(360219002) - AP	14-Aug-14	Beryllium-7	1.13E-01	2.18E-02	1.47E-02		2.42E-02	pCi/m3
9TP(365223002) - AP	14-Nov-14	Beryllium-7	6.80E-02	1.41E-02	9.73E-03		1.53E-02	pCi/m3
9TP(347224002) - AP	13-Feb-14	Cesium-134	-2.77E-04	5.00E-04	7.54E-04	5.00E-02	5.16E-04	pCi/m3
9TP(353853002) - AP	15-May-14	Cesium-134	-8.75E-05	6.87E-04	1.15E-03	5.00E-02	6.89E-04	pCi/m3
9TP(360219002) - AP	14-Aug-14	Cesium-134	-6.66E-04	5.62E-04	6.42E-04	5.00E-02	6.42E-04	pCi/m3
9TP(365223002) - AP	14-Nov-14	Cesium-134	1.91E-04	3.45E-04	6.72E-04	5.00E-02	3.56E-04	pCi/m3
9TP(347224002) - AP	13-Feb-14	Cesium-137	-3.05E-04	4.25E-04	5.76E-04	6.00E-02	4.48E-04	pCi/m3
9TP(353853002) - AP	15-May-14	Cesium-137	7.14E-04	6.76E-04	1.30E-03	6.00E-02	7.51E-04	pCi/m3
9TP(360219002) - AP	14-Aug-14	Cesium-137	-1.84E-04	3.90E-04	5.81E-04	6.00E-02	3.99E-04	pCi/m3
9TP(365223002) - AP	14-Nov-14	Cesium-137	-7.20E-05	3.92E-04	5.54E-04	6.00E-02	3.94E-04	pCi/m3

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Apples
VG

Sample Name	Date Collected	Nuclide	Result	2 Sigma Uncert	MDC	LLD	2 Sigma TPU	Units
Apples(357555004) - VG	23-Sep-14	Cesium-134	1.66E+00	3.71E+00	6.51E+00	6.00E+01	3.79E+00	pCi/kg
Apples(357555004) - VG	23-Sep-14	Cesium-137	2.11E+00	4.09E+00	6.07E+00	8.00E+01	4.20E+00	pCi/kg
Apples(357555004) - VG	23-Sep-14	Iodine-131	-3.79E-01	5.86E+00	1.00E+01	6.00E+01	5.87E+00	pCi/kg
Apples(357555004) - VG	23-Sep-14	Potassium-40	1.14E+03	1.04E+02	4.82E+01		1.44E+02	pCi/kg

BV1 Soil
SD

Sample Name	Date Collected	Nuclide	Result	2 Sigma Uncert	MDC	LLD	2 Sigma TPU	Units
BV1 Soil(349613003) - SD	20-May-14	Cesium-134	5.17E-01	2.06E+01	3.59E+01	1.50E+02	2.06E+01	pCi/kg
BV1 Soil(357555005) - SD	23-Sep-14	Cesium-134	2.89E+01	1.90E+01	3.79E+01	1.50E+02	2.32E+01	pCi/kg
BV1 Soil(349613003) - SD	20-May-14	Cesium-137	1.53E+02	3.29E+01	3.12E+01	1.80E+02	3.53E+01	pCi/kg
BV1 Soil(357555005) - SD	23-Sep-14	Cesium-137	2.01E+02	4.34E+01	3.28E+01	1.80E+02	4.74E+01	pCi/kg
BV1 Soil(357555005) - SD	23-Sep-14	Lead-212	2.72E+02	5.11E+01	4.80E+01	1.50E+02	5.54E+01	pCi/kg
BV1 Soil(349613003) - SD	20-May-14	Potassium-40	6.46E+03	7.18E+02	2.72E+02		9.38E+02	pCi/kg
BV1 Soil(357555005) - SD	23-Sep-14	Potassium-40	8.46E+03	7.13E+02	2.90E+02		1.07E+03	pCi/kg
BV1 Soil(357555005) - SD	23-Sep-14	Thallium-208	1.07E+02	2.95E+01	2.80E+01	1.50E+02	3.11E+01	pCi/kg

BV2 Soil
SL

Sample Name	Date Collected	Nuclide	Result	2 Sigma Uncert	MDC	LLD	2 Sigma TPU	Units
BV2 Soil(361943001) - SL	20-Nov-14	Cesium-134	1.90E+01	1.97E+01	3.66E+01	1.50E+02	2.15E+01	pCi/kg
BV2 Soil(361943001) - SL	20-Nov-14	Cesium-137	2.93E+02	4.39E+01	2.71E+01	1.80E+02	4.96E+01	pCi/kg
BV2 Soil(361943001) - SL	20-Nov-14	Potassium-40	9.28E+03	7.33E+02	2.72E+02		1.12E+03	pCi/kg

BVC Soil
SL

Sample Name	Date Collected	Nuclide	Result	2 Sigma Uncert	MDC	LLD	2 Sigma TPU	Units
BVC Soil(361943002) - SL	20-Nov-14	Cesium-134	3.12E+01	2.65E+01	4.60E+01	1.50E+02	3.02E+01	pCi/kg
BVC Soil(361943002) - SL	20-Nov-14	Cesium-137	1.49E+02	4.54E+01	4.52E+01	1.80E+02	4.69E+01	pCi/kg
BVC Soil(361943002) - SL	20-Nov-14	Potassium-40	8.50E+03	1.03E+03	3.99E+02		1.28E+03	pCi/kg

Blueberries
VG

Sample Name	Date Collected	Nuclide	Result	2 Sigma Uncert	MDC	LLD	2 Sigma TPU	Units
Blueberries(355763001) - VG	26-Aug-14	Cesium-134	-6.94E-01	3.17E+00	4.56E+00	6.00E+01	3.19E+00	pCi/kg
Blueberries(355763001) - VG	26-Aug-14	Cesium-137	-2.03E+00	2.54E+00	3.95E+00	8.00E+01	2.71E+00	pCi/kg
Blueberries(355763001) - VG	26-Aug-14	Iodine-131	1.93E+00	4.32E+00	7.25E+00	6.00E+01	4.41E+00	pCi/kg
Blueberries(355763001) - VG	26-Aug-14	Potassium-40	7.68E+02	8.81E+01	4.05E+01		1.12E+02	pCi/kg

Broadleaf Vegetation BV1
VG

Sample Name	Date Collected	Nuclide	Result	2 Sigma Uncert	MDC	LLD	2 Sigma TPU	Units
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Broadleaf Vegetation BV1(349608002) - VG	20-May-14	Beryllium-7	6.59E+02	7.35E+01	5.48E+01		9.21E+01	pCi/kg
Broadleaf Vegetation BV1(351351002) - VG	17-Jun-14	Beryllium-7	9.72E+02	1.62E+02	1.16E+02		1.84E+02	pCi/kg
Broadleaf Vegetation BV1(353261002) - VG	17-Jul-14	Beryllium-7	2.31E+03	3.36E+02	2.17E+02		3.98E+02	pCi/kg
Broadleaf Vegetation BV1(355397002) - VG	15-Aug-14	Beryllium-7	2.38E+03	2.36E+02	1.60E+02		3.06E+02	pCi/kg
Broadleaf Vegetation BV1(357555002) - VG	23-Sep-14	Beryllium-7	4.67E+03	3.09E+02	1.95E+02		5.07E+02	pCi/kg
Broadleaf Vegetation BV1(349608002) - VG	20-May-14	Cesium-134	-2.47E+00	4.23E+00	6.80E+00	6.00E+01	4.38E+00	pCi/kg
Broadleaf Vegetation BV1(351351002) - VG	17-Jun-14	Cesium-134	7.78E+00	1.17E+01	1.57E+01	6.00E+01	1.22E+01	pCi/kg
Broadleaf Vegetation BV1(353261002) - VG	17-Jul-14	Cesium-134	7.22E+00	1.69E+01	2.68E+01	6.00E+01	1.72E+01	pCi/kg
Broadleaf Vegetation BV1(355397002) - VG	15-Aug-14	Cesium-134	1.53E+01	1.27E+01	2.06E+01	6.00E+01	1.46E+01	pCi/kg
Broadleaf Vegetation BV1(357555002) - VG	23-Sep-14	Cesium-134	9.04E+00	1.72E+01	2.93E+01	6.00E+01	1.77E+01	pCi/kg
Broadleaf Vegetation BV1(349608002) - VG	20-May-14	Cesium-137	4.68E+01	8.35E+00	6.10E+00	8.00E+01	9.13E+00	pCi/kg
Broadleaf Vegetation BV1(351351002) - VG	17-Jun-14	Cesium-137	2.78E+01	1.40E+01	1.36E+01	8.00E+01	1.42E+01	pCi/kg
Broadleaf Vegetation BV1(353261002) - VG	17-Jul-14	Cesium-137	2.50E+01	1.97E+01	2.53E+01	8.00E+01	1.98E+01	pCi/kg
Broadleaf Vegetation BV1(355397002) - VG	15-Aug-14	Cesium-137	6.20E+01	1.81E+01	1.99E+01	8.00E+01	1.88E+01	pCi/kg
Broadleaf Vegetation BV1(357555002) - VG	23-Sep-14	Cesium-137	2.42E+01	1.81E+01	2.75E+01	8.00E+01	1.82E+01	pCi/kg
Broadleaf Vegetation BV1(349608002) - VG	20-May-14	Iodine-131	1.35E+00	1.07E+01	1.80E+01	6.00E+01	1.08E+01	pCi/kg
Broadleaf Vegetation BV1(351351002) - VG	17-Jun-14	Iodine-131	-2.07E+01	3.26E+01	4.33E+01	6.00E+01	3.40E+01	pCi/kg
Broadleaf Vegetation BV1(353261002) - VG	17-Jul-14	Iodine-131	-1.24E+01	3.22E+01	5.16E+01	6.00E+01	3.27E+01	pCi/kg
Broadleaf Vegetation BV1(355397002) - VG	15-Aug-14	Iodine-131	-1.67E+01	2.86E+01	4.52E+01	6.00E+01	2.96E+01	pCi/kg
Broadleaf Vegetation BV1(357555002) - VG	23-Sep-14	Iodine-131	1.70E+00	2.99E+01	4.96E+01	6.00E+01	3.00E+01	pCi/kg
Broadleaf Vegetation BV1(349608002) - VG	20-May-14	Potassium-40	2.61E+03	1.54E+02	5.68E+01		2.74E+02	pCi/kg
Broadleaf Vegetation BV1(351351002) - VG	17-Jun-14	Potassium-40	2.26E+03	2.58E+02	1.47E+02		3.25E+02	pCi/kg
Broadleaf Vegetation BV1(353261002) - VG	17-Jul-14	Potassium-40	2.18E+03	4.13E+02	2.18E+02		4.61E+02	pCi/kg
Broadleaf Vegetation BV1(355397002) - VG	15-Aug-14	Potassium-40	2.34E+03	3.16E+02	1.74E+02		3.73E+02	pCi/kg
Broadleaf Vegetation BV1(357555002) - VG	23-Sep-14	Potassium-40	1.76E+03	4.02E+02	2.31E+02		4.30E+02	pCi/kg

Broadleaf Vegetation BV2
VG

Sample Name	Date Collected	Nuclide	Result	2 Sigma Uncert	MDC	LLD	2 Sigma TPU	Units
Broadleaf Vegetation BV2(349608003) - VG	20-May-14	Beryllium-7	6.01E+02	5.11E+01	4.04E+01		7.24E+01	pCi/kg
Broadleaf Vegetation BV2(351351003) - VG	17-Jun-14	Beryllium-7	7.29E+02	1.32E+02	9.62E+01		1.47E+02	pCi/kg
Broadleaf Vegetation BV2(353261003) - VG	17-Jul-14	Beryllium-7	1.11E+03	2.96E+02	2.00E+02		3.09E+02	pCi/kg
Broadleaf Vegetation BV2(355397003) - VG	15-Aug-14	Beryllium-7	8.86E+02	1.31E+02	1.10E+02		1.49E+02	pCi/kg
Broadleaf Vegetation BV2(357555003) - VG	23-Sep-14	Beryllium-7	1.74E+03	1.87E+02	1.48E+02		2.33E+02	pCi/kg
Broadleaf Vegetation BV2(349608003) - VG	20-May-14	Cesium-134	3.90E+00	3.05E+00	5.48E+00	6.00E+01	3.54E+00	pCi/kg
Broadleaf Vegetation BV2(351351003) - VG	17-Jun-14	Cesium-134	3.70E+00	7.95E+00	1.37E+01	6.00E+01	8.13E+00	pCi/kg
Broadleaf Vegetation BV2(353261003) - VG	17-Jul-14	Cesium-134	9.18E-01	1.18E+01	2.05E+01	6.00E+01	1.18E+01	pCi/kg
Broadleaf Vegetation BV2(355397003) - VG	15-Aug-14	Cesium-134	-4.21E+00	8.64E+00	1.41E+01	6.00E+01	8.86E+00	pCi/kg
Broadleaf Vegetation BV2(357555003) - VG	23-Sep-14	Cesium-134	3.61E+00	1.20E+01	1.82E+01	6.00E+01	1.22E+01	pCi/kg
Broadleaf Vegetation BV2(349608003) - VG	20-May-14	Cesium-137	4.61E+00	3.87E+00	4.61E+00	8.00E+01	3.90E+00	pCi/kg
Broadleaf Vegetation BV2(351351003) - VG	17-Jun-14	Cesium-137	-4.07E-01	8.74E+00	1.30E+01	8.00E+01	8.74E+00	pCi/kg
Broadleaf Vegetation BV2(353261003) - VG	17-Jul-14	Cesium-137	-1.37E+00	1.39E+01	2.26E+01	8.00E+01	1.40E+01	pCi/kg
Broadleaf Vegetation BV2(355397003) - VG	15-Aug-14	Cesium-137	4.01E+00	1.57E+01	1.29E+01	8.00E+01	1.57E+01	pCi/kg
Broadleaf Vegetation BV2(357555003) - VG	23-Sep-14	Cesium-137	-3.30E+00	1.89E+01	2.42E+01	8.00E+01	1.89E+01	pCi/kg
Broadleaf Vegetation BV2(349608003) - VG	20-May-14	Iodine-131	-3.52E+00	7.85E+00	1.29E+01	6.00E+01	8.01E+00	pCi/kg

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Broadleaf Vegetation BV2(351351003) - VG	17-Jun-14	Iodine-131	6.92E+00	1.55E+01	2.68E+01	6.00E+01	1.58E+01	pCi/kg
Broadleaf Vegetation BV2(353261003) - VG	17-Jul-14	Iodine-131	-5.57E-01	2.82E+01	4.78E+01	6.00E+01	2.82E+01	pCi/kg
Broadleaf Vegetation BV2(355397003) - VG	15-Aug-14	Iodine-131	-9.95E+00	2.13E+01	3.05E+01	6.00E+01	2.18E+01	pCi/kg
Broadleaf Vegetation BV2(357555003) - VG	23-Sep-14	Iodine-131	1.12E+01	1.81E+01	3.14E+01	6.00E+01	1.88E+01	pCi/kg
Broadleaf Vegetation BV2(349608003) - VG	20-May-14	Potassium-40	3.47E+03	1.40E+02	4.55E+01		3.32E+02	pCi/kg
Broadleaf Vegetation BV2(351351003) - VG	17-Jun-14	Potassium-40	2.71E+03	2.82E+02	1.30E+02		3.68E+02	pCi/kg
Broadleaf Vegetation BV2(353261003) - VG	17-Jul-14	Potassium-40	4.00E+03	5.04E+02	1.85E+02		6.09E+02	pCi/kg
Broadleaf Vegetation BV2(355397003) - VG	15-Aug-14	Potassium-40	2.97E+03	2.72E+02	1.47E+02		3.70E+02	pCi/kg
Broadleaf Vegetation BV2(357555003) - VG	23-Sep-14	Potassium-40	2.04E+03	2.74E+02	1.73E+02		3.24E+02	pCi/kg

Broadleaf Vegetation Control BVC1
VG

Sample Name	Date Collected	Nuclide	Result	2 Sigma Uncert	MDC	LLD	2 Sigma TPU	Units
Broadleaf Vegetation Control BVC1(349608001) - VG	20-May-14	Beryllium-7	4.17E+02	6.35E+01	5.68E+01		7.58E+01	pCi/kg
Broadleaf Vegetation Control BVC1(351351001) - VG	17-Jun-14	Beryllium-7	6.95E+02	1.51E+02	1.19E+02		1.62E+02	pCi/kg
Broadleaf Vegetation Control BVC1(353261001) - VG	17-Jul-14	Beryllium-7	1.19E+03	2.50E+02	2.45E+02		2.68E+02	pCi/kg
Broadleaf Vegetation Control BVC1(355397001) - VG	15-Aug-14	Beryllium-7	1.33E+03	1.42E+02	1.04E+02		1.78E+02	pCi/kg
Broadleaf Vegetation Control BVC1(357555001) - VG	23-Sep-14	Beryllium-7	2.49E+03	2.10E+02	1.51E+02		2.92E+02	pCi/kg
Broadleaf Vegetation Control BVC1(349608001) - VG	20-May-14	Cesium-134	-7.66E-01	4.12E+00	6.92E+00	6.00E+01	4.13E+00	pCi/kg
Broadleaf Vegetation Control BVC1(351351001) - VG	17-Jun-14	Cesium-134	-3.54E+00	9.28E+00	1.50E+01	6.00E+01	9.43E+00	pCi/kg
Broadleaf Vegetation Control BVC1(353261001) - VG	17-Jul-14	Cesium-134	-4.98E+00	2.02E+01	3.01E+01	6.00E+01	2.03E+01	pCi/kg
Broadleaf Vegetation Control BVC1(355397001) - VG	15-Aug-14	Cesium-134	6.80E+00	8.60E+00	1.50E+01	6.00E+01	9.15E+00	pCi/kg
Broadleaf Vegetation Control BVC1(357555001) - VG	23-Sep-14	Cesium-134	4.71E+00	1.33E+01	2.02E+01	6.00E+01	1.35E+01	pCi/kg
Broadleaf Vegetation Control BVC1(349608001) - VG	20-May-14	Cesium-137	3.08E-01	3.81E+00	6.56E+00	8.00E+01	3.81E+00	pCi/kg
Broadleaf Vegetation Control BVC1(351351001) - VG	17-Jun-14	Cesium-137	-6.48E+00	1.61E+01	1.48E+01	8.00E+01	1.64E+01	pCi/kg
Broadleaf Vegetation Control BVC1(353261001) - VG	17-Jul-14	Cesium-137	-8.96E+00	1.74E+01	2.74E+01	8.00E+01	1.79E+01	pCi/kg
Broadleaf Vegetation Control BVC1(355397001) - VG	15-Aug-14	Cesium-137	2.12E+00	8.24E+00	1.41E+01	8.00E+01	8.29E+00	pCi/kg
Broadleaf Vegetation Control BVC1(357555001) - VG	23-Sep-14	Cesium-137	-4.09E+00	1.12E+01	1.81E+01	8.00E+01	1.13E+01	pCi/kg
Broadleaf Vegetation Control BVC1(349608001) - VG	20-May-14	Iodine-131	-7.88E+00	1.09E+01	1.78E+01	6.00E+01	1.15E+01	pCi/kg
Broadleaf Vegetation Control BVC1(351351001) - VG	17-Jun-14	Iodine-131	3.05E+00	1.69E+01	2.85E+01	6.00E+01	1.70E+01	pCi/kg
Broadleaf Vegetation Control BVC1(353261001) - VG	17-Jul-14	Iodine-131	1.12E+01	3.48E+01	5.74E+01	6.00E+01	3.52E+01	pCi/kg
Broadleaf Vegetation Control BVC1(355397001) - VG	15-Aug-14	Iodine-131	-1.33E+01	1.81E+01	2.92E+01	6.00E+01	1.91E+01	pCi/kg
Broadleaf Vegetation Control BVC1(357555001) - VG	23-Sep-14	Iodine-131	1.55E+01	1.85E+01	3.13E+01	6.00E+01	1.86E+01	pCi/kg
Broadleaf Vegetation Control BVC1(349608001) - VG	20-May-14	Potassium-40	3.25E+03	1.53E+02	6.23E+01		3.22E+02	pCi/kg
Broadleaf Vegetation Control BVC1(351351001) - VG	17-Jun-14	Potassium-40	3.45E+03	3.15E+02	1.44E+02		4.34E+02	pCi/kg
Broadleaf Vegetation Control BVC1(353261001) - VG	17-Jul-14	Potassium-40	2.86E+03	5.38E+02	2.94E+02		5.92E+02	pCi/kg
Broadleaf Vegetation Control BVC1(355397001) - VG	15-Aug-14	Potassium-40	3.01E+03	2.56E+02	1.32E+02		3.61E+02	pCi/kg
Broadleaf Vegetation Control BVC1(357555001) - VG	23-Sep-14	Potassium-40	2.02E+03	3.39E+02	1.93E+02		3.81E+02	pCi/kg

Domestic Water - DW
DW

Sample Name	Date Collected	Nuclide	Result	2 Sigma Uncert	MDC	LLD	2 Sigma TPU	Units
Domestic Water - DW(343105002) - DW	15-Jan-14	BETA	-5.69E-01	1.95E+00	3.40E+00	4.00E+00	1.95E+00	pCi/L
Domestic Water - DW(344196002) - DW	14-Feb-14	BETA	-7.61E-01	2.06E+00	3.59E+00	4.00E+00	2.06E+00	pCi/L
Domestic Water - DW(346233002) - DW	15-Mar-14	BETA	2.61E-01	1.73E+00	2.80E+00	4.00E+00	1.73E+00	pCi/L

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Domestic Water - DW(348503002) - DW	15-Apr-14	BETA	8.50E-01	2.13E+00	3.46E+00	4.00E+00	2.14E+00	pCi/L
Domestic Water - DW(350372002) - DW	15-May-14	BETA	2.09E+00	2.02E+00	2.85E+00	4.00E+00	2.05E+00	pCi/L
Domestic Water - DW(352249006) - DW	15-Jun-14	BETA	-1.59E-01	1.60E+00	2.71E+00	4.00E+00	1.60E+00	pCi/L
Domestic Water - DW(354946002) - DW	15-Jul-14	BETA	8.61E-01	1.85E+00	2.87E+00	4.00E+00	1.86E+00	pCi/L
Domestic Water - DW(356925002) - DW	15-Aug-14	BETA	5.54E-01	1.70E+00	2.69E+00	4.00E+00	1.70E+00	pCi/L
Domestic Water - DW(358777002) - DW	15-Sep-14	BETA	1.29E+00	2.01E+00	3.06E+00	4.00E+00	2.03E+00	pCi/L
Domestic Water - DW(360827002) - DW	15-Oct-14	BETA	-1.70E+00	1.94E+00	3.57E+00	4.00E+00	1.94E+00	pCi/L
Domestic Water - DW(362508002) - DW	15-Nov-14	BETA	2.68E-01	1.87E+00	2.98E+00	4.00E+00	1.87E+00	pCi/L
Domestic Water - DW(343105002) - DW	15-Jan-14	Barium-140	3.50E+00	8.83E+00	1.53E+01	1.50E+01	8.98E+00	pCi/L
Domestic Water - DW(344196002) - DW	14-Feb-14	Barium-140	7.39E-01	3.55E+00	6.16E+00	1.50E+01	3.57E+00	pCi/L
Domestic Water - DW(346233002) - DW	15-Mar-14	Barium-140	3.59E+00	5.33E+00	8.25E+00	1.50E+01	5.58E+00	pCi/L
Domestic Water - DW(348503002) - DW	15-Apr-14	Barium-140	-2.32E+00	6.71E+00	1.09E+01	1.50E+01	6.79E+00	pCi/L
Domestic Water - DW(350372002) - DW	15-May-14	Barium-140	-3.96E+00	9.67E+00	1.48E+01	1.50E+01	9.84E+00	pCi/L
Domestic Water - DW(352249006) - DW	15-Jun-14	Barium-140	-2.57E+00	5.72E+00	9.16E+00	1.50E+01	5.83E+00	pCi/L
Domestic Water - DW(354946002) - DW	15-Jul-14	Barium-140	-4.88E+00	7.32E+00	1.19E+01	1.50E+01	7.65E+00	pCi/L
Domestic Water - DW(356925002) - DW	15-Aug-14	Barium-140	-6.10E+00	5.87E+00	9.14E+00	1.50E+01	6.50E+00	pCi/L
Domestic Water - DW(358777002) - DW	15-Sep-14	Barium-140	-2.12E+00	7.19E+00	1.19E+01	1.50E+01	7.25E+00	pCi/L
Domestic Water - DW(360827002) - DW	15-Oct-14	Barium-140	-2.08E+00	4.84E+00	7.76E+00	1.50E+01	4.93E+00	pCi/L
Domestic Water - DW(362508002) - DW	15-Nov-14	Barium-140	-1.94E+00	8.35E+00	1.35E+01	1.50E+01	8.40E+00	pCi/L
Domestic Water - DW(343105002) - DW	15-Jan-14	Cesium-134	1.12E+00	1.21E+00	2.09E+00	1.50E+01	1.31E+00	pCi/L
Domestic Water - DW(344196002) - DW	14-Feb-14	Cesium-134	9.79E-01	8.96E-01	1.57E+00	1.50E+01	1.00E+00	pCi/L
Domestic Water - DW(346233002) - DW	15-Mar-14	Cesium-134	2.62E-01	1.35E+00	1.96E+00	1.50E+01	1.36E+00	pCi/L
Domestic Water - DW(348503002) - DW	15-Apr-14	Cesium-134	7.26E-02	1.35E+00	2.19E+00	1.50E+01	1.35E+00	pCi/L
Domestic Water - DW(350372002) - DW	15-May-14	Cesium-134	1.10E+00	2.06E+00	3.73E+00	1.50E+01	2.13E+00	pCi/L
Domestic Water - DW(352249006) - DW	15-Jun-14	Cesium-134	-9.59E-01	1.33E+00	1.50E+00	1.50E+01	1.40E+00	pCi/L
Domestic Water - DW(354946002) - DW	15-Jul-14	Cesium-134	7.71E-01	9.51E-01	1.64E+00	1.50E+01	1.02E+00	pCi/L
Domestic Water - DW(356925002) - DW	15-Aug-14	Cesium-134	1.52E-02	8.82E-01	1.51E+00	1.50E+01	8.82E-01	pCi/L
Domestic Water - DW(358777002) - DW	15-Sep-14	Cesium-134	9.34E-01	1.25E+00	2.15E+00	1.50E+01	1.32E+00	pCi/L
Domestic Water - DW(360827002) - DW	15-Oct-14	Cesium-134	4.17E-01	1.02E+00	1.77E+00	1.50E+01	1.04E+00	pCi/L
Domestic Water - DW(362508002) - DW	15-Nov-14	Cesium-134	1.69E+00	2.43E+00	4.28E+00	1.50E+01	2.55E+00	pCi/L
Domestic Water - DW(343105002) - DW	15-Jan-14	Cesium-137	-1.04E+00	1.76E+00	1.96E+00	1.80E+01	1.83E+00	pCi/L
Domestic Water - DW(344196002) - DW	14-Feb-14	Cesium-137	2.19E-01	2.14E+00	1.47E+00	1.80E+01	2.14E+00	pCi/L
Domestic Water - DW(346233002) - DW	15-Mar-14	Cesium-137	-9.85E-01	1.85E+00	1.92E+00	1.80E+01	1.91E+00	pCi/L
Domestic Water - DW(348503002) - DW	15-Apr-14	Cesium-137	-4.12E-01	1.38E+00	1.95E+00	1.80E+01	1.39E+00	pCi/L
Domestic Water - DW(350372002) - DW	15-May-14	Cesium-137	-3.32E-01	2.30E+00	3.29E+00	1.80E+01	2.30E+00	pCi/L
Domestic Water - DW(352249006) - DW	15-Jun-14	Cesium-137	7.04E-02	8.46E-01	1.44E+00	1.80E+01	8.46E-01	pCi/L
Domestic Water - DW(354946002) - DW	15-Jul-14	Cesium-137	-5.84E-02	1.61E+00	1.94E+00	1.80E+01	1.61E+00	pCi/L
Domestic Water - DW(356925002) - DW	15-Aug-14	Cesium-137	-5.35E-01	1.53E+00	1.48E+00	1.80E+01	1.54E+00	pCi/L
Domestic Water - DW(358777002) - DW	15-Sep-14	Cesium-137	-9.56E-01	1.21E+00	1.92E+00	1.80E+01	1.29E+00	pCi/L
Domestic Water - DW(360827002) - DW	15-Oct-14	Cesium-137	-4.01E-01	1.73E+00	2.11E+00	1.80E+01	1.74E+00	pCi/L
Domestic Water - DW(362508002) - DW	15-Nov-14	Cesium-137	1.14E+00	2.11E+00	3.68E+00	1.80E+01	2.17E+00	pCi/L
Domestic Water - DW(343105002) - DW	15-Jan-14	Cobalt-58	-1.58E+00	1.46E+00	2.27E+00	1.50E+01	1.63E+00	pCi/L
Domestic Water - DW(344196002) - DW	14-Feb-14	Cobalt-58	-2.20E-01	9.75E-01	1.59E+00	1.50E+01	9.80E-01	pCi/L
Domestic Water - DW(346233002) - DW	15-Mar-14	Cobalt-58	-2.32E-01	1.25E+00	2.05E+00	1.50E+01	1.26E+00	pCi/L
Domestic Water - DW(348503002) - DW	15-Apr-14	Cobalt-58	-4.53E-01	1.55E+00	2.53E+00	1.50E+01	1.56E+00	pCi/L

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Domestic Water - DW(350372002) - DW	15-May-14	Cobalt-58	-1.05E+00	2.27E+00	3.61E+00	1.50E+01	2.32E+00	pCi/L
Domestic Water - DW(352249006) - DW	15-Jun-14	Cobalt-58	2.30E-01	1.17E+00	1.71E+00	1.50E+01	1.17E+00	pCi/L
Domestic Water - DW(354946002) - DW	15-Jul-14	Cobalt-58	7.64E-02	1.04E+00	1.73E+00	1.50E+01	1.04E+00	pCi/L
Domestic Water - DW(356925002) - DW	15-Aug-14	Cobalt-58	-6.93E-01	9.76E-01	1.59E+00	1.50E+01	1.03E+00	pCi/L
Domestic Water - DW(358777002) - DW	15-Sep-14	Cobalt-58	-9.05E-02	1.44E+00	2.46E+00	1.50E+01	1.44E+00	pCi/L
Domestic Water - DW(360827002) - DW	15-Oct-14	Cobalt-58	-1.83E-01	1.19E+00	1.81E+00	1.50E+01	1.20E+00	pCi/L
Domestic Water - DW(362508002) - DW	15-Nov-14	Cobalt-58	-3.40E-01	2.37E+00	3.82E+00	1.50E+01	2.37E+00	pCi/L
Domestic Water - DW(343105002) - DW	15-Jan-14	Cobalt-60	1.48E+00	1.12E+00	2.01E+00	1.50E+01	1.31E+00	pCi/L
Domestic Water - DW(344196002) - DW	14-Feb-14	Cobalt-60	5.75E-01	1.11E+00	1.50E+00	1.50E+01	1.14E+00	pCi/L
Domestic Water - DW(346233002) - DW	15-Mar-14	Cobalt-60	-1.47E+00	1.79E+00	1.87E+00	1.50E+01	1.92E+00	pCi/L
Domestic Water - DW(348503002) - DW	15-Apr-14	Cobalt-60	-8.17E-01	1.23E+00	1.97E+00	1.50E+01	1.28E+00	pCi/L
Domestic Water - DW(350372002) - DW	15-May-14	Cobalt-60	-2.68E-01	1.88E+00	3.13E+00	1.50E+01	1.89E+00	pCi/L
Domestic Water - DW(352249006) - DW	15-Jun-14	Cobalt-60	2.67E-01	8.45E-01	1.45E+00	1.50E+01	8.54E-01	pCi/L
Domestic Water - DW(354946002) - DW	15-Jul-14	Cobalt-60	-1.10E-01	9.30E-01	1.54E+00	1.50E+01	9.32E-01	pCi/L
Domestic Water - DW(356925002) - DW	15-Aug-14	Cobalt-60	6.40E-01	8.73E-01	1.51E+00	1.50E+01	9.21E-01	pCi/L
Domestic Water - DW(358777002) - DW	15-Sep-14	Cobalt-60	1.08E-01	1.20E+00	2.00E+00	1.50E+01	1.20E+00	pCi/L
Domestic Water - DW(360827002) - DW	15-Oct-14	Cobalt-60	1.87E+00	2.93E+00	1.87E+00	1.50E+01	3.23E+00	pCi/L
Domestic Water - DW(362508002) - DW	15-Nov-14	Cobalt-60	-5.73E-01	2.16E+00	3.52E+00	1.50E+01	2.18E+00	pCi/L
Domestic Water - DW(343105002) - DW	15-Jan-14	Iron-59	2.65E+00	4.11E+00	6.23E+00	3.00E+01	4.29E+00	pCi/L
Domestic Water - DW(344196002) - DW	14-Feb-14	Iron-59	2.70E+00	2.13E+00	3.88E+00	3.00E+01	2.49E+00	pCi/L
Domestic Water - DW(346233002) - DW	15-Mar-14	Iron-59	5.37E+00	5.62E+00	5.37E+00	3.00E+01	6.38E+00	pCi/L
Domestic Water - DW(348503002) - DW	15-Apr-14	Iron-59	1.97E+00	4.31E+00	5.77E+00	3.00E+01	4.41E+00	pCi/L
Domestic Water - DW(350372002) - DW	15-May-14	Iron-59	-1.48E+00	5.74E+00	9.13E+00	3.00E+01	5.78E+00	pCi/L
Domestic Water - DW(352249006) - DW	15-Jun-14	Iron-59	-1.42E-01	2.34E+00	3.99E+00	3.00E+01	2.34E+00	pCi/L
Domestic Water - DW(354946002) - DW	15-Jul-14	Iron-59	8.28E-01	2.50E+00	4.33E+00	3.00E+01	2.53E+00	pCi/L
Domestic Water - DW(356925002) - DW	15-Aug-14	Iron-59	1.80E+00	2.55E+00	3.94E+00	3.00E+01	2.69E+00	pCi/L
Domestic Water - DW(358777002) - DW	15-Sep-14	Iron-59	2.03E+00	3.41E+00	5.95E+00	3.00E+01	3.54E+00	pCi/L
Domestic Water - DW(360827002) - DW	15-Oct-14	Iron-59	-1.70E+00	2.67E+00	4.16E+00	3.00E+01	2.78E+00	pCi/L
Domestic Water - DW(362508002) - DW	15-Nov-14	Iron-59	3.88E+00	4.77E+00	8.95E+00	3.00E+01	5.11E+00	pCi/L
Domestic Water - DW(343105002) - DW	15-Jan-14	Lanthanum-140	3.50E+00	8.83E+00	1.53E+01	1.50E+01	8.98E+00	pCi/L
Domestic Water - DW(344196002) - DW	14-Feb-14	Lanthanum-140	7.39E-01	3.55E+00	6.16E+00	1.50E+01	3.57E+00	pCi/L
Domestic Water - DW(346233002) - DW	15-Mar-14	Lanthanum-140	3.59E+00	5.33E+00	8.25E+00	1.50E+01	5.58E+00	pCi/L
Domestic Water - DW(348503002) - DW	15-Apr-14	Lanthanum-140	-2.32E+00	6.71E+00	1.09E+01	1.50E+01	6.79E+00	pCi/L
Domestic Water - DW(350372002) - DW	15-May-14	Lanthanum-140	-3.96E+00	9.67E+00	1.48E+01	1.50E+01	9.84E+00	pCi/L
Domestic Water - DW(352249006) - DW	15-Jun-14	Lanthanum-140	-2.57E+00	5.72E+00	9.16E+00	1.50E+01	5.83E+00	pCi/L
Domestic Water - DW(354946002) - DW	15-Jul-14	Lanthanum-140	-4.88E+00	7.32E+00	1.19E+01	1.50E+01	7.65E+00	pCi/L
Domestic Water - DW(356925002) - DW	15-Aug-14	Lanthanum-140	-6.10E+00	5.87E+00	9.14E+00	1.50E+01	6.50E+00	pCi/L
Domestic Water - DW(358777002) - DW	15-Sep-14	Lanthanum-140	-2.12E+00	7.19E+00	1.19E+01	1.50E+01	7.25E+00	pCi/L
Domestic Water - DW(360827002) - DW	15-Oct-14	Lanthanum-140	-2.08E+00	4.84E+00	7.76E+00	1.50E+01	4.93E+00	pCi/L
Domestic Water - DW(362508002) - DW	15-Nov-14	Lanthanum-140	-1.94E+00	8.35E+00	1.35E+01	1.50E+01	8.40E+00	pCi/L
Domestic Water - DW(343105002) - DW	15-Jan-14	Manganese-54	6.41E-01	1.10E+00	1.88E+00	1.50E+01	1.14E+00	pCi/L
Domestic Water - DW(344196002) - DW	14-Feb-14	Manganese-54	-3.10E-01	8.80E-01	1.43E+00	1.50E+01	8.92E-01	pCi/L
Domestic Water - DW(346233002) - DW	15-Mar-14	Manganese-54	-5.25E-01	1.05E+00	1.69E+00	1.50E+01	1.08E+00	pCi/L
Domestic Water - DW(348503002) - DW	15-Apr-14	Manganese-54	-5.67E-01	1.59E+00	2.06E+00	1.50E+01	1.61E+00	pCi/L
Domestic Water - DW(350372002) - DW	15-May-14	Manganese-54	6.72E-01	1.91E+00	3.37E+00	1.50E+01	1.93E+00	pCi/L

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Domestic Water - DW(352249006) - DW	15-Jun-14	Manganese-54	-2.85E-01	7.94E-01	1.30E+00	1.50E+01	8.05E-01	pCi/L
Domestic Water - DW(354946002) - DW	15-Jul-14	Manganese-54	-2.17E-01	1.05E+00	1.47E+00	1.50E+01	1.05E+00	pCi/L
Domestic Water - DW(356925002) - DW	15-Aug-14	Manganese-54	-8.09E-02	8.62E-01	1.26E+00	1.50E+01	8.62E-01	pCi/L
Domestic Water - DW(358777002) - DW	15-Sep-14	Manganese-54	-6.29E-02	1.20E+00	1.77E+00	1.50E+01	1.21E+00	pCi/L
Domestic Water - DW(360827002) - DW	15-Oct-14	Manganese-54	-3.44E-01	9.52E-01	1.56E+00	1.50E+01	9.65E-01	pCi/L
Domestic Water - DW(362508002) - DW	15-Nov-14	Manganese-54	-8.30E-01	1.92E+00	3.14E+00	1.50E+01	1.96E+00	pCi/L
Domestic Water - DW(343105002) - DW	15-Jan-14	Niobium-95	2.25E+00	2.32E+00	2.25E+00	1.50E+01	2.33E+00	pCi/L
Domestic Water - DW(344196002) - DW	14-Feb-14	Niobium-95	-1.54E+00	1.78E+00	1.77E+00	1.50E+01	1.92E+00	pCi/L
Domestic Water - DW(346233002) - DW	15-Mar-14	Niobium-95	-2.45E+00	2.29E+00	2.38E+00	1.50E+01	2.56E+00	pCi/L
Domestic Water - DW(348503002) - DW	15-Apr-14	Niobium-95	2.07E+00	2.78E+00	2.33E+00	1.50E+01	2.79E+00	pCi/L
Domestic Water - DW(350372002) - DW	15-May-14	Niobium-95	-2.87E+00	3.39E+00	4.28E+00	1.50E+01	3.64E+00	pCi/L
Domestic Water - DW(352249006) - DW	15-Jun-14	Niobium-95	-7.39E-02	1.39E+00	1.79E+00	1.50E+01	1.39E+00	pCi/L
Domestic Water - DW(354946002) - DW	15-Jul-14	Niobium-95	-3.25E-01	1.21E+00	1.99E+00	1.50E+01	1.22E+00	pCi/L
Domestic Water - DW(356925002) - DW	15-Aug-14	Niobium-95	3.28E-01	1.47E+00	1.83E+00	1.50E+01	1.47E+00	pCi/L
Domestic Water - DW(358777002) - DW	15-Sep-14	Niobium-95	1.46E+00	1.55E+00	2.69E+00	1.50E+01	1.69E+00	pCi/L
Domestic Water - DW(360827002) - DW	15-Oct-14	Niobium-95	1.33E+00	1.36E+00	2.16E+00	1.50E+01	1.49E+00	pCi/L
Domestic Water - DW(362508002) - DW	15-Nov-14	Niobium-95	-3.48E+00	3.52E+00	3.47E+00	1.50E+01	3.87E+00	pCi/L
Domestic Water - DW(343105002) - DW	15-Jan-14	Tritium	-2.10E+02	2.58E+02	4.60E+02	2.00E+03	2.57E+02	pCi/L
Domestic Water - DW(344196002) - DW	14-Feb-14	Tritium	-2.55E+02	2.94E+02	5.27E+02	2.00E+03	2.94E+02	pCi/L
Domestic Water - DW(346233002) - DW	15-Mar-14	Tritium	-2.99E+02	2.63E+02	4.77E+02	2.00E+03	2.63E+02	pCi/L
Domestic Water - DW(348503002) - DW	15-Apr-14	Tritium	-1.55E+02	2.46E+02	4.34E+02	2.00E+03	2.46E+02	pCi/L
Domestic Water - DW(350372002) - DW	15-May-14	Tritium	6.75E+01	2.70E+02	4.44E+02	2.00E+03	2.70E+02	pCi/L
Domestic Water - DW(352249006) - DW	15-Jun-14	Tritium	4.86E+01	2.62E+02	4.31E+02	2.00E+03	2.63E+02	pCi/L
Domestic Water - DW(354946002) - DW	15-Jul-14	Tritium	-2.44E+02	3.20E+02	5.75E+02	2.00E+03	3.20E+02	pCi/L
Domestic Water - DW(356925002) - DW	15-Aug-14	Tritium	1.24E+02	3.33E+02	5.41E+02	2.00E+03	3.34E+02	pCi/L
Domestic Water - DW(358777002) - DW	15-Sep-14	Tritium	-3.04E+02	3.28E+02	5.96E+02	2.00E+03	3.28E+02	pCi/L
Domestic Water - DW(360827002) - DW	15-Oct-14	Tritium	-5.66E+01	3.28E+02	5.60E+02	2.00E+03	3.28E+02	pCi/L
Domestic Water - DW(362508002) - DW	15-Nov-14	Tritium	-1.63E+02	4.10E+02	7.13E+02	2.00E+03	4.10E+02	pCi/L
Domestic Water - DW(343105002) - DW	15-Jan-14	Zinc-65	1.67E+00	3.06E+00	4.70E+00	3.00E+01	3.07E+00	pCi/L
Domestic Water - DW(344196002) - DW	14-Feb-14	Zinc-65	-4.94E-01	1.78E+00	2.96E+00	3.00E+01	1.79E+00	pCi/L
Domestic Water - DW(346233002) - DW	15-Mar-14	Zinc-65	1.33E-03	2.52E+00	3.64E+00	3.00E+01	2.52E+00	pCi/L
Domestic Water - DW(348503002) - DW	15-Apr-14	Zinc-65	5.56E-01	2.33E+00	4.06E+00	3.00E+01	2.35E+00	pCi/L
Domestic Water - DW(350372002) - DW	15-May-14	Zinc-65	1.46E+00	4.23E+00	7.88E+00	3.00E+01	4.24E+00	pCi/L
Domestic Water - DW(352249006) - DW	15-Jun-14	Zinc-65	-1.91E+00	1.89E+00	3.06E+00	3.00E+01	2.10E+00	pCi/L
Domestic Water - DW(354946002) - DW	15-Jul-14	Zinc-65	-6.02E-01	1.79E+00	2.96E+00	3.00E+01	1.81E+00	pCi/L
Domestic Water - DW(356925002) - DW	15-Aug-14	Zinc-65	-4.46E-01	1.72E+00	2.82E+00	3.00E+01	1.74E+00	pCi/L
Domestic Water - DW(358777002) - DW	15-Sep-14	Zinc-65	-3.26E+00	2.62E+00	3.99E+00	3.00E+01	3.03E+00	pCi/L
Domestic Water - DW(360827002) - DW	15-Oct-14	Zinc-65	8.98E-01	2.44E+00	3.59E+00	3.00E+01	2.47E+00	pCi/L
Domestic Water - DW(362508002) - DW	15-Nov-14	Zinc-65	-5.11E+00	4.41E+00	6.38E+00	3.00E+01	5.02E+00	pCi/L

