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**H. B. ROBINSON STEAM ELECTRIC PLANT (HBRSEP), UNIT NO. 2  
DOCKET NO. 50-261 / RENEWED LICENSE NO. DPR-23**

**2014 ANNUAL RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT**

Ladies and Gentlemen:

Enclosed is the Radiological Environmental Operating Report for the period January 1, 2014 through December 31, 2014. This report is made in accordance with the HBRSEP, Unit No. 2 Technical Specifications, Section 5.6.2, "Annual Radiological Environmental Operating Report."

If you have any questions concerning this report, please contact W. R. Hightower at (843) 857-1329.

Sincerely,

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**H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2  
DOCKET NO. 50-261 / RENEWED LICENSE NO. DPR-23**

**2014 ANNUAL RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT**



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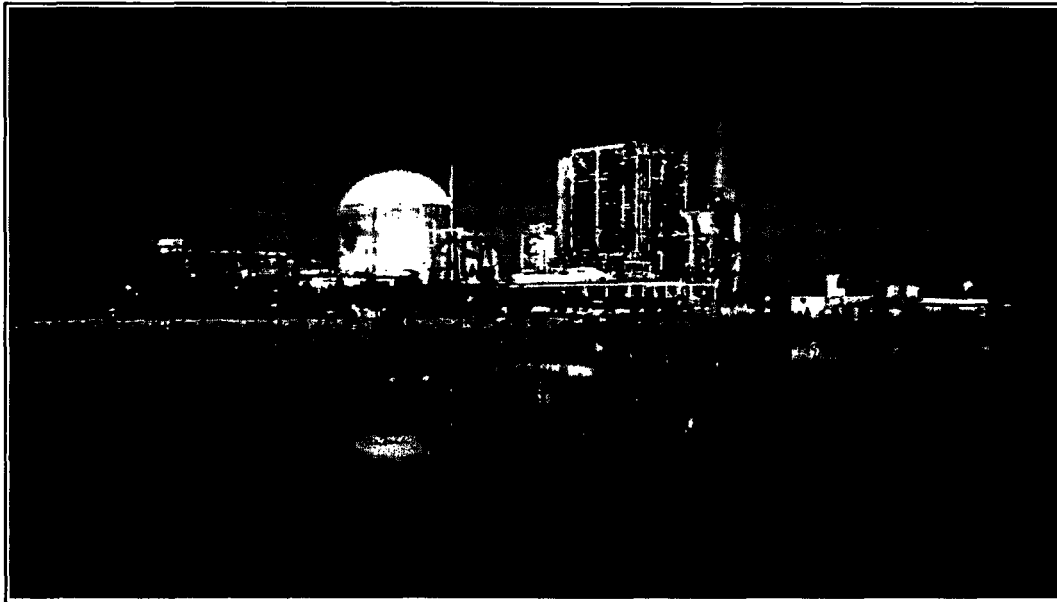
# ANNUAL RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT

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**DUKE ENERGY PROGRESS, INC.**

**H. B. ROBINSON STEAM ELECTRIC PLANT  
Unit No. 2**

**2014**



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# TABLE OF CONTENTS

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<b>1.0 Executive Summary</b>	1-1
<b>2.0 Introduction</b>	2-1
2.1 Site Description and Sample Locations	2-1
2.2 Scope and Requirements of the REMP	2-2
2.3 Statistical and Computational Methodology	2-3
2.3.1 Estimation of the Mean Value	2-3
2.3.2 Lower Limit of Detection and Minimum Detectable Activity	2-3
2.3.3 Trend Identification	2-4
<b>3.0 Interpretation of Results</b>	3-1
3.1 Airborne Radioiodine and Particulates	3-2
3.2 Surface Water	3-8
3.3 Ground Water	3-9
3.4 Milk/Broadleaf Vegetation	3-9
3.5 Food Products	3-10
3.6 Aquatic Vegetation	3-10
3.7 Fish	3-10
3.8 Shoreline Sediment	3-11
3.9 Bottom Sediment	3-11
3.10 Asiatic Clams	3-11
3.11 Direct Gamma Radiation	3-11
3.11.1 Environmental TLD	3-11
3.12 Land Use Census	3-13
3.12.1 Purpose of Land Use Census	3-13
3.12.2 Methodology	3-13
3.12.3 Land Use Census Results	3-14
<b>4.0 Quality Assurance</b>	4-1
4.1 Sample Collection	4-1
4.2 Sample Analysis	4-1
4.3 Dosimetry Analysis	4-1
4.4 Laboratory Equipment Quality Assurance	4-1
4.4.1 Daily Quality Control	4-1
4.4.2 Calibration Verification	4-1
4.4.3 Batch Processing	4-1
4.5 Duke Energy Interlaboratory Comparison Program	4-2
4.5.1 Duke Energy Intercomparison Program	4-2
4.5.2 Eckert & Ziegler Analytics Cross Check Program	4-2
4.5.3 ERA Proficiency Testing	4-3
4.6 Split Comparison Program	4-3
4.7 TLD Intercomparison Program	4-3
4.7.1 Nuclear Technology Services Intercomparison Program	4-3
4.7.2 Internal Cross Check (Duke Energy)	4-3



## Appendices

Appendix A: Environmental Sampling and Analysis Procedures . . . . .	A-1
I. Change of Sampling Procedures . . . . .	A-2
II. Description of Analysis Procedures . . . . .	A-2
III. Change of Analysis Procedures . . . . .	A-3
IV. Sampling and Analysis Procedures . . . . .	A-3
A.1 Airborne Particulate and Radioiodine . . . . .	A-3
A.2 Surface Water . . . . .	A-4
A.3 Ground Water . . . . .	A-4
A.4 Broadleaf Vegetation . . . . .	A-5
A.5 Food Products . . . . .	A-5
A.6 Aquatic Vegetation . . . . .	A-6
A.7 Fish . . . . .	A-6
A.8 Shoreline Sediment . . . . .	A-6
A.9 Bottom Sediment . . . . .	A-7
A.10 Direct Gamma Radiation (TLD) . . . . .	A-7
A.11 Annual Land Use Census . . . . .	A-7
Appendix B: Radiological Environmental Monitoring Program - Summary of Results 2014. . . . .	B-1
Radiological Environmental Monitoring Program Data Summary. . . . .	B-2
Footnotes to Appendix B. . . . .	B-5
Appendix C: Sampling Deviations and Unavailable Analyses . . . . .	C-1
C.1 Sampling Deviations . . . . .	C-2
C.2 Unavailable Analyses . . . . .	C-3
Appendix D: Analytical Deviations . . . . .	D-1
No Analytical Deviations. . . . .	D-2
Appendix E: Radiological Environmental Monitoring Program Results . . . . .	E-1
Appendix F: Errata to Previous Reports . . . . .	F-1
Errata to the 2014 AREOR . . . . .	F-2
Appendix G: Anomalous RNP REMP TLD Results for 4 <sup>th</sup> Quarter 2014 . . . . .	G-1

## LIST OF FIGURES

2.1-1 Radiological Environmental Sampling Locations (Near Plant) . . . . .	2-5
2.1-2 Radiological Environmental Sampling Locations (Distant from Plant). . . . .	2-6
3.1-1 Air Particulate for Gross Beta - Activity (Location 1 and 2) . . . . .	3-3
3.1-2 Air Particulate for Gross Beta - Activity (Location 1 and 3) . . . . .	3-3
3.1-3 Air Particulate for Gross Beta - Activity (Location 1 and 4) . . . . .	3-4
3.1-4 Air Particulate for Gross Beta - Activity (Location 1 and 5) . . . . .	3-4
3.1-5 Air Particulate for Gross Beta - Activity (Location 1 and 6) . . . . .	3-5
3.1-6 Air Particulate for Gross Beta - Activity (Location 1 and 7) . . . . .	3-5
3.1-7 Air Particulate for Gross Beta - Activity (Location 1 and 55) . . . . .	3-6
3.1-8 Air Particulate for Gross Beta - Activity (Location 1 and 60) . . . . .	3-6
3.1-9 Air Particulate for Gross Beta - Activity (Location 1 and 61) . . . . .	3-7
3.2-1 RNP 2014 Surface Water Tritium . . . . .	3-8
3.11-1 RNP 2014 TLD Averages for Inner and Outer Ring Locations . . . . .	3-12
3.12-1 Robinson Nuclear Plant 2014 Land Use Census Map . . . . .	3-16

## LIST OF TABLES

2.1-A	Radiological Monitoring Program Sampling Locations . . . . .	2-7
2.1-B	Radiological Monitoring Program Sampling Locations (TLD Sites) . . . . .	2-8
2.2-A	Reporting Levels for Radioactivity Concentrations in Environmental Samples . . . . .	2-9
2.2-B	REMP Analysis Frequency . . . . .	2-9
2.2-C	Lower Limits of Detection (LLD) <sup>(a)</sup> . . . . .	2-10
3.0-A	HBRSEP Potential Dose Pathway . . . . .	3-2
3.12.3	HBRSEP Land Use Census Comparison (2013 – 2014). . . . .	3-15
4.0-A	Duke Energy Interlaboratory Comparison Program . . . . .	4-4
4.0-B	Eckert & Ziegler Analytics Cross Check Program . . . . .	4-6
4.0-C	Environmental Resource Associates (ERA) Proficiency Testing . . . . .	4-8
4.0-D	2014 Environmental Dosimeter Cross-Check Results . . . . .	4-9

## LIST OF ACRONYMS USED IN THIS TEXT *(in alphabetical order)*

A	Annually
AR	Air Radioiodine/ Air Cartridge
AP	Air Particulate
AV	Aquatic Vegetation
BLV	Broadleaf Vegetation
C	Control
CR	Condition Report - Corrective Action Program
ERA	Environmental Resource Associates
EZA	Eckert & Ziegler Analytics
FI	Fish
FP	Food Product
GPS	Global Positioning System
GW	Ground Water
I	Indicator
IR	Inner Ring - TLDs
ISFSI	Independent Spent Fuel Storage Installation
HBRSEP or RNP	H. B. Robinson Steam Electric Plant, Unit No. 2
HEEC	Harris Energy and Environmental Center
LLD	Lower Limit of Detection
M	Monthly
MDA	Minimum Detectable Activity
mrem	Millirem
NIST	National Institute of Standards and Technology
NRC	Nuclear Regulatory Commission
ODCM	Off-Site Dose Calculation Manual
OR	Outer Ring - TLDs
pCi/kg	picocurie per kilogram
pCi/l	picocurie per liter
pCi/m <sup>3</sup>	picocurie per cubic meter
PIP	Problem Investigation Program
Q	Quarterly
REMP	Radiological Environmental Monitoring Program
SA	Semiannually
SB	Sediment – Bottom
SS	Sediment – Shoreline
SI	Special Interest - TLDs
SW	Surface Water
TECH SPECS	Technical Specifications
TLD	Thermoluminescent Dosimeter
μCi/ml	microcurie per milliliter
W	Weekly

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# 1.0 EXECUTIVE SUMMARY

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The H. B. Robinson Steam Electric Plant, Unit No. 2 (HBRSEP or Robinson Nuclear Plant) is operated by Duke Energy Progress, Inc. under a license granted by the Nuclear Regulatory Commission (NRC). Provisions of the Nuclear Regulatory Commission's Regulatory Guide 4.8, HBRSEP Technical Specifications, and the HBRSEP Off-Site Dose Calculation Manual (ODCM) establish the requirements of the Radiological Environmental Monitoring Program (REMP). This report describes the HBRSEP REMP and the program results for January 1, 2014, through December 31, 2014.

Included in the report are the identification of sampling locations, descriptions of environmental sampling and analysis procedures, comparisons of present environmental radioactivity levels and pre-operational environmental data, analysis of trends in environmental radiological data as potentially affected by plant operations, and a summary of environmental radiological sampling results. Quality assurance practices, sampling deviations, unavailable samples, and program changes are also discussed.

Sampling activities were conducted as prescribed by the HBRSEP ODCM. Required analyses were performed and detection capabilities were met for the collected samples required by the ODCM. One thousand four hundred and eleven samples were analyzed comprising 1,529 test results in order to compile data for the 2014 HBRSEP Annual Radiological Environmental Operating Report (AREOR). Based on the annual HBRSEP land use census, the current number of sampling sites for Robinson Nuclear Plant is sufficient.

Concentrations observed in the environment in 2014 for plant related radionuclides were generally within the ranges of concentrations observed in the past. Inspection of the data showed that radioactivity concentrations were as expected and positively identified measurements attributable to plant operations were within limits as specified in the HBRSEP ODCM.

The continued operation of HBRSEP has not significantly contributed measurable radiation or the presence of gamma radioactivity in the environmental media monitored, with the exception of Lake Robinson bottom sediment and aquatic vegetation (both are used for long term trending with no dose contribution to the public). The Lake Robinson surface water samples and ground water samples revealed tritium concentrations that are well within the applicable regulatory limits.

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## 2.0 INTRODUCTION

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### 2.1 SITE DESCRIPTION AND SAMPLE LOCATIONS

Duke Energy's H. B. Robinson Steam Electric Plant, Unit No. 2 (HBRSEP) consists of a pressurized water reactor with a design rating of 800 MWe (Megawatts electric). The site is shared with a pulverized coal unit (Unit No.1), which established commercial operation in 1960. Unit 1 is now offline and is scheduled to be decommissioned. Commercial production was initiated by Unit No. 2 on March 7, 1971. The HBRSEP is located in Darlington County, South Carolina. The site is along state route 151 approximately five (5) miles northwest of Hartsville, South Carolina. The site is also approximately twenty five (25) miles northwest of Florence, South Carolina.

Lake Robinson is adjacent to the plant and is the source of cooling water. The lake was impounded during the construction of Robinson Unit No.1 (coal fired). The lake is fed by Black Creek and is approximately 2,250 acres in area. The plant intake is at the southern portion of the lake near the dam. The discharge is to a canal which conveys the cooling water to a point 4.2 miles north of the plant, where it returns to Lake Robinson.

The local economy supports primarily industrial and agricultural contributions. Fishing, boating, and swimming are popular activities on Lake Robinson and other nearby lakes. These activities contribute to the radiological pathways by consumption of fish and immersion related to swimming and boating. Consumption of milk and food products contributes to the ingestion pathway. No milk animals are located within five miles of the plant in any sector at this time, so broadleaf sampling is conducted to simulate the milk ingestion pathway.

Although the contribution to background radiation is small, Duke Energy Progress, Inc. has established this program to measure the exposure pathways to man. An exposure pathway describes the source of the radiological exposure. The primary forms of potential radiological emissions from the plant are airborne and liquid discharge. The following pathways are monitored: external dose, ingestion of radioactive materials, and the inhalation of radioactive material. Specific methods and different environmental media are required to assess each pathway.

Sampling locations are chosen based upon meteorological factors, pre-operational monitoring, and results of the land use surveys. A number of locations are selected as controls. Control stations are selected because they are very unlikely to be affected by the operation of the plant. Figures 2.1-1 and 2.1-2 are maps depicting the HBRSEP Thermoluminescent Dosimeter (TLD) monitoring locations and the sampling locations. The location numbers shown on these maps correspond to those listed in Tables 2.1-A and 2.1-B.

## **2.2 SCOPE AND REQUIREMENTS OF THE REMP**

The Radiological Environmental Monitoring Program (REMP) was established in 1973 at HBRSEP. Radiation and radioactivity in various environmental media have been monitored for 41 years. Monitoring is also provided for control locations, which would not be impacted by operations of the HBRSEP. Using these control locations and data collected prior to operation allows comparison of data collected at locations near the HBRSEP which could potentially be impacted by its operations. The preoperational program provides data on the existing environmental radioactivity levels for the site and vicinity which may be used to determine whether increases in environmental levels are attributable to the station. The operational program provides surveillance and backup support of detailed effluent monitoring which is necessary to evaluate the significance, if any, of the contributions to the existing environmental radioactivity levels that result from station operation.

This monitoring program is based on NRC guidance as reflected in the HBRSEP Off-Site Dose Calculation Manual (ODCM), with regards to sample media, sampling locations, sampling frequency and analytical sensitivity requirements. Indicator and control locations were established for comparison purposes to distinguish radioactivity of plant origin from natural or other "man-made" environmental radioactivity. The environmental monitoring program also verifies projected and anticipated radionuclide concentrations in the environment and related exposures from releases of radionuclides from HBRSEP. This program satisfies the requirements of Section IV.B.2 of Appendix I to 10 CFR 50 and provides surveillance of all appropriate critical exposure pathways to man and protects vital interests of the company, public and state and federal agencies concerned with the environment. Reporting levels for activity found in environmental samples are listed in Table 2.2-A. Table 2.2-B lists the REMP analysis and frequency schedule.

The Annual Land Use Census, required by the HBRSEP Off-Site Dose Calculation Manual (ODCM), is performed to ensure that changes in the use of areas at or beyond the site boundary are identified and that modifications to the REMP are made if required by changes in land use. This census satisfies the requirements of Section IV.B.3 of Appendix I to 10 CFR 50. Results are shown in Table 3.12.3.

Participation in an interlaboratory comparison program is performed in fulfillment of HBRSEP ODCM Operational Requirements. The comparison program provides for independent checks on the precision and accuracy of measurements of radioactive material in REMP sample matrices. Such checks are performed as part of the quality assurance program for environmental monitoring in order to demonstrate that the results are valid for the purposes of Section IV.B.2 of Appendix I to 10 CFR 50. A summary of the results obtained as part of this comparison program are in Section 4 of this annual report.

## **2.3 STATISTICAL AND CALCULATIONAL METHODOLOGY**

### **2.3.1 ESTIMATION OF THE MEAN VALUE**

There was one (1) basic statistical calculation performed on the raw data resulting from the environmental sample analysis program. The calculation involved the determination of the mean value for the indicator and the control samples for each sample medium. The mean is a widely used statistic. This value was used in the reduction of the data generated by the sampling and analysis of the various media in the Radiological Environmental Monitoring Program. "Net activity (or concentration)" is the activity (or concentration) determined to be present in the sample. No "Minimum Detectable Activity", "Lower Limit of Detection", "Less Than Level", or negative activities or concentrations are included in the calculation of the mean. The following equation was used to estimate the mean (reference 6.8):

$$\bar{x} = \frac{\sum_{i=1}^N x_i}{N}$$

Where:

$\bar{x}$  = estimate of the mean,

$i$  = individual sample,

$N$  = total number of samples with a net activity (or concentration),

$x_i$  = net activity (or concentration) for sample  $i$ .

### **2.3.2 LOWER LIMIT OF DETECTION AND MINIMUM DETECTABLE ACTIVITY**

The Lower Limit of Detection (LLD), and Minimum Detectable Activity (MDA) are used throughout the REMP.

**LLD** - The LLD, as defined in the ODCM as the smallest concentration of radioactive material in a sample that will yield a net count, above the system background, that will be detected with 95% probability with only 5% probability of falsely concluding that a blank observation represents a "real" signal. The LLD is an *a priori* (before the fact) lower limit of detection. The actual LLD is dependent upon the standard deviation of the background counting rate, the counting efficiency, the sample size (mass or volume), the radiochemical yield and the radioactive decay of the sample between sample collection and counting. The "required" LLD's for each sample medium and selected radionuclides are given in the ODCM and are listed in Table 2.2-C.

**MDA** - The MDA is the net counting rate (sample after subtraction of background) that must be surpassed before a sample is considered to contain a scientifically measurable amount of a radioactive material exceeding background amounts. The MDA is calculated using a sample background and may be thought of as an "actual" LLD for a particular sample measurement.

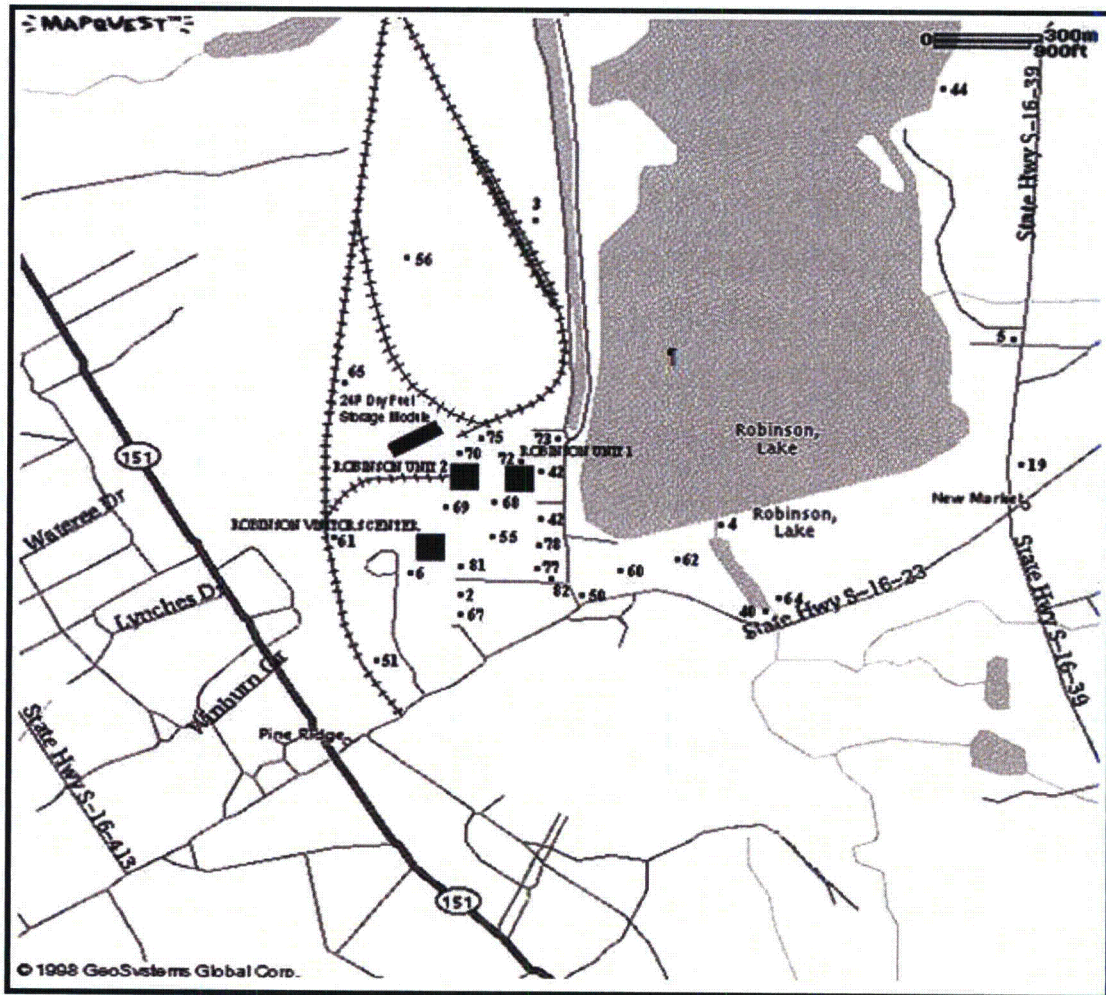
### **2.3.3 TREND IDENTIFICATION**

One of the purposes of an environmental monitoring program is to determine if there is a buildup of radionuclides in the environment due to the operation of the nuclear station. Visual inspection of tabular or graphical presentations of data (including preoperational) is used to determine if a trend exists. A decrease in a particular radionuclide's concentration in an environmental medium does not indicate that reactor operations are removing radioactivity from the environment but that reactor operations are not adding that radionuclide to the environment in quantities exceeding the preoperational level and that the normal removal processes (radioactive decay, deposition, resuspension, etc.) are influencing the concentration.

Substantial increases or decreases in the amount of a particular radionuclide's release from the nuclear plant will greatly affect the resulting environmental levels; therefore, a knowledge of the release of a radionuclide from the nuclear plant is necessary to completely interpret the trends, or lack of trends, determined from the environmental data. Factors that may affect environmental levels of radionuclides include prevailing weather conditions (periods of drought, solar cycles or heavier than normal precipitation), construction in or around either the nuclear plant or the sampling location, and addition or deletion of other sources of radioactive materials (such as the 1986 Chernobyl accident and the 2011 Japan earthquake and tsunami which triggered the Fukushima Dai-ichi nuclear power plant incident). Some of these factors may be obvious while others are sometimes unknown. Therefore, how trends are identified will include some judgment by plant personnel.

Figure 2.1-1

Radiological Environmental Sampling Locations  
(Near Plant)



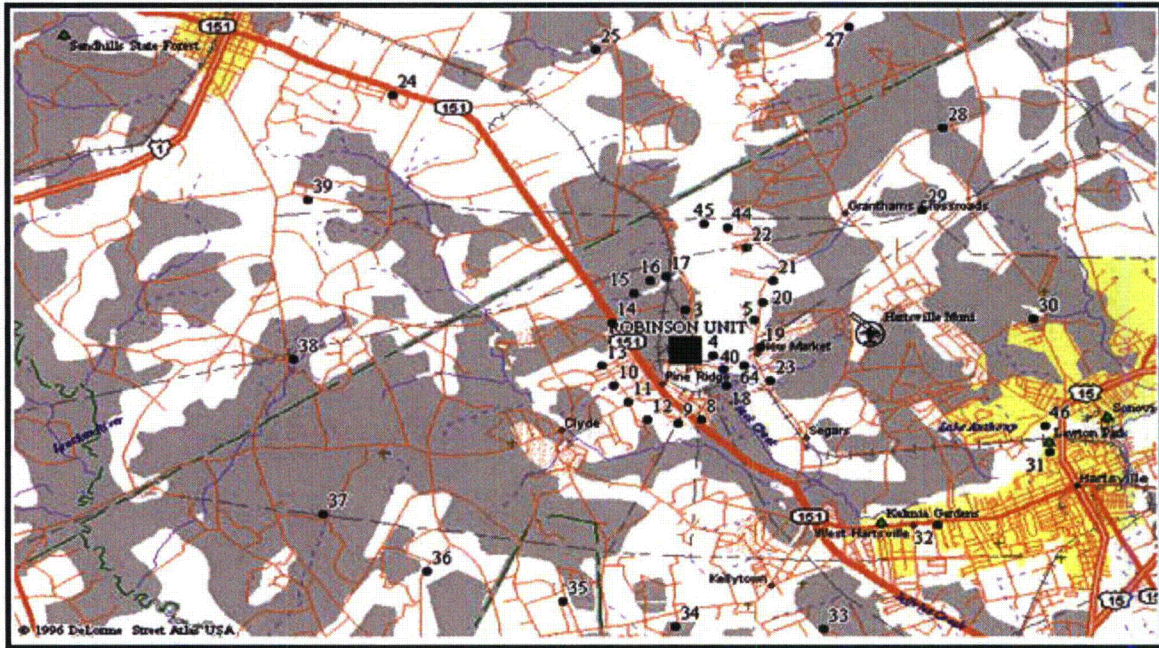
Sample Locations not shown include: 1, 7 - 18, 20 - 39, 41, 45 - 47, 49, 52, 54, 57, 58, 66, 71, 76, and 79.

Figure 2.1-1 is based upon RNP ODCM Rev. 33; however, it does not reflect the permanent removal of approximately 2000 feet of railway track section located in the inundation area of the Unit 1 coal basin dam 3514 (the section of railway track on the side toward Lake Robinson), which was performed during the week of 7/17/14.



Figure 2.1-2

Radiological Environmental Sampling Locations  
(Distant from Plant)



Sample Locations not shown include: 1, 2, 6, 7, 26, 41, 42, 47 (varies), 50 - 52, 54 - 58 (varies), 60 - 62, 73, 75 - 79, and 81 - 82.



TABLE 2.1-A

H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2 (HBRSEP)  
 RADIOLOGICAL MONITORING PROGRAM SAMPLING LOCATIONS

Site #	Type*	Location Description**	AR* & AP*	SW*	SS*	SB*	AV*	FP <sup>(a)</sup> *	Fish (FI)	BLV <sup>(b)</sup> *	GW*
1	C	24.4 miles ESE Florence, S.C.	W/Q								
2	I	0.2 miles S Information Center	W/Q								
3	I	0.5 miles N Microwave Tower	W/Q								
4	I	0.4 miles ESE Spillway	W/Q								
5	I	0.9 miles ENE East shore of lake near Johnson's Landing	W/Q								
6	I	0.2 miles SSW Information Center	W/Q								
7	I	6.4 miles ESE CP&L facility on RR Avenue, Hartsville	W/Q								
40	I	0.6 miles ESE Black Creek at Old Camden Road (S-16-23) - Lake Robinson		M							
41	C	8.0 miles N Black Creek at US Hwy 1		M							
41	C	7.2 miles NNW Black Creek (upstream)				A	A				
42	I	Unit 1 Deep Wells									Q
44	I	1.6 miles NNE East shore of lake, Shady Rest Club			SA						
45	I	Site varies within Lake Robinson				A	A		SA		
46	I	Site varies within Prestwood Lake				A	A		SA		
47	C	Control station, Any lake not influenced by plant discharge							SA		
49	C	10.0 miles W or greater than 5 miles from plant						A <sup>(a)</sup>			
50	I	SSE Close to Site Boundary								M <sup>(b)</sup>	
51	I	SSW Close to Site Boundary								M <sup>(b)</sup>	
52	C	10 miles W near Bethune								M <sup>(b)</sup>	
54	I	10.1 miles E Auburndale Plantation (if irrigating from Black Creek)						A <sup>(a)</sup>			
55	I	0.2 miles SSE South of West Settling Pond	W/Q								
57	I	Ash Pond		M							
57	I	Ash Pond Shore			SA						
58	I	Site varies from plant						A <sup>(a)</sup>			
60	I	0.2 miles SE Robinson Picnic Area	W/Q								
61	I	0.3 miles WSW West Parking lot near RR tracks	W/Q								
62	I	SE Close to Site Boundary								M <sup>(b)</sup>	
64	I	0.6 miles SE Artesian Well									Q
66	I	Black Creek btwn Prestwood Lake discharge & upstream of Sonoco Spray Farm (downstream)		M		A	A				
67	I	S Close to Site Boundary								M <sup>(b)</sup>	
68	I	Well A Btwn Unit 1 Switchyard & breakroom									Q
69	I	Well B Behind the Training Building									Q
70	I	Well C Btwn O&M Building & Fab Shop									Q
71	I	0.87 miles NNW (MW-03A) Btwn Ash Pond & RR tracks									Q
72	I	0.10 miles E (MW-06) 20 ft from FP/FH 7 fire hydrant & Unit 1 North Deep Well Pump									Q
73	I	0.11 miles ENE (MW-13) Btwn Discharge Canal & Unit 1 Stand Alone Fuel Oil Tanks									Q
75	I	0.05 miles NE (PSW-02) By Unit 1 boundary Fence to Unit 2 across paved rd. from Hydrogen Gas Tanks									
76	I	0.49 miles N (PSW-03) NE corner of MET Tower Station									Q
77	I	0.25 miles SSE (TS-01B) By entrance road to Unit 1									Q
78	I	0.17 miles SSE (TS-02C) NE corner by East Settling Pond influent by fence									Q
79	I	1.0 miles N (TS-07C) S corner by cove & Discharge Canal									Q
81	I	0.19 miles SSE (TS-17B) W of West Settling Pond across paved road									Q
82	I	0.3 miles SSE (PDW-01) By entrance road to Unit 1									Q

(a) During Harvest/Growing Season

(b) When Available

\* Refer to List of Acronyms Used in this Text in Table of Contents

\*\*GPS data reflect approximate accuracy to within 2-5 meters. GPS field measurements were taken as close as possible to the item of interest.



**TABLE 2.1-B**

**H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2 (HBRSEP)**

**RADIOLOGICAL MONITORING PROGRAM SAMPLING LOCATIONS (TLD SITES)**

C	Control
IR	Inner Ring
OR	Outer Ring
SI	Special Interest

Site #	Measure Type	Location*	Distance (miles) <sup>1</sup>	Sector	Site #	Measure Type	Location*	Distance (miles) <sup>1</sup>	Sector
1	C	Florence, SC	24.4	ESE	23	IR	New Market Road (#S-16-39)	1.0	ESE
2	IR	Information Center <sup>1,2</sup>	0.2	S	24	OR	Sowell Road (#S-13-711)	4.6	NW
3	IR	Microwave Tower	0.5	N	25	OR	Lake Robinson Road (#S-13-346)	4.0	NNW
4	IR	Spillway	0.4	ESE	26	OR	Lake Robinson Road (#S-13-346)	5.0	N
5	IR	East shore of lake near Johnson's Landing	0.9	ENE	27	OR	Prospect Church Road (#S-13-763)	5.4	NNE
6	IR	Information Center <sup>1,2</sup>	0.2	SSW	28	OR	New Market Road (#S-13-39)	4.3	NE
7	OR	CP&L Facility on RR Avenue, Hartsville	6.4	ESE	29	OR	Ruby Road (#S-16-20)	4.0	ENE
8	IR	Transmission right-of-way	0.8	SSE	30	OR	Ruby Road (#S-16-20)	4.4	E
9	IR	Transmission right-of-way	1.0	S	31	OR	Lakeshore Drive	4.6	ESE
10	IR	Clyde Church of God	1.0	WSW	32	OR	Transmission right-of-way	4.0	SE
11	IR	Old Camden Road	1.0	SW	33	OR	Bay Road (#S-16-493)	4.5	SSE
12	IR	Off of Old Camden Road	1.2	SSW	34	OR	Kellybell Road (#S-16-772)	4.7	S
13	IR	Corner of Saluda and Sandpit Roads	0.7	W	35	OR	Kelly Bridge Road (#S-31-51)	4.5	SSW
14	IR	First Baptist Church of Pine Ridge	0.8	WNW	36	OR	Kingston Drive	5.0	SW
15	IR	Transmission right-of-way	0.7	NW	37	OR	Pine Cone Road	5.0	WSW
16	IR	South side of Darlington Co. I.C. Turbine Plant	1.0	NNW	38	OR	Union Church Road	4.9	W
17	IR	Darlington Co. Plant emergency fire pump	1.2	N	39	OR	King's Pond Road	5.1	WNW
18	IR	Near Old Black Creek RR trestle	0.7	SE	55	IR	South of the West Settling Pond	0.2	SSE
19	IR	Old Camden Road (#S-16-23)	1.0	E	56	IR	North of the center of the 7P-ISFSI <sup>1,2</sup>	0.4	NNW
20	IR	New Market Road (#S-16-39)	1.0	ENE	61	IR	West Parking lot near RR tracks <sup>2</sup>	0.3	WSW
21	IR	New Market Road (#S-16-39)	1.4	NE	65	IR	Northwest of the 24P-ISFSI <sup>2</sup>	0.3	WNW
22	IR	Shady Rest entrance off of Cloverdale Drive	1.7	NNE					

- 1 Required for monitoring of the 7P-ISFSI
- 2 Required for monitoring of the 24P-ISFSI

\* GPS data reflect approximate accuracy to within 2-5 meters. GPS field measurements were taken as close as possible to the item of interest.

**TABLE 2.2-A**

**REPORTING LEVELS FOR RADIOACTIVITY  
CONCENTRATIONS IN ENVIRONMENTAL SAMPLES**

Analysis	Water (pCi/liter)	Airborne (pCi/m <sup>3</sup> )	Fish (pCi/kg-wet)	Milk (pCi/liter)	Food Products (pCi/kg-wet)
H-3	20,000 <sup>(a)</sup>	----	----	----	----
Mn-54	1,000	----	30,000	----	----
Fe-59	400	----	10,000	----	----
Co-58	1,000	----	30,000	----	----
Co-60	300	----	10,000	----	----
Zn-65	300	----	20,000	----	----
Zr-Nb-95	400	----	----	----	----
I-131	2 <sup>(b)</sup>	0.9	----	3	100
Cs-134	30	10	1,000	60	1,000
Cs-137	50	20	2,000	70	2,000
Ba-La-140	200	----	----	300	----

(a) For drinking water samples. This is 40 CFR Part 141 value. If no drinking water pathway exists, a value of 30,000 pCi/liter may be used.

(b) If no drinking water pathway exists, a value of 20 pCi/liter may be used.

“----” represents no specified limits

**TABLE 2.2-B**

**REMP ANALYSIS FREQUENCY**

Sample Medium	Analysis Schedule	Gamma Isotopic	Tritium	Low Level I-131	Gross Beta	TLD
Air Radioiodine	Weekly	X				
Air Particulate	Weekly				X	
	Quarterly	X				
Direct Radiation	Quarterly					X
Surface Water	Monthly Composite	X	X			
Ground Water	Quarterly	X	X			
Ground Water (#68)	Quarterly	X	X	X		
Ground Water (#82)	Quarterly	X	X	X	X	
Bottom Sediment	Annually	X				
Shoreline Sediment	Semiannually	X				
Fish	Semiannually	X				
Aquatic Vegetation	Annually	X				
Broadleaf Vegetation	Monthly <sup>(a)</sup>	X				
Food Products	Annually <sup>(b)</sup>	X				

(a) When Available

(b) At harvest



**TABLE 2.2-C**

**LOWER LIMITS OF DETECTION (LLD)<sup>(a)</sup>**

Analysis	Water (pCi/liter)	Airborne (pCi/m <sup>3</sup> )	Fish (pCi/kg-wet)	Milk (pCi/liter)	Food Products (pCi/kg-wet)	Sediment (pCi/kg-dry)
Gross Beta	----	0.01	----	----	----	----
H-3	2000 <sup>(c)</sup>	----	----	----	----	----
Mn-54	15	----	130	----	----	----
Fe-59	30	----	260	----	----	----
Co-58, 60	15	----	130	----	----	----
Zn-65	30	----	260	----	----	----
Zr-Nb-95 <sup>(b)</sup>	15	----	----	----	----	----
I-131	1 <sup>(d)</sup>	0.07	----	1	60	----
Cs-134	15	0.05	130	15	60	150
Cs-137	18	0.06	150	18	80	180
Ba-La-140 <sup>(b)</sup>	15	----	----	15	----	----

(a) The LLD is defined in Section 2.3.2.

(b) The specified LLD applies to the daughter nuclide of an equilibrium mixture of the parent and daughter nuclides.

(c) If no drinking water pathway exists, a value of 3000 pCi/liter may be used.

(d) If no drinking water pathway exists, a value of 15 pCi/liter may be used.

“----” represents no specified limits

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## 3.0 INTERPRETATION OF RESULTS

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The following section depicts and explains the review of the REMP results conducted during 2014 for the H. B. Robinson Steam Electric Plant, Unit No. 2 (HBRSEP) and fulfills the reporting requirements of Technical Specifications and HBRSEP ODCM. Review of the 2014 REMP analysis results was performed to identify changes in environmental levels as a result of HBRSEP operations. Sample data for 2014 was compared to preoperational and historical data.

Evaluation for significant trends was performed for radionuclides that are listed as required within HBRSEP ODCM. The radionuclides include: H-3, Mn-54, Fe-59, Co-58, Co-60, Zn-65, Zr-95, Nb-95, I-131, Cs-134, Cs-137, Ba-140 and La-140. HBRSEP ODCM addresses actions to be taken if radionuclides other than those required are detected in samples collected. The occurrences of these radionuclides could be the result of HBRSEP liquid effluents which contained the radionuclides.

The purpose of the REMP is to measure accumulation of radioactivity in the environment, to determine whether this radioactivity is the result of the operation of the HBRSEP, Unit No. 2, and to assess the potential dose to the off-site population based on the cumulative measurements of radioactivity of plant origin. Approximately 1,411 samples were collected from indicator and control locations and 1,529 analyses and measurements were made during 2014. Detectable radioactivity resulting from plant operation was found in 24 out of 36 indicator samples of surface water (Appendix B). Only the tritium activity measured in the surface water of Lake Robinson and in fish samples constituted a source of public exposure. The highest concentration of any plant related radionuclide releases to the environment was tritium in Lake Robinson at an average concentration of 1.29E+3 pCi/Liter. Using the methodology of Regulatory Guide 1.109 "Calculation of Annual Doses to Man from Routine Releases of Reactor Effluents for the Purpose of Evaluating Compliance with 10 CFR Part 50, Appendix I, Revision 1, dated October 1977," via fish consumption, is listed below. The maximum possible exposure to an individual from the evaporation of tritium in Lake Robinson using 2014 meteorology is 0.162 mrem/yr. to a child. Radioactivity in environmental samples attributed to plant operations in 2014 for which there is a potential dose pathway to the public is seen in Table 3.0-A.