Fish Control Ludington Freshwater Drum
FH

Sample Name	Date Collected	Nuclide	Result	2 Sigma Uncert	MDC	LLD	2 Sigma TPU	Units
Fish Control Ludington Freshwater Drum(351798003) - FH	15-Jun-14	Cesium-134	5.92E-01	2.33E+00	3.92E+00	1.30E+02	2.35E+00	pCi/kg
Fish Control Ludington Freshwater Drum(362070003) - FH	23-Sep-14	Cesium-134	-8.88E+00	8.22E+00	9.95E+00	1.30E+02	9.19E+00	pCi/kg

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Fish Control Ludington Freshwater Drum(351798003) - FH	15-Jun-14	Cesium-137	2.55E+01	4.64E+00	3.56E+00	1.50E+02	5.07E+00	pCi/kg
Fish Control Ludington Freshwater Drum(362070003) - FH	23-Sep-14	Cesium-137	1.95E+01	8.07E+00	9.99E+00	1.50E+02	8.23E+00	pCi/kg
Fish Control Ludington Freshwater Drum(351798003) - FH	15-Jun-14	Cobalt-58	-1.96E+00	2.48E+00	3.93E+00	1.30E+02	2.64E+00	pCi/kg
Fish Control Ludington Freshwater Drum(362070003) - FH	23-Sep-14	Cobalt-58	-3.17E-01	1.21E+01	1.78E+01	1.30E+02	1.21E+01	pCi/kg
Fish Control Ludington Freshwater Drum(351798003) - FH	15-Jun-14	Cobalt-60	5.58E-01	2.37E+00	4.01E+00	1.30E+02	2.39E+00	pCi/kg
Fish Control Ludington Freshwater Drum(362070003) - FH	23-Sep-14	Cobalt-60	4.17E+00	6.39E+00	1.17E+01	1.30E+02	6.67E+00	pCi/kg
Fish Control Ludington Freshwater Drum(351798003) - FH	15-Jun-14	Iron-59	1.00E+01	8.34E+00	1.09E+01	2.60E+02	9.64E+00	pCi/kg
Fish Control Ludington Freshwater Drum(362070003) - FH	23-Sep-14	Iron-59	2.29E+01	3.73E+01	6.78E+01	2.60E+02	3.89E+01	pCi/kg
Fish Control Ludington Freshwater Drum(351798003) - FH	15-Jun-14	Manganese-54	3.27E-01	2.21E+00	3.67E+00	1.30E+02	2.21E+00	pCi/kg
Fish Control Ludington Freshwater Drum(362070003) - FH	23-Sep-14	Manganese-54	4.30E+00	6.58E+00	1.21E+01	1.30E+02	6.87E+00	pCi/kg
Fish Control Ludington Freshwater Drum(351798003) - FH	15-Jun-14	Potassium-40	2.24E+03	1.06E+02	4.18E+01	5.00E+02	2.18E+02	pCi/kg
Fish Control Ludington Freshwater Drum(362070003) - FH	23-Sep-14	Potassium-40	2.33E+03	2.32E+02	9.86E+01	5.00E+02	3.08E+02	pCi/kg
Fish Control Ludington Freshwater Drum(351798003) - FH	15-Jun-14	Zinc-65	1.90E+00	5.08E+00	8.75E+00	2.60E+02	5.16E+00	pCi/kg
Fish Control Ludington Freshwater Drum(362070003) - FH	23-Sep-14	Zinc-65	-5.25E+00	1.73E+01	2.34E+01	2.60E+02	1.75E+01	pCi/kg

Fish Control Ludington Smallmouth Bass
FH

Sample Name	Date Collected	Nuclide	Result	2 Sigma Uncert	MDC	LLD	2 Sigma TPU	Units
Fish Control Ludington Smallmouth Bass(362070001) - FH	30-Sep-14	Cesium-134	-3.26E-01	5.74E+00	9.73E+00	1.30E+02	5.75E+00	pCi/kg
Fish Control Ludington Smallmouth Bass(362070001) - FH	30-Sep-14	Cesium-137	1.49E+01	1.11E+01	9.98E+00	1.50E+02	1.12E+01	pCi/kg
Fish Control Ludington Smallmouth Bass(362070001) - FH	30-Sep-14	Cobalt-58	-1.27E+00	9.13E+00	1.53E+01	1.30E+02	9.15E+00	pCi/kg
Fish Control Ludington Smallmouth Bass(362070001) - FH	30-Sep-14	Cobalt-60	1.90E+00	5.66E+00	1.02E+01	1.30E+02	5.73E+00	pCi/kg
Fish Control Ludington Smallmouth Bass(362070001) - FH	30-Sep-14	Iron-59	9.41E+00	3.39E+01	5.85E+01	2.60E+02	3.42E+01	pCi/kg
Fish Control Ludington Smallmouth Bass(362070001) - FH	30-Sep-14	Manganese-54	-2.28E+00	5.81E+00	9.38E+00	1.30E+02	5.90E+00	pCi/kg
Fish Control Ludington Smallmouth Bass(362070001) - FH	30-Sep-14	Potassium-40	2.33E+03	2.25E+02	6.84E+01	5.00E+02	3.01E+02	pCi/kg
Fish Control Ludington Smallmouth Bass(362070001) - FH	30-Sep-14	Zinc-65	-1.35E+00	1.63E+01	2.67E+01	2.60E+02	1.63E+01	pCi/kg

Fish Control Suckers
FH

Sample Name	Date Collected	Nuclide	Result	2 Sigma Uncert	MDC	LLD	2 Sigma TPU	Units
Fish Control Suckers(362070004) - FH	23-Sep-14	Cesium-134	4.81E+00	4.40E+00	8.79E+00	1.30E+02	4.93E+00	pCi/kg
Fish Control Suckers(362070004) - FH	23-Sep-14	Cesium-137	4.45E+00	6.73E+00	6.64E+00	1.50E+02	6.74E+00	pCi/kg
Fish Control Suckers(362070004) - FH	23-Sep-14	Cobalt-58	1.10E+00	1.08E+01	1.59E+01	1.30E+02	1.08E+01	pCi/kg
Fish Control Suckers(362070004) - FH	23-Sep-14	Cobalt-60	-2.57E+00	4.94E+00	7.62E+00	1.30E+02	5.07E+00	pCi/kg
Fish Control Suckers(362070004) - FH	23-Sep-14	Iron-59	-1.31E+01	3.02E+01	4.89E+01	2.60E+02	3.08E+01	pCi/kg
Fish Control Suckers(362070004) - FH	23-Sep-14	Manganese-54	-2.87E+00	5.50E+00	8.63E+00	1.30E+02	5.65E+00	pCi/kg
Fish Control Suckers(362070004) - FH	23-Sep-14	Potassium-40	2.71E+03	2.11E+02	5.62E+01	5.00E+02	3.18E+02	pCi/kg
Fish Control Suckers(362070004) - FH	23-Sep-14	Zinc-65	-8.37E+00	1.45E+01	2.33E+01	2.60E+02	1.51E+01	pCi/kg

Fish FSH1 Control Ludington Lake Trout
FH

Sample Name	Date Collected	Nuclide	Result	2 Sigma Uncert	MDC	LLD	2 Sigma TPU	Units
Fish FSH1 Control Ludington Lake Trout(362070002) - FH	23-Sep-14	Cesium-134	2.47E+00	6.96E+00	1.25E+01	1.30E+02	7.06E+00	pCi/kg
Fish FSH1 Control Ludington Lake Trout(362070002) - FH	23-Sep-14	Cesium-137	5.38E+00	7.98E+00	1.41E+01	1.50E+02	8.35E+00	pCi/kg
Fish FSH1 Control Ludington Lake Trout(362070002) - FH	23-Sep-14	Cobalt-58	-5.42E-01	1.28E+01	2.17E+01	1.30E+02	1.28E+01	pCi/kg

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Fish FSH1 Control Ludington Lake Trout(362070002) - FH	23-Sep-14	Cobalt-60	3.70E+00	7.33E+00	1.36E+01	1.30E+02	7.53E+00	pCi/kg
Fish FSH1 Control Ludington Lake Trout(362070002) - FH	23-Sep-14	Iron-59	4.78E+01	5.09E+01	9.56E+01	2.60E+02	5.58E+01	pCi/kg
Fish FSH1 Control Ludington Lake Trout(362070002) - FH	23-Sep-14	Manganese-54	-4.68E+00	6.69E+00	1.00E+01	1.30E+02	7.03E+00	pCi/kg
Fish FSH1 Control Ludington Lake Trout(362070002) - FH	23-Sep-14	Potassium-40	2.13E+03	2.77E+02	1.09E+02	5.00E+02	3.34E+02	pCi/kg
Fish FSH1 Control Ludington Lake Trout(362070002) - FH	23-Sep-14	Zinc-65	-1.07E+01	1.89E+01	2.81E+01	2.60E+02	1.95E+01	pCi/kg

Fish FSH1 Indicator Freshwater Drum
FH

Sample Name	Date Collected	Nuclide	Result	2 Sigma Uncert	MDC	LLD	2 Sigma TPU	Units
Fish FSH1 Indicator Freshwater Drum(351798001) - FH	21-May-14	Cesium-134	1.91E+00	2.23E+00	3.93E+00	1.30E+02	2.40E+00	pCi/kg
Fish FSH1 Indicator Freshwater Drum(351798001) - FH	21-May-14	Cesium-137	7.63E+00	3.20E+00	3.52E+00	1.50E+02	3.26E+00	pCi/kg
Fish FSH1 Indicator Freshwater Drum(351798001) - FH	21-May-14	Cobalt-58	1.70E+00	2.88E+00	5.00E+00	1.30E+02	2.99E+00	pCi/kg
Fish FSH1 Indicator Freshwater Drum(351798001) - FH	21-May-14	Cobalt-60	-6.70E-01	2.15E+00	3.59E+00	1.30E+02	2.18E+00	pCi/kg
Fish FSH1 Indicator Freshwater Drum(351798001) - FH	21-May-14	Iron-59	-1.62E-01	8.95E+00	1.48E+01	2.60E+02	8.95E+00	pCi/kg
Fish FSH1 Indicator Freshwater Drum(351798001) - FH	21-May-14	Manganese-54	-2.37E-01	2.09E+00	3.49E+00	1.30E+02	2.09E+00	pCi/kg
Fish FSH1 Indicator Freshwater Drum(351798001) - FH	21-May-14	Potassium-40	2.63E+03	1.04E+02	2.90E+01	5.00E+02	2.51E+02	pCi/kg
Fish FSH1 Indicator Freshwater Drum(351798001) - FH	21-May-14	Zinc-65	-5.86E-01	5.72E+00	9.37E+00	2.60E+02	5.73E+00	pCi/kg

Fish Ludington Carp
FH

Sample Name	Date Collected	Nuclide	Result	2 Sigma Uncert	MDC	LLD	2 Sigma TPU	Units
Fish Ludington Carp(351798004) - FH	30-May-14	Cesium-134	5.05E-01	2.40E+00	4.16E+00	1.30E+02	2.41E+00	pCi/kg
Fish Ludington Carp(351798004) - FH	30-May-14	Cesium-137	5.44E+00	3.48E+00	3.74E+00	1.50E+02	3.50E+00	pCi/kg
Fish Ludington Carp(351798004) - FH	30-May-14	Cobalt-58	-2.08E+00	3.35E+00	5.27E+00	1.30E+02	3.48E+00	pCi/kg
Fish Ludington Carp(351798004) - FH	30-May-14	Cobalt-60	-7.23E-01	2.68E+00	4.37E+00	1.30E+02	2.70E+00	pCi/kg
Fish Ludington Carp(351798004) - FH	30-May-14	Iron-59	9.99E-01	8.73E+00	1.48E+01	2.60E+02	8.75E+00	pCi/kg
Fish Ludington Carp(351798004) - FH	30-May-14	Manganese-54	-5.77E-01	2.42E+00	4.09E+00	1.30E+02	2.43E+00	pCi/kg
Fish Ludington Carp(351798004) - FH	30-May-14	Potassium-40	2.87E+03	1.04E+02	3.19E+01	5.00E+02	2.72E+02	pCi/kg
Fish Ludington Carp(351798004) - FH	30-May-14	Zinc-65	-3.06E+00	6.09E+00	9.97E+00	2.60E+02	6.26E+00	pCi/kg

Fish Palisades Bass
FH

Sample Name	Date Collected	Nuclide	Result	2 Sigma Uncert	MDC	LLD	2 Sigma TPU	Units
Fish Palisades Bass(359823003) - FH	9-Sep-14	Cesium-134	1.39E+00	4.67E+00	8.17E+00	1.30E+02	4.71E+00	pCi/kg
Fish Palisades Bass(359823002) - FH	9-Sep-14	Cesium-134	7.23E+00	7.64E+00	1.45E+01	1.30E+02	8.33E+00	pCi/kg
Fish Palisades Bass(359823003) - FH	9-Sep-14	Cesium-137	6.90E+00	8.77E+00	6.90E+00	1.50E+02	8.81E+00	pCi/kg
Fish Palisades Bass(359823002) - FH	9-Sep-14	Cesium-137	1.04E+01	1.28E+01	1.04E+01	1.50E+02	1.29E+01	pCi/kg
Fish Palisades Bass(359823003) - FH	9-Sep-14	Cobalt-58	-1.06E+00	7.63E+00	1.26E+01	1.30E+02	7.65E+00	pCi/kg
Fish Palisades Bass(359823002) - FH	9-Sep-14	Cobalt-58	4.74E-01	1.03E+01	1.76E+01	1.30E+02	1.03E+01	pCi/kg
Fish Palisades Bass(359823003) - FH	9-Sep-14	Cobalt-60	1.21E+00	4.99E+00	8.82E+00	1.30E+02	5.03E+00	pCi/kg
Fish Palisades Bass(359823002) - FH	9-Sep-14	Cobalt-60	-3.38E+00	5.87E+00	8.64E+00	1.30E+02	6.07E+00	pCi/kg
Fish Palisades Bass(359823003) - FH	9-Sep-14	Iron-59	-2.41E+00	2.30E+01	3.73E+01	2.60E+02	2.31E+01	pCi/kg
Fish Palisades Bass(359823002) - FH	9-Sep-14	Iron-59	2.15E+01	3.09E+01	5.65E+01	2.60E+02	3.26E+01	pCi/kg
Fish Palisades Bass(359823003) - FH	9-Sep-14	Manganese-54	-1.16E+00	5.40E+00	8.45E+00	1.30E+02	5.43E+00	pCi/kg
Fish Palisades Bass(359823002) - FH	9-Sep-14	Manganese-54	-1.84E+00	7.11E+00	1.16E+01	1.30E+02	7.16E+00	pCi/kg

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Fish Palisades Bass(359823003) - FH	9-Sep-14	Potassium-40	2.88E+03	2.40E+02	7.40E+01	5.00E+02	3.43E+02	pCi/kg
Fish Palisades Bass(359823002) - FH	9-Sep-14	Potassium-40	2.50E+03	2.81E+02	1.24E+02	5.00E+02	3.56E+02	pCi/kg
Fish Palisades Bass(359823003) - FH	9-Sep-14	Zinc-65	3.36E+00	1.31E+01	2.05E+01	2.60E+02	1.32E+01	pCi/kg
Fish Palisades Bass(359823002) - FH	9-Sep-14	Zinc-65	-6.26E+00	1.80E+01	2.81E+01	2.60E+02	1.82E+01	pCi/kg

Fish Palisades Suckers
FH

Sample Name	Date Collected	Nuclide	Result	2 Sigma Uncert	MDC	LLD	2 Sigma TPU	Units
Fish Palisades Suckers(359823001) - FH	9-Sep-14	Cesium-134	-1.91E+00	5.66E+00	9.08E+00	1.30E+02	5.73E+00	pCi/kg
Fish Palisades Suckers(359823001) - FH	9-Sep-14	Cesium-137	8.40E+00	6.54E+00	8.44E+00	1.50E+02	6.57E+00	pCi/kg
Fish Palisades Suckers(359823001) - FH	9-Sep-14	Cobalt-58	-5.87E-01	7.12E+00	1.18E+01	1.30E+02	7.12E+00	pCi/kg
Fish Palisades Suckers(359823001) - FH	9-Sep-14	Cobalt-60	-3.39E+00	5.58E+00	8.51E+00	1.30E+02	5.79E+00	pCi/kg
Fish Palisades Suckers(359823001) - FH	9-Sep-14	Iron-59	3.55E+00	2.06E+01	3.48E+01	2.60E+02	2.07E+01	pCi/kg
Fish Palisades Suckers(359823001) - FH	9-Sep-14	Manganese-54	-2.18E+00	5.53E+00	8.42E+00	1.30E+02	5.62E+00	pCi/kg
Fish Palisades Suckers(359823001) - FH	9-Sep-14	Potassium-40	2.80E+03	2.41E+02	8.14E+01	5.00E+02	3.39E+02	pCi/kg
Fish Palisades Suckers(359823001) - FH	9-Sep-14	Zinc-65	1.55E+00	1.71E+01	2.46E+01	2.60E+02	1.71E+01	pCi/kg

Fish Palisades White Sucker
FH

Sample Name	Date Collected	Nuclide	Result	2 Sigma Uncert	MDC	LLD	2 Sigma TPU	Units
Fish Palisades White Sucker(351798002) - FH	21-May-14	Cesium-134	-8.81E-01	2.29E+00	3.85E+00	1.30E+02	2.33E+00	pCi/kg
Fish Palisades White Sucker(351798002) - FH	21-May-14	Cesium-137	9.90E-01	5.15E+00	3.07E+00	1.50E+02	5.15E+00	pCi/kg
Fish Palisades White Sucker(351798002) - FH	21-May-14	Cobalt-58	6.86E-01	3.13E+00	5.42E+00	1.30E+02	3.15E+00	pCi/kg
Fish Palisades White Sucker(351798002) - FH	21-May-14	Cobalt-60	-2.15E+00	2.44E+00	3.81E+00	1.30E+02	2.63E+00	pCi/kg
Fish Palisades White Sucker(351798002) - FH	21-May-14	Iron-59	-1.85E+00	1.02E+01	1.71E+01	2.60E+02	1.03E+01	pCi/kg
Fish Palisades White Sucker(351798002) - FH	21-May-14	Manganese-54	1.01E+00	2.24E+00	3.91E+00	1.30E+02	2.29E+00	pCi/kg
Fish Palisades White Sucker(351798002) - FH	21-May-14	Potassium-40	3.18E+03	1.11E+02	3.45E+01	5.00E+02	2.99E+02	pCi/kg
Fish Palisades White Sucker(351798002) - FH	21-May-14	Zinc-65	-2.71E+00	6.26E+00	1.03E+01	2.60E+02	6.39E+00	pCi/kg

Lake In - LKIN
SW

Sample Name	Date Collected	Nuclide	Result	2 Sigma Uncert	MDC	LLD	2 Sigma TPU	Units
Lake In - LKIN(343105001) - SW	15-Jan-14	BETA	2.11E+00	1.74E+00	2.29E+00	4.00E+00	1.77E+00	pCi/L
Lake In - LKIN(344196001) - SW	14-Feb-14	BETA	9.44E-01	8.80E-01	1.38E+00	4.00E+00	9.12E-01	pCi/L
Lake In - LKIN(346233001) - SW	15-Mar-14	BETA	1.33E+00	2.12E+00	3.24E+00	4.00E+00	2.13E+00	pCi/L
Lake In - LKIN(348503001) - SW	15-Apr-14	BETA	1.83E+00	2.27E+00	3.55E+00	4.00E+00	2.29E+00	pCi/L
Lake In - LKIN(350372001) - SW	15-May-14	BETA	-7.78E-01	1.78E+00	3.04E+00	4.00E+00	1.78E+00	pCi/L
Lake In - LKIN(352249005) - SW	15-Jun-14	BETA	2.44E+00	1.72E+00	2.82E+00	4.00E+00	1.72E+00	pCi/L
Lake In - LKIN(354946001) - SW	15-Jul-14	BETA	-1.68E-01	1.96E+00	3.32E+00	4.00E+00	1.96E+00	pCi/L
Lake In - LKIN(356925001) - SW	15-Aug-14	BETA	2.27E+00	1.84E+00	2.40E+00	4.00E+00	1.88E+00	pCi/L
Lake In - LKIN(358777001) - SW	15-Sep-14	BETA	1.48E+00	2.10E+00	3.17E+00	4.00E+00	2.12E+00	pCi/L
Lake In - LKIN(360827001) - SW	15-Oct-14	BETA	1.85E+00	2.04E+00	2.96E+00	4.00E+00	2.06E+00	pCi/L
Lake In - LKIN(362508001) - SW	15-Nov-14	BETA	2.45E+00	2.08E+00	2.89E+00	4.00E+00	2.12E+00	pCi/L
Lake In - LKIN(343105001) - SW	15-Jan-14	Barium-140	1.86E+00	7.50E+00	1.29E+01	1.50E+01	7.55E+00	pCi/L
Lake In - LKIN(344196001) - SW	14-Feb-14	Barium-140	9.48E-02	3.53E+00	5.88E+00	1.50E+01	3.53E+00	pCi/L

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Lake In - LKIN(346233001) - SW	15-Mar-14	Barium-140	-5.76E+00	4.69E+00	7.03E+00	1.50E+01	5.38E+00	pCi/L
Lake In - LKIN(348503001) - SW	15-Apr-14	Barium-140	2.57E+00	6.01E+00	1.05E+01	1.50E+01	6.13E+00	pCi/L
Lake In - LKIN(350372001) - SW	15-May-14	Barium-140	1.79E+00	7.35E+00	1.12E+01	1.50E+01	7.39E+00	pCi/L
Lake In - LKIN(352249005) - SW	15-Jun-14	Barium-140	-3.77E+00	6.49E+00	1.03E+01	1.50E+01	6.72E+00	pCi/L
Lake In - LKIN(354946001) - SW	15-Jul-14	Barium-140	1.43E-01	6.89E+00	1.14E+01	1.50E+01	6.89E+00	pCi/L
Lake In - LKIN(356925001) - SW	15-Aug-14	Barium-140	-4.06E+00	5.82E+00	9.11E+00	1.50E+01	6.10E+00	pCi/L
Lake In - LKIN(358777001) - SW	15-Sep-14	Barium-140	-3.13E+00	5.68E+00	9.04E+00	1.50E+01	5.86E+00	pCi/L
Lake In - LKIN(360827001) - SW	15-Oct-14	Barium-140	8.83E-01	4.99E+00	8.48E+00	1.50E+01	5.01E+00	pCi/L
Lake In - LKIN(362508001) - SW	15-Nov-14	Barium-140	6.09E+00	6.08E+00	1.21E+01	1.50E+01	6.69E+00	pCi/L
Lake In - LKIN(343105001) - SW	15-Jan-14	Cesium-134	-8.32E-03	9.47E-01	1.61E+00	1.50E+01	9.47E-01	pCi/L
Lake In - LKIN(344196001) - SW	14-Feb-14	Cesium-134	-1.20E+00	1.43E+00	1.49E+00	1.50E+01	1.54E+00	pCi/L
Lake In - LKIN(346233001) - SW	15-Mar-14	Cesium-134	-1.70E-01	1.00E+00	1.68E+00	1.50E+01	1.00E+00	pCi/L
Lake In - LKIN(348503001) - SW	15-Apr-14	Cesium-134	3.67E-01	1.36E+00	2.04E+00	1.50E+01	1.37E+00	pCi/L
Lake In - LKIN(350372001) - SW	15-May-14	Cesium-134	-1.36E-01	1.29E+00	2.12E+00	1.50E+01	1.29E+00	pCi/L
Lake In - LKIN(352249005) - SW	15-Jun-14	Cesium-134	1.86E+00	2.13E+00	1.86E+00	1.50E+01	2.30E+00	pCi/L
Lake In - LKIN(354946001) - SW	15-Jul-14	Cesium-134	-5.72E-01	1.38E+00	1.60E+00	1.50E+01	1.41E+00	pCi/L
Lake In - LKIN(356925001) - SW	15-Aug-14	Cesium-134	4.78E-02	9.46E-01	1.57E+00	1.50E+01	9.46E-01	pCi/L
Lake In - LKIN(358777001) - SW	15-Sep-14	Cesium-134	-2.47E-01	1.07E+00	1.77E+00	1.50E+01	1.07E+00	pCi/L
Lake In - LKIN(360827001) - SW	15-Oct-14	Cesium-134	3.53E-01	1.16E+00	2.01E+00	1.50E+01	1.17E+00	pCi/L
Lake In - LKIN(362508001) - SW	15-Nov-14	Cesium-134	1.09E+00	1.75E+00	3.18E+00	1.50E+01	1.82E+00	pCi/L
Lake In - LKIN(343105001) - SW	15-Jan-14	Cesium-137	9.27E-01	1.54E+00	1.64E+00	1.80E+01	1.60E+00	pCi/L
Lake In - LKIN(344196001) - SW	14-Feb-14	Cesium-137	2.96E-01	8.29E-01	1.43E+00	1.80E+01	8.40E-01	pCi/L
Lake In - LKIN(346233001) - SW	15-Mar-14	Cesium-137	9.85E-01	1.06E+00	1.70E+00	1.80E+01	1.15E+00	pCi/L
Lake In - LKIN(348503001) - SW	15-Apr-14	Cesium-137	-1.52E+00	1.83E+00	1.94E+00	1.80E+01	1.96E+00	pCi/L
Lake In - LKIN(350372001) - SW	15-May-14	Cesium-137	1.93E-01	2.43E+00	1.95E+00	1.80E+01	2.43E+00	pCi/L
Lake In - LKIN(352249005) - SW	15-Jun-14	Cesium-137	1.04E+00	8.54E-01	1.71E+00	1.80E+01	8.58E-01	pCi/L
Lake In - LKIN(354946001) - SW	15-Jul-14	Cesium-137	-8.39E-01	8.06E-01	1.30E+00	1.80E+01	8.93E-01	pCi/L
Lake In - LKIN(356925001) - SW	15-Aug-14	Cesium-137	4.66E-01	9.05E-01	1.55E+00	1.80E+01	9.30E-01	pCi/L
Lake In - LKIN(358777001) - SW	15-Sep-14	Cesium-137	-4.28E-01	1.21E+00	1.75E+00	1.80E+01	1.23E+00	pCi/L
Lake In - LKIN(360827001) - SW	15-Oct-14	Cesium-137	1.91E+00	1.50E+00	1.96E+00	1.80E+01	1.51E+00	pCi/L
Lake In - LKIN(362508001) - SW	15-Nov-14	Cesium-137	1.07E+00	1.77E+00	3.22E+00	1.80E+01	1.84E+00	pCi/L
Lake In - LKIN(343105001) - SW	15-Jan-14	Cobalt-58	5.51E-01	1.22E+00	2.12E+00	1.50E+01	1.25E+00	pCi/L
Lake In - LKIN(344196001) - SW	14-Feb-14	Cobalt-58	6.38E-01	9.40E-01	1.63E+00	1.50E+01	9.85E-01	pCi/L
Lake In - LKIN(346233001) - SW	15-Mar-14	Cobalt-58	8.05E-01	1.07E+00	1.90E+00	1.50E+01	1.13E+00	pCi/L
Lake In - LKIN(348503001) - SW	15-Apr-14	Cobalt-58	-1.05E+00	1.50E+00	2.25E+00	1.50E+01	1.58E+00	pCi/L
Lake In - LKIN(350372001) - SW	15-May-14	Cobalt-58	-1.21E+00	1.54E+00	2.18E+00	1.50E+01	1.64E+00	pCi/L
Lake In - LKIN(352249005) - SW	15-Jun-14	Cobalt-58	-8.22E-01	1.33E+00	1.84E+00	1.50E+01	1.38E+00	pCi/L
Lake In - LKIN(354946001) - SW	15-Jul-14	Cobalt-58	2.95E+00	1.07E+00	1.78E+00	1.50E+01	1.07E+00	pCi/L
Lake In - LKIN(356925001) - SW	15-Aug-14	Cobalt-58	-6.06E-01	1.10E+00	1.77E+00	1.50E+01	1.13E+00	pCi/L
Lake In - LKIN(358777001) - SW	15-Sep-14	Cobalt-58	-4.75E-01	1.23E+00	2.02E+00	1.50E+01	1.25E+00	pCi/L
Lake In - LKIN(360827001) - SW	15-Oct-14	Cobalt-58	-1.02E+00	1.31E+00	2.13E+00	1.50E+01	1.39E+00	pCi/L
Lake In - LKIN(362508001) - SW	15-Nov-14	Cobalt-58	7.65E-01	1.77E+00	3.16E+00	1.50E+01	1.80E+00	pCi/L
Lake In - LKIN(343105001) - SW	15-Jan-14	Cobalt-60	3.22E-01	1.05E+00	1.83E+00	1.50E+01	1.06E+00	pCi/L
Lake In - LKIN(344196001) - SW	14-Feb-14	Cobalt-60	3.01E-01	1.25E+00	1.69E+00	1.50E+01	1.26E+00	pCi/L
Lake In - LKIN(346233001) - SW	15-Mar-14	Cobalt-60	4.15E-01	1.13E+00	1.73E+00	1.50E+01	1.14E+00	pCi/L

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Lake In - LKIN(348503001) - SW	15-Apr-14	Cobalt-60	-2.38E-01	2.13E+00	2.10E+00	1.50E+01	2.13E+00	pCi/L
Lake In - LKIN(350372001) - SW	15-May-14	Cobalt-60	2.82E-01	1.33E+00	2.27E+00	1.50E+01	1.34E+00	pCi/L
Lake In - LKIN(352249005) - SW	15-Jun-14	Cobalt-60	1.46E+00	1.68E+00	1.80E+00	1.50E+01	1.81E+00	pCi/L
Lake In - LKIN(354946001) - SW	15-Jul-14	Cobalt-60	4.03E-01	9.33E-01	1.46E+00	1.50E+01	9.51E-01	pCi/L
Lake In - LKIN(356925001) - SW	15-Aug-14	Cobalt-60	-1.44E+00	1.33E+00	1.52E+00	1.50E+01	1.49E+00	pCi/L
Lake In - LKIN(358777001) - SW	15-Sep-14	Cobalt-60	1.91E-01	1.01E+00	1.73E+00	1.50E+01	1.02E+00	pCi/L
Lake In - LKIN(360827001) - SW	15-Oct-14	Cobalt-60	-1.96E-01	1.11E+00	1.86E+00	1.50E+01	1.11E+00	pCi/L
Lake In - LKIN(362508001) - SW	15-Nov-14	Cobalt-60	2.44E-01	1.85E+00	3.22E+00	1.50E+01	1.85E+00	pCi/L
Lake In - LKIN(343105001) - SW	15-Jan-14	Iron-59	7.01E-01	3.29E+00	5.53E+00	3.00E+01	3.30E+00	pCi/L
Lake In - LKIN(344196001) - SW	14-Feb-14	Iron-59	-6.45E-01	2.38E+00	3.44E+00	3.00E+01	2.40E+00	pCi/L
Lake In - LKIN(346233001) - SW	15-Mar-14	Iron-59	1.73E+00	2.74E+00	4.75E+00	3.00E+01	2.86E+00	pCi/L
Lake In - LKIN(348503001) - SW	15-Apr-14	Iron-59	-4.21E-01	3.28E+00	5.41E+00	3.00E+01	3.29E+00	pCi/L
Lake In - LKIN(350372001) - SW	15-May-14	Iron-59	-1.94E+00	3.68E+00	5.94E+00	3.00E+01	3.80E+00	pCi/L
Lake In - LKIN(352249005) - SW	15-Jun-14	Iron-59	2.97E-02	2.92E+00	4.86E+00	3.00E+01	2.92E+00	pCi/L
Lake In - LKIN(354946001) - SW	15-Jul-14	Iron-59	1.24E+00	2.66E+00	4.65E+00	3.00E+01	2.73E+00	pCi/L
Lake In - LKIN(356925001) - SW	15-Aug-14	Iron-59	1.45E+00	2.43E+00	4.28E+00	3.00E+01	2.53E+00	pCi/L
Lake In - LKIN(358777001) - SW	15-Sep-14	Iron-59	-1.02E+00	2.46E+00	4.12E+00	3.00E+01	2.51E+00	pCi/L
Lake In - LKIN(360827001) - SW	15-Oct-14	Iron-59	-1.91E-01	2.81E+00	4.65E+00	3.00E+01	2.81E+00	pCi/L
Lake In - LKIN(362508001) - SW	15-Nov-14	Iron-59	-2.59E+00	4.16E+00	6.22E+00	3.00E+01	4.34E+00	pCi/L
Lake In - LKIN(343105001) - SW	15-Jan-14	Lanthanum-140	1.86E+00	7.50E+00	1.29E+01	1.50E+01	7.55E+00	pCi/L
Lake In - LKIN(344196001) - SW	14-Feb-14	Lanthanum-140	9.48E-02	3.53E+00	5.88E+00	1.50E+01	3.53E+00	pCi/L
Lake In - LKIN(346233001) - SW	15-Mar-14	Lanthanum-140	-5.76E+00	4.69E+00	7.03E+00	1.50E+01	5.38E+00	pCi/L
Lake In - LKIN(348503001) - SW	15-Apr-14	Lanthanum-140	2.57E+00	6.01E+00	1.05E+01	1.50E+01	6.13E+00	pCi/L
Lake In - LKIN(350372001) - SW	15-May-14	Lanthanum-140	1.79E+00	7.35E+00	1.12E+01	1.50E+01	7.39E+00	pCi/L
Lake In - LKIN(352249005) - SW	15-Jun-14	Lanthanum-140	-3.77E+00	6.49E+00	1.03E+01	1.50E+01	6.72E+00	pCi/L
Lake In - LKIN(354946001) - SW	15-Jul-14	Lanthanum-140	1.43E-01	6.89E+00	1.14E+01	1.50E+01	6.89E+00	pCi/L
Lake In - LKIN(356925001) - SW	15-Aug-14	Lanthanum-140	-4.06E+00	5.82E+00	9.11E+00	1.50E+01	6.10E+00	pCi/L
Lake In - LKIN(358777001) - SW	15-Sep-14	Lanthanum-140	-3.13E+00	5.68E+00	9.04E+00	1.50E+01	5.86E+00	pCi/L
Lake In - LKIN(360827001) - SW	15-Oct-14	Lanthanum-140	8.83E-01	4.99E+00	8.48E+00	1.50E+01	5.01E+00	pCi/L
Lake In - LKIN(362508001) - SW	15-Nov-14	Lanthanum-140	6.09E+00	6.08E+00	1.21E+01	1.50E+01	6.69E+00	pCi/L
Lake In - LKIN(343105001) - SW	15-Jan-14	Manganese-54	-7.28E-01	9.73E-01	1.57E+00	1.50E+01	1.03E+00	pCi/L
Lake In - LKIN(344196001) - SW	14-Feb-14	Manganese-54	-6.45E-01	8.51E-01	1.37E+00	1.50E+01	9.01E-01	pCi/L
Lake In - LKIN(346233001) - SW	15-Mar-14	Manganese-54	2.68E-01	1.01E+00	1.52E+00	1.50E+01	1.02E+00	pCi/L
Lake In - LKIN(348503001) - SW	15-Apr-14	Manganese-54	-1.98E-01	1.13E+00	1.89E+00	1.50E+01	1.13E+00	pCi/L
Lake In - LKIN(350372001) - SW	15-May-14	Manganese-54	6.61E-01	1.24E+00	2.14E+00	1.50E+01	1.27E+00	pCi/L
Lake In - LKIN(352249005) - SW	15-Jun-14	Manganese-54	-2.38E-01	9.74E-01	1.64E+00	1.50E+01	9.81E-01	pCi/L
Lake In - LKIN(354946001) - SW	15-Jul-14	Manganese-54	-1.02E+00	8.49E-01	1.33E+00	1.50E+01	9.72E-01	pCi/L
Lake In - LKIN(356925001) - SW	15-Aug-14	Manganese-54	-6.49E-02	8.47E-01	1.39E+00	1.50E+01	8.48E-01	pCi/L
Lake In - LKIN(358777001) - SW	15-Sep-14	Manganese-54	-6.95E-01	9.60E-01	1.54E+00	1.50E+01	1.01E+00	pCi/L
Lake In - LKIN(360827001) - SW	15-Oct-14	Manganese-54	-2.93E-02	1.09E+00	1.85E+00	1.50E+01	1.09E+00	pCi/L
Lake In - LKIN(362508001) - SW	15-Nov-14	Manganese-54	-1.15E+00	1.57E+00	2.40E+00	1.50E+01	1.66E+00	pCi/L
Lake In - LKIN(343105001) - SW	15-Jan-14	Niobium-95	7.97E-02	2.25E+00	2.40E+00	1.50E+01	2.25E+00	pCi/L
Lake In - LKIN(344196001) - SW	14-Feb-14	Niobium-95	1.04E+00	1.16E+00	1.79E+00	1.50E+01	1.25E+00	pCi/L
Lake In - LKIN(346233001) - SW	15-Mar-14	Niobium-95	-2.97E-01	1.19E+00	2.00E+00	1.50E+01	1.20E+00	pCi/L
Lake In - LKIN(348503001) - SW	15-Apr-14	Niobium-95	-3.28E-01	1.73E+00	2.52E+00	1.50E+01	1.74E+00	pCi/L

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Lake In - LKIN(350372001) - SW	15-May-14	Niobium-95	8.18E-01	1.59E+00	2.75E+00	1.50E+01	1.63E+00	pCi/L
Lake In - LKIN(352249005) - SW	15-Jun-14	Niobium-95	7.35E-02	1.31E+00	2.25E+00	1.50E+01	1.31E+00	pCi/L
Lake In - LKIN(354946001) - SW	15-Jul-14	Niobium-95	1.39E+00	1.13E+00	2.00E+00	1.50E+01	1.30E+00	pCi/L
Lake In - LKIN(356925001) - SW	15-Aug-14	Niobium-95	4.40E-01	1.12E+00	1.90E+00	1.50E+01	1.14E+00	pCi/L
Lake In - LKIN(358777001) - SW	15-Sep-14	Niobium-95	1.60E+00	1.20E+00	2.14E+00	1.50E+01	1.40E+00	pCi/L
Lake In - LKIN(360827001) - SW	15-Oct-14	Niobium-95	1.14E+00	1.30E+00	2.34E+00	1.50E+01	1.41E+00	pCi/L
Lake In - LKIN(362508001) - SW	15-Nov-14	Niobium-95	1.89E-01	2.21E+00	3.31E+00	1.50E+01	2.21E+00	pCi/L
Lake In - LKIN(343105001) - SW	15-Jan-14	Tritium	-1.78E+02	2.63E+02	4.65E+02	2.00E+03	2.63E+02	pCi/L
Lake In - LKIN(344196001) - SW	14-Feb-14	Tritium	-1.24E+02	2.94E+02	5.10E+02	2.00E+03	2.94E+02	pCi/L
Lake In - LKIN(346233001) - SW	15-Mar-14	Tritium	-2.25E+02	2.74E+02	4.86E+02	2.00E+03	2.74E+02	pCi/L
Lake In - LKIN(348503001) - SW	15-Apr-14	Tritium	-5.62E+01	2.59E+02	4.42E+02	2.00E+03	2.59E+02	pCi/L
Lake In - LKIN(350372001) - SW	15-May-14	Tritium	9.01E+01	2.77E+02	4.53E+02	2.00E+03	2.78E+02	pCi/L
Lake In - LKIN(352249005) - SW	15-Jun-14	Tritium	3.29E+01	2.61E+02	4.31E+02	2.00E+03	2.61E+02	pCi/L
Lake In - LKIN(354946001) - SW	15-Jul-14	Tritium	-4.40E+01	3.27E+02	5.55E+02	2.00E+03	3.27E+02	pCi/L
Lake In - LKIN(356925001) - SW	15-Aug-14	Tritium	5.22E+01	3.19E+02	5.27E+02	2.00E+03	3.19E+02	pCi/L
Lake In - LKIN(358777001) - SW	15-Sep-14	Tritium	-1.62E+02	3.44E+02	6.01E+02	2.00E+03	3.44E+02	pCi/L
Lake In - LKIN(360827001) - SW	15-Oct-14	Tritium	1.12E+02	3.36E+02	5.46E+02	2.00E+03	3.37E+02	pCi/L
Lake In - LKIN(362508001) - SW	15-Nov-14	Tritium	-7.96E+00	4.35E+02	7.31E+02	2.00E+03	4.35E+02	pCi/L
Lake In - LKIN(343105001) - SW	15-Jan-14	Zinc-65	9.27E-01	2.16E+00	3.69E+00	3.00E+01	2.20E+00	pCi/L
Lake In - LKIN(344196001) - SW	14-Feb-14	Zinc-65	-1.36E+00	1.85E+00	3.05E+00	3.00E+01	1.96E+00	pCi/L
Lake In - LKIN(346233001) - SW	15-Mar-14	Zinc-65	-1.11E+00	2.10E+00	3.33E+00	3.00E+01	2.16E+00	pCi/L
Lake In - LKIN(348503001) - SW	15-Apr-14	Zinc-65	-1.65E-01	2.45E+00	4.05E+00	3.00E+01	2.45E+00	pCi/L
Lake In - LKIN(350372001) - SW	15-May-14	Zinc-65	-8.55E-01	2.64E+00	4.33E+00	3.00E+01	2.67E+00	pCi/L
Lake In - LKIN(352249005) - SW	15-Jun-14	Zinc-65	-6.16E-01	2.16E+00	3.51E+00	3.00E+01	2.18E+00	pCi/L
Lake In - LKIN(354946001) - SW	15-Jul-14	Zinc-65	-7.38E-01	1.83E+00	3.05E+00	3.00E+01	1.86E+00	pCi/L
Lake In - LKIN(356925001) - SW	15-Aug-14	Zinc-65	-8.76E-01	1.93E+00	3.21E+00	3.00E+01	1.98E+00	pCi/L
Lake In - LKIN(358777001) - SW	15-Sep-14	Zinc-65	-6.53E-01	2.24E+00	3.23E+00	3.00E+01	2.27E+00	pCi/L
Lake In - LKIN(360827001) - SW	15-Oct-14	Zinc-65	-3.25E+00	2.52E+00	3.80E+00	3.00E+01	2.95E+00	pCi/L
Lake In - LKIN(362508001) - SW	15-Nov-14	Zinc-65	-3.99E+00	3.83E+00	5.34E+00	3.00E+01	4.27E+00	pCi/L

Ludington Control
SW

Sample Name	Date Collected	Nuclide	Result	2 Sigma Uncert	MDC	LLD	2 Sigma TPU	Units
Ludington Control(343105004) - SW	15-Jan-14	BETA	5.86E-01	1.79E+00	2.74E+00	4.00E+00	1.80E+00	pCi/L
Ludington Control(344270001) - SW	14-Feb-14	BETA	6.09E-01	1.95E+00	3.11E+00	4.00E+00	1.95E+00	pCi/L
Ludington Control(346233004) - SW	15-Mar-14	BETA	2.45E+00	2.04E+00	2.80E+00	4.00E+00	2.08E+00	pCi/L
Ludington Control(348503003) - SW	15-Apr-14	BETA	3.40E+00	2.35E+00	3.46E+00	4.00E+00	2.41E+00	pCi/L
Ludington Control(350372004) - SW	15-May-14	BETA	8.56E-02	2.20E+00	3.67E+00	4.00E+00	2.20E+00	pCi/L
Ludington Control(352249003) - SW	15-Jun-14	BETA	1.41E+00	1.87E+00	2.76E+00	4.00E+00	1.88E+00	pCi/L
Ludington Control(354946004) - SW	15-Jul-14	BETA	2.75E+00	2.09E+00	2.84E+00	4.00E+00	2.14E+00	pCi/L
Ludington Control(356925004) - SW	15-Aug-14	BETA	5.09E-01	1.72E+00	2.65E+00	4.00E+00	1.72E+00	pCi/L
Ludington Control(358777004) - SW	15-Sep-14	BETA	1.36E+00	1.80E+00	2.61E+00	4.00E+00	1.82E+00	pCi/L
Ludington Control(361054001) - SW	15-Oct-14	BETA	2.88E+00	2.20E+00	2.97E+00	4.00E+00	2.26E+00	pCi/L
Ludington Control(363123001) - SW	15-Nov-14	BETA	2.45E+00	2.33E+00	3.49E+00	4.00E+00	2.36E+00	pCi/L
Ludington Control(343105004) - SW	15-Jan-14	Barium-140	8.90E-01	9.27E+00	1.59E+01	1.50E+01	9.28E+00	pCi/L

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Ludington Control(344270001) - SW	14-Feb-14	Barium-140	2.19E+00	4.56E+00	6.78E+00	1.50E+01	4.67E+00	pCi/L
Ludington Control(346233004) - SW	15-Mar-14	Barium-140	-2.15E+00	7.19E+00	1.15E+01	1.50E+01	7.26E+00	pCi/L
Ludington Control(348503003) - SW	15-Apr-14	Barium-140	3.76E-01	6.84E+00	1.15E+01	1.50E+01	6.84E+00	pCi/L
Ludington Control(350372004) - SW	15-May-14	Barium-140	-4.82E+00	8.85E+00	1.39E+01	1.50E+01	9.12E+00	pCi/L
Ludington Control(352249003) - SW	15-Jun-14	Barium-140	-2.25E+00	8.28E+00	1.38E+01	1.50E+01	8.35E+00	pCi/L
Ludington Control(354946004) - SW	15-Jul-14	Barium-140	-6.75E-01	6.12E+00	1.03E+01	1.50E+01	6.13E+00	pCi/L
Ludington Control(356925004) - SW	15-Aug-14	Barium-140	-1.27E+00	8.26E+00	1.21E+01	1.50E+01	8.28E+00	pCi/L
Ludington Control(358777004) - SW	15-Sep-14	Barium-140	-2.17E+00	5.83E+00	9.44E+00	1.50E+01	5.92E+00	pCi/L
Ludington Control(361054001) - SW	15-Oct-14	Barium-140	1.84E+00	4.64E+00	7.87E+00	1.50E+01	4.72E+00	pCi/L
Ludington Control(363123001) - SW	15-Nov-14	Barium-140	-5.90E-01	8.03E+00	1.35E+01	1.50E+01	8.04E+00	pCi/L
Ludington Control(343105004) - SW	15-Jan-14	Cesium-134	1.45E+00	1.96E+00	1.98E+00	1.50E+01	2.07E+00	pCi/L
Ludington Control(344270001) - SW	14-Feb-14	Cesium-134	3.83E-01	9.34E-01	1.50E+00	1.50E+01	9.51E-01	pCi/L
Ludington Control(346233004) - SW	15-Mar-14	Cesium-134	-2.34E-01	1.58E+00	2.64E+00	1.50E+01	1.58E+00	pCi/L
Ludington Control(348503003) - SW	15-Apr-14	Cesium-134	-5.20E-01	1.27E+00	2.03E+00	1.50E+01	1.29E+00	pCi/L
Ludington Control(350372004) - SW	15-May-14	Cesium-134	-6.88E-01	1.90E+00	2.69E+00	1.50E+01	1.93E+00	pCi/L
Ludington Control(352249003) - SW	15-Jun-14	Cesium-134	-3.80E-01	1.38E+00	2.33E+00	1.50E+01	1.39E+00	pCi/L
Ludington Control(354946004) - SW	15-Jul-14	Cesium-134	1.51E+00	1.86E+00	1.51E+00	1.50E+01	2.01E+00	pCi/L
Ludington Control(356925004) - SW	15-Aug-14	Cesium-134	-4.92E-01	9.96E-01	1.63E+00	1.50E+01	1.02E+00	pCi/L
Ludington Control(358777004) - SW	15-Sep-14	Cesium-134	-2.85E-01	1.09E+00	1.82E+00	1.50E+01	1.10E+00	pCi/L
Ludington Control(361054001) - SW	15-Oct-14	Cesium-134	-2.05E-01	8.51E-01	1.45E+00	1.50E+01	8.56E-01	pCi/L
Ludington Control(363123001) - SW	15-Nov-14	Cesium-134	-3.29E-01	1.45E+00	2.12E+00	1.50E+01	1.45E+00	pCi/L
Ludington Control(343105004) - SW	15-Jan-14	Cesium-137	8.69E-01	2.05E+00	1.76E+00	1.80E+01	2.06E+00	pCi/L
Ludington Control(344270001) - SW	14-Feb-14	Cesium-137	3.64E-01	8.91E-01	1.49E+00	1.80E+01	9.06E-01	pCi/L
Ludington Control(346233004) - SW	15-Mar-14	Cesium-137	-7.94E-03	1.47E+00	2.52E+00	1.80E+01	1.47E+00	pCi/L
Ludington Control(348503003) - SW	15-Apr-14	Cesium-137	-1.38E+00	1.22E+00	1.88E+00	1.80E+01	1.37E+00	pCi/L
Ludington Control(350372004) - SW	15-May-14	Cesium-137	1.42E+00	1.58E+00	2.78E+00	1.80E+01	1.70E+00	pCi/L
Ludington Control(352249003) - SW	15-Jun-14	Cesium-137	5.14E-01	1.34E+00	2.26E+00	1.80E+01	1.36E+00	pCi/L
Ludington Control(354946004) - SW	15-Jul-14	Cesium-137	8.56E-01	1.94E+00	1.37E+00	1.80E+01	1.94E+00	pCi/L
Ludington Control(356925004) - SW	15-Aug-14	Cesium-137	-7.86E-01	9.10E-01	1.48E+00	1.80E+01	9.79E-01	pCi/L
Ludington Control(358777004) - SW	15-Sep-14	Cesium-137	5.79E-01	9.38E-01	1.67E+00	1.80E+01	9.75E-01	pCi/L
Ludington Control(361054001) - SW	15-Oct-14	Cesium-137	6.51E-01	9.03E-01	1.43E+00	1.80E+01	9.04E-01	pCi/L
Ludington Control(363123001) - SW	15-Nov-14	Cesium-137	2.90E-01	1.32E+00	2.06E+00	1.80E+01	1.33E+00	pCi/L
Ludington Control(343105004) - SW	15-Jan-14	Cobalt-58	-5.45E-01	1.37E+00	2.21E+00	1.50E+01	1.39E+00	pCi/L
Ludington Control(344270001) - SW	14-Feb-14	Cobalt-58	-9.84E-02	9.45E-01	1.61E+00	1.50E+01	9.46E-01	pCi/L
Ludington Control(346233004) - SW	15-Mar-14	Cobalt-58	6.17E-01	2.01E+00	3.10E+00	1.50E+01	2.03E+00	pCi/L
Ludington Control(348503003) - SW	15-Apr-14	Cobalt-58	-9.49E-01	1.97E+00	2.54E+00	1.50E+01	2.02E+00	pCi/L
Ludington Control(350372004) - SW	15-May-14	Cobalt-58	-1.22E+00	1.98E+00	2.68E+00	1.50E+01	2.05E+00	pCi/L
Ludington Control(352249003) - SW	15-Jun-14	Cobalt-58	4.99E-01	1.60E+00	2.78E+00	1.50E+01	1.62E+00	pCi/L
Ludington Control(354946004) - SW	15-Jul-14	Cobalt-58	-8.78E-01	1.20E+00	1.67E+00	1.50E+01	1.27E+00	pCi/L
Ludington Control(356925004) - SW	15-Aug-14	Cobalt-58	3.01E-01	1.18E+00	2.02E+00	1.50E+01	1.19E+00	pCi/L
Ludington Control(358777004) - SW	15-Sep-14	Cobalt-58	5.23E-01	1.20E+00	2.08E+00	1.50E+01	1.22E+00	pCi/L
Ludington Control(361054001) - SW	15-Oct-14	Cobalt-58	-8.31E-01	9.36E-01	1.53E+00	1.50E+01	1.01E+00	pCi/L
Ludington Control(363123001) - SW	15-Nov-14	Cobalt-58	-4.64E-01	1.44E+00	2.32E+00	1.50E+01	1.45E+00	pCi/L
Ludington Control(343105004) - SW	15-Jan-14	Cobalt-60	1.69E-01	1.19E+00	2.00E+00	1.50E+01	1.19E+00	pCi/L
Ludington Control(344270001) - SW	14-Feb-14	Cobalt-60	-5.63E-01	1.26E+00	1.53E+00	1.50E+01	1.29E+00	pCi/L

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Ludington Control(346233004) - SW	15-Mar-14	Cobalt-60	-4.10E-01	1.70E+00	2.81E+00	1.50E+01	1.71E+00	pCi/L
Ludington Control(348503003) - SW	15-Apr-14	Cobalt-60	1.27E+00	1.30E+00	2.34E+00	1.50E+01	1.42E+00	pCi/L
Ludington Control(350372004) - SW	15-May-14	Cobalt-60	5.32E-01	1.40E+00	2.48E+00	1.50E+01	1.43E+00	pCi/L
Ludington Control(352249003) - SW	15-Jun-14	Cobalt-60	9.89E-01	1.29E+00	2.26E+00	1.50E+01	1.36E+00	pCi/L
Ludington Control(354946004) - SW	15-Jul-14	Cobalt-60	5.18E-01	8.39E-01	1.45E+00	1.50E+01	8.72E-01	pCi/L
Ludington Control(356925004) - SW	15-Aug-14	Cobalt-60	1.65E+00	1.25E+00	2.03E+00	1.50E+01	1.45E+00	pCi/L
Ludington Control(358777004) - SW	15-Sep-14	Cobalt-60	-1.46E-01	1.04E+00	1.75E+00	1.50E+01	1.04E+00	pCi/L
Ludington Control(361054001) - SW	15-Oct-14	Cobalt-60	5.85E-01	8.61E-01	1.50E+00	1.50E+01	9.02E-01	pCi/L
Ludington Control(363123001) - SW	15-Nov-14	Cobalt-60	2.85E-01	1.40E+00	2.37E+00	1.50E+01	1.41E+00	pCi/L
Ludington Control(343105004) - SW	15-Jan-14	Iron-59	-1.79E+00	3.98E+00	5.55E+00	3.00E+01	4.07E+00	pCi/L
Ludington Control(344270001) - SW	14-Feb-14	Iron-59	7.25E-01	2.50E+00	3.73E+00	3.00E+01	2.52E+00	pCi/L
Ludington Control(346233004) - SW	15-Mar-14	Iron-59	-2.73E+00	5.20E+00	7.10E+00	3.00E+01	5.36E+00	pCi/L
Ludington Control(348503003) - SW	15-Apr-14	Iron-59	-5.09E+00	3.31E+00	5.01E+00	3.00E+01	4.09E+00	pCi/L
Ludington Control(350372004) - SW	15-May-14	Iron-59	-1.00E-01	4.40E+00	7.30E+00	3.00E+01	4.40E+00	pCi/L
Ludington Control(352249003) - SW	15-Jun-14	Iron-59	2.51E+00	3.68E+00	6.46E+00	3.00E+01	3.87E+00	pCi/L
Ludington Control(354946004) - SW	15-Jul-14	Iron-59	-4.87E-01	2.55E+00	4.20E+00	3.00E+01	2.56E+00	pCi/L
Ludington Control(356925004) - SW	15-Aug-14	Iron-59	9.95E-01	3.29E+00	4.85E+00	3.00E+01	3.33E+00	pCi/L
Ludington Control(358777004) - SW	15-Sep-14	Iron-59	2.07E+00	3.05E+00	5.32E+00	3.00E+01	3.21E+00	pCi/L
Ludington Control(361054001) - SW	15-Oct-14	Iron-59	-5.65E-01	2.26E+00	3.75E+00	3.00E+01	2.28E+00	pCi/L
Ludington Control(363123001) - SW	15-Nov-14	Iron-59	-1.17E+00	3.73E+00	6.14E+00	3.00E+01	3.77E+00	pCi/L
Ludington Control(343105004) - SW	15-Jan-14	Lanthanum-140	8.90E-01	9.27E+00	1.59E+01	1.50E+01	9.28E+00	pCi/L
Ludington Control(344270001) - SW	14-Feb-14	Lanthanum-140	2.19E+00	4.56E+00	6.78E+00	1.50E+01	4.67E+00	pCi/L
Ludington Control(346233004) - SW	15-Mar-14	Lanthanum-140	-2.15E+00	7.19E+00	1.15E+01	1.50E+01	7.26E+00	pCi/L
Ludington Control(348503003) - SW	15-Apr-14	Lanthanum-140	3.76E-01	6.84E+00	1.15E+01	1.50E+01	6.84E+00	pCi/L
Ludington Control(350372004) - SW	15-May-14	Lanthanum-140	-4.82E+00	8.85E+00	1.39E+01	1.50E+01	9.12E+00	pCi/L
Ludington Control(352249003) - SW	15-Jun-14	Lanthanum-140	-2.25E+00	8.28E+00	1.38E+01	1.50E+01	8.35E+00	pCi/L
Ludington Control(354946004) - SW	15-Jul-14	Lanthanum-140	-6.75E-01	6.12E+00	1.03E+01	1.50E+01	6.13E+00	pCi/L
Ludington Control(356925004) - SW	15-Aug-14	Lanthanum-140	-1.27E+00	8.26E+00	1.21E+01	1.50E+01	8.28E+00	pCi/L
Ludington Control(358777004) - SW	15-Sep-14	Lanthanum-140	-2.17E+00	5.83E+00	9.44E+00	1.50E+01	5.92E+00	pCi/L
Ludington Control(361054001) - SW	15-Oct-14	Lanthanum-140	1.84E+00	4.64E+00	7.87E+00	1.50E+01	4.72E+00	pCi/L
Ludington Control(363123001) - SW	15-Nov-14	Lanthanum-140	-5.90E-01	8.03E+00	1.35E+01	1.50E+01	8.04E+00	pCi/L
Ludington Control(343105004) - SW	15-Jan-14	Manganese-54	1.99E-02	1.17E+00	1.74E+00	1.50E+01	1.17E+00	pCi/L
Ludington Control(344270001) - SW	14-Feb-14	Manganese-54	-4.44E-01	7.60E-01	1.26E+00	1.50E+01	7.87E-01	pCi/L
Ludington Control(346233004) - SW	15-Mar-14	Manganese-54	-2.87E-02	1.63E+00	2.38E+00	1.50E+01	1.63E+00	pCi/L
Ludington Control(348503003) - SW	15-Apr-14	Manganese-54	-1.92E-01	1.20E+00	1.95E+00	1.50E+01	1.20E+00	pCi/L
Ludington Control(350372004) - SW	15-May-14	Manganese-54	1.25E-01	1.63E+00	2.51E+00	1.50E+01	1.63E+00	pCi/L
Ludington Control(352249003) - SW	15-Jun-14	Manganese-54	4.51E-01	1.25E+00	2.17E+00	1.50E+01	1.27E+00	pCi/L
Ludington Control(354946004) - SW	15-Jul-14	Manganese-54	-5.08E-01	9.51E-01	1.35E+00	1.50E+01	9.80E-01	pCi/L
Ludington Control(356925004) - SW	15-Aug-14	Manganese-54	-1.45E+00	8.82E-01	1.32E+00	1.50E+01	1.11E+00	pCi/L
Ludington Control(358777004) - SW	15-Sep-14	Manganese-54	-4.84E-01	1.19E+00	1.66E+00	1.50E+01	1.21E+00	pCi/L
Ludington Control(361054001) - SW	15-Oct-14	Manganese-54	-3.89E-01	7.74E-01	1.29E+00	1.50E+01	7.94E-01	pCi/L
Ludington Control(363123001) - SW	15-Nov-14	Manganese-54	-1.47E-01	1.29E+00	2.11E+00	1.50E+01	1.29E+00	pCi/L
Ludington Control(343105004) - SW	15-Jan-14	Niobium-95	1.26E+00	1.43E+00	2.50E+00	1.50E+01	1.55E+00	pCi/L
Ludington Control(344270001) - SW	14-Feb-14	Niobium-95	1.27E+00	9.78E-01	1.78E+00	1.50E+01	1.14E+00	pCi/L
Ludington Control(346233004) - SW	15-Mar-14	Niobium-95	-3.71E-01	1.97E+00	3.29E+00	1.50E+01	1.97E+00	pCi/L

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Ludington Control(348503003) - SW	15-Apr-14	Niobium-95	1.57E-01	1.65E+00	2.37E+00	1.50E+01	1.65E+00	pCi/L
Ludington Control(350372004) - SW	15-May-14	Niobium-95	1.66E+00	1.93E+00	3.50E+00	1.50E+01	2.08E+00	pCi/L
Ludington Control(352249003) - SW	15-Jun-14	Niobium-95	6.84E-01	1.73E+00	2.92E+00	1.50E+01	1.76E+00	pCi/L
Ludington Control(354946004) - SW	15-Jul-14	Niobium-95	1.68E-01	1.11E+00	1.90E+00	1.50E+01	1.11E+00	pCi/L
Ludington Control(356925004) - SW	15-Aug-14	Niobium-95	1.66E+00	1.25E+00	2.27E+00	1.50E+01	1.46E+00	pCi/L
Ludington Control(358777004) - SW	15-Sep-14	Niobium-95	7.97E-01	1.24E+00	2.19E+00	1.50E+01	1.29E+00	pCi/L
Ludington Control(361054001) - SW	15-Oct-14	Niobium-95	-1.17E-01	1.47E+00	1.82E+00	1.50E+01	1.47E+00	pCi/L
Ludington Control(363123001) - SW	15-Nov-14	Niobium-95	2.45E+00	1.59E+00	2.92E+00	1.50E+01	1.95E+00	pCi/L
Ludington Control(343105004) - SW	15-Jan-14	Tritium	-3.37E+02	2.61E+02	4.84E+02	2.00E+03	2.61E+02	pCi/L
Ludington Control(344270001) - SW	14-Feb-14	Tritium	-2.90E+01	2.80E+02	4.74E+02	2.00E+03	2.79E+02	pCi/L
Ludington Control(346233004) - SW	15-Mar-14	Tritium	-2.31E+02	2.75E+02	4.90E+02	2.00E+03	2.75E+02	pCi/L
Ludington Control(348503003) - SW	15-Apr-14	Tritium	3.34E+01	2.61E+02	4.34E+02	2.00E+03	2.61E+02	pCi/L
Ludington Control(350372004) - SW	15-May-14	Tritium	2.01E-01	2.70E+02	4.53E+02	2.00E+03	2.70E+02	pCi/L
Ludington Control(352249003) - SW	15-Jun-14	Tritium	-8.39E+01	2.43E+02	4.25E+02	2.00E+03	2.43E+02	pCi/L
Ludington Control(354946004) - SW	15-Jul-14	Tritium	-9.43E+01	3.28E+02	5.65E+02	2.00E+03	3.28E+02	pCi/L
Ludington Control(356925004) - SW	15-Aug-14	Tritium	-1.60E+02	3.07E+02	5.39E+02	2.00E+03	3.07E+02	pCi/L
Ludington Control(358777004) - SW	15-Sep-14	Tritium	1.51E+01	3.59E+02	6.00E+02	2.00E+03	3.59E+02	pCi/L
Ludington Control(361054001) - SW	15-Oct-14	Tritium	-5.45E+01	3.55E+02	6.03E+02	2.00E+03	3.55E+02	pCi/L
Ludington Control(363123001) - SW	15-Nov-14	Tritium	9.12E+01	3.42E+02	5.63E+02	2.00E+03	3.42E+02	pCi/L
Ludington Control(343105004) - SW	15-Jan-14	Zinc-65	-6.99E-01	3.32E+00	3.70E+00	3.00E+01	3.33E+00	pCi/L
Ludington Control(344270001) - SW	14-Feb-14	Zinc-65	5.60E-01	1.91E+00	2.85E+00	3.00E+01	1.93E+00	pCi/L
Ludington Control(346233004) - SW	15-Mar-14	Zinc-65	-3.38E+00	3.79E+00	5.56E+00	3.00E+01	4.10E+00	pCi/L
Ludington Control(348503003) - SW	15-Apr-14	Zinc-65	1.19E+00	2.30E+00	4.06E+00	3.00E+01	2.37E+00	pCi/L
Ludington Control(350372004) - SW	15-May-14	Zinc-65	-6.36E-01	3.28E+00	5.34E+00	3.00E+01	3.29E+00	pCi/L
Ludington Control(352249003) - SW	15-Jun-14	Zinc-65	-1.47E+00	2.70E+00	4.37E+00	3.00E+01	2.79E+00	pCi/L
Ludington Control(354946004) - SW	15-Jul-14	Zinc-65	-2.38E+00	1.87E+00	2.84E+00	3.00E+01	2.18E+00	pCi/L
Ludington Control(356925004) - SW	15-Aug-14	Zinc-65	-1.12E+00	2.58E+00	3.50E+00	3.00E+01	2.63E+00	pCi/L
Ludington Control(358777004) - SW	15-Sep-14	Zinc-65	-1.27E+00	3.10E+00	3.67E+00	3.00E+01	3.16E+00	pCi/L
Ludington Control(361054001) - SW	15-Oct-14	Zinc-65	-1.17E+00	1.83E+00	2.96E+00	3.00E+01	1.91E+00	pCi/L
Ludington Control(363123001) - SW	15-Nov-14	Zinc-65	-1.04E+00	3.26E+00	4.54E+00	3.00E+01	3.30E+00	pCi/L

North Beach Sediment
SD

Sample Name	Date Collected	Nuclide	Result	2 Sigma Uncert	MDC	LLD	2 Sigma TPU	Units
North Beach Sediment(349613001) - SD	20-May-14	Cesium-134	5.73E-01	1.87E+01	3.24E+01	1.50E+02	1.87E+01	pCi/kg
North Beach Sediment(357555007) - SD	23-Sep-14	Cesium-134	3.47E+01	2.85E+01	3.47E+01	1.50E+02	2.88E+01	pCi/kg
North Beach Sediment(349613001) - SD	20-May-14	Cesium-137	-4.29E-01	1.77E+01	3.11E+01	1.80E+02	1.77E+01	pCi/kg
North Beach Sediment(357555007) - SD	23-Sep-14	Cesium-137	1.75E+01	2.00E+01	3.79E+01	1.80E+02	2.15E+01	pCi/kg
North Beach Sediment(349613001) - SD	20-May-14	Potassium-40	5.58E+03	6.47E+02	2.79E+02		8.09E+02	pCi/kg
North Beach Sediment(357555007) - SD	23-Sep-14	Potassium-40	6.02E+03	7.36E+02	3.44E+02		8.97E+02	pCi/kg

Palisades Park - Commercial Well
DW

Sample Name	Date Collected	Nuclide	Result	2 Sigma Uncert	MDC	LLD	2 Sigma TPU	Units
Palisades Park - Commercial Well(349195001) - DW	19-May-14	BETA	1.32E+00	2.30E+00	3.69E+00	4.00E+00	2.31E+00	pCi/L

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Palisades Park - Commercial Well(352249001) - DW	27-Jun-14	BETA	4.88E-01	1.97E+00	3.16E+00	4.00E+00	1.97E+00	pCi/L
Palisades Park - Commercial Well(352828001) - DW	8-Jul-14	BETA	3.45E+00	2.41E+00	3.61E+00	4.00E+00	2.47E+00	pCi/L
Palisades Park - Commercial Well(356003001) - DW	26-Aug-14	BETA	4.15E-01	2.21E+00	3.64E+00	4.00E+00	2.21E+00	pCi/L
Palisades Park - Commercial Well(357555008) - DW	23-Sep-14	BETA	2.07E+00	2.27E+00	3.28E+00	4.00E+00	2.29E+00	pCi/L
Palisades Park - Commercial Well(349195001) - DW	19-May-14	Barium-140	-2.17E+00	3.24E+00	4.79E+00	1.50E+01	3.39E+00	pCi/L
Palisades Park - Commercial Well(352249001) - DW	27-Jun-14	Barium-140	4.66E+00	5.58E+00	7.68E+00	1.50E+01	5.97E+00	pCi/L
Palisades Park - Commercial Well(352828001) - DW	8-Jul-14	Barium-140	-7.85E+00	6.91E+00	8.31E+00	1.50E+01	7.79E+00	pCi/L
Palisades Park - Commercial Well(356003001) - DW	26-Aug-14	Barium-140	-9.68E-01	7.46E+00	1.23E+01	1.50E+01	7.47E+00	pCi/L
Palisades Park - Commercial Well(357555008) - DW	23-Sep-14	Barium-140	-1.62E+00	5.25E+00	8.29E+00	1.50E+01	5.31E+00	pCi/L
Palisades Park - Commercial Well(349195001) - DW	19-May-14	Cesium-134	6.57E-01	2.06E+00	3.46E+00	1.50E+01	2.08E+00	pCi/L
Palisades Park - Commercial Well(352249001) - DW	27-Jun-14	Cesium-134	1.22E+00	1.23E+00	2.22E+00	1.50E+01	1.35E+00	pCi/L
Palisades Park - Commercial Well(352828001) - DW	8-Jul-14	Cesium-134	8.51E-01	3.38E+00	5.56E+00	1.50E+01	3.41E+00	pCi/L
Palisades Park - Commercial Well(356003001) - DW	26-Aug-14	Cesium-134	-1.79E+00	3.92E+00	5.23E+00	1.50E+01	4.01E+00	pCi/L
Palisades Park - Commercial Well(357555008) - DW	23-Sep-14	Cesium-134	-2.55E+00	3.41E+00	4.90E+00	1.50E+01	3.61E+00	pCi/L
Palisades Park - Commercial Well(349195001) - DW	19-May-14	Cesium-137	8.44E-01	1.92E+00	3.31E+00	1.80E+01	1.96E+00	pCi/L
Palisades Park - Commercial Well(352249001) - DW	27-Jun-14	Cesium-137	3.81E-01	1.21E+00	2.02E+00	1.80E+01	1.22E+00	pCi/L
Palisades Park - Commercial Well(352828001) - DW	8-Jul-14	Cesium-137	1.40E-01	2.91E+00	4.95E+00	1.80E+01	2.91E+00	pCi/L
Palisades Park - Commercial Well(356003001) - DW	26-Aug-14	Cesium-137	6.04E-01	2.87E+00	4.69E+00	1.80E+01	2.88E+00	pCi/L
Palisades Park - Commercial Well(357555008) - DW	23-Sep-14	Cesium-137	6.60E-02	3.31E+00	5.57E+00	1.80E+01	3.31E+00	pCi/L
Palisades Park - Commercial Well(349195001) - DW	19-May-14	Cobalt-58	-7.18E-03	1.94E+00	2.88E+00	1.50E+01	1.94E+00	pCi/L
Palisades Park - Commercial Well(352249001) - DW	27-Jun-14	Cobalt-58	5.24E-01	1.35E+00	2.34E+00	1.50E+01	1.37E+00	pCi/L
Palisades Park - Commercial Well(352828001) - DW	8-Jul-14	Cobalt-58	3.53E-01	3.17E+00	5.21E+00	1.50E+01	3.17E+00	pCi/L
Palisades Park - Commercial Well(356003001) - DW	26-Aug-14	Cobalt-58	-1.00E+00	3.00E+00	4.02E+00	1.50E+01	3.03E+00	pCi/L
Palisades Park - Commercial Well(357555008) - DW	23-Sep-14	Cobalt-58	-4.05E-01	3.07E+00	4.96E+00	1.50E+01	3.07E+00	pCi/L
Palisades Park - Commercial Well(349195001) - DW	19-May-14	Cobalt-60	2.25E-01	1.92E+00	3.22E+00	1.50E+01	1.92E+00	pCi/L
Palisades Park - Commercial Well(352249001) - DW	27-Jun-14	Cobalt-60	-4.01E-01	1.24E+00	2.06E+00	1.50E+01	1.25E+00	pCi/L
Palisades Park - Commercial Well(352828001) - DW	8-Jul-14	Cobalt-60	3.41E+00	2.80E+00	6.10E+00	1.50E+01	3.21E+00	pCi/L
Palisades Park - Commercial Well(356003001) - DW	26-Aug-14	Cobalt-60	1.25E-01	3.11E+00	5.18E+00	1.50E+01	3.11E+00	pCi/L
Palisades Park - Commercial Well(357555008) - DW	23-Sep-14	Cobalt-60	-8.89E-03	3.25E+00	5.41E+00	1.50E+01	3.25E+00	pCi/L
Palisades Park - Commercial Well(349195001) - DW	19-May-14	Iron-59	-2.61E+00	3.66E+00	5.37E+00	3.00E+01	3.85E+00	pCi/L
Palisades Park - Commercial Well(352249001) - DW	27-Jun-14	Iron-59	2.48E+00	3.12E+00	5.46E+00	3.00E+01	3.33E+00	pCi/L
Palisades Park - Commercial Well(352828001) - DW	8-Jul-14	Iron-59	3.60E-01	6.82E+00	1.16E+01	3.00E+01	6.82E+00	pCi/L
Palisades Park - Commercial Well(356003001) - DW	26-Aug-14	Iron-59	8.63E-01	5.62E+00	9.74E+00	3.00E+01	5.63E+00	pCi/L
Palisades Park - Commercial Well(357555008) - DW	23-Sep-14	Iron-59	-5.13E+00	5.97E+00	8.25E+00	3.00E+01	6.44E+00	pCi/L
Palisades Park - Commercial Well(349195001) - DW	19-May-14	Lanthanum-140	-2.17E+00	3.24E+00	4.79E+00	1.50E+01	3.39E+00	pCi/L
Palisades Park - Commercial Well(352249001) - DW	27-Jun-14	Lanthanum-140	4.66E+00	5.58E+00	7.68E+00	1.50E+01	5.97E+00	pCi/L
Palisades Park - Commercial Well(352828001) - DW	8-Jul-14	Lanthanum-140	-7.85E+00	6.91E+00	8.31E+00	1.50E+01	7.79E+00	pCi/L
Palisades Park - Commercial Well(356003001) - DW	26-Aug-14	Lanthanum-140	-9.68E-01	7.46E+00	1.23E+01	1.50E+01	7.47E+00	pCi/L
Palisades Park - Commercial Well(357555008) - DW	23-Sep-14	Lanthanum-140	-1.62E+00	5.25E+00	8.29E+00	1.50E+01	5.31E+00	pCi/L
Palisades Park - Commercial Well(349195001) - DW	19-May-14	Manganese-54	-8.98E-01	1.66E+00	2.62E+00	1.50E+01	1.71E+00	pCi/L
Palisades Park - Commercial Well(352249001) - DW	27-Jun-14	Manganese-54	9.85E-01	1.25E+00	1.89E+00	1.50E+01	1.26E+00	pCi/L
Palisades Park - Commercial Well(352828001) - DW	8-Jul-14	Manganese-54	-5.19E-01	3.19E+00	5.13E+00	1.50E+01	3.20E+00	pCi/L
Palisades Park - Commercial Well(356003001) - DW	26-Aug-14	Manganese-54	1.60E+00	2.51E+00	4.57E+00	1.50E+01	2.52E+00	pCi/L
Palisades Park - Commercial Well(357555008) - DW	23-Sep-14	Manganese-54	-1.69E+00	2.84E+00	4.14E+00	1.50E+01	2.94E+00	pCi/L
Palisades Park - Commercial Well(349195001) - DW	19-May-14	Niobium-95	2.46E+00	3.35E+00	3.19E+00	1.50E+01	3.36E+00	pCi/L

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Palisades Park - Commercial Well(352249001) - DW	27-Jun-14	Niobium-95	4.98E-01	1.37E+00	2.38E+00	1.50E+01	1.39E+00	pCi/L
Palisades Park - Commercial Well(352828001) - DW	8-Jul-14	Niobium-95	-6.44E-01	3.10E+00	4.98E+00	1.50E+01	3.12E+00	pCi/L
Palisades Park - Commercial Well(356003001) - DW	26-Aug-14	Niobium-95	4.40E+00	3.36E+00	6.59E+00	1.50E+01	3.92E+00	pCi/L
Palisades Park - Commercial Well(357555008) - DW	23-Sep-14	Niobium-95	1.52E+00	3.93E+00	6.09E+00	1.50E+01	3.99E+00	pCi/L
Palisades Park - Commercial Well(349195001) - DW	19-May-14	Tritium	1.93E+01	1.40E+02	2.26E+02	2.00E+03	1.40E+02	pCi/L
Palisades Park - Commercial Well(352249001) - DW	27-Jun-14	Tritium	1.19E+02	2.54E+02	4.01E+02	2.00E+03	2.55E+02	pCi/L
Palisades Park - Commercial Well(352828001) - DW	8-Jul-14	Tritium	7.13E+01	3.23E+02	5.32E+02	2.00E+03	3.23E+02	pCi/L
Palisades Park - Commercial Well(356003001) - DW	26-Aug-14	Tritium	2.55E+02	2.72E+02	4.19E+02	2.00E+03	2.77E+02	pCi/L
Palisades Park - Commercial Well(357555008) - DW	23-Sep-14	Tritium	-1.49E+02	2.84E+02	4.97E+02	2.00E+03	2.84E+02	pCi/L
Palisades Park - Commercial Well(349195001) - DW	19-May-14	Zinc-65	1.97E+00	3.78E+00	6.78E+00	3.00E+01	3.89E+00	pCi/L
Palisades Park - Commercial Well(352249001) - DW	27-Jun-14	Zinc-65	-3.00E+00	2.59E+00	3.91E+00	3.00E+01	2.95E+00	pCi/L
Palisades Park - Commercial Well(352828001) - DW	8-Jul-14	Zinc-65	3.34E+00	6.14E+00	1.04E+01	3.00E+01	6.34E+00	pCi/L
Palisades Park - Commercial Well(356003001) - DW	26-Aug-14	Zinc-65	2.90E+00	4.58E+00	8.25E+00	3.00E+01	4.78E+00	pCi/L
Palisades Park - Commercial Well(357555008) - DW	23-Sep-14	Zinc-65	-3.30E-01	6.15E+00	9.15E+00	3.00E+01	6.15E+00	pCi/L

Palisades Park - Community Well
DW

Sample Name	Date Collected	Nuclide	Result	2 Sigma Uncert	MDC	LLD	2 Sigma TPU	Units
Palisades Park - Community Well(349195002) - DW	19-May-14	BETA	1.54E+00	2.13E+00	3.30E+00	4.00E+00	2.15E+00	pCi/L
Palisades Park - Community Well(352249002) - DW	27-Jun-14	BETA	-2.48E-01	1.77E+00	3.03E+00	4.00E+00	1.77E+00	pCi/L
Palisades Park - Community Well(352828002) - DW	8-Jul-14	BETA	2.56E+00	2.08E+00	3.15E+00	4.00E+00	2.12E+00	pCi/L
Palisades Park - Community Well(356003002) - DW	26-Aug-14	BETA	1.63E-01	1.97E+00	3.25E+00	4.00E+00	1.97E+00	pCi/L
Palisades Park - Community Well(357555009) - DW	23-Sep-14	BETA	-1.87E+00	2.08E+00	3.66E+00	4.00E+00	2.08E+00	pCi/L
Palisades Park - Community Well(349195002) - DW	19-May-14	Barium-140	2.12E+00	4.55E+00	8.65E+00	1.50E+01	4.65E+00	pCi/L
Palisades Park - Community Well(352249002) - DW	27-Jun-14	Barium-140	1.59E-01	2.92E+00	4.87E+00	1.50E+01	2.92E+00	pCi/L
Palisades Park - Community Well(352828002) - DW	8-Jul-14	Barium-140	-2.99E-01	6.46E+00	1.09E+01	1.50E+01	6.46E+00	pCi/L
Palisades Park - Community Well(356003002) - DW	26-Aug-14	Barium-140	-1.55E+00	7.84E+00	1.26E+01	1.50E+01	7.88E+00	pCi/L
Palisades Park - Community Well(357555009) - DW	23-Sep-14	Barium-140	-1.40E-01	5.40E+00	8.98E+00	1.50E+01	5.40E+00	pCi/L
Palisades Park - Community Well(349195002) - DW	19-May-14	Cesium-134	7.00E-01	2.99E+00	5.28E+00	1.50E+01	3.01E+00	pCi/L
Palisades Park - Community Well(352249002) - DW	27-Jun-14	Cesium-134	5.66E-01	9.54E-01	1.59E+00	1.50E+01	9.89E-01	pCi/L
Palisades Park - Community Well(352828002) - DW	8-Jul-14	Cesium-134	1.36E+00	2.60E+00	4.79E+00	1.50E+01	2.67E+00	pCi/L
Palisades Park - Community Well(356003002) - DW	26-Aug-14	Cesium-134	-1.93E+00	2.86E+00	4.11E+00	1.50E+01	2.99E+00	pCi/L
Palisades Park - Community Well(357555009) - DW	23-Sep-14	Cesium-134	-7.88E-01	2.92E+00	4.54E+00	1.50E+01	2.95E+00	pCi/L
Palisades Park - Community Well(349195002) - DW	19-May-14	Cesium-137	-8.48E-01	2.89E+00	4.75E+00	1.80E+01	2.91E+00	pCi/L
Palisades Park - Community Well(352249002) - DW	27-Jun-14	Cesium-137	1.11E+00	9.59E-01	1.34E+00	1.80E+01	9.64E-01	pCi/L
Palisades Park - Community Well(352828002) - DW	8-Jul-14	Cesium-137	-9.17E-01	2.90E+00	4.05E+00	1.80E+01	2.93E+00	pCi/L
Palisades Park - Community Well(356003002) - DW	26-Aug-14	Cesium-137	-1.46E-01	2.72E+00	4.46E+00	1.80E+01	2.72E+00	pCi/L
Palisades Park - Community Well(357555009) - DW	23-Sep-14	Cesium-137	2.04E-01	2.56E+00	4.30E+00	1.80E+01	2.57E+00	pCi/L
Palisades Park - Community Well(349195002) - DW	19-May-14	Cobalt-58	1.23E+00	2.85E+00	5.17E+00	1.50E+01	2.90E+00	pCi/L
Palisades Park - Community Well(352249002) - DW	27-Jun-14	Cobalt-58	-9.38E-01	9.72E-01	1.53E+00	1.50E+01	1.07E+00	pCi/L
Palisades Park - Community Well(352828002) - DW	8-Jul-14	Cobalt-58	-5.19E-01	2.31E+00	3.76E+00	1.50E+01	2.32E+00	pCi/L
Palisades Park - Community Well(356003002) - DW	26-Aug-14	Cobalt-58	8.08E-01	3.13E+00	5.35E+00	1.50E+01	3.15E+00	pCi/L
Palisades Park - Community Well(357555009) - DW	23-Sep-14	Cobalt-58	-6.05E-01	2.74E+00	4.14E+00	1.50E+01	2.75E+00	pCi/L
Palisades Park - Community Well(349195002) - DW	19-May-14	Cobalt-60	1.84E-01	2.92E+00	5.09E+00	1.50E+01	2.92E+00	pCi/L
Palisades Park - Community Well(352249002) - DW	27-Jun-14	Cobalt-60	1.12E-01	9.58E-01	1.40E+00	1.50E+01	9.60E-01	pCi/L