<u>Age Group</u>	<u>2013 Dose (mrem)</u>
Adult	0.0033
Teenager	0.0025
Child	0.0021

Review of the 2014 data presented in this section supports the conclusion that there were no significant changes in environmental sample radionuclide concentrations of samples collected and analyzed from HBRSEP and surrounding areas that were attributable to plant operations. The radiological environmental data for 2014 indicates that radioactivity concentrations were not higher than expected and positively identified measurements attributable to HBRSEP operations in 2014 were within limits as specified in the HBRSEP ODCM, thus presenting no significant



impact on the environment or public health and safety. A statistical summary of the HBRSEP data for 2014 has been compiled and summarized in Appendix B along with any plant-derived activity detected within the scope of the REMP.

**Table 3.0-A HBRSEP Potential Dose Pathway**

Environmental Media	Radionuclide	Location w/Highest Annual Mean	Activity and Occurrence	Maximum Individual Dose (mrem/yr)
Surface Water	H-3 (tritium)	Lake Robinson (SW-40)	1,502 pCi/L (12/12)	0.0033 millirem/yr – Adult (from fish)
Surface Water	H-3 (tritium)	Lake Robinson (SW-40)	1,502 pCi/L (12/12)	0.162 millirem/yr – child (Evaporation from Lake Robinson using HBRSEP 2014 Meteorology Data)*

\*This is information supplied by Murray and Trettel, Inc. in their report “Impact of Tritium Release from Lake Robinson at the Robinson Nuclear Plant for 2014.”

### **3.1 AIRBORNE RADIOIODINE AND PARTICULATES**

The 518 air cartridge/radioiodine (AR) samples from indicator and control stations had I-131 concentrations less than the ODCM LLD of  $7.00E-2$  pCi/m<sup>3</sup>. There are nine indicator sites for a total of 467 indicator samples and one control site for a total of 51 control samples during the 2014 collection year. The air samplers operated for a total of 99.79% availability for the 2014 year.

For the period of January 1, 2014, to December 31, 2014, the gross beta activity was detectable in the airborne particulate (AP) samples, with acceptable runtime, from the nine indicator locations and the control location. The 467 indicator samples had an average concentration of  $1.70E-2$  pCi/m<sup>3</sup>. Similar gross beta activities were observed at the control location in Florence, which had an average concentration of  $1.63E-2$  pCi/m<sup>3</sup> in 52 control samples. Figures 3.1-1 through 3.1-9 provide a graphic representation of the gross beta activity at the indicator locations compared to the control location for the year 2014. No plant-related gamma activity was observed for any air particulate filters analyzed during 2014. The natural gamma concentrations identified are typical of the natural environment and are not attributed to plant operations. Refer to Appendix C or Appendix D for deviations and unavailable samples in the 2014 collection year.

No plant-related gamma activity was detected in quarterly composite filter samples from either the indicator or control locations during 2014. HBRSEP ODCM LLDs and reporting levels for air particulates are contained in Section 2.0 in Table 2.2-C and 2.2-A respectively.

Figure 3.1-1

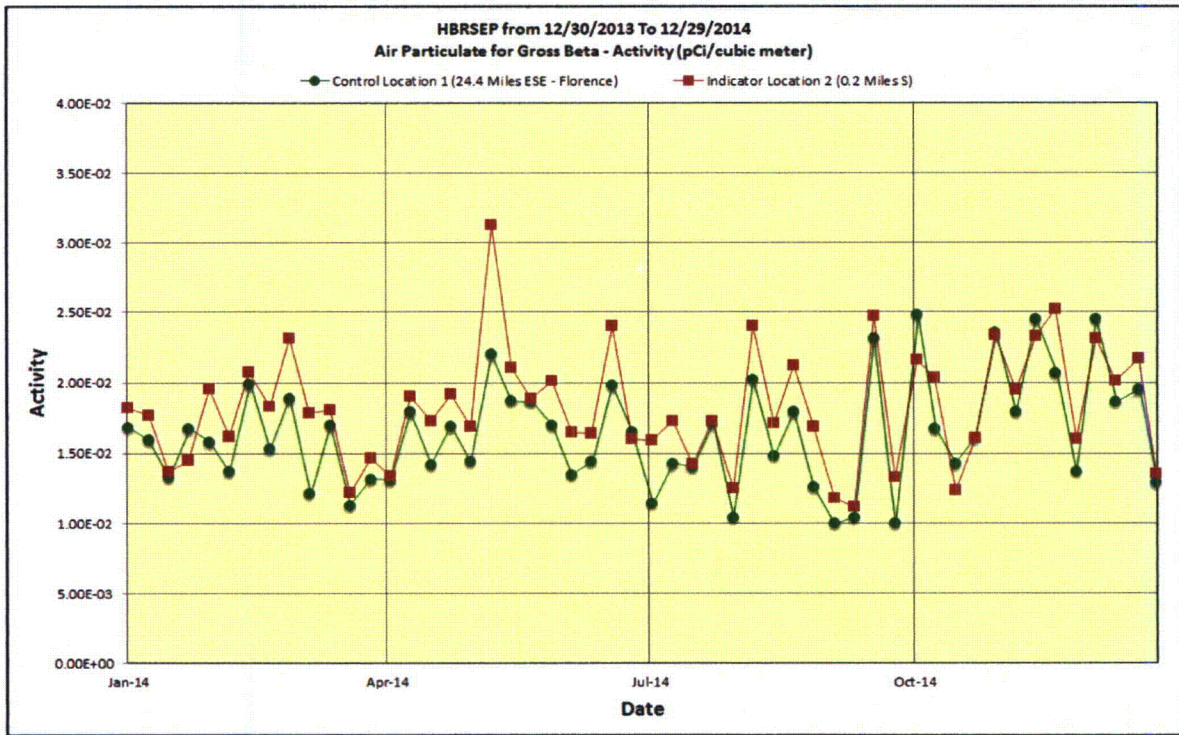


Figure 3.1-2

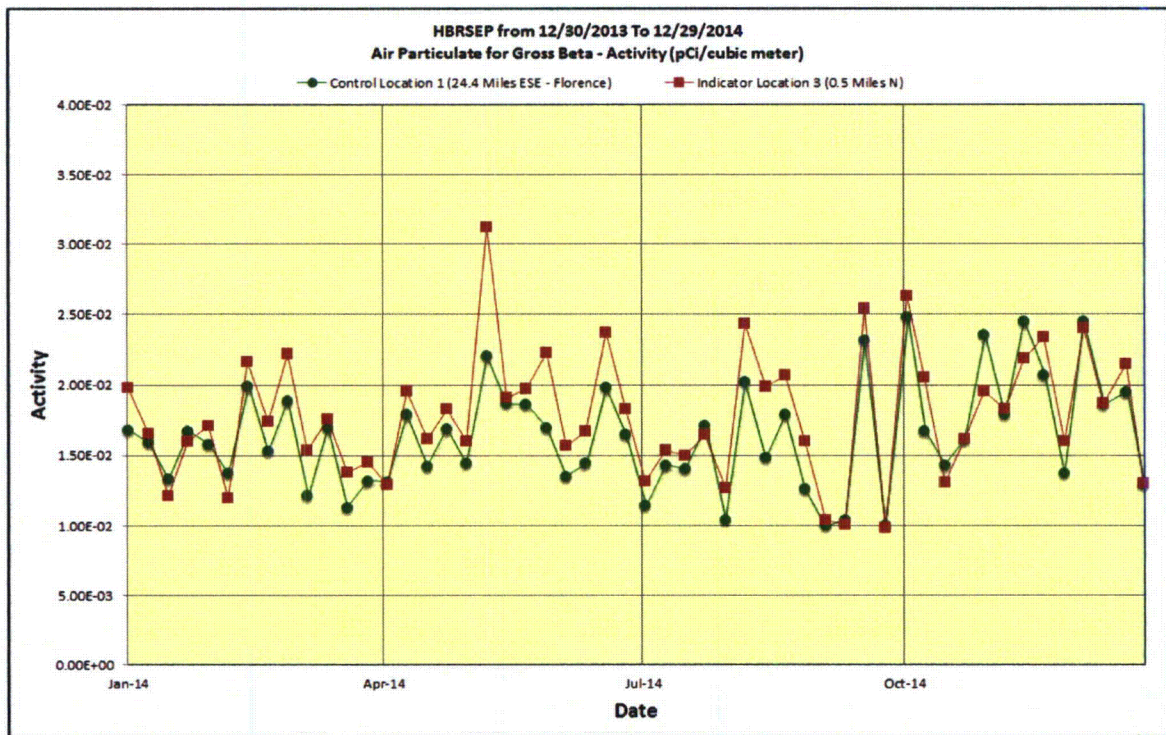




Figure 3.1-3

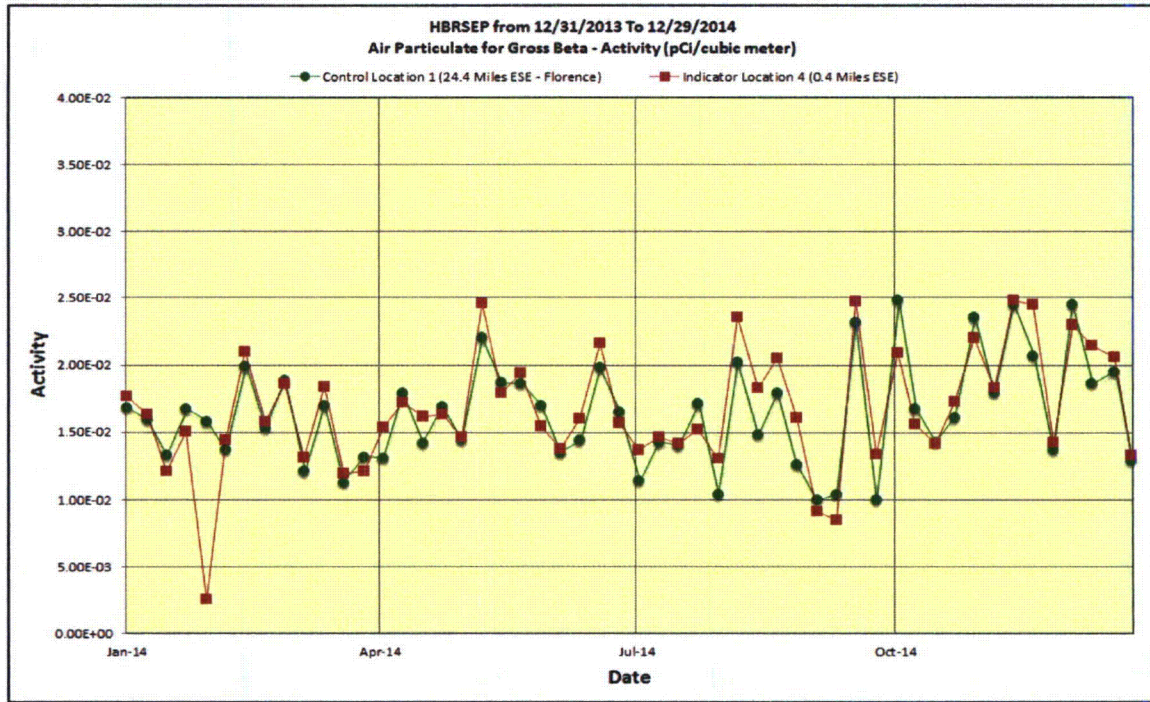


Figure 3.1-4

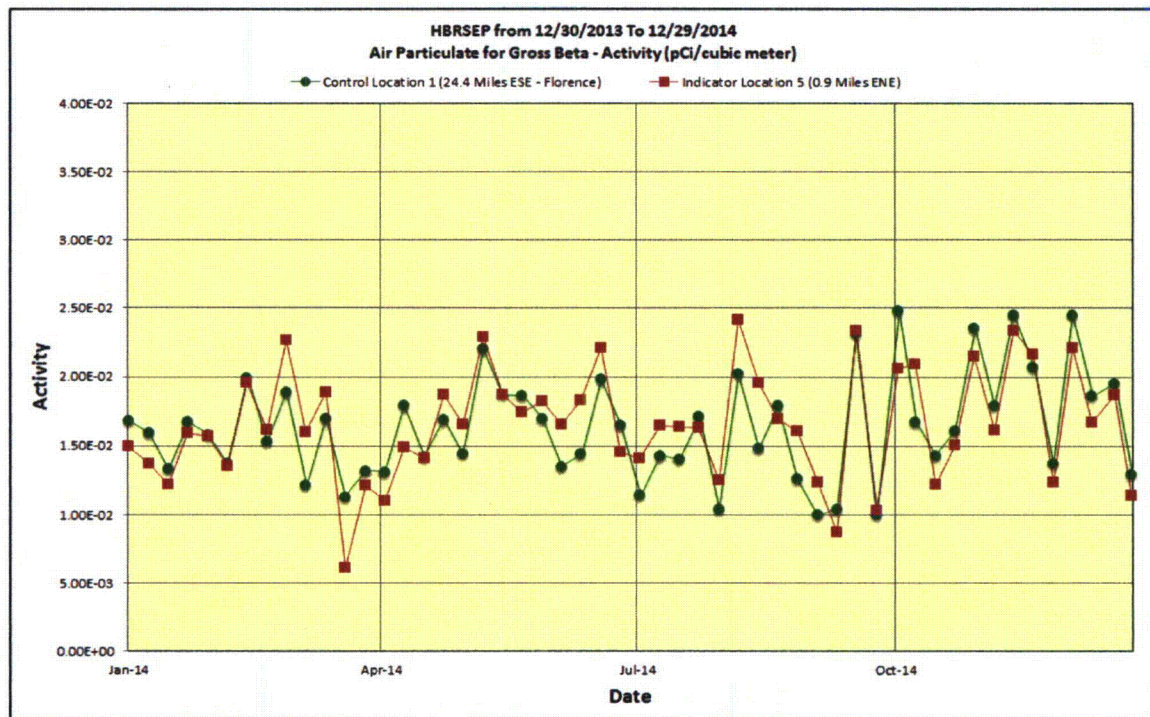


Figure 3.1-5

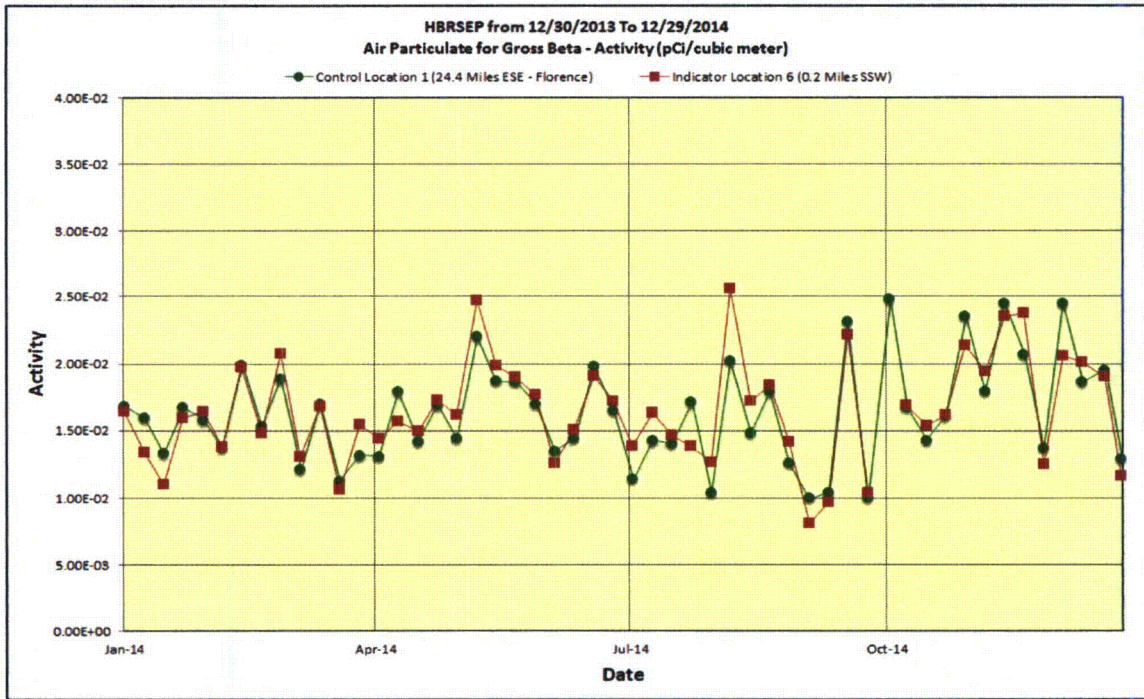


Figure 3.1-6

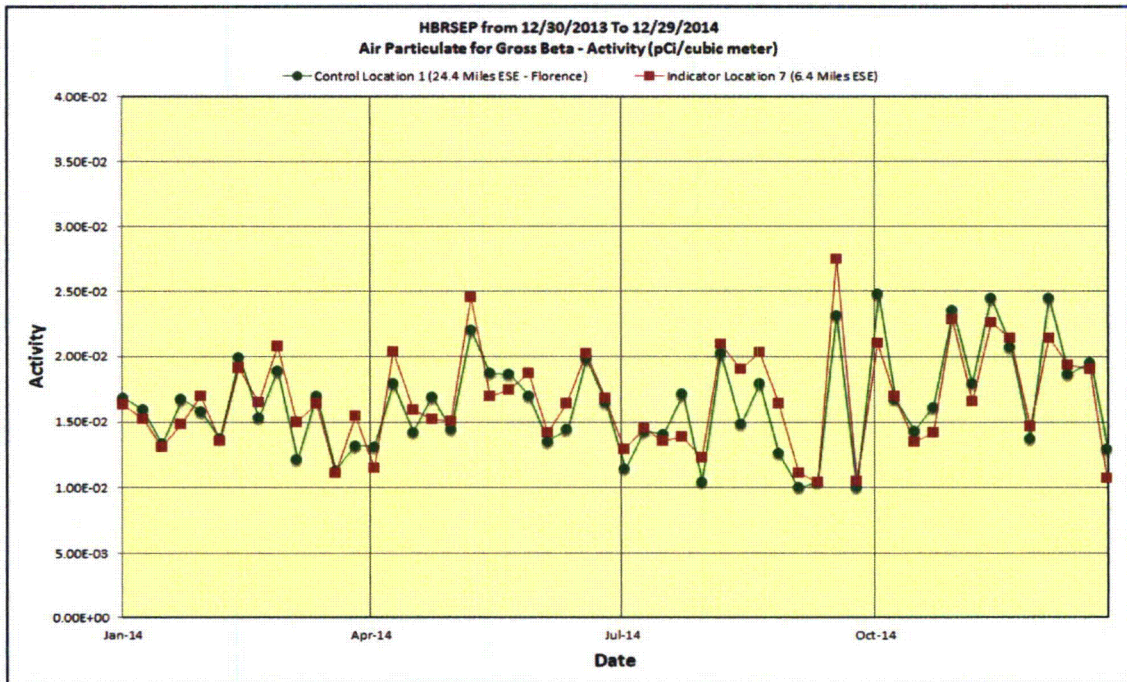




Figure 3.1-7

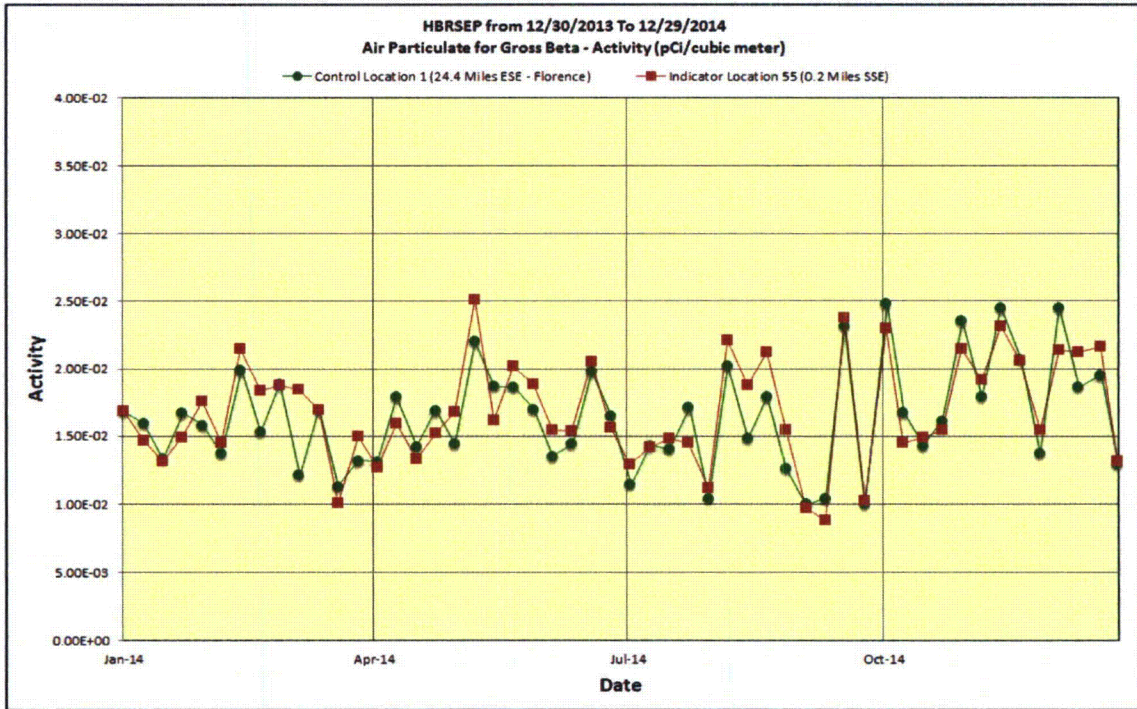


Figure 3.1-8

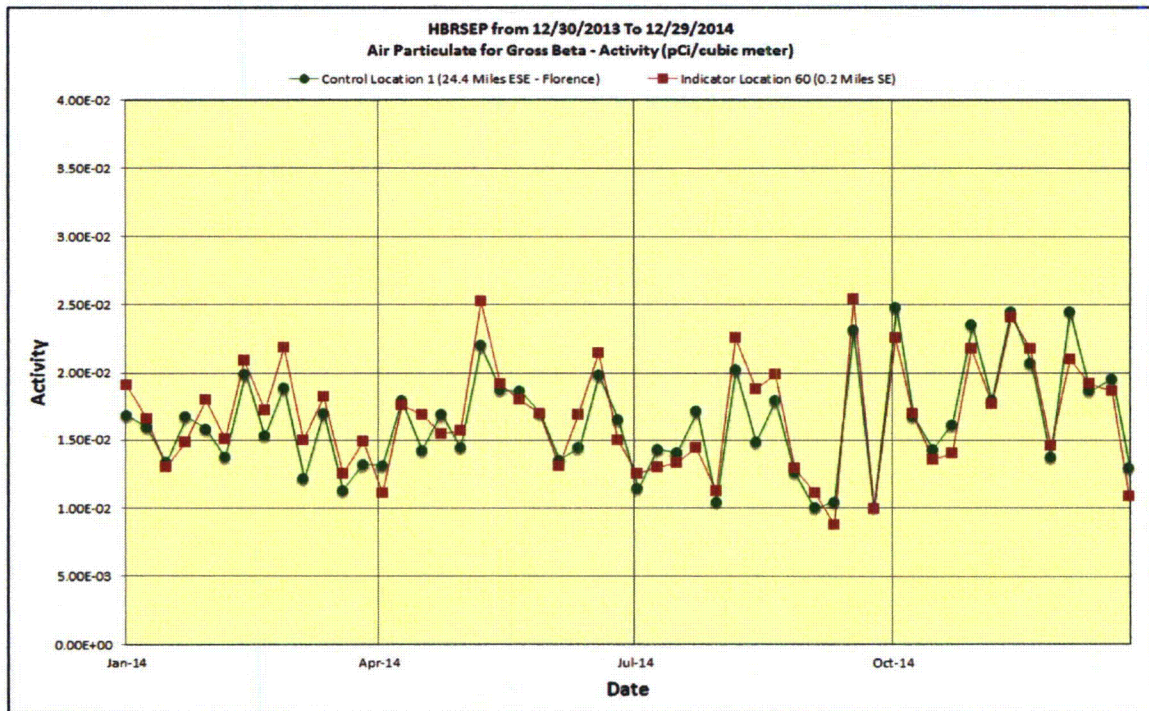
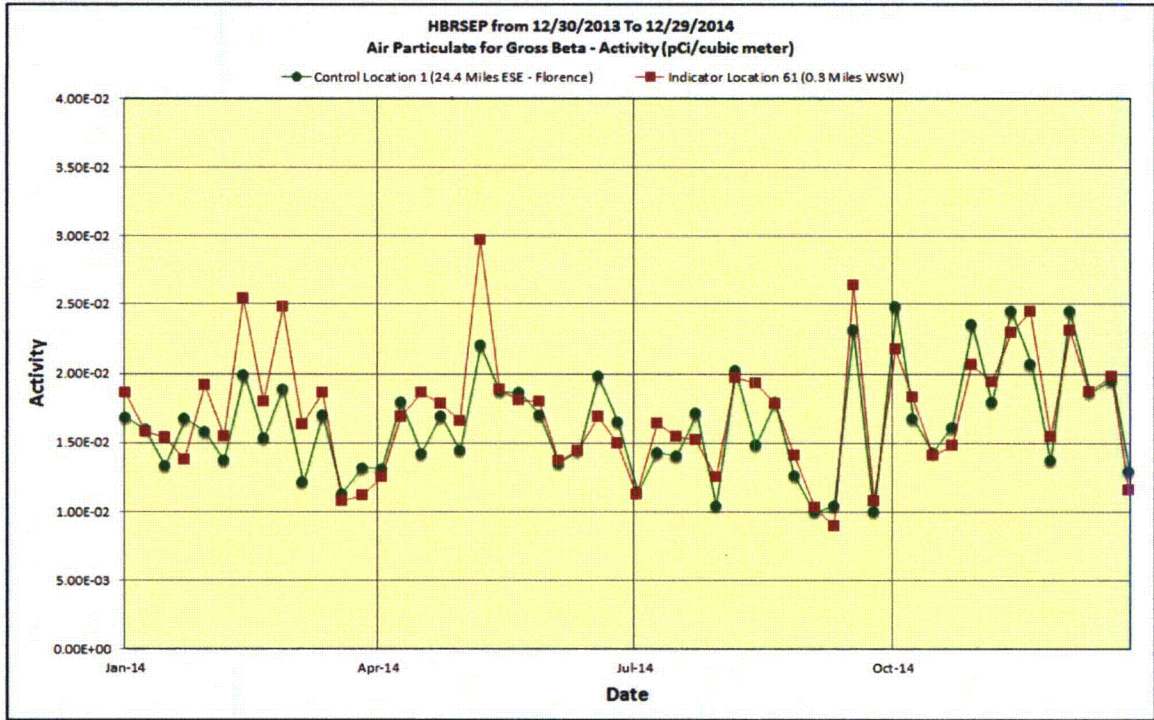


Figure 3.1-9

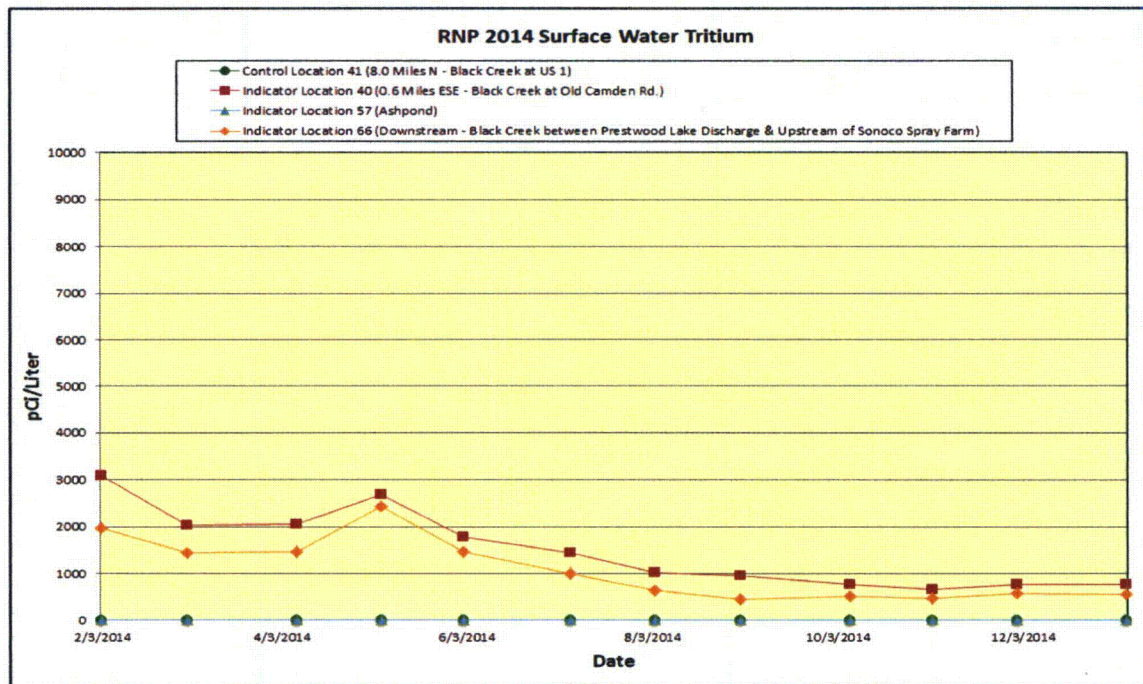




### 3.2 SURFACE WATER

Surface water (SW) composite samples are sampled monthly and analyzed for gamma emitting radionuclides and for tritium radioactivity. The analyses indicated that no detectable concentrations of gamma – emitting radionuclides relating to plant effluents appeared in any of the indicator and control samples. All concentrations of natural occurring gamma-emitters were less than their respective LLDs (see Table 2.2-C). None of the control samples indicated the presence of tritium; however, 24 out of 36 indicator samples did indicate the presence of tritium in 2014. The average annual tritium activity was  $1.29E+3$  pCi/L, with the results ranging from  $4.43E+2$  pCi/L to  $3.08E+3$  pCi/L. The surface water indicator location with the highest tritium mean in 2014 was the Lake Robinson surface water (SW-40 - Black Creek at Old Camden Rd.) with a mean of  $1.50E+3$  pCi/L, and results ranging from  $6.64E+2$  pCi/L to  $3.08E+3$  pCi/L; which is attributed to plant operation. Lake Robinson’s tritium activity is cyclic and follows HBRSEP’s fuel cycle. Figure 3.2-1 displays the tritium activity throughout 2014 for the surface water samples. These surface waters do not supply drinking water at any downstream location and are not typically used for irrigation. Therefore, radiological dose via this pathway (surface water) is limited to the consumption of fish (0.0033 mrem/yr.) and evaporation of tritium (0.162 mrem/yr. using RNP 2014 Meteorology Data) from Lake Robinson and its subsequent inhalation and ingestion from vegetable gardens and meat producing animals. Using the methodology of Regulatory Guide 1.109, a dose of 0.165 millirem/year to the maximum exposed individual could be assigned to this pathway.

Figure 3.2-1





### **3.3 GROUND WATER**

Ground water (GW) samples are collected and analyzed quarterly for gamma emitters and tritium. Some of the ground water samples are also analyzed for low-level radioiodine and for gross beta. No by-product/plant-related gamma activity associated with plant operations was detected in the fifty-eight (58) indicator samples of ground water collected in 2014. The measured concentrations of the gamma analyses indicated concentrations below their required LLD as specified in the HBRSEP ODCM in Table 4.1-3 titled "Lower Limit of Detection (LLD)" for the year 2014 and Table 2.2-C of this report.

The ground water samples had detectable concentrations of tritium activity in twenty-two (22) out of fifty-eight (58) samples, for an average concentration of  $6.06E+2$  pCi/L; with a range of  $1.90E+2$  pCi/L to  $1.76E+3$  pCi/L. The measured ground water tritium concentrations were below the required HBRSEP ODCM Table 4.1-3 LLDs for environmental samples and Table 2.2-C. The tritium limits are 2000 picocuries per Liter (pCi/L) for a drinking water pathway and 3000 pCi/L if no drinking water pathway exists. HBRSEP administratively established a ground water tritium analysis LLD of approximately 250 pCi/L, which is well below the requirements specified in the HBRSEP ODCM. These tritium results are also well below the EPA reportable drinking water limit (20,000 pCi/Liter) and the non-drinking water limit (30,000 pCi/Liter).

During 2014, eight (8) ground water indicator samples were analyzed for I-131 to the HBRSEP ODCM drinking water limit ( $<1$  pCi/L). No detectable concentrations of I-131 activity were detected in the eight samples. Also during 2014, four (4) GW indicator samples were analyzed for gross beta activity, with activity present in three of the four samples, for an average concentration of  $1.51E+0$  pCi/L, with a range of  $1.23E+0$  pCi/L to  $1.84E+0$  pCi/L.

In August of 2014, ground water ODCM location 71 (0.87 miles NNW [MW-03A] between Ash Pond and the Railroad tracks) was retired from the RNP REMP sampling program; however, it remains a ground water location in the RNP ODCM Rev. 33. No indicator ground water samples, from location 71, were collected 3<sup>rd</sup> Quarter or 4<sup>th</sup> Quarter 2014. Refer to Appendix C for deviations and unavailable samples in the 2014 collection year.

### **3.4 MILK / BROADLEAF VEGETATION**

Milk monitoring has not been conducted due to the unavailability of milk samples in the area since July 17, 1998, when the dairy ceased operation. Milk sampling will resume if a new sample location is identified. Broadleaf sampling is conducted since no milk animals are located within a radius of approximately five miles of the plant in any sector and is used to calculate dose to an individual via the vegetation-milk-man pathway.

Broadleaf vegetation sampling is accomplished by collecting cherry, sassafras, and wax myrtle leaves in 2014. Three species of samples, when available, are collected monthly at five locations (one control and four indicator locations at the site boundary selected using historical meteorology with the highest calculated annual average ground level deposition). Broadleaf sampling is conducted since no milk animals are located within a radius of approximately five



miles of the plant and is used to simulate dose to an individual via the milk pathway for compliance purposes.

During 2014, 21 of 60 samples taken from the indicator sites demonstrated detectable concentrations of Cs-137 for an average value of  $5.24E+1$  pCi/kg (wet). The control samples had detectable concentrations of Cs-137 in 8 of 15 samples with a mean concentration of  $5.51E+1$  pCi/kg (wet). Upon comparing these results, it is concluded that the indicator values reflect fallout Cs-137 contamination. Past sampling experience further supports this interpretation. Refer to Appendix C and Appendix D for deviations and unavailable samples in the 2014 collection year.

### **3.5 FOOD PRODUCTS**

During 2014, two food product (FP) samples were collected from both the control location (FP-49) and the indicator location (FP-58). Collards and tomatoes were collected from the control location (FP-49) and the indicator location (FP-58), while no food products were collected from indicator location FP-54 at Auburndale Plantation due to this area in 2014 not being irrigated by water in which liquid plant effluents have been discharged (see CR # 725966). No gamma activity associated with plant operation was detected in any control or indicator samples for the 2014 collection period.

### **3.6 AQUATIC VEGETATION**

The aquatic vegetation samples are considered to be sensitive environmental indicators used as long term trending and do not constitute a dose pathway. In 2014, there were three aquatic vegetation indicator samples and one aquatic vegetation control sample collected. The aquatic vegetation samples collected pose no radiological dose consequence since this is not a dose pathway to the general public. Gamma analyses of the aquatic vegetation samples detected no plant-related activity in any of the samples, other than natural occurring gamma activity.

### **3.7 FISH**

Samples of free-swimming and bottom-feeding fish were taken from Lake Robinson and Prestwood Lake (the first downstream lake) and compared to similar fish from a control lake, which is unaffected by plant operation. During 2014, 4 out of 4 bottom-feeding fish and 4 out of 4 free-swimming fish (indicator sites) demonstrated detectable concentrations of Cs-137 for an average value of  $3.45E+1$  pCi/kg (wet) and  $4.04E+1$  pCi/kg (wet), respectively. The control samples had detectable concentrations of Cs-137 for 1 out of 2 bottom-feeding fish and 2 out of 2 free-swimming fish for an average concentration of  $1.89E+1$  pCi/kg (wet) and  $9.32E+1$  pCi/kg (wet), respectively. Upon comparing these results, it is concluded that the 2013 indicator values reflect fallout Cs-137 contamination. Past sampling experience further supports this interpretation.

### **3.8 SHORELINE SEDIMENT**

In 2014, Cesium-137 activity was observed in one out of four indicator locations with a single concentration of  $7.01\text{E}+0$  pCi/kg (dry). Only naturally occurring gamma activity was detected in the other three indicator locations. Cs-137 activity has been detected in shoreline sediment samples in past years, which was attributed to worldwide fallout and not the plant operation.

### **3.9 BOTTOM SEDIMENT**

During 2014, a total of three bottom sediment samples were analyzed from the indicator location and one from the control location. The bottom sediment samples are used as indicators of buildup of radioactivity in the environment and do not constitute a dose pathway. Cs-137 activity was detectable in two of the three indicator bottom sediment samples in 2014, with an average concentration of  $2.96\text{E}+2$  pCi/kg (dry). The control sample indicated detectable Cs-137 activity with a concentration of  $1.70\text{E}+2$  pCi/kg (dry). This concentration is similar to previous years and does not indicate a buildup in the environment. No other gamma activity, except for naturally occurring gamma activity, was detected in the annual bottom sediment samples in 2014.

### **3.10 ASIATIC CLAMS**

Benthic samples from Lake Robinson during 2014 continue to confirm the absence of any substantial populations of Asiatic clams (*Corbicula fluminea*). The natural chemistry of the lake (i.e., low alkalinity and hardness) inhibits their proliferation.

### **3.11 DIRECT GAMMA RADIATION**

#### **3.11.1 ENVIRONMENTAL TLD**

In 2014, 125 TLDs were analyzed, 122 at indicator locations and 3 at the control location. TLDs are collected and analyzed quarterly.

Thermoluminescent dosimeters (TLDs) were used to monitor ambient radiation exposures in the plant environs. The average quarterly exposure at the indicator and control locations was 16.5 mR/std. qtr. and 14.0 mR/std. qtr. respectively. The highest TLD indicator location for 2014 was TLD location #35 at 4.5 miles SSW at Kelly Bridge Road (#S-31-51) and its average was 23.3 mR/std. qtr. The differences among these locations are attributed to variations in soils, local geology, and are not the result of plant operations. There were four missing TLDs during the HBRSEP 2014 collection period, along with 43 TLDs (all of 4<sup>th</sup> Quarter 2014 TLDs) classified as unavailable during the HBRSEP 2014 collection period (see Appendix C).