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Palisades Park - Community Well(352828002) - DW	8-Jul-14	Cobalt-60	2.56E+00	2.79E+00	5.46E+00	1.50E+01	3.03E+00	pCi/L
Palisades Park - Community Well(356003002) - DW	26-Aug-14	Cobalt-60	1.32E-02	2.91E+00	4.91E+00	1.50E+01	2.91E+00	pCi/L
Palisades Park - Community Well(357555009) - DW	23-Sep-14	Cobalt-60	1.36E+00	2.84E+00	5.25E+00	1.50E+01	2.91E+00	pCi/L
Palisades Park - Community Well(349195002) - DW	19-May-14	Iron-59	4.97E+00	7.44E+00	1.26E+01	3.00E+01	7.80E+00	pCi/L
Palisades Park - Community Well(352249002) - DW	27-Jun-14	Iron-59	8.97E-01	2.02E+00	3.52E+00	3.00E+01	2.06E+00	pCi/L
Palisades Park - Community Well(352828002) - DW	8-Jul-14	Iron-59	4.19E+00	6.61E+00	1.11E+01	3.00E+01	6.90E+00	pCi/L
Palisades Park - Community Well(356003002) - DW	26-Aug-14	Iron-59	1.69E+00	4.68E+00	1.02E+01	3.00E+01	4.75E+00	pCi/L
Palisades Park - Community Well(357555009) - DW	23-Sep-14	Iron-59	2.19E-01	6.31E+00	1.05E+01	3.00E+01	6.31E+00	pCi/L
Palisades Park - Community Well(349195002) - DW	19-May-14	Lanthanum-140	2.12E+00	4.55E+00	8.65E+00	1.50E+01	4.65E+00	pCi/L
Palisades Park - Community Well(352249002) - DW	27-Jun-14	Lanthanum-140	1.59E-01	2.92E+00	4.87E+00	1.50E+01	2.92E+00	pCi/L
Palisades Park - Community Well(352828002) - DW	8-Jul-14	Lanthanum-140	-2.99E-01	6.46E+00	1.09E+01	1.50E+01	6.46E+00	pCi/L
Palisades Park - Community Well(356003002) - DW	26-Aug-14	Lanthanum-140	-1.55E+00	7.84E+00	1.26E+01	1.50E+01	7.88E+00	pCi/L
Palisades Park - Community Well(357555009) - DW	23-Sep-14	Lanthanum-140	-1.40E-01	5.40E+00	8.98E+00	1.50E+01	5.40E+00	pCi/L
Palisades Park - Community Well(349195002) - DW	19-May-14	Manganese-54	-6.77E-01	2.65E+00	4.28E+00	1.50E+01	2.67E+00	pCi/L
Palisades Park - Community Well(352249002) - DW	27-Jun-14	Manganese-54	-4.08E-01	8.15E-01	1.31E+00	1.50E+01	8.37E-01	pCi/L
Palisades Park - Community Well(352828002) - DW	8-Jul-14	Manganese-54	3.93E-01	2.36E+00	4.11E+00	1.50E+01	2.37E+00	pCi/L
Palisades Park - Community Well(356003002) - DW	26-Aug-14	Manganese-54	2.51E-01	2.75E+00	4.59E+00	1.50E+01	2.75E+00	pCi/L
Palisades Park - Community Well(357555009) - DW	23-Sep-14	Manganese-54	-2.96E-01	2.42E+00	4.04E+00	1.50E+01	2.42E+00	pCi/L
Palisades Park - Community Well(349195002) - DW	19-May-14	Niobium-95	-2.30E+00	3.32E+00	4.65E+00	1.50E+01	3.48E+00	pCi/L
Palisades Park - Community Well(352249002) - DW	27-Jun-14	Niobium-95	6.16E-01	9.72E-01	1.67E+00	1.50E+01	1.01E+00	pCi/L
Palisades Park - Community Well(352828002) - DW	8-Jul-14	Niobium-95	2.75E+00	3.56E+00	4.15E+00	1.50E+01	3.57E+00	pCi/L
Palisades Park - Community Well(356003002) - DW	26-Aug-14	Niobium-95	2.04E+00	2.30E+00	4.42E+00	1.50E+01	2.48E+00	pCi/L
Palisades Park - Community Well(357555009) - DW	23-Sep-14	Niobium-95	2.13E+00	2.53E+00	4.85E+00	1.50E+01	2.71E+00	pCi/L
Palisades Park - Community Well(349195002) - DW	19-May-14	Tritium	-6.22E+01	1.16E+02	2.25E+02	2.00E+03	1.16E+02	pCi/L
Palisades Park - Community Well(352249002) - DW	27-Jun-14	Tritium	1.58E+02	2.73E+02	4.28E+02	2.00E+03	2.75E+02	pCi/L
Palisades Park - Community Well(352828002) - DW	8-Jul-14	Tritium	1.29E+02	3.29E+02	5.34E+02	2.00E+03	3.30E+02	pCi/L
Palisades Park - Community Well(356003002) - DW	26-Aug-14	Tritium	2.00E+02	2.66E+02	4.16E+02	2.00E+03	2.69E+02	pCi/L
Palisades Park - Community Well(357555009) - DW	23-Sep-14	Tritium	-1.98E+02	2.86E+02	5.07E+02	2.00E+03	2.86E+02	pCi/L
Palisades Park - Community Well(349195002) - DW	19-May-14	Zinc-65	2.18E+00	5.25E+00	8.67E+00	3.00E+01	5.35E+00	pCi/L
Palisades Park - Community Well(352249002) - DW	27-Jun-14	Zinc-65	5.36E-01	1.85E+00	2.78E+00	3.00E+01	1.87E+00	pCi/L
Palisades Park - Community Well(352828002) - DW	8-Jul-14	Zinc-65	-2.70E+00	4.48E+00	6.30E+00	3.00E+01	4.66E+00	pCi/L
Palisades Park - Community Well(356003002) - DW	26-Aug-14	Zinc-65	2.12E+00	6.34E+00	1.13E+01	3.00E+01	6.41E+00	pCi/L
Palisades Park - Community Well(357555009) - DW	23-Sep-14	Zinc-65	-2.86E+00	6.33E+00	9.68E+00	3.00E+01	6.47E+00	pCi/L

Septic Sample

WW

Sample Name	Date Collected	Nuclide	Result	2 Sigma Uncert	MDC	LLD	2 Sigma TPU	Units
Septic Sample(344270003) - WW	4-Mar-14	Barium-140	7.63E-01	4.11E+00	6.07E+00	1.50E+01	4.13E+00	pCi/L
Septic Sample(352249004) - WW	27-Jun-14	Barium-140	1.66E+00	7.32E+00	1.25E+01	1.50E+01	7.36E+00	pCi/L
Septic Sample(354946005) - WW	6-Aug-14	Barium-140	-3.79E-01	4.14E+00	6.98E+00	1.50E+01	4.15E+00	pCi/L
Septic Sample(344270003) - WW	4-Mar-14	Cesium-134	2.91E-01	2.03E+00	3.50E+00	1.50E+01	2.03E+00	pCi/L
Septic Sample(352249004) - WW	27-Jun-14	Cesium-134	-7.00E-01	2.20E+00	3.60E+00	1.50E+01	2.23E+00	pCi/L
Septic Sample(354946005) - WW	6-Aug-14	Cesium-134	-1.04E+00	1.69E+00	2.77E+00	1.50E+01	1.76E+00	pCi/L
Septic Sample(344270003) - WW	4-Mar-14	Cesium-137	1.61E+00	1.90E+00	3.31E+00	1.80E+01	1.90E+00	pCi/L
Septic Sample(352249004) - WW	27-Jun-14	Cesium-137	-4.54E-01	1.89E+00	3.14E+00	1.80E+01	1.90E+00	pCi/L

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Septic Sample(354946005) - WW	6-Aug-14	Cesium-137	3.06E+00	1.71E+00	3.18E+00	1.80E+01	2.21E+00	pCi/L
Septic Sample(344270003) - WW	4-Mar-14	Cobalt-58	2.04E-01	1.93E+00	3.32E+00	1.50E+01	1.93E+00	pCi/L
Septic Sample(352249004) - WW	27-Jun-14	Cobalt-58	-1.30E+00	2.37E+00	3.83E+00	1.50E+01	2.45E+00	pCi/L
Septic Sample(354946005) - WW	6-Aug-14	Cobalt-58	1.36E+00	1.58E+00	2.83E+00	1.50E+01	1.70E+00	pCi/L
Septic Sample(344270003) - WW	4-Mar-14	Cobalt-60	1.19E+00	2.05E+00	3.55E+00	1.50E+01	2.13E+00	pCi/L
Septic Sample(352249004) - WW	27-Jun-14	Cobalt-60	-1.79E+00	2.11E+00	3.29E+00	1.50E+01	2.26E+00	pCi/L
Septic Sample(354946005) - WW	6-Aug-14	Cobalt-60	-5.83E-01	1.66E+00	2.64E+00	1.50E+01	1.68E+00	pCi/L
Septic Sample(344270003) - WW	4-Mar-14	Iron-59	1.02E+00	3.83E+00	6.53E+00	3.00E+01	3.86E+00	pCi/L
Septic Sample(352249004) - WW	27-Jun-14	Iron-59	-3.57E+00	4.85E+00	7.79E+00	3.00E+01	5.15E+00	pCi/L
Septic Sample(354946005) - WW	6-Aug-14	Iron-59	2.57E+00	4.38E+00	6.67E+00	3.00E+01	4.56E+00	pCi/L
Septic Sample(344270003) - WW	4-Mar-14	Lanthanum-140	7.63E-01	4.11E+00	6.07E+00	1.50E+01	4.13E+00	pCi/L
Septic Sample(352249004) - WW	27-Jun-14	Lanthanum-140	1.66E+00	7.32E+00	1.25E+01	1.50E+01	7.36E+00	pCi/L
Septic Sample(354946005) - WW	6-Aug-14	Lanthanum-140	-3.79E-01	4.14E+00	6.98E+00	1.50E+01	4.15E+00	pCi/L
Septic Sample(344270003) - WW	4-Mar-14	Manganese-54	2.03E-01	1.79E+00	3.08E+00	1.50E+01	1.79E+00	pCi/L
Septic Sample(352249004) - WW	27-Jun-14	Manganese-54	-3.09E-01	2.03E+00	3.33E+00	1.50E+01	2.03E+00	pCi/L
Septic Sample(354946005) - WW	6-Aug-14	Manganese-54	8.52E-01	1.60E+00	2.80E+00	1.50E+01	1.65E+00	pCi/L
Septic Sample(344270003) - WW	4-Mar-14	Niobium-95	2.47E-01	2.04E+00	3.37E+00	1.50E+01	2.04E+00	pCi/L
Septic Sample(352249004) - WW	27-Jun-14	Niobium-95	1.94E+00	2.31E+00	3.99E+00	1.50E+01	2.48E+00	pCi/L
Septic Sample(354946005) - WW	6-Aug-14	Niobium-95	2.32E+00	1.77E+00	3.22E+00	1.50E+01	2.07E+00	pCi/L
Septic Sample(344270003) - WW	4-Mar-14	Tritium	5.88E+02	3.30E+02	4.67E+02	2.00E+03	3.49E+02	pCi/L
Septic Sample(352249004) - WW	27-Jun-14	Tritium	6.43E+02	3.24E+02	4.29E+02	2.00E+03	3.47E+02	pCi/L
Septic Sample(354946005) - WW	6-Aug-14	Tritium	2.53E+02	3.56E+02	5.60E+02	2.00E+03	3.59E+02	pCi/L
Septic Sample(344270003) - WW	4-Mar-14	Zinc-65	-9.66E-01	4.64E+00	6.51E+00	3.00E+01	4.66E+00	pCi/L
Septic Sample(352249004) - WW	27-Jun-14	Zinc-65	-3.14E+00	4.13E+00	6.62E+00	3.00E+01	4.40E+00	pCi/L
Septic Sample(354946005) - WW	6-Aug-14	Zinc-65	-2.01E+00	3.57E+00	5.69E+00	3.00E+01	3.70E+00	pCi/L

South Beach Sediment
SD

Sample Name	Date Collected	Nuclide	Result	2 Sigma Uncert	MDC	LLD	2 Sigma TPU	Units
South Beach Sediment(349613002) - SD	21-May-14	Cesium-134	3.03E+00	1.90E+01	3.42E+01	1.50E+02	1.91E+01	pCi/kg
South Beach Sediment(357555006) - SD	23-Sep-14	Cesium-134	1.26E+01	2.01E+01	3.89E+01	1.50E+02	2.09E+01	pCi/kg
South Beach Sediment(349613002) - SD	21-May-14	Cesium-137	1.87E+01	1.78E+01	3.58E+01	1.80E+02	1.98E+01	pCi/kg
South Beach Sediment(357555006) - SD	23-Sep-14	Cesium-137	-1.11E+00	1.73E+01	3.03E+01	1.80E+02	1.73E+01	pCi/kg
South Beach Sediment(357555006) - SD	23-Sep-14	Lead-212	1.52E+02	4.36E+01	4.14E+01	1.50E+02	4.58E+01	pCi/kg
South Beach Sediment(357555006) - SD	23-Sep-14	Lead-214	2.01E+02	6.40E+01	5.11E+01	1.50E+02	6.63E+01	pCi/kg
South Beach Sediment(349613002) - SD	21-May-14	Potassium-40	4.71E+03	6.05E+02	3.14E+02		7.33E+02	pCi/kg
South Beach Sediment(357555006) - SD	23-Sep-14	Potassium-40	4.40E+03	6.30E+02	2.85E+02		7.43E+02	pCi/kg

South Haven Raw Water - SHR
SW

Sample Name	Date Collected	Nuclide	Result	2 Sigma Uncert	MDC	LLD	2 Sigma TPU	Units
South Haven Raw Water - SHR(343105003) - SW	15-Jan-14	BETA	1.59E+00	2.05E+00	2.99E+00	4.00E+00	2.07E+00	pCi/L
South Haven Raw Water - SHR(344270002) - SW	14-Feb-14	BETA	2.26E+00	2.13E+00	3.03E+00	4.00E+00	2.16E+00	pCi/L
South Haven Raw Water - SHR(346233003) - SW	15-Mar-14	BETA	-2.44E+00	1.68E+00	3.38E+00	4.00E+00	1.68E+00	pCi/L
South Haven Raw Water - SHR(348503004) - SW	15-Apr-14	BETA	-5.20E-01	2.12E+00	3.61E+00	4.00E+00	2.12E+00	pCi/L

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South Haven Raw Water - SHR(350372003) - SW	15-May-14	BETA	8.70E-01	2.28E+00	3.74E+00	4.00E+00	2.29E+00	pCi/L
South Haven Raw Water - SHR(352249007) - SW	15-Jun-14	BETA	8.82E-01	1.79E+00	2.75E+00	4.00E+00	1.80E+00	pCi/L
South Haven Raw Water - SHR(354946003) - SW	15-Jul-14	BETA	1.24E+00	2.00E+00	2.93E+00	4.00E+00	2.02E+00	pCi/L
South Haven Raw Water - SHR(356925003) - SW	15-Aug-14	BETA	2.27E+00	1.95E+00	2.63E+00	4.00E+00	1.99E+00	pCi/L
South Haven Raw Water - SHR(358777003) - SW	15-Sep-14	BETA	1.43E+00	1.97E+00	2.95E+00	4.00E+00	1.99E+00	pCi/L
South Haven Raw Water - SHR(360827003) - SW	15-Oct-14	BETA	-3.41E-01	2.18E+00	3.68E+00	4.00E+00	2.18E+00	pCi/L
South Haven Raw Water - SHR(362508003) - SW	15-Nov-14	BETA	3.45E-01	1.69E+00	2.72E+00	4.00E+00	1.69E+00	pCi/L
South Haven Raw Water - SHR(343105003) - SW	15-Jan-14	Barium-140	9.31E-01	8.49E+00	1.44E+01	1.50E+01	8.50E+00	pCi/L
South Haven Raw Water - SHR(344270002) - SW	14-Feb-14	Barium-140	6.01E-01	5.36E+00	9.19E+00	1.50E+01	5.36E+00	pCi/L
South Haven Raw Water - SHR(346233003) - SW	15-Mar-14	Barium-140	2.03E+00	4.34E+00	7.57E+00	1.50E+01	4.44E+00	pCi/L
South Haven Raw Water - SHR(348503004) - SW	15-Apr-14	Barium-140	7.32E-01	5.44E+00	9.03E+00	1.50E+01	5.45E+00	pCi/L
South Haven Raw Water - SHR(350372003) - SW	15-May-14	Barium-140	3.70E+00	7.68E+00	1.36E+01	1.50E+01	7.86E+00	pCi/L
South Haven Raw Water - SHR(352249007) - SW	15-Jun-14	Barium-140	-1.82E+00	5.67E+00	9.47E+00	1.50E+01	5.73E+00	pCi/L
South Haven Raw Water - SHR(354946003) - SW	15-Jul-14	Barium-140	-1.08E+00	7.06E+00	1.15E+01	1.50E+01	7.08E+00	pCi/L
South Haven Raw Water - SHR(356925003) - SW	15-Aug-14	Barium-140	5.62E+00	6.27E+00	1.08E+01	1.50E+01	6.78E+00	pCi/L
South Haven Raw Water - SHR(358777003) - SW	15-Sep-14	Barium-140	9.58E-01	5.46E+00	9.26E+00	1.50E+01	5.47E+00	pCi/L
South Haven Raw Water - SHR(360827003) - SW	15-Oct-14	Barium-140	-6.74E-01	4.46E+00	7.32E+00	1.50E+01	4.47E+00	pCi/L
South Haven Raw Water - SHR(362508003) - SW	15-Nov-14	Barium-140	1.86E-04	5.66E+00	9.51E+00	1.50E+01	5.66E+00	pCi/L
South Haven Raw Water - SHR(343105003) - SW	15-Jan-14	Cesium-134	7.15E-01	1.17E+00	2.06E+00	1.50E+01	1.21E+00	pCi/L
South Haven Raw Water - SHR(344270002) - SW	14-Feb-14	Cesium-134	4.73E-01	1.09E+00	1.86E+00	1.50E+01	1.11E+00	pCi/L
South Haven Raw Water - SHR(346233003) - SW	15-Mar-14	Cesium-134	-7.07E-01	1.03E+00	1.66E+00	1.50E+01	1.08E+00	pCi/L
South Haven Raw Water - SHR(348503004) - SW	15-Apr-14	Cesium-134	-8.13E-01	1.19E+00	1.67E+00	1.50E+01	1.24E+00	pCi/L
South Haven Raw Water - SHR(350372003) - SW	15-May-14	Cesium-134	8.59E-01	1.45E+00	2.49E+00	1.50E+01	1.50E+00	pCi/L
South Haven Raw Water - SHR(352249007) - SW	15-Jun-14	Cesium-134	7.62E-01	9.03E-01	1.49E+00	1.50E+01	9.69E-01	pCi/L
South Haven Raw Water - SHR(354946003) - SW	15-Jul-14	Cesium-134	-4.24E-01	8.67E-01	1.46E+00	1.50E+01	8.89E-01	pCi/L
South Haven Raw Water - SHR(356925003) - SW	15-Aug-14	Cesium-134	-3.29E-01	1.28E+00	1.67E+00	1.50E+01	1.29E+00	pCi/L
South Haven Raw Water - SHR(358777003) - SW	15-Sep-14	Cesium-134	2.50E-01	1.14E+00	1.70E+00	1.50E+01	1.15E+00	pCi/L
South Haven Raw Water - SHR(360827003) - SW	15-Oct-14	Cesium-134	1.17E+00	1.18E+00	1.82E+00	1.50E+01	1.30E+00	pCi/L
South Haven Raw Water - SHR(362508003) - SW	15-Nov-14	Cesium-134	-3.34E-01	1.48E+00	2.49E+00	1.50E+01	1.49E+00	pCi/L
South Haven Raw Water - SHR(343105003) - SW	15-Jan-14	Cesium-137	-5.33E-01	1.56E+00	1.82E+00	1.80E+01	1.58E+00	pCi/L
South Haven Raw Water - SHR(344270002) - SW	14-Feb-14	Cesium-137	2.11E+00	1.15E+00	2.11E+00	1.80E+01	1.60E+00	pCi/L
South Haven Raw Water - SHR(346233003) - SW	15-Mar-14	Cesium-137	-1.40E-01	9.12E-01	1.55E+00	1.80E+01	9.15E-01	pCi/L
South Haven Raw Water - SHR(348503004) - SW	15-Apr-14	Cesium-137	8.16E-01	9.66E-01	1.66E+00	1.80E+01	1.04E+00	pCi/L
South Haven Raw Water - SHR(350372003) - SW	15-May-14	Cesium-137	-7.09E-01	1.33E+00	2.14E+00	1.80E+01	1.37E+00	pCi/L
South Haven Raw Water - SHR(352249007) - SW	15-Jun-14	Cesium-137	-1.20E+00	1.83E+00	1.88E+00	1.80E+01	1.91E+00	pCi/L
South Haven Raw Water - SHR(354946003) - SW	15-Jul-14	Cesium-137	-3.02E-01	9.12E-01	1.48E+00	1.80E+01	9.22E-01	pCi/L
South Haven Raw Water - SHR(356925003) - SW	15-Aug-14	Cesium-137	1.47E-01	1.72E+00	1.48E+00	1.80E+01	1.72E+00	pCi/L
South Haven Raw Water - SHR(358777003) - SW	15-Sep-14	Cesium-137	6.46E-01	1.94E+00	1.56E+00	1.80E+01	1.94E+00	pCi/L
South Haven Raw Water - SHR(360827003) - SW	15-Oct-14	Cesium-137	1.88E-02	1.01E+00	1.71E+00	1.80E+01	1.01E+00	pCi/L
South Haven Raw Water - SHR(362508003) - SW	15-Nov-14	Cesium-137	1.81E+00	2.81E+00	2.30E+00	1.80E+01	2.81E+00	pCi/L
South Haven Raw Water - SHR(343105003) - SW	15-Jan-14	Cobalt-58	-9.00E-01	1.32E+00	2.11E+00	1.50E+01	1.38E+00	pCi/L
South Haven Raw Water - SHR(344270002) - SW	14-Feb-14	Cobalt-58	-6.53E-01	1.24E+00	1.99E+00	1.50E+01	1.28E+00	pCi/L
South Haven Raw Water - SHR(346233003) - SW	15-Mar-14	Cobalt-58	-5.18E-01	1.09E+00	1.78E+00	1.50E+01	1.12E+00	pCi/L
South Haven Raw Water - SHR(348503004) - SW	15-Apr-14	Cobalt-58	-9.03E-02	1.25E+00	1.94E+00	1.50E+01	1.25E+00	pCi/L
South Haven Raw Water - SHR(350372003) - SW	15-May-14	Cobalt-58	1.81E+00	1.57E+00	2.81E+00	1.50E+01	1.77E+00	pCi/L

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South Haven Raw Water - SHR(352249007) - SW	15-Jun-14	Cobalt-58	6.68E-02	1.20E+00	1.72E+00	1.50E+01	1.20E+00	pCi/L
South Haven Raw Water - SHR(354946003) - SW	15-Jul-14	Cobalt-58	-3.53E-01	1.07E+00	1.81E+00	1.50E+01	1.08E+00	pCi/L
South Haven Raw Water - SHR(356925003) - SW	15-Aug-14	Cobalt-58	2.09E-01	1.02E+00	1.74E+00	1.50E+01	1.02E+00	pCi/L
South Haven Raw Water - SHR(358777003) - SW	15-Sep-14	Cobalt-58	5.87E-02	1.29E+00	2.06E+00	1.50E+01	1.29E+00	pCi/L
South Haven Raw Water - SHR(360827003) - SW	15-Oct-14	Cobalt-58	-3.22E-01	1.13E+00	1.87E+00	1.50E+01	1.14E+00	pCi/L
South Haven Raw Water - SHR(362508003) - SW	15-Nov-14	Cobalt-58	9.63E-01	1.56E+00	2.76E+00	1.50E+01	1.62E+00	pCi/L
South Haven Raw Water - SHR(343105003) - SW	15-Jan-14	Cobalt-60	-1.83E+00	2.15E+00	1.90E+00	1.50E+01	2.31E+00	pCi/L
South Haven Raw Water - SHR(344270002) - SW	14-Feb-14	Cobalt-60	1.24E-01	1.11E+00	1.86E+00	1.50E+01	1.11E+00	pCi/L
South Haven Raw Water - SHR(346233003) - SW	15-Mar-14	Cobalt-60	9.47E-02	9.15E-01	1.57E+00	1.50E+01	9.16E-01	pCi/L
South Haven Raw Water - SHR(348503004) - SW	15-Apr-14	Cobalt-60	3.51E-01	1.52E+00	1.85E+00	1.50E+01	1.53E+00	pCi/L
South Haven Raw Water - SHR(350372003) - SW	15-May-14	Cobalt-60	-2.85E-01	1.31E+00	2.12E+00	1.50E+01	1.32E+00	pCi/L
South Haven Raw Water - SHR(352249007) - SW	15-Jun-14	Cobalt-60	-3.54E-01	8.39E-01	1.36E+00	1.50E+01	8.54E-01	pCi/L
South Haven Raw Water - SHR(354946003) - SW	15-Jul-14	Cobalt-60	6.85E-01	8.61E-01	1.51E+00	1.50E+01	9.17E-01	pCi/L
South Haven Raw Water - SHR(356925003) - SW	15-Aug-14	Cobalt-60	1.57E-01	8.61E-01	1.48E+00	1.50E+01	8.64E-01	pCi/L
South Haven Raw Water - SHR(358777003) - SW	15-Sep-14	Cobalt-60	-7.66E-01	1.19E+00	1.61E+00	1.50E+01	1.24E+00	pCi/L
South Haven Raw Water - SHR(360827003) - SW	15-Oct-14	Cobalt-60	-1.27E-01	1.57E+00	1.63E+00	1.50E+01	1.57E+00	pCi/L
South Haven Raw Water - SHR(362508003) - SW	15-Nov-14	Cobalt-60	9.37E-01	1.40E+00	2.53E+00	1.50E+01	1.46E+00	pCi/L
South Haven Raw Water - SHR(343105003) - SW	15-Jan-14	Iron-59	5.76E-01	3.86E+00	5.60E+00	3.00E+01	3.87E+00	pCi/L
South Haven Raw Water - SHR(344270002) - SW	14-Feb-14	Iron-59	9.58E-01	3.61E+00	5.37E+00	3.00E+01	3.64E+00	pCi/L
South Haven Raw Water - SHR(346233003) - SW	15-Mar-14	Iron-59	1.43E+00	2.38E+00	4.10E+00	3.00E+01	2.48E+00	pCi/L
South Haven Raw Water - SHR(348503004) - SW	15-Apr-14	Iron-59	-2.58E+00	2.56E+00	3.98E+00	3.00E+01	2.84E+00	pCi/L
South Haven Raw Water - SHR(350372003) - SW	15-May-14	Iron-59	2.73E+00	3.76E+00	6.69E+00	3.00E+01	3.97E+00	pCi/L
South Haven Raw Water - SHR(352249007) - SW	15-Jun-14	Iron-59	-8.05E-01	2.32E+00	3.85E+00	3.00E+01	2.36E+00	pCi/L
South Haven Raw Water - SHR(354946003) - SW	15-Jul-14	Iron-59	-5.11E-01	2.44E+00	4.06E+00	3.00E+01	2.45E+00	pCi/L
South Haven Raw Water - SHR(356925003) - SW	15-Aug-14	Iron-59	-2.07E+00	4.27E+00	4.35E+00	3.00E+01	4.38E+00	pCi/L
South Haven Raw Water - SHR(358777003) - SW	15-Sep-14	Iron-59	2.80E+00	2.94E+00	5.15E+00	3.00E+01	3.23E+00	pCi/L
South Haven Raw Water - SHR(360827003) - SW	15-Oct-14	Iron-59	5.82E-01	2.57E+00	4.46E+00	3.00E+01	2.58E+00	pCi/L
South Haven Raw Water - SHR(362508003) - SW	15-Nov-14	Iron-59	-8.67E-01	3.80E+00	6.17E+00	3.00E+01	3.82E+00	pCi/L
South Haven Raw Water - SHR(343105003) - SW	15-Jan-14	Lanthanum-140	9.31E-01	8.49E+00	1.44E+01	1.50E+01	8.50E+00	pCi/L
South Haven Raw Water - SHR(344270002) - SW	14-Feb-14	Lanthanum-140	6.01E-01	5.36E+00	9.19E+00	1.50E+01	5.36E+00	pCi/L
South Haven Raw Water - SHR(346233003) - SW	15-Mar-14	Lanthanum-140	2.03E+00	4.34E+00	7.57E+00	1.50E+01	4.44E+00	pCi/L
South Haven Raw Water - SHR(348503004) - SW	15-Apr-14	Lanthanum-140	7.32E-01	5.44E+00	9.03E+00	1.50E+01	5.45E+00	pCi/L
South Haven Raw Water - SHR(350372003) - SW	15-May-14	Lanthanum-140	3.70E+00	7.68E+00	1.36E+01	1.50E+01	7.86E+00	pCi/L
South Haven Raw Water - SHR(352249007) - SW	15-Jun-14	Lanthanum-140	-1.82E+00	5.67E+00	9.47E+00	1.50E+01	5.73E+00	pCi/L
South Haven Raw Water - SHR(354946003) - SW	15-Jul-14	Lanthanum-140	-1.08E+00	7.06E+00	1.15E+01	1.50E+01	7.08E+00	pCi/L
South Haven Raw Water - SHR(356925003) - SW	15-Aug-14	Lanthanum-140	5.62E+00	6.27E+00	1.08E+01	1.50E+01	6.78E+00	pCi/L
South Haven Raw Water - SHR(358777003) - SW	15-Sep-14	Lanthanum-140	9.58E-01	5.46E+00	9.26E+00	1.50E+01	5.47E+00	pCi/L
South Haven Raw Water - SHR(360827003) - SW	15-Oct-14	Lanthanum-140	-6.74E-01	4.46E+00	7.32E+00	1.50E+01	4.47E+00	pCi/L
South Haven Raw Water - SHR(362508003) - SW	15-Nov-14	Lanthanum-140	1.86E-04	5.66E+00	9.51E+00	1.50E+01	5.66E+00	pCi/L
South Haven Raw Water - SHR(343105003) - SW	15-Jan-14	Manganese-54	-7.95E-01	1.07E+00	1.70E+00	1.50E+01	1.13E+00	pCi/L
South Haven Raw Water - SHR(344270002) - SW	14-Feb-14	Manganese-54	4.61E-02	1.06E+00	1.76E+00	1.50E+01	1.06E+00	pCi/L
South Haven Raw Water - SHR(346233003) - SW	15-Mar-14	Manganese-54	2.60E-01	9.72E-01	1.66E+00	1.50E+01	9.80E-01	pCi/L
South Haven Raw Water - SHR(348503004) - SW	15-Apr-14	Manganese-54	-1.20E+00	9.05E-01	1.42E+00	1.50E+01	1.06E+00	pCi/L
South Haven Raw Water - SHR(350372003) - SW	15-May-14	Manganese-54	-1.86E+00	1.28E+00	1.97E+00	1.50E+01	1.54E+00	pCi/L
South Haven Raw Water - SHR(352249007) - SW	15-Jun-14	Manganese-54	3.70E-01	8.28E-01	1.40E+00	1.50E+01	8.46E-01	pCi/L

REMP Year End Report for PALI for 2014
Palisades REMP

South Haven Raw Water - SHR(354946003) - SW	15-Jul-14	Manganese-54	-8.05E-01	7.81E-01	1.27E+00	1.50E+01	8.65E-01	pCi/L
South Haven Raw Water - SHR(356925003) - SW	15-Aug-14	Manganese-54	-3.73E-01	8.78E-01	1.44E+00	1.50E+01	8.95E-01	pCi/L
South Haven Raw Water - SHR(358777003) - SW	15-Sep-14	Manganese-54	-3.03E-01	9.62E-01	1.59E+00	1.50E+01	9.73E-01	pCi/L
South Haven Raw Water - SHR(360827003) - SW	15-Oct-14	Manganese-54	2.47E-01	9.74E-01	1.65E+00	1.50E+01	9.80E-01	pCi/L
South Haven Raw Water - SHR(362508003) - SW	15-Nov-14	Manganese-54	-7.75E-01	1.34E+00	2.17E+00	1.50E+01	1.38E+00	pCi/L
South Haven Raw Water - SHR(343105003) - SW	15-Jan-14	Niobium-95	-1.72E+00	2.53E+00	2.60E+00	1.50E+01	2.65E+00	pCi/L
South Haven Raw Water - SHR(344270002) - SW	14-Feb-14	Niobium-95	3.64E-01	1.20E+00	2.18E+00	1.50E+01	1.21E+00	pCi/L
South Haven Raw Water - SHR(346233003) - SW	15-Mar-14	Niobium-95	1.26E+00	1.31E+00	2.07E+00	1.50E+01	1.44E+00	pCi/L
South Haven Raw Water - SHR(348503004) - SW	15-Apr-14	Niobium-95	1.50E+00	1.18E+00	2.15E+00	1.50E+01	1.36E+00	pCi/L
South Haven Raw Water - SHR(350372003) - SW	15-May-14	Niobium-95	2.33E+00	1.68E+00	3.05E+00	1.50E+01	1.99E+00	pCi/L
South Haven Raw Water - SHR(352249007) - SW	15-Jun-14	Niobium-95	3.55E-01	1.85E+00	1.96E+00	1.50E+01	1.86E+00	pCi/L
South Haven Raw Water - SHR(354946003) - SW	15-Jul-14	Niobium-95	-3.51E-01	1.87E+00	1.95E+00	1.50E+01	1.88E+00	pCi/L
South Haven Raw Water - SHR(356925003) - SW	15-Aug-14	Niobium-95	1.24E+00	1.18E+00	2.10E+00	1.50E+01	1.31E+00	pCi/L
South Haven Raw Water - SHR(358777003) - SW	15-Sep-14	Niobium-95	4.96E-01	1.16E+00	2.01E+00	1.50E+01	1.18E+00	pCi/L
South Haven Raw Water - SHR(360827003) - SW	15-Oct-14	Niobium-95	2.66E-01	1.18E+00	2.00E+00	1.50E+01	1.18E+00	pCi/L
South Haven Raw Water - SHR(362508003) - SW	15-Nov-14	Niobium-95	1.49E-01	1.58E+00	2.71E+00	1.50E+01	1.58E+00	pCi/L
South Haven Raw Water - SHR(343105003) - SW	15-Jan-14	Tritium	-3.37E+01	2.78E+02	4.71E+02	2.00E+03	2.78E+02	pCi/L
South Haven Raw Water - SHR(344270002) - SW	14-Feb-14	Tritium	-1.01E+02	2.72E+02	4.73E+02	2.00E+03	2.72E+02	pCi/L
South Haven Raw Water - SHR(346233003) - SW	15-Mar-14	Tritium	-9.26E+01	2.79E+02	4.79E+02	2.00E+03	2.79E+02	pCi/L
South Haven Raw Water - SHR(348503004) - SW	15-Apr-14	Tritium	1.03E+02	2.75E+02	4.48E+02	2.00E+03	2.76E+02	pCi/L
South Haven Raw Water - SHR(350372003) - SW	15-May-14	Tritium	3.46E+01	2.66E+02	4.42E+02	2.00E+03	2.66E+02	pCi/L
South Haven Raw Water - SHR(352249007) - SW	15-Jun-14	Tritium	5.43E+01	2.64E+02	4.33E+02	2.00E+03	2.65E+02	pCi/L
South Haven Raw Water - SHR(354946003) - SW	15-Jul-14	Tritium	1.45E+02	3.49E+02	5.64E+02	2.00E+03	3.50E+02	pCi/L
South Haven Raw Water - SHR(356925003) - SW	15-Aug-14	Tritium	-1.96E+02	3.00E+02	5.34E+02	2.00E+03	3.00E+02	pCi/L
South Haven Raw Water - SHR(358777003) - SW	15-Sep-14	Tritium	-3.38E+01	3.56E+02	6.03E+02	2.00E+03	3.56E+02	pCi/L
South Haven Raw Water - SHR(360827003) - SW	15-Oct-14	Tritium	-2.36E+02	3.06E+02	5.55E+02	2.00E+03	3.06E+02	pCi/L
South Haven Raw Water - SHR(362508003) - SW	15-Nov-14	Tritium	-3.74E+02	4.01E+02	7.32E+02	2.00E+03	4.01E+02	pCi/L
South Haven Raw Water - SHR(343105003) - SW	15-Jan-14	Zinc-65	3.04E+00	2.46E+00	4.46E+00	3.00E+01	2.84E+00	pCi/L
South Haven Raw Water - SHR(344270002) - SW	14-Feb-14	Zinc-65	-3.56E+00	2.34E+00	3.54E+00	3.00E+01	2.87E+00	pCi/L
South Haven Raw Water - SHR(346233003) - SW	15-Mar-14	Zinc-65	-1.71E+00	2.43E+00	3.20E+00	3.00E+01	2.56E+00	pCi/L
South Haven Raw Water - SHR(348503004) - SW	15-Apr-14	Zinc-65	-1.37E+00	2.11E+00	3.38E+00	3.00E+01	2.20E+00	pCi/L
South Haven Raw Water - SHR(350372003) - SW	15-May-14	Zinc-65	-5.57E-01	2.93E+00	4.10E+00	3.00E+01	2.94E+00	pCi/L
South Haven Raw Water - SHR(352249007) - SW	15-Jun-14	Zinc-65	-2.70E-01	1.89E+00	3.17E+00	3.00E+01	1.89E+00	pCi/L
South Haven Raw Water - SHR(354946003) - SW	15-Jul-14	Zinc-65	-5.45E-01	1.86E+00	3.07E+00	3.00E+01	1.87E+00	pCi/L
South Haven Raw Water - SHR(356925003) - SW	15-Aug-14	Zinc-65	-9.96E-01	2.23E+00	3.02E+00	3.00E+01	2.28E+00	pCi/L
South Haven Raw Water - SHR(358777003) - SW	15-Sep-14	Zinc-65	-8.15E-01	2.42E+00	3.30E+00	3.00E+01	2.45E+00	pCi/L
South Haven Raw Water - SHR(360827003) - SW	15-Oct-14	Zinc-65	-2.61E-01	2.18E+00	3.17E+00	3.00E+01	2.18E+00	pCi/L
South Haven Raw Water - SHR(362508003) - SW	15-Nov-14	Zinc-65	-1.79E-01	3.31E+00	5.46E+00	3.00E+01	3.31E+00	pCi/L

ATTACHMENT E

**GEL LABORATORIES, LLC
INTERLABORATORY COMPARISON PROGRAM RESULTS**

65 Pages Follow



2014 ANNUAL QUALITY ASSURANCE REPORT

FOR THE

**RADIOLOGICAL ENVIRONMENTAL
MONITORING PROGRAM (REMP)**

GEL LABORATORIES, LLC
P.O. Box 30712, Charleston, SC 29417
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2014 ANNUAL QUALITY ASSURANCE REPORT

FOR THE

RADIOLOGICAL ENVIRONMENTAL

MONITORING PROGRAM (REMP)

Approved By:

Robert L. Pullano
Director, Quality Systems

February 13, 2015

Date



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2014 ANNUAL QUALITY ASSURANCE REPORT FOR THE RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM (REMP)

1. Introduction

GEL Laboratories, LLC (GEL) is a privately owned environmental laboratory dedicated to providing personalized client services of the highest quality. GEL was established as an analytical testing laboratory in 1981. Now a full service lab, our analytical divisions use state of the art equipment and methods to provide a comprehensive array of organic, inorganic, and radiochemical analyses to meet the needs of our clients.

At GEL, quality is emphasized at every level of personnel throughout the company. Management's ongoing commitment to good professional practice and to the quality of our testing services to our customers is demonstrated by their dedication of personnel and resources to develop, implement, assess, and improve our technical and management operations.

The purpose of GEL's quality assurance program is to establish policies, procedures, and processes to meet or exceed the expectations of our clients. To achieve this, all personnel that support these services to our clients are introduced to the program and policies during their initial orientation, and annually thereafter during company-wide training sessions.

GEL's primary goals are to ensure that all measurement data generated are scientifically and legally defensible, of known and acceptable quality per the data quality objectives (DQOs), and thoroughly documented to provide sound support for environmental decisions. In addition, GEL continues to ensure compliance with all contractual requirements, environmental standards, and regulations established by local, state and federal authorities.

GEL administers the QA program in accordance with the Quality Assurance Plan, GL-QS-B-001. Our Quality Systems include all quality assurance (QA) policies and quality control (QC) procedures necessary to plan, implement, and assess the work we perform. GEL's QA Program establishes a quality management system (QMS) that governs all of the activities of our organization.

This report entails the quality assurance program for the proficiency testing and environmental monitoring aspects of GEL for 2014. GEL's QA Program is designed to monitor the quality of analytical processing associated with environmental, radiobioassay, effluent (10 CFR Part 50), and waste (10 CFR Part 61) sample analysis.

This report covers the category of Radiological Environmental Monitoring Program (REMP) and includes:

- Intra-laboratory QC results analyzed during 2014.
- Inter-laboratory QC results analyzed during 2014 where known values were available.

2. Quality Assurance Programs for Inter-laboratory, Intra-laboratory and Third Party Cross-Check

In addition to internal and client audits, our laboratory participates in annual performance evaluation studies conducted by independent providers. We routinely participate in the following types of performance audits:

- Proficiency testing and other inter-laboratory comparisons
- Performance requirements necessary to retain Certifications
- Evaluation of recoveries of certified reference and in-house secondary reference materials using statistical process control data.
- Evaluation of relative percent difference between measurements through SPC data.

We also participate in a number of proficiency testing programs for federal and state agencies and as required by contracts. It is our policy that no proficiency evaluation samples be analyzed in any special manner. Our annual performance evaluation participation generally includes a combination of studies that support the following:

- US Environmental Protection Agency Discharge Monitoring Report, Quality Assurance Program (DMR-QA). Annual national program sponsored by EPA for laboratories engaged in the analysis of samples associated with the NPDES monitoring program. Participation is mandatory for all holders of NPDES permits. The permit holder must analyze for all of the parameters listed on the discharge permit. Parameters include general chemistry, metals, BOD/COD, oil and grease, ammonia, nitrates, etc.
- Department of Energy Mixed Analyte Performance Evaluation Program (MAPEP). A semiannual program developed by DOE in support of DOE contractors performing waste analyses. Participation is required for all laboratories that perform environmental analytical measurements in support of environmental management activities. This program includes radioactive isotopes in water, soil, vegetation and air filters.
- ERA's MRAD-Multimedia Radiochemistry Proficiency test program. This program is for labs seeking certification for radionuclides in wastewater and solid waste. The program is conducted in strict compliance with USEPA National Standards for Water Proficiency study.
- ERA's InterLaB RadChem Proficiency Testing Program for radiological analyses. This program completes the process of replacing the USEPA EMSL-LV Nuclear Radiation Assessment Division program discontinued in 1998. Laboratories seeking certification for radionuclide analysis in drinking water also use the study. This program is conducted in strict compliance with the USEPA National Standards for Water Proficiency Testing Studies. This program encompasses Uranium by EPA method 200.8 (for drinking water certification in Utah/Primary NELAP), gamma emitters, Gross Alpha/Beta, Iodine-131, naturally occurring radioactive isotopes, Strontium-89/90, and Tritium.
- ERA's Water Pollution (WP) biannual program for waste methodologies includes parameters for both organic and inorganic analytes.

- ERA's Water Supply (WS) biannual program for drinking water methodologies includes parameters for organic and inorganic analytes.
- Environmental Cross-Check Program administered by Eckert & Ziegler Analytics, Inc. This program encompasses radionuclides in water, soil, milk, naturally occurring radioactive isotopes in soil and air filters.

GEL procures single-blind performance evaluation samples from Eckert & Ziegler Analytics to verify the analysis of sample matrices processed at GEL. Samples are received on a quarterly basis. GEL's Third-Party Cross-Check Program provides environmental matrices encountered in a typical nuclear utility REMP. The Third-Party Cross-Check Program is intended to meet or exceed the inter-laboratory comparison program requirements discussed in NRC Regulatory Guide 4.15. Once performance evaluation samples have been prepared in accordance with the instructions provided by the PT provider, samples are managed and analyzed in the same manner as environmental samples from GEL's clients.

3. Quality Assurance Program for Internal and External Audits

During each annual reporting period, at least one internal assessment of each area of the laboratory is conducted in accordance with the pre-established schedule from Standard Operating Procedure for the Conduct of Quality Audits, GL-QS-E-001. The annual internal audit plan is reviewed for adequacy and includes the scheduled frequency and scope of quality control actions necessary to GEL's QA program. Internal audits are conducted at least annually in accordance with a schedule approved by the Quality Systems Director. Supplier audits are contingent upon the categorization of the supplier, and may or may not be conducted prior to the use of a supplier or subcontractor. Type I suppliers and subcontractors, regardless of how they were initially qualified, are re-evaluated at least once every three years.

In addition, prospective customers audit GEL during pre-contract audits. GEL hosts several external audits each year for both our clients and other programs. These programs include environmental monitoring, waste characterization, and radiobioassay. The following list of programs may audit GEL at least annually or up to every three years depending on the program.

- NELAC, National Environmental Laboratory Accreditation Program
- DOECAP, U.S. Department of Energy Consolidated Audit Program
- DOELAP, U.S. Department of Energy Laboratory Accreditation Program
- DOE QSAS, U.S. Department of Energy, Quality Systems for Analytical Services
- ISO/IEC 17025:2005
- A2LA, American Association for Laboratory Accreditation
- DOD ELAP, US Department of Defense Environmental Accreditation Program
- NUPIC, Nuclear Procurement Issues Committee
- South Carolina Department of Health and Environmental Control (SC DHEC)

The annual radiochemistry laboratory internal audit (13-RAD-001) was conducted in July, 2014. One (1) finding, four (4) observations, and eight (8) recommendations resulted from this assessment. By September, 2014, the finding was closed and appropriate laboratory staff addressed each observation and recommendation.

4. Performance Evaluation Acceptance Criteria for Environmental Sample Analysis

GEL utilized an acceptance protocol based upon two performance models. For those inter-laboratory programs that already have established performance criteria for bias (i.e., MAPEP, and ERA/ELAP), GEL will utilize the criteria for the specific program. For intra-laboratory or third party quality control programs that do not have a specific acceptance criteria (i.e. the Eckert-Ziegler Analytics Environmental Cross-check Program), results will be evaluated in accordance with GEL's internal acceptance criteria.

5. Performance Evaluation Samples

Performance Evaluation (PE) results and internal quality control sample results are evaluated in accordance with GEL acceptance criteria. The first criterion concerns bias, which is defined as the deviation of any one result from the known value. The second criterion concerns precision, which deals with the ability of the measurement to be replicated by comparison of an individual result with the mean of all results for a given sample set.

At GEL, we also evaluate our analytical performance on a regular basis through statistical process control (SPC) acceptance criteria. Where feasible, this criterion is applied to both measures of precision and accuracy and is specific to sample matrix. We establish environmental process control limits at least annually.

For Radiochemistry analysis, quality control evaluation is based on static limits rather than those that are statistically derived. Our current process control limits are maintained in GEL's AlphaLIMS. We also measure precision with matrix duplicates and/or matrix spike duplicates. The upper and lower control limits (UCL and LCL respectively) for precision are plus or minus three times the standard deviation from the mean of a series of relative percent differences. The static precision criteria for radiochemical analyses are 0 - 20%, for activity levels exceeding the contract required detection limit (CRDL).

6. Quality Control Program for Environmental Sample Analysis

GEL's internal QA Program is designed to include QC functions such as instrumentation calibration checks (to insure proper instrument response), blank samples, instrumentation backgrounds, duplicates, as well as overall staff qualification analyses and statistical process controls. Both quality control and qualification analyses samples are used to be as similar as the matrix type of those samples submitted for analysis by the various laboratory clients. These performance test samples (or performance evaluation samples) are either actual sample submitted in duplicate in order to evaluate the precision of laboratory measurements, or fortified blank samples, which have been given a known quantity of a radioisotope that is in the interest to GEL's clients.

Accuracy (or Bias) is measured through laboratory control samples and/or matrix spikes, as well as surrogates and internal standards. The UCLs and LCLs for accuracy are plus or minus three times the standard deviation from the mean of a series of recoveries. The static limit for radiochemical analyses is 75 - 125%. Specific instructions for out-of-control situations are provided in the applicable analytical SOP.

GEL's Laboratory Control Standard (LCS) is an aliquot of reagent water or other blank matrix to which known quantities of the method analytes are added in the laboratory. The LCS is analyzed exactly like a sample, and its purpose is to determine whether the methodology is in control, and whether the laboratory is capable of making accurate and precise measurements. Some methods may refer to these

samples as Laboratory Fortified Blanks (LFB). The requirement for recovery is between 75 and 125% for radiological analyses excluding drinking water matrix.

$$\text{Bias (\%)} = \frac{(\text{observed concentration})}{(\text{known concentration})} * 100 \%$$

Precision is a data quality indicator of the agreement between measurements of the same property, obtained under similar conditions, and how well they conform to themselves. Precision is usually expressed as standard deviation, variance or range in either absolute or relative (percentage) terms.

GEL's laboratory duplicate (DUP or LCSD) is an aliquot of a sample taken from the same container and processed in the same manner under identical laboratory conditions. The aliquot is analyzed independently from the parent sample and the results are compared to measure precision and accuracy.

If a sample duplicate is analyzed, it will be reported as Relative Percent Difference (RPD). The RPD must be 20 percent or less, if both samples are greater than 5 times the MDC. If both results are less than 5 times MDC, then the RPD must be equal to or less than 100%. If one result is above the MDC and the other is below the MDC, then the RPD can be calculated using the MDC for the result of the one below the MDC. The RPD must be 100% or less. In the situation where both results are above the MDC but one result is greater than 5 times the MDC and the other is less than 5 times the MDC, the RPD must be less than or equal to 20%. If both results are below MDC, then the limits on % RPD are not applicable.

$$\text{Difference (\%)} = \frac{(\text{high duplicate result} - \text{low duplicate result})}{(\text{average of results})} * 100 \%$$

7. Summary of Data Results

During 2013, forty-four (44) radioisotopes associated with seven (7) matrix types were analyzed under GEL's Performance Evaluation program in participation with ERA, MAPEP, and Eckert & Ziegler Analytics. Matrix types were representative of client analyses performed during 2014. Of the four hundred forty-five (445) total results reported, 98.6% (439 of 445) were found to be acceptable. The list below contains the type of matrix evaluated by GEL.

- Air Filter
- Cartridge
- Water
- Milk
- Soil
- Liquid
- Vegetation

Graphs are provided in Figures 1-9 of this report to allow for the evaluation of trends or biases. These graphs include radioisotopes Cobalt-60, Cesium-137, Tritium, Strontium-90, Gross Alpha, Gross Beta, Iodine-131, Americium-241, and Plutonium-238.

8. Summary of Participation in the Eckert & Ziegler Analytics Environmental Cross-Check Program

Eckert & Ziegler Analytics provided samples for seventy (70) individual environmental analyses. The accuracy of each result reported to Eckert & Ziegler Analytics, Inc. is measured by the ratio of GEL's result to the known value. All results fell within GEL's acceptance criteria (100%).

9. Summary of Participation in the MAPEP Monitoring Program

MAPEP Series 30 and 31 were analyzed by the laboratory. Of the one hundred thirty-eight (138) analyses, 97.8% (135 out of 138) of all results fell within the PT provider's acceptance criteria. Three analytical failures occurred: Uranium-234/233 and Uranium-238 in Soil and Uranium-238 in vegetation.

For the corrective actions associated with MAPEP Series 30, refer to CARR 140605-879 which is detailed in Table 8.

10. Summary of Participation in the ERA MRaD PT Program

The ERA MRaD program provided samples (MRAD-20 and MRAD-21) for one hundred eighty-eight (188) individual environmental analyses. One hundred eighty-seven (187) of the 188 analyses fell within the PT provider's acceptance criteria (99.4%). One analytical failure occurred: Americium-241 in water.

For the corrective actions associated with MRAD-20, refer to CARR140520-874 which are detailed in Table 8.

11. Summary of Participation in the ERA PT Program

The ERA program provided samples (RAD-96, RAD-98, and 011014L) for fifty-one (51) individual environmental analyses. Of the 51 analyses, 96.1% (49 out of 51) of all results fell within the PT provider's acceptance criteria. One analytical failure occurred: Strontium-89 in water.

For the corrective actions associated with RAD-98 refer to corrective actions CARR140825-902 (Table 8).

12. Corrective Action Request and Report (CARR)

There are two categories of corrective action at GEL. One is corrective action implemented at the analytical and data review level in accordance with the analytical SOP. The other is formal corrective action documented by the Quality Systems Team in accordance with GL-QS-E-002. A formal corrective action is initiated when a nonconformance reoccurs or is so significant that permanent elimination or prevention of the problem is required. Formal corrective action investigations include root cause analysis.

GEL includes quality requirements in most analytical standard operating procedures to ensure that data are reported only if the quality control criteria are met or the quality control measures that did not meet the acceptance criteria are documented. A formal corrective action is implemented according to GL-QS-E-002 for Conducting Corrective/Preventive Action and Identifying Opportunities for Improvement. Recording and documentation is performed following guidelines stated in GL-QS-E-012 for Client NCR Database Operation.



Any employee at GEL can identify and report a nonconformance and request that corrective action be taken. Any GEL employee can participate on a corrective action team as requested by the QS team or Group Leaders. The steps for conducting corrective action are detailed in GL-QS-E-002. In the event that correctness or validity of the laboratory's test results in doubt, the laboratory will take corrective action. If investigations show that the results have been impacted, affected clients will be informed of the issue in writing within five (5) calendar days of the discovery.

Table 8 provides the status of CARRs for radiological performance testing during 2014. **It has been determined that causes of the failures did not impact any data reported to our clients.**

13. References

1. GEL Quality Assurance Plan, GL-QS-B-001
2. GEL Standard Operating Procedure for the Conduct of Quality Audits, GL-QS-E-001
3. GEL Standard Operating Procedure for Conducting Corrective/Preventive Action and Identifying Opportunities for Improvement, GL-QS-E-002
4. GEL Standard Operating Procedure for AlphaLIMS Documentation of Nonconformance Reporting and Dispositioning and Control of Nonconforming Items, GL-QS-E-004
5. GEL Standard Operating Procedure for Handling Proficiency Evaluation Samples, GL-QS-E-013
6. GEL Standard Operating Procedure for Quality Assurance Measurement Calculations and Processes, GL-QS-E-014
7. 40 CFR Part 136 Guidelines Establishing Test Procedures for the Analysis of Pollutants
8. ISO/IEC 17025-2005, General Requirements for the Competence of Testing and Calibration Laboratories
9. ANSI/ASQC E4-1994, Specifications and Guidelines for Quality Systems for Environmental Data Collection and Environmental Technology Programs, American National Standard
10. 2003 NELAC Standard, National Environmental Laboratory Accreditation Program
11. 2009 TNI Standard, The NELAC Institute, National Environmental Accreditation Program
12. MARLAP, Multi-Agency Radiological Laboratory Analytical Protocols
13. 10 CFR Part 21, Reporting of Defects and Noncompliance
14. 10 CFR Part 50 Appendix B, Quality Assurance Criteria for Nuclear Power Plants and Fuel Reprocessing Plants
15. 10 CFR Part 61, Licensing Requirements for Land Disposal and Radioactive Waste
16. NRC REG Guide 4.15 and NRC REG Guide 4.8



TABLE 1
2014 RADIOLOGICAL PROFICIENCY TESTING RESULTS AND ACCEPTANCE CRITERIA

PT Provider	Quarter / Year	Report Received Date	Sample Number	Sample Media	Unit	Analyte / Nuclide	GEL Value	Known value	Acceptance Range/ Ratio	Evaluation
ERA	1st / 2014	02/24/14	RAD - 96	Water	pCi/L	Barium-133	80.6	76.2	63.8-83.8	Acceptable
ERA	1st / 2014	02/24/14	RAD - 96	Water	pCi/L	Cesium-134	64.7	66.8	54.4-73.5	Acceptable
ERA	1st / 2014	02/24/14	RAD - 96	Water	pCi/L	Cesium-137	112.0	109	98.1-122	Acceptable
ERA	1st / 2014	02/24/14	RAD - 96	Water	pCi/L	Cobalt-60	95.0	88.7	79.8-99.9	Acceptable
ERA	1st / 2014	02/24/14	RAD - 96	Water	pCi/L	Zinc-65	200	185	166-218	Acceptable
ERA	1st / 2014	02/24/14	RAD - 96	Water	pCi/L	Gross Alpha	34.8	36.1	18.6-46.4	Acceptable
ERA	1st / 2014	02/24/14	RAD - 96	Water	pCi/L	Gross Beta	19.6	22.3	13.5-30.4	Acceptable
ERA	1st / 2014	02/24/14	RAD - 96	Water	pCi/L	Gross Alpha	34.6	36.1	18.6-46.4	Acceptable
ERA	1st / 2014	02/24/14	RAD - 96	Water	pCi/L	Radium-226	16.2	16.8	12.5-19.2	Acceptable
ERA	1st / 2014	02/24/14	RAD - 96	Water	pCi/L	Radium-228	4.62	5.04	3.01-6.67	Acceptable
ERA	1st / 2014	02/24/14	RAD - 96	Water	pCi/L	Uranium (Nat)	7.39	7.23	5.51-8.53	Acceptable
ERA	1st / 2014	02/24/14	RAD - 96	Water	ug/L	Uranium (Nat) mass	11.00	10.6	8.07-12.5	Acceptable
ERA	1st / 2014	02/24/14	RAD - 96	Water	pCi/L	Radium-226	15.10	16.8	12.5-19.2	Acceptable
ERA	1st / 2014	02/24/14	RAD - 96	Water	pCi/L	Radium-228	4.66	5.04	3.01-6.67	Acceptable
ERA	1st / 2014	02/24/14	RAD - 96	Water	pCi/L	Uranium (Nat)	7.47	7.23	5.51-8.53	Acceptable
ERA	1st / 2014	02/24/14	RAD - 96	Water	ug/L	Uranium (Nat) mass	11.4	10.6	8.07-12.5	Acceptable
ERA	1st / 2014	02/24/14	RAD - 96	Water	pCi/L	Tritium	3320	3580	3030-3950	Acceptable
ERA	1st / 2014	02/24/14	RAD - 96	Water	pCi/L	Strontium-89	44.1	44.4	34.4-51.6	Acceptable
ERA	1st / 2014	02/24/14	RAD - 96	Water	pCi/L	Strontium-90	34.2	30.3	22.1-35.2	Acceptable
ERA	1st / 2014	02/24/14	RAD - 96	Water	pCi/L	Strontium-89	38.9	44.4	34.4-51.6	Acceptable
ERA	1st / 2014	02/24/14	RAD - 96	Water	pCi/L	Strontium-90	27.1	30.3	22.1-35.2	Acceptable
ERA	1st / 2014	02/06/14	011014L	Water	pCi/L	Strontium-89	42.3	38.7	29.3-45.7	Acceptable
ERA	1st / 2014	02/06/14	011014L	Water	pCi/L	Strontium-89	42.2	38.7	29.3-45.7	Acceptable
ERA	1st / 2014	02/24/14	RAD - 96	Water	pCi/L	Iodine-131	25.2	24.4	20.2-28.9	Acceptable
ERA	1st / 2014	02/24/14	RAD - 96	Water	pCi/L	Iodine-131	22.4	24.4	20.2-28.9	Acceptable
EZA	1st/2014	05/16/14	E10846	Cartridge	pCi	Iodine-131	7.83E+01	7.50E+03	1.04	Acceptable
EZA	1st/2014	05/16/14	E10847	Milk	pCi/L	Strontium-89	9.14E+01	9.17E+01	1	Acceptable
EZA	1st/2014	05/16/14	E10847	Milk	pCi/L	Strontium-90	1.27E+01	1.51E+01	0.84	Acceptable

PT Provider	Quarter / Year	Report Received Date	Sample Number	Sample Media	Unit	Analyte / Nuclide	GEL Value	Known value	Acceptance Range/ Ratio	Evaluation
EZA	1st/2014	05/16/14	E10848	Milk	pCi/L	Iodine-131	9.84E+01	9.85E+01	1	Acceptable
EZA	1st/2014	05/16/14	E10848	Milk	pCi/L	Cerium-141	1.21E+02	1.19E+02	1.02	Acceptable
EZA	1st/2014	05/16/14	E10848	Milk	pCi/L	Cr-51	5.19E+02	4.91E+02	1.06	Acceptable
EZA	1st/2014	05/16/14	E10848	Milk	pCi/L	Cesium-134	1.79E+02	2.10E+02	0.85	Acceptable
EZA	1st/2014	05/16/14	E10848	Milk	pCi/L	Cesium-137	2.55E+02	2.53E+02	1.01	Acceptable
EZA	1st/2014	05/16/14	E10848	Milk	pCi/L	Cobalt-58	2.58E+02	2.68E+02	0.96	Acceptable
EZA	1st/2014	05/16/14	E10848	Milk	pCi/L	Mn-54	3.01E+02	2.97E+02	1.01	Acceptable
EZA	1st/2014	05/16/14	E10848	Milk	pCi/L	Iron-59	2.24E+02	2.19E+02	1.02	Acceptable
EZA	1st/2014	05/16/14	E10848	Milk	pCi/L	Zinc-65	3.45E+02	3.23E+02	1.07	Acceptable
EZA	1st/2014	05/16/14	E10848	Milk	pCi/L	Cobalt-60	3.39E+02	3.37E+02	1.00	Acceptable
EZA	1st/2014	05/16/14	E10849	Water	pCi/L	Iodine-131	9.24E+01	8.99E+01	1.03	Acceptable
EZA	1st/2014	05/16/14	E10849	Water	pCi/L	Cerium-141	8.19E+01	7.71E+01	1.06	Acceptable
EZA	1st/2014	05/16/14	E10849	Water	pCi/L	Cr-51	3.32E+02	3.19E+02	1.04	Acceptable
EZA	1st/2014	05/16/14	E10849	Water	pCi/L	Cesium-134	1.27E+02	1.36E+02	0.93	Acceptable
EZA	1st/2014	05/16/14	E10849	Water	pCi/L	Cesium-137	1.69E+02	1.64E+02	1.03	Acceptable
EZA	1st/2014	05/16/14	E10849	Water	pCi/L	Cobalt-58	1.75E+02	1.74E+02	1.01	Acceptable
EZA	1st/2014	05/16/14	E10849	Water	pCi/L	Mn-54	2.08E+02	1.93E+02	1.08	Acceptable
EZA	1st/2014	05/16/14	E10849	Water	pCi/L	Iron-59	1.68E+02	1.42E+02	1.18	Acceptable
EZA	1st/2014	05/16/14	E10849	Water	pCi/L	Zinc-65	2.25E+02	2.10E+02	1.07	Acceptable
EZA	1st/2014	05/16/14	E10849	Water	pCi/L	Cobalt-60	2.31E+02	2.19E+02	1.02	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-GrF30	Filter	Bq/sample	Gross Alpha	1.980	1.77	0.53-3.01	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-GrF30	Filter	Bq/sample	Gross Beta	0.823	0.77	0.39-1.16	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-MaS30	Soil	Bq/kg	Americium-241	65	68	47.6-88.4	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-MaS30	Soil	Bq/kg	Cesium-134	5.44	0	False Pos Test	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-MaS30	Soil	Bq/kg	Cesium-137	1270	1238	867-1609	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-MaS30	Soil	Bq/kg	Cobalt-57	947	966	676-1256	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-MaS30	Soil	Bq/kg	Cobalt-60	0.581	1.220	Sens. Eval.	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-MaS30	Soil	Bq/kg	Iron-55	580	643	444-824	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-MaS30	Soil	Bq/kg	Manganese-54	1470	1430	1001-1859	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-MaS30	Soil	Bq/kg	Nickel-63	6.95	0	False Pos Test	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-MaS30	Soil	Bq/kg	Plutonium-238	89.7	96.0	67-125	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-MaS30	Soil	Bq/kg	Plutonium-239/240	69.80	76.8	53.8-99.8	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-MaS30	Soil	Bq/kg	Potassium-40	703	622	435-809	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-MaS30	Soil	Bq/kg	Strontium-90	1.48	0	False Pos Test	Acceptable



PT Provider	Quarter / Year	Report Received Date	Sample Number	Sample Media	Unit	Analyte / Nuclide	GEL Value	Known value	Acceptance Range/ Ratio	Evaluation
			MaS30							
MAPEP	2nd/2014	06/05/14	MAPEP-14-MaS30	Soil	Bq/kg	Technetium-99	37.1	0	False Pos Test	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-MaS30	Soil	Bq/kg	U-234/233	30.5	81.0	57-105	Not Accept.
MAPEP	2nd/2014	06/05/14	MAPEP-14-MaS30	Soil	Bq/kg	Uranium-238	35	83	58-108	Not Accept.
MAPEP	2nd/2014	06/05/14	MAPEP-14-MaS30	Soil	Bq/kg	Zinc-65	766	695	487-904	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-MaW30	Water	Bq/L	Americium-241	0.759	0.720	0.504-0.936	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-MaW30	Water	Bq/L	Cesium-134	21.4	23.1	16.2-30.0	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-MaW30	Water	Bq/L	Cesium-137	29.70	28.9	20.2-37.6	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-MaW30	Water	Bq/L	Cobalt-57	28.0	27.5	19.3-35.8	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-MaW30	Water	Bq/L	Cobalt-60	16.6	16.0	11.2-20.8	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-MaW30	Water	Bq/L	Hydrogen-3	308	321	225-417	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-MaW30	Water	Bq/L	Iron-55	0.3	0.0	False Pos Test	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-MaW30	Water	Bq/L	Manganese-54	14.4	13.9	9.7-18.1	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-MaW30	Water	Bq/L	Nickel-63	31.4	34.0	23.8-44.2	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-MaW30	Water	Bq/L	Plutonium-238	0.764	0.828	0.580-1.076	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-MaW30	Water	Bq/L	Pu-239/240	0.6590	0.6760	0.473-0.879	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-MaW30	Water	Bq/L	Potassium-40	0.460	0	False Pos Test	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-MaW30	Water	Bq/L	Strontium-90	8.32	8.51	5.96-11.06	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-MaW30	Water	Bq/L	Technetium-99	9.5	10.3	7.2-13.4	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-MaW30	Water	Bq/L	U-234/233	0.210	0.225	0.158-0.293	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-MaW30	Water	Bq/L	Uranium-238	1.41	1.45	1.02-1.89	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-	Water	Bq/L	Zinc-65	-0.126	0.0	False Pos Test	Acceptable



PT Provider	Quarter / Year	Report Received Date	Sample Number	Sample Media	Unit	Analyte / Nuclide	GEL Value	Known value	Acceptance Range/ Ratio	Evaluation
			MaW30							
MAPEP	2nd/2014	06/05/14	MAPEP-14-MaW30	Water	Bq/L	Gross Alpha	0.96	0.85	0.255-1.443	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-MaW30	Water	Bq/L	Gross Beta	4.7	4.2	2.10-6.29	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-MaW30	Water	Bq/L	Iodine-129	0.0227	0.00	False Pos Test	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-RdF30	Filter	ug/sample	Uranium-235	0.018	0.020	0.014-0.026	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-RdF30	Filter	ug/sample	Uranium-238	8.77	10.4	7.3-13.5	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-RdF30	Filter	ug/sample	Uranium-Total	8.80	10.4	7.3-13.5	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-RdF30	Filter	ug/sample	Americium-241	0.086	0.090	0.063-0.117	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-RdF30	Filter	Bq/sample	Cesium-134	1.85	1.91	1.34-2.48	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-RdF30	Filter	Bq/sample	Cesium-137	1.81	1.76	1.23-2.29	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-RdF30	Filter	Bq/sample	Cobalt-57	0.0757	0.00	False Pos Test	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-RdF30	Filter	Bq/sample	Cobalt-60	1.490	1.39	0.97-1.81	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-RdF30	Filter	Bq/sample	Manganese-54	0.0138	0.00	False Pos Test	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-RdF30	Filter	Bq/sample	Plutonium-238	0.000819	0.00090	Sens. Eval.	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-RdF30	Filter	Bq/sample	Pu-239/240	0.071	0.7720	0.054-0.1004	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-RdF30	Filter	Bq/sample	Strontium-90	1.19	1.18	0.83-1.53	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-RdF30	Filter	Bq/sample	U-234/233	0.0159	0.0195	0.0137-0.0254	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-RdF30	Filter	Bq/sample	Uranium-238	0.118	0.129	0.090-0.168	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-RdF30	Filter	Bq/sample	Zinc-65	0.246	0.00	False Pos Test	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-RdF30	Filter	Bq/sample	Gross Alpha	0.656	1.20	0.36-2.04	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-RdF30	Filter	Bq/sample	Gross Beta	0.95	0.85	0.43-1.28	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-RdF30	Filter	Bq/sample	Americium-241	0.106	0.104	0.073-0.135	Acceptable



PT Provider	Quarter / Year	Report Received Date	Sample Number	Sample Media	Unit	Analyte / Nuclide	GEL Value	Known value	Acceptance Range/ Ratio	Evaluation
			RdF30							
MAPEP	2nd/2014	06/05/14	MAPEP-14-RdV30	Vegetation	ug/sample	Uranium-235	0.261	0.0268	0.0188-0.0348	Not Accept.
MAPEP	2nd/2014	06/05/14	MAPEP-14-RdV30	Vegetation	ug/sample	Uranium-238	12.7	13.3	9.3-17.3	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-RdV30	Vegetation	ug/sample	Uranium-Total	12.7	13.3	9.3-17.3	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-RdV30	Vegetation	ug/sample	Americium-241	0.1100	0.108	0.076-0.140	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-RdV30	Vegetation	Bq/sample	Cesium-134	5.65	6.04	4.23-7.85	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-RdV30	Vegetation	Bq/sample	Cesium-137	4.98	4.74	3.32-6.16	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-RdV30	Vegetation	Bq/sample	Cobalt-57	11.1	10.1	7.1-13.1	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-RdV30	Vegetation	Bq/sample	Cobalt-60	7.21	6.93	4.85-9.01	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-RdV30	Vegetation	Bq/sample	Manganese-54	9.24	8.62	6.03-11.21	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-RdV30	Vegetation	Bq/sample	Plutonium-238	0.116	0.121	0.085-0.157	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-RdV30	Vegetation	Bq/sample	Pu-239/240	0.134	0.154	0.108-0.0200	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-RdV30	Vegetation	Bq/sample	Strontium-90	1.580	1.46	1.02-1.90	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-RdV30	Vegetation	Bq/sample	U-234/233	0.2640	0.2530	0.0177-0.0329	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-RdV30	Vegetation	Bq/sample	Uranium-238	0.174	0.165	0.116-0.215	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-RdV30	Vegetation	Bq/sample	Zinc-65	8.87	7.00	4.38-8.13	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Soil	pCi/kg	Actinium-228	1140	1240	795-1720	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Soil	pCi/kg	Americium-241	418	399	233-518	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Soil	pCi/kg	Bismuth-212	976	1240	330-1820	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Soil	pCi/kg	Bismuth-214	2290	1960	1180-2820	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Soil	pCi/kg	Cesium-134	3080	3390	2220-4070	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Soil	pCi/kg	Cesium-137	8310	8490	6510-10900	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Soil	pCi/kg	Cobalt-60	6570	6830	4620-9400	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Soil	pCi/kg	Lead-212	1330	1240	812-1730	Acceptable
ERA	2nd/2014	05/16/14	MRAD-	Soil	pCi/kg	Lead-214	2800	2070	1210-3090	Acceptable

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			20							
ERA	2nd/2014	05/16/14	MRAD-20	Soil	pCi/kg	Manganese-54	<44.3	<1000	0-1000	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Soil	pCi/kg	Plutonium-238	579	578	348-797	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Soil	pCi/kg	Plutonium-239	488	471.00	308-651	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Soil	pCi/kg	Potassium-40	10500	10500	7660-14100	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Soil	pCi/kg	Strontium-90	2500	2780	1060-4390	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Soil	pCi/kg	Thorium-234	3420	3360	1060-6320	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Soil	pCi/kg	Zinc-65	5700	5400	4300-7180	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Soil	pCi/kg	Strontium-90	6730	8530	3250-13500	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Soil	pCi/kg	Uranium-234	2602	3390	2070-4350	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Soil	pCi/kg	Uranium-238	2425	3360	2080-4260	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Soil	pCi/kg	Uranium-Total	5027	6910	3750-9120	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Soil	ug/kg	Uranium-Total(mass)	7110	10100	5570-12700	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Soil	pCi/kg	Uranium-234	3440	3390	2070-4350	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Soil	pCi/kg	Uranium-238	3680	3360	2080-4260	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Soil	pCi/kg	Uranium-Total	7310	6910	3750-9120	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Soil	ug/kg	Uranium-Total(mass)	11000	10100	5570-12700	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Soil	pCi/kg	Uranium-234	3740	3390	2070-4350	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Soil	pCi/kg	Uranium-238	3780	3360	2080-4260	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Soil	pCi/kg	Uranium-Total	7683	6910	3750-9120	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Soil	ug/kg	Uranium-Total(mass)	11300	10100	5570-12700	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Soil	ug/kg	Uranium-Total(mass)	11200	10100	5570-12700	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Vegetation	pCi/kg	Americium-241	1670	1490	911-1980	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Vegetation	pCi/kg	Cesium-134	657	646	415-839	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Vegetation	pCi/kg	Cesium-137	861	880	638-1220	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Vegetation	pCi/kg	Cobalt-60	997	926	639-1290	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Vegetation	pCi/kg	Curium-244	514	516	253-804	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Vegetation	pCi/kg	Manganese-54	<62.2	<300	0.00-300	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Vegetation	pCi/kg	Plutonium-238	2230	2110	1260-2890	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Vegetation	pCi/kg	Plutonium-239	3810	3740	2300-5150	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Vegetation	pCi/kg	Potassium-40	30800	31900	23000-44800	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Vegetation	pCi/kg	Strontium-	2330	2580	1470-3420	Acceptable



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			20			90				
ERA	2nd/2014	05/16/14	MRAD-20	Vegetation	pCi/kg	Uranium-234	1920	1760	1160-2260	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Vegetation	pCi/kg	Uranium-238	1970	1750	1170-2220	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Vegetation	pCi/kg	Uranium-Total	4025	3580	2430-4460	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Vegetation	ug/kg	Uranium-Total(mass)	5920	5240	3510-6650	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Vegetation	pCi/kg	Zinc-65	1030	919	663-1290	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Vegetation	pCi/kg	Uranium-234	1730	1760	1160-2260	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Vegetation	pCi/kg	Uranium-238	2000	1750	1170-2220	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Vegetation	pCi/kg	Uranium-Total	3817	3580	2430-4460	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Vegetation	ug/kg	Uranium-Total(mass)	5990	5240	3510-6650	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Vegetation	ug/kg	Uranium-Total(mass)	5620	5240	3510-6650	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Filter	pCi/Filter	Americium-241	60.2	59.7	36.8-80.8	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Filter	pCi/Filter	Cesium-134	920	1010	643-1250	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Filter	pCi/Filter	Cesium-137	816	828	622-1090	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Filter	pCi/Filter	Cobalt-60	1130	1120	867-1400	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Filter	pCi/Filter	Iron-55	254	240	74.4-469	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Filter	pCi/Filter	Manganese-54	<6.64	<50.0	0-50.0	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Filter	pCi/Filter	Plutonium-238	51.3	56.3	38.6-74.0	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Filter	pCi/Filter	Plutonium-239	47.5	48.6	35.2-63.5	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Filter	pCi/Filter	Strontium-90	76.7	78.9	38.6-118	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Filter	pCi/Filter	Uranium-234	33.8	36.4	22.6-54	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Filter	pCi/Filter	Uranium-238	34.5	36.1	23.3-49.9	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Filter	pCi/Filter	Uranium-Total	70.3	74.3	41.1-113	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Filter	ug/Filter	Uranium-Total(mass)	104	108	69.1-152	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Filter	pCi/Filter	Zinc-65	737	667	478-921	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Filter	pCi/Filter	Uranium-234	35.5	36.4	22.6-54	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Filter	pCi/Filter	Uranium-238	35.3	36.1	23.3-49.9	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Filter	pCi/Filter	Uranium-Total	72.4	74.3	41.1-113	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Filter	ug/Filter	Uranium-Total(mass)	105	108	69.1-152	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Filter	ug/Filter	Uranium-Total(mass)	100	108	69.1-152	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Filter	pCi/Filter	Gross Alpha	60.9	46	15.4-71.4	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Filter	pCi/Filter	Gross Beta	58.9	53.8	34.0-78.4	Acceptable

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			20							
ERA	2nd/2014	05/16/14	MRAD-20	Water	pCi/L	Americium-241	186	114	76.8-153	Not Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Water	pCi/L	Cesium-134	1540	1660	1220-1910	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Water	pCi/L	Cesium-137	2760	2690	2280-3220	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Water	pCi/L	Cobalt-60	1320	1270	1100-1490	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Water	pCi/L	Iron-55	1230	1200	716-1630	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Water	pCi/L	Manganese-54	<7.54	<100	0.00-100	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Water	pCi/L	Plutonium-238	37	44	32.6-54.9	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Water	pCi/L	Plutonium-239	124	160	124-202	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Water	pCi/L	Strontium-90	95	890	580-1180	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Water	pCi/L	Uranium-234	77.8	82.4	61.9-106	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Water	pCi/L	Uranium-238	50.8	48.4	36.9-59.4	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Water	pCi/L	Uranium-Total	156	168	123-217	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Water	ug/L	Uranium-Total(mass)	233	245	195-296	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Water	pCi/L	Zinc-65	2030	1800	1500-2270	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Water	pCi/L	Uranium-234	82.1	82.4	61.9-106	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Water	pCi/L	Uranium-238	84.6	48.4	36.9-59.4	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Water	pCi/L	Uranium-Total	170	168	123-217	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Water	ug/L	Uranium-Total(mass)	253	245	195-296	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Water	pCi/L	Uranium-234	80.5	82.4	61.9-106	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Water	pCi/L	Uranium-238	90.0	48.4	36.9-59.4	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Water	pCi/L	Uranium-Total	175	168	123-217	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Water	ug/L	Uranium-Total(mass)	269	245	195-296	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Water	pCi/L	Uranium-234	77.8	82.4	61.9-106	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Water	pCi/L	Uranium-238	78.3	48.4	36.9-59.4	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Water	pCi/L	Uranium-Total	156	168	123-217	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Water	ug/L	Uranium-Total(mass)	233	245	195-296	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Water	ug/L	Uranium-Total(mass)	232	245	195-296	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Water	pCi/L	Gross Alpha	141.0	133	47.2-206	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Water	pCi/L	Gross Beta	172	174.0	99.6-258	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Water	pCi/L	Tritium	5280	5580	3740-7960	Acceptable
EZA	2nd/2014	08/08/14	E10897	Cartridge	pCi	Iodine-131	8.73E+01	8.54E+01	1.02	Acceptable



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EZA	2nd/2014	08/08/14	E10898	Milk	pCi/L	Strontium-89	9.84E+01	9.13E+01	1.08	Acceptable
EZA	2nd/2014	08/08/14	E10898	Milk	pCi/L	Strontium-90	1.44E+01	1.45E+01	0.99	Acceptable
EZA	2nd/2014	08/08/14	E10899	Milk	pCi/L	Iodine-131	9.89E+01	9.09E+01	1.09	Acceptable
EZA	2nd/2014	08/08/14	E10899	Milk	pCi/L	Cerium-141	1.38E+02	1.24E+02	1.12	Acceptable
EZA	2nd/2014	08/08/14	E10899	Milk	pCi/L	Chromium-51	2.68E+02	2.53E+02	1.06	Acceptable
EZA	2nd/2014	08/08/14	E10899	Milk	pCi/L	Cesium-134	1.58E+02	1.62E+02	0.97	Acceptable
EZA	2nd/2014	08/08/14	E10899	Milk	pCi/L	Cesium-137	1.27E+02	1.20E+02	1.06	Acceptable
EZA	2nd/2014	08/08/14	E10899	Milk	pCi/L	Cobalt-58	1.20E+02	1.12E+02	1.07	Acceptable
EZA	2nd/2014	08/08/14	E10899	Milk	pCi/L	Manganese-54	1.67E+02	1.56E+02	1.07	Acceptable
EZA	2nd/2014	08/08/14	E10899	Milk	pCi/L	Iron-59	1.02E+02	1.02E+02	1.00	Acceptable
EZA	2nd/2014	08/08/14	E10899	Milk	pCi/L	Zinc-65	2.68E+02	2.52E+02	1.06	Acceptable
EZA	2nd/2014	08/08/14	E10899	Milk	pCi/L	Cobalt-60	2.42E+02	2.24E+02	1.08	Acceptable
EZA	2nd/2014	08/08/14	E10900	Water	pCi/L	Iodine-131	1.13E+02	9.83E+01	1.15	Acceptable
EZA	2nd/2014	08/08/14	E10900	Water	pCi/L	Cerium-141	1.52E+02	1.43E+02	1.06	Acceptable
EZA	2nd/2014	08/08/14	E10900	Water	pCi/L	Chromium-51	3.62E+02	2.94E+02	1.23	Acceptable
EZA	2nd/2014	08/08/14	E10900	Water	pCi/L	Cesium-134	1.69E+02	1.88E+02	0.90	Acceptable
EZA	2nd/2014	08/08/14	E10900	Water	pCi/L	Cesium-137	1.48E+02	1.39E+02	1.06	Acceptable
EZA	2nd/2014	08/08/14	E10900	Water	pCi/L	Cobalt-58	1.34E+02	1.30E+02	1.03	Acceptable
EZA	2nd/2014	08/08/14	E10900	Water	pCi/L	Manganese-54	1.88E+02	1.80E+02	1.04	Acceptable
EZA	2nd/2014	08/08/14	E10900	Water	pCi/L	Iron-59	1.29E+02	1.19E+02	1.09	Acceptable
EZA	2nd/2014	08/08/14	E10900	Water	pCi/L	Zinc-65	3.29E+02	2.93E+02	1.12	Acceptable
EZA	2nd/2014	08/08/14	E10900	Water	pCi/L	Cobalt-60	2.74E+02	2.60E+02	1.05	Acceptable
ERA	3rd / 2013	08/25/14	RAD - 98	Water	pCi/L	Barium-133	67.8	68.7	57.3-75.6	Acceptable
ERA	3rd / 2013	08/25/14	RAD - 98	Water	pCi/L	Cesium-134	71	72.3	59.0-79.5	Acceptable
ERA	3rd / 2013	08/25/14	RAD - 98	Water	pCi/L	Cesium-137	161	163	147-181	Acceptable
ERA	3rd / 2013	08/25/14	RAD - 98	Water	pCi/L	Cobalt-60	76.7	75.5	68.0-85.5	Acceptable
ERA	3rd / 2013	08/25/14	RAD - 98	Water	pCi/L	Zinc-65	92	82	73.8-98.5	Acceptable
ERA	3rd / 2013	08/25/14	RAD - 98	Water	pCi/L	Gross Alpha	45.3	45.4	23.6-57.4	Acceptable
ERA	3rd / 2013	08/25/14	RAD - 98	Water	pCi/L	Gross Beta	32.3	33.4	21.7-41.1	Acceptable
ERA	3rd / 2013	08/25/14	RAD - 98	Water	pCi/L	Gross Alpha	48.6	45.4	23.6-57.4	Acceptable
ERA	3rd / 2013	08/25/14	RAD - 98	Water	pCi/L	Radium-226	8.26	9.06	6.80-10.6	Acceptable
ERA	3rd / 2013	08/25/14	RAD - 98	Water	pCi/L	Radium-226	8.54	9.06	6.80-10.6	Acceptable
ERA	3rd / 2013	08/25/14	RAD - 98	Water	pCi/L	Radium-226	9.7	9.06	6.80-10.6	Acceptable
ERA	3rd / 2013	08/25/14	RAD - 98	Water	pCi/L	Radium-228	5.07	5.07	3.03-6.79	Acceptable
ERA	3rd / 2013	08/25/14	RAD - 98	Water	pCi/L	Radium-228	5.74	5.07	3.03-6.79	Acceptable
ERA	3rd / 2013	08/25/14	RAD - 98	Water	pCi/L	Uranium (Nat)	13.9	13.5	10.7-15.4	Acceptable
ERA	3rd / 2013	08/25/14	RAD - 98	Water	ug/L	Uranium (Nat) mass	22.25	19.8	15.6-22.6	Acceptable
ERA	3rd / 2013	08/25/14	RAD - 98	Water	pCi/L	Uranium (Nat)	13	13.5	10.7-15.4	Acceptable
ERA	3rd / 2013	08/25/14	RAD - 98	Water	ug/L	Uranium	20.7	19.8	15.6-22.6	Acceptable