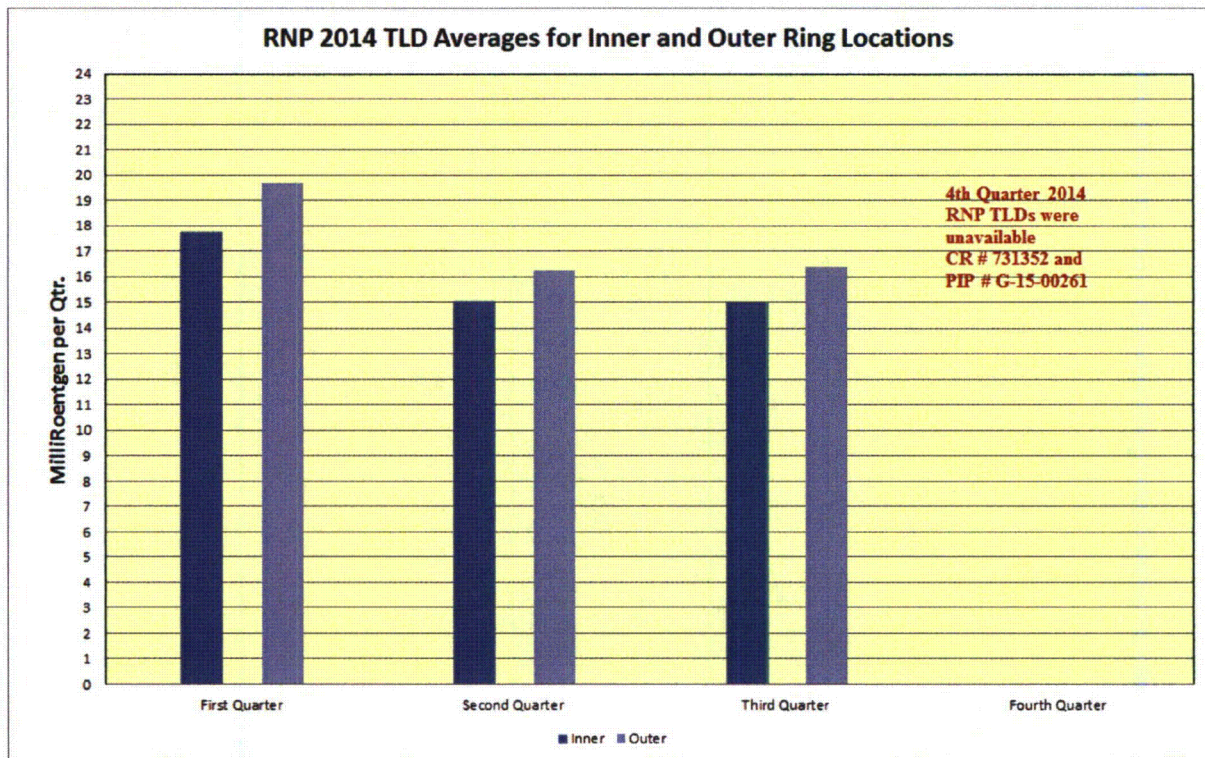
The 4<sup>th</sup> Quarter 2014 TLDs were put in the field and collected from the field as prescribed per procedure, but when the TLDs were analyzed the TLDs had elevated dose readings for both the control and indicator TLDs due to some type of exposure prior to the TLDs initially being put in the field. The elevated TLD results are not included with the HBRSEP environmental results in Appendix E since they are not considered valid TLD results; however, the 4<sup>th</sup> Quarter 2014 TLD results can be found in Appendix G. This incident has been captured in the Duke Energy Corrective Action Program with CR # 731352 or PIP # G-15-00261. Additional information will be provided upon request.

Comparison of the quarterly TLD exposure within approximately 1 mile (inner ring) of the plant with that at approximately 5 miles (outer ring) is presented in Figure 3.11.1. These data illustrate that the quarterly inner ring TLD exposures for the three quarters of 2014 are slightly lower than the outer ring TLD exposures.

As of first quarter 2014, the environmental TLDs that are placed in the field for REMP are Harshaw TLDs. Panasonic TLDs were the type of environmental TLDs for HBRSEP REMP monitoring prior to 2014. This change was a merger initiative in order to achieve fleet standardization of the TLD program.

A TLD Intercomparison Program is conducted as part of the quality assurance program. Results of this program are included in section 4.7.

Figure 3.11.1



### **3.12 LAND USE CENSUS**

The 2014 HBRSEP Annual Land Use Census was conducted in June, 2014 to meet the requirements of the HBRSEP ODCM 4.4.1. Table 3.12.3 summarizes the HBRSEP 2014 census results. During the 2014 census no milk locations were identified within five miles (8 kilometers) of HBRSEP. Based on a review of sampling requirements, existing/new sample locations, and relative depositions values, no new environmental program changes were required as a result of the 2014 Land Use Census.

#### **3.12.1 PURPOSE OF LAND USE CENSUS**

The land use census identifies the pathways (or routes) that radioactive material may reach the general populations near commercial nuclear generating stations. This is accomplished by completing studies each year that identify how the surrounding lands are used by the population. A comprehensive census of the use of the land within a five-mile (8 kilometer) distance of the plant is conducted once per 12 months during the growing season. This information is used for dose assessment and to identify changes to the stations sampled and the type of samples. These results ensure that the Radiological Environmental Monitoring Program (REMP) is based upon current data regarding human activity in the vicinity of the plant. Therefore, the purpose of the land use census is to ensure the monitoring program is current, as well as provide data for the calculation of estimated radiation exposure.

The pathways evaluated are:

- Ingestion Pathway - Results from eating food products that may have radioactive materials deposited on them, incorporated radioactive materials from the soil or atmosphere. Another pathway is through drinking milk from local cows or goats, if these are present and if not then broadleaf vegetation is collected in lieu of milk. The grass used to feed these animals may have incorporated or had deposited on it radioactive materials that can be transferred to the milk.
- Direct Radiation Exposure Pathway- Results from deposition of radioactive materials on the ground or from passage of these radioactive materials in the air.
- Inhalation Pathway- Results from breathing radioactive materials transported in the air.

#### **3.12.2 METHODOLOGY**

The following must be identified within the five-mile (8 kilometer) radius of the plant for each of the sixteen meteorological sectors (compass direction the winds may blow, for example NNE [North North East]):



- The nearest resident
- The nearest garden of greater than 500 square feet, producing broadleaf vegetables
- The nearest milk animal
- The nearest meat/egg producing animal

The primary methods are visual inspection from the roadside within the five (5) mile radius and personal contact with the individuals.

### **3.12.3 LAND USE CENSUS RESULTS**

The HBRSEP Land Use Census was performed June 2014 to meet the requirements of the HBRSEP's ODCM. The last HBRSEP land use census was performed in July 2013. The 2013 and 2014 results of the survey for the nearest resident, garden, milk and meat/egg producing animal for each meteorological sector are compared in Table 3.12.3.

No milk producing animals were identified within the five-mile radius of the site in any sector. Milk sampling will resume if a new sample location is identified. Vegetables like tomatoes, squash, okra, cucumbers, etc. are examples of the vegetables of choice for this area and are what is typically grown and sampled in the past. Sampling of these vegetables (non-leafy) will continue until leafy vegetables can be identified. The results of the 2014 Land Use Census and 10 year average meteorological data were reviewed. No changes in release pathways were identified as a result of the land use census that would require an ODCM change, additional dose calculations, or procedure changes were identified.

**Table 3.12.3 HBRSEP Land Use Census Comparison (2013 – 2014)**

**Nearest Pathway (Miles)<sup>\*\*\*</sup>**

SECTOR	RESIDENT		GARDEN		MEAT/EGG ANIMAL		MILK ANIMAL	
	2013	2014	2013	2014	2013	2014	2013	2014
N	2.81	2.83**	2.81	2.83**	2.81	2.83**	----	----
NNE	1.51	1.53**	2.08	2.07**	2.71	2.69*	----	----
NE	1.03	1.03	2.71	2.74*	----	----	----	----
ENE	0.83	0.85**	1.07	----*	----	----	----	----
E	0.90	0.90*	1.05	1.09*	2.98	3.00**	----	----
ESE	0.62	0.62*	1.28	1.28	----	----	----	----
SE	0.38	0.38	0.38	----*	2.00	----*	----	----
SSE	0.33	0.33	2.37	2.39**	2.37	2.39**	----	----
S	0.40	0.44**	2.25	2.23**	2.62	2.62	----	----
SSW	0.37	0.37*	0.84	0.83*	0.84	0.84	----	----
SW	0.46	0.46	----	----	----	----	----	----
WSW	0.46	0.46	0.88	0.86**	0.88	0.86**	----	----
W	0.54	0.56*	0.70	0.70	----	----	----	----
WNW	0.60	0.57*	0.83	0.81**	4.27	4.23**	----	----
NW	1.59	1.5**	2.49	1.62*	2.40	1.62*	----	----
NNW	2.04	2.00**	3.80	3.82**	----	3.82*	----	----

\* Represents a change from the previous year.

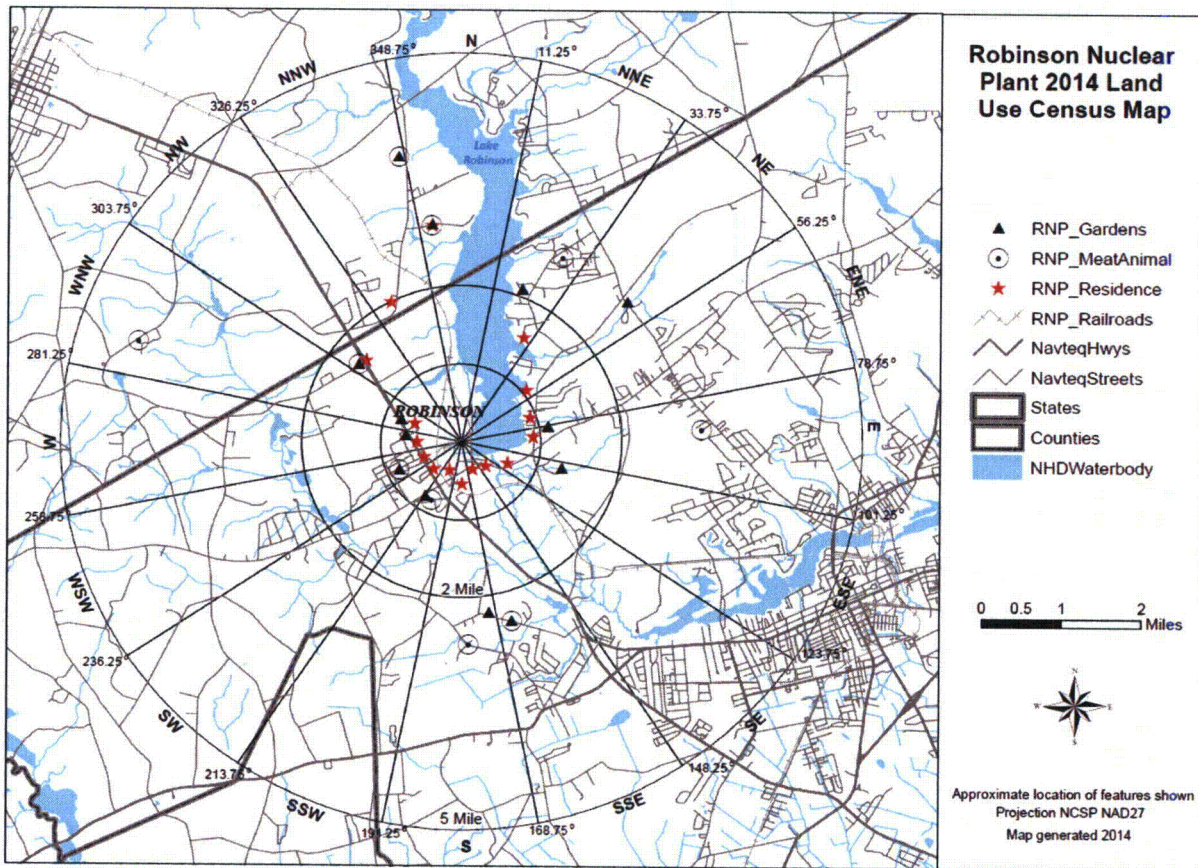
\*\* Denotes changes in GPS location. This is the same location, but GPS coordinates may differ from previous years.

“----” indicates no occurrences within the 5 mile radius

\*\*\* Sector and distance determined by Global Positioning System.



Figure 3.12-1



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## **4.0 QUALITY ASSURANCE**

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### **4.1 SAMPLE COLLECTION**

Environmental sample collection was performed by HBRSEP Chemistry, Fisheries, and Aquatic Ecology as specified by approved sample collection procedures in 2014.

### **4.2 SAMPLE ANALYSIS**

EnRad Laboratories performed the environmental sample analyses as specified by approved analysis procedures. EnRad Laboratories is located in Huntersville, North Carolina, at Duke Energy's Environmental Center.

### **4.3 DOSIMETRY ANALYSIS**

The Radiation Dosimetry and Records group performed the environmental dosimetry measurements as specified by approved dosimetry analysis procedures.

### **4.4 LABORATORY EQUIPMENT QUALITY ASSURANCE**

#### **4.4.1 DAILY QUALITY CONTROL**

EnRad Laboratories has an internal quality assurance program which monitors each type of instrumentation for reliability and accuracy. Daily quality control checks ensure that instruments are in proper working order and these checks are used to monitor instrument performance.

#### **4.4.2 CALIBRATION VERIFICATION**

National Institute of Standards and Technology (NIST) standards that represent counting geometries are analyzed as unknowns at various frequencies ranging from weekly to annually to verify that efficiency calibrations are valid. The frequency is dependent upon instrument use and performance. Investigations are performed and documented should calibration verification data fall outside of the acceptable limits.

#### **4.4.3 BATCH PROCESSING**

Method quality control samples are analyzed with sample analyses that are processed in batches. These include gross beta in ground water and tritium analyses.

## **4.5 DUKE ENERGY INTERLABORATORY COMPARISON PROGRAM**

In 2014 Duke Energy Environmental Laboratory (EnRad) participated in interlaboratory programs to satisfy Radiological Environmental Monitoring Program requirements in Duke Energy nuclear plant Offsite Dose Calculation Manuals and Selected Licensee Commitments Manuals, as applicable. In addition, EnRad Laboratory participated in the Environmental Resource Associates (ERA) RadCheM™ Proficiency Testing program to satisfy the North Carolina state drinking water radiochemistry certification requirements.

EnRad Laboratory participated in three interlaboratory programs: Eckert & Ziegler Analytics (EZA), ERA, and Fleet Scientific Services (FSS). EZA results were evaluated against NRC Inspection Procedure 84750 (IP 84750) acceptance criteria. ERA reported results were evaluated based on the National Environmental Laboratory Accreditation Conference (NELAC) Field of Proficiency Testing criteria. FSS results were evaluated as prescribed in the Duke Energy Nuclear Generation Procedure SRPMP 9-2.

A low-level Iodine-131 in water cross check was not performed during 2014, but was performed during 2013. A low-level Iodine-131 in milk cross check was performed during 2014. The preparation and analysis of both media (milk and water) for the low-level Iodine-131 analysis is accomplished using the EnRad procedure 54, Preparation of Samples for low-level I-131 Analysis. Low-level Iodine-131 sample preparation and testing for both media is a similar process. A low-level Iodine-131 cross check in water is scheduled for the second quarter 2015 cross check program. Low-level Iodine-131 analysis of water was not required during 2014 since the dose calculated for the consumption of the water was not greater than 1 mrem per year in any supported program (PIP G-15-00781 or CR # 744148).

### **4.5.1 DUKE ENERGY INTERCOMPARISON PROGRAM**

EnRad Laboratories participated in the Duke Energy Fleet Scientific Services (FSS) Intercomparison Program during 2014. Interlaboratory cross check samples including gamma in water (Marinelli beakers), low-level I-131 in milk, and tritium in water samples were analyzed during 2014. A summary of the EnRad Laboratory program results for 2014 is documented in Table 4.0-A.

### **4.5.2 ECKERT & ZIEGLER ANALYTICS CROSS CHECK PROGRAM**

EnRad Laboratories participated in the Eckert & Ziegler Analytics Cross Check Program during 2014. Cross check samples including air filters, air cartridges, gross beta in water, various gamma samples in Marinelli beakers (soil, vegetation, and milk), and Iodine in milk samples were analyzed at various times of the year. A summary of the EnRad Laboratory program results for 2014 is documented in Table 4.0-B.

### **4.5.3 ERA PROFICIENCY TESTING**

EnRad Laboratories performed method proficiency testing through a program administered by Environmental Resource Associates (ERA) of Arvada, CO. ERA supplied requested method proficiency samples for analysis and nuclide concentration determination. ERA reported proficiency test results to the North Carolina Department of Health and Human Services, North Carolina Public Health Drinking Water Laboratory Certification Program. A summary of these proficiency test data for 2014 is documented in Table 4.0-C.

### **4.6 SPLIT COMPARISON PROGRAM**

HBRSEP routinely participates in an environmental sample intercomparison program. Program elements include sampling frequency and analysis for food products, shoreline sediments, surface water, fish, aquatic vegetation, and bottom sediment collected by HBRSEP Chemistry, Fisheries, and Aquatic Ecology. Samples are routinely split with a vendor laboratory for intercomparison.

### **4.7 TLD INTERCOMPARISON PROGRAM**

#### **4.7.1 NUCLEAR TECHNOLOGY SERVICES INTERCOMPARISON PROGRAM**

Radiation Dosimetry and Records participates in a quarterly TLD intercomparison program administered by Nuclear Technology Services, Inc. of Roswell, GA. Nuclear Technology Services irradiates environmental dosimeters quarterly and sends them to the Radiation Dosimetry and Records group for analysis of the unknown estimated delivered exposure. A summary of the 2014 Nuclear Technology Services Intercomparison Report is documented in Table 4.0-D. The individual measurements were evaluated and results falling outside the acceptable ratio criteria had an evaluation performed to identify any recommended remedial actions and to reduce anomalous errors. Complete documentation of any evaluation will be available and provided to the NRC upon request.

#### **4.7.2 INTERNAL CROSSCHECK (DUKE ENERGY)**

Radiation Dosimetry and Records participates in a quarterly TLD intracomparison program administered internally by the Dosimetry Lab. The Dosimetry Lab Staff irradiates environmental dosimeters quarterly and submits them for analysis of the unknown estimated delivered exposure. A summary of the 2014 Internal Cross Check (Duke Energy) Result is documented in Table 4.0-D.



# TABLE 4.0-A

## DUKE ENERGY

### INTERLABORATORY COMPARISON PROGRAM

#### 2014 EnRad Fleet Scientific Services Cross Check Performance Summary

Cross check samples were distributed by Fleet Scientific Services (FSS) in accordance with Duke Energy Nuclear Generation Procedure SRPMP 9-2. Seven water samples were analyzed for tritium and gamma emitters, while three milk samples were analyzed for low-level I-131. The below table lists results for specific analyses. Fifty-eight results were evaluated as prescribed in procedure SRPMP 9-2. The acceptance criteria for the program was based on the NRC Inspection Manual Procedure 84750 (IP 84750). These results passed the acceptance criteria for the program.

Sample	Sample ID	Nuclide	Quarter	Units	EnRad Value	FSS Value	EnRad/FSS Ratio	Evaluation
Milk LLI-131	Q143LIM1	I-131	3	pCi/L	3.04E+03	2.96E+03	1.03	Agreement
			3	pCi/L	3.06E+03	2.96E+03	1.03	Agreement
			3	pCi/L	3.07E+03	2.96E+03	1.04	Agreement
	Q143LIM2	I-131	3	pCi/L	1.25E+03	1.27E+03	0.98	Agreement
			3	pCi/L	1.25E+03	1.27E+03	0.98	Agreement
			3	pCi/L	1.24E+03	1.27E+03	0.97	Agreement
	Q143LIM3	I-131	3	pCi/L	4.64E+02	4.58E+02	1.01	Agreement
			3	pCi/L	4.70E+02	4.58E+02	1.03	Agreement
	Tritium in Water	Q143TWR1	H-3	3	pCi/L	1.77E+03	1.85E+03	0.96
3				pCi/L	1.79E+03	1.85E+03	0.97	Agreement
3				pCi/L	1.78E+03	1.85E+03	0.96	Agreement
Q143TWR2		H-3	3	pCi/L	1.76E+05	1.81E+05	0.97	Agreement
			3	pCi/L	1.75E+05	1.81E+05	0.96	Agreement
Tritium in Water	Q141TWR1	H-3	1	pCi/L	1.10E+03	1.05E+03	1.05	Agreement
					1.14E+03	1.05E+03	1.09	Agreement
					1.11E+03	1.05E+03	1.06	Agreement
	Q141TWR2	H-3	1	pCi/L	7.04E+03	7.46E+03	0.94	Agreement
					7.03E+03	7.46E+03	0.94	Agreement
					7.16E+03	7.46E+03	0.96	Agreement
	Q141TWR3	H-3	1	pCi/L	3.13E+03	3.21E+03	0.98	Agreement
					3.11E+03	3.21E+03	0.97	Agreement
					3.13E+03	3.21E+03	0.98	Agreement

## TABLE 4.0-A (Cont.)

Sample	Sample ID	Nuclide	Quarter	Units	EnRad Value	FSS Value	EnRad/FSS Ratio	Evaluation
Gamma in Water	Q143GWSL-1.0 L	Cr-51	3	pCi/L	1.71E+05	1.80E+05	0.95	Agreement
			3	pCi/L	1.70E+05	1.80E+05	0.95	Agreement
		Mn-54	3	pCi/L	6.34E+04	5.99E+04	1.06	Agreement
			3	pCi/L	6.35E+04	5.99E+04	1.06	Agreement
		Co-58	3	pCi/L	6.80E+04	6.89E+04	0.99	Agreement
			3	pCi/L	6.81E+04	6.89E+04	0.99	Agreement
		Fe-59	3	pCi/L	8.72E+04	8.38E+04	1.04	Agreement
			3	pCi/L	8.75E+04	8.38E+04	1.04	Agreement
		Co-60	3	pCi/L	1.27E+05	1.22E+05	1.04	Agreement
			3	pCi/L	1.26E+05	1.22E+05	1.03	Agreement
		Zn-65	3	pCi/L	3.52E+04	3.12E+04	1.13	Agreement
			3	pCi/L	3.53E+04	3.12E+04	1.13	Agreement
		Cs-134	3	pCi/L	5.97E+04	6.35E+04	0.91	Agreement
			3	pCi/L	5.95E+04	6.53E+04	0.91	Agreement
		Cs-137	3	pCi/L	8.01E+04	7.87E+04	1.02	Agreement
			3	pCi/L	7.98E+04	7.87E+04	1.01	Agreement
		Ce-141	3	pCi/L	7.13E+04	7.65E+04	0.93	Agreement
			3	pCi/L	7.24E+04	7.65E+04	0.95	Agreement
	Q143GWSL-3.5 L	Cr-51	3	pCi/L	1.76E+05	1.80E+05	0.98	Agreement
			3	pCi/L	1.73E+05	1.80E+05	0.96	Agreement
		Mn-54	3	pCi/L	6.32E+04	5.99E+04	1.06	Agreement
			3	pCi/L	6.31E+04	5.99E+04	1.05	Agreement
		Co-58	3	pCi/L	6.89E+04	6.89E+04	1.00	Agreement
			3	pCi/L	6.84E+04	6.89E+04	0.99	Agreement
		Fe-59	3	pCi/L	8.54E+04	8.38E+04	1.02	Agreement
			3	pCi/L	8.69E+04	8.38E+04	1.04	Agreement
		Co-60	3	pCi/L	1.28E+05	1.22E+05	1.05	Agreement
			3	pCi/L	1.27E+05	1.22E+05	1.04	Agreement
Zn-65	3	pCi/L	3.42E+04	3.12E+04	1.10	Agreement		
	3	pCi/L	3.45E+04	3.12E+04	1.11	Agreement		
Cs-134	3	pCi/L	6.39E+04	6.53E+04	0.98	Agreement		
	3	pCi/L	6.17E+04	6.53E+04	0.95	Agreement		
Cs-137	3	pCi/L	8.11E+04	7.87E+04	1.03	Agreement		
	3	pCi/L	8.08E+04	7.87E+04	1.03	Agreement		
Ce-141	3	pCi/L	7.39E+04	7.65E+04	0.97	Agreement		
	3	pCi/L	7.36E+04	7.65E+04	0.96	Agreement		

# TABLE 4.0-B

## ECKERT & ZIEGLER ANALYTICS

### CROSS CHECK PROGRAM

#### 2014 Cross Check Results for EnRad Laboratories

Cross check samples are received, prepared, and analyzed in all four quarters of 2014. Results are reported directly to Eckert & Ziegler Analytics. Environmental cross check samples were analyzed in replicate, and the result closest to the mean is reported to Eckert & Ziegler Analytics. The acceptance criteria for the program was based on the NRC Inspection Manual Procedure 84750 (IP 84750). Fifty environmental results were reported, of which 49 (98%) met the acceptance criteria based on IP 84750.

Sample	Sample ID	Nuclide	Quarter	Units	EnRad Value	EZA Value	EnRad/EZA Ratio	Evaluation
Beta Filter in Planchet	E10901	Gross Beta	2	pCi	201	199	1.01	Agreement
Gamma in Soil	E10904	Ce-141	2	pCi/g	0.23	0.24	0.96	Agreement
		Cr-51	2	pCi/g	0.48	0.49	0.98	Agreement
		Cs-134	2	pCi/g	0.24	0.32	0.76	Non-Agreement*
		Cs-137	2	pCi/g	0.27	0.31	0.86	Agreement
		Co-58	2	pCi/g	0.18	0.22	0.83	Agreement
		Mn-54	2	pCi/g	0.29	0.3	0.96	Agreement
		Fe-59	2	pCi/g	0.2	0.2	1.01	Agreement
		Zn-65	2	pCi/g	0.49	0.49	1.00	Agreement
		Co-60	2	pCi/g	0.41	0.44	0.94	Agreement
I-131 in Milk	E10801	I-131	1	pCi/L	93.8	99.8	0.94	Agreement
Gross Beta in Water	E10905	Gross Beta	2	pCi/L	265	249	1.06	Agreement
I-131 Charcoal Cartridge	E10802	I-131	1	pCi	76.1	75.1	1.01	Agreement
Gamma in Vegetation (Coffee Grounds)	E10902	Ce-141	2	pCi/g	0.22	0.24	0.91	Agreement
		Cr-51	2	pCi/g	0.42	0.5	0.85	Agreement
		Cs-134	2	pCi/g	0.28	0.32	0.88	Agreement
		Cs-137	2	pCi/g	0.22	0.24	0.94	Agreement
		Co-58	2	pCi/g	0.21	0.22	0.96	Agreement
		Mn-54	2	pCi/g	0.28	0.3	0.92	Agreement
		Fe-59	2	pCi/g	0.19	0.2	0.95	Agreement
		Zn-65	2	pCi/g	0.44	0.49	0.89	Agreement
		Co-60	2	pCi/g	0.38	0.44	0.87	Agreement

\* See PIP G-14-01710 or CR # 707720

## TABLE 4.0-B (Cont.)

Sample	Sample ID	Nuclide	Quarter	Units	EnRad Value	EZA Value	EnRad/EZA Ratio	Evaluation
Gamma in Composite Filter	E10987	Ce-141	3	pCi	64.1	62.6	1.02	Agreement
		Cr-51	3	pCi	135	143	0.94	Agreement
		Cs-134	3	pCi	74.6	78.3	0.95	Agreement
		Cs-137	3	pCi	97.8	95.9	1.02	Agreement
		Co-58	3	pCi	71.7	71	1.01	Agreement
		Mn-54	3	pCi	69.5	70.4	0.99	Agreement
		Fe-59	3	pCi	86.8	78.4	1.11	Agreement
		Zn-65	3	pCi	37	36.2	1.02	Agreement
		Co-60	3	pCi	161	148	1.09	Agreement
Gamma in Milk	E10800	I-131	1	pCi/L	97.3	98.5	0.99	Agreement
		Ce-141	1	pCi/L	120	119	1.01	Agreement
		Cr-51	1	pCi/L	505	491	1.03	Agreement
		Cs-134	1	pCi/L	192	210	0.92	Agreement
		Cs-137	1	pCi/L	255	253	1.01	Agreement
		Co-58	1	pCi/L	274	268	1.02	Agreement
		Mn-54	1	pCi/L	314	297	1.06	Agreement
		Fe-59	1	pCi/L	232	219	1.06	Agreement
		Zn-65	1	pCi/L	318	323	0.99	Agreement
		Co-60	1	pCi/L	335	337	0.99	Agreement
Gamma in Soil	E11051	Ce-141	4	pCi/g	0.31	0.35	0.89	Agreement
		Cr-51	4	pCi/g	0.61	0.648	0.94	Agreement
		Cs-134	4	pCi/g	0.25	0.263	0.95	Agreement
		Cs-137	4	pCi/g	0.36	0.396	0.91	Agreement
		Co-58	4	pCi/g	0.19	0.208	0.91	Agreement
		Mn-54	4	pCi/g	0.35	0.36	0.97	Agreement
		Fe-59	4	pCi/g	0.27	0.279	0.97	Agreement
		Zn-65	4	pCi/g	0.46	0.474	0.97	Agreement
				Co-60	4	pCi/g	0.34	0.375

# TABLE 4.0-C

## ENVIRONMENTAL RESOURCE ASSOCIATES (ERA) PROFICIENCY TESTING

### 2014 Proficiency Test Results for EnRad Laboratories

North Carolina Department of Health and Human Services Laboratory Certification  
EnRad Laboratories

Proficiency test samples are received, prepared, and analyzed in second and fourth quarters of 2014. Results are reported directly to Environmental Resource Associates as described in the instruction package within the study period. Proficiency test data are reported to ERA for evaluation. The acceptance criteria for the program was based on the National Environmental Laboratory Accreditation Conference (NELAC) Field of Proficiency Testing criteria. Fourteen results were reported of which 14 (100 %) met the acceptance criteria. ERA reports proficiency test results to the North Carolina Department of Health and Human Services, North Carolina Public Drinking Water Laboratory Certification Program. This testing is to satisfy the North Carolina state drinking water radiochemistry certification requirements.

Sample	Sample ID	Nuclide	Quarter	Units	EnRad Value	ERA Value	Acceptance Limits	Evaluation
Gamma Emitters in Water	RAD-97	Ba-133	2	pCi/L	87.51	87.9	74.0 - 96.7	Agreement
		Cs-134	2	pCi/L	41.01	44.3	35.5 - 48.7	Agreement
		Cs-137	2	pCi/L	85.47	89.1	80.2 - 101	Agreement
		Co-60	2	pCi/L	62.75	64.2	57.8 - 73.1	Agreement
		Zn-65	2	pCi/L	249.8	235	212 - 275	Agreement
Gamma Emitters in Water	RAD-99	Ba-133	4	pCi/L	46.9	49.1	40.3 - 54.5	Agreement
		Cs-134	4	pCi/L	81.7	89.8	73.7 - 98.8	Agreement
		Cs-137	4	pCi/L	96.9	98.8	88.9 - 111	Agreement
		Co-60	4	pCi/L	91	92.1	82.9 - 104	Agreement
		Zn-65	4	pCi/L	335	310	279 - 362	Agreement
Tritium in Water	RAD-97	H-3	2	pCi/L	8680	8770	7610 - 9650	Agreement
	RAD-99	H-3	4	pCi/L	6290	6880	5940 - 7570	Agreement
Iodine-131 in Water	RAD-97	I-131	2	pCi/L	25.9	25.7	21.3 - 30.3	Agreement
	RAD-99	I-131	4	pCi/L	20.4	20.3	16.8 - 24.4	Agreement

# TABLE 4.0-D

## 2014 ENVIRONMENTAL DOSIMETER CROSS-CHECK RESULTS

### Nuclear Technology Services

Radiation Dosimetry and Records participates in a quarterly TLD intercomparison program administered by Nuclear Technology Services, Inc. of Roswell, GA. Nuclear Technology Services irradiates environmental dosimeters quarterly and sends them to the Radiation Dosimetry and Records group for analysis of the unknown estimated delivered exposure. The individual measurements were evaluated and results falling outside the acceptable ratio criteria had an evaluation performed to identify any recommended remedial actions and to reduce anomalous errors. Complete documentation of any evaluation will be available and provided to the NRC upon request.

1st Quarter 2014						2nd Quarter 2014					
TLD Number	Reported (mR)	Delivered (mR)	Bias (% diff)	Pass/Fail Criteria	Pass/Fail	TLD Number	Reported (mR)	Delivered (mR)	Bias (% diff)	Pass/Fail Criteria	Pass/Fail
102403	93.2	90.40	3.12	<+/-15%	Pass	102196	18.07	18.66	-3.16	<+/-15%	Pass
103045	99.3	90.40	9.87	<+/-15%	Pass	102193	19.44	18.66	4.18	<+/-15%	Pass
103009	101.0	90.40	11.76	<+/-15%	Pass	102192	17.28	18.66	-7.40	<+/-15%	Pass
102243	90.3	90.40	-0.09	<+/-15%	Pass	102176	17.70	18.66	-5.14	<+/-15%	Pass
102858	97.9	90.40	8.33	<+/-15%	Pass	102175	18.66	18.66	0.00	<+/-15%	Pass
Average Bias (B)			6.60			Average Bias (B)			-2.30		
Standard Deviation (S)			4.93			Standard Deviation (S)			4.53		
Measure Performance  B +S			11.53	<15%	Pass	Measure Performance  B +S			6.83	<15%	Pass
3rd Quarter 2014						4th Quarter 2014					
TLD Number	Reported (mR)	Delivered (mR)	Bias (% diff)	Pass/Fail Criteria	Pass/Fail	TLD Number	Reported (mR)	Delivered (mR)	Bias (% diff)	Pass/Fail Criteria	Pass/Fail
103705	70.04	69.7	0.49	<+/-15%	Pass	101241	84.63	77.7	8.92	<+/-15%	Pass
103704	69.36	69.7	-0.49	<+/-15%	Pass	103494	87.46	77.7	12.56	<+/-15%	Pass
103686	71.90	69.7	3.16	<+/-15%	Pass	103229	88.45	77.7	13.84	<+/-15%	Pass
103685	72.82	69.7	4.48	<+/-15%	Pass	103493	89.19	77.7	14.79	<+/-15%	Pass
103517	73.71	69.7	5.75	<+/-15%	Pass	103044	91.02	77.7	17.14	<+/-15%	**Fail
Average Bias (B)			2.68			Average Bias (B)			13.45		
Standard Deviation (S)			2.63			Standard Deviation (S)			3.04		
Measure Performance  B +S			5.31	<15%	Pass	Measure Performance  B +S			16.49	<15%	**Fail

\*\*Refer to PIP G-15-00554



# TABLE 4.0-D (Cont.)

## Internal Crosscheck (Duke Energy)

Radiation Dosimetry and Records participates in a quarterly TLD intracomparison program administered internally by the Dosimetry Lab. The Dosimetry Lab Staff irradiates environmental dosimeters quarterly and submits them for analysis of the unknown estimated delivered exposure.

1st Quarter 2014						2nd Quarter 2014					
TLD Number	Reported (mR)	Delivered (mR)	Bias (% diff)	Pass/Fail Criteria	Pass/Fail	TLD Number	Reported (mR)	Delivered (mR)	Bias (% diff)	Pass/Fail Criteria	Pass/Fail
101221	30.14	32.7	-7.83	<+/-15%	Pass	103635	22.36	21.8	2.57	<+/-15%	Pass
102801	32.82	32.7	0.37	<+/-15%	Pass	102777	22.93	21.8	5.18	<+/-15%	Pass
100019	30.32	32.7	-7.28	<+/-15%	Pass	103181	22.78	21.8	4.50	<+/-15%	Pass
103173	32.14	32.7	-1.71	<+/-15%	Pass	103218	22.82	21.8	4.68	<+/-15%	Pass
100085	30.90	32.7	-5.50	<+/-15%	Pass	103657	22.29	21.8	2.25	<+/-15%	Pass
101024	30.92	32.7	-5.44	<+/-15%	Pass	102927	21.90	21.8	0.46	<+/-15%	Pass
100350	30.73	32.7	-6.02	<+/-15%	Pass	103396	21.54	21.8	-1.19	<+/-15%	Pass
102359	30.71	32.7	-6.09	<+/-15%	Pass	102723	22.84	21.8	4.77	<+/-15%	Pass
103174	30.26	32.7	-7.46	<+/-15%	Pass	103394	22.47	21.8	3.07	<+/-15%	Pass
101376	31.49	32.7	-3.70	<+/-15%	Pass	103058	22.36	21.8	2.57	<+/-15%	Pass
Average Bias (B)			-5.07			Average Bias (B)			2.89		
Standard Deviation (S)			2.65			Standard Deviation (S)			2.05		
Measure Performance  B +S			7.72	<15%	Pass	Measure Performance  B +S			4.93	<15%	Pass
3rd Quarter 2014						4th Quarter 2014					
TLD Number	Reported (mR)	Delivered (mR)	Bias (% diff)	Pass/Fail Criteria	Pass/Fail	TLD Number	Reported (mR)	Delivered (mR)	Bias (% diff)	Pass/Fail Criteria	Pass/Fail
102737	47.05	43.6	7.91	<+/-15%	Pass	102768	57.48	54.5	5.47	<+/-15%	Pass
102750	46.06	43.6	5.64	<+/-15%	Pass	103263	55.38	54.5	1.61	<+/-15%	Pass
102773	48.32	43.6	10.83	<+/-15%	Pass	103453	56.30	54.5	3.30	<+/-15%	Pass
102824	45.81	43.6	5.07	<+/-15%	Pass	102746	54.25	54.5	-0.46	<+/-15%	Pass
102397	44.38	43.6	1.79	<+/-15%	Pass	103656	56.09	54.5	2.92	<+/-15%	Pass
102832	46.37	43.6	6.35	<+/-15%	Pass	102482	53.50	54.5	-1.83	<+/-15%	Pass
102725	47.00	43.6	7.80	<+/-15%	Pass	103446	54.71	54.5	0.39	<+/-15%	Pass
102481	45.21	43.6	3.69	<+/-15%	Pass	103339	53.55	54.5	-1.74	<+/-15%	Pass
102758	45.97	43.6	5.44	<+/-15%	Pass	103582	53.97	54.5	-0.97	<+/-15%	Pass
103120	46.87	43.6	7.50	<+/-15%	Pass	103288	55.43	54.5	1.71	<+/-15%	Pass
Average Bias (B)			6.20			Average Bias (B)			1.04		
Standard Deviation (S)			2.51			Standard Deviation (S)			2.40		
Measure Performance  B +S			8.71	<15%	Pass	Measure Performance  B +S			3.44	<15%	Pass

**APPENDIX A**

**ENVIRONMENTAL SAMPLING**  
**&**  
**ANALYSIS PROCEDURES**

---

# APPENDIX A

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## ENVIRONMENTAL SAMPLING AND ANALYSIS PROCEDURES

Adherence to established procedures for sampling and analysis of environmental media at the H. B. Robinson Steam Electric Plant, Unit No. 2 (HBRSEP) was required to ensure compliance with provisions of the Nuclear Regulatory Commission's Regulatory Guide 4.8, HBRSEP Technical Specifications, and the HBRSEP Off-Site Dose Calculation Manual (ODCM). Analytical procedures were employed to ensure that the ODCM detection capabilities were achieved.

Environmental sampling was performed by HBRSEP Chemistry, Fisheries and Aquatic Ecology and analyses were performed by EnRad Laboratories and Dosimetry and Records.

Section IV of this appendix describes the environmental sampling frequencies and analysis procedures by media type conducted in 2014.

### I. CHANGE OF SAMPLING PROCEDURES

Ground Water location 71 (0.87 miles NNW [MW-03A] between Ash Pond and the Railroad tracks) was retired from the REMP sampling program in August of 2014. Therefore, no indicator ground water samples, from location 71, were collected 3<sup>rd</sup> Quarter or 4<sup>th</sup> Quarter of 2014 (CR # 703262). This ground water well (location 71) remains a ground water location in the RNP ODCM Rev. 33.

### II. DESCRIPTION OF ANALYSIS PROCEDURES

Gamma spectroscopy analyses are performed using high purity germanium gamma detectors and Canberra analytical software. Designated sample volumes are transferred to appropriate counting geometries and analyzed by gamma spectroscopy. Perishable samples such as fish, food products, aquatic vegetation, and broadleaf vegetation are ground to achieve a homogeneous mixture and then transferred to an appropriate counting geometry. Soil and sediment samples are dried, sifted to remove foreign objects (rocks, clams, glass, etc.), and then transferred to an appropriate counting geometry container. Once prepared for counting, EnRad's samples (fish, food products, aquatic vegetation, broadleaf vegetation, soils, and sediments) are analyzed by gamma spectroscopy.

Low-level iodine analyses are performed at the EnRad Laboratory by passing a designated sample aliquot through a pre-weighed amount of ion exchange resin to remove and concentrate any iodine in the aqueous sample (water). The resin is then dried, mixed thoroughly, and a net resin weight determined before being transferred to an appropriate counting geometry and analyzed by gamma spectroscopy.



Tritium analyses are performed monthly and quarterly by using low-level environmental liquid scintillation analysis technique on a Packard 2550 liquid scintillation system or Perkin-Elmer 2900TR liquid scintillation system. Tritium samples are distilled and batch processed with a tritium spike and blank to verify instrument performance and sample preparation technique are acceptable.

Gross beta analysis is performed quarterly on a ground water sample by concentrating a designated aliquot of sample precipitate and analyzing it by Tennelec XLB Series 5 gas-flow proportional counters. Samples are batch processed with a blank to ensure sample contamination has not occurred.

### **III. CHANGE OF ANALYSIS PROCEDURES**

REMP analytical results reporting with 2 Sigma error was initiated during 2014, replacing the 1 Sigma error reporting (CR # 706771).

Low-level Iodine-131 (LLI-131) test components were modified to include only the LLI-131 component; all other components such as Beryllium-7 and Potassium-40 were removed (CR # 707736).

Gamma spectroscopy milk Iodine-131 MDA requirement was removed from the "GAMMAMILK" analysis as the required low-level Iodine-131 (LLI-131) requirement is satisfied by the "GAMMALLI" LLI-131 preparation and testing procedure and gamma spectroscopy analysis (CR # 721898).

The gamma spectroscopy system was replaced during 2014 (10JUL2014). Gamma spectroscopy system hardware, detector cooling apparatus, software, electronics, nuclide identification libraries, and analytical test matrix components for test matrices were modified (CR # 739995).

As of first quarter 2014, the environmental TLDs that are placed in the field for REMP are Harshaw TLDs. Panasonic TLDs were the type of environmental TLDs for REMP monitoring prior to 2014. This change was a merger initiative in order to achieve fleet standardization of the TLD program.

### **IV. SAMPLING AND ANALYSIS PROCEDURES**

#### **A.1 AIRBORNE PARTICULATE AND RADIOIODINE**

Airborne particulate (AP) and radioiodine (AR or AC) samples at each of ten locations were composited continuously by means of continuous air samplers. Air particulates were collected on a particulate filter and radioiodines were collected in a charcoal cartridge positioned behind the filter in the sample head. The samplers are designed to operate at a constant flow rate (in order to compensate for any filter loading) and are set to sample approximately 2 cubic

feet per minute. Filters and cartridges were collected weekly. A separate weekly gamma analysis was performed on each charcoal cartridge. A weekly gross beta analysis was performed on each filter and then the filters were composited to produce quarterly filter samples for gamma analysis. The continuous composite samples were collected from the locations listed below.

Location 1	=	24.4 miles ESE Florence, S.C. (Control)
Location 2	=	0.2 miles S Information Center
Location 3	=	0.5 miles N Microwave Tower
Location 4	=	0.4 miles ESE Spillway
Location 5	=	0.9 miles ENE East shore of lake near Johnson's Landing
Location 6	=	0.2 miles SSW Information Center
Location 7	=	6.4 miles ESE CP&L facility on RR Ave., Hartsville
Location 55	=	0.2 miles SSE South of West Settling Pond
Location 60	=	0.2 miles SE Robinson Picnic Area
Location 61	=	0.3 miles WSW West Parking lot near RR tracks

## **A.2 SURFACE WATER**

Weekly composite surface water (SW) samples were collected from four locations, with aliquots going to monthly composite samples. Tritium and gamma analyses were performed on the monthly composites. The composites are collected from the locations listed below.

Location 40	=	0.6 miles ESE Black Creek at old Camden Road (S-16-23) – Lake Robinson
Location 41	=	8.0 miles N Black Creek at US Hwy 1 (Control)
Location 57	=	Ash Pond
Location 66	=	Black Creek between Prestwood Lake discharge and upstream of Sonoco Spray Farm (downstream)

## **A.3 GROUND WATER**

Grab samples were collected quarterly from ground water (GW) wells at fifteen (15) locations. A gamma analysis and tritium analysis were performed on each sample. A low-level Iodine-131 analysis was performed on GW-68 and GW-82 along with a gross beta analysis only on GW-82. The samples were collected from the locations listed below.

Location 42	=	Unit 1 Deep Wells
Location 64	=	0.6 miles SE Artesian Well
Location 68	=	Well A Btwn Unit 1 switchyard & breakroom

Location 69	=	Well B Behind the Training Building
Location 70	=	Well C Btwn the O&M Building & Fab Shop
Location 71	=	0.87 miles NNW (MW-03A) Btwn Ash Pond & RR tracks (Retired August 2014)
Location 72	=	0.1 miles E (MW-06) 20 ft from FP/FH 7 fire hydrant & Unit 1 North Deep Well Pump
Location 73	=	0.11 miles ENE (MW-13) Btwn Discharge Canal & Unit 1 Stand Alone Fuel Oil Tanks
Location 75	=	0.05 miles NE (PSW-02) By Unit 1 boundary Fence to Unit 2 across paved rd. from Hydrogen Gas Tanks
Location 76	=	0.49 miles N (PSW-03) NE corner of the MET Tower Station
Location 77	=	0.25 miles SSE (TS-01B) By entrance rd. to Unit 1
Location 78	=	0.17 miles SSE (TS-02C) NE corner by East Settling Pond influent by fence
Location 79	=	1.0 mile N (TS-07C) S corner by cove & Discharge Canal
Location 81	=	0.19 miles SSE (TS-17B) W of West Settling Pond across paved rd.
Location 82	=	0.3 miles SSE (PDW-01) By entrance rd. to Unit 1

#### **A.4 BROADLEAF VEGETATION**

Monthly samples, three different species, were collected at each of five locations when available. A gamma analysis was performed on each sample. The samples were collected from the locations listed below.

Location 50	=	SSE Close to Site Boundary
Location 51	=	Close to Site Boundary
Location 52	=	10 miles W near Bethune (Control)
Location 62	=	SE Close to Site Boundary
Location 67	=	S Close to Site Boundary

#### **A.5 FOOD PRODUCTS**

Annually samples, of three different types of broadleaf vegetation (edible portions), were collected when available during harvest at three locations. A gamma analysis was performed on the edible portions of each sample. The samples were collected from the locations listed below.

- Location 49 = 10.0 miles W or greater than 5 miles from plant (Control)
- Location 54 = 10.1 miles E Auburndale Plantation (if irrigating from Black Creek)
- Location 58 = Site varies from plant

**A.6 AQUATIC VEGETATION**

Annual samples were collected at each of the four locations. A gamma analysis was performed on each sample. The samples were collected from the locations listed below.

- Location 41 = 7.2 miles NNW Black Creek (upstream) – (Control)
- Location 45 = Site varies within Lake Robinson
- Location 46 = Site varies within Prestwood Lake
- Location 66 = Black Creek btwn Prestwood Lake discharge & upstream of Sonoco Spray Farm (downstream)

**A.7 FISH**

Semiannual samples of bottom feeders and free swimmers were collected at each of three locations. A gamma analysis was performed on the edible portions of each sample. The samples were collected from the locations listed below.

- Location 45 = Site varies within Lake Robinson
- Location 46 = Site varies within Prestwood Lake
- Location 47 = Control station, Any lake not influenced by plant discharge (Control)

**A.8 SHORELINE SEDIMENT**

Semiannual samples were collected at each of two locations. A gamma analysis was performed on each sample following the drying and removal of rocks and clams. The samples were collected from the locations listed below.

- Location 44 = 1.6 miles NNE East shore of lake, Shady Rest Club
- Location 57 = Ash Pond Shore



## **A.9 BOTTOM SEDIMENT**

Annual samples were collected at each of the four locations. A gamma analysis was performed on each sample following the drying; the removal of rocks, clams, etc.; and grinding (if necessary). The samples were collected from the locations listed below.

Location 41	=	7.2 miles NNW Black Creek (upstream) – (Control)
Location 45	=	Site varies within Lake Robinson
Location 46	=	Site varies within Prestwood Lake
Location 66	=	Black Creek btwn Prestwood Lake discharge & upstream of Sonoco Spray Farm (downstream)

## **A.10 DIRECT GAMMA RADIATION (TLD)**

Thermoluminescent dosimeters (TLD) were collected quarterly at forty-three locations. A gamma exposure rate was determined for each TLD. TLD locations are listed in Table 2.1-B. The TLDs were placed as indicated below.

- \* An inner ring of 25 TLDs, one in each meteorological sector in the general area of the site boundary.
- \* An outer ring of 17 TLDs, one in each meteorological sector in the 6 to 8 kilometer range.
- \* The remaining TLDs were placed in special interest areas such as population centers, residential areas, schools, and at a control location.

## **A.11 ANNUAL LAND USE CENSUS**

An Annual Land Use Census was conducted to identify within a distance of 5.0 miles (8 kilometers) from the plant, the nearest location from the site boundary in each of the sixteen meteorological sectors, the following:

- \* The Nearest Residence
- \* The Nearest Garden greater than 500 square feet or 50 square meters, producing broadleaf vegetables (fresh leafy vegetables)
- \* The Nearest Milk-giving Animal (cow, goat, etc.)
- \* The Nearest Meat/Egg producing Animal (beef, hogs, chickens, etc.)

The census was conducted during the growing season in June of 2014. Results are shown in Table 3.12.3. No changes were made to the sampling procedures during 2014 as a result of the 2014 census.

**APPENDIX B**

**RADIOLOGICAL  
ENVIRONMENTAL MONITORING  
PROGRAM**

**SUMMARY OF RESULTS**

**2014**

**H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2 (HBRSEP)  
RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM DATA SUMMARY**

H. B. Robinson Steam Electric Plant, Unit No. 2  
Darlington County, South Carolina

Docket Numbers: 50 - 261  
Calendar Year: 2014

Medium or Pathway Sampled or Measured (Unit of Measurement)	Type and Total No. of Measurements Performed	Lower Limit of Detection (LLD) <sup>(1)</sup>	All Indicator Locations Mean <sup>(2)(3)</sup> Range <sup>(2)</sup>	Location w/Highest Annual Mean <sup>(2)</sup>		Control Locations Mean <sup>(2)(3)</sup> Range <sup>(2)</sup>	No. of Non-Routine Report Meas.
				Name, Distance, and Direction	Mean <sup>(2)(3)</sup> Range <sup>(2)</sup>		
Air Particulate <sup>(4)</sup> (pCi/m <sup>3</sup> )	Gross Beta 519 <sup>(4)</sup>	See Table 2.2-C	1.70E-2 (467/467) 2.55E-3 – 3.13E-2	Loc. # 2 Information Center 0.2 miles S	1.82E-2 (52/52) 1.12E-2 – 3.13E-2	Loc. # 1 1.63E-2 (52/52) 9.99E-3 – 2.48E-2	0
	Gamma 40	See Table 2.2-C	All less than LLD	-----	-----	All less than LLD	0
Air Cartridge/Radioiodine <sup>(4)</sup> (pCi/m <sup>3</sup> )	I-131 518 <sup>(4)</sup>	See Table 2.2-C	All less than LLD	-----	-----	All less than LLD	0
Aquatic Vegetation <sup>(6)</sup> (pCi/g. wet)	Gamma 4 <sup>(6)</sup> Co-58	See Table 2.2-C	9.05E+1 (2/3) 6.50E+1 – 1.16E+2	Loc. # 45 Site varies within Lake Robinson	1.16E+2 (1/1) Single Value	All less than LLD	0
Broadleaf Vegetation <sup>(4)(5)</sup> (pCi/g. wet)	Gamma 75 <sup>(4)(5)</sup> Cs-137	See Table 2.2-C	5.24E+1 (21/60) 6.98E+0 – 2.83E+2	Loc. # 51 Close to Site Boundary (BL-51) SSW	9.62E+1 (4/15) 2.70E+1 – 2.83E+2	Loc. # 52 5.51E+1 (8/15) 2.07E+1 – 1.47E+2	0
Fish Free-Swimmers (pCi/kg. wet)	Gamma 6 Cs-137	See Table 2.2-C	4.04E+1 (4/4) 2.94E+1 – 4.94E+1	Loc. # 46 Site varies within Prestwood Lake	4.24E+1 (2/2) 3.54E+1 – 4.94E+1	Loc. # 47 9.32E+1 (2/2) 8.35E+1 – 1.03E+2	0
Fish Bottom-Feeders (pCi/kg. wet)	Gamma 6 Cs-137	See Table 2.2-C	3.45E+1 (4/4) 1.73E+1 – 4.63E+1	Loc. # 46 Site varies within Prestwood Lake	3.72E+1 (2/2) 3.39E+1 – 4.04E+1	Loc. # 47 1.89E+1 (1/2) Single Value	0



**H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2 (HBRSEP)  
RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM DATA SUMMARY (cont.)**

H. B. Robinson Steam Electric Plant, Unit No. 2  
Darlington County, South Carolina

Docket Numbers: 50 - 261  
Calendar Year: 2014

Medium or Pathway Sampled or Measured (Unit of Measurement)	Type and Total No. of Measurements Performed	Lower Limit of Detection (LLD) <sup>(1)</sup>	All Indicator Locations Mean <sup>(2)(3)</sup> Range <sup>(2)</sup>	Location w/Highest Annual Mean <sup>(2)</sup>		Control Locations Mean <sup>(2)(3)</sup> Range <sup>(2)</sup>	No. of Non-Routine Report Meas.
				Name, Distance, and Direction	Mean <sup>(2)(3)</sup> Range <sup>(2)</sup>		
Food Products <sup>(4)</sup> (pCi/kg, wet)	Gamma 4 <sup>(4)</sup>	See Table 2.2-C	All less than LLD	-----	-----	All less than LLD	0
Ground Water <sup>(4)</sup> (pCi/l)	Gamma 58 <sup>(4)</sup>	See Table 2.2-C	All less than LLD	-----	-----	No Control	0
	Gross Beta 4	-----	1.51E+0 (3/4) 1.23E+0 – 1.84E+0	Loc. # 82 (PDW-01) By Entrance Rd. to U/1 0.3 miles SSE	1.51E+0 (3/4) 1.23E+0 – 1.84E+0	No Control	0
	I-131 8	See Table 2.2-C	All less than LLD	-----	-----	No Control	0
	Tritium 58 <sup>(4)</sup>	2,000 <sup>(8)</sup>	6.06E+2 (22/58) 1.90E+2 – 1.76E+3	Loc. # 79 (TS-07C) South corner by cove & Discharge Canal 1.0 mile N	1.66E+3 (4/4) 1.57E+3 – 1.76E+3	No Control	0
Shoreline Sediment (pCi/kg, dry)	Gamma 4 Cs-137	See Table 2.2-C	7.01E+0 (1/4) Single Value	Loc. # 44 East Shore of Lake, Shady Rest Club 1.6 miles NNE	7.01E+0 (1/2) Single Value	No Control	0
Bottom Sediment <sup>(6)</sup> (pCi/kg, wet)	Gamma 4 Cs-137	See Table 2.2-C	2.96E+2 (2/3) 3.50E+1 – 5.56E+2	Loc. # 46 Site varies within Prestwood Lake	5.56E+2 (1/1) Single Value	Loc. # 41 1.70E+2 (1/1) Single Value	0
Surface Water (pCi/l)	Gamma 48	See Table 2.2-C	All less than LLD	-----	-----	All less than LLD	0
	Tritium 48	2,000 <sup>(8)</sup>	1.29E+3 (24/36) 4.43E+2 – 3.08E+3	Loc. # 40 Black Creek at Old Camden Rd. – Lake Robinson 0.6 miles ESE	1.50E+3 (12/12) 6.64E+2 – 3.08E+3	All less than LLD	0

**H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2 (HBRSEP)  
RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM DATA SUMMARY (cont.)**

H. B. Robinson Steam Electric Plant, Unit No. 2  
Darlington County, South Carolina

Docket Numbers: 50 - 261  
Calendar Year: 2014

Medium or Pathway Sampled or Measured (Unit of Measurement)	Type and Total No. of Measurements Performed	Lower Limit of Detection (LLD) <sup>(1)</sup>	All Indicator Locations Mean <sup>(2)(3)</sup> Range <sup>(2)</sup>	Location w/Highest Annual Mean <sup>(2)</sup> Name, Distance, and Direction	Mean <sup>(2)(3)</sup> Range <sup>(2)</sup>	Control Locations Mean <sup>(2)(3)</sup> Range <sup>(2)</sup>	No. of Non-Routine Report Meas.
Direct Radiation (TLD) <sup>(4)(9)</sup> (mR per std. quarter) <sup>(7)</sup>	TLD Readout 125 <sup>(4)(7)(9)</sup>	-----	1.65E+1 (122/122) 1.04E+1 – 2.62E+1	Loc. # 35 Kelly Bridge Road 4.5 miles SSW	2.33E+1 (3/3) 2.18E+1 – 2.57E+1	Loc. # 1 1.40E+1 (3/3) 1.27E+1 – 1.55E+1	0

## Footnotes to Appendix B

1. The Lower Limit of Detection (LLD) is the smallest concentration of radioactive material in a sample that will yield a net count above system background which will be detected with 95 percent probability and with only 5 percent probability of falsely concluding that a blank observation represents a "real" signal. Due to counting statistics and varying volumes, occasionally lower LLDs are achieved. Refer to Section 2.3.2 for an explanation of how LLD values were derived.
2. Mean and range are based on detectable measurements only.
3. The fractions of all samples with detectable activities at specific locations are indicated in parentheses.
4. Missing samples or surveillances are discussed in Appendix C or Appendix D.
5. Three types of broadleaf vegetation samples are collected monthly when available from four locations for a possible total of 144 samples.
6. Bottom sediment and aquatic vegetation sampling are not required by plant Offsite Dose Calculation Manual (ODCM). Sampling and analysis is performed to monitor any radionuclide accumulation in the lake.
7. TLD exposure is reported in milliroentgen (mR) per standard quarter (91 days).
8. Tritium Lower Limit of Detection (LLD) is approximately  $2.50E+2$  pCi/L for samples that typically demonstrate activity less than the LLD. The LLD was lowered in order to maintain comparable LLD and result values with the NC Division of Radiation Protection (NCDRP) Laboratory.
9. TLD results for 4<sup>th</sup> Quarter 2014 are not included in the Data Summary in Appendix B due to invalid results due to an external exposure (See Appendix C, G, and CR # 731352 or PIP # G-15-00261).

**APPENDIX C**

**SAMPLING DEVIATIONS  
&  
UNAVAILABLE ANALYSES**



# APPENDIX C

## H. B. ROBINSON NUCLEAR PLANT SAMPLING DEVIATIONS & UNAVAILABLE ANALYSES

DEVIATIONS & UNAVAILABLE REASON CODES					
BF	Blown Fuse	PI	Power Interrupt	SM	Motor / Rotor Seized
FZ	Sample Frozen	PM	Preventative Maintenance	TF	Torn Filter
IW	Inclement Weather	PO	Power Outage	VN	Vandalism
LC	Line Clog to Sampler	PS	Power out of service / Undergoing Repair	CN	Construction
OT	Other	SL	Sample Loss / Lost due to Lab Accident	SU	Seasonal Unavailability

### C.1 SAMPLING DEVIATIONS

#### **Air Particulates and Air Radioiodines**

Any REMP weekly air samples (Air Cartridge – AC or Air Radioiodine – AR) that experience any downtime during a surveillance period will be reported as a Deviation and will be classified as a “Sampling Deviation”. However, the sample will be counted and the data reported, whereas a Deviation with no available sample will be classified as an “Unavailable Analyses” and will not have any data reported. The air samplers operated for a total of 99.79% availability in 2014.

Location	Scheduled Collection Dates	Code	Description & Action to Prevent Recurrence	Corrective Action
4	1/27/14 – 2/3/14	OT	Air Particulate off center – low out of trend results	670835
3	4/14/14 – 4/21/14	OT	Puncture in the filter	683483
6	4/14/14 – 4/21/14	OT	Scraped filter	683483
60	4/14/14 – 4/21/14	OT	Scraped filter	683483
3	4/21/14 – 4/28/14	TF	Filter had a slight tear	685157
61	4/21/14 – 4/28/14	OT	Puncture in filter	685157
1	4/28/14 – 5/5/14	OT	Puncture in filter	685716
2	4/28/14 – 5/5/14	TF	Filter had a slight tear	685716
3	4/28/14 – 5/5/14	TF	Scraped filter and a slight tear	685716
5	4/28/14 – 5/5/14	OT	Puncture in filter	685716
60	5/12/14 – 5/19/14	PI	6 hours downtime due to power interruption	687823
3	8/11/14 – 8/18/14	TF	Filter media was torn when being removed from filter housing	703751
6	10/20/14 – 10/27/14	PI	Brief power interruption	715189

## C.2 UNAVAILABLE ANALYSES

### Air Particulates and Air Radioiodines

Location	Scheduled Collection Dates	Code	Description & Action to Prevent Recurrence	Corrective Action
6	9/29/14 – 10/7/14	PI/PO	173.86 hours downtime – Sampler not running after power interruption – insufficient volume for valid samples	712131 and 712356
1	10/7/14 – 10/13/14	OT	Air Radioiodine Cartridge only – Missed surveillance due to incorrect media used	713660

### Broadleaf (BL) Vegetation

Location	Scheduled Collection Dates	Code	Description & Action to Prevent Recurrence	Corrective Action
All BLVeg	January 2014	SU	BL vegetation unavailable due to seasonal unavailability	655068
All BLVeg	February 2014	SU	BL vegetation unavailable due to seasonal unavailability	665794
All BLVeg	March 2014	SU	BL vegetation unavailable due to seasonal unavailability	681999
All BLVeg	April 2014	SU	BL vegetation unavailable due to seasonal unavailability	681740
All BLVeg	October 2014	SU	BL vegetation unavailable due to seasonal unavailability	728144
All BLVeg	November 2014	SU	BL vegetation unavailable due to seasonal unavailability	728144
All BLVeg	December 2014	SU	BL vegetation unavailable due to seasonal unavailability	728144

All "BLVeg" represents RNP Broadleaf Vegetation locations 50, 51, 52, 62, and 67. Each location was to be collected monthly when available and to collect 3 different kinds of broadleaf vegetation.

### Ground Water

Location	Scheduled Collection Dates	Code	Description & Action to Prevent Recurrence	Corrective Action
71	8/13/14 (3 <sup>rd</sup> Qtr. 2014)	OT	Well was grouted over – no sample can be collected.	703262
71	11/12/14 (4 <sup>th</sup> Qtr. 2014)	OT	Well was grouted over – no sample can be collected.	703262

### TLD

Location	Scheduled Collection Dates	Code	Description & Action to Prevent Recurrence	Corrective Action
18	1/16/14 – 4/10/14 (1 <sup>st</sup> Qtr. 2014)	CN	TLD missing in the field due to construction in the area. The area was searched but the TLD could not be located.	681863
26	1/16/14 – 4/10/14 (1 <sup>st</sup> Qtr. 2014)	VN	TLD missing in the field due to vandalism. The area was searched but the TLD could not be located.	681863
34	1/16/14 – 4/10/14 (1 <sup>st</sup> Qtr. 2014)	VN	TLD missing in the field due to vandalism. The area was searched but the TLD could not be located.	681863
33	4/10/14 – 7/16/14 (2 <sup>nd</sup> Qtr. 2014)	OT	Was changed out inappropriately	700577
All TLDs	10/21/14 – 1/16/15 (4 <sup>th</sup> Qtr. 2014)	OT	All TLDs for 4 <sup>th</sup> Quarter 2014 had elevated results due to some type of exposure prior to being put in the field. See Appendix G.	731352 or PIP # G-15-00261

"All TLDs" represents all RNP REMP TLD locations stated in the RNP ODCM Revision 33. Those TLDs are #1 – 39, 55, 56, 61, and 65 for a total of 43 RNP REMP TLDs (Indicator and Control TLDs).

**APPENDIX D**

**ANALYTICAL DEVIATIONS**

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# **APPENDIX D**

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## **H. B. ROBINSON NUCLEAR PLANT**

### **ANALYTICAL DEVIATIONS**

No Analytical deviations were incurred for the 2014 Radiological Environmental Monitoring Program.



**APPENDIX E**

**RADIOLOGICAL  
ENVIRONMENTAL MONITORING  
PROGRAM RESULTS**

**2014**

This appendix includes sample analysis report summaries and supportive data generated from each sample medium for 2014.

# ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 1 [ CONTROL - ESE @ 24.4 miles ]

Sample ID	Sample Dates	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
280713	12/30/2013 - 1/6/2014	Beta	1.68E-02	1.37E-03	3.07E-03
280896	1/6/2014 - 1/13/2014	Beta	1.59E-02	1.31E-03	2.92E-03
281276	1/13/2014 - 1/20/2014	Beta	1.33E-02	1.23E-03	2.83E-03
281635	1/20/2014 - 1/27/2014	Beta	1.67E-02	1.40E-03	3.27E-03
282203	1/27/2014 - 2/3/2014	Beta	1.58E-02	1.30E-03	2.89E-03
283065	2/3/2014 - 2/10/2014	Beta	1.37E-02	1.25E-03	2.85E-03
283447	2/10/2014 - 2/17/2014	Beta	1.99E-02	1.42E-03	2.88E-03
284634	2/17/2014 - 2/24/2014	Beta	1.53E-02	1.32E-03	3.00E-03
285196	2/24/2014 - 3/3/2014	Beta	1.89E-02	1.33E-03	2.66E-03
285803	3/3/2014 - 3/10/2014	Beta	1.21E-02	1.24E-03	2.99E-03
286318	3/10/2014 - 3/17/2014	Beta	1.70E-02	1.26E-03	2.60E-03
287166	3/17/2014 - 3/24/2014	Beta	1.13E-02	1.12E-03	2.64E-03
288423	3/24/2014 - 3/31/2014	Beta	1.32E-02	1.18E-03	2.74E-03
289043	12/30/2013 - 3/31/2014	Cs-134	<2.91E-04	0.00E+00	2.91E-04
		Cs-137	<2.73E-04	0.00E+00	2.73E-04
		Be-7	1.18E-01	5.23E-03	4.55E-03
		K-40	1.22E-02	1.81E-03	3.05E-03
289157	3/31/2014 - 4/7/2014	Beta	1.31E-02	1.10E-03	2.50E-03
289543	4/7/2014 - 4/14/2014	Beta	1.79E-02	1.45E-03	3.18E-03
290025	4/14/2014 - 4/21/2014	Beta	1.42E-02	1.18E-03	2.53E-03
292106	4/21/2014 - 4/28/2014	Beta	1.69E-02	1.26E-03	2.65E-03
292836	4/28/2014 - 5/5/2014	Beta	1.44E-02	1.24E-03	2.86E-03
293107	5/5/2014 - 5/12/2014	Beta	2.20E-02	1.37E-03	2.65E-03
294749	5/12/2014 - 5/19/2014	Beta	1.87E-02	1.31E-03	2.69E-03
295275	5/19/2014 - 5/26/2014	Beta	1.86E-02	1.35E-03	2.86E-03
295599	5/26/2014 - 6/2/2014	Beta	1.70E-02	1.32E-03	2.87E-03

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 1 [ CONTROL - ESE @ 24.4 miles ]

Sample ID	Sample Dates	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
296001	6/2/2014 - 6/9/2014	Beta	1.35E-02	1.21E-03	2.80E-03
296266	6/9/2014 - 6/16/2014	Beta	1.44E-02	1.26E-03	2.82E-03
296796	6/16/2014 - 6/23/2014	Beta	1.98E-02	1.32E-03	2.49E-03
297071	6/23/2014 - 6/30/2014	Beta	1.65E-02	1.24E-03	2.59E-03
297307	3/31/2014 - 6/30/2014	Cs-134	<7.18E-04	0.00E+00	7.18E-04
		Cs-137	<6.35E-04	0.00E+00	6.35E-04
		Be-7	1.32E-01	2.52E-02	1.81E-02
		K-40	2.07E-02	8.50E-03	2.25E-03
297426	6/30/2014 - 7/7/2014	Beta	1.14E-02	2.35E-03	2.93E-03
297681	7/7/2014 - 7/14/2014	Beta	1.43E-02	2.37E-03	2.72E-03
298238	7/14/2014 - 7/21/2014	Beta	1.40E-02	2.46E-03	2.94E-03
350681	7/21/2014 - 7/28/2014	Beta	1.71E-02	2.43E-03	2.42E-03
352331	7/28/2014 - 8/4/2014	Beta	1.04E-02	2.17E-03	2.69E-03
351627	8/4/2014 - 8/11/2014	Beta	2.02E-02	2.87E-03	3.15E-03
354117	8/11/2014 - 8/18/2014	Beta	1.48E-02	2.37E-03	2.68E-03
353440	8/18/2014 - 8/25/2014	Beta	1.79E-02	2.48E-03	2.47E-03
354082	8/25/2014 - 9/1/2014	Beta	1.26E-02	2.22E-03	2.52E-03
354460	9/1/2014 - 9/8/2014	Beta	1.00E-02	2.10E-03	2.58E-03
354773	9/8/2014 - 9/15/2014	Beta	1.04E-02	2.19E-03	2.71E-03
355193	9/15/2014 - 9/22/2014	Beta	2.31E-02	2.83E-03	2.80E-03
355651	9/22/2014 - 9/29/2014	Beta	9.99E-03	2.18E-03	2.74E-03
355661	6/30/2014 - 9/29/2014	Cs-134	<4.50E-04	0.00E+00	4.50E-04
		Cs-137	<7.64E-04	0.00E+00	7.64E-04
		Be-7	9.37E-02	1.96E-02	1.33E-02
		K-40	1.18E-02	7.51E-03	8.81E-03
356520	9/29/2014 - 10/7/2014	Beta	2.48E-02	2.78E-03	2.70E-03
357064	10/7/2014 - 10/13/2014	Beta	1.67E-02	2.83E-03	3.39E-03
358061	10/13/2014 - 10/20/2014	Beta	1.43E-02	2.47E-03	2.82E-03

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 1 [ CONTROL - ESE @ 24.4 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
358667	10/20/2014 - 10/27/2014	Beta	1.61E-02	2.52E-03	2.87E-03
359313	10/27/2014 - 11/3/2014	Beta	2.35E-02	2.78E-03	2.60E-03
360045	11/3/2014 - 11/10/2014	Beta	1.79E-02	2.69E-03	2.97E-03
360725	11/10/2014 - 11/17/2014	Beta	2.45E-02	2.77E-03	2.60E-03
361585	11/17/2014 - 11/24/2014	Beta	2.07E-02	2.78E-03	2.83E-03
361963	11/24/2014 - 12/1/2014	Beta	1.37E-02	2.40E-03	2.82E-03
362798	12/1/2014 - 12/8/2014	Beta	2.45E-02	2.93E-03	2.73E-03
363536	12/8/2014 - 12/15/2014	Beta	1.86E-02	2.55E-03	2.63E-03
363981	12/15/2014 - 12/23/2014	Beta	1.95E-02	2.49E-03	2.57E-03
364525	12/23/2014 - 12/29/2014	Beta	1.29E-02	2.61E-03	3.16E-03
364535	9/29/2014 - 12/29/2014	Cs-134	<6.81E-04	0.00E+00	6.81E-04
		Cs-137	<7.98E-04	0.00E+00	7.98E-04
		Be-7	7.55E-02	1.65E-02	1.01E-02
		K-40	6.42E-03	7.41E-03	1.17E-02

Sample Point 2 [ INDICATOR - S @ 0.2 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
280714	12/30/2013 - 1/6/2014	Beta	1.82E-02	1.40E-03	3.04E-03
280897	1/6/2014 - 1/13/2014	Beta	1.77E-02	1.31E-03	2.77E-03
281277	1/13/2014 - 1/20/2014	Beta	1.37E-02	1.21E-03	2.76E-03
281636	1/20/2014 - 1/27/2014	Beta	1.45E-02	1.32E-03	3.17E-03
282204	1/27/2014 - 2/3/2014	Beta	1.96E-02	1.37E-03	2.86E-03
283066	2/3/2014 - 2/10/2014	Beta	1.62E-02	1.28E-03	2.74E-03
283448	2/10/2014 - 2/17/2014	Beta	2.08E-02	1.35E-03	2.63E-03
284635	2/17/2014 - 2/24/2014	Beta	1.83E-02	1.39E-03	2.99E-03
285197	2/24/2014 - 3/3/2014	Beta	2.31E-02	1.42E-03	2.65E-03
285804	3/3/2014 - 3/10/2014	Beta	1.78E-02	1.35E-03	2.89E-03
286319	3/10/2014 - 3/17/2014	Beta	1.81E-02	1.34E-03	2.76E-03
287167	3/17/2014 - 3/24/2014	Beta	1.22E-02	1.31E-03	3.16E-03

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.





# ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 2 [ INDICATOR - S @ 0.2 miles ]

Sample ID	Sample Dates	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
288424	3/24/2014 - 3/31/2014	Beta	1.47E-02	1.23E-03	2.77E-03
289044	12/30/2013 - 3/31/2014	Cs-134	<2.87E-04	0.00E+00	2.87E-04
		Cs-137	<3.71E-04	0.00E+00	3.71E-04
		Be-7	1.20E-01	6.09E-03	5.09E-03
		K-40	1.11E-02	1.88E-03	2.27E-03
289158	3/31/2014 - 4/7/2014	Beta	1.34E-02	1.21E-03	2.85E-03
289544	4/7/2014 - 4/14/2014	Beta	1.90E-02	1.57E-03	3.49E-03
290026	4/14/2014 - 4/21/2014	Beta	1.73E-02	1.36E-03	2.85E-03
292107	4/21/2014 - 4/28/2014	Beta	1.92E-02	1.43E-03	3.02E-03
292837	4/28/2014 - 5/5/2014	Beta	1.69E-02	1.36E-03	3.05E-03
293108	5/5/2014 - 5/12/2014	Beta	3.13E-02	1.79E-03	3.30E-03
294750	5/12/2014 - 5/19/2014	Beta	2.11E-02	1.50E-03	3.08E-03
295276	5/19/2014 - 5/26/2014	Beta	1.89E-02	1.48E-03	3.23E-03
295600	5/26/2014 - 6/2/2014	Beta	2.01E-02	1.46E-03	3.09E-03
296002	6/2/2014 - 6/9/2014	Beta	1.65E-02	1.40E-03	3.16E-03
296267	6/9/2014 - 6/16/2014	Beta	1.64E-02	1.39E-03	3.10E-03
296797	6/16/2014 - 6/23/2014	Beta	2.40E-02	1.51E-03	2.76E-03
297072	6/23/2014 - 6/30/2014	Beta	1.60E-02	1.34E-03	2.95E-03
297308	3/31/2014 - 6/30/2014	Cs-134	<5.02E-04	0.00E+00	5.02E-04
		Cs-137	<8.68E-04	0.00E+00	8.68E-04
		Be-7	1.32E-01	2.61E-02	1.74E-02
		K-40	<2.16E-02	0.00E+00	2.16E-02
297427	6/30/2014 - 7/7/2014	Beta	1.59E-02	2.67E-03	3.10E-03
297682	7/7/2014 - 7/14/2014	Beta	1.73E-02	2.79E-03	3.17E-03
298239	7/14/2014 - 7/21/2014	Beta	1.43E-02	2.64E-03	3.20E-03
350682	7/21/2014 - 7/28/2014	Beta	1.73E-02	2.61E-03	2.69E-03
352332	7/28/2014 - 8/4/2014	Beta	1.25E-02	2.49E-03	3.01E-03
351629	8/4/2014 - 8/11/2014	Beta	2.40E-02	3.18E-03	3.39E-03

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 2 [ INDICATOR - S @ 0.2 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
354119	8/11/2014 - 8/18/2014	Beta	1.71E-02	2.78E-03	3.18E-03
353441	8/18/2014 - 8/25/2014	Beta	2.12E-02	2.84E-03	2.78E-03
354085	8/25/2014 - 9/1/2014	Beta	1.69E-02	2.65E-03	2.86E-03
354461	9/1/2014 - 9/8/2014	Beta	1.18E-02	2.39E-03	2.90E-03
354774	9/8/2014 - 9/15/2014	Beta	1.12E-02	2.44E-03	3.05E-03
355196	9/15/2014 - 9/22/2014	Beta	2.47E-02	3.10E-03	3.11E-03
355652	9/22/2014 - 9/29/2014	Beta	1.33E-02	2.53E-03	3.04E-03
355662	6/30/2014 - 9/29/2014	Cs-134	<4.99E-04	0.00E+00	4.99E-04
		Cs-137	<6.68E-04	0.00E+00	6.68E-04
		Be-7	9.79E-02	1.86E-02	8.27E-03
		K-40	<1.34E-02	0.00E+00	1.34E-02
356525	9/29/2014 - 10/7/2014	Beta	2.16E-02	2.76E-03	2.86E-03
357065	10/7/2014 - 10/13/2014	Beta	2.04E-02	3.42E-03	4.08E-03
358062	10/13/2014 - 10/20/2014	Beta	1.24E-02	2.47E-03	2.98E-03
358668	10/20/2014 - 10/27/2014	Beta	1.61E-02	2.75E-03	3.24E-03
359315	10/27/2014 - 11/3/2014	Beta	2.34E-02	2.95E-03	2.86E-03
360046	11/3/2014 - 11/10/2014	Beta	1.95E-02	2.87E-03	3.15E-03
360726	11/10/2014 - 11/17/2014	Beta	2.33E-02	3.04E-03	3.07E-03
361586	11/17/2014 - 11/24/2014	Beta	2.52E-02	3.06E-03	2.96E-03
361964	11/24/2014 - 12/1/2014	Beta	1.60E-02	2.74E-03	3.21E-03
362799	12/1/2014 - 12/8/2014	Beta	2.31E-02	2.92E-03	2.82E-03
363537	12/8/2014 - 12/15/2014	Beta	2.01E-02	2.80E-03	2.89E-03
363982	12/15/2014 - 12/23/2014	Beta	2.17E-02	2.79E-03	2.89E-03
364526	12/23/2014 - 12/29/2014	Beta	1.36E-02	2.76E-03	3.35E-03
364536	9/29/2014 - 12/29/2014	Cs-134	<6.33E-04	0.00E+00	6.33E-04
		Cs-137	<9.41E-04	0.00E+00	9.41E-04
		Be-7	9.04E-02	1.99E-02	1.60E-02
		K-40	9.38E-03	8.81E-03	1.32E-02

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 3 [ INDICATOR - N @ 0.5 miles ]