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ERA	3rd / 2013	08/25/14	RAD - 98	Water	pCi/L	Tritium	10200	11200	9750-12300	Acceptable
ERA	3rd / 2013	08/25/14	RAD - 98	Water	pCi/L	Tritium	10400	11200	9750-12300	Acceptable
ERA	3rd / 2013	08/25/14	RAD - 98	Water	pCi/L	Strontium-89	56.3	42.7	32.9-49.8	Not Acceptable
ERA	3rd / 2013	08/25/14	RAD - 98	Water	pCi/L	Strontium-90	28.2	31.7	23.1-36.7	Acceptable
ERA	3rd / 2013	08/25/14	RAD - 98	Water	pCi/L	Strontium-89	56.5	42.7	32.9-49.8	Not Acceptable
ERA	3rd / 2013	08/25/14	RAD - 98	Water	pCi/L	Strontium-90	26	31.7	23.1-36.7	Acceptable
ERA	3rd / 2013	08/25/14	RAD - 98	Water	pCi/L	Iodine-131	28.6	26.1	21.7-30.8	Acceptable
ERA	3rd / 2013	08/25/14	RAD - 98	Water	pCi/L	Iodine-131	22.3	26.1	21.7-30.8	Acceptable
EZA	3rd/2014	11/22/14	E10993	Cartridge	pCi	Iodine-131	9.47E+01	8.99E+01	1.05	Acceptable
EZA	3rd/2014	11/22/14	E10994	Milk	pCi/L	Strontium-89	9.73E+01	9.69E+01	1.00	Acceptable
EZA	3rd/2014	11/22/14	E10994	Milk	pCi/L	Strontium-90	1.31E+01	1.64E+00	0.80	Acceptable
EZA	3rd/2014	11/22/14	E10995	Milk	pCi/L	Iodine-131	1.04E+02	9.76E+01	1.07	Acceptable
EZA	3rd/2014	11/22/14	E10995	Milk	pCi/L	Cerium-141	1.28E+02	1.26E+02	1.01	Acceptable
EZA	3rd/2014	11/22/14	E10995	Milk	pCi/L	Chromium-51	3.12E+02	2.88E+02	1.08	Acceptable
EZA	3rd/2014	11/22/14	E10995	Milk	pCi/L	Cesium-134	1.51E+02	1.58E+02	0.96	Acceptable
EZA	3rd/2014	11/22/14	E10995	Milk	pCi/L	Cesium-137	2.03E+02	1.93E+02	1.05	Acceptable
EZA	3rd/2014	11/22/14	E10995	Milk	pCi/L	Cobalt-58	1.44E+02	1.43E+02	1.01	Acceptable
EZA	3rd/2014	11/22/14	E10995	Milk	pCi/L	Manganese-54	1.49E+02	1.42E+02	1.05	Acceptable
EZA	3rd/2014	11/22/14	E10995	Milk	pCi/L	Iron-59	1.82E+02	1.58E+02	1.15	Acceptable
EZA	3rd/2014	11/22/14	E10995	Milk	pCi/L	Zinc-65	7.41E+01	7.30E+01	1.01	Acceptable
EZA	3rd/2014	11/22/14	E10995	Milk	pCi/L	Cobalt-60	3.14E+02	2.94E+02	1.06	Acceptable
EZA	3rd/2014	11/22/14	E10996	Water	pCi/L	Iodine-131	1.02E+02	9.88E+01	103	Acceptable
EZA	3rd/2014	11/22/14	E10996	Water	pCi/L	Cerium-141	1.30E+02	1.25E+02	104	Acceptable
EZA	3rd/2014	11/22/14	E10996	Water	pCi/L	Chromium-51	2.75E+02	2.86E+02	0.96	Acceptable
EZA	3rd/2014	11/22/14	E10996	Water	pCi/L	Cesium-134	1.45E+02	1.56E+02	0.93	Acceptable
EZA	3rd/2014	11/22/14	E10996	Water	pCi/L	Cesium-137	1.94E+02	1.92E+02	1.01	Acceptable
EZA	3rd/2014	11/22/14	E10996	Water	pCi/L	Cobalt-58	1.43E+02	1.42E+02	1.01	Acceptable
EZA	3rd/2014	11/22/14	E10996	Water	pCi/L	Manganese-54	1.46E+02	1.41E+02	1.04	Acceptable
EZA	3rd/2014	11/22/14	E10996	Water	pCi/L	Iron-59	1.66E+02	1.57E+02	1.06	Acceptable
EZA	3rd/2014	11/22/14	E10996	Water	pCi/L	Zinc-65	7.55E+01	7.24E+01	1.04	Acceptable
EZA	3rd/2014	11/22/14	E10996	Water	pCi/L	Cobalt-60	3.09E+02	2.95E+02	1.05	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-GrF31	Filter	Bq/sample	Gross Alpha	0.433	0.530	0.16-0.09	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-GrF31	Filter	Bq/sample	Gross Beta	1.060	1.060	0.53-1.59	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-MaS31	Soil	Bq/Kg	Americium-241	88.4	85.5	59.9-111.2	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-MaS31	Soil	Bq/Kg	Cesium-134	588	622	435-809	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-MaS31	Soil	Bq/Kg	Cesium-137	1.67		False Pos Test	Acceptable



PT Provider	Quarter / Year	Report Received Date	Sample Number	Sample Media	Unit	Analyte / Nuclide	GEL Value	Known value	Acceptance Range/ Ratio	Evaluation
MAPEP	4th /2014	01/09/15	MAPEP-14-MaS31	Soil	Bq/Kg	Cobalt-57	1160	1116	781-1451	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-MaS31	Soil	Bq/Kg	Cobalt-60	821	779	545-1013	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-MaS31	Soil	Bq/Kg	Iron-55	796	680	476-884	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-MaS31	Soil	Bq/Kg	Manganese-54	1060	1009	706-1312	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-MaS31	Soil	Bq/Kg	Nickel-63	924	980	686-1274	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-MaS31	Soil	Bq/Kg	Plutonium-238	0.92	0.48	Sens. Eval.	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-MaS31	Soil	Bq/Kg	Plutonium-239/240	61.5	58.6	41.0-76.2	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-MaS31	Soil	Bq/Kg	Potassium-40	879	824	577-1071	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-MaS31	Soil	Bq/Kg	Strontium-90	891	858	601-1115	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-MaS31	Soil	Bq/Kg	Technetium-99	466	589	412-766	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-MaS31	Soil	Bq/Kg	U-234/233	905	89	62-116	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-MaS31	Soil	Bq/Kg	Uranium-238	257	259	181-337	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-MaS31	Soil	Bq/Kg	Zinc-65	605.0	541	379-703	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-MaW31	Water	Bq/L	Americium-241	0.915	0.880	0.62-1.14	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-MaW31	Water	Bq/L	Cesium-134	-0.06		False Pos Test	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-MaW31	Water	Bq/L	Cesium-137	18.4	18.4	12.9-23.9	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-MaW31	Water	Bq/L	Cobalt-57	25	24.7	17.3-32.1	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-MaW31	Water	Bq/L	Cobalt-60	12.5	12.4	8.7-16.1	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-MaW31	Water	Bq/L	Hydrogen-3	216	208	146-270	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-MaW31	Water	Bq/L	Iron-55	34.0	31.5	22.1-41.0	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-MaW31	Water	Bq/L	Manganese-54	14.2	14.0	9.8-18.2	Acceptable

PT Provider	Quarter / Year	Report Received Date	Sample Number	Sample Media	Unit	Analyte / Nuclide	GEL Value	Known value	Acceptance Range/ Ratio	Evaluation
MAPEP	4th /2014	01/09/15	MAPEP-14-MaW31	Water	Bq/L	Nickel-63	23.6	24.6	17.2-32.0	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-MaW31	Water	Bq/L	Plutonium-238	0.547	0.618	0.433-0.803	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-MaW31	Water	Bq/L	Plutonium-239/240	0.015	0.005	Sens. Eval.	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-MaW31	Water	Bq/L	Potassium-40	174	161	113-209	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-MaW31	Water	Bq/L	Strontium-90	0.03		False Pos Test	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-MaW31	Water	Bq/L	Technetium-99	6.92	6.99	4.89-9.09	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-MaW31	Water	Bq/L	Uranium-234/233	0.206	0.205	0.144-0.267	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-MaW31	Water	Bq/L	Uranium-238	1.280	1.420	0.99-1.85	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-MaW31	Water	Bq/L	Zinc-65	11.900	10.90	7.6-14.2	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-MaW31	Water	Bq/L	Gross Alpha	0.793	0.701	0.201-1.192	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-MaW31	Water	Bq/L	Gross Beta	6.220	5.94	2.97-8.91	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-RdF31	Filter	ug/sample	Uranium-235	0.040	0.040	0.0278-0.0516	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-RdF31	Filter	ug/sample	Uranium-238	19.3	20.3	14.2-26.4	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-RdF31	Filter	ug/sample	Uranium-Total	19.00	20.4	14.3-26.5	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-RdF31	Filter	ug/sample	Americium-241	0.0561	0.067	0.0472-0.0876	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-RdF31	Filter	Bq/sample	Cesium-134	0.8640	0.96	0.67-1.25	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-RdF31	Filter	Bq/sample	Cesium-137	1.190	1.20	0.84-1.56	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-RdF31	Filter	Bq/sample	Cobalt-57	1.540	1.43	1.00-1.86	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-RdF31	Filter	Bq/sample	Cobalt-60	1.200	1.10	0.77-1.43	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-RdF31	Filter	Bq/sample	Manganese-54	0.808	0.75	0.53-0.98	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-RdF31	Filter	Bq/sample	Plutonium-238	0.155	0.107	0.075-0.139	Acceptable

PT Provider	Quarter / Year	Report Received Date	Sample Number	Sample Media	Unit	Analyte / Nuclide	GEL Value	Known value	Acceptance Range/ Ratio	Evaluation
MAPEP	4th /2014	01/09/15	MAPEP-14-RdF31	Filter	Bq/sample	Plutonium-239/240	0.048	0.0468	0.0328-0.0608	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-RdF31	Filter	Bq/sample	Strontium-90	0.762	0.70	0.492-0.914	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-RdF31	Filter	Bq/sample	Uranium-234/233	0.037	0.0358	0.0251-0.0465	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-RdF31	Filter	Bq/sample	Uranium-238	0.227	0.253	0.177-0.329	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-RdF31	Filter	Bq/sample	Zinc-65	0.779	0.76	0.53-0.99	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-RdV31	Vegetation	Bq/sample	Americium-241	0.226	0.19	0.135-0.251	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-RdV31	Vegetation	Bq/sample	Cesium-134	4.750	5.20	3.64-6.67	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-RdV31	Vegetation	Bq/sample	Cesium-137	6.910	6.60	4.62-8.58	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-RdV31	Vegetation	Bq/sample	Cobalt-57	-0.002	0.00	False Pos Test	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-RdV31	Vegetation	Bq/sample	Cobalt-60	0.008	0.00	False Pos Test	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-RdV31	Vegetation	Bq/sample	Manganese-54	7.980	7.88	5.52-10.24	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-RdV31	Vegetation	Bq/sample	Plutonium-238	0.001	0.001	Sens. Eval.	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-RdV31	Vegetation	Bq/sample	Plutonium-239/240	0.1510	0.171	0.120-0.222	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-RdV31	Vegetation	Bq/sample	Strontium-90	2.330	2.32	1.62-3.02	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-RdV31	Vegetation	Bq/sample	Uranium-234/233	0.046	0.047	0.0326-0.0606	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-RdV31	Vegetation	Bq/sample	Uranium-238	0.332	0.324	0.227-0.421	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-RdV31	Vegetation	Bq/sample	Zinc-65	2.850	2.63	1.84-3.42	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-SrF-31	Filter	Bq/sample	Strontium-89	3.62	3.79	2.65-4.93	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-SrF-31	Filter	Bq/sample	Strontium-90	3.62	3.79	2.65-4.93	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-XaW-31	Water	Bq/L	Iodine-129	4.56	4.55	3.19-5.92	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Soil	pCi/kg	Actinium-228	1280	1240	795-1720	Acceptable
ERA	3rd /	11/25/14	MRAD-	Soil	pCi/kg	Americium-	825	763	431-956	Acceptable



PT Provider	Quarter / Year	Report Received Date	Sample Number	Sample Media	Unit	Analyte / Nuclide	GEL Value	Known value	Acceptance Range/ Ratio	Evaluation
	2014		21			241				
ERA	3rd / 2014	11/25/14	MRAD-21	Soil	pCi/kg	Bismuth-212	1620	1240	330-1820	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Soil	pCi/kg	Bismuth-214	2900	2810	1690-4040	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Soil	pCi/kg	Cesium-134	1960	2140	1400-2570	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Soil	pCi/kg	Cesium-137	6760	6550	5020-8430	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Soil	pCi/kg	Cobalt-60	4480	4260	2880-5860	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Soil	pCi/kg	Lead-212	1260	1240	812-1730	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Soil	pCi/kg	Lead-214	3480	2750	1610-4100	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Soil	pCi/kg	Manganese-54	<30.0	<1000	0-1000	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Soil	pCi/kg	Plutonium-238	732	739	444-1020	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Soil	pCi/kg	Plutonium-239	281	309	202-427	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Soil	pCi/kg	Potassium-40	11500	10700	7810-14400	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Soil	pCi/kg	Strontium-90	8790	8420	3210-13300	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Soil	pCi/kg	Thorium-234	2000	2350	743-4420	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Soil	pCi/kg	Zinc-65	3910	3270	2600-4350	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Soil	pCi/kg	Uranium-234	2280	2370	1450-3040	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Soil	pCi/kg	Uranium-238	2340	2350	1450-2980	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Soil	pCi/kg	Uranium-Total	4762	4540	2360-6390	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Soil	ug/kg	Uranium-Total(mass)	7020	7050	3890-8870	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Vegetation	pCi/kg	Americium-241	2260	2290	1400-3505	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Vegetation	pCi/kg	Cesium-134	837	849	545-1100	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Vegetation	pCi/kg	Cesium-137	729	644	467-896	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Vegetation	pCi/kg	Cobalt-60	818	784	541-1100	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Vegetation	pCi/kg	Curium-244	361	367	180-572	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Vegetation	pCi/kg	Manganese-54	<25.3	<300	0-300	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Vegetation	pCi/kg	Plutonium-238	886	862	514-1180	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Vegetation	pCi/kg	Plutonium-239	675	701	430-965	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Vegetation	pCi/kg	Potassium-40	35300	30900	22300-43400	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Vegetation	pCi/kg	Strontium-90	1230	1710	975-2270	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Vegetation	pCi/kg	Uranium-234	1980	1780	1170-2290	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Vegetation	pCi/kg	Uranium-238	1970	1760	1170-2240	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Vegetation	pCi/kg	Uranium-	4038	3620	2450-4510	Acceptable



PT Provider	Quarter / Year	Report Received Date	Sample Number	Sample Media	Unit	Analyte / Nuclide	GEL Value	Known value	Acceptance Range/ Ratio	Evaluation
	2014		21			Total				
ERA	3rd / 2014	11/25/14	MRAD-21	Vegetation	ug/kg	Uranium-Total(mass)	5910	5280	3540-6710	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Vegetation	pCi/kg	Uranium-234	1670	1780	1170-2290	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Vegetation	pCi/kg	Uranium-238	1800	1760	1170-2240	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Vegetation	pCi/kg	Uranium-Total	3556	3620	2450-4510	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Vegetation	ug/kg	Uranium-Total(mass)	5390	5280	3540-6710	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Vegetation	ug/kg	Uranium-Total(mass)	5860	5280	3540-6710	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Vegetation	pCi/kg	Zinc-65	1930	1570	1130-2200	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Filter	pCi/Filter	Americium-241	41.4	38.6	23.8-52.2	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Filter	pCi/Filter	Cesium-134	742	765.0	487-949	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Filter	pCi/Filter	Cesium-137	677	647	486-850	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Filter	pCi/Filter	Cobalt-60	543	523	405-653	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Filter	pCi/Filter	Iron-55	117	120.0	37.2-234	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Filter	pCi/Filter	Manganese-54	<5.87	<50	0.00-50.0	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Filter	ug/Filter	Plutonium-238	32.9	35.7	24.5-46.9	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Filter	pCi/Filter	Plutonium-239	26.8	29.1	21.1-38.0	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Filter	pCi/Filter	Strontium-90	187	168	82.1-252	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Filter	pCi/Filter	Uranium-234	26	28	27.8-41.9	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Filter	pCi/Filter	Uranium-238	28	27.60	17.8-38.2	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Filter	pCi/Filter	Uranium-Total	56	57	31.4-86.3	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Filter	ug/Filter	Uranium-Total(mass)	82.6	82.7	52.9-116	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Filter	pCi/Filter	Zinc-65	629	547	392-755	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Filter	pCi/Filter	Uranium-234	28	28	27.8-41.9	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Filter	pCi/Filter	Uranium-238	25	27.60	17.8-38.2	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Filter	pCi/Filter	Uranium-Total	55	57	31.4-86.3	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Filter	ug/Filter	Uranium-Total(mass)	75.1	82.7	52.9-116	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Filter	ug/Filter	Uranium-Total(mass)	90.7	82.7	52.9-116	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Filter	pCi/Filter	Gross Alpha	47.4	36.9	12.4-57.3	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Filter	pCi/Filter	Gross Beta	27.2	21.1	13.3-30.8	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Water	pCi/L	Americium-241	72.4	68.6	46.2-92.0	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Water	pCi/L	Cesium-134	816.0	850	624-977	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Water	pCi/L	Cesium-137	1310	1240	1060-1490	Acceptable



PT Provider	Quarter / Year	Report Received Date	Sample Number	Sample Media	Unit	Analyte / Nuclide	GEL Value	Known value	Acceptance Range/ Ratio	Evaluation
	2014		21							
ERA	3rd / 2014	11/25/14	MRAD-21	Water	pCi/L	Cobalt-60	1130	1070	930-1250	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Water	pCi/L	Iron-55	130	134	79.9-182	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Water	pCi/L	Manganese-54	<6.34	<100	0.00-100	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Water	pCi/L	Plutonium-238	35	33	24.6-41.4	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Water	pCi/L	Plutonium-239	46.4	51	39.7-64.4	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Water	pCi/L	Strontium-90	300	254	165-336	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Water	pCi/L	Uranium-234	42	44	32.9-56.5	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Water	pCi/L	Uranium-238	50	43.50	33.2-53.4	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Water	pCi/L	Uranium-Total	92	89	65.5-115	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Water	ug/L	Uranium-Total(mass)	137	130	104-157	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Water	pCi/L	Zinc-65	1070	921	768-1160	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Water	pCi/L	Uranium-234	43	44	32.9-56.5	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Water	pCi/L	Uranium-238	45	43.50	33.2-53.4	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Water	pCi/L	Uranium-Total	90	89	65.5-115	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Water	ug/L	Uranium-Total(mass)	134	130	104-157	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Water	pCi/L	Uranium-234	49	44	32.9-56.5	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Water	pCi/L	Uranium-238	42	43.50	33.2-53.4	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Water	pCi/L	Uranium-Total	93	89	65.5-115	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Water	ug/L	Uranium-Total(mass)	126	130	104-157	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Water	ug/L	Uranium-Total(mass)	144	130	104-157	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Water	pCi/L	Gross Alpha	96.2	98	34.8-152	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Water	pCi/L	Gross Beta	86.1	77.5	44.4-115	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Water	pCi/L	Tritium	5490	5500	3680-7840	Acceptable



TABLE 2
2014 ECKERT & ZIEGLER ANALYTICS PERFORMANCE EVALUATION RESULTS

PT Provider	Quarter / Year	Report Date	Sample Number	Sample Media	Unit	Analyte / Nuclide	GEL Value	Known value	Acceptance Range/ Ratio	Evaluation
EZA	1st/2014	05/16/14	E10846	Cartridge	pCi	Iodine-131	7.83E+01	7.52E+01	1.04	Acceptable
EZA	1st/2014	05/16/14	E10847	Milk	pCi/L	Strontium-89	9.14E+01	9.17E+01	1	Acceptable
EZA	1st/2014	05/16/14	E10847	Milk	pCi/L	Strontium-90	1.27E+01	1.51E+01	0.84	Acceptable
EZA	1st/2014	05/16/14	E10848	Milk	pCi/L	Iodine-131	9.84E+01	9.85E+01	1	Acceptable
EZA	1st/2014	05/16/14	E10848	Milk	pCi/L	Cerium-141	1.21E+02	1.19E+02	1.02	Acceptable
EZA	1st/2014	05/16/14	E10848	Milk	pCi/L	Cr-51	5.19E+02	4.91E+02	1.06	Acceptable
EZA	1st/2014	05/16/14	E10848	Milk	pCi/L	Cesium-134	1.79E+02	2.10E+02	0.85	Acceptable
EZA	1st/2014	05/16/14	E10848	Milk	pCi/L	Cesium-137	2.55E+02	2.53E+02	1.01	Acceptable
EZA	1st/2014	05/16/14	E10848	Milk	pCi/L	Cobalt-58	2.58E+02	2.68E+02	0.96	Acceptable
EZA	1st/2014	05/16/14	E10848	Milk	pCi/L	Mn-54	3.01E+02	2.97E+02	1.01	Acceptable
EZA	1st/2014	05/16/14	E10848	Milk	pCi/L	Iron-59	2.24E+02	2.19E+02	1.02	Acceptable
EZA	1st/2014	05/16/14	E10848	Milk	pCi/L	Zinc-65	3.45E+02	3.23E+02	1.07	Acceptable
EZA	1st/2014	05/16/14	E10848	Milk	pCi/L	Cobalt-60	3.39E+02	3.37E+02	1.00	Acceptable
EZA	1st/2014	05/16/14	E10849	Water	pCi/L	Iodine-131	9.24E+01	8.99E+01	1.03	Acceptable
EZA	1st/2014	05/16/14	E10849	Water	pCi/L	Cerium-141	8.19E+01	7.71E+01	1.06	Acceptable
EZA	1st/2014	05/16/14	E10849	Water	pCi/L	Cr-51	3.32E+02	3.19E+02	1.04	Acceptable
EZA	1st/2014	05/16/14	E10849	Water	pCi/L	Cesium-134	1.27E+02	1.36E+02	0.93	Acceptable
EZA	1st/2014	05/16/14	E10849	Water	pCi/L	Cesium-137	1.69E+02	1.64E+02	1.03	Acceptable
EZA	1st/2014	05/16/14	E10849	Water	pCi/L	Cobalt-58	1.75E+02	1.74E+02	1.01	Acceptable
EZA	1st/2014	05/16/14	E10849	Water	pCi/L	Mn-54	2.08E+02	1.93E+02	1.08	Acceptable
EZA	1st/2014	05/16/14	E10849	Water	pCi/L	Iron-59	1.68E+02	1.42E+02	1.18	Acceptable
EZA	1st/2014	05/16/14	E10849	Water	pCi/L	Zinc-65	2.25E+02	2.10E+02	1.07	Acceptable
EZA	1st/2014	05/16/14	E10849	Water	pCi/L	Cobalt-60	2.31E+02	2.19E+02	1.02	Acceptable
EZA	2nd/2014	08/08/14	E10897	Cartridge	pCi	Iodine-131	8.73E+01	8.54E+01	1.02	Acceptable
EZA	2nd/2014	08/08/14	E10898	Milk	pCi/L	Strontium-89	9.84E+01	9.13E+01	1.08	Acceptable
EZA	2nd/2014	08/08/14	E10898	Milk	pCi/L	Strontium-90	1.44E+01	1.45E+01	0.99	Acceptable
EZA	2nd/2014	08/08/14	E10899	Milk	pCi/L	Iodine-131	9.89E+01	9.09E+01	1.09	Acceptable
EZA	2nd/2014	08/08/14	E10899	Milk	pCi/L	Cerium-141	1.38E+02	1.24E+02	1.12	Acceptable
EZA	2nd/2014	08/08/14	E10899	Milk	pCi/L	Chromium-51	2.68E+02	2.53E+02	1.06	Acceptable
EZA	2nd/2014	08/08/14	E10899	Milk	pCi/L	Cesium-134	1.58E+02	1.62E+02	0.97	Acceptable
EZA	2nd/2014	08/08/14	E10899	Milk	pCi/L	Cesium-137	1.27E+02	1.20E+02	1.06	Acceptable
EZA	2nd/2014	08/08/14	E10899	Milk	pCi/L	Cobalt-58	1.20E+02	1.12E+02	1.07	Acceptable
EZA	2nd/2014	08/08/14	E10899	Milk	pCi/L	Manganese-54	1.67E+02	1.56E+02	1.07	Acceptable
EZA	2nd/2014	08/08/14	E10899	Milk	pCi/L	Iron-59	1.02E+02	1.02E+02	1.00	Acceptable
EZA	2nd/2014	08/08/14	E10899	Milk	pCi/L	Zinc-65	2.68E+02	2.52E+02	1.06	Acceptable
EZA	2nd/2014	08/08/14	E10899	Milk	pCi/L	Cobalt-60	2.42E+02	2.24E+02	1.08	Acceptable
EZA	2nd/2014	08/08/14	E10900	Water	pCi/L	Iodine-131	1.13E+02	9.83E+01	1.15	Acceptable

PT Provider	Quarter / Year	Report Date	Sample Number	Sample Media	Unit	Analyte / Nuclide	GEL Value	Known value	Acceptance Range/ Ratio	Evaluation
EZA	2nd/2014	08/08/14	E10900	Water	pCi/L	Cerium-141	1.52E+02	1.43E+02	1.06	Acceptable
EZA	2nd/2014	08/08/14	E10900	Water	pCi/L	Chromium-51	3.62E+02	2.94E+02	1.23	Acceptable
EZA	2nd/2014	08/08/14	E10900	Water	pCi/L	Cesium-134	1.69E+02	1.88E+02	0.90	Acceptable
EZA	2nd/2014	08/08/14	E10900	Water	pCi/L	Cesium-137	1.48E+02	1.39E+02	1.06	Acceptable
EZA	2nd/2014	08/08/14	E10900	Water	pCi/L	Cobalt-58	1.34E+02	1.30E+02	1.03	Acceptable
EZA	2nd/2014	08/08/14	E10900	Water	pCi/L	Manganese-54	1.88E+02	1.80E+02	1.04	Acceptable
EZA	2nd/2014	08/08/14	E10900	Water	pCi/L	Iron-59	1.29E+02	1.19E+02	1.09	Acceptable
EZA	2nd/2014	08/08/14	E10900	Water	pCi/L	Zinc-65	3.29E+02	2.93E+02	1.12	Acceptable
EZA	2nd/2014	08/08/14	E10900	Water	pCi/L	Cobalt-60	2.74E+02	2.60E+02	1.05	Acceptable
EZA	3rd/2014	11/22/14	E10993	Cartridge	pCi	Iodine-131	9.47E+01	8.99E+01	1.05	Acceptable
EZA	3rd/2014	11/22/14	E10994	Milk	pCi/L	Strontium-89	9.73E+01	9.69E+01	1.00	Acceptable
EZA	3rd/2014	11/22/14	E10994	Milk	pCi/L	Strontium-90	1.31E+01	1.64E+01	0.80	Acceptable
EZA	3rd/2014	11/22/14	E10995	Milk	pCi/L	Iodine-131	1.04E+02	9.76E+01	1.07	Acceptable
EZA	3rd/2014	11/22/14	E10995	Milk	pCi/L	Cerium-141	1.28E+02	1.26E+02	1.01	Acceptable
EZA	3rd/2014	11/22/14	E10995	Milk	pCi/L	Chromium-51	3.12E+02	2.88E+02	1.08	Acceptable
EZA	3rd/2014	11/22/14	E10995	Milk	pCi/L	Cesium-134	1.51E+02	1.58E+02	0.96	Acceptable
EZA	3rd/2014	11/22/14	E10995	Milk	pCi/L	Cesium-137	2.03E+02	1.93E+02	1.05	Acceptable
EZA	3rd/2014	11/22/14	E10995	Milk	pCi/L	Cobalt-58	1.44E+02	1.43E+02	1.01	Acceptable
EZA	3rd/2014	11/22/14	E10995	Milk	pCi/L	Manganese-54	1.49E+02	1.42E+02	1.05	Acceptable
EZA	3rd/2014	11/22/14	E10995	Milk	pCi/L	Iron-59	1.82E+02	1.58E+02	1.15	Acceptable
EZA	3rd/2014	11/22/14	E10995	Milk	pCi/L	Zinc-65	7.41E+01	7.30E+01	1.01	Acceptable
EZA	3rd/2014	11/22/14	E10995	Milk	pCi/L	Cobalt-60	3.14E+02	2.94E+02	1.06	Acceptable
EZA	3rd/2014	11/22/14	E10996	Water	pCi/L	Iodine-131	1.02E+02	9.88E+01	103	Acceptable
EZA	3rd/2014	11/22/14	E10996	Water	pCi/L	Cerium-141	1.30E+02	1.25E+02	104	Acceptable
EZA	3rd/2014	11/22/14	E10996	Water	pCi/L	Chromium-51	2.75E+02	2.86E+02	0.96	Acceptable
EZA	3rd/2014	11/22/14	E10996	Water	pCi/L	Cesium-134	1.45E+02	1.56E+02	0.93	Acceptable
EZA	3rd/2014	11/22/14	E10996	Water	pCi/L	Cesium-137	1.94E+02	1.92E+02	1.01	Acceptable
EZA	3rd/2014	11/22/14	E10996	Water	pCi/L	Cobalt-58	1.43E+02	1.42E+02	1.01	Acceptable
EZA	3rd/2014	11/22/14	E10996	Water	pCi/L	Manganese-54	1.46E+02	1.41E+02	1.04	Acceptable
EZA	3rd/2014	11/22/14	E10996	Water	pCi/L	Iron-59	1.66E+02	1.57E+02	1.06	Acceptable
EZA	3rd/2014	11/22/14	E10996	Water	pCi/L	Zinc-65	7.55E+01	7.24E+01	1.04	Acceptable
EZA	3rd/2014	11/22/14	E10996	Water	pCi/L	Cobalt-60	3.09E+02	2.95E+02	1.05	Acceptable



TABLE 3
2014 DEPARTMENT OF ENERGY MIXED ANALYTE PERFORMANCE EVALUATION PROGRAM
(MAPEP) RESULTS

PT Provider	Quarter / Year	Report Date	Sample Number	Sample Media	Unit	Analyte / Nuclide	GEL Value	Known value	Acceptance Range/ Ratio	Evaluation
MAPEP	2nd/2014	06/05/14	MAPEP-14-GrF30	Filter	Bq/sample	Gross Alpha	1.980	1.77	0.53-3.01	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-GrF30	Filter	Bq/sample	Gross Beta	0.823	0.77	0.39-1.16	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-MaS30	Soil	Bq/kg	Americium-241	65	68	47.6-88.4	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-MaS30	Soil	Bq/kg	Cesium-134	5.44	0	False Pos Test	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-MaS30	Soil	Bq/kg	Cesium-137	1270	1238	867-1609	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-MaS30	Soil	Bq/kg	Cobalt-57	947	966	676-1256	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-MaS30	Soil	Bq/kg	Cobalt-60	0.581	1.220	Sens. Eval.	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-MaS30	Soil	Bq/kg	Iron-55	580	643	444-824	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-MaS30	Soil	Bq/kg	Manganese-54	1470	1430	1001-1859	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-MaS30	Soil	Bq/kg	Nickel-63	6.95	0	False Pos Test	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-MaS30	Soil	Bq/kg	Plutonium-238	89.7	96.0	67-125	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-MaS30	Soil	Bq/kg	Plutonium-239/240	69.80	76.8	53.8-99.8	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-MaS30	Soil	Bq/kg	Potassium-40	703	622	435-809	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-MaS30	Soil	Bq/kg	Strontium-90	1.48	0	False Pos Test	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-MaS30	Soil	Bq/kg	Technetium-99	37.1	0	False Pos Test	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-MaS30	Soil	Bq/kg	U-234/233	30.5	81.0	57-105	Not Accept.
MAPEP	2nd/2014	06/05/14	MAPEP-14-MaS30	Soil	Bq/kg	Uranium-238	35	83	58-108	Not Accept.
MAPEP	2nd/2014	06/05/14	MAPEP-14-MaS30	Soil	Bq/kg	Zinc-65	766	695	487-904	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-MaW30	Water	Bq/L	Am-241	0.759	0.720	0.504-0.936	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-MaW30	Water	Bq/L	Cesium-134	21.4	23.1	16.2-30.0	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-MaW30	Water	Bq/L	Cesium-137	29.70	28.9	20.2-37.6	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-MaW30	Water	Bq/L	Cobalt-57	28.0	27.5	19.3-35.8	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-MaW30	Water	Bq/L	Cobalt-60	16.6	16.0	11.2-20.8	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-MaW30	Water	Bq/L	Hydrogen-3	308	321	225-417	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-MaW30	Water	Bq/L	Iron-55	0.3	0.0	False Pos Test	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-MaW30	Water	Bq/L	Manganese-54	14.4	13.9	9.7-18.1	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-MaW30	Water	Bq/L	Nickel-63	31.4	34.0	23.8-44.2	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-MaW30	Water	Bq/L	Plutonium-238	0.764	0.828	0.580-1.076	Acceptable



PT Provider	Quarter / Year	Report Date	Sample Number	Sample Media	Unit	Analyte / Nuclide	GEL Value	Known value	Acceptance Range/ Ratio	Evaluation
MAPEP	2nd/2014	06/05/14	MAPEP-14-MaW30	Water	Bq/L	Pu-239/240	0.6590	0.6760	0.473-0.879	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-MaW30	Water	Bq/L	Potassium-40	0.460	0	False Pos Test	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-MaW30	Water	Bq/L	Strontium-90	8.32	8.51	5.96-11.06	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-MaW30	Water	Bq/L	Technetium-99	9.5	10.3	7.2-13.4	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-MaW30	Water	Bq/L	U-234/233	0.210	0.225	0.158-0.293	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-MaW30	Water	Bq/L	Uranium-238	1.41	1.45	1.02-1.89	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-MaW30	Water	Bq/L	Zinc-65	-0.126	0.0	False Pos Test	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-MaW30	Water	Bq/L	Gross Alpha	0.96	0.85	0.255-1.443	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-MaW30	Water	Bq/L	Gross Beta	4.7	4.2	2.10-6.29	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-MaW30	Water	Bq/L	Iodine-129	0.0227	0.00	False Pos Test	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-RdF30	Filter	ug/sample	Uranium-235	0.018	0.020	0.014-0.026	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-RdF30	Filter	ug/sample	Uranium-238	8.77	10.4	7.3-13.5	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-RdF30	Filter	ug/sample	Uranium-Total	8.80	10.4	7.3-13.5	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-RdF30	Filter	ug/sample	Americium-241	0.086	0.090	0.063-0.117	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-RdF30	Filter	Bq/sample	Cesium-134	1.85	1.91	1.34-2.48	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-RdF30	Filter	Bq/sample	Cesium-137	1.81	1.76	1.23-2.29	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-RdF30	Filter	Bq/sample	Cobalt-57	0.0757	0.00	False Pos Test	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-RdF30	Filter	Bq/sample	Cobalt-60	1.490	1.39	0.97-1.81	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-RdF30	Filter	Bq/sample	Manganese-54	0.0138	0.00	False Pos Test	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-RdF30	Filter	Bq/sample	Plutonium-238	0.000819	0.00090	Sens. Eval.	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-RdF30	Filter	Bq/sample	Pu-239/240	0.071	0.7720	0.054-0.1004	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-RdF30	Filter	Bq/sample	Strontium-90	1.19	1.18	0.83-1.53	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-RdF30	Filter	Bq/sample	U-234/233	0.0159	0.0195	0.0137-0.0254	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-RdF30	Filter	Bq/sample	Uranium-238	0.118	0.129	0.090-0.168	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-RdF30	Filter	Bq/sample	Zinc-65	0.246	0.00	False Pos Test	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-RdF30	Filter	Bq/sample	Gross Alpha	1.980	1.77	0.53-3.01	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-RdF30	Filter	Bq/sample	Gross Beta	0.83	0.77	0.39-1.16	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-RdF30	Filter	Bq/sample	Americium-241	0.106	0.104	0.073-0.135	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-RdV30	Vegetation	ug/sample	Uranium-235	0.261	0.0268	0.0188-0.0348	Not Accept.
MAPEP	2nd/2014	06/05/14	MAPEP-14-RdV30	Vegetation	ug/sample	Uranium-238	12.7	13.3	9.3-17.3	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-RdV30	Vegetation	ug/sample	Uranium-Total	12.7	13.3	9.3-17.3	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-RdV30	Vegetation	ug/sample	Americium-241	0.1100	0.108	0.076-0.140	Acceptable



PT Provider	Quarter / Year	Report Date	Sample Number	Sample Media	Unit	Analyte / Nuclide	GEL Value	Known value	Acceptance Range/ Ratio	Evaluation
MAPEP	2nd/2014	06/05/14	MAPEP-14-RdV30	Vegetation	Bq/sample	Cesium-134	5.65	6.04	4.23-7.85	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-RdV30	Vegetation	Bq/sample	Cesium-137	4.98	4.74	3.32-6.16	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-RdV30	Vegetation	Bq/sample	Cobalt-57	11.1	10.1	7.1-13.1	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-RdV30	Vegetation	Bq/sample	Cobalt-60	7.21	6.93	4.85-9.01	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-RdV30	Vegetation	Bq/sample	Manganese-54	9.24	8.62	6.03-11.21	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-RdV30	Vegetation	Bq/sample	Plutonium-238	0.116	0.121	0.085-0.157	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-RdV30	Vegetation	Bq/sample	Pu-239/240	0.134	0.154	0.108-0.0200	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-RdV30	Vegetation	Bq/sample	Strontium-90	1.580	1.46	1.02-1.90	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-RdV30	Vegetation	Bq/sample	U-234/233	0.2640	0.2530	0.0177-0.0329	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-RdV30	Vegetation	Bq/sample	Uranium-238	0.174	0.165	0.116-0.215	Acceptable
MAPEP	2nd/2014	06/05/14	MAPEP-14-RdV30	Vegetation	Bq/sample	Zinc-65	8.87	7.00	4.38-8.13	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-GrF31	Filter	Bq/sample	Gross Alpha	0.433	0.530	0.16-0.09	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-GrF31	Filter	Bq/sample	Gross Beta	1.060	1.060	0.53-1.59	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-MaS31	Soil	Bq/Kg	Americium-241	88.4	85.5	59.9-111.2	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-MaS31	Soil	Bq/Kg	Cesium-134	588	622	435-809	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-MaS31	Soil	Bq/Kg	Cesium-137	1.67		False Pos Test	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-MaS31	Soil	Bq/Kg	Cobalt-57	1160	1116	781-1451	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-MaS31	Soil	Bq/Kg	Cobalt-60	821	779	545-1013	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-MaS31	Soil	Bq/Kg	Iron-55	796	680	476-884	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-MaS31	Soil	Bq/Kg	Manganese-54	1060	1009	706-1312	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-MaS31	Soil	Bq/Kg	Nickel-63	924	980	686-1274	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-MaS31	Soil	Bq/Kg	Plutonium-238	0.92	0.48	Sens. Eval.	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-MaS31	Soil	Bq/Kg	Plutonium-239/240	61.5	58.6	41.0-76.2	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-MaS31	Soil	Bq/Kg	Potassium-40	879	824	577-1071	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-MaS31	Soil	Bq/Kg	Strontium-90	891	858	601-1115	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-MaS31	Soil	Bq/Kg	Technetium-99	466	589	412-766	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-MaS31	Soil	Bq/Kg	U-234/233	905	89	62-116	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-MaS31	Soil	Bq/Kg	Uranium-238	257	259	181-337	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-MaS31	Soil	Bq/Kg	Zinc-65	605.0	541	379-703	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-MaW31	Water	Bq/L	Americium-241	0.915	0.880	0.62-1.14	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-MaW31	Water	Bq/L	Cesium-134	-0.06		False Pos Test	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-MaW31	Water	Bq/L	Cesium-137	18.4	18.4	12.9-23.9	Acceptable

PT Provider	Quarter / Year	Report Date	Sample Number	Sample Media	Unit	Analyte / Nuclide	GEL Value	Known value	Acceptance Range/ Ratio	Evaluation
MAPEP	4th /2014	01/09/15	MAPEP-14-MaW31	Water	Bq/L	Cobalt-57	25	24.7	17.3-32.1	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-MaW31	Water	Bq/L	Cobalt-60	12.5	12.4	8.7-16.1	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-MaW31	Water	Bq/L	Hydrogen-3	216	208	146-270	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-MaW31	Water	Bq/L	Iron-55	34.0	31.5	22.1-41.0	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-MaW31	Water	Bq/L	Manganese-54	14.2	14.0	9.8-18.2	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-MaW31	Water	Bq/L	Nickel-63	23.6	24.6	17.2-32.0	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-MaW31	Water	Bq/L	Plutonium-238	0.547	0.618	0.433-0.803	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-MaW31	Water	Bq/L	Plutonium-239/240	0.015	0.005	Sens. Eval.	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-MaW31	Water	Bq/L	Potassium-40	174	161	113-209	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-MaW31	Water	Bq/L	Strontium-90	0.03		False Pos Test	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-MaW31	Water	Bq/L	Technetium-99	6.92	6.99	4.89-9.09	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-MaW31	Water	Bq/L	Uranium-234/233	0.206	0.205	0.144-0.267	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-MaW31	Water	Bq/L	Uranium-238	1.280	1.420	0.99-1.85	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-MaW31	Water	Bq/L	Zinc-65	11.900	10.90	7.6-14.2	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-MaW31	Water	Bq/L	Gross Alpha	0.793	0.701	0.201-1.192	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-MaW31	Water	Bq/L	Gross Beta	6.220	5.94	2.97-8.91	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-RdF31	Filter	ug/sample	Uranium-235	0.040	0.040	0.0278-0.0516	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-RdF31	Filter	ug/sample	Uranium-238	19.3	20.3	14.2-26.4	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-RdF31	Filter	ug/sample	Uranium-Total	19.00	20.4	14.3-26.5	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-RdF31	Filter	ug/sample	Americium-241	0.0561	0.067	0.0472-0.0876	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-RdF31	Filter	Bq/sample	Cesium-134	0.8640	0.96	0.67-1.25	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-RdF31	Filter	Bq/sample	Cesium-137	1.190	1.20	0.84-1.56	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-RdF31	Filter	Bq/sample	Cobalt-57	1.540	1.43	1.00-1.86	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-RdF31	Filter	Bq/sample	Cobalt-60	1.200	1.10	0.77-1.43	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-RdF31	Filter	Bq/sample	Manganese-54	0.808	0.75	0.53-0.98	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-RdF31	Filter	Bq/sample	Plutonium-238	0.115	0.107	0.075-0.139	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-RdF31	Filter	Bq/sample	Plutonium-239/240	0.048	0.0468	0.0328-0.0608	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-RdF31	Filter	Bq/sample	Strontium-90	0.762	0.70	0.492-0.914	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-RdF31	Filter	Bq/sample	Uranium-234/233	0.037	0.0358	0.0251-0.0465	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-RdF31	Filter	Bq/sample	Uranium-238	0.227	0.253	0.177-0.329	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-RdF31	Filter	Bq/sample	Zinc-65	0.779	0.76	0.53-0.99	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-RdV31	Vegetation	Bq/sample	Americium-241	0.226	0.19	0.135-0.251	Acceptable



PT Provider	Quarter / Year	Report Date	Sample Number	Sample Media	Unit	Analyte / Nuclide	GEL Value	Known value	Acceptance Range/ Ratio	Evaluation
MAPEP	4th /2014	01/09/15	MAPEP-14-RdV31	Vegetation	Bq/sample	Cesium-134	4.750	5.20	3.64-6.67	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-RdV31	Vegetation	Bq/sample	Cesium-137	6.910	6.60	4.62-8.58	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-RdV31	Vegetation	Bq/sample	Cobalt-57	-0.002	0.00	False Pos Test	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-RdV31	Vegetation	Bq/sample	Cobalt-60	0.008	0.00	False Pos Test	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-RdV31	Vegetation	Bq/sample	Manganese-54	7.980	7.88	5.52-10.24	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-RdV31	Vegetation	Bq/sample	Plutonium-238	0.001	0.001	Sens. Eval.	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-RdV31	Vegetation	Bq/sample	Plutonium-239/240	0.1510	0.171	0.120-0.222	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-RdV31	Vegetation	Bq/sample	Strontium-90	2.330	2.32	1.62-3.02	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-RdV31	Vegetation	Bq/sample	Uranium-234/233	0.046	0.047	0.0326-0.0606	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-RdV31	Vegetation	Bq/sample	Uranium-238	0.332	0.324	0.227-0.421	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-RdV31	Vegetation	Bq/sample	Zinc-65	2.850	2.63	1.84-3.42	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-SrF-31	Filter	Bq/sample	Strontium-89	3.62	3.79	2.65-4.93	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-SrF-31	Filter	Bq/sample	Strontium-90	3.62	3.79	2.65-4.93	Acceptable
MAPEP	4th /2014	01/09/15	MAPEP-14-XaW-31	Water	Bq/L	Iodine-129	4.56	4.55	3.19-5.92	Acceptable



TABLE 4
2014 ERA PROGRAM PERFORMANCE EVALUATION RESULTS

PT Provider	Quarter / Year	Report Date	Sample Number	Sample Media	Unit	Analyte / Nuclide	GEL Value	Known value	Acceptance Range/ Ratio	Evaluation
ERA	1st / 2014	02/24/14	RAD - 96	Water	pCi/L	Barium-133	80.6	76.2	63.8-83.8	Acceptable
ERA	1st / 2014	02/24/14	RAD - 96	Water	pCi/L	Cesium-134	64.7	66.8	54.4-73.5	Acceptable
ERA	1st / 2014	02/24/14	RAD - 96	Water	pCi/L	Cesium-137	112.0	109	98.1-122	Acceptable
ERA	1st / 2014	02/24/14	RAD - 96	Water	pCi/L	Cobalt-60	95.0	88.7	79.8-99.9	Acceptable
ERA	1st / 2014	02/24/14	RAD - 96	Water	pCi/L	Zinc-65	200	185	166-218	Acceptable
ERA	1st / 2014	02/24/14	RAD - 96	Water	pCi/L	Gross Alpha	34.8	36.1	18.6-46.4	Acceptable
ERA	1st / 2014	02/24/14	RAD - 96	Water	pCi/L	Gross Beta	19.6	22.3	13.5-30.4	Acceptable
ERA	1st / 2014	02/24/14	RAD - 96	Water	pCi/L	Gross Alpha	34.6	36.1	18.6-46.4	Acceptable
ERA	1st / 2014	02/24/14	RAD - 96	Water	pCi/L	Radium-226	16.2	16.8	12.5-19.2	Acceptable
ERA	1st / 2014	02/24/14	RAD - 96	Water	pCi/L	Radium-228	4.62	5.04	3.01-6.67	Acceptable
ERA	1st / 2014	02/24/14	RAD - 96	Water	pCi/L	Uranium (Nat)	7.39	7.23	5.51-8.53	Acceptable
ERA	1st / 2014	02/24/14	RAD - 96	Water	ug/L	Uranium (Nat) mass	11.00	10.6	8.07-12.5	Acceptable
ERA	1st / 2014	02/24/14	RAD - 96	Water	pCi/L	Radium-226	15.10	16.8	12.5-19.2	Acceptable
ERA	1st / 2014	02/24/14	RAD - 96	Water	pCi/L	Radium-228	4.66	5.04	3.01-6.67	Acceptable
ERA	1st / 2014	02/24/14	RAD - 96	Water	pCi/L	Uranium (Nat)	7.47	7.23	5.51-8.53	Acceptable
ERA	1st / 2014	02/24/14	RAD - 96	Water	ug/L	Uranium (Nat) mass	11.4	10.6	8.07-12.5	Acceptable
ERA	1st / 2014	02/24/14	RAD - 96	Water	pCi/L	Tritium	3320	3580	3030-3950	Acceptable
ERA	1st / 2014	02/24/14	RAD - 96	Water	pCi/L	Strontium-89	44.1	44.4	34.4-51.6	Acceptable
ERA	1st / 2014	02/24/14	RAD - 96	Water	pCi/L	Strontium-90	34.2	30.3	22.1-35.2	Acceptable
ERA	1st / 2014	02/24/14	RAD - 96	Water	pCi/L	Strontium-89	38.9	44.4	34.4-51.6	Acceptable
ERA	1st / 2014	02/24/14	RAD - 96	Water	pCi/L	Strontium-90	27.1	30.3	22.1-35.2	Acceptable
ERA	1st / 2014	02/06/14	011014L	Water	pCi/L	Strontium-89	42.3	38.7	29.3-45.7	Acceptable
ERA	1st / 2014	02/06/14	011014L	Water	pCi/L	Strontium-89	42.2	38.7	29.3-45.7	Acceptable
ERA	1st / 2014	02/24/14	RAD - 96	Water	pCi/L	Iodine-131	25.2	24.4	20.2-28.9	Acceptable
ERA	1st / 2014	02/24/14	RAD - 96	Water	pCi/L	Iodine-131	22.4	24.4	20.2-28.9	Acceptable
ERA	3rd / 2014	08/25/14	RAD - 98	Water	pCi/L	Barium-133	67.8	68.7	57.3-75.6	Acceptable
ERA	3rd / 2014	08/25/14	RAD - 98	Water	pCi/L	Cesium-134	71	72.3	59.0-79.5	Acceptable
ERA	3rd / 2014	08/25/14	RAD - 98	Water	pCi/L	Cesium-137	161	163	147-181	Acceptable
ERA	3rd / 2014	08/25/14	RAD - 98	Water	pCi/L	Cobalt-60	76.7	75.5	68.0-85.5	Acceptable



PT Provider	Quarter / Year	Report Date	Sample Number	Sample Media	Unit	Analyte / Nuclide	GEL Value	Known value	Acceptance Range/ Ratio	Evaluation
ERA	3rd / 2014	08/25/14	RAD - 98	Water	pCi/L	Zinc-65	92	82	73.8-98.5	Acceptable
ERA	3rd / 2014	08/25/14	RAD - 98	Water	pCi/L	Gross Alpha	45.3	45.4	23.6-57.4	Acceptable
ERA	3rd / 2014	08/25/14	RAD - 98	Water	pCi/L	Gross Beta	32.3	33.4	21.7-41.1	Acceptable
ERA	3rd / 2014	08/25/14	RAD - 98	Water	pCi/L	Gross Alpha	48.6	45.4	23.6-57.4	Acceptable
ERA	3rd / 2014	08/25/14	RAD - 98	Water	pCi/L	Radium-226	8.26	9.06	6.80-10.6	Acceptable
ERA	3rd / 2014	08/25/14	RAD - 98	Water	pCi/L	Radium-226	8.54	9.06	6.80-10.6	Acceptable
ERA	3rd / 2014	08/25/14	RAD - 98	Water	pCi/L	Radium-226	9.7	9.06	6.80-10.6	Acceptable
ERA	3rd / 2014	08/25/14	RAD - 98	Water	pCi/L	Radium-228	5.07	5.07	3.03-6.79	Acceptable
ERA	3rd / 2014	08/25/14	RAD - 98	Water	pCi/L	Radium-228	5.74	5.07	3.03-6.79	Acceptable
ERA	3rd / 2014	08/25/14	RAD - 98	Water	pCi/L	Uranium (Nat)	13.9	13.5	10.7-15.4	Acceptable
ERA	3rd / 2014	08/25/14	RAD - 98	Water	ug/L	Uranium (Nat) mass	22.25	19.8	15.6-22.6	Acceptable
ERA	3rd / 2014	08/25/14	RAD - 98	Water	pCi/L	Uranium (Nat)	13	13.5	10.7-15.4	Acceptable
ERA	3rd / 2014	08/25/14	RAD - 98	Water	ug/L	Uranium (Nat) mass	20.7	19.8	15.6-22.6	Acceptable
ERA	3rd / 2014	08/25/14	RAD - 98	Water	pCi/L	Tritium	10200	11200	9750-12300	Acceptable
ERA	3rd / 2014	08/25/14	RAD - 98	Water	pCi/L	Tritium	10400	11200	9750-12300	Acceptable
ERA	3rd / 2014	08/25/14	RAD - 98	Water	pCi/L	Strontium-89	56.3	42.7	32.9-49.8	Not Acceptable
ERA	3rd / 2014	08/25/14	RAD - 98	Water	pCi/L	Strontium-90	14.3	31.7	23.1-36.7	Acceptable
ERA	3rd / 2014	08/25/14	RAD - 98	Water	pCi/L	Strontium-89	56.5	42.7	32.9-49.8	Not Acceptable
ERA	3rd / 2014	08/25/14	RAD - 98	Water	pCi/L	Strontium-90	26	31.7	23.1-36.7	Acceptable
ERA	3rd / 2014	08/25/14	RAD - 98	Water	pCi/L	Iodine-131	28.6	26.1	21.7-30.8	Acceptable
ERA	3rd / 2014	08/25/14	RAD - 98	Water	pCi/L	Iodine-131	22.3	26.1	21.7-30.8	Acceptable

TABLE 5
2014 ERA PROGRAM (MRAD) PERFORMANCE EVALUATION RESULTS

PT Provider	Quarter / Year	Report Date	Sample Number	Sample Media	Unit	Analyte / Nuclide	GEL Value	Known value	Acceptance Range/ Ratio	Evaluation
ERA	2nd/2014	05/16/14	MRAD-20	Soil	pCi/kg	Actinium-228	1140	1240	795-1720	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Soil	pCi/kg	Americium-241	418	399	233-518	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Soil	pCi/kg	Bismuth-212	976	1240	330-1820	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Soil	pCi/kg	Bismuth-214	2290	1960	1180-2820	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Soil	pCi/kg	Cesium-134	3080	3390	2220-4070	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Soil	pCi/kg	Cesium-137	8310	8490	6510-10900	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Soil	pCi/kg	Cobalt-60	6570	6830	4620-9400	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Soil	pCi/kg	Lead-212	1330	1240	812-1730	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Soil	pCi/kg	Lead-214	2800	2070	1210-3090	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Soil	pCi/kg	Manganese-54	<44.3	<1000	0-1000	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Soil	pCi/kg	Plutonium-238	579	578	348-797	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Soil	pCi/kg	Plutonium-239	488	471.00	308-651	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Soil	pCi/kg	Potassium-40	10500	10500	7660-14100	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Soil	pCi/kg	Strontium-90	2500	2780	1060-4390	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Soil	pCi/kg	Thorium-234	3420	3360	1060-6320	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Soil	pCi/kg	Zinc-65	5700	5400	4300-7180	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Soil	pCi/kg	Strontium-90	6730	8530	3250-13500	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Soil	pCi/kg	Uranium-234	2602	3390	2070-4350	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Soil	pCi/kg	Uranium-238	2425	3360	2080-4260	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Soil	pCi/kg	Uranium-Total	5027	6910	3750-9120	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Soil	ug/kg	Uranium-Total(mass)	7110	10100	5570-12700	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Soil	pCi/kg	Uranium-234	3440	3390	2070-4350	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Soil	pCi/kg	Uranium-238	3680	3360	2080-4260	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Soil	pCi/kg	Uranium-Total	7310	6910	3750-9120	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Soil	ug/kg	Uranium-Total(mass)	11000	10100	5570-12700	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Soil	pCi/kg	Uranium-234	3740	3390	2070-4350	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Soil	pCi/kg	Uranium-238	3780	3360	2080-4260	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Soil	pCi/kg	Uranium-Total	7683	6910	3750-9120	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Soil	ug/kg	Uranium-Total(mass)	11300	10100	5570-12700	Acceptable

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ERA	2nd/2014	05/16/14	MRAD-20	Soil	ug/kg	Uranium-Total(mass)	11200	10100	5570-12700	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Vegetation	pCi/kg	Am-241	1670	1490	911-1980	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Vegetation	pCi/kg	Cesium-134	657	646	415-839	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Vegetation	pCi/kg	Cesium-137	861	880	638-1220	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Vegetation	pCi/kg	Cobalt-60	997	926	639-1290	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Vegetation	pCi/kg	Curium-244	514	516	253-804	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Vegetation	pCi/kg	Manganese-54	<62.2	<300	0.00-300	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Vegetation	pCi/kg	Plutonium-238	2230	2110	1260-2890	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Vegetation	pCi/kg	Plutonium-239	3810	3740	2300-5150	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Vegetation	pCi/kg	Potassium-40	30800	31900	23000-44800	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Vegetation	pCi/kg	Strontium-90	2330	2580	1470-3420	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Vegetation	pCi/kg	Uranium-234	1920	1760	1160-2260	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Vegetation	pCi/kg	Uranium-238	1970	1750	1170-2220	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Vegetation	pCi/kg	Uranium-Total	4025	3580	2430-4460	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Vegetation	ug/kg	Uranium-Total(mass)	5920	5240	3510-6650	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Vegetation	pCi/kg	Zinc-65	1030	919	663-1290	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Vegetation	pCi/kg	Uranium-234	1730	1760	1160-2260	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Vegetation	pCi/kg	Uranium-238	2000	1750	1170-2220	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Vegetation	pCi/kg	Uranium-Total	3817	3580	2430-4460	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Vegetation	ug/kg	Uranium-Total(mass)	5990	5240	3510-6650	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Vegetation	ug/kg	Uranium-Total(mass)	5620	5240	3510-6650	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Filter	pCi/Filter	Americium-241	60.2	59.7	36.8-80.8	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Filter	pCi/Filter	Cesium-134	920	1010	643-1250	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Filter	pCi/Filter	Cesium-137	816	828	622-1090	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Filter	pCi/Filter	Cobalt-60	1130	1120	867-1400	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Filter	pCi/Filter	Iron-55	254	240	74.4-469	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Filter	pCi/Filter	Manganese-54	<6.64	<50.0	0-50.0	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Filter	pCi/Filter	Plutonium-238	51.3	56.3	38.6-74.0	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Filter	pCi/Filter	Plutonium-239	47.5	48.6	35.2-63.5	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Filter	pCi/Filter	Strontium-90	76.7	78.9	38.6-118	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Filter	pCi/Filter	Uranium-234	33.8	36.4	22.6-54	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Filter	pCi/Filter	Uranium-238	34.5	36.1	23.3-49.9	Acceptable



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ERA	2nd/2014	05/16/14	MRAD-20	Filter	pCi/Filter	Uranium-Total	70.3	74.3	41.1-113	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Filter	ug/Filter	Uranium-Total(mass)	104	108	69.1-152	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Filter	pCi/Filter	Zinc-65	737	667	478-921	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Filter	pCi/Filter	Uranium-234	35.5	36.4	22.6-54	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Filter	pCi/Filter	Uranium-238	35.3	36.1	23.3-49.9	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Filter	pCi/Filter	Uranium-Total	72.4	74.3	41.1-113	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Filter	ug/Filter	Uranium-Total(mass)	105	108	69.1-152	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Filter	ug/Filter	Uranium-Total(mass)	100	108	69.1-152	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Filter	pCi/Filter	Gross Alpha	60.9	46	15.4-71.4	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Filter	pCi/Filter	Gross Beta	58.9	53.8	34.0-78.4	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Water	pCi/L	Americium-241	186	114	76.8-153	Not Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Water	pCi/L	Cesium-134	1540	1660	1220-1910	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Water	pCi/L	Cesium-137	2760	2690	2280-3220	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Water	pCi/L	Cobalt-60	1320	1270	1100-1490	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Water	pCi/L	Iron-55	1230	1200	716-1630	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Water	pCi/L	Manganese-54	<7.54	<100	0.00-100	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Water	pCi/L	Plutonium-238	37	44	32.6-54.9	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Water	pCi/L	Plutonium-239	124	160	124-202	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Water	pCi/L	Strontium-90	95	890	580-1180	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Water	pCi/L	Uranium-234	77.8	82.4	61.9-106	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Water	pCi/L	Uranium-238	50.8	48.4	36.9-59.4	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Water	pCi/L	Uranium-Total	156	168	123-217	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Water	ug/L	Uranium-Total(mass)	233	245	195-296	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Water	pCi/L	Zinc-65	2030	1800	1500-2270	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Water	pCi/L	Uranium-234	82.1	82.4	61.9-106	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Water	pCi/L	Uranium-238	84.6	48.4	36.9-59.4	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Water	pCi/L	Uranium-Total	170	168	123-217	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Water	ug/L	Uranium-Total(mass)	253	245	195-296	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Water	pCi/L	Uranium-234	80.5	82.4	61.9-106	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Water	pCi/L	Uranium-238	90.0	48.4	36.9-59.4	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Water	pCi/L	Uranium-Total	175	168	123-217	Acceptable



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ERA	2nd/2014	05/16/14	MRAD-20	Water	ug/L	Uranium-Total(mass)	269	245	195-296	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Water	pCi/L	Uranium-234	77.8	82.4	61.9-106	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Water	pCi/L	Uranium-238	78.3	48.4	36.9-59.4	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Water	pCi/L	Uranium-Total	156	168	123-217	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Water	ug/L	Uranium-Total(mass)	233	245	195-296	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Water	ug/L	Uranium-Total(mass)	232	245	195-296	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Water	pCi/L	Gross Alpha	141.0	133	47.2-206	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Water	pCi/L	Gross Beta	172	174.0	99.6-258	Acceptable
ERA	2nd/2014	05/16/14	MRAD-20	Water	pCi/L	Tritium	5280	5580	3740-7960	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Soil	pCi/kg	Actinium-228	1280	1240	795-1720	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Soil	pCi/kg	Americium-241	825	763	431-956	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Soil	pCi/kg	Bismuth-212	1620	1240	330-1820	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Soil	pCi/kg	Bismuth-214	2900	2810	1690-4040	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Soil	pCi/kg	Cesium-134	1960	2140	1400-2570	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Soil	pCi/kg	Cesium-137	6760	6550	5020-8430	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Soil	pCi/kg	Cobalt-60	4480	4260	2880-5860	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Soil	pCi/kg	Lead-212	1260	1240	812-1730	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Soil	pCi/kg	Lead-214	3480	2750	1610-4100	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Soil	pCi/kg	Manganese-54	<30.0	<1000	0-1000	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Soil	pCi/kg	Plutonium-238	732	739	444-1020	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Soil	pCi/kg	Plutonium-239	281	309	202-427	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Soil	pCi/kg	Potassium-40	11500	10700	7810-14400	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Soil	pCi/kg	Strontium-90	8790	8420	3210-13300	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Soil	pCi/kg	Thorium-234	2000	2350	743-4420	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Soil	pCi/kg	Zinc-65	3910	3270	2600-4350	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Soil	pCi/kg	Uranium-234	2280	2370	1450-3040	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Soil	pCi/kg	Uranium-238	2340	2350	1450-2980	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Soil	pCi/kg	Uranium-Total	4762	4540	2360-6390	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Soil	ug/kg	Uranium-Total(mass)	7020	7050	3890-8870	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Vegetation	pCi/kg	Am-241	2260	2290	1400-3505	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Vegetation	pCi/kg	Cesium-134	837	849	545-1100	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Vegetation	pCi/kg	Cesium-137	729	644	467-896	Acceptable



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	2014		21							
ERA	3rd / 2014	11/25/14	MRAD-21	Vegetation	pCi/kg	Cobalt-60	818	784	541-1100	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Vegetation	pCi/kg	Curium-244	361	367	180-572	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Vegetation	pCi/kg	Manganese-54	<25.3	<300	0-300	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Vegetation	pCi/kg	Plutonium-238	886	862	514-1180	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Vegetation	pCi/kg	Plutonium-239	675	701	430-965	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Vegetation	pCi/kg	Potassium-40	35300	30900	22300-43400	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Vegetation	pCi/kg	Strontium-90	1230	1710	975-2270	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Vegetation	pCi/kg	Uranium-234	1980	1780	1170-2290	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Vegetation	pCi/kg	Uranium-238	1970	1760	1170-2240	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Vegetation	pCi/kg	Uranium-Total	4038	3620	2450-4510	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Vegetation	ug/kg	Uranium-Total(mass)	5910	5280	3540-6710	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Vegetation	pCi/kg	Uranium-234	1670	1780	1170-2290	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Vegetation	pCi/kg	Uranium-238	1800	1760	1170-2240	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Vegetation	pCi/kg	Uranium-Total	3556	3620	2450-4510	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Vegetation	ug/kg	Uranium-Total(mass)	5390	5280	3540-6710	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Vegetation	ug/kg	Uranium-Total(mass)	5860	5280	3540-6710	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Vegetation	pCi/kg	Zinc-65	1930	1570	1130-2200	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Filter	pCi/Filter	Americium-241	41.4	38.6	23.8-52.2	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Filter	pCi/Filter	Cesium-134	742	765.0	487-949	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Filter	pCi/Filter	Cesium-137	677	647	486-850	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Filter	pCi/Filter	Cobalt-60	543	523	405-653	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Filter	pCi/Filter	Iron-55	117	120.0	37.2-234	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Filter	pCi/Filter	Manganese-54	<5.87	<50	0.00-50.0	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Filter	ug/Filter	Plutonium-238	32.9	35.7	24.5-46.9	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Filter	pCi/Filter	Plutonium-239	26.8	29.1	21.1-38.0	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Filter	pCi/Filter	Strontium-90	187	168	82.1-252	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Filter	pCi/Filter	Uranium-234	26	28	27.8-41.9	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Filter	pCi/Filter	Uranium-238	28	27.60	17.8-38.2	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Filter	pCi/Filter	Uranium-Total	56	57	31.4-86.3	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Filter	ug/Filter	Uranium-Total(mass)	82.6	82.7	52.9-116	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Filter	pCi/Filter	Zinc-65	629	547	392-755	Acceptable



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ERA	3rd / 2014	11/25/14	MRAD-21	Filter	pCi/Filter	Uranium-234	28	28	27.8-41.9	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Filter	pCi/Filter	Uranium-238	25	27.60	17.8-38.2	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Filter	pCi/Filter	Uranium-Total	55	57	31.4-86.3	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Filter	ug/Filter	Uranium-Total(mass)	75.1	82.7	52.9-116	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Filter	ug/Filter	Uranium-Total(mass)	90.7	82.7	52.9-116	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Filter	pCi/Filter	Gross Alpha	47.4	36.9	12.4-57.3	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Filter	pCi/Filter	Gross Beta	27.2	21.1	13.3-30.8	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Water	pCi/L	Americium-241	72.4	68.6	46.2-92.0	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Water	pCi/L	Cesium-134	816.0	850	624-977	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Water	pCi/L	Cesium-137	1310	1240	1060-1490	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Water	pCi/L	Cobalt-60	1130	1070	930-1250	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Water	pCi/L	Iron-55	130	134	79.9-182	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Water	pCi/L	Manganese-54	<6.34	<100	0.00-100	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Water	pCi/L	Plutonium-238	35	33	24.6-41.4	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Water	pCi/L	Plutonium-239	46.4	51	39.7-64.4	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Water	pCi/L	Strontium-90	300	254	165-336	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Water	pCi/L	Uranium-234	42	44	32.9-56.5	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Water	pCi/L	Uranium-238	50	43.50	33.2-53.4	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Water	pCi/L	Uranium-Total	92	89	65.5-115	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Water	ug/L	Uranium-Total(mass)	137	130	104-157	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Water	pCi/L	Zinc-65	1070	921	768-1160	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Water	pCi/L	Uranium-234	43	44	32.9-56.5	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Water	pCi/L	Uranium-238	45	43.50	33.2-53.4	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Water	pCi/L	Uranium-Total	90	89	65.5-115	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Water	ug/L	Uranium-Total(mass)	134	130	104-157	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Water	pCi/L	Uranium-234	49	44	32.9-56.5	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Water	pCi/L	Uranium-238	42	43.50	33.2-53.4	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Water	pCi/L	Uranium-Total	93	89	65.5-115	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Water	ug/L	Uranium-Total(mass)	126	130	104-157	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Water	ug/L	Uranium-Total(mass)	144	130	104-157	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Water	pCi/L	Gross Alpha	96.2	98	34.8-152	Acceptable
ERA	3rd / 2014	11/25/14	MRAD-21	Water	pCi/L	Gross Beta	86.1	77.5	44.4-115	Acceptable



PT Provider	Quarter / Year	Report Date	Sample Number	Sample Media	Unit	Analyte / Nuclide	GEL Value	Known value	Acceptance Range/ Ratio	Evaluation
ERA	3rd / 2014	11/25/14	MRAD-21	Water	pCi/L	Tritium	5490	5500	3680-7840	Acceptable