Sample ID	Sample Dates	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
280715	12/30/2013 - 1/6/2014	Beta	1.98E-02	1.45E-03	3.09E-03
280898	1/6/2014 - 1/13/2014	Beta	1.66E-02	1.29E-03	2.78E-03
281278	1/13/2014 - 1/20/2014	Beta	1.21E-02	1.18E-03	2.76E-03
281637	1/20/2014 - 1/27/2014	Beta	1.60E-02	1.37E-03	3.21E-03
282205	1/27/2014 - 2/3/2014	Beta	1.71E-02	1.33E-03	2.92E-03
283067	2/3/2014 - 2/10/2014	Beta	1.20E-02	1.17E-03	2.74E-03
283449	2/10/2014 - 2/17/2014	Beta	2.16E-02	1.43E-03	2.81E-03
284636	2/17/2014 - 2/24/2014	Beta	1.74E-02	1.33E-03	2.87E-03
285198	2/24/2014 - 3/3/2014	Beta	2.22E-02	1.41E-03	2.67E-03
285805	3/3/2014 - 3/10/2014	Beta	1.54E-02	1.31E-03	2.96E-03
286320	3/10/2014 - 3/17/2014	Beta	1.76E-02	1.30E-03	2.68E-03
287168	3/17/2014 - 3/24/2014	Beta	1.38E-02	1.24E-03	2.80E-03
288425	3/24/2014 - 3/31/2014	Beta	1.45E-02	1.30E-03	3.02E-03
289045	12/30/2013 - 3/31/2014	Cs-134	<3.85E-04	0.00E+00	3.85E-04
		Cs-137	<4.02E-04	0.00E+00	4.02E-04
		Be-7	1.26E-01	6.27E-03	7.93E-03
		K-40	1.76E-02	4.05E-03	5.92E-03
289159	3/31/2014 - 4/7/2014	Beta	1.29E-02	1.18E-03	2.76E-03
289545	4/7/2014 - 4/14/2014	Beta	1.96E-02	1.59E-03	3.50E-03
290027	4/14/2014 - 4/21/2014	Beta	1.62E-02	1.31E-03	2.78E-03
292108	4/21/2014 - 4/28/2014	Beta	1.83E-02	1.38E-03	2.92E-03
292838	4/28/2014 - 5/5/2014	Beta	1.60E-02	1.40E-03	3.26E-03
293109	5/5/2014 - 5/12/2014	Beta	3.12E-02	1.67E-03	2.94E-03
294751	5/12/2014 - 5/19/2014	Beta	1.91E-02	1.41E-03	2.95E-03
295277	5/19/2014 - 5/26/2014	Beta	1.97E-02	1.44E-03	3.07E-03
295601	5/26/2014 - 6/2/2014	Beta	2.23E-02	1.46E-03	2.96E-03

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m<sup>3</sup>

Sample Point 3 [ INDICATOR - N @ 0.5 miles ]

Sample ID	Sample Dates	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
296003	6/2/2014 - 6/9/2014	Beta	1.57E-02	1.35E-03	3.06E-03
296268	6/9/2014 - 6/16/2014	Beta	1.67E-02	1.35E-03	2.95E-03
296798	6/16/2014 - 6/23/2014	Beta	2.37E-02	1.47E-03	2.65E-03
297073	6/23/2014 - 6/30/2014	Beta	1.83E-02	1.38E-03	2.89E-03
297309	3/31/2014 - 6/30/2014	Cs-134	<6.81E-04	0.00E+00	6.81E-04
		Cs-137	<7.95E-04	0.00E+00	7.95E-04
		Be-7	1.48E-01	3.04E-02	2.61E-02
		K-40	1.39E-02	8.51E-03	9.91E-03
297428	6/30/2014 - 7/7/2014	Beta	1.32E-02	2.50E-03	3.05E-03
297683	7/7/2014 - 7/14/2014	Beta	1.54E-02	2.58E-03	2.97E-03
298240	7/14/2014 - 7/21/2014	Beta	1.50E-02	2.63E-03	3.13E-03
350683	7/21/2014 - 7/28/2014	Beta	1.65E-02	2.50E-03	2.58E-03
352334	7/28/2014 - 8/4/2014	Beta	1.27E-02	2.42E-03	2.90E-03
351631	8/4/2014 - 8/11/2014	Beta	2.43E-02	3.07E-03	3.20E-03
354121	8/11/2014 - 8/18/2014	Beta	1.99E-02	2.80E-03	3.01E-03
353442	8/18/2014 - 8/25/2014	Beta	2.07E-02	2.73E-03	2.66E-03
354088	8/25/2014 - 9/1/2014	Beta	1.60E-02	2.51E-03	2.70E-03
354462	9/1/2014 - 9/8/2014	Beta	1.04E-02	2.23E-03	2.75E-03
354775	9/8/2014 - 9/15/2014	Beta	1.01E-02	2.29E-03	2.92E-03
355199	9/15/2014 - 9/22/2014	Beta	2.54E-02	3.04E-03	2.97E-03
355653	9/22/2014 - 9/29/2014	Beta	9.82E-03	2.26E-03	2.90E-03
355663	6/30/2014 - 9/29/2014	Cs-134	<9.44E-04	0.00E+00	9.44E-04
		Cs-137	<7.93E-04	0.00E+00	7.93E-04
		Be-7	1.13E-01	2.39E-02	1.98E-02
		K-40	1.54E-02	9.05E-03	1.06E-02
356528	9/29/2014 - 10/7/2014	Beta	2.63E-02	2.88E-03	2.75E-03
357066	10/7/2014 - 10/13/2014	Beta	2.05E-02	3.34E-03	3.93E-03
358063	10/13/2014 - 10/20/2014	Beta	1.31E-02	2.42E-03	2.83E-03

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

## Sample Point 3 [ INDICATOR - N @ 0.5 miles ]

Sample ID	Sample Dates	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
358669	10/20/2014 - 10/27/2014	Beta	1.62E-02	2.70E-03	3.15E-03
359317	10/27/2014 - 11/3/2014	Beta	1.96E-02	2.72E-03	2.77E-03
360047	11/3/2014 - 11/10/2014	Beta	1.83E-02	2.76E-03	3.05E-03
360727	11/10/2014 - 11/17/2014	Beta	2.19E-02	2.89E-03	2.94E-03
361587	11/17/2014 - 11/24/2014	Beta	2.34E-02	2.97E-03	2.94E-03
361965	11/24/2014 - 12/1/2014	Beta	1.60E-02	2.65E-03	3.03E-03
362800	12/1/2014 - 12/8/2014	Beta	2.40E-02	2.94E-03	2.77E-03
363538	12/8/2014 - 12/15/2014	Beta	1.87E-02	2.68E-03	2.82E-03
363983	12/15/2014 - 12/23/2014	Beta	2.15E-02	2.65E-03	2.69E-03
364527	12/23/2014 - 12/29/2014	Beta	1.30E-02	2.76E-03	3.41E-03
364537	9/29/2014 - 12/29/2014	Cs-134	<9.50E-04	0.00E+00	9.50E-04
		Cs-137	<7.02E-04	0.00E+00	7.02E-04
		Be-7	8.82E-02	1.91E-02	1.42E-02
		K-40	1.56E-02	7.69E-03	2.48E-03

## Sample Point 4 [ INDICATOR - ESE @ 0.4 miles ]

Sample ID	Sample Dates	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
280716	12/30/2013 - 1/6/2014	Beta	1.77E-02	1.43E-03	3.18E-03
280899	1/6/2014 - 1/13/2014	Beta	1.63E-02	1.32E-03	2.91E-03
281279	1/13/2014 - 1/20/2014	Beta	1.21E-02	1.21E-03	2.89E-03
281638	1/20/2014 - 1/27/2014	Beta	1.51E-02	1.39E-03	3.36E-03
282206	1/27/2014 - 2/3/2014	Beta	2.55E-03	9.59E-04	3.03E-03
283068	2/3/2014 - 2/10/2014	Beta	1.44E-02	1.28E-03	2.89E-03
283450	2/10/2014 - 2/17/2014	Beta	2.10E-02	1.41E-03	2.81E-03
284637	2/17/2014 - 2/24/2014	Beta	1.58E-02	1.36E-03	3.09E-03
285199	2/24/2014 - 3/3/2014	Beta	1.86E-02	1.37E-03	2.79E-03
285806	3/3/2014 - 3/10/2014	Beta	1.32E-02	1.29E-03	3.07E-03
286321	3/10/2014 - 3/17/2014	Beta	1.84E-02	1.34E-03	2.73E-03
287169	3/17/2014 - 3/24/2014	Beta	1.20E-02	1.13E-03	2.61E-03

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.





# ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m<sup>3</sup>

Sample Point 4 [ INDICATOR - ESE @ 0.4 miles ]

Sample ID	Sample Dates	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
288426	3/24/2014 - 3/31/2014	Beta	1.21E-02	1.17E-03	2.79E-03
289046	12/30/2013 - 3/31/2014	Cs-134	<2.97E-04	0.00E+00	2.97E-04
		Cs-137	<3.11E-04	0.00E+00	3.11E-04
		Be-7	1.11E-01	5.98E-03	4.27E-03
		K-40	7.78E-03	1.79E-03	3.21E-03
289160	3/31/2014 - 4/7/2014	Beta	1.54E-02	1.16E-03	2.52E-03
289546	4/7/2014 - 4/14/2014	Beta	1.72E-02	1.41E-03	3.15E-03
290028	4/14/2014 - 4/21/2014	Beta	1.62E-02	1.24E-03	2.55E-03
292109	4/21/2014 - 4/28/2014	Beta	1.63E-02	1.24E-03	2.65E-03
292839	4/28/2014 - 5/5/2014	Beta	1.47E-02	1.26E-03	2.91E-03
293110	5/5/2014 - 5/12/2014	Beta	2.46E-02	1.42E-03	2.62E-03
294752	5/12/2014 - 5/19/2014	Beta	1.79E-02	1.29E-03	2.69E-03
295278	5/19/2014 - 5/26/2014	Beta	1.94E-02	1.41E-03	2.99E-03
295602	5/26/2014 - 6/2/2014	Beta	1.55E-02	1.29E-03	2.90E-03
296004	6/2/2014 - 6/9/2014	Beta	1.38E-02	1.26E-03	2.93E-03
296269	6/9/2014 - 6/16/2014	Beta	1.60E-02	1.30E-03	2.85E-03
296799	6/16/2014 - 6/23/2014	Beta	2.16E-02	1.38E-03	2.53E-03
297074	6/23/2014 - 6/30/2014	Beta	1.57E-02	1.26E-03	2.73E-03
297310	3/31/2014 - 6/30/2014	Cs-134	<6.36E-04	0.00E+00	6.36E-04
		Cs-137	<5.93E-04	0.00E+00	5.93E-04
		Be-7	1.31E-01	2.81E-02	2.58E-02
		K-40	1.55E-02	8.21E-03	8.22E-03
297429	6/30/2014 - 7/7/2014	Beta	1.37E-02	2.48E-03	2.96E-03
297684	7/7/2014 - 7/14/2014	Beta	1.47E-02	2.47E-03	2.84E-03
298241	7/14/2014 - 7/21/2014	Beta	1.42E-02	2.52E-03	3.02E-03
350684	7/21/2014 - 7/28/2014	Beta	1.52E-02	2.36E-03	2.48E-03
352335	7/28/2014 - 8/4/2014	Beta	1.31E-02	2.35E-03	2.75E-03
351633	8/4/2014 - 8/11/2014	Beta	2.35E-02	2.98E-03	3.11E-03

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 4 [ INDICATOR - ESE @ 0.4 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
354123	8/11/2014 - 8/18/2014	Beta	1.83E-02	2.66E-03	2.89E-03
353443	8/18/2014 - 8/25/2014	Beta	2.05E-02	2.64E-03	2.53E-03
354090	8/25/2014 - 9/1/2014	Beta	1.61E-02	2.45E-03	2.60E-03
354463	9/1/2014 - 9/8/2014	Beta	9.15E-03	2.08E-03	2.62E-03
354776	9/8/2014 - 9/15/2014	Beta	8.51E-03	2.13E-03	2.79E-03
355202	9/15/2014 - 9/22/2014	Beta	2.47E-02	2.93E-03	2.86E-03
355654	9/22/2014 - 9/29/2014	Beta	1.34E-02	2.40E-03	2.82E-03
355664	6/30/2014 - 9/29/2014	Cs-134	<1.23E-03	0.00E+00	1.23E-03
		Cs-137	<8.25E-04	0.00E+00	8.25E-04
		Be-7	8.31E-02	2.47E-02	2.25E-02
		K-40	<4.04E-02	0.00E+00	4.04E-02
356531	9/29/2014 - 10/7/2014	Beta	2.09E-02	2.57E-03	2.62E-03
357067	10/7/2014 - 10/13/2014	Beta	1.56E-02	3.00E-03	3.75E-03
358064	10/13/2014 - 10/20/2014	Beta	1.42E-02	2.42E-03	2.75E-03
358670	10/20/2014 - 10/27/2014	Beta	1.73E-02	2.65E-03	3.00E-03
359319	10/27/2014 - 11/3/2014	Beta	2.20E-02	2.78E-03	2.68E-03
360048	11/3/2014 - 11/10/2014	Beta	1.83E-02	2.70E-03	2.95E-03
360728	11/10/2014 - 11/17/2014	Beta	2.48E-02	2.98E-03	2.89E-03
361588	11/17/2014 - 11/24/2014	Beta	2.45E-02	2.93E-03	2.81E-03
361966	11/24/2014 - 12/1/2014	Beta	1.43E-02	2.54E-03	3.01E-03
362801	12/1/2014 - 12/8/2014	Beta	2.30E-02	2.80E-03	2.65E-03
363539	12/8/2014 - 12/15/2014	Beta	2.15E-02	2.76E-03	2.74E-03
363984	12/15/2014 - 12/23/2014	Beta	2.06E-02	2.64E-03	2.73E-03
364528	12/23/2014 - 12/29/2014	Beta	1.33E-02	2.62E-03	3.13E-03
364538	9/29/2014 - 12/29/2014	Cs-134	<6.05E-04	0.00E+00	6.05E-04
		Cs-137	<4.81E-04	0.00E+00	4.81E-04
		Be-7	9.40E-02	2.21E-02	2.27E-02
		K-40	1.15E-02	9.46E-03	1.38E-02

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 5 [ INDICATOR - ENE @ 0.9 miles ]

Sample ID	Sample Dates	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
280717	12/30/2013 - 1/6/2014	Beta	1.50E-02	1.35E-03	3.15E-03
280900	1/6/2014 - 1/13/2014	Beta	1.37E-02	1.24E-03	2.87E-03
281280	1/13/2014 - 1/20/2014	Beta	1.22E-02	1.20E-03	2.83E-03
281639	1/20/2014 - 1/27/2014	Beta	1.59E-02	1.37E-03	3.23E-03
282207	1/27/2014 - 2/3/2014	Beta	1.57E-02	1.31E-03	2.96E-03
283069	2/3/2014 - 2/10/2014	Beta	1.36E-02	1.23E-03	2.80E-03
283451	2/10/2014 - 2/17/2014	Beta	1.96E-02	1.36E-03	2.73E-03
284638	2/17/2014 - 2/24/2014	Beta	1.62E-02	1.37E-03	3.07E-03
285200	2/24/2014 - 3/3/2014	Beta	2.27E-02	1.44E-03	2.74E-03
285807	3/3/2014 - 3/10/2014	Beta	1.60E-02	1.34E-03	2.99E-03
286322	3/10/2014 - 3/17/2014	Beta	1.89E-02	1.34E-03	2.71E-03
287170	3/17/2014 - 3/24/2014	Beta	6.11E-03	1.00E-03	2.75E-03
288427	3/24/2014 - 3/31/2014	Beta	1.21E-02	1.29E-03	3.19E-03
289047	12/30/2013 - 3/31/2014	Cs-134	<2.31E-04	0.00E+00	2.31E-04
		Cs-137	<2.75E-04	0.00E+00	2.75E-04
		Be-7	1.12E-01	5.36E-03	4.32E-03
		K-40	1.34E-02	1.95E-03	4.15E-03
289161	3/31/2014 - 4/7/2014	Beta	1.10E-02	1.10E-03	2.66E-03
289547	4/7/2014 - 4/14/2014	Beta	1.49E-02	1.43E-03	3.39E-03
290029	4/14/2014 - 4/21/2014	Beta	1.41E-02	1.23E-03	2.67E-03
292110	4/21/2014 - 4/28/2014	Beta	1.87E-02	1.39E-03	2.94E-03
292840	4/28/2014 - 5/5/2014	Beta	1.66E-02	1.38E-03	3.17E-03
293111	5/5/2014 - 5/12/2014	Beta	2.29E-02	1.48E-03	2.91E-03
294753	5/12/2014 - 5/19/2014	Beta	1.87E-02	1.39E-03	2.93E-03
295279	5/19/2014 - 5/26/2014	Beta	1.74E-02	1.39E-03	3.07E-03
295603	5/26/2014 - 6/2/2014	Beta	1.82E-02	1.38E-03	2.99E-03

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m<sup>3</sup>

Sample Point 5 [ INDICATOR - ENE @ 0.9 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
296005	6/2/2014 - 6/9/2014	Beta	1.66E-02	1.36E-03	3.01E-03
296270	6/9/2014 - 6/16/2014	Beta	1.83E-02	1.38E-03	2.93E-03
296800	6/16/2014 - 6/23/2014	Beta	2.21E-02	1.44E-03	2.68E-03
297075	6/23/2014 - 6/30/2014	Beta	1.46E-02	1.29E-03	2.90E-03
297311	3/31/2014 - 6/30/2014	Cs-134	<6.59E-04	0.00E+00	6.59E-04
		Cs-137	<7.69E-04	0.00E+00	7.69E-04
		Be-7	1.24E-01	2.48E-02	1.46E-02
		K-40	8.04E-03	8.19E-03	1.26E-02
297430	6/30/2014 - 7/7/2014	Beta	1.41E-02	2.55E-03	3.04E-03
297685	7/7/2014 - 7/14/2014	Beta	1.65E-02	2.65E-03	2.99E-03
298242	7/14/2014 - 7/21/2014	Beta	1.64E-02	2.69E-03	3.12E-03
350685	7/21/2014 - 7/28/2014	Beta	1.63E-02	2.48E-03	2.57E-03
352336	7/28/2014 - 8/4/2014	Beta	1.25E-02	2.34E-03	2.80E-03
351635	8/4/2014 - 8/11/2014	Beta	2.42E-02	3.15E-03	3.32E-03
354124	8/11/2014 - 8/18/2014	Beta	1.96E-02	2.77E-03	2.97E-03
353444	8/18/2014 - 8/25/2014	Beta	1.70E-02	2.56E-03	2.66E-03
354092	8/25/2014 - 9/1/2014	Beta	1.61E-02	2.51E-03	2.68E-03
354464	9/1/2014 - 9/8/2014	Beta	1.24E-02	2.33E-03	2.75E-03
354777	9/8/2014 - 9/15/2014	Beta	8.76E-03	2.20E-03	2.90E-03
355206	9/15/2014 - 9/22/2014	Beta	2.34E-02	2.94E-03	2.95E-03
355655	9/22/2014 - 9/29/2014	Beta	1.03E-02	2.28E-03	2.90E-03
355665	6/30/2014 - 9/29/2014	Cs-134	<1.55E-03	0.00E+00	1.55E-03
		Cs-137	<2.50E-04	0.00E+00	2.50E-04
		Be-7	8.57E-02	2.51E-02	2.17E-02
		K-40	<2.87E-02	0.00E+00	2.87E-02
356534	9/29/2014 - 10/7/2014	Beta	2.06E-02	2.59E-03	2.67E-03
357068	10/7/2014 - 10/13/2014	Beta	2.09E-02	3.31E-03	3.87E-03
358065	10/13/2014 - 10/20/2014	Beta	1.22E-02	2.38E-03	2.86E-03

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

## Sample Point 5 [ INDICATOR - ENE @ 0.9 miles ]

Sample ID	Sample Dates	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
358671	10/20/2014 - 10/27/2014	Beta	1.51E-02	2.61E-03	3.11E-03
359322	10/27/2014 - 11/3/2014	Beta	2.15E-02	2.82E-03	2.79E-03
360049	11/3/2014 - 11/10/2014	Beta	1.62E-02	2.62E-03	2.98E-03
360729	11/10/2014 - 11/17/2014	Beta	2.34E-02	2.86E-03	2.79E-03
361589	11/17/2014 - 11/24/2014	Beta	2.16E-02	2.81E-03	2.82E-03
361967	11/24/2014 - 12/1/2014	Beta	1.24E-02	2.41E-03	2.94E-03
362802	12/1/2014 - 12/8/2014	Beta	2.21E-02	2.80E-03	2.70E-03
363540	12/8/2014 - 12/15/2014	Beta	1.67E-02	2.51E-03	2.69E-03
363985	12/15/2014 - 12/23/2014	Beta	1.87E-02	2.47E-03	2.59E-03
364529	12/23/2014 - 12/29/2014	Beta	1.14E-02	2.59E-03	3.28E-03
364539	9/29/2014 - 12/29/2014	Cs-134	<6.92E-04	0.00E+00	6.92E-04
		Cs-137	<4.73E-04	0.00E+00	4.73E-04
		Be-7	9.21E-02	1.98E-02	1.63E-02
		K-40	8.70E-03	6.98E-03	9.25E-03

## Sample Point 6 [ INDICATOR - SSW @ 0.2 miles ]

Sample ID	Sample Dates	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
280718	12/30/2013 - 1/6/2014	Beta	1.64E-02	1.33E-03	2.98E-03
280901	1/6/2014 - 1/13/2014	Beta	1.34E-02	1.19E-03	2.73E-03
281281	1/13/2014 - 1/20/2014	Beta	1.10E-02	1.13E-03	2.70E-03
281640	1/20/2014 - 1/27/2014	Beta	1.59E-02	1.34E-03	3.14E-03
282208	1/27/2014 - 2/3/2014	Beta	1.64E-02	1.29E-03	2.83E-03
283070	2/3/2014 - 2/10/2014	Beta	1.38E-02	1.20E-03	2.69E-03
283452	2/10/2014 - 2/17/2014	Beta	1.97E-02	1.32E-03	2.62E-03
284639	2/17/2014 - 2/24/2014	Beta	1.48E-02	1.27E-03	2.88E-03
285201	2/24/2014 - 3/3/2014	Beta	2.08E-02	1.35E-03	2.60E-03
285808	3/3/2014 - 3/10/2014	Beta	1.31E-02	1.22E-03	2.85E-03
286323	3/10/2014 - 3/17/2014	Beta	1.68E-02	1.26E-03	2.60E-03
287171	3/17/2014 - 3/24/2014	Beta	1.06E-02	1.10E-03	2.63E-03

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.





# ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m<sup>3</sup>

Sample Point 6 [ INDICATOR - SSW @ 0.2 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
288428	3/24/2014 - 3/31/2014	Beta	1.55E-02	1.26E-03	2.80E-03
289049	12/30/2013 - 3/31/2014	Cs-134	<4.05E-04	0.00E+00	4.05E-04
		Cs-137	<4.06E-04	0.00E+00	4.06E-04
		Be-7	1.07E-01	6.12E-03	6.13E-03
		K-40	1.47E-02	3.17E-03	5.34E-03
289162	3/31/2014 - 4/7/2014	Beta	1.44E-02	1.14E-03	2.54E-03
289548	4/7/2014 - 4/14/2014	Beta	1.57E-02	1.39E-03	3.19E-03
290030	4/14/2014 - 4/21/2014	Beta	1.50E-02	1.19E-03	2.51E-03
292111	4/21/2014 - 4/28/2014	Beta	1.73E-02	1.28E-03	2.67E-03
292841	4/28/2014 - 5/5/2014	Beta	1.62E-02	1.30E-03	2.93E-03
293112	5/5/2014 - 5/12/2014	Beta	2.47E-02	1.43E-03	2.63E-03
294754	5/12/2014 - 5/19/2014	Beta	1.99E-02	1.35E-03	2.72E-03
295280	5/19/2014 - 5/26/2014	Beta	1.90E-02	1.40E-03	2.98E-03
295604	5/26/2014 - 6/2/2014	Beta	1.77E-02	1.34E-03	2.88E-03
296006	6/2/2014 - 6/9/2014	Beta	1.26E-02	1.23E-03	2.95E-03
296271	6/9/2014 - 6/16/2014	Beta	1.51E-02	1.28E-03	2.86E-03
296801	6/16/2014 - 6/23/2014	Beta	1.91E-02	1.31E-03	2.51E-03
297076	6/23/2014 - 6/30/2014	Beta	1.72E-02	1.29E-03	2.71E-03
297313	3/31/2014 - 6/30/2014	Cs-134	<4.96E-04	0.00E+00	4.96E-04
		Cs-137	<7.24E-04	0.00E+00	7.24E-04
		Be-7	9.82E-02	2.27E-02	1.98E-02
		K-40	<1.78E-02	0.00E+00	1.78E-02
297431	6/30/2014 - 7/7/2014	Beta	1.39E-02	2.44E-03	2.88E-03
297686	7/7/2014 - 7/14/2014	Beta	1.63E-02	2.59E-03	2.91E-03
298243	7/14/2014 - 7/21/2014	Beta	1.47E-02	2.54E-03	3.00E-03
350687	7/21/2014 - 7/28/2014	Beta	1.39E-02	2.28E-03	2.46E-03
352339	7/28/2014 - 8/4/2014	Beta	1.27E-02	2.34E-03	2.78E-03
351639	8/4/2014 - 8/11/2014	Beta	2.56E-02	3.06E-03	3.11E-03

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 6 [ INDICATOR - SSW @ 0.2 miles ]

Sample ID	Sample Dates	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
354126	8/11/2014 - 8/18/2014	Beta	1.72E-02	2.57E-03	2.84E-03
353446	8/18/2014 - 8/25/2014	Beta	1.84E-02	2.58E-03	2.59E-03
354096	8/25/2014 - 9/1/2014	Beta	1.42E-02	2.36E-03	2.61E-03
354466	9/1/2014 - 9/8/2014	Beta	8.12E-03	2.03E-03	2.64E-03
354779	9/8/2014 - 9/15/2014	Beta	9.70E-03	2.20E-03	2.80E-03
355211	9/15/2014 - 9/22/2014	Beta	2.22E-02	2.83E-03	2.86E-03
355657	9/22/2014 - 9/29/2014	Beta	1.04E-02	2.27E-03	2.86E-03
355667	6/30/2014 - 9/29/2014	Cs-134	<5.32E-04	0.00E+00	5.32E-04
		Cs-137	<4.65E-04	0.00E+00	4.65E-04
		Be-7	9.51E-02	1.86E-02	1.28E-02
		K-40	1.00E-02	6.19E-03	7.12E-03
357070	10/7/2014 - 10/13/2014	Beta	1.69E-02	3.44E-03	4.39E-03
358067	10/13/2014 - 10/20/2014	Beta	1.54E-02	2.37E-03	2.57E-03
358673	10/20/2014 - 10/27/2014	Beta	1.62E-02	2.49E-03	2.82E-03
359326	10/27/2014 - 11/3/2014	Beta	2.14E-02	2.62E-03	2.50E-03
360051	11/3/2014 - 11/10/2014	Beta	1.94E-02	2.63E-03	2.77E-03
360731	11/10/2014 - 11/17/2014	Beta	2.35E-02	2.82E-03	2.72E-03
361591	11/17/2014 - 11/24/2014	Beta	2.38E-02	2.79E-03	2.64E-03
361969	11/24/2014 - 12/1/2014	Beta	1.25E-02	2.35E-03	2.83E-03
362804	12/1/2014 - 12/8/2014	Beta	2.06E-02	2.59E-03	2.48E-03
363542	12/8/2014 - 12/15/2014	Beta	2.01E-02	2.59E-03	2.57E-03
363987	12/15/2014 - 12/23/2014	Beta	1.90E-02	2.46E-03	2.56E-03
364531	12/23/2014 - 12/29/2014	Beta	1.17E-02	2.41E-03	2.93E-03
364541	9/29/2014 - 12/29/2014	Cs-134	<6.16E-04	0.00E+00	6.16E-04
		Cs-137	<7.89E-04	0.00E+00	7.89E-04
		Be-7	1.02E-01	2.02E-02	1.26E-02
		K-40	6.79E-03	8.58E-03	1.39E-02

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 7 [ INDICATOR - ESE @ 6.4 miles ]

Sample ID	Sample Dates	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
280719	12/30/2013 - 1/6/2014	Beta	1.63E-02	1.34E-03	3.02E-03
280902	1/6/2014 - 1/13/2014	Beta	1.52E-02	1.29E-03	2.90E-03
281282	1/13/2014 - 1/20/2014	Beta	1.31E-02	1.20E-03	2.76E-03
281641	1/20/2014 - 1/27/2014	Beta	1.48E-02	1.35E-03	3.24E-03
282209	1/27/2014 - 2/3/2014	Beta	1.70E-02	1.33E-03	2.91E-03
283071	2/3/2014 - 2/10/2014	Beta	1.36E-02	1.24E-03	2.82E-03
283453	2/10/2014 - 2/17/2014	Beta	1.91E-02	1.33E-03	2.69E-03
284640	2/17/2014 - 2/24/2014	Beta	1.65E-02	1.34E-03	2.97E-03
285202	2/24/2014 - 3/3/2014	Beta	2.08E-02	1.34E-03	2.56E-03
285809	3/3/2014 - 3/10/2014	Beta	1.50E-02	1.35E-03	3.11E-03
286324	3/10/2014 - 3/17/2014	Beta	1.64E-02	1.19E-03	2.42E-03
287172	3/17/2014 - 3/24/2014	Beta	1.11E-02	1.08E-03	2.52E-03
288429	3/24/2014 - 3/31/2014	Beta	1.55E-02	1.21E-03	2.65E-03
289052	12/30/2013 - 3/31/2014	Cs-134	<2.94E-04	0.00E+00	2.94E-04
		Cs-137	<3.22E-04	0.00E+00	3.22E-04
		Be-7	1.14E-01	5.86E-03	6.45E-03
		K-40	8.11E-03	1.86E-03	4.52E-03
289163	3/31/2014 - 4/7/2014	Beta	1.15E-02	1.03E-03	2.41E-03
289549	4/7/2014 - 4/14/2014	Beta	2.04E-02	1.57E-03	3.40E-03
290031	4/14/2014 - 4/21/2014	Beta	1.59E-02	1.20E-03	2.45E-03
292112	4/21/2014 - 4/28/2014	Beta	1.52E-02	1.16E-03	2.47E-03
292842	4/28/2014 - 5/5/2014	Beta	1.51E-02	1.30E-03	3.02E-03
293113	5/5/2014 - 5/12/2014	Beta	2.46E-02	1.39E-03	2.52E-03
294755	5/12/2014 - 5/19/2014	Beta	1.70E-02	1.23E-03	2.57E-03
295281	5/19/2014 - 5/26/2014	Beta	1.74E-02	1.40E-03	3.08E-03
295605	5/26/2014 - 6/2/2014	Beta	1.87E-02	1.41E-03	3.05E-03

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m<sup>3</sup>

Sample Point 7 [ INDICATOR - ESE @ 6.4 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
296007	6/2/2014 - 6/9/2014	Beta	1.42E-02	1.28E-03	2.97E-03
296272	6/9/2014 - 6/16/2014	Beta	1.64E-02	1.35E-03	2.98E-03
296802	6/16/2014 - 6/23/2014	Beta	2.02E-02	1.38E-03	2.63E-03
297077	6/23/2014 - 6/30/2014	Beta	1.68E-02	1.30E-03	2.76E-03
297316	3/31/2014 - 6/30/2014	Cs-134	<4.85E-04	0.00E+00	4.85E-04
		Cs-137	<6.62E-04	0.00E+00	6.62E-04
		Be-7	1.27E-01	2.71E-02	1.81E-02
		K-40	9.08E-03	6.47E-03	3.08E-03
297432	6/30/2014 - 7/7/2014	Beta	1.29E-02	2.55E-03	3.14E-03
297687	7/7/2014 - 7/14/2014	Beta	1.45E-02	2.46E-03	2.84E-03
298244	7/14/2014 - 7/21/2014	Beta	1.36E-02	2.54E-03	3.09E-03
350690	7/21/2014 - 7/28/2014	Beta	1.39E-02	2.35E-03	2.57E-03
352343	7/28/2014 - 8/4/2014	Beta	1.23E-02	2.40E-03	2.89E-03
351645	8/4/2014 - 8/11/2014	Beta	2.09E-02	2.96E-03	3.25E-03
351663	8/11/2014 - 8/18/2014	Beta	1.90E-02	2.72E-03	2.94E-03
353449	8/18/2014 - 8/25/2014	Beta	2.03E-02	2.71E-03	2.65E-03
354102	8/25/2014 - 9/1/2014	Beta	1.64E-02	2.53E-03	2.70E-03
354469	9/1/2014 - 9/8/2014	Beta	1.11E-02	2.27E-03	2.77E-03
354782	9/8/2014 - 9/15/2014	Beta	1.04E-02	2.30E-03	2.91E-03
355218	9/15/2014 - 9/22/2014	Beta	2.75E-02	3.14E-03	2.98E-03
355660	9/22/2014 - 9/29/2014	Beta	1.05E-02	2.35E-03	2.98E-03
355670	6/30/2014 - 9/29/2014	Cs-134	<1.42E-03	0.00E+00	1.42E-03
		Cs-137	<8.57E-04	0.00E+00	8.57E-04
		Be-7	9.18E-02	2.78E-02	2.81E-02
		K-40	<3.69E-02	0.00E+00	3.69E-02
356545	9/29/2014 - 10/7/2014	Beta	2.10E-02	2.64E-03	2.72E-03
357073	10/7/2014 - 10/13/2014	Beta	1.70E-02	3.16E-03	3.92E-03
358070	10/13/2014 - 10/20/2014	Beta	1.35E-02	2.45E-03	2.87E-03

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 7 [ INDICATOR - ESE @ 6.4 miles ]

Sample ID	Sample Dates	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
358676	10/20/2014 - 10/27/2014	Beta	1.42E-02	2.69E-03	3.29E-03
359332	10/27/2014 - 11/3/2014	Beta	2.28E-02	2.97E-03	2.93E-03
360054	11/3/2014 - 11/10/2014	Beta	1.66E-02	2.77E-03	3.20E-03
360734	11/10/2014 - 11/17/2014	Beta	2.26E-02	2.97E-03	3.02E-03
361594	11/17/2014 - 11/24/2014	Beta	2.14E-02	3.00E-03	3.13E-03
361972	11/24/2014 - 12/1/2014	Beta	1.47E-02	2.66E-03	3.16E-03
362807	12/1/2014 - 12/8/2014	Beta	2.14E-02	2.93E-03	2.94E-03
363545	12/8/2014 - 12/15/2014	Beta	1.93E-02	2.83E-03	2.99E-03
363990	12/15/2014 - 12/23/2014	Beta	1.90E-02	2.66E-03	2.86E-03
364534	12/23/2014 - 12/29/2014	Beta	1.07E-02	2.70E-03	3.53E-03
364544	9/29/2014 - 12/29/2014	Cs-134	<8.40E-04	0.00E+00	8.40E-04
		Cs-137	<9.26E-04	0.00E+00	9.26E-04
		Be-7	9.61E-02	2.14E-02	1.86E-02
		K-40	<1.98E-02	0.00E+00	1.98E-02

Sample Point 55 [ INDICATOR - SSE @ 0.2 miles ]

Sample ID	Sample Dates	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
280720	12/30/2013 - 1/6/2014	Beta	1.69E-02	1.40E-03	3.15E-03
280903	1/6/2014 - 1/13/2014	Beta	1.47E-02	1.27E-03	2.89E-03
281283	1/13/2014 - 1/20/2014	Beta	1.32E-02	1.23E-03	2.86E-03
281642	1/20/2014 - 1/27/2014	Beta	1.49E-02	1.38E-03	3.32E-03
282210	1/27/2014 - 2/3/2014	Beta	1.76E-02	1.37E-03	3.00E-03
283072	2/3/2014 - 2/10/2014	Beta	1.45E-02	1.27E-03	2.85E-03
283454	2/10/2014 - 2/17/2014	Beta	2.15E-02	1.42E-03	2.77E-03
284641	2/17/2014 - 2/24/2014	Beta	1.84E-02	1.42E-03	3.06E-03
285203	2/24/2014 - 3/3/2014	Beta	1.88E-02	1.29E-03	2.54E-03
285810	3/3/2014 - 3/10/2014	Beta	1.85E-02	1.49E-03	3.28E-03
286325	3/10/2014 - 3/17/2014	Beta	1.70E-02	1.28E-03	2.66E-03
287173	3/17/2014 - 3/24/2014	Beta	1.01E-02	1.11E-03	2.68E-03

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.





# ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m<sup>3</sup>

Sample Point 55 [ INDICATOR - SSE @ 0.2 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
288430	3/24/2014 - 3/31/2014	Beta	1.50E-02	1.25E-03	2.81E-03
289048	12/30/2013 - 3/31/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		Cs-134	<9.37E-04	0.00E+00	9.37E-04
		Cs-137	<6.84E-04	0.00E+00	6.84E-04
		Be-7	1.46E-01	1.13E-02	1.34E-02
		K-40	2.28E-02	4.03E-03	1.19E-02
289164	3/31/2014 - 4/7/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		Beta	1.27E-02	1.11E-03	2.56E-03
289550	4/7/2014 - 4/14/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		Beta	1.59E-02	1.41E-03	3.25E-03
290032	4/14/2014 - 4/21/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		Beta	1.33E-02	1.18E-03	2.60E-03
292113	4/21/2014 - 4/28/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		Beta	1.52E-02	1.24E-03	2.73E-03
292843	4/28/2014 - 5/5/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		Beta	1.68E-02	1.33E-03	2.97E-03
293114	5/5/2014 - 5/12/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		Beta	2.51E-02	1.48E-03	2.77E-03
294756	5/12/2014 - 5/19/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		Beta	1.62E-02	1.26E-03	2.71E-03
295282	5/19/2014 - 5/26/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		Beta	2.02E-02	1.35E-03	2.76E-03
295606	5/26/2014 - 6/2/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		Beta	1.89E-02	1.30E-03	2.69E-03
296008	6/2/2014 - 6/9/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		Beta	1.55E-02	1.23E-03	2.69E-03
296273	6/9/2014 - 6/16/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		Beta	1.54E-02	1.23E-03	2.67E-03
296803	6/16/2014 - 6/23/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		Beta	2.05E-02	1.30E-03	2.37E-03
297078	6/23/2014 - 6/30/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		Beta	1.56E-02	1.20E-03	2.54E-03
297312	3/31/2014 - 6/30/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		Cs-134	<4.99E-04	0.00E+00	4.99E-04
		Cs-137	<6.17E-04	0.00E+00	6.17E-04
		Be-7	1.19E-01	2.27E-02	1.64E-02
		K-40	1.78E-02	7.35E-03	1.91E-03
297433	6/30/2014 - 7/7/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		Beta	1.29E-02	2.26E-03	2.67E-03
297688	7/7/2014 - 7/14/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		Beta	1.42E-02	2.38E-03	2.75E-03
298245	7/14/2014 - 7/21/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		Beta	1.48E-02	2.43E-03	2.82E-03
350686	7/21/2014 - 7/28/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		Beta	1.45E-02	2.23E-03	2.32E-03
352338	7/28/2014 - 8/4/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		Beta	1.12E-02	2.16E-03	2.60E-03
351637	8/4/2014 - 8/11/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		Beta	2.21E-02	2.79E-03	2.89E-03

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 55 [ INDICATOR - SSE @ 0.2 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
354125	8/11/2014 - 8/18/2014	Beta	1.88E-02	2.56E-03	2.70E-03
353445	8/18/2014 - 8/25/2014	Beta	2.12E-02	2.59E-03	2.41E-03
354094	8/25/2014 - 9/1/2014	Beta	1.55E-02	2.31E-03	2.42E-03
354465	9/1/2014 - 9/8/2014	Beta	9.72E-03	2.02E-03	2.47E-03
354778	9/8/2014 - 9/15/2014	Beta	8.80E-03	2.04E-03	2.62E-03
355209	9/15/2014 - 9/22/2014	Beta	2.38E-02	2.79E-03	2.70E-03
355656	9/22/2014 - 9/29/2014	Beta	1.02E-02	2.14E-03	2.68E-03
355666	6/30/2014 - 9/29/2014	Cs-134	<5.61E-04	0.00E+00	5.61E-04
		Cs-137	<4.42E-04	0.00E+00	4.42E-04
		Be-7	8.21E-02	1.92E-02	1.68E-02
		K-40	1.57E-02	8.14E-03	8.19E-03
356536	9/29/2014 - 10/7/2014	Beta	2.30E-02	2.55E-03	2.46E-03
357069	10/7/2014 - 10/13/2014	Beta	1.45E-02	2.81E-03	3.52E-03
358066	10/13/2014 - 10/20/2014	Beta	1.49E-02	2.36E-03	2.60E-03
358672	10/20/2014 - 10/27/2014	Beta	1.55E-02	2.46E-03	2.83E-03
359324	10/27/2014 - 11/3/2014	Beta	2.15E-02	2.65E-03	2.53E-03
360050	11/3/2014 - 11/10/2014	Beta	1.92E-02	2.61E-03	2.76E-03
360730	11/10/2014 - 11/17/2014	Beta	2.31E-02	2.80E-03	2.73E-03
361590	11/17/2014 - 11/24/2014	Beta	2.06E-02	2.65E-03	2.64E-03
361968	11/24/2014 - 12/1/2014	Beta	1.55E-02	2.50E-03	2.85E-03
362803	12/1/2014 - 12/8/2014	Beta	2.14E-02	2.63E-03	2.49E-03
363541	12/8/2014 - 12/15/2014	Beta	2.12E-02	2.65E-03	2.60E-03
363986	12/15/2014 - 12/23/2014	Beta	2.16E-02	2.57E-03	2.56E-03
364530	12/23/2014 - 12/29/2014	Beta	1.32E-02	2.52E-03	2.98E-03
364540	9/29/2014 - 12/29/2014	Cs-134	<8.65E-04	0.00E+00	8.65E-04
		Cs-137	<7.32E-04	0.00E+00	7.32E-04
		Be-7	9.92E-02	2.00E-02	1.53E-02
		K-40	1.95E-02	9.87E-03	1.12E-02

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 60 [ INDICATOR - SE @ 0.2 miles ]

Sample ID	Sample Dates	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
280721	12/30/2013 - 1/6/2014	Beta	1.91E-02	1.41E-03	3.04E-03
280904	1/6/2014 - 1/13/2014	Beta	1.66E-02	1.28E-03	2.79E-03
281284	1/13/2014 - 1/20/2014	Beta	1.30E-02	1.19E-03	2.76E-03
281643	1/20/2014 - 1/27/2014	Beta	1.48E-02	1.34E-03	3.20E-03
282211	1/27/2014 - 2/3/2014	Beta	1.80E-02	1.35E-03	2.89E-03
283073	2/3/2014 - 2/10/2014	Beta	1.51E-02	1.25E-03	2.74E-03
283455	2/10/2014 - 2/17/2014	Beta	2.09E-02	1.37E-03	2.67E-03
284642	2/17/2014 - 2/24/2014	Beta	1.72E-02	1.35E-03	2.95E-03
285204	2/24/2014 - 3/3/2014	Beta	2.19E-02	1.39E-03	2.65E-03
285811	3/3/2014 - 3/10/2014	Beta	1.50E-02	1.29E-03	2.91E-03
286326	3/10/2014 - 3/17/2014	Beta	1.82E-02	1.31E-03	2.65E-03
287174	3/17/2014 - 3/24/2014	Beta	1.25E-02	1.17E-03	2.70E-03
288431	3/24/2014 - 3/31/2014	Beta	1.49E-02	1.28E-03	2.89E-03
289050	12/30/2013 - 3/31/2014	Cs-134	<2.82E-04	0.00E+00	2.82E-04
		Cs-137	<3.34E-04	0.00E+00	3.34E-04
		Be-7	1.19E-01	5.16E-03	4.62E-03
		K-40	1.10E-02	1.72E-03	2.56E-03
289165	3/31/2014 - 4/7/2014	Beta	1.11E-02	1.08E-03	2.60E-03
289551	4/7/2014 - 4/14/2014	Beta	1.76E-02	1.59E-03	3.67E-03
290033	4/14/2014 - 4/21/2014	Beta	1.69E-02	1.21E-03	2.42E-03
292114	4/21/2014 - 4/28/2014	Beta	1.55E-02	1.26E-03	2.75E-03
292844	4/28/2014 - 5/5/2014	Beta	1.57E-02	1.31E-03	3.01E-03
293115	5/5/2014 - 5/12/2014	Beta	2.53E-02	1.48E-03	2.75E-03
294757	5/12/2014 - 5/19/2014	Beta	1.92E-02	1.39E-03	2.89E-03
295283	5/19/2014 - 5/26/2014	Beta	1.80E-02	1.35E-03	2.89E-03
295607	5/26/2014 - 6/2/2014	Beta	1.70E-02	1.29E-03	2.81E-03

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 60 [ INDICATOR - SE @ 0.2 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
296009	6/2/2014 - 6/9/2014	Beta	1.31E-02	1.20E-03	2.82E-03
296274	6/9/2014 - 6/16/2014	Beta	1.69E-02	1.30E-03	2.76E-03
296804	6/16/2014 - 6/23/2014	Beta	2.15E-02	1.35E-03	2.46E-03
297079	6/23/2014 - 6/30/2014	Beta	1.50E-02	1.22E-03	2.66E-03
297314	3/31/2014 - 6/30/2014	Cs-134	<5.94E-04	0.00E+00	5.94E-04
		Cs-137	<5.54E-04	0.00E+00	5.54E-04
		Be-7	1.39E-01	3.09E-02	1.99E-02
		K-40	<2.18E-02	0.00E+00	2.18E-02
297434	6/30/2014 - 7/7/2014	Beta	1.25E-02	2.37E-03	2.87E-03
297689	7/7/2014 - 7/14/2014	Beta	1.30E-02	2.32E-03	2.74E-03
298246	7/14/2014 - 7/21/2014	Beta	1.33E-02	2.41E-03	2.91E-03
350688	7/21/2014 - 7/28/2014	Beta	1.44E-02	2.27E-03	2.39E-03
352340	7/28/2014 - 8/4/2014	Beta	1.13E-02	2.16E-03	2.59E-03
351641	8/4/2014 - 8/11/2014	Beta	2.26E-02	2.95E-03	3.11E-03
351658	8/11/2014 - 8/18/2014	Beta	1.88E-02	2.62E-03	2.79E-03
353447	8/18/2014 - 8/25/2014	Beta	1.99E-02	2.56E-03	2.46E-03
354098	8/25/2014 - 9/1/2014	Beta	1.29E-02	2.24E-03	2.52E-03
354467	9/1/2014 - 9/8/2014	Beta	1.11E-02	2.15E-03	2.57E-03
354780	9/8/2014 - 9/15/2014	Beta	8.74E-03	2.09E-03	2.71E-03
355214	9/15/2014 - 9/22/2014	Beta	2.54E-02	2.92E-03	2.78E-03
355658	9/22/2014 - 9/29/2014	Beta	9.95E-03	2.18E-03	2.74E-03
355668	6/30/2014 - 9/29/2014	Cs-134	<7.32E-04	0.00E+00	7.32E-04
		Cs-137	<6.76E-04	0.00E+00	6.76E-04
		Be-7	8.93E-02	1.98E-02	1.62E-02
		K-40	8.51E-03	9.07E-03	1.43E-02
356540	9/29/2014 - 10/7/2014	Beta	2.26E-02	2.60E-03	2.55E-03
357071	10/7/2014 - 10/13/2014	Beta	1.70E-02	3.00E-03	3.65E-03
358068	10/13/2014 - 10/20/2014	Beta	1.36E-02	2.35E-03	2.70E-03

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 60 [ INDICATOR - SE @ 0.2 miles ]

Sample ID	Sample Dates	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
358674	10/20/2014 - 10/27/2014	Beta	1.40E-02	2.44E-03	2.91E-03
359328	10/27/2014 - 11/3/2014	Beta	2.18E-02	2.77E-03	2.69E-03
360052	11/3/2014 - 11/10/2014	Beta	1.77E-02	2.60E-03	2.86E-03
360732	11/10/2014 - 11/17/2014	Beta	2.41E-02	2.90E-03	2.80E-03
361592	11/17/2014 - 11/24/2014	Beta	2.18E-02	2.76E-03	2.73E-03
361970	11/24/2014 - 12/1/2014	Beta	1.46E-02	2.51E-03	2.92E-03
362805	12/1/2014 - 12/8/2014	Beta	2.10E-02	2.66E-03	2.57E-03
363543	12/8/2014 - 12/15/2014	Beta	1.92E-02	2.60E-03	2.66E-03
363988	12/15/2014 - 12/23/2014	Beta	1.86E-02	2.50E-03	2.65E-03
364532	12/23/2014 - 12/29/2014	Beta	1.09E-02	2.43E-03	3.03E-03
364542	9/29/2014 - 12/29/2014	Cs-134	<6.67E-04	0.00E+00	6.67E-04
		Cs-137	<7.79E-04	0.00E+00	7.79E-04
		Be-7	9.48E-02	1.87E-02	1.11E-02
		K-40	1.53E-02	7.37E-03	2.31E-03

Sample Point 61 [ INDICATOR - WSW @ 0.3 miles ]

Sample ID	Sample Dates	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
280722	12/30/2013 - 1/6/2014	Beta	1.86E-02	1.50E-03	3.37E-03
280905	1/6/2014 - 1/13/2014	Beta	1.58E-02	1.36E-03	3.09E-03
281285	1/13/2014 - 1/20/2014	Beta	1.54E-02	1.35E-03	3.04E-03
281644	1/20/2014 - 1/27/2014	Beta	1.38E-02	1.42E-03	3.54E-03
282212	1/27/2014 - 2/3/2014	Beta	1.92E-02	1.48E-03	3.20E-03
283074	2/3/2014 - 2/10/2014	Beta	1.55E-02	1.36E-03	3.06E-03
283456	2/10/2014 - 2/17/2014	Beta	2.54E-02	1.56E-03	2.95E-03
284643	2/17/2014 - 2/24/2014	Beta	1.80E-02	1.47E-03	3.26E-03
285205	2/24/2014 - 3/3/2014	Beta	2.48E-02	1.56E-03	2.94E-03
285812	3/3/2014 - 3/10/2014	Beta	1.63E-02	1.42E-03	3.22E-03
286327	3/10/2014 - 3/17/2014	Beta	1.86E-02	1.28E-03	2.55E-03
287175	3/17/2014 - 3/24/2014	Beta	1.08E-02	1.10E-03	2.60E-03

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.





# ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 61 [ INDICATOR - WSW @ 0.3 miles ]

Sample ID	Sample Dates	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
288432	3/24/2014 - 3/31/2014	Beta	1.12E-02	1.12E-03	2.71E-03
289051	12/30/2013 - 3/31/2014	Cs-134	<4.02E-04	0.00E+00	4.02E-04
		Cs-137	<4.14E-04	0.00E+00	4.14E-04
		Be-7	1.06E-01	7.78E-03	7.36E-03
		K-40	1.90E-02	3.59E-03	5.46E-03
289166	3/31/2014 - 4/7/2014	Beta	1.25E-02	1.09E-03	2.50E-03
289552	4/7/2014 - 4/14/2014	Beta	1.69E-02	1.39E-03	3.10E-03
290034	4/14/2014 - 4/21/2014	Beta	1.86E-02	1.39E-03	2.83E-03
292115	4/21/2014 - 4/28/2014	Beta	1.78E-02	1.27E-03	2.63E-03
292845	4/28/2014 - 5/5/2014	Beta	1.66E-02	1.30E-03	2.90E-03
293116	5/5/2014 - 5/12/2014	Beta	2.97E-02	1.67E-03	3.03E-03
294758	5/12/2014 - 5/19/2014	Beta	1.89E-02	1.29E-03	2.63E-03
295284	5/19/2014 - 5/26/2014	Beta	1.81E-02	1.38E-03	2.99E-03
295608	5/26/2014 - 6/2/2014	Beta	1.80E-02	1.34E-03	2.87E-03
296010	6/2/2014 - 6/9/2014	Beta	1.37E-02	1.23E-03	2.84E-03
296275	6/9/2014 - 6/16/2014	Beta	1.44E-02	1.29E-03	2.94E-03
296805	6/16/2014 - 6/23/2014	Beta	1.69E-02	1.17E-03	2.23E-03
297080	6/23/2014 - 6/30/2014	Beta	1.50E-02	1.26E-03	2.79E-03
297315	3/31/2014 - 6/30/2014	Cs-134	<6.84E-04	0.00E+00	6.84E-04
		Cs-137	<9.32E-04	0.00E+00	9.32E-04
		Be-7	1.40E-01	3.52E-02	3.10E-02
		K-40	2.00E-02	1.41E-02	1.81E-02
297435	6/30/2014 - 7/7/2014	Beta	1.13E-02	2.43E-03	3.07E-03
297690	7/7/2014 - 7/14/2014	Beta	1.64E-02	2.59E-03	2.91E-03
298247	7/14/2014 - 7/21/2014	Beta	1.55E-02	2.63E-03	3.11E-03
350689	7/21/2014 - 7/28/2014	Beta	1.52E-02	2.39E-03	2.53E-03
352342	7/28/2014 - 8/4/2014	Beta	1.25E-02	2.39E-03	2.86E-03
351643	8/4/2014 - 8/11/2014	Beta	1.97E-02	2.87E-03	3.19E-03

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 61 [ INDICATOR - WSW @ 0.3 miles ]

Sample ID	Sample Dates	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
351661	8/11/2014 - 8/18/2014	Beta	1.93E-02	2.96E-03	3.29E-03
353448	8/18/2014 - 8/25/2014	Beta	1.78E-02	2.43E-03	2.40E-03
354100	8/25/2014 - 9/1/2014	Beta	1.41E-02	2.40E-03	2.67E-03
354468	9/1/2014 - 9/8/2014	Beta	1.03E-02	2.19E-03	2.72E-03
354781	9/8/2014 - 9/15/2014	Beta	8.94E-03	2.20E-03	2.88E-03
355216	9/15/2014 - 9/22/2014	Beta	2.64E-02	3.06E-03	2.94E-03
355659	9/22/2014 - 9/29/2014	Beta	1.08E-02	2.34E-03	2.95E-03
355669	6/30/2014 - 9/29/2014	Cs-134	<7.14E-04	0.00E+00	7.14E-04
		Cs-137	<8.29E-04	0.00E+00	8.29E-04
		Be-7	1.01E-01	2.24E-02	1.90E-02
		K-40	1.52E-02	7.50E-03	2.42E-03
356543	9/29/2014 - 10/7/2014	Beta	2.18E-02	2.66E-03	2.70E-03
357072	10/7/2014 - 10/13/2014	Beta	1.83E-02	3.19E-03	3.87E-03
358069	10/13/2014 - 10/20/2014	Beta	1.41E-02	2.46E-03	2.82E-03
358675	10/20/2014 - 10/27/2014	Beta	1.48E-02	2.60E-03	3.08E-03
359330	10/27/2014 - 11/3/2014	Beta	2.07E-02	2.75E-03	2.74E-03
360053	11/3/2014 - 11/10/2014	Beta	1.94E-02	2.80E-03	3.04E-03
360733	11/10/2014 - 11/17/2014	Beta	2.30E-02	2.99E-03	3.01E-03
361593	11/17/2014 - 11/24/2014	Beta	2.45E-02	2.97E-03	2.85E-03
361971	11/24/2014 - 12/1/2014	Beta	1.55E-02	2.66E-03	3.09E-03
362806	12/1/2014 - 12/8/2014	Beta	2.31E-02	2.86E-03	2.72E-03
363544	12/8/2014 - 12/15/2014	Beta	1.87E-02	2.68E-03	2.81E-03
363989	12/15/2014 - 12/23/2014	Beta	1.98E-02	2.65E-03	2.80E-03
364533	12/23/2014 - 12/29/2014	Beta	1.16E-02	2.54E-03	3.18E-03
364543	9/29/2014 - 12/29/2014	Cs-134	<7.85E-04	0.00E+00	7.85E-04
		Cs-137	<6.79E-04	0.00E+00	6.79E-04
		Be-7	9.59E-02	1.95E-02	1.31E-02
		K-40	<1.75E-02	0.00E+00	1.75E-02

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 1 [ CONTROL - ESE @ 24.4 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
280723	12/30/2013 - 1/6/2014	I-131	<2.62E-02	0.00E+00	2.62E-02
		Cs-134	<1.51E-02	0.00E+00	1.51E-02
		Cs-137	<1.96E-02	0.00E+00	1.96E-02
		Be-7	<1.26E-01	0.00E+00	1.26E-01
		K-40	5.98E-01	1.27E-01	2.59E-01
280906	1/6/2014 - 1/13/2014	I-131	<2.14E-02	0.00E+00	2.14E-02
		Cs-134	<1.52E-02	0.00E+00	1.52E-02
		Cs-137	<1.66E-02	0.00E+00	1.66E-02
		Be-7	<1.66E-01	0.00E+00	1.66E-01
		K-40	7.29E-01	1.43E-01	2.11E-01
281286	1/13/2014 - 1/20/2014	I-131	<2.41E-02	0.00E+00	2.41E-02
		Cs-134	<1.58E-02	0.00E+00	1.58E-02
		Cs-137	<1.90E-02	0.00E+00	1.90E-02
		Be-7	<1.61E-01	0.00E+00	1.61E-01
		K-40	5.47E-01	1.22E-01	2.06E-01
281645	1/20/2014 - 1/27/2014	I-131	<1.94E-02	0.00E+00	1.94E-02
		Cs-134	<1.84E-02	0.00E+00	1.84E-02
		Cs-137	<1.78E-02	0.00E+00	1.78E-02
		Be-7	<1.63E-01	0.00E+00	1.63E-01
		K-40	4.16E-01	1.07E-01	2.64E-01
282213	1/27/2014 - 2/3/2014	I-131	<2.75E-02	0.00E+00	2.75E-02
		Cs-134	<1.38E-02	0.00E+00	1.38E-02
		Cs-137	<1.99E-02	0.00E+00	1.99E-02
		Be-7	<1.56E-01	0.00E+00	1.56E-01
		K-40	4.98E-01	1.44E-01	3.08E-01
283075	2/3/2014 - 2/10/2014	I-131	<3.46E-02	0.00E+00	3.46E-02
		Cs-134	<1.35E-02	0.00E+00	1.35E-02
		Cs-137	<1.67E-02	0.00E+00	1.67E-02
		Be-7	<1.56E-01	0.00E+00	1.56E-01
		K-40	<7.05E-01	0.00E+00	7.05E-01
283457	2/10/2014 - 2/17/2014	I-131	<3.82E-02	0.00E+00	3.82E-02
		Cs-134	<2.04E-02	0.00E+00	2.04E-02
		Cs-137	<1.90E-02	0.00E+00	1.90E-02
		Be-7	<1.51E-01	0.00E+00	1.51E-01
		K-40	3.44E-01	1.56E-01	2.60E-01
284644	2/17/2014 - 2/24/2014	I-131	<2.20E-02	0.00E+00	2.20E-02
		Cs-134	<1.69E-02	0.00E+00	1.69E-02
		Cs-137	<1.99E-02	0.00E+00	1.99E-02
		Be-7	<1.44E-01	0.00E+00	1.44E-01
		K-40	4.69E-01	1.14E-01	2.06E-01
285206	2/24/2014 - 3/3/2014	I-131	<2.86E-02	0.00E+00	2.86E-02
		Cs-134	<1.77E-02	0.00E+00	1.77E-02
		Cs-137	<1.60E-02	0.00E+00	1.60E-02
		Be-7	<1.45E-01	0.00E+00	1.45E-01
		K-40	2.82E-01	1.14E-01	2.02E-01
285813	3/3/2014 - 3/10/2014	I-131	<2.69E-02	0.00E+00	2.69E-02
		Cs-134	<2.16E-02	0.00E+00	2.16E-02
		Cs-137	<2.28E-02	0.00E+00	2.28E-02
		Be-7	<1.91E-01	0.00E+00	1.91E-01
		K-40	3.96E-01	1.06E-01	2.05E-01

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 1 [ CONTROL - ESE @ 24.4 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
286328	3/10/2014 - 3/17/2014	I-131	<2.27E-02	0.00E+00	2.27E-02
		Cs-134	<1.72E-02	0.00E+00	1.72E-02
		Cs-137	<1.12E-02	0.00E+00	1.12E-02
		Be-7	<1.45E-01	0.00E+00	1.45E-01
		K-40	<4.12E-01	0.00E+00	4.12E-01
287176	3/17/2014 - 3/24/2014	I-131	<2.78E-02	0.00E+00	2.78E-02
		Cs-134	<1.32E-02	0.00E+00	1.32E-02
		Cs-137	<2.11E-02	0.00E+00	2.11E-02
		Be-7	<1.20E-01	0.00E+00	1.20E-01
		K-40	5.21E-01	1.16E-01	1.90E-01
288433	3/24/2014 - 3/31/2014	I-131	<2.30E-02	0.00E+00	2.30E-02
		Cs-134	<1.55E-02	0.00E+00	1.55E-02
		Cs-137	<1.59E-02	0.00E+00	1.59E-02
		Be-7	<1.32E-01	0.00E+00	1.32E-01
		K-40	<5.10E-01	0.00E+00	5.10E-01
289167	3/31/2014 - 4/7/2014	I-131	<3.24E-02	0.00E+00	3.24E-02
		Cs-134	<1.48E-02	0.00E+00	1.48E-02
		Cs-137	<1.85E-02	0.00E+00	1.85E-02
		Be-7	<1.13E-01	0.00E+00	1.13E-01
		K-40	2.90E-01	8.05E-02	6.04E-02
289553	4/7/2014 - 4/14/2014	I-131	<2.38E-02	0.00E+00	2.38E-02
		Cs-134	<1.96E-02	0.00E+00	1.96E-02
		Cs-137	<2.02E-02	0.00E+00	2.02E-02
		Be-7	<1.40E-01	0.00E+00	1.40E-01
		K-40	<6.63E-01	0.00E+00	6.63E-01
290035	4/14/2014 - 4/21/2014	I-131	<1.59E-02	0.00E+00	1.59E-02
		Cs-134	<1.14E-02	0.00E+00	1.14E-02
		Cs-137	<8.22E-03	0.00E+00	8.22E-03
		Be-7	<8.30E-02	0.00E+00	8.30E-02
		K-40	3.09E-01	9.64E-02	1.64E-01
292116	4/21/2014 - 4/28/2014	I-131	<2.39E-02	0.00E+00	2.39E-02
		Cs-134	<1.64E-02	0.00E+00	1.64E-02
		Cs-137	<1.30E-02	0.00E+00	1.30E-02
		Be-7	<1.04E-01	0.00E+00	1.04E-01
		K-40	<5.41E-01	0.00E+00	5.41E-01
292846	4/28/2014 - 5/5/2014	I-131	<2.17E-02	0.00E+00	2.17E-02
		Cs-134	<1.21E-02	0.00E+00	1.21E-02
		Cs-137	<1.92E-02	0.00E+00	1.92E-02
		Be-7	<1.06E-01	0.00E+00	1.06E-01
		K-40	3.26E-01	9.06E-02	2.28E-01
293117	5/5/2014 - 5/12/2014	I-131	<2.62E-02	0.00E+00	2.62E-02
		Cs-134	<1.54E-02	0.00E+00	1.54E-02
		Cs-137	<1.90E-02	0.00E+00	1.90E-02
		Be-7	<1.44E-01	0.00E+00	1.44E-01
		K-40	6.15E-01	1.49E-01	2.37E-01
294759	5/12/2014 - 5/19/2014	I-131	<2.32E-02	0.00E+00	2.32E-02
		Cs-134	<1.62E-02	0.00E+00	1.62E-02
		Cs-137	<1.13E-02	0.00E+00	1.13E-02
		Be-7	<1.71E-01	0.00E+00	1.71E-01
		K-40	4.36E-01	1.06E-01	1.89E-01

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 1 [ CONTROL - ESE @ 24.4 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
295285	5/19/2014 - 5/26/2014	I-131	<3.47E-02	0.00E+00	3.47E-02
		Cs-134	<1.89E-02	0.00E+00	1.89E-02
		Cs-137	<1.66E-02	0.00E+00	1.66E-02
		Be-7	<1.61E-01	0.00E+00	1.61E-01
		K-40	5.58E-01	1.63E-01	3.60E-01
295609	5/26/2014 - 6/2/2014	I-131	<1.77E-02	0.00E+00	1.77E-02
		Cs-134	<1.32E-02	0.00E+00	1.32E-02
		Cs-137	<1.74E-02	0.00E+00	1.74E-02
		Be-7	<1.26E-01	0.00E+00	1.26E-01
		K-40	6.06E-01	1.26E-01	7.12E-02
296011	6/2/2014 - 6/9/2014	I-131	<2.29E-02	0.00E+00	2.29E-02
		Cs-134	<1.30E-02	0.00E+00	1.30E-02
		Cs-137	<1.41E-02	0.00E+00	1.41E-02
		Be-7	<1.02E-01	0.00E+00	1.02E-01
		K-40	<4.55E-01	0.00E+00	4.55E-01
296276	6/9/2014 - 6/16/2014	I-131	<2.00E-02	0.00E+00	2.00E-02
		Cs-134	<1.34E-02	0.00E+00	1.34E-02
		Cs-137	<1.68E-02	0.00E+00	1.68E-02
		Be-7	<1.19E-01	0.00E+00	1.19E-01
		K-40	4.55E-01	1.10E-01	2.34E-01
296806	6/16/2014 - 6/23/2014	I-131	<2.52E-02	0.00E+00	2.52E-02
		Cs-134	<1.88E-02	0.00E+00	1.88E-02
		Cs-137	<1.44E-02	0.00E+00	1.44E-02
		Be-7	<9.27E-02	0.00E+00	9.27E-02
		K-40	4.25E-01	1.06E-01	1.98E-01
297081	6/23/2014 - 6/30/2014	I-131	<1.11E-02	0.00E+00	1.11E-02
		Cs-134	<8.15E-03	0.00E+00	8.15E-03
		Cs-137	<1.23E-02	0.00E+00	1.23E-02
		Be-7	<8.84E-02	0.00E+00	8.84E-02
		K-40	3.20E-01	9.67E-02	1.37E-01
297436	6/30/2014 - 7/7/2014	I-131	<3.76E-02	0.00E+00	3.76E-02
		Cs-134	<8.23E-03	0.00E+00	8.23E-03
		Cs-137	<7.72E-03	0.00E+00	7.72E-03
		Be-7	<6.83E-02	0.00E+00	6.83E-02
		K-40	3.55E-01	1.37E-01	1.03E-01
297691	7/7/2014 - 7/14/2014	I-131	<3.38E-02	0.00E+00	3.38E-02
		Cs-134	<1.67E-02	0.00E+00	1.67E-02
		Cs-137	<1.90E-02	0.00E+00	1.90E-02
		Be-7	<1.68E-01	0.00E+00	1.68E-01
		K-40	5.05E-01	2.36E-01	7.21E-02
298248	7/14/2014 - 7/21/2014	I-131	<3.37E-02	0.00E+00	3.37E-02
		Cs-134	<1.42E-02	0.00E+00	1.42E-02
		Cs-137	<1.96E-02	0.00E+00	1.96E-02
		Be-7	<1.34E-01	0.00E+00	1.34E-01
		K-40	3.58E-01	2.01E-01	7.45E-02
350691	7/21/2014 - 7/28/2014	I-131	<3.06E-02	0.00E+00	3.06E-02
		Cs-134	<1.73E-02	0.00E+00	1.73E-02
		Cs-137	<1.76E-02	0.00E+00	1.76E-02
		Be-7	<8.14E-02	0.00E+00	8.14E-02
		K-40	2.77E-01	1.93E-01	2.02E-01

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 1 [ CONTROL - ESE @ 24.4 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
352346	7/28/2014 - 8/4/2014	I-131	<1.83E-02	0.00E+00	1.83E-02
		Cs-134	<9.50E-03	0.00E+00	9.50E-03
		Cs-137	<1.50E-02	0.00E+00	1.50E-02
		Be-7	<1.23E-01	0.00E+00	1.23E-01
		K-40	5.70E-01	2.54E-01	7.36E-02
351647	8/4/2014 - 8/11/2014	I-131	<1.88E-02	0.00E+00	1.88E-02
		Cs-134	<1.28E-02	0.00E+00	1.28E-02
		Cs-137	<1.60E-02	0.00E+00	1.60E-02
		Be-7	<1.19E-01	0.00E+00	1.19E-01
		K-40	5.23E-01	2.50E-01	7.87E-02
351648	8/11/2014 - 8/18/2014	I-131	<2.46E-02	0.00E+00	2.46E-02
		Cs-134	<1.72E-02	0.00E+00	1.72E-02
		Cs-137	<1.44E-02	0.00E+00	1.44E-02
		Be-7	<9.19E-02	0.00E+00	9.19E-02
		K-40	<5.71E-01	0.00E+00	5.71E-01
353450	8/18/2014 - 8/25/2014	I-131	<3.02E-02	0.00E+00	3.02E-02
		Cs-134	<1.45E-02	0.00E+00	1.45E-02
		Cs-137	<1.76E-02	0.00E+00	1.76E-02
		Be-7	<1.34E-01	0.00E+00	1.34E-01
		K-40	2.01E-01	2.15E-01	3.28E-01
354105	8/25/2014 - 9/1/2014	I-131	<2.52E-02	0.00E+00	2.52E-02
		Cs-134	<2.72E-02	0.00E+00	2.72E-02
		Cs-137	<2.11E-02	0.00E+00	2.11E-02
		Be-7	<1.35E-01	0.00E+00	1.35E-01
		K-40	<4.31E-01	0.00E+00	4.31E-01
354470	9/1/2014 - 9/8/2014	I-131	<2.11E-02	0.00E+00	2.11E-02
		Cs-134	<1.79E-02	0.00E+00	1.79E-02
		Cs-137	<1.93E-02	0.00E+00	1.93E-02
		Be-7	<9.44E-02	0.00E+00	9.44E-02
		K-40	3.52E-01	1.97E-01	7.33E-02
354783	9/8/2014 - 9/15/2014	I-131	<3.20E-02	0.00E+00	3.20E-02
		Cs-134	<1.58E-02	0.00E+00	1.58E-02
		Cs-137	<1.51E-02	0.00E+00	1.51E-02
		Be-7	<1.32E-01	0.00E+00	1.32E-01
		K-40	4.59E-01	2.48E-01	2.36E-01
355220	9/15/2014 - 9/22/2014	I-131	<2.15E-02	0.00E+00	2.15E-02
		Cs-134	<1.72E-02	0.00E+00	1.72E-02
		Cs-137	<1.97E-02	0.00E+00	1.97E-02
		Be-7	<1.46E-01	0.00E+00	1.46E-01
		K-40	6.88E-01	3.16E-01	3.11E-01
355671	9/22/2014 - 9/29/2014	I-131	<2.32E-02	0.00E+00	2.32E-02
		Cs-134	<1.23E-02	0.00E+00	1.23E-02
		Cs-137	<1.53E-02	0.00E+00	1.53E-02
		Be-7	<1.37E-01	0.00E+00	1.37E-01
		K-40	5.27E-01	2.46E-01	7.52E-02
356547	9/29/2014 - 10/7/2014	I-131	<3.43E-02	0.00E+00	3.43E-02
		Cs-134	<1.81E-02	0.00E+00	1.81E-02
		Cs-137	<1.61E-02	0.00E+00	1.61E-02
		Be-7	<7.59E-02	0.00E+00	7.59E-02
		K-40	2.27E-01	1.53E-01	6.84E-02

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.





# ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 1 [ CONTROL - ESE @ 24.4 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
358071	10/13/2014 - 10/20/2014	I-131	<2.16E-02	0.00E+00	2.16E-02
		Cs-134	<1.49E-02	0.00E+00	1.49E-02
		Cs-137	<1.61E-02	0.00E+00	1.61E-02
		Be-7	<1.18E-01	0.00E+00	1.18E-01
		K-40	3.36E-01	2.96E-01	4.39E-01
358677	10/20/2014 - 10/27/2014	I-131	<1.69E-02	0.00E+00	1.69E-02
		Cs-134	<1.05E-02	0.00E+00	1.05E-02
		Cs-137	<1.31E-02	0.00E+00	1.31E-02
		Be-7	<8.30E-02	0.00E+00	8.30E-02
		K-40	4.14E-01	2.04E-01	6.60E-02
359334	10/27/2014 - 11/3/2014	I-131	<1.52E-02	0.00E+00	1.52E-02
		Cs-134	<7.58E-03	0.00E+00	7.58E-03
		Cs-137	<1.39E-02	0.00E+00	1.39E-02
		Be-7	<8.75E-02	0.00E+00	8.75E-02
		K-40	2.70E-01	1.91E-01	2.38E-01
360055	11/3/2014 - 11/10/2014	I-131	<2.51E-02	0.00E+00	2.51E-02
		Cs-134	<1.79E-02	0.00E+00	1.79E-02
		Cs-137	<1.58E-02	0.00E+00	1.58E-02
		Be-7	<1.55E-01	0.00E+00	1.55E-01
		K-40	5.73E-01	2.61E-01	7.76E-02
360735	11/10/2014 - 11/17/2014	I-131	<2.40E-02	0.00E+00	2.40E-02
		Cs-134	<1.51E-02	0.00E+00	1.51E-02
		Cs-137	<1.88E-02	0.00E+00	1.88E-02
		Be-7	<1.32E-01	0.00E+00	1.32E-01
		K-40	<5.94E-01	0.00E+00	5.94E-01
361595	11/17/2014 - 11/24/2014	I-131	<4.86E-02	0.00E+00	4.86E-02
		Cs-134	<4.64E-03	0.00E+00	4.64E-03
		Cs-137	<5.86E-03	0.00E+00	5.86E-03
		Be-7	<5.80E-02	0.00E+00	5.80E-02
		K-40	4.88E-01	1.14E-01	8.98E-02
361973	11/24/2014 - 12/1/2014	I-131	<1.86E-02	0.00E+00	1.86E-02
		Cs-134	<8.42E-03	0.00E+00	8.42E-03
		Cs-137	<1.19E-02	0.00E+00	1.19E-02
		Be-7	<6.74E-02	0.00E+00	6.74E-02
		K-40	2.81E-01	1.36E-01	1.28E-01
362808	12/1/2014 - 12/8/2014	I-131	<2.30E-02	0.00E+00	2.30E-02
		Cs-134	<1.18E-02	0.00E+00	1.18E-02
		Cs-137	<1.48E-02	0.00E+00	1.48E-02
		Be-7	<9.82E-02	0.00E+00	9.82E-02
		K-40	3.29E-01	2.31E-01	3.03E-01
363546	12/8/2014 - 12/15/2014	I-131	<5.78E-03	0.00E+00	5.78E-03
		Cs-134	<9.53E-03	0.00E+00	9.53E-03
		Cs-137	<1.25E-02	0.00E+00	1.25E-02
		Be-7	<8.51E-02	0.00E+00	8.51E-02
		K-40	2.72E-01	1.58E-01	2.02E-01
363991	12/15/2014 - 12/23/2014	I-131	<1.35E-02	0.00E+00	1.35E-02
		Cs-134	<6.22E-03	0.00E+00	6.22E-03
		Cs-137	<3.77E-03	0.00E+00	3.77E-03
		Be-7	<4.28E-02	0.00E+00	4.28E-02
		K-40	2.25E-01	1.09E-01	1.24E-01

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 1 [ CONTROL - ESE @ 24.4 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
364545	12/23/2014 - 12/29/2014	I-131	<1.94E-02	0.00E+00	1.94E-02
		Cs-134	<1.08E-02	0.00E+00	1.08E-02
		Cs-137	<1.33E-02	0.00E+00	1.33E-02
		Be-7	<1.22E-01	0.00E+00	1.22E-01
		K-40	5.05E-01	2.49E-01	2.87E-01

Sample Point 2 [ INDICATOR - S @ 0.2 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
280724	12/30/2013 - 1/6/2014	I-131	<2.00E-02	0.00E+00	2.00E-02
		Cs-134	<2.11E-02	0.00E+00	2.11E-02
		Cs-137	<2.02E-02	0.00E+00	2.02E-02
		Be-7	<1.39E-01	0.00E+00	1.39E-01
		K-40	6.20E-01	1.29E-01	2.03E-01

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
280907	1/6/2014 - 1/13/2014	I-131	<1.94E-02	0.00E+00	1.94E-02
		Cs-134	<1.64E-02	0.00E+00	1.64E-02
		Cs-137	<1.27E-02	0.00E+00	1.27E-02
		Be-7	<1.41E-01	0.00E+00	1.41E-01
		K-40	3.74E-01	9.98E-02	2.38E-01

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
281287	1/13/2014 - 1/20/2014	I-131	<1.70E-02	0.00E+00	1.70E-02
		Cs-134	<1.08E-02	0.00E+00	1.08E-02
		Cs-137	<1.43E-02	0.00E+00	1.43E-02
		Be-7	<8.47E-02	0.00E+00	8.47E-02
		K-40	4.18E-01	9.59E-02	1.56E-01

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
281646	1/20/2014 - 1/27/2014	I-131	<1.93E-02	0.00E+00	1.93E-02
		Cs-134	<1.36E-02	0.00E+00	1.36E-02
		Cs-137	<1.38E-02	0.00E+00	1.38E-02
		Be-7	<1.30E-01	0.00E+00	1.30E-01
		K-40	3.80E-01	1.37E-01	2.02E-01

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
282214	1/27/2014 - 2/3/2014	I-131	<2.94E-02	0.00E+00	2.94E-02
		Cs-134	<1.51E-02	0.00E+00	1.51E-02
		Cs-137	<1.76E-02	0.00E+00	1.76E-02
		Be-7	<9.16E-02	0.00E+00	9.16E-02
		K-40	5.60E-01	1.22E-01	2.37E-01

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
283076	2/3/2014 - 2/10/2014	I-131	<3.63E-02	0.00E+00	3.63E-02
		Cs-134	<1.52E-02	0.00E+00	1.52E-02
		Cs-137	<1.63E-02	0.00E+00	1.63E-02
		Be-7	<1.59E-01	0.00E+00	1.59E-01
		K-40	4.60E-01	1.12E-01	2.50E-01

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
283458	2/10/2014 - 2/17/2014	I-131	<2.78E-02	0.00E+00	2.78E-02
		Cs-134	<1.75E-02	0.00E+00	1.75E-02
		Cs-137	<2.18E-02	0.00E+00	2.18E-02
		Be-7	<1.32E-01	0.00E+00	1.32E-01
		K-40	<3.91E-01	0.00E+00	3.91E-01

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
284645	2/17/2014 - 2/24/2014	I-131	<1.40E-02	0.00E+00	1.40E-02
		Cs-134	<1.06E-02	0.00E+00	1.06E-02
		Cs-137	<9.14E-03	0.00E+00	9.14E-03
		Be-7	<1.08E-01	0.00E+00	1.08E-01
		K-40	3.45E-01	8.90E-02	1.64E-01

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
285207	2/24/2014 - 3/3/2014	I-131	<2.56E-02	0.00E+00	2.56E-02
		Cs-134	<1.78E-02	0.00E+00	1.78E-02
		Cs-137	<1.84E-02	0.00E+00	1.84E-02