FIGURE 1

COBALT-60 PERFORMANCE EVALUATION RESULTS AND % BIAS

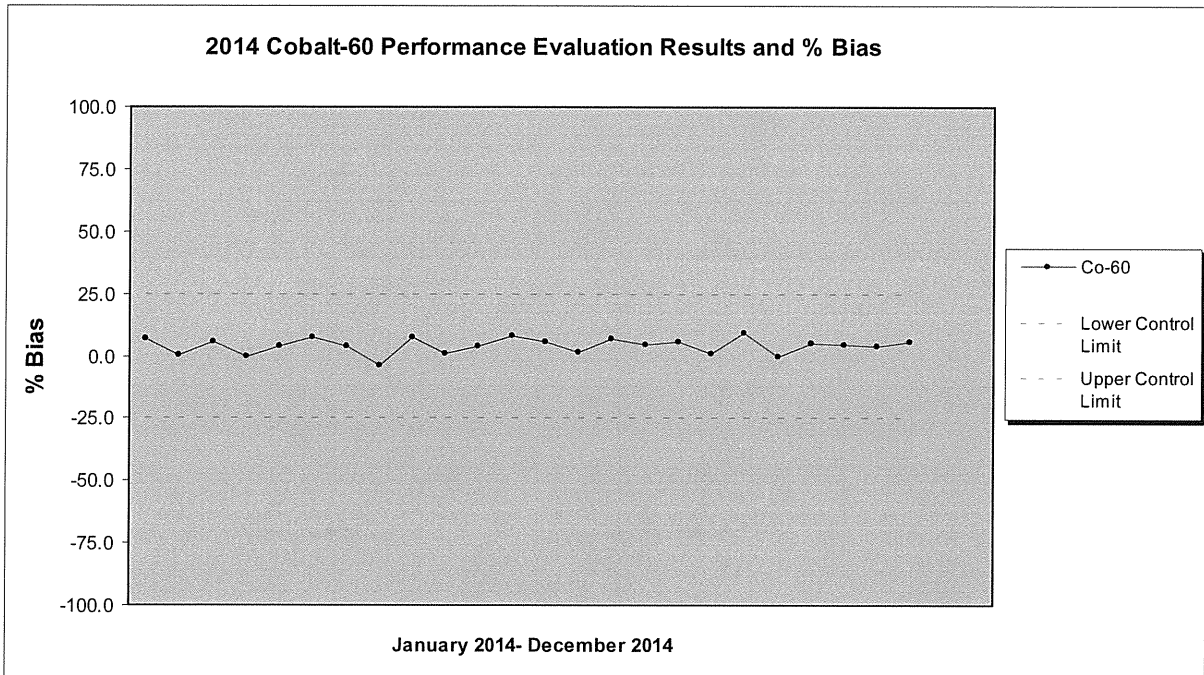


FIGURE 2

CESIUM-137 PERFORMANCE EVALUATION RESULTS AND % BIAS

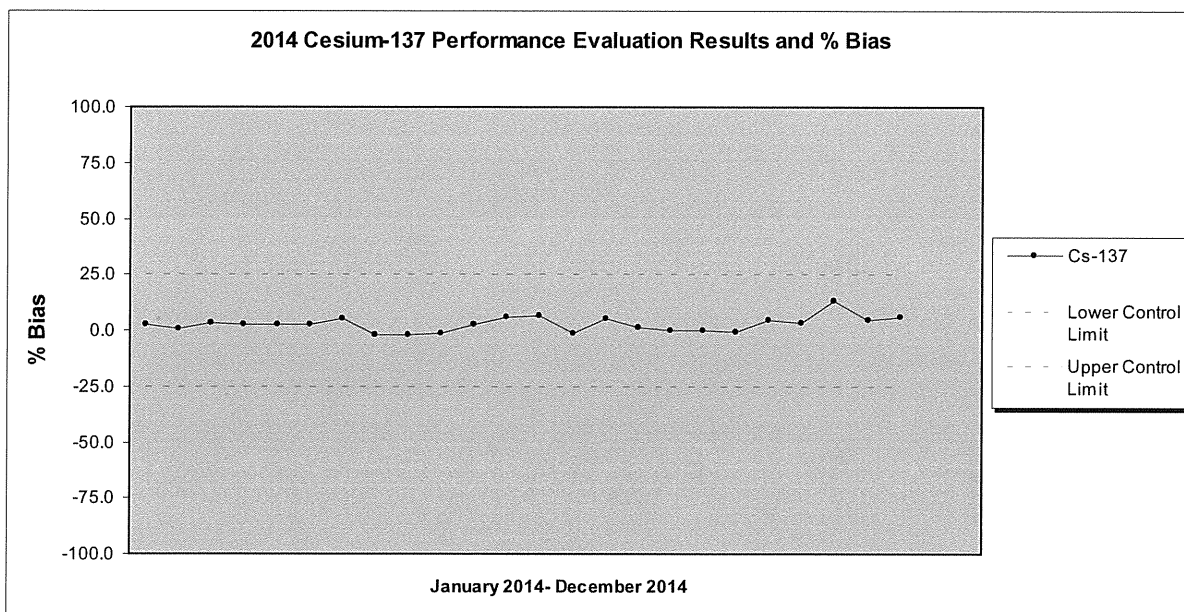


FIGURE 3

TRITIUM PERFORMANCE EVALUATION RESULTS AND % BIAS

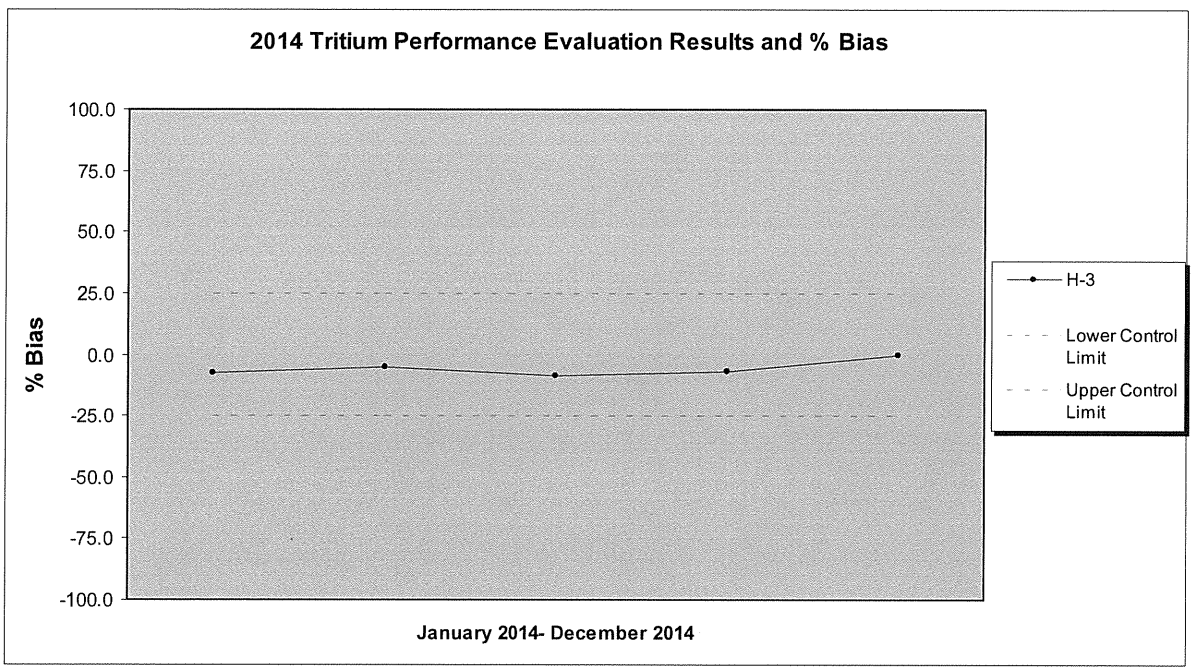


FIGURE 4

STRONTIUM-90 PERFORMANCE EVALUATION RESULTS AND % BIAS

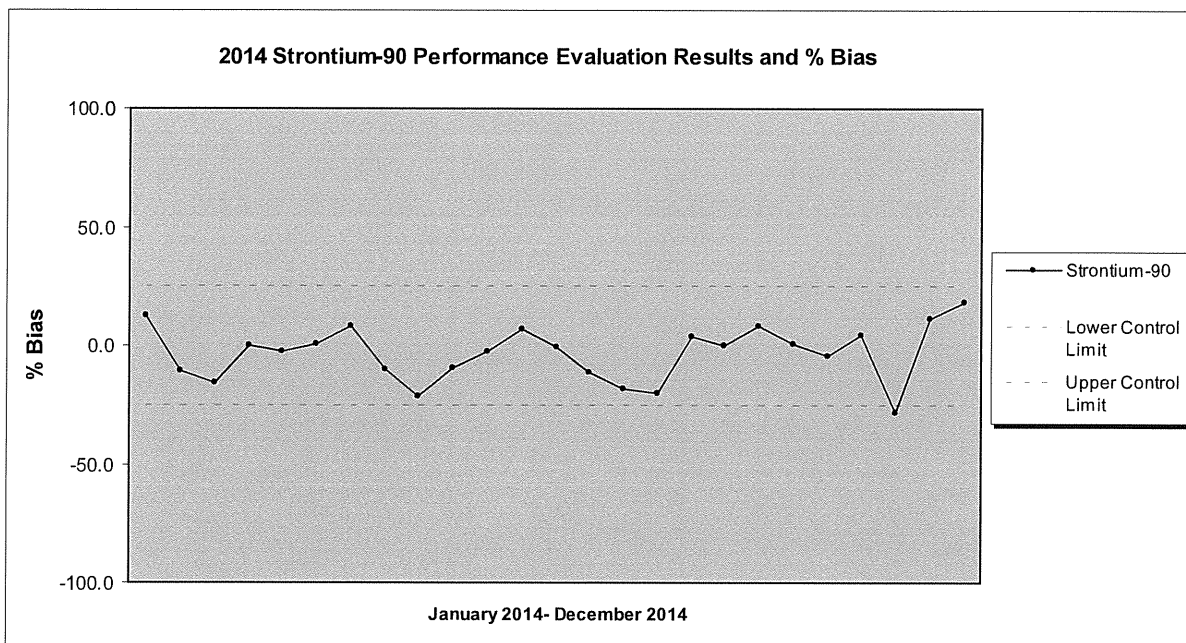


FIGURE 5

GROSS ALPHA PERFORMANCE EVALUATION RESULTS AND % BIAS

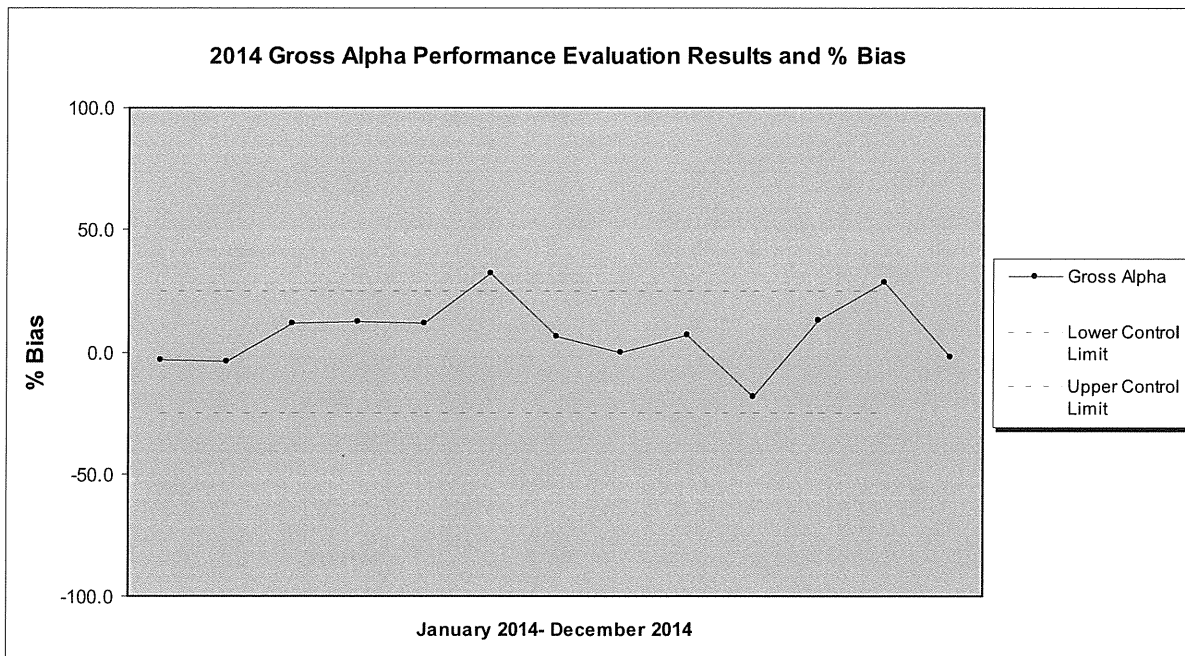


FIGURE 6

GROSS BETA PERFORMANCE EVALUATION RESULTS AND % BIAS

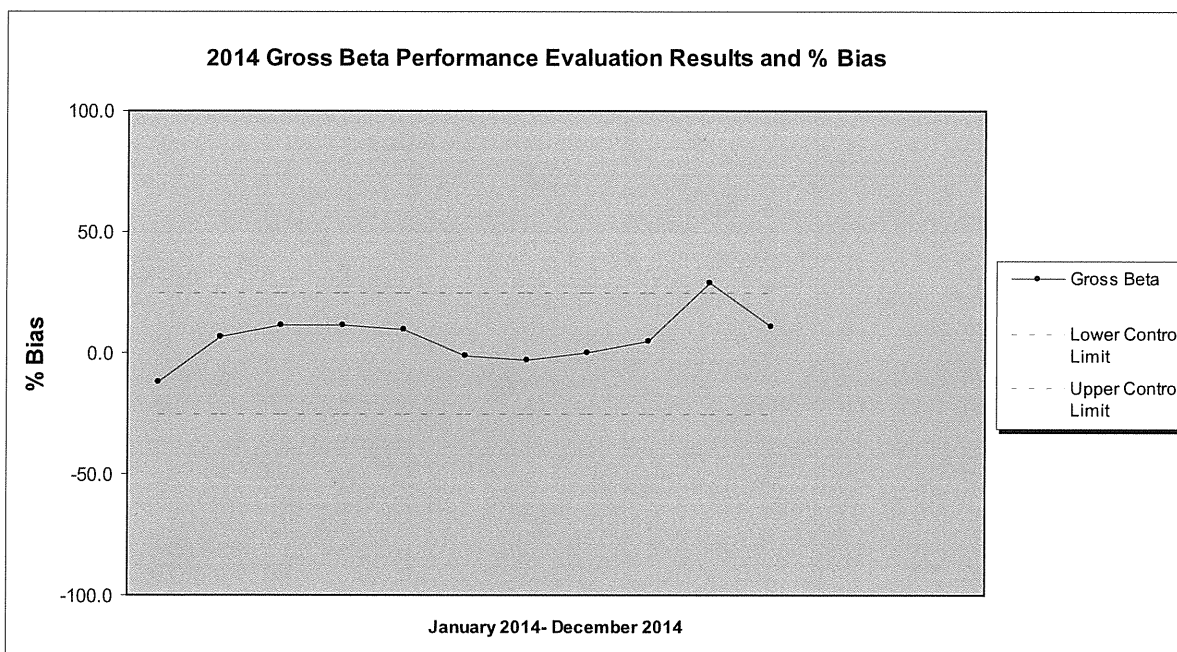


FIGURE 7

IODINE-131 PERFORMANCE EVALUATION RESULTS AND % BIAS

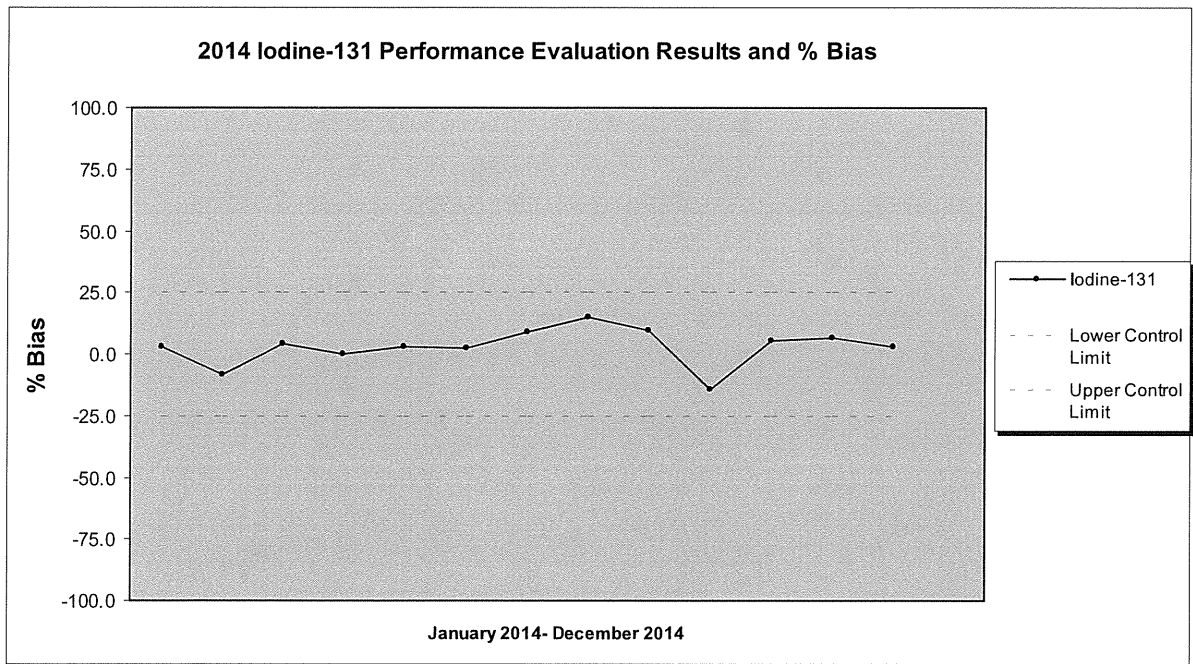


FIGURE 8

AMERICIUM-241 PERFORMANCE EVALUATION RESULTS AND % BIAS

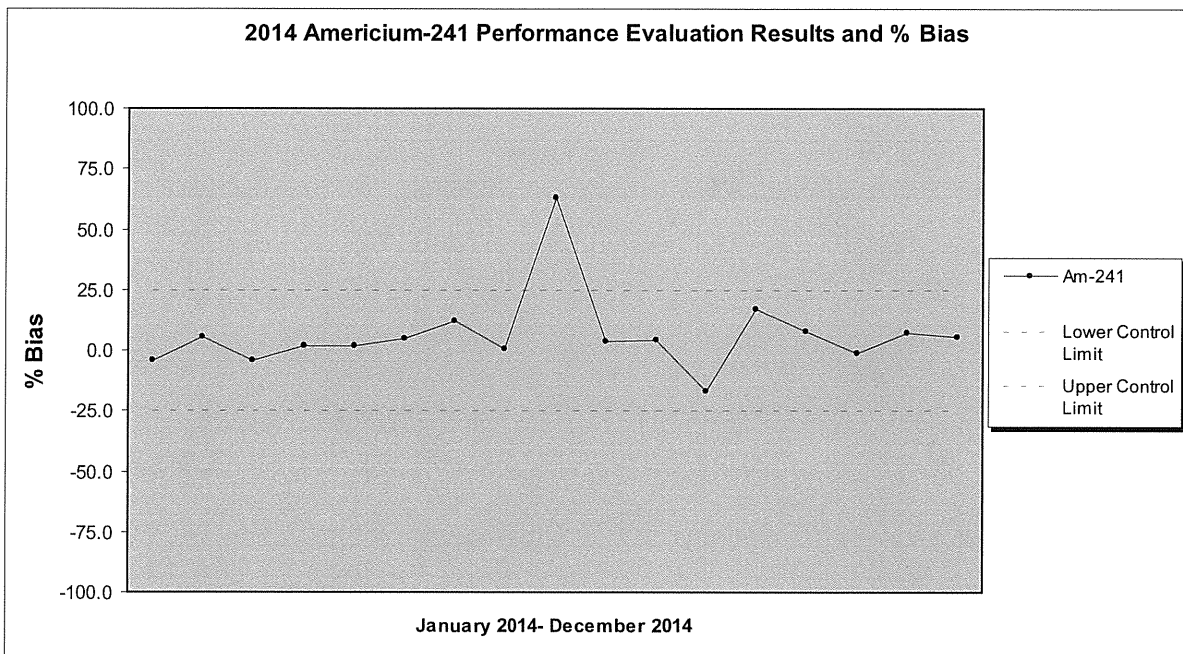


FIGURE 9

PLUTONIUM-238 PERFORMANCE EVALUATION RESULTS AND % BIAS

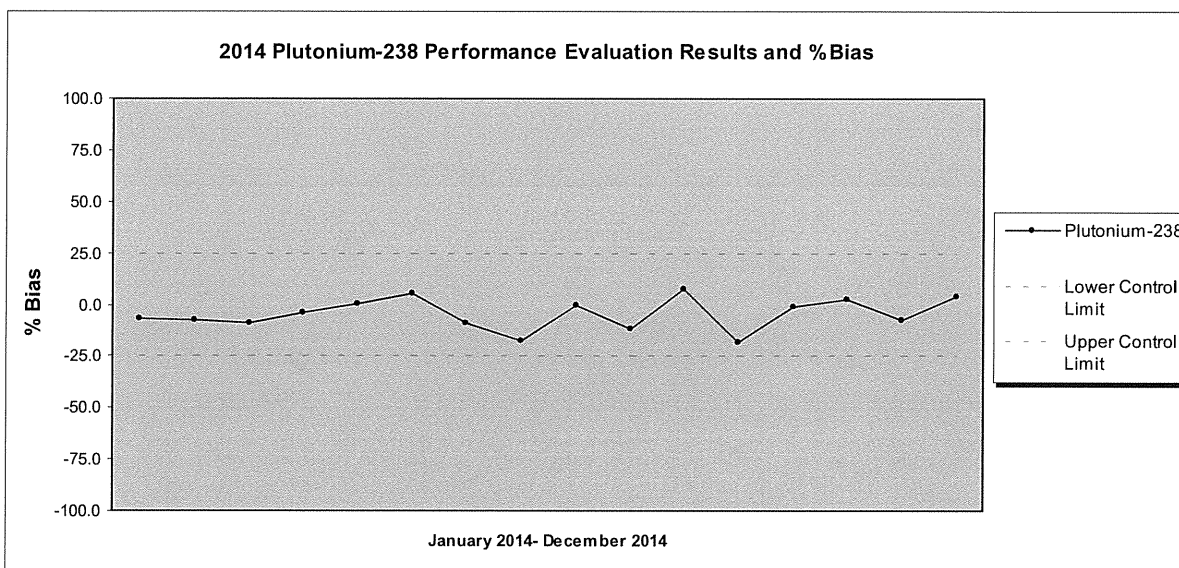


TABLE 6

REMP INTRA-LABORATORY DATA SUMMARY: BIAS AND PRECISION BY MATRIX

REMP 2014	Bias Criteria (+ / - 25%)		Precision Criteria (Note 1)	
	WITHIN CRITERIA	OUTSIDE CRITERIA	WITHIN CRITERIA	OUTSIDE CRITERIA
MILK				
Gas Flow Sr 2nd count	36	0	36	0
Gas Flow Total Strontium	23	0	23	0
Gamma Spec Liquid RAD A-013 with Ba, La	48	0	109	0
SOLID				
LSC Iron-55	3	0	3	0
Gamma Spec Solid RAD A-013	30	0	43	0
LSC Nickel 63	3	0	3	0
Gas Flow Sr 2nd count	5	0	5	0
Gas Flow Total Strontium	5	0	5	0
Gamma Spec Solid RAD A-013 with Ba, La	2	0	8	0
Gamma Spec Solid RAD A-013 with Iodine	6	0	7	0
FILTER				
Gas Flow Sr 2nd Count	5	0	5	0
Gross A & B	429	0	429	0
Gas Flow Sr-90	1	0	1	0
Gamma Spec Filter	45	0	47	0
LIQUID				
Alpha Spec Uranium	1	0	2	0
Tritium	206	0	205	0
Plutonium	1	0	1	0
LSC Iron-55	12	0	12	0
LSC Nickel 63	13	0	13	0
Gamma Spec Liquid RAD A-013	4	0	4	0
Alpha Spec Am243	6	0	6	0
Gamma Iodine-131	28	0	28	0
Alpha Spec Plutonium	10	0	10	0
Gas Flow Sr 2nd count	15	0	15	0
Alpha Spec Am241 Curium	8	0	8	0
Gas Flow Total Strontium	30	0	31	0
Gross Alpha Non Vol Beta	45	0	45	0
Gamma Spec Liquid RAD A-013 with Ba, La	84	0	159	0
Gamma Spec Liquid RAD A-013 with Iodine	40	0	40	0
TISSUE				
Gamma Spec Solid RAD A-013	48	0	46	0
Gas Flow Sr 2nd count	8	0	8	0
Gas Flow Total Strontium	17	0	17	0
Gamma Spec Solid RAD A-013 with Ba, La	10	0	10	0

Gamma Spec Solid RAD A-013 with Iodine	23	0	22	0
SEA WATER				
LSC Iron-55	5	0	6	0
LSC Nickel 63	5	0	6	0
Gas Flow Total Strontium	6	0	6	0
Gross Alpha Non Vol Beta	6	0	6	0
Gamma Spec Liquid RAD A-013 with Iodine	7	0	11	0
VEGETATION				
Gas Flow Sr 2nd count	10	0	10	0
Gamma Spec Solid RAD A-013 with Iodine	86	0	96	0
AIR CHARCOAL				
Gamma Iodine 131 RAD A-013	560	0	606	0
Carbon-14 (Ascarite/Soda Lime Filter per Liter)	28	0	28	0
DRINKING WATER				
Tritium	39	0	40	0
LSC Iron-55	17	0	16	0
LSC Nickel 63	16	0	15	0
Gamma Iodine-131	27	0	26	0
Gas Flow Sr 2nd count	12	0	12	0
Gas Flow Total Strontium	19	0	18	0
Gross Alpha Non Vol Beta	72	0	73	0
Gamma Spec Liquid RAD A-013 with Ba, La	35	0	75	0
Total	2200		2456	

Note 1: The RPD must be 20 percent or less, if both samples are greater than 5 times the MDC. If both results are less than 5 times MDC, then the RPD must be equal to or less than 100%. If one result is above the MDC and the other is below the MDC, then the RPD can be calculated using the MDC for the result of the one below the MDC. The RPD must be 100% or less. In the situation where both results are above the MDC but one result is greater than 5 times the MDC and the other is less than 5 times the MDC, the RPD must be less than or equal to 20%. If both results are below MDC, then the limits on % RPD are not applicable.

**TABLE 7
ALL RADIOLOGICAL INTRA-LABORATORY DATA SUMMARY:
BIAS AND PRECISION BY MATRIX:**

Total Radiological 2014	Bias Criteria (+ / - 25%)		Precision Criteria (Note 1)	
	WITHIN CRITERIA	OUTSIDE CRITERIA	WITHIN CRITERIA	OUTSIDE CRITERIA
MILK				
Gamma Iodine-129	0	0	1	0
Gamma Iodine-131	36	0	110	0
Gas Flow Sr 2nd count	36	0	36	0
Gas Flow Strontium 90	5	0	5	0
Gas Flow Total Strontium	23	0	23	0
Gamma Spec Liquid RAD A-013 with Ba, La	48	0	109	0
Gamma Spec Liquid RAD A-013 with Iodine	3	0	4	0
SOLID				
Gamma Percent Leach	5	0	0	0
Gas Flow Radium 228	16	0	20	0
Tritium	211	0	247	0
Tritium by Combustion	1	0	1	0
Carbon-14	130	0	181	0
LSC Iron-55	103	0	121	0
Alpha Spec Polonium Solid	52	0	54	0
Gamma Nickel 59 RAD A-022	99	0	117	0
LSC Chlorine-36 in Solids	4	0	4	0
Gamma Spec Ra226 RAD A-013	21	0	24	0
Gamma Spec Solid RAD A-013	649	0	812	0
LSC Nickel 63	141	0	154	0
LSC Plutonium	181	0	202	0
Technetium-99	224	0	250	0
Gamma Spec Liquid RAD A-013	2	0	2	0
ICP-MS Technetium-99 in Soil	61	0	60	0
LSC Selenium 79	11	0	11	0
Total Activity,	4	0	4	0
Tritium	16	0	17	0
Alpha Spec Am243	23	0	37	0
Gamma Iodine-129	100	0	120	0
Gas Flow Lead 210	6	0	6	0
Total Uranium KPA	7	0	10	0
Alpha Spec Uranium	214	0	309	0
LSC Promethium 147	2	0	2	0
LSC, Rapid Strontium 89 and 90	42	0	61	0
Alpha Spec Thorium	152	0	196	0
ICP-MS Uranium-233, 234 in Solid	49	0	47	0
Alpha Spec Plutonium	231	0	240	0
ICP-MS Technetium-99 Prep in Soil	62	0	61	0
Alpha Spec Neptunium	213	0	237	0
Alpha Spec Plutonium	158	0	206	0
Gamma Spec Solid with Ra226, Ra228	9	0	13	0



Gas Flow Sr 2nd count	21	0	25	0
Gas Flow Strontium 90	195	0	201	0
Gas Flow Total Radium	2	0	3	0
Lucas Cell Radium 226	38	0	47	0
Total Activity Screen	9	0	10	0
Alpha Spec Am241 Curium	304	0	339	0
Alpha Spec Total Uranium	4	0	8	0
Gas Flow Total Strontium	43	0	46	0
Gross Alpha Non Vol Beta	1	0	1	0
ICP-MS Uranium-233, 234 Prep in Solid	49	0	48	0
ICP-MS Uranium-235, 236, 238 in Solid	60	0	81	0
Gamma Spec Solid RAD A-013 with Ba, La	2	0	8	0
Gamma Spec Solid RAD A-013 with Iodine	6	0	7	0
GFC Chlorine-36 in Solids	3	0	3	0
Gamma Spec Solid RAD A-013 (pCi/Sample)	2	0	2	0
Tritium	8	0	8	0
Alpha Spec Am241 (pCi/Sample)	2	0	2	0
ICP-MS Uranium-234, 235, 236, 238 in Solid	148	0	132	0
ICP-MS Uranium-235, 236, 238 Prep in Solid	50	0	49	0
Alpha Spec Thorium	1	0	1	0
Alpha Spec Uranium	1	0	1	0
Gross Alpha/Beta	235	0	316	3
Alpha Spec Neptunium	1	0	1	0
Gas Flow Sr 2nd count	2	0	1	0
Gross Alpha/Beta (Americium Calibration) Solid	2	0	3	0
ICP-MS Uranium-234, 235, 236, 238 Prep in Solid	69	0	65	0
FILTER				
Alpha Spec Uranium	14	0	18	0
Alpha Spec Polonium	1	0	5	0
Gamma I-131, filter	4	0	4	0
LSC Plutonium Filter	84	0	102	0
Tritium	76	0	112	0
Carbon-14	35	0	66	0
Nickel-63	0	0	8	0
LSC Iron-55	69	0	84	0
Gamma Nickel 59 RAD A-022	55	0	68	0
LSC Nickel 63	60	0	78	0
Technetium-99	51	0	75	0
Gamma Spec Filter RAD A-013	143	0	174	6
Alphaspec Np Filter per Liter	8	0	13	0
Alphaspec Pu Filter per Liter	11	0	22	0
Gamma Iodine-125	5	0	0	0
Gamma Iodine-129	46	0	60	0
Gross Alpha/Beta	5	0	5	0
Alpha Spec Am243	10	0	28	0
Gas Flow Lead 210	0	0	4	0
LSC Plutonium Filter per Liter	9	0	15	0
Total Uranium KPA	9	0	14	0



Alpha Spec Uranium	55	0	96	0
LSC Promethium 147	1	0	2	0
LSC, Rapid Strontium 89 and 90	72	0	94	0
Alpha Spec Thorium	42	0	66	0
Gas Flow Radium 228	1	0	1	0
Alpha Spec Plutonium	81	0	98	0
ICP-MS Uranium-233, 234 in Filter	0	0	3	0
Alpha Spec Neptunium	62	0	83	0
Alpha Spec Plutonium	66	0	96	0
Alpha Spec Polonium,(Filter/Liter)	0	0	14	0
Alpha Spec Radium 226	0	0	2	0
Gas Flow Sr 2nd Count	72	0	81	1
Gas Flow Strontium 90	61	0	68	0
Lucas Cell Radium-226	1	0	1	0
Alpha Spec Am241Curium	95	0	117	0
Gas Flow Total Strontium	5	0	5	0
ICP-MS Uranium-233, 234 Prep in Filter	0	0	3	0
ICP-MS Uranium-235, 236, 238 in Filter	0	0	6	0
Total Activity in Filter,	1	0	10	0
Alphaspec Am241 Curium Filter per Liter	15	0	20	0
Tritium	86	0	89	0
Gamma Spec Filter RAD A-013 Direct Count	6	0	6	0
Carbon-14	12	0	12	0
GFC Chlorine-36 in Filters PL	1	0	1	0
Direct Count-Gross Alpha/Beta	48	0	1	0
Gross Alpha/Beta	48	0	60	0
ICP-MS Uranium-234, 235, 236, 238 in Filter	4	0	6	0
ICP-MS Uranium-235, 236, 238 Prep in Filter	0	0	3	0
Alpha Spec U	13	0	35	0
Gross A & B	497	0	473	0
LSC Iron-55	8	0	19	0
Technetium-99	7	0	13	0
Gas Flow Sr-90	6	0	13	0
LSC Nickel 63	14	0	19	0
Gas Flow Pb-210	8	0	22	0
Gas Flow Ra-228	5	0	10	0
Gamma Iodine 129	8	0	8	0
ICP-MS Uranium-234, 235, 236, 238 Prep in Filter	2	0	3	0
Gamma Spec Filter	97	0	117	0
Lucas Cell Ra-226	8	0	23	0
Alpha Spec Thorium	7	0	22	0
LIQUID				
Alpha Spec Uranium	390	0	553	0
Alpha Spec Polonium	4	0	7	0
Electrolytic Tritium	14	0	25	0
Tritium	1125	0	1177	0
Carbon-14	149	0	161	0



Plutonium	43	0	63	0
Iodine-131	3	0	4	0
LSC Iron-55	192	0	233	0
Gamma Nickel 59 RAD A-022	18	0	21	0
Gamma Iodine 131 RAD A-013	2	0	2	0
Gamma Radium 228 RAD A-013	3	0	3	0
LSC Nickel 63	209	0	236	0
LSC Radon 222	18	0	21	0
Technetium-99	377	0	425	0
Gamma Spec Liquid RAD A-013	702	0	732	0
Alpha Spec Total U RAD A-011	31	0	56	0
LSC Selenium 79	2	0	2	0
Alpha Spec Am243	17	0	18	0
Gamma Iodine-129	80	0	92	0
Gamma Iodine-131	28	0	28	0
ICP-MS Technetium-99 in Water	8	0	31	0
Gas Flow Lead 210	19	0	19	0
Total Uranium KPA	101	0	203	0
LSC Promethium 147	4	0	4	0
LSC, Rapid Strontium 89 and 90	7	0	8	0
Alpha Spec Thorium	145	0	186	0
Gas Flow Radium 228	171	0	206	0
Gas Flow Radium 228	40	0	37	0
Gas Flow Radium 228	1	0	1	0
Alpha Spec Plutonium	288	0	387	0
LSC Sulfur 35	1	0	1	0
Alpha Spec Neptunium	90	0	141	0
Alpha Spec Plutonium	21	0	49	0
Alpha Spec Radium 226	7	0	7	0
Gas Flow Sr 2nd count	191	0	199	0
Gas Flow Strontium 90	365	0	422	0
Gas Flow Strontium 90	1	0	1	0
Gas Flow Total Radium	78	0	103	0
ICP-MS Technetium-99 Prep in Water	8	0	32	0
ICP-MS Uranium-233, 234 in Liquid	6	0	11	0
LSC Calcuim 45	1	0	1	0
Lucas Cell Radium 226	310	0	366	0
Lucas Cell Radium-226	10	0	10	0
Total Activity Screen	7	0	7	0
Chlorine-36 in Liquids	13	0	14	0
Alpha Spec Am241 Curium	217	0	333	0
Gas Flow Total Strontium	112	0	116	0
Gross Alpha Non Vol Beta	980	0	1167	0
LSC Phosphorus-32	2	0	3	0
Lucas Cell Radium 226 by Method Ra-04	2	0	2	0
ICP-MS Uranium-233, 234 Prep in Liquid	6	0	11	0
Tritium in Drinking Water by EPA 906.0	9	0	12	0
Gamma Spec Liquid RAD A-013 with Ba, La	84	0	159	0



Gamma Spec Liquid RAD A-013 with Iodine	162	0	189	0
Gas Flow Strontium 89 & 90	5	0	3	0
ICP-MS Uranium-235, 236, 238 in Liquid	10	0	18	0
Gas Flow Total Alpha Radium	6	0	7	0
Gross Alpha Co-precipitation	3	0	13	0
ICP-MS Uranium-235, 236, 238 Prep in Liquid	6	0	11	0
ICP-MS Uranium-234, 235, 236, 238 in Liquid	31	0	74	0
Gross Alpha Beta (Americium Calibration) Liquid	32	0	46	0
ICP-MS Uranium-234, 235, 236, 238 Prep in Liquid	15	0	38	0
Alpha/Beta (Americium Calibration) Drinking Water	23	0	18	0
TISSUE				
Carbon-14	3	0	3	0
Gamma Spec Solid RAD A-013	76	0	78	0
Technetium-99	4	0	4	0
Tritium	1	0	1	0
Alpha Spec Uranium	5	0	8	0
Alpha Spec Plutonium	5	0	10	0
Gas Flow Sr 2nd count	8	0	8	0
Gas Flow Strontium 90	11	0	12	0
Alpha Spec Am241 Curium	2	0	2	0
Gas Flow Total Strontium	17	0	17	0
Gamma Spec Solid RAD A-013 with Ba, La	10	0	10	0
Gamma Spec Solid RAD A-013 with Iodine	23	0	22	0
Gross Alpha/Beta	2	0	2	0
SEA WATER				
LSC Iron-55	5	0	6	0
LSC Nickel 63	5	0	6	0
Gas Flow Total Strontium	6	0	6	0
Gross Alpha Non Vol Beta	6	0	6	0
Gamma Spec Liquid RAD A-013 with Iodine	7	0	11	0
VEGETATION				
LSC Iron-55	2	0	2	0
Gamma Nickel 59 RAD A-022	1	0	0	0
Gamma Spec Solid RAD A-013	26	0	25	0
LSC Nickel 63	2	0	1	0
LSC Plutonium	1	0	1	0
Technetium-99	4	0	3	0
Tritium	11	0	11	0
Gamma Iodine-129	1	0	0	0
Gas Flow Lead 210	2	0	3	0
Total Uranium KPA	4	0	4	0
Alpha Spec Uranium	22	0	22	0
Alpha Spec Thorium	5	0	5	0
Alpha Spec Plutonium	13	0	11	0
Alpha Spec Neptunium	1	0	1	0
Alpha Spec Plutonium	1	0	1	0



Gas Flow Sr 2nd count	10	0	10	0
Gas Flow Strontium 90	12	0	11	0
Gas Flow Total Radium	2	0	2	0
Alpha Spec Am241 Curium	6	0	6	0
Gamma Spec Solid RAD A-013 with Iodine	86	0	96	0
Gamma Spec Solid RAD A-013 (pCi/Sample)	2	0	2	0
Alpha Spec Am241 (pCi/Sample)	1	0	2	0
ICP-MS Uranium-234, 235, 236, 238 in Solid	12	0	7	0
Alpha Spec Uranium	0	0	2	0
Gross Alpha/Beta	7	0	9	0
Alpha Spec Plutonium	0	0	2	0
Gas Flow Strontium 90	4	0	2	0
ICP-MS Uranium-234, 235, 236, 238 Prep in Solid	7	0	4	0
AIR CHARCOAL				
Gamma Iodine 131 RAD A-013	560	0	606	0
Gamma Iodine-129	7	0	6	0
Carbon-14	7	0	7	0
Carbon-14 (Ascarite/Soda Lime Filter per Liter)	28	0	28	0
Gamma Iodine 129	7	0	7	0
Gamma Spec Filter	7	0	7	0
DRINKING WATER				
Alpha Spec Uranium	4	0	5	0
Alpha Spec Polonium	1	0	25	0
Tritium	39	0	40	0
Carbon-14	3	0	2	0
Iodine-131	2	0	2	0
LSC Iron-55	17	0	16	0
LSC Nickel 63	16	0	15	0
LSC Radon 222	13	0	13	0
Technetium-99	2	0	1	0
Gamma Spec Liquid RAD A-013	17	0	18	0
Gamma Iodine-129	2	0	4	0
Gamma Iodine-131	27	0	26	0
Gas Flow Lead 210	4	0	3	0
Total Uranium KPA	17	0	34	0
Alpha Spec Thorium	1	0	1	0
Gas Flow Radium 228	22	0	26	0
Alpha Spec Plutonium	3	0	3	0
Gas Flow Sr 2nd count	12	0	12	0
Gas Flow Strontium 90	20	0	22	0
LSC Calcuim 45	2	0	2	0
Lucas Cell Radium-226	23	0	49	0
Alpha Spec Am241 Curium	2	0	2	0
Gas Flow Total Strontium	19	0	18	0
Gross Alpha Non Vol Beta	247	0	214	0
Tritium in Drinking Water by EPA 906.0	28	0	26	0
Gamma Spec Liquid RAD A-013 with Ba, La	35	0	75	0
Gas Flow Strontium 89 & 90	17	0	11	0



Gas Flow Total Alpha Radium	1	0	1	0
Gross Alpha Co-precipitation	99	0	91	0
Alpha/Beta (Americium Calibration) Drinking Water	16	0	16	0
ECLS-R-GA NJ 48 Hr Rapid Gross Alpha	7	0	7	0
Total	16535		19734	

Note 1: The RPD must be 20 percent or less, if both samples are greater than 5 times the MDC. If both results are less than 5 times MDC, then the RPD must be equal to or less than 100%. If one result is above the MDC and the other is below the MDC, then the RPD can be calculated using the MDC for the result of the one below the MDC. The RPD must be 100% or less. In the situation where both results are above the MDC but one result is greater than 5 times the MDC and the other is less than 5 times the MDC, the RPD must be less than or equal to 20%. If both results are below MDC, then the limits on % RPD are not applicable.

**TABLE 8
2014 CORRECTIVE ACTION REPORT SUMMARY**

<p align="center">CORRECTIVE ACTION ID# & PE FAILURE</p>	<p align="center">DISPOSITION</p>
<p>CARR140605-879</p> <p>ISO Documentation of PT Failures in MAPEP-14-RdV30 for Uranium 235 in Vegetation by ICP/MS and 14-MaS30 Uranium-233/234 and Uranium 238 by Alpha Spec.</p>	<p>Root Cause Analysis of MAPEP-14-RdV28 in vegetation for Uranium-235 by ICP/MS</p> <p>The root cause of this failure was human error and inattention to detail. The QAO inadvertently entered the incorrect activity for this parameter when she was entering the results on the MAPEP website. 0.261 ug/sample instead of 0.0261 ug/sample was entered. The data entry error was not caught during the GL review process. MAPEP results only are peer reviewed by the GL of the applicable area to ensure that the data was entered correctly.</p> <p>A second PT was successfully analyzed for this matrix.</p> <p>Uranium-234/233, and Uranium-238 in soil by Alpha Spec:</p> <p>Following reviews of our process and data and conversations with personnel from the affected laboratories, it was determined that all failures were due to an incomplete sample digestion. A total digestion technique using Hydrofluoric Acid was performed on the sample. However, this digestion was not vigorous enough to extract all the U-234 and U-238 from the soil because the analytes were fused into the soil at an extremely high temperature. Due to the high number of labs that received a Not Acceptable rating for this analysis, MAPEP has posted an explanation on the preparation of the Uranium Soil standard on their website.</p> <p>Permanent Corrective/Preventive Actions or Improvements :</p> <p>Upon notification of the failure, the sample was re-digested using a Sodium Hydroxide fusion method prior to ion-exchange separation chemistry. The results for both the U-234 and U-238 fall within acceptable range. In the future, all MAPEP soil samples will be analyzed with a NaOH fusion dissolution technique. Our analytical procedures provide the flexibility to perform different extraction techniques (leaching,</p>

	<p>HF dissolution) based on client requests. For our DOE clients, complete dissolution using HF has been the approved method for Uranium. Some clients also ask for the Uranium analysis using a leach procedure. In all cases, GEL performs the required contractual procedure for the analysis.</p> <p>A second PT was successfully analyzed for this matrix.</p>
<p>CARR140520-874</p> <p>ISO Documentation of PT Failures in –MRAD-20 for Americium-241 in water.</p>	<p>Root Cause Analysis</p> <p>After a thorough review of all data, a definite reason for the failure could not be determined.</p> <p>The following steps were taken to prove that this elevated bias was an isolated occurrence and that our overall process is within control.</p> <ol style="list-style-type: none"> 1. The batch quality control samples were reviewed and found to be compliant. The recoveries in the Laboratory Control Sample (LCS) recovered at 98.2%. Two sample duplicates were also prepared in the batch. The RPDs were 4.8 and 8.6. 2. The sample was re-analyzed in duplicate after the report was received. One with our normal Am-243 tracer, and another with Cm-244 tracer. Both of the reanalysis confirm the original reported result (which is outside the range of acceptable results). <p>Control charts for all Am tracer recoveries were also reviewed to determine if there may be an issue with the tracers. While there is a slight bias in the average LCS recovery, it was not significant enough to consider abnormal, and did not come close to accounting for the high result on this analysis. Additionally, since the sample was reanalyzed using two different tracers and achieved the same result, a tracer issue was ruled out as the potential culprit</p> <p>Permanent Corrective/Preventive Actions or Improvements :</p> <p>The laboratory must assume unidentified random error caused the elevated bias because all quality control criteria were met for the batch. Additionally, a well characterized performance evaluation sample from another vendor was prepped and analyzed a few weeks after this sample. The Am-241 recovered at 105% for this sample and fell well within its acceptance range.</p> <p>A second PT was successfully analyzed for this matrix.</p>

CARR140825-902

For Failures of RAD-98 for Strontium-89 in Water

Root Cause Analysis of Strontium-89 (Sr-89)

After a review of the data, an apparent reason for this discrepancy could not be determined. The following steps were taken to prove that this high bias was an isolated occurrence and that our overall process is within control.

1. The batch quality control samples were reviewed and found to be compliant. The LCS recovered at 103%.
2. Laboratory control data were also reviewed for trends. None was noted.
3. The instrument calibrations were reviewed for positive biases that could have attributed to this failure. None were noted.
4. Sample duplicates were also prepared and counted along with the reported result. All results fell within the method's acceptance range for duplicates.

Permanent Corrective/Preventive Actions or Improvements

The laboratory must assume an unidentified random error caused the high bias for this batch. While the LCS recovered outside to its acceptance range, the matrix spike (MS) recovery fell within both the acceptance range for the MS (80%-120%) and the acceptance range for the LCS (90%-110%). The result was also confirmed using Method LAB PBMS-A-004. The lab will continue to monitor the recoveries of this radionuclide to ensure that there are no issues.

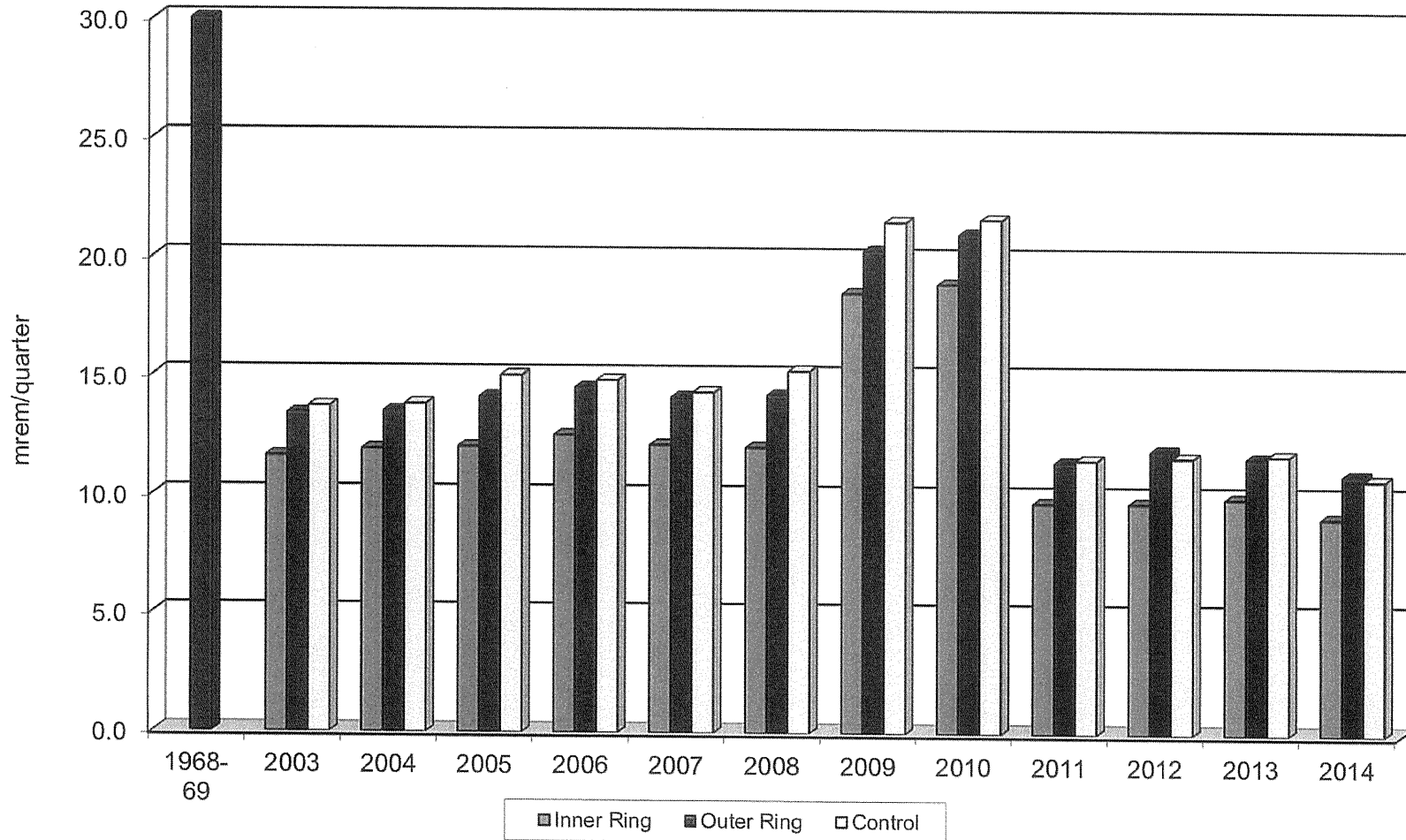
A second PT was successfully analyzed for this matrix.

ATTACHMENT F

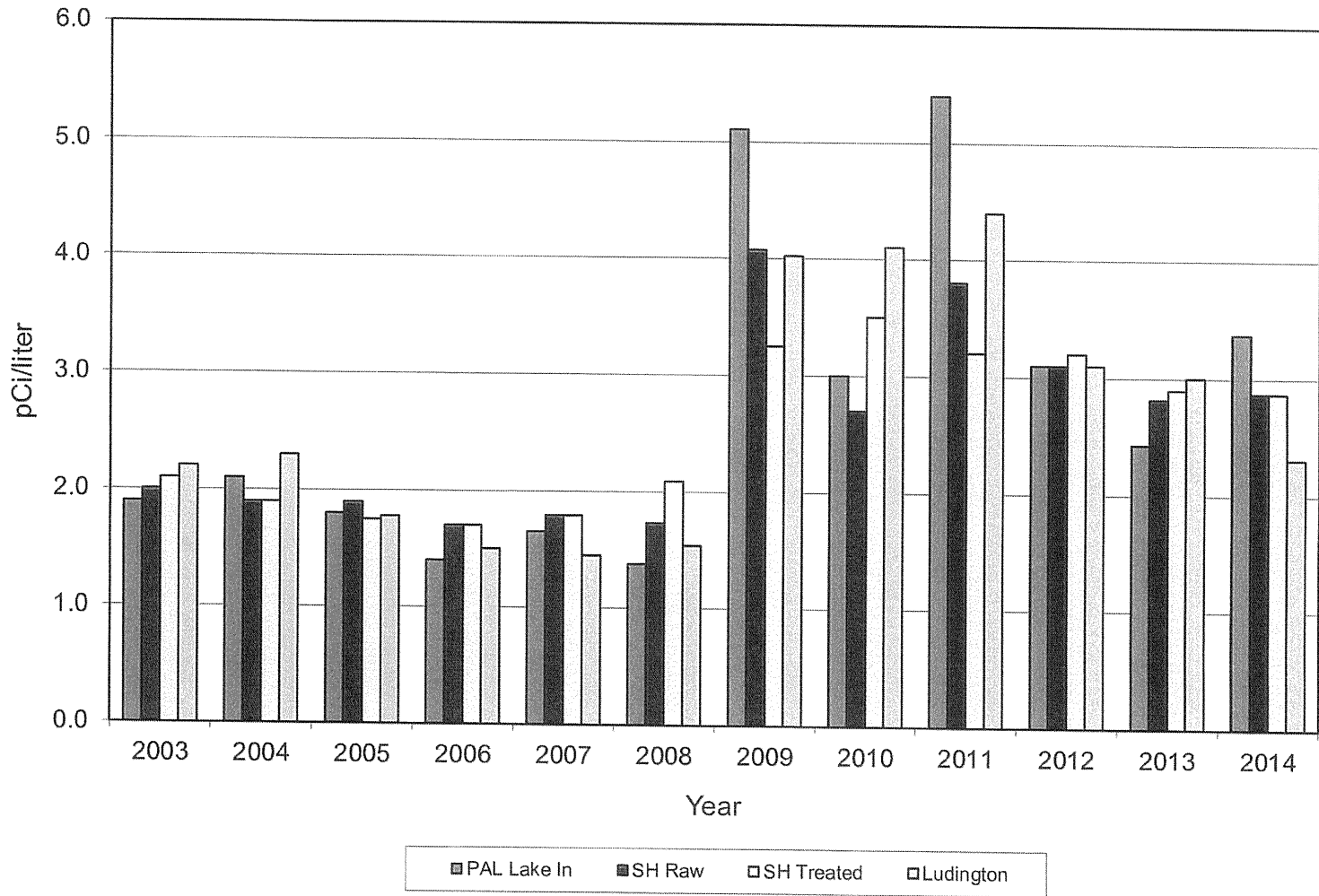
DATA GRAPHS

3 Pages Follow

Palisades Quarterly Thermoluminescent Dosimeters
Pre-Op and 2003-2014



Water Samples Gross Beta
2003 to 2014
MDC used when not detected



Palisades Air Particulate
Gross Beta
Pre-Operational vs. Operational