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 2 [ INDICATOR - S @ 0.2 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
285207	2/24/2014 - 3/3/2014	Be-7	<1.44E-01	0.00E+00	1.44E-01
		K-40	5.22E-01	1.43E-01	3.31E-01
285814	3/3/2014 - 3/10/2014	I-131	<2.39E-02	0.00E+00	2.39E-02
		Cs-134	<1.37E-02	0.00E+00	1.37E-02
		Cs-137	<1.99E-02	0.00E+00	1.99E-02
		Be-7	<1.54E-01	0.00E+00	1.54E-01
		K-40	3.32E-01	1.16E-01	1.98E-01
286329	3/10/2014 - 3/17/2014	I-131	<1.02E-02	0.00E+00	1.02E-02
		Cs-134	<1.22E-02	0.00E+00	1.22E-02
		Cs-137	<9.62E-03	0.00E+00	9.62E-03
		Be-7	<6.85E-02	0.00E+00	6.85E-02
		K-40	2.46E-01	1.00E-01	2.05E-01
287177	3/17/2014 - 3/24/2014	I-131	<3.08E-02	0.00E+00	3.08E-02
		Cs-134	<1.92E-02	0.00E+00	1.92E-02
		Cs-137	<2.42E-02	0.00E+00	2.42E-02
		Be-7	<1.57E-01	0.00E+00	1.57E-01
		K-40	8.46E-01	1.63E-01	8.47E-02
288434	3/24/2014 - 3/31/2014	I-131	<1.55E-02	0.00E+00	1.55E-02
		Cs-134	<7.35E-03	0.00E+00	7.35E-03
		Cs-137	<1.06E-02	0.00E+00	1.06E-02
		Be-7	<7.59E-02	0.00E+00	7.59E-02
		K-40	5.60E-01	9.90E-02	4.73E-02
289168	3/31/2014 - 4/7/2014	I-131	<3.38E-02	0.00E+00	3.38E-02
		Cs-134	<1.52E-02	0.00E+00	1.52E-02
		Cs-137	<1.39E-02	0.00E+00	1.39E-02
		Be-7	<1.32E-01	0.00E+00	1.32E-01
		K-40	3.87E-01	9.99E-02	1.86E-01
289554	4/7/2014 - 4/14/2014	I-131	<2.98E-02	0.00E+00	2.98E-02
		Cs-134	<1.74E-02	0.00E+00	1.74E-02
		Cs-137	<2.32E-02	0.00E+00	2.32E-02
		Be-7	<2.10E-01	0.00E+00	2.10E-01
		K-40	5.30E-01	1.32E-01	2.50E-01
290036	4/14/2014 - 4/21/2014	I-131	<3.10E-02	0.00E+00	3.10E-02
		Cs-134	<1.91E-02	0.00E+00	1.91E-02
		Cs-137	<1.84E-02	0.00E+00	1.84E-02
		Be-7	<1.51E-01	0.00E+00	1.51E-01
		K-40	4.43E-01	1.41E-01	2.58E-01
292117	4/21/2014 - 4/28/2014	I-131	<1.88E-02	0.00E+00	1.88E-02
		Cs-134	<1.39E-02	0.00E+00	1.39E-02
		Cs-137	<1.96E-02	0.00E+00	1.96E-02
		Be-7	<1.33E-01	0.00E+00	1.33E-01
		K-40	8.09E-01	1.60E-01	2.25E-01
292847	4/28/2014 - 5/5/2014	I-131	<2.03E-02	0.00E+00	2.03E-02
		Cs-134	<9.37E-03	0.00E+00	9.37E-03
		Cs-137	<1.55E-02	0.00E+00	1.55E-02
		Be-7	<1.22E-01	0.00E+00	1.22E-01
		K-40	4.64E-01	1.01E-01	5.98E-02
293118	5/5/2014 - 5/12/2014	I-131	<2.36E-02	0.00E+00	2.36E-02

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 2 [ INDICATOR - S @ 0.2 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
293118	5/5/2014 - 5/12/2014	Cs-134	<2.44E-02	0.00E+00	2.44E-02
		Cs-137	<2.39E-02	0.00E+00	2.39E-02
		Be-7	<1.29E-01	0.00E+00	1.29E-01
		K-40	<5.29E-01	0.00E+00	5.29E-01
294760	5/12/2014 - 5/19/2014	I-131	<2.36E-02	0.00E+00	2.36E-02
		Cs-134	<1.11E-02	0.00E+00	1.11E-02
		Cs-137	<1.31E-02	0.00E+00	1.31E-02
		Be-7	<1.17E-01	0.00E+00	1.17E-01
		K-40	6.89E-01	1.48E-01	2.61E-01
295286	5/19/2014 - 5/26/2014	I-131	<2.52E-02	0.00E+00	2.52E-02
		Cs-134	<1.86E-02	0.00E+00	1.86E-02
		Cs-137	<1.88E-02	0.00E+00	1.88E-02
		Be-7	<1.32E-01	0.00E+00	1.32E-01
		K-40	<6.12E-01	0.00E+00	6.12E-01
295610	5/26/2014 - 6/2/2014	I-131	<2.23E-02	0.00E+00	2.23E-02
		Cs-134	<2.20E-02	0.00E+00	2.20E-02
		Cs-137	<1.54E-02	0.00E+00	1.54E-02
		Be-7	<1.39E-01	0.00E+00	1.39E-01
		K-40	7.11E-01	1.42E-01	2.55E-01
296012	6/2/2014 - 6/9/2014	I-131	<1.42E-02	0.00E+00	1.42E-02
		Cs-134	<1.50E-02	0.00E+00	1.50E-02
		Cs-137	<1.40E-02	0.00E+00	1.40E-02
		Be-7	<1.16E-01	0.00E+00	1.16E-01
		K-40	<4.48E-01	0.00E+00	4.48E-01
296277	6/9/2014 - 6/16/2014	I-131	<2.02E-02	0.00E+00	2.02E-02
		Cs-134	<1.08E-02	0.00E+00	1.08E-02
		Cs-137	<1.86E-02	0.00E+00	1.86E-02
		Be-7	<1.33E-01	0.00E+00	1.33E-01
		K-40	5.26E-01	1.35E-01	2.09E-01
296807	6/16/2014 - 6/23/2014	I-131	<2.12E-02	0.00E+00	2.12E-02
		Cs-134	<1.08E-02	0.00E+00	1.08E-02
		Cs-137	<1.37E-02	0.00E+00	1.37E-02
		Be-7	<1.19E-01	0.00E+00	1.19E-01
		K-40	4.61E-01	1.06E-01	1.85E-01
297082	6/23/2014 - 6/30/2014	I-131	<2.56E-02	0.00E+00	2.56E-02
		Cs-134	<2.15E-02	0.00E+00	2.15E-02
		Cs-137	<2.69E-02	0.00E+00	2.69E-02
		Be-7	<1.78E-01	0.00E+00	1.78E-01
		K-40	4.66E-01	1.43E-01	2.12E-01
297437	6/30/2014 - 7/7/2014	I-131	<5.88E-02	0.00E+00	5.88E-02
		Cs-134	<9.97E-03	0.00E+00	9.97E-03
		Cs-137	<9.37E-03	0.00E+00	9.37E-03
		Be-7	<1.00E-01	0.00E+00	1.00E-01
		K-40	3.06E-01	1.76E-01	2.22E-01
297692	7/7/2014 - 7/14/2014	I-131	<4.72E-02	0.00E+00	4.72E-02
		Cs-134	<1.08E-02	0.00E+00	1.08E-02
		Cs-137	<1.56E-02	0.00E+00	1.56E-02
		Be-7	<1.43E-01	0.00E+00	1.43E-01
		K-40	4.46E-01	2.38E-01	2.32E-01

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 2 [ INDICATOR - S @ 0.2 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
298249	7/14/2014 - 7/21/2014	I-131	<3.77E-02	0.00E+00	3.77E-02
		Cs-134	<1.34E-02	0.00E+00	1.34E-02
		Cs-137	<1.93E-02	0.00E+00	1.93E-02
		Be-7	<1.14E-01	0.00E+00	1.14E-01
		K-40	2.42E-01	2.12E-01	2.85E-01
350692	7/21/2014 - 7/28/2014	I-131	<3.46E-02	0.00E+00	3.46E-02
		Cs-134	<1.58E-02	0.00E+00	1.58E-02
		Cs-137	<1.96E-02	0.00E+00	1.96E-02
		Be-7	<1.61E-01	0.00E+00	1.61E-01
		K-40	<7.21E-01	0.00E+00	7.21E-01
352348	7/28/2014 - 8/4/2014	I-131	<2.27E-02	0.00E+00	2.27E-02
		Cs-134	<1.56E-02	0.00E+00	1.56E-02
		Cs-137	<2.37E-02	0.00E+00	2.37E-02
		Be-7	<1.38E-01	0.00E+00	1.38E-01
		K-40	5.96E-01	2.98E-01	2.73E-01
351666	8/4/2014 - 8/11/2014	I-131	<2.99E-02	0.00E+00	2.99E-02
		Cs-134	<1.39E-02	0.00E+00	1.39E-02
		Cs-137	<2.24E-02	0.00E+00	2.24E-02
		Be-7	<1.11E-01	0.00E+00	1.11E-01
		K-40	6.74E-01	3.22E-01	2.93E-01
351649	8/11/2014 - 8/18/2014	I-131	<3.06E-02	0.00E+00	3.06E-02
		Cs-134	<2.36E-02	0.00E+00	2.36E-02
		Cs-137	<1.97E-02	0.00E+00	1.97E-02
		Be-7	<1.65E-01	0.00E+00	1.65E-01
		K-40	4.31E-01	2.33E-01	8.34E-02
353451	8/18/2014 - 8/25/2014	I-131	<3.47E-02	0.00E+00	3.47E-02
		Cs-134	<2.91E-02	0.00E+00	2.91E-02
		Cs-137	<1.98E-02	0.00E+00	1.98E-02
		Be-7	<1.36E-01	0.00E+00	1.36E-01
		K-40	<6.06E-01	0.00E+00	6.06E-01
354107	8/25/2014 - 9/1/2014	I-131	<1.97E-02	0.00E+00	1.97E-02
		Cs-134	<2.62E-02	0.00E+00	2.62E-02
		Cs-137	<4.93E-03	0.00E+00	4.93E-03
		Be-7	<1.26E-01	0.00E+00	1.26E-01
		K-40	4.60E-01	2.41E-01	8.32E-02
354471	9/1/2014 - 9/8/2014	I-131	<2.59E-02	0.00E+00	2.59E-02
		Cs-134	<2.02E-02	0.00E+00	2.02E-02
		Cs-137	<4.91E-03	0.00E+00	4.91E-03
		Be-7	<1.51E-01	0.00E+00	1.51E-01
		K-40	<5.56E-01	0.00E+00	5.56E-01
354784	9/8/2014 - 9/15/2014	I-131	<3.41E-02	0.00E+00	3.41E-02
		Cs-134	<1.09E-02	0.00E+00	1.09E-02
		Cs-137	<2.41E-02	0.00E+00	2.41E-02
		Be-7	<1.33E-01	0.00E+00	1.33E-01
		K-40	<6.42E-01	0.00E+00	6.42E-01
355222	9/15/2014 - 9/22/2014	I-131	<2.26E-02	0.00E+00	2.26E-02
		Cs-134	<1.08E-02	0.00E+00	1.08E-02
		Cs-137	<1.70E-02	0.00E+00	1.70E-02
		Be-7	<1.84E-01	0.00E+00	1.84E-01
		K-40	<5.82E-01	0.00E+00	5.82E-01

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 2 [ INDICATOR - S @ 0.2 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
355672	9/22/2014 - 9/29/2014	I-131	<2.08E-02	0.00E+00	2.08E-02
		Cs-134	<1.58E-02	0.00E+00	1.58E-02
		Cs-137	<1.97E-02	0.00E+00	1.97E-02
		Be-7	<1.25E-01	0.00E+00	1.25E-01
		K-40	<6.76E-01	0.00E+00	6.76E-01
356549	9/29/2014 - 10/7/2014	I-131	<2.40E-02	0.00E+00	2.40E-02
		Cs-134	<1.55E-02	0.00E+00	1.55E-02
		Cs-137	<2.53E-02	0.00E+00	2.53E-02
		Be-7	<1.44E-01	0.00E+00	1.44E-01
		K-40	4.04E-01	2.11E-01	7.29E-02
357075	10/7/2014 - 10/13/2014	I-131	<1.92E-02	0.00E+00	1.92E-02
		Cs-134	<2.09E-02	0.00E+00	2.09E-02
		Cs-137	<2.60E-02	0.00E+00	2.60E-02
		Be-7	<1.65E-01	0.00E+00	1.65E-01
		K-40	4.31E-01	3.06E-01	3.80E-01
358072	10/13/2014 - 10/20/2014	I-131	<2.47E-02	0.00E+00	2.47E-02
		Cs-134	<1.08E-02	0.00E+00	1.08E-02
		Cs-137	<1.70E-02	0.00E+00	1.70E-02
		Be-7	<1.53E-01	0.00E+00	1.53E-01
		K-40	<6.03E-01	0.00E+00	6.03E-01
358678	10/20/2014 - 10/27/2014	I-131	<1.66E-02	0.00E+00	1.66E-02
		Cs-134	<1.05E-02	0.00E+00	1.05E-02
		Cs-137	<2.12E-02	0.00E+00	2.12E-02
		Be-7	<1.17E-01	0.00E+00	1.17E-01
		K-40	4.71E-01	2.20E-01	6.72E-02
359336	10/27/2014 - 11/3/2014	I-131	<2.30E-02	0.00E+00	2.30E-02
		Cs-134	<1.06E-02	0.00E+00	1.06E-02
		Cs-137	<1.33E-02	0.00E+00	1.33E-02
		Be-7	<8.34E-02	0.00E+00	8.34E-02
		K-40	<5.35E-01	0.00E+00	5.35E-01
360056	11/3/2014 - 11/10/2014	I-131	<2.01E-02	0.00E+00	2.01E-02
		Cs-134	<1.07E-02	0.00E+00	1.07E-02
		Cs-137	<1.33E-02	0.00E+00	1.33E-02
		Be-7	<1.26E-01	0.00E+00	1.26E-01
		K-40	<6.87E-01	0.00E+00	6.87E-01
360736	11/10/2014 - 11/17/2014	I-131	<2.81E-02	0.00E+00	2.81E-02
		Cs-134	<1.95E-02	0.00E+00	1.95E-02
		Cs-137	<1.72E-02	0.00E+00	1.72E-02
		Be-7	<1.43E-01	0.00E+00	1.43E-01
		K-40	6.55E-01	2.91E-01	8.45E-02
361596	11/17/2014 - 11/24/2014	I-131	<5.56E-02	0.00E+00	5.56E-02
		Cs-134	<1.82E-02	0.00E+00	1.82E-02
		Cs-137	<1.05E-02	0.00E+00	1.05E-02
		Be-7	<9.73E-02	0.00E+00	9.73E-02
		K-40	<6.00E-01	0.00E+00	6.00E-01
361974	11/24/2014 - 12/1/2014	I-131	<3.42E-02	0.00E+00	3.42E-02
		Cs-134	<8.62E-03	0.00E+00	8.62E-03
		Cs-137	<1.36E-02	0.00E+00	1.36E-02
		Be-7	<1.40E-01	0.00E+00	1.40E-01
		K-40	<5.62E-01	0.00E+00	5.62E-01

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.





# ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

## Sample Point 2 [ INDICATOR - S @ 0.2 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
362809	12/11/2014 - 12/8/2014	I-131	<2.98E-02	0.00E+00	2.98E-02
		Cs-134	<1.49E-02	0.00E+00	1.49E-02
		Cs-137	<1.04E-02	0.00E+00	1.04E-02
		Be-7	<1.33E-01	0.00E+00	1.33E-01
		K-40	<5.17E-01	0.00E+00	5.17E-01
363547	12/8/2014 - 12/15/2014	I-131	<1.35E-02	0.00E+00	1.35E-02
		Cs-134	<9.88E-03	0.00E+00	9.88E-03
		Cs-137	<1.31E-02	0.00E+00	1.31E-02
		Be-7	<9.81E-02	0.00E+00	9.81E-02
		K-40	4.49E-01	1.94E-01	2.05E-01
363992	12/15/2014 - 12/23/2014	I-131	<1.60E-02	0.00E+00	1.60E-02
		Cs-134	<5.62E-03	0.00E+00	5.62E-03
		Cs-137	<8.17E-03	0.00E+00	8.17E-03
		Be-7	<6.39E-02	0.00E+00	6.39E-02
		K-40	3.69E-01	1.24E-01	2.63E-02
364546	12/23/2014 - 12/29/2014	I-131	<2.01E-02	0.00E+00	2.01E-02
		Cs-134	<1.49E-02	0.00E+00	1.49E-02
		Cs-137	<9.64E-03	0.00E+00	9.64E-03
		Be-7	<1.03E-01	0.00E+00	1.03E-01
		K-40	6.02E-01	2.68E-01	2.79E-01

## Sample Point 3 [ INDICATOR - N @ 0.5 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
280725	12/30/2013 - 1/6/2014	I-131	<2.83E-02	0.00E+00	2.83E-02
		Cs-134	<1.57E-02	0.00E+00	1.57E-02
		Cs-137	<2.06E-02	0.00E+00	2.06E-02
		Be-7	<1.18E-01	0.00E+00	1.18E-01
		K-40	<5.16E-01	0.00E+00	5.16E-01
280908	1/6/2014 - 1/13/2014	I-131	<1.78E-02	0.00E+00	1.78E-02
		Cs-134	<1.43E-02	0.00E+00	1.43E-02
		Cs-137	<1.88E-02	0.00E+00	1.88E-02
		Be-7	<1.58E-01	0.00E+00	1.58E-01
		K-40	4.00E-01	1.03E-01	2.54E-01
281288	1/13/2014 - 1/20/2014	I-131	<9.90E-03	0.00E+00	9.90E-03
		Cs-134	<7.45E-03	0.00E+00	7.45E-03
		Cs-137	<6.40E-03	0.00E+00	6.40E-03
		Be-7	<7.09E-02	0.00E+00	7.09E-02
		K-40	4.35E-01	7.97E-02	1.19E-01
281647	1/20/2014 - 1/27/2014	I-131	<2.27E-02	0.00E+00	2.27E-02
		Cs-134	<1.53E-02	0.00E+00	1.53E-02
		Cs-137	<1.80E-02	0.00E+00	1.80E-02
		Be-7	<1.70E-01	0.00E+00	1.70E-01
		K-40	5.03E-01	1.79E-01	2.43E-01
282215	1/27/2014 - 2/3/2014	I-131	<1.60E-02	0.00E+00	1.60E-02
		Cs-134	<1.43E-02	0.00E+00	1.43E-02
		Cs-137	<1.72E-02	0.00E+00	1.72E-02
		Be-7	<1.40E-01	0.00E+00	1.40E-01
		K-40	6.53E-01	1.33E-01	7.36E-02
283077	2/3/2014 - 2/10/2014	I-131	<3.47E-02	0.00E+00	3.47E-02
		Cs-134	<2.06E-02	0.00E+00	2.06E-02
		Cs-137	<1.17E-02	0.00E+00	1.17E-02

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m<sup>3</sup>

Sample Point 3 [ INDICATOR - N @ 0.5 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
283077	2/3/2014 - 2/10/2014	Be-7	<1.26E-01	0.00E+00	1.26E-01
		K-40	<6.20E-01	0.00E+00	6.20E-01
283459	2/10/2014 - 2/17/2014	I-131	<3.45E-02	0.00E+00	3.45E-02
		Cs-134	<1.75E-02	0.00E+00	1.75E-02
		Cs-137	<2.30E-02	0.00E+00	2.30E-02
		Be-7	<1.27E-01	0.00E+00	1.27E-01
		K-40	4.74E-01	1.15E-01	7.53E-02
284646	2/17/2014 - 2/24/2014	I-131	<1.60E-02	0.00E+00	1.60E-02
		Cs-134	<1.07E-02	0.00E+00	1.07E-02
		Cs-137	<1.52E-02	0.00E+00	1.52E-02
		Be-7	<9.71E-02	0.00E+00	9.71E-02
		K-40	4.35E-01	9.73E-02	5.88E-02
285208	2/24/2014 - 3/3/2014	I-131	<2.66E-02	0.00E+00	2.66E-02
		Cs-134	<1.51E-02	0.00E+00	1.51E-02
		Cs-137	<1.77E-02	0.00E+00	1.77E-02
		Be-7	<1.31E-01	0.00E+00	1.31E-01
		K-40	2.39E-01	1.15E-01	3.32E-01
285815	3/3/2014 - 3/10/2014	I-131	<2.89E-02	0.00E+00	2.89E-02
		Cs-134	<9.57E-03	0.00E+00	9.57E-03
		Cs-137	<1.51E-02	0.00E+00	1.51E-02
		Be-7	<1.41E-01	0.00E+00	1.41E-01
		K-40	5.30E-01	1.22E-01	2.03E-01
286330	3/10/2014 - 3/17/2014	I-131	<1.11E-02	0.00E+00	1.11E-02
		Cs-134	<7.36E-03	0.00E+00	7.36E-03
		Cs-137	<1.06E-02	0.00E+00	1.06E-02
		Be-7	<8.64E-02	0.00E+00	8.64E-02
		K-40	4.50E-01	7.12E-02	8.13E-02
287178	3/17/2014 - 3/24/2014	I-131	<1.67E-02	0.00E+00	1.67E-02
		Cs-134	<9.17E-03	0.00E+00	9.17E-03
		Cs-137	<1.28E-02	0.00E+00	1.28E-02
		Be-7	<7.25E-02	0.00E+00	7.25E-02
		K-40	3.96E-01	8.64E-02	1.41E-01
288435	3/24/2014 - 3/31/2014	I-131	<1.36E-02	0.00E+00	1.36E-02
		Cs-134	<6.10E-03	0.00E+00	6.10E-03
		Cs-137	<8.11E-03	0.00E+00	8.11E-03
		Be-7	<8.61E-02	0.00E+00	8.61E-02
		K-40	5.04E-01	7.69E-02	1.11E-01
289169	3/31/2014 - 4/7/2014	I-131	<3.78E-02	0.00E+00	3.78E-02
		Cs-134	<1.82E-02	0.00E+00	1.82E-02
		Cs-137	<2.20E-02	0.00E+00	2.20E-02
		Be-7	<1.06E-01	0.00E+00	1.06E-01
		K-40	5.28E-01	1.15E-01	1.81E-01
289555	4/7/2014 - 4/14/2014	I-131	<3.34E-02	0.00E+00	3.34E-02
		Cs-134	<1.91E-02	0.00E+00	1.91E-02
		Cs-137	<2.30E-02	0.00E+00	2.30E-02
		Be-7	<1.98E-01	0.00E+00	1.98E-01
		K-40	4.26E-01	1.47E-01	2.48E-01
290037	4/14/2014 - 4/21/2014	I-131	<2.98E-02	0.00E+00	2.98E-02

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 3 [ INDICATOR - N @ 0.5 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
290037	4/14/2014 - 4/21/2014	Cs-134	<1.25E-02	0.00E+00	1.25E-02
		Cs-137	<1.53E-02	0.00E+00	1.53E-02
		Be-7	<1.11E-01	0.00E+00	1.11E-01
		K-40	3.72E-01	1.03E-01	7.73E-02
292118	4/21/2014 - 4/28/2014	I-131	<1.03E-02	0.00E+00	1.03E-02
		Cs-134	<8.21E-03	0.00E+00	8.21E-03
		Cs-137	<8.67E-03	0.00E+00	8.67E-03
		Be-7	<6.79E-02	0.00E+00	6.79E-02
		K-40	6.31E-01	8.58E-02	8.45E-02
292848	4/28/2014 - 5/5/2014	I-131	<1.12E-02	0.00E+00	1.12E-02
		Cs-134	<7.94E-03	0.00E+00	7.94E-03
		Cs-137	<1.22E-02	0.00E+00	1.22E-02
		Be-7	<8.10E-02	0.00E+00	8.10E-02
		K-40	<1.02E-01	0.00E+00	1.02E-01
293119	5/5/2014 - 5/12/2014	I-131	<1.33E-02	0.00E+00	1.33E-02
		Cs-134	<9.88E-03	0.00E+00	9.88E-03
		Cs-137	<1.12E-02	0.00E+00	1.12E-02
		Be-7	<9.26E-02	0.00E+00	9.26E-02
		K-40	2.12E-01	6.70E-02	5.73E-02
294761	5/12/2014 - 5/19/2014	I-131	<1.10E-02	0.00E+00	1.10E-02
		Cs-134	<1.00E-02	0.00E+00	1.00E-02
		Cs-137	<7.93E-03	0.00E+00	7.93E-03
		Be-7	<8.23E-02	0.00E+00	8.23E-02
		K-40	4.64E-01	8.18E-02	1.23E-01
295287	5/19/2014 - 5/26/2014	I-131	<3.31E-02	0.00E+00	3.31E-02
		Cs-134	<1.75E-02	0.00E+00	1.75E-02
		Cs-137	<1.99E-02	0.00E+00	1.99E-02
		Be-7	<1.31E-01	0.00E+00	1.31E-01
		K-40	3.62E-01	1.28E-01	2.73E-01
295611	5/26/2014 - 6/2/2014	I-131	<2.29E-02	0.00E+00	2.29E-02
		Cs-134	<1.56E-02	0.00E+00	1.56E-02
		Cs-137	<1.90E-02	0.00E+00	1.90E-02
		Be-7	<1.22E-01	0.00E+00	1.22E-01
		K-40	3.80E-01	1.02E-01	3.36E-01
296013	6/2/2014 - 6/9/2014	I-131	<1.11E-02	0.00E+00	1.11E-02
		Cs-134	<8.76E-03	0.00E+00	8.76E-03
		Cs-137	<9.43E-03	0.00E+00	9.43E-03
		Be-7	<6.89E-02	0.00E+00	6.89E-02
		K-40	5.92E-01	9.42E-02	1.05E-01
296278	6/9/2014 - 6/16/2014	I-131	<1.32E-02	0.00E+00	1.32E-02
		Cs-134	<1.07E-02	0.00E+00	1.07E-02
		Cs-137	<9.72E-03	0.00E+00	9.72E-03
		Be-7	<7.52E-02	0.00E+00	7.52E-02
		K-40	5.82E-01	8.23E-02	3.15E-02
296808	6/16/2014 - 6/23/2014	I-131	<2.29E-02	0.00E+00	2.29E-02
		Cs-134	<1.42E-02	0.00E+00	1.42E-02
		Cs-137	<1.40E-02	0.00E+00	1.40E-02
		Be-7	<1.75E-01	0.00E+00	1.75E-01
		K-40	<6.18E-01	0.00E+00	6.18E-01

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 3 [ INDICATOR - N @ 0.5 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
297083	6/23/2014 - 6/30/2014	I-131	<2.61E-02	0.00E+00	2.61E-02
		Cs-134	<2.11E-02	0.00E+00	2.11E-02
		Cs-137	<1.90E-02	0.00E+00	1.90E-02
		Be-7	<1.56E-01	0.00E+00	1.56E-01
		K-40	3.33E-01	1.28E-01	3.03E-01
297438	6/30/2014 - 7/7/2014	I-131	<4.50E-02	0.00E+00	4.50E-02
		Cs-134	<5.81E-03	0.00E+00	5.81E-03
		Cs-137	<1.26E-02	0.00E+00	1.26E-02
		Be-7	<7.11E-02	0.00E+00	7.11E-02
		K-40	2.95E-01	1.32E-01	1.23E-01
297693	7/7/2014 - 7/14/2014	I-131	<2.92E-02	0.00E+00	2.92E-02
		Cs-134	<8.50E-03	0.00E+00	8.50E-03
		Cs-137	<1.05E-02	0.00E+00	1.05E-02
		Be-7	<7.57E-02	0.00E+00	7.57E-02
		K-40	5.41E-01	1.85E-01	1.55E-01
298250	7/14/2014 - 7/21/2014	I-131	<4.84E-02	0.00E+00	4.84E-02
		Cs-134	<1.98E-02	0.00E+00	1.98E-02
		Cs-137	<1.88E-02	0.00E+00	1.88E-02
		Be-7	<1.29E-01	0.00E+00	1.29E-01
		K-40	<5.34E-01	0.00E+00	5.34E-01
350693	7/21/2014 - 7/28/2014	I-131	<4.55E-02	0.00E+00	4.55E-02
		Cs-134	<1.51E-02	0.00E+00	1.51E-02
		Cs-137	<2.09E-02	0.00E+00	2.09E-02
		Be-7	<1.27E-01	0.00E+00	1.27E-01
		K-40	4.40E-01	2.30E-01	7.96E-02
352349	7/28/2014 - 8/4/2014	I-131	<2.63E-02	0.00E+00	2.63E-02
		Cs-134	<1.03E-02	0.00E+00	1.03E-02
		Cs-137	<2.09E-02	0.00E+00	2.09E-02
		Be-7	<1.03E-01	0.00E+00	1.03E-01
		K-40	4.73E-01	2.76E-01	3.08E-01
351668	8/4/2014 - 8/11/2014	I-131	<2.67E-02	0.00E+00	2.67E-02
		Cs-134	<1.31E-02	0.00E+00	1.31E-02
		Cs-137	<1.63E-02	0.00E+00	1.63E-02
		Be-7	<1.21E-01	0.00E+00	1.21E-01
		K-40	4.61E-01	2.64E-01	2.73E-01
351669	8/11/2014 - 8/18/2014	I-131	<2.87E-02	0.00E+00	2.87E-02
		Cs-134	<1.52E-02	0.00E+00	1.52E-02
		Cs-137	<2.43E-02	0.00E+00	2.43E-02
		Be-7	<1.84E-01	0.00E+00	1.84E-01
		K-40	3.78E-01	2.12E-01	7.87E-02
353452	8/18/2014 - 8/25/2014	I-131	<4.35E-02	0.00E+00	4.35E-02
		Cs-134	<2.28E-02	0.00E+00	2.28E-02
		Cs-137	<2.31E-02	0.00E+00	2.31E-02
		Be-7	<3.26E-02	0.00E+00	3.26E-02
		K-40	5.34E-01	2.56E-01	8.05E-02
354109	8/25/2014 - 9/1/2014	I-131	<2.07E-02	0.00E+00	2.07E-02
		Cs-134	<2.71E-02	0.00E+00	2.71E-02
		Cs-137	<2.26E-02	0.00E+00	2.26E-02
		Be-7	<1.19E-01	0.00E+00	1.19E-01
		K-40	<5.68E-01	0.00E+00	5.68E-01

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 3 [ INDICATOR - N @ 0.5 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
354472	9/1/2014 - 9/8/2014	I-131	<2.43E-02	0.00E+00	2.43E-02
		Cs-134	<1.91E-02	0.00E+00	1.91E-02
		Cs-137	<2.25E-02	0.00E+00	2.25E-02
		Be-7	<1.01E-01	0.00E+00	1.01E-01
		K-40	<6.18E-01	0.00E+00	6.18E-01
354785	9/8/2014 - 9/15/2014	I-131	<3.91E-02	0.00E+00	3.91E-02
		Cs-134	<1.31E-02	0.00E+00	1.31E-02
		Cs-137	<2.11E-02	0.00E+00	2.11E-02
		Be-7	<1.67E-01	0.00E+00	1.67E-01
		K-40	3.02E-01	2.05E-01	2.03E-01
355224	9/15/2014 - 9/22/2014	I-131	<2.14E-02	0.00E+00	2.14E-02
		Cs-134	<1.03E-02	0.00E+00	1.03E-02
		Cs-137	<1.28E-02	0.00E+00	1.28E-02
		Be-7	<1.45E-01	0.00E+00	1.45E-01
		K-40	<5.34E-01	0.00E+00	5.34E-01
355673	9/22/2014 - 9/29/2014	I-131	<1.20E-02	0.00E+00	1.20E-02
		Cs-134	<1.50E-02	0.00E+00	1.50E-02
		Cs-137	<1.62E-02	0.00E+00	1.62E-02
		Be-7	<1.33E-01	0.00E+00	1.33E-01
		K-40	3.23E-01	1.97E-01	7.96E-02
356551	9/29/2014 - 10/7/2014	I-131	<4.27E-02	0.00E+00	4.27E-02
		Cs-134	<1.33E-02	0.00E+00	1.33E-02
		Cs-137	<1.42E-02	0.00E+00	1.42E-02
		Be-7	<1.13E-01	0.00E+00	1.13E-01
		K-40	3.88E-01	2.03E-01	7.00E-02
357076	10/7/2014 - 10/13/2014	I-131	<3.14E-02	0.00E+00	3.14E-02
		Cs-134	<2.19E-02	0.00E+00	2.19E-02
		Cs-137	<1.54E-02	0.00E+00	1.54E-02
		Be-7	<1.99E-01	0.00E+00	1.99E-01
		K-40	8.09E-01	3.44E-01	9.53E-02
358073	10/13/2014 - 10/20/2014	I-131	<1.98E-02	0.00E+00	1.98E-02
		Cs-134	<2.09E-02	0.00E+00	2.09E-02
		Cs-137	<2.09E-02	0.00E+00	2.09E-02
		Be-7	<1.19E-01	0.00E+00	1.19E-01
		K-40	<5.91E-01	0.00E+00	5.91E-01
358679	10/20/2014 - 10/27/2014	I-131	<1.62E-02	0.00E+00	1.62E-02
		Cs-134	<6.37E-03	0.00E+00	6.37E-03
		Cs-137	<1.28E-02	0.00E+00	1.28E-02
		Be-7	<9.69E-02	0.00E+00	9.69E-02
		K-40	3.78E-01	1.83E-01	2.12E-01
359338	10/27/2014 - 11/3/2014	I-131	<1.23E-02	0.00E+00	1.23E-02
		Cs-134	<8.54E-03	0.00E+00	8.54E-03
		Cs-137	<9.29E-03	0.00E+00	9.29E-03
		Be-7	<8.66E-02	0.00E+00	8.66E-02
		K-40	4.62E-01	1.92E-01	2.18E-01
360057	11/3/2014 - 11/10/2014	I-131	<2.56E-02	0.00E+00	2.56E-02
		Cs-134	<2.11E-02	0.00E+00	2.11E-02
		Cs-137	<1.89E-02	0.00E+00	1.89E-02
		Be-7	<1.59E-01	0.00E+00	1.59E-01
		K-40	4.63E-01	2.95E-01	3.71E-01

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 3 [ INDICATOR - N @ 0.5 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
360737	11/10/2014 - 11/17/2014	I-131	<2.70E-02	0.00E+00	2.70E-02
		Cs-134	<1.71E-02	0.00E+00	1.71E-02
		Cs-137	<1.91E-02	0.00E+00	1.91E-02
		Be-7	<1.37E-01	0.00E+00	1.37E-01
		K-40	<5.22E-01	0.00E+00	5.22E-01

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
361597	11/17/2014 - 11/24/2014	I-131	<5.45E-02	0.00E+00	5.45E-02
		Cs-134	<6.07E-03	0.00E+00	6.07E-03
		Cs-137	<7.38E-03	0.00E+00	7.38E-03
		Be-7	<6.55E-02	0.00E+00	6.55E-02
		K-40	4.67E-01	1.40E-01	1.02E-01

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
361975	11/24/2014 - 12/1/2014	I-131	<2.46E-02	0.00E+00	2.46E-02
		Cs-134	<2.99E-03	0.00E+00	3.00E-03
		Cs-137	<1.95E-02	0.00E+00	1.95E-02
		Be-7	<8.74E-02	0.00E+00	8.74E-02
		K-40	5.33E-01	2.32E-01	6.57E-02

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
362810	12/1/2014 - 12/8/2014	I-131	<1.83E-02	0.00E+00	1.83E-02
		Cs-134	<1.05E-02	0.00E+00	1.05E-02
		Cs-137	<1.37E-02	0.00E+00	1.37E-02
		Be-7	<9.46E-02	0.00E+00	9.46E-02
		K-40	2.68E-01	1.44E-01	1.53E-01

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
363548	12/8/2014 - 12/15/2014	I-131	<1.71E-02	0.00E+00	1.71E-02
		Cs-134	<1.62E-02	0.00E+00	1.62E-02
		Cs-137	<2.03E-02	0.00E+00	2.03E-02
		Be-7	<1.27E-01	0.00E+00	1.27E-01
		K-40	<6.44E-01	0.00E+00	6.44E-01

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
363993	12/15/2014 - 12/23/2014	I-131	<1.41E-02	0.00E+00	1.41E-02
		Cs-134	<5.71E-03	0.00E+00	5.71E-03
		Cs-137	<7.06E-03	0.00E+00	7.06E-03
		Be-7	<4.91E-02	0.00E+00	4.91E-02
		K-40	2.90E-01	1.13E-01	9.48E-02

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
364547	12/23/2014 - 12/29/2014	I-131	<2.14E-02	0.00E+00	2.14E-02
		Cs-134	<1.52E-02	0.00E+00	1.52E-02
		Cs-137	<1.24E-02	0.00E+00	1.24E-02
		Be-7	<1.15E-01	0.00E+00	1.15E-01
		K-40	5.66E-01	2.45E-01	2.16E-01

## Sample Point 4 [ INDICATOR - ESE @ 0.4 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
280726	12/30/2013 - 1/6/2014	I-131	<2.77E-02	0.00E+00	2.77E-02
		Cs-134	<1.20E-02	0.00E+00	1.20E-02
		Cs-137	<1.95E-02	0.00E+00	1.95E-02
		Be-7	<1.12E-01	0.00E+00	1.12E-01
		K-40	4.20E-01	1.32E-01	3.48E-01

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
280909	1/6/2014 - 1/13/2014	I-131	<2.21E-02	0.00E+00	2.21E-02
		Cs-134	<1.33E-02	0.00E+00	1.33E-02
		Cs-137	<1.85E-02	0.00E+00	1.85E-02
		Be-7	<1.75E-01	0.00E+00	1.75E-01
		K-40	5.61E-01	1.26E-01	2.67E-01

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
281289	1/13/2014 - 1/20/2014	I-131	<1.33E-02	0.00E+00	1.33E-02
		Cs-134	<7.99E-03	0.00E+00	7.99E-03
		Cs-137	<1.41E-02	0.00E+00	1.41E-02

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 4 [ INDICATOR - ESE @ 0.4 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
281289	1/13/2014 - 1/20/2014	Be-7	<8.59E-02	0.00E+00	8.59E-02
		K-40	4.76E-01	9.52E-02	5.15E-02
281648	1/20/2014 - 1/27/2014	I-131	<1.10E-02	0.00E+00	1.10E-02
		Cs-134	<1.32E-02	0.00E+00	1.32E-02
		Cs-137	<1.21E-02	0.00E+00	1.21E-02
		Be-7	<8.11E-02	0.00E+00	8.11E-02
		K-40	3.69E-01	8.47E-02	1.46E-01
282216	1/27/2014 - 2/3/2014	I-131	<2.25E-02	0.00E+00	2.25E-02
		Cs-134	<1.91E-02	0.00E+00	1.91E-02
		Cs-137	<1.26E-02	0.00E+00	1.26E-02
		Be-7	<1.81E-01	0.00E+00	1.81E-01
		K-40	4.54E-01	1.13E-01	3.11E-01
283078	2/3/2014 - 2/10/2014	I-131	<3.44E-02	0.00E+00	3.44E-02
		Cs-134	<1.76E-02	0.00E+00	1.76E-02
		Cs-137	<2.07E-02	0.00E+00	2.07E-02
		Be-7	<1.58E-01	0.00E+00	1.58E-01
		K-40	6.30E-01	1.34E-01	2.64E-01
283460	2/10/2014 - 2/17/2014	I-131	<4.05E-02	0.00E+00	4.05E-02
		Cs-134	<1.48E-02	0.00E+00	1.48E-02
		Cs-137	<1.43E-02	0.00E+00	1.43E-02
		Be-7	<1.82E-01	0.00E+00	1.82E-01
		K-40	3.91E-01	1.05E-01	2.02E-01
284647	2/17/2014 - 2/24/2014	I-131	<2.07E-02	0.00E+00	2.07E-02
		Cs-134	<1.76E-02	0.00E+00	1.76E-02
		Cs-137	<2.52E-02	0.00E+00	2.52E-02
		Be-7	<1.34E-01	0.00E+00	1.34E-01
		K-40	5.96E-01	1.30E-01	7.68E-02
285209	2/24/2014 - 3/3/2014	I-131	<2.56E-02	0.00E+00	2.56E-02
		Cs-134	<1.49E-02	0.00E+00	1.49E-02
		Cs-137	<2.16E-02	0.00E+00	2.16E-02
		Be-7	<1.20E-01	0.00E+00	1.20E-01
		K-40	3.45E-01	1.54E-01	3.24E-01
285816	3/3/2014 - 3/10/2014	I-131	<2.91E-02	0.00E+00	2.91E-02
		Cs-134	<2.35E-02	0.00E+00	2.35E-02
		Cs-137	<1.57E-02	0.00E+00	1.57E-02
		Be-7	<9.95E-02	0.00E+00	9.95E-02
		K-40	3.04E-01	1.45E-01	2.10E-01
286331	3/10/2014 - 3/17/2014	I-131	<9.85E-03	0.00E+00	9.85E-03
		Cs-134	<1.23E-02	0.00E+00	1.23E-02
		Cs-137	<1.14E-02	0.00E+00	1.14E-02
		Be-7	<8.14E-02	0.00E+00	8.14E-02
		K-40	3.93E-01	8.58E-02	2.02E-01
287179	3/17/2014 - 3/24/2014	I-131	<1.46E-02	0.00E+00	1.46E-02
		Cs-134	<7.41E-03	0.00E+00	7.41E-03
		Cs-137	<1.39E-02	0.00E+00	1.39E-02
		Be-7	<4.81E-02	0.00E+00	4.81E-02
		K-40	4.06E-01	8.46E-02	1.32E-01
288436	3/24/2014 - 3/31/2014	I-131	<1.05E-02	0.00E+00	1.05E-02

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.





# ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 4 [ INDICATOR - ESE @ 0.4 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
288436	3/24/2014 - 3/31/2014	Cs-134	<9.90E-03	0.00E+00	9.90E-03
		Cs-137	<1.07E-02	0.00E+00	1.07E-02
		Be-7	<8.42E-02	0.00E+00	8.42E-02
		K-40	<3.66E-01	0.00E+00	3.66E-01
289170	3/31/2014 - 4/7/2014	I-131	<3.17E-02	0.00E+00	3.17E-02
		Cs-134	<1.52E-02	0.00E+00	1.52E-02
		Cs-137	<1.39E-02	0.00E+00	1.39E-02
		Be-7	<1.49E-01	0.00E+00	1.49E-01
		K-40	2.75E-01	7.94E-02	6.20E-02
289556	4/7/2014 - 4/14/2014	I-131	<2.11E-02	0.00E+00	2.11E-02
		Cs-134	<2.37E-02	0.00E+00	2.37E-02
		Cs-137	<1.51E-02	0.00E+00	1.51E-02
		Be-7	<1.82E-01	0.00E+00	1.82E-01
		K-40	4.19E-01	1.37E-01	8.05E-02
290038	4/14/2014 - 4/21/2014	I-131	<2.74E-02	0.00E+00	2.74E-02
		Cs-134	<1.32E-02	0.00E+00	1.32E-02
		Cs-137	<1.99E-02	0.00E+00	1.99E-02
		Be-7	<1.30E-01	0.00E+00	1.30E-01
		K-40	5.76E-01	1.23E-01	1.95E-01
292119	4/21/2014 - 4/28/2014	I-131	<1.50E-02	0.00E+00	1.50E-02
		Cs-134	<8.45E-03	0.00E+00	8.45E-03
		Cs-137	<5.49E-03	0.00E+00	5.49E-03
		Be-7	<5.76E-02	0.00E+00	5.76E-02
		K-40	2.79E-01	1.08E-01	1.61E-01
292849	4/28/2014 - 5/5/2014	I-131	<2.76E-02	0.00E+00	2.76E-02
		Cs-134	<1.24E-02	0.00E+00	1.24E-02
		Cs-137	<2.42E-02	0.00E+00	2.42E-02
		Be-7	<1.13E-01	0.00E+00	1.13E-01
		K-40	<5.37E-01	0.00E+00	5.37E-01
293120	5/5/2014 - 5/12/2014	I-131	<1.16E-02	0.00E+00	1.16E-02
		Cs-134	<9.00E-03	0.00E+00	9.00E-03
		Cs-137	<1.10E-02	0.00E+00	1.10E-02
		Be-7	<4.98E-02	0.00E+00	4.98E-02
		K-40	3.90E-01	6.90E-02	1.12E-01
294762	5/12/2014 - 5/19/2014	I-131	<9.06E-03	0.00E+00	9.06E-03
		Cs-134	<1.09E-02	0.00E+00	1.09E-02
		Cs-137	<8.59E-03	0.00E+00	8.59E-03
		Be-7	<6.90E-02	0.00E+00	6.90E-02
		K-40	4.03E-01	8.41E-02	1.27E-01
295288	5/19/2014 - 5/26/2014	I-131	<2.52E-02	0.00E+00	2.52E-02
		Cs-134	<9.62E-03	0.00E+00	9.62E-03
		Cs-137	<1.18E-02	0.00E+00	1.18E-02
		Be-7	<5.30E-02	0.00E+00	5.30E-02
		K-40	2.94E-01	7.86E-02	5.68E-02
295612	5/26/2014 - 6/2/2014	I-131	<2.96E-02	0.00E+00	2.96E-02
		Cs-134	<9.16E-03	0.00E+00	9.16E-03
		Cs-137	<1.77E-02	0.00E+00	1.77E-02
		Be-7	6.18E-02	3.32E-02	1.27E-01
		K-40	3.87E-01	1.58E-01	3.08E-01

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 4 [ INDICATOR - ESE @ 0.4 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
296014	6/2/2014 - 6/9/2014	I-131	<1.27E-02	0.00E+00	1.27E-02
		Cs-134	<7.39E-03	0.00E+00	7.39E-03
		Cs-137	<1.45E-02	0.00E+00	1.45E-02
		Be-7	<7.21E-02	0.00E+00	7.21E-02
		K-40	3.54E-01	8.13E-02	5.04E-02
296279	6/9/2014 - 6/16/2014	I-131	<2.76E-03	0.00E+00	2.76E-03
		Cs-134	<6.19E-03	0.00E+00	6.19E-03
		Cs-137	<1.13E-02	0.00E+00	1.13E-02
		Be-7	<9.17E-02	0.00E+00	9.17E-02
		K-40	4.06E-01	8.66E-02	4.99E-02
296809	6/16/2014 - 6/23/2014	I-131	<1.56E-02	0.00E+00	1.56E-02
		Cs-134	<1.08E-02	0.00E+00	1.08E-02
		Cs-137	<1.28E-02	0.00E+00	1.28E-02
		Be-7	<5.80E-02	0.00E+00	5.80E-02
		K-40	<3.72E-01	0.00E+00	3.72E-01
297084	6/23/2014 - 6/30/2014	I-131	<1.46E-02	0.00E+00	1.46E-02
		Cs-134	<6.83E-03	0.00E+00	6.83E-03
		Cs-137	<1.25E-02	0.00E+00	1.25E-02
		Be-7	<8.34E-02	0.00E+00	8.34E-02
		K-40	2.44E-01	7.05E-02	1.69E-01
297439	6/30/2014 - 7/7/2014	I-131	<3.15E-02	0.00E+00	3.15E-02
		Cs-134	<5.27E-03	0.00E+00	5.27E-03
		Cs-137	<6.54E-03	0.00E+00	6.54E-03
		Be-7	<5.73E-02	0.00E+00	5.73E-02
		K-40	2.76E-01	1.28E-01	1.46E-01
297694	7/7/2014 - 7/14/2014	I-131	<2.55E-02	0.00E+00	2.55E-02
		Cs-134	<8.10E-03	0.00E+00	8.10E-03
		Cs-137	<8.02E-03	0.00E+00	8.02E-03
		Be-7	<9.98E-02	0.00E+00	9.98E-02
		K-40	4.97E-01	1.68E-01	1.27E-01
298251	7/14/2014 - 7/21/2014	I-131	<2.91E-02	0.00E+00	2.91E-02
		Cs-134	<1.26E-02	0.00E+00	1.26E-02
		Cs-137	<1.24E-02	0.00E+00	1.24E-02
		Be-7	<1.39E-01	0.00E+00	1.39E-01
		K-40	3.12E-01	2.47E-01	3.35E-01
350694	7/21/2014 - 7/28/2014	I-131	<2.92E-02	0.00E+00	2.92E-02
		Cs-134	<9.92E-03	0.00E+00	9.92E-03
		Cs-137	<1.23E-02	0.00E+00	1.23E-02
		Be-7	<8.34E-02	0.00E+00	8.34E-02
		K-40	2.53E-01	1.90E-01	2.16E-01
352350	7/28/2014 - 8/4/2014	I-131	<1.91E-02	0.00E+00	1.91E-02
		Cs-134	<1.74E-02	0.00E+00	1.74E-02
		Cs-137	<1.22E-02	0.00E+00	1.22E-02
		Be-7	<1.38E-01	0.00E+00	1.38E-01
		K-40	<5.06E-01	0.00E+00	5.06E-01
351670	8/4/2014 - 8/11/2014	I-131	<1.87E-02	0.00E+00	1.87E-02
		Cs-134	<1.47E-02	0.00E+00	1.47E-02
		Cs-137	<1.26E-02	0.00E+00	1.26E-02
		Be-7	<8.06E-02	0.00E+00	8.06E-02
		K-40	4.03E-01	2.70E-01	3.39E-01

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 4 [ INDICATOR - ESE @ 0.4 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
351653	8/11/2014 - 8/18/2014	I-131	<2.01E-02	0.00E+00	2.01E-02
		Cs-134	<1.46E-02	0.00E+00	1.46E-02
		Cs-137	<1.79E-02	0.00E+00	1.79E-02
		Be-7	<1.28E-01	0.00E+00	1.28E-01
		K-40	3.17E-01	2.36E-01	3.06E-01
353453	8/18/2014 - 8/25/2014	I-131	<3.95E-02	0.00E+00	3.95E-02
		Cs-134	<1.87E-02	0.00E+00	1.87E-02
		Cs-137	<1.80E-02	0.00E+00	1.80E-02
		Be-7	<1.07E-01	0.00E+00	1.07E-01
		K-40	<5.68E-01	0.00E+00	5.68E-01
354111	8/25/2014 - 9/1/2014	I-131	<1.80E-02	0.00E+00	1.80E-02
		Cs-134	<1.85E-02	0.00E+00	1.85E-02
		Cs-137	<1.79E-02	0.00E+00	1.79E-02
		Be-7	<1.39E-01	0.00E+00	1.39E-01
		K-40	4.76E-01	2.34E-01	7.58E-02
354473	9/1/2014 - 9/8/2014	I-131	<1.87E-02	0.00E+00	1.87E-02
		Cs-134	<2.12E-02	0.00E+00	2.12E-02
		Cs-137	<1.77E-02	0.00E+00	1.77E-02
		Be-7	<1.47E-01	0.00E+00	1.47E-01
		K-40	2.19E-01	1.79E-01	2.16E-01
354786	9/8/2014 - 9/15/2014	I-131	<3.36E-02	0.00E+00	3.36E-02
		Cs-134	<1.45E-02	0.00E+00	1.45E-02
		Cs-137	<1.56E-02	0.00E+00	1.56E-02
		Be-7	<1.48E-01	0.00E+00	1.48E-01
		K-40	<5.33E-01	0.00E+00	5.33E-01
355226	9/15/2014 - 9/22/2014	I-131	<2.09E-02	0.00E+00	2.09E-02
		Cs-134	<1.45E-02	0.00E+00	1.45E-02
		Cs-137	<1.56E-02	0.00E+00	1.56E-02
		Be-7	<1.78E-01	0.00E+00	1.78E-01
		K-40	5.28E-01	2.71E-01	2.52E-01
355674	9/22/2014 - 9/29/2014	I-131	<1.50E-02	0.00E+00	1.50E-02
		Cs-134	<1.78E-02	0.00E+00	1.78E-02
		Cs-137	<1.83E-02	0.00E+00	1.83E-02
		Be-7	<1.71E-01	0.00E+00	1.71E-01
		K-40	4.76E-01	2.59E-01	2.50E-01
356553	9/29/2014 - 10/7/2014	I-131	<3.57E-02	0.00E+00	3.57E-02
		Cs-134	<1.55E-02	0.00E+00	1.55E-02
		Cs-137	<1.58E-02	0.00E+00	1.58E-02
		Be-7	<9.36E-02	0.00E+00	9.36E-02
		K-40	5.35E-01	2.72E-01	2.95E-01
357077	10/7/2014 - 10/13/2014	I-131	<2.85E-02	0.00E+00	2.85E-02
		Cs-134	<1.48E-02	0.00E+00	1.48E-02
		Cs-137	<1.85E-02	0.00E+00	1.85E-02
		Be-7	<3.42E-02	0.00E+00	3.42E-02
		K-40	<7.35E-01	0.00E+00	7.35E-01
358074	10/13/2014 - 10/20/2014	I-131	<1.74E-02	0.00E+00	1.74E-02
		Cs-134	<1.26E-02	0.00E+00	1.26E-02
		Cs-137	<4.58E-03	0.00E+00	4.58E-03
		Be-7	<1.16E-01	0.00E+00	1.16E-01
		K-40	4.89E-01	2.88E-01	3.40E-01

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 4 [ INDICATOR - ESE @ 0.4 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
358680	10/20/2014 - 10/27/2014	I-131	<2.02E-02	0.00E+00	2.02E-02
		Cs-134	<2.82E-03	0.00E+00	2.82E-03
		Cs-137	<1.71E-02	0.00E+00	1.71E-02
		Be-7	<7.64E-02	0.00E+00	7.64E-02
		K-40	4.17E-01	2.54E-01	3.23E-01
359339	10/27/2014 - 11/3/2014	I-131	<1.14E-02	0.00E+00	1.14E-02
		Cs-134	<9.62E-03	0.00E+00	9.62E-03
		Cs-137	<1.09E-02	0.00E+00	1.09E-02
		Be-7	<6.30E-02	0.00E+00	6.30E-02
		K-40	5.17E-01	1.71E-01	1.13E-01
360058	11/3/2014 - 11/10/2014	I-131	<2.92E-02	0.00E+00	2.92E-02
		Cs-134	<1.00E-02	0.00E+00	1.00E-02
		Cs-137	<1.83E-02	0.00E+00	1.83E-02
		Be-7	<1.18E-01	0.00E+00	1.18E-01
		K-40	<4.99E-01	0.00E+00	4.99E-01
360738	11/10/2014 - 11/17/2014	I-131	<2.32E-02	0.00E+00	2.32E-02
		Cs-134	<1.97E-02	0.00E+00	1.97E-02
		Cs-137	<1.88E-02	0.00E+00	1.88E-02
		Be-7	<1.20E-01	0.00E+00	1.20E-01
		K-40	6.75E-01	2.87E-01	7.96E-02
361598	11/17/2014 - 11/24/2014	I-131	<3.06E-02	0.00E+00	3.06E-02
		Cs-134	<1.14E-02	0.00E+00	1.14E-02
		Cs-137	<1.99E-02	0.00E+00	1.99E-02
		Be-7	<1.25E-01	0.00E+00	1.25E-01
		K-40	6.52E-01	2.82E-01	2.19E-01
361976	11/24/2014 - 12/1/2014	I-131	<1.75E-02	0.00E+00	1.75E-02
		Cs-134	<1.15E-02	0.00E+00	1.15E-02
		Cs-137	<1.41E-02	0.00E+00	1.41E-02
		Be-7	<8.55E-02	0.00E+00	8.55E-02
		K-40	3.85E-01	1.77E-01	1.89E-01
362811	12/1/2014 - 12/8/2014	I-131	<2.28E-02	0.00E+00	2.28E-02
		Cs-134	<1.45E-02	0.00E+00	1.45E-02
		Cs-137	<1.40E-02	0.00E+00	1.40E-02
		Be-7	<1.68E-01	0.00E+00	1.68E-01
		K-40	<6.52E-01	0.00E+00	6.52E-01
363549	12/8/2014 - 12/15/2014	I-131	<1.66E-02	0.00E+00	1.66E-02
		Cs-134	<1.45E-02	0.00E+00	1.45E-02
		Cs-137	<1.62E-02	0.00E+00	1.62E-02
		Be-7	<1.57E-01	0.00E+00	1.57E-01
		K-40	<6.27E-01	0.00E+00	6.27E-01
363994	12/15/2014 - 12/23/2014	I-131	<3.01E-02	0.00E+00	3.01E-02
		Cs-134	<1.18E-02	0.00E+00	1.18E-02
		Cs-137	<1.64E-02	0.00E+00	1.64E-02
		Be-7	<9.86E-02	0.00E+00	9.86E-02
		K-40	6.12E-01	2.46E-01	6.38E-02
364548	12/23/2014 - 12/29/2014	I-131	<1.69E-02	0.00E+00	1.69E-02
		Cs-134	<1.49E-02	0.00E+00	1.49E-02
		Cs-137	<1.84E-02	0.00E+00	1.84E-02
		Be-7	<1.06E-01	0.00E+00	1.06E-01
		K-40	6.37E-01	2.48E-01	2.04E-01

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 5 [ INDICATOR - ENE @ 0.9 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
280727	12/30/2013 - 1/6/2014	I-131	<2.33E-02	0.00E+00	2.33E-02
		Cs-134	<1.21E-02	0.00E+00	1.21E-02
		Cs-137	<1.65E-02	0.00E+00	1.65E-02
		Be-7	<1.70E-01	0.00E+00	1.70E-01
		K-40	<5.42E-01	0.00E+00	5.42E-01
280910	1/6/2014 - 1/13/2014	I-131	<2.53E-02	0.00E+00	2.53E-02
		Cs-134	<1.44E-02	0.00E+00	1.44E-02
		Cs-137	<2.14E-02	0.00E+00	2.14E-02
		Be-7	<1.68E-01	0.00E+00	1.68E-01
		K-40	5.36E-01	1.54E-01	3.17E-01
281290	1/13/2014 - 1/20/2014	I-131	<1.79E-02	0.00E+00	1.79E-02
		Cs-134	<1.14E-02	0.00E+00	1.14E-02
		Cs-137	<1.34E-02	0.00E+00	1.34E-02
		Be-7	<9.69E-02	0.00E+00	9.69E-02
		K-40	2.28E-01	6.88E-02	2.60E-01
281649	1/20/2014 - 1/27/2014	I-131	<1.38E-02	0.00E+00	1.38E-02
		Cs-134	<7.41E-03	0.00E+00	7.41E-03
		Cs-137	<8.48E-03	0.00E+00	8.48E-03
		Be-7	<7.23E-02	0.00E+00	7.23E-02
		K-40	4.82E-01	7.43E-02	3.10E-02
282217	1/27/2014 - 2/3/2014	I-131	<2.83E-02	0.00E+00	2.83E-02
		Cs-134	<2.06E-02	0.00E+00	2.06E-02
		Cs-137	<1.83E-02	0.00E+00	1.83E-02
		Be-7	<1.22E-01	0.00E+00	1.22E-01
		K-40	<5.88E-01	0.00E+00	5.88E-01
283079	2/3/2014 - 2/10/2014	I-131	<4.32E-02	0.00E+00	4.32E-02
		Cs-134	<1.56E-02	0.00E+00	1.56E-02
		Cs-137	<1.65E-02	0.00E+00	1.65E-02
		Be-7	<1.79E-01	0.00E+00	1.79E-01
		K-40	<4.17E-01	0.00E+00	4.17E-01
283461	2/10/2014 - 2/17/2014	I-131	<2.38E-02	0.00E+00	2.38E-02
		Cs-134	<1.57E-02	0.00E+00	1.57E-02
		Cs-137	<4.03E-03	0.00E+00	4.03E-03
		Be-7	<1.24E-01	0.00E+00	1.24E-01
		K-40	5.42E-01	1.21E-01	2.46E-01
284648	2/17/2014 - 2/24/2014	I-131	<1.98E-02	0.00E+00	1.98E-02
		Cs-134	<1.30E-02	0.00E+00	1.30E-02
		Cs-137	<1.37E-02	0.00E+00	1.37E-02
		Be-7	<1.42E-01	0.00E+00	1.42E-01
		K-40	3.54E-01	9.15E-02	2.12E-01
285210	2/24/2014 - 3/3/2014	I-131	<2.75E-02	0.00E+00	2.75E-02
		Cs-134	<1.14E-02	0.00E+00	1.14E-02
		Cs-137	<1.93E-02	0.00E+00	1.93E-02
		Be-7	<1.59E-01	0.00E+00	1.59E-01
		K-40	4.68E-01	1.40E-01	3.18E-01
285817	3/3/2014 - 3/10/2014	I-131	<2.54E-02	0.00E+00	2.54E-02
		Cs-134	<1.36E-02	0.00E+00	1.36E-02
		Cs-137	<2.11E-02	0.00E+00	2.11E-02
		Be-7	<1.17E-01	0.00E+00	1.17E-01
		K-40	<5.57E-01	0.00E+00	5.57E-01

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 5 [ INDICATOR - ENE @ 0.9 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
286332	3/10/2014 - 3/17/2014	I-131	<1.17E-02	0.00E+00	1.17E-02
		Cs-134	<9.87E-03	0.00E+00	9.87E-03
		Cs-137	<1.32E-02	0.00E+00	1.32E-02
		Be-7	<7.58E-02	0.00E+00	7.58E-02
		K-40	4.36E-01	7.58E-02	3.57E-02
287180	3/17/2014 - 3/24/2014	I-131	<2.25E-02	0.00E+00	2.25E-02
		Cs-134	<1.91E-02	0.00E+00	1.91E-02
		Cs-137	<2.20E-02	0.00E+00	2.20E-02
		Be-7	<1.14E-01	0.00E+00	1.14E-01
		K-40	2.98E-01	1.16E-01	7.36E-02
288437	3/24/2014 - 3/31/2014	I-131	<1.58E-02	0.00E+00	1.58E-02
		Cs-134	<9.80E-03	0.00E+00	9.80E-03
		Cs-137	<1.56E-02	0.00E+00	1.56E-02
		Be-7	<9.34E-02	0.00E+00	9.34E-02
		K-40	3.87E-01	7.44E-02	1.07E-01
289171	3/31/2014 - 4/7/2014	I-131	<3.62E-02	0.00E+00	3.62E-02
		Cs-134	<1.61E-02	0.00E+00	1.61E-02
		Cs-137	<2.26E-02	0.00E+00	2.26E-02
		Be-7	<1.14E-01	0.00E+00	1.14E-01
		K-40	2.29E-01	1.00E-01	3.11E-01
289557	4/7/2014 - 4/14/2014	I-131	<3.16E-02	0.00E+00	3.16E-02
		Cs-134	<1.94E-02	0.00E+00	1.94E-02
		Cs-137	<2.25E-02	0.00E+00	2.25E-02
		Be-7	<1.89E-01	0.00E+00	1.89E-01
		K-40	3.52E-01	1.33E-01	3.08E-01
290039	4/14/2014 - 4/21/2014	I-131	<1.46E-02	0.00E+00	1.46E-02
		Cs-134	<1.20E-02	0.00E+00	1.20E-02
		Cs-137	<1.14E-02	0.00E+00	1.14E-02
		Be-7	<9.36E-02	0.00E+00	9.36E-02
		K-40	5.54E-01	1.13E-01	6.24E-02
292120	4/21/2014 - 4/28/2014	I-131	<1.35E-02	0.00E+00	1.35E-02
		Cs-134	<1.07E-02	0.00E+00	1.07E-02
		Cs-137	<1.18E-02	0.00E+00	1.18E-02
		Be-7	<6.40E-02	0.00E+00	6.40E-02
		K-40	4.36E-01	9.35E-02	1.78E-01
292850	4/28/2014 - 5/5/2014	I-131	<7.84E-03	0.00E+00	7.84E-03
		Cs-134	<8.03E-03	0.00E+00	8.03E-03
		Cs-137	<1.56E-02	0.00E+00	1.56E-02
		Be-7	<7.43E-02	0.00E+00	7.43E-02
		K-40	2.24E-01	8.31E-02	1.62E-01
293121	5/5/2014 - 5/12/2014	I-131	<2.48E-02	0.00E+00	2.48E-02
		Cs-134	<1.92E-02	0.00E+00	1.92E-02
		Cs-137	<1.96E-02	0.00E+00	1.96E-02
		Be-7	<1.50E-01	0.00E+00	1.50E-01
		K-40	5.87E-01	1.28E-01	7.56E-02
294763	5/12/2014 - 5/19/2014	I-131	<1.40E-02	0.00E+00	1.40E-02
		Cs-134	<9.57E-03	0.00E+00	9.57E-03
		Cs-137	<1.01E-02	0.00E+00	1.01E-02
		Be-7	<8.23E-02	0.00E+00	8.23E-02
		K-40	4.87E-01	8.12E-02	1.20E-01

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 5 [ INDICATOR - ENE @ 0.9 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
295289	5/19/2014 - 5/26/2014	I-131	<3.79E-02	0.00E+00	3.79E-02
		Cs-134	<1.61E-02	0.00E+00	1.61E-02
		Cs-137	<2.08E-02	0.00E+00	2.08E-02
		Be-7	<1.44E-01	0.00E+00	1.44E-01
		K-40	3.43E-01	9.91E-02	2.16E-01
295613	5/26/2014 - 6/2/2014	I-131	<2.20E-02	0.00E+00	2.20E-02
		Cs-134	<1.44E-02	0.00E+00	1.44E-02
		Cs-137	<2.10E-02	0.00E+00	2.10E-02
		Be-7	<1.96E-01	0.00E+00	1.96E-01
		K-40	5.50E-01	1.23E-01	2.46E-01
296015	6/2/2014 - 6/9/2014	I-131	<2.46E-02	0.00E+00	2.46E-02
		Cs-134	<9.69E-03	0.00E+00	9.69E-03
		Cs-137	<2.16E-02	0.00E+00	2.16E-02
		Be-7	<1.34E-01	0.00E+00	1.34E-01
		K-40	<4.24E-01	0.00E+00	4.24E-01
296280	6/9/2014 - 6/16/2014	I-131	<2.82E-02	0.00E+00	2.82E-02
		Cs-134	<1.32E-02	0.00E+00	1.32E-02
		Cs-137	<1.66E-02	0.00E+00	1.66E-02
		Be-7	<1.35E-01	0.00E+00	1.35E-01
		K-40	5.81E-01	1.27E-01	2.10E-01
296810	6/16/2014 - 6/23/2014	I-131	<1.82E-02	0.00E+00	1.82E-02
		Cs-134	<1.24E-02	0.00E+00	1.24E-02
		Cs-137	<1.21E-02	0.00E+00	1.21E-02
		Be-7	<6.31E-02	0.00E+00	6.31E-02
		K-40	3.20E-01	8.19E-02	1.30E-01
297085	6/23/2014 - 6/30/2014	I-131	<2.54E-02	0.00E+00	2.54E-02
		Cs-134	<1.18E-02	0.00E+00	1.18E-02
		Cs-137	<1.25E-02	0.00E+00	1.25E-02
		Be-7	<1.01E-01	0.00E+00	1.01E-01
		K-40	<5.47E-01	0.00E+00	5.47E-01
297440	6/30/2014 - 7/7/2014	I-131	<2.92E-02	0.00E+00	2.92E-02
		Cs-134	<6.56E-03	0.00E+00	6.56E-03
		Cs-137	<7.21E-03	0.00E+00	7.21E-03
		Be-7	<7.55E-02	0.00E+00	7.55E-02
		K-40	3.70E-01	1.30E-01	1.44E-01
297695	7/7/2014 - 7/14/2014	I-131	<4.92E-02	0.00E+00	4.92E-02
		Cs-134	<1.84E-02	0.00E+00	1.84E-02
		Cs-137	<2.45E-02	0.00E+00	2.45E-02
		Be-7	<1.48E-01	0.00E+00	1.48E-01
		K-40	4.10E-01	2.22E-01	7.94E-02
298252	7/14/2014 - 7/21/2014	I-131	<3.36E-02	0.00E+00	3.36E-02
		Cs-134	<1.03E-02	0.00E+00	1.03E-02
		Cs-137	<1.62E-02	0.00E+00	1.62E-02
		Be-7	<1.80E-01	0.00E+00	1.80E-01
		K-40	4.12E-01	2.23E-01	7.97E-02
350695	7/21/2014 - 7/28/2014	I-131	<3.79E-02	0.00E+00	3.79E-02
		Cs-134	<1.51E-02	0.00E+00	1.51E-02
		Cs-137	<2.09E-02	0.00E+00	2.09E-02
		Be-7	<1.77E-01	0.00E+00	1.77E-01
		K-40	<4.65E-01	0.00E+00	4.65E-01

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.





# ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m<sup>3</sup>

Sample Point 5 [ INDICATOR - ENE @ 0.9 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
352351	7/28/2014 - 8/4/2014	I-131	<1.92E-02	0.00E+00	1.92E-02
		Cs-134	<9.92E-03	0.00E+00	9.92E-03
		Cs-137	<2.20E-02	0.00E+00	2.20E-02
		Be-7	<1.15E-01	0.00E+00	1.15E-01
		K-40	<6.96E-01	0.00E+00	6.96E-01
351672	8/4/2014 - 8/11/2014	I-131	<2.76E-02	0.00E+00	2.76E-02
		Cs-134	<1.57E-02	0.00E+00	1.57E-02
		Cs-137	<2.19E-02	0.00E+00	2.19E-02
		Be-7	<1.53E-01	0.00E+00	1.53E-01
		K-40	<6.55E-01	0.00E+00	6.55E-01
351655	8/11/2014 - 8/18/2014	I-131	<2.44E-02	0.00E+00	2.44E-02
		Cs-134	<2.47E-02	0.00E+00	2.47E-02
		Cs-137	<2.06E-02	0.00E+00	2.06E-02
		Be-7	<1.02E-01	0.00E+00	1.02E-01
		K-40	<4.60E-01	0.00E+00	4.60E-01
353454	8/18/2014 - 8/25/2014	I-131	<3.62E-02	0.00E+00	3.62E-02
		Cs-134	<3.36E-02	0.00E+00	3.36E-02
		Cs-137	<2.31E-02	0.00E+00	2.31E-02
		Be-7	<1.30E-01	0.00E+00	1.30E-01
		K-40	3.50E-01	2.29E-01	2.46E-01
354113	8/25/2014 - 9/1/2014	I-131	<2.08E-02	0.00E+00	2.08E-02
		Cs-134	<2.91E-02	0.00E+00	2.91E-02
		Cs-137	<1.60E-02	0.00E+00	1.60E-02
		Be-7	<1.45E-01	0.00E+00	1.45E-01
		K-40	<5.84E-01	0.00E+00	5.84E-01
354474	9/1/2014 - 9/8/2014	I-131	<2.95E-02	0.00E+00	2.95E-02
		Cs-134	<2.47E-02	0.00E+00	2.47E-02
		Cs-137	<2.06E-02	0.00E+00	2.06E-02
		Be-7	<1.64E-01	0.00E+00	1.64E-01
		K-40	<4.09E-01	0.00E+00	4.09E-01
354787	9/8/2014 - 9/15/2014	I-131	<2.66E-02	0.00E+00	2.66E-02
		Cs-134	<2.11E-02	0.00E+00	2.11E-02
		Cs-137	<1.62E-02	0.00E+00	1.62E-02
		Be-7	<1.54E-01	0.00E+00	1.54E-01
		K-40	<6.92E-01	0.00E+00	6.92E-01
355241	9/15/2014 - 9/22/2014	I-131	<1.52E-02	0.00E+00	1.52E-02
		Cs-134	<1.50E-02	0.00E+00	1.50E-02
		Cs-137	<1.28E-02	0.00E+00	1.28E-02
		Be-7	<1.32E-01	0.00E+00	1.32E-01
		K-40	5.27E-01	2.52E-01	7.93E-02
355675	9/22/2014 - 9/29/2014	I-131	<2.33E-02	0.00E+00	2.33E-02
		Cs-134	<2.09E-02	0.00E+00	2.09E-02
		Cs-137	<1.28E-02	0.00E+00	1.28E-02
		Be-7	<1.33E-01	0.00E+00	1.33E-01
		K-40	3.81E-01	2.14E-01	7.95E-02
356554	9/29/2014 - 10/7/2014	I-131	<1.77E-02	0.00E+00	1.77E-02
		Cs-134	<1.29E-02	0.00E+00	1.29E-02
		Cs-137	<1.38E-02	0.00E+00	1.38E-02
		Be-7	<2.77E-02	0.00E+00	2.77E-02
		K-40	4.27E-01	2.10E-01	6.80E-02

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 5 [ INDICATOR - ENE @ 0.9 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
357078	10/7/2014 - 10/13/2014	I-131	<2.76E-02	0.00E+00	2.76E-02
		Cs-134	<1.98E-02	0.00E+00	1.98E-02
		Cs-137	<1.51E-02	0.00E+00	1.51E-02
		Be-7	<2.07E-01	0.00E+00	2.07E-01
		K-40	3.89E-01	2.92E-01	3.81E-01
358075	10/13/2014 - 10/20/2014	I-131	<2.01E-02	0.00E+00	2.01E-02
		Cs-134	<1.31E-02	0.00E+00	1.31E-02
		Cs-137	<2.30E-02	0.00E+00	2.30E-02
		Be-7	<1.04E-01	0.00E+00	1.04E-01
		K-40	6.52E-01	2.83E-01	8.03E-02
358681	10/20/2014 - 10/27/2014	I-131	<1.54E-02	0.00E+00	1.54E-02
		Cs-134	<1.23E-02	0.00E+00	1.23E-02
		Cs-137	<1.46E-02	0.00E+00	1.46E-02
		Be-7	<7.19E-02	0.00E+00	7.19E-02
		K-40	4.78E-01	1.79E-01	1.39E-01
359341	10/27/2014 - 11/3/2014	I-131	<1.36E-02	0.00E+00	1.36E-02
		Cs-134	<1.04E-02	0.00E+00	1.04E-02
		Cs-137	<1.56E-02	0.00E+00	1.56E-02
		Be-7	<6.75E-02	0.00E+00	6.75E-02
		K-40	4.43E-01	1.92E-01	2.02E-01
360059	11/3/2014 - 11/10/2014	I-131	<2.99E-02	0.00E+00	2.99E-02
		Cs-134	<1.81E-02	0.00E+00	1.81E-02
		Cs-137	<1.85E-02	0.00E+00	1.85E-02
		Be-7	<1.45E-01	0.00E+00	1.45E-01
		K-40	<5.05E-01	0.00E+00	5.05E-01
360739	11/10/2014 - 11/17/2014	I-131	<2.42E-02	0.00E+00	2.42E-02
		Cs-134	<9.96E-03	0.00E+00	9.96E-03
		Cs-137	<1.82E-02	0.00E+00	1.82E-02
		Be-7	<1.30E-01	0.00E+00	1.30E-01
		K-40	3.22E-01	2.40E-01	3.11E-01
361599	11/17/2014 - 11/24/2014	I-131	<2.13E-02	0.00E+00	2.13E-02
		Cs-134	<9.60E-03	0.00E+00	9.60E-03
		Cs-137	<1.26E-02	0.00E+00	1.26E-02
		Be-7	<8.95E-02	0.00E+00	8.95E-02
		K-40	4.85E-01	1.99E-01	2.10E-01
361977	11/24/2014 - 12/1/2014	I-131	<3.80E-02	0.00E+00	3.80E-02
		Cs-134	<1.52E-02	0.00E+00	1.52E-02
		Cs-137	<1.89E-02	0.00E+00	1.89E-02
		Be-7	<1.21E-01	0.00E+00	1.21E-01
		K-40	3.70E-01	2.43E-01	3.16E-01
362812	12/1/2014 - 12/8/2014	I-131	<2.05E-02	0.00E+00	2.05E-02
		Cs-134	<1.31E-02	0.00E+00	1.31E-02
		Cs-137	<1.64E-02	0.00E+00	1.64E-02
		Be-7	<8.41E-02	0.00E+00	8.41E-02
		K-40	4.78E-01	2.18E-01	6.48E-02
363550	12/8/2014 - 12/15/2014	I-131	<1.13E-02	0.00E+00	1.13E-02
		Cs-134	<7.03E-03	0.00E+00	7.03E-03
		Cs-137	<1.06E-02	0.00E+00	1.06E-02
		Be-7	<8.75E-02	0.00E+00	8.75E-02
		K-40	3.19E-01	1.56E-01	1.69E-01

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

## Sample Point 5 [ INDICATOR - ENE @ 0.9 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
363995	12/15/2014 - 12/23/2014	I-131	<1.80E-02	0.00E+00	1.80E-02
		Cs-134	<6.71E-03	0.00E+00	6.71E-03
		Cs-137	<8.33E-03	0.00E+00	8.33E-03
		Be-7	<7.10E-02	0.00E+00	7.10E-02
		K-40	4.10E-01	1.52E-01	1.44E-01

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
364549	12/23/2014 - 12/29/2014	I-131	<2.08E-02	0.00E+00	2.08E-02
		Cs-134	<1.36E-02	0.00E+00	1.36E-02
		Cs-137	<1.38E-02	0.00E+00	1.38E-02
		Be-7	<9.07E-02	0.00E+00	9.07E-02
		K-40	8.71E-01	3.13E-01	2.93E-01

## Sample Point 6 [ INDICATOR - SSW @ 0.2 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
280729	12/30/2013 - 1/6/2014	I-131	<2.35E-02	0.00E+00	2.35E-02
		Cs-134	<1.90E-02	0.00E+00	1.90E-02
		Cs-137	<1.97E-02	0.00E+00	1.97E-02
		Be-7	<1.70E-01	0.00E+00	1.70E-01
		K-40	4.53E-01	1.42E-01	2.36E-01

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
280912	1/6/2014 - 1/13/2014	I-131	<2.56E-02	0.00E+00	2.56E-02
		Cs-134	<1.65E-02	0.00E+00	1.65E-02
		Cs-137	<1.06E-02	0.00E+00	1.06E-02
		Be-7	<1.28E-01	0.00E+00	1.28E-01
		K-40	3.68E-01	9.84E-02	7.11E-02

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
281292	1/13/2014 - 1/20/2014	I-131	<1.83E-02	0.00E+00	1.83E-02
		Cs-134	<1.26E-02	0.00E+00	1.26E-02
		Cs-137	<1.55E-02	0.00E+00	1.55E-02
		Be-7	<1.30E-01	0.00E+00	1.30E-01
		K-40	4.70E-01	1.53E-01	3.00E-01

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
281651	1/20/2014 - 1/27/2014	I-131	<9.63E-03	0.00E+00	9.63E-03
		Cs-134	<1.04E-02	0.00E+00	1.04E-02
		Cs-137	<1.10E-02	0.00E+00	1.10E-02
		Be-7	<6.46E-02	0.00E+00	6.46E-02
		K-40	4.82E-01	1.14E-01	1.36E-01

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
282219	1/27/2014 - 2/3/2014	I-131	<2.13E-02	0.00E+00	2.13E-02
		Cs-134	<1.14E-02	0.00E+00	1.14E-02
		Cs-137	<1.80E-02	0.00E+00	1.80E-02
		Be-7	<1.16E-01	0.00E+00	1.16E-01
		K-40	5.82E-01	1.45E-01	2.34E-01

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
283081	2/3/2014 - 2/10/2014	I-131	<3.25E-02	0.00E+00	3.25E-02
		Cs-134	<2.19E-02	0.00E+00	2.19E-02
		Cs-137	<1.36E-02	0.00E+00	1.36E-02
		Be-7	<1.24E-01	0.00E+00	1.24E-01
		K-40	<5.18E-01	0.00E+00	5.18E-01

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
283463	2/10/2014 - 2/17/2014	I-131	<3.74E-02	0.00E+00	3.74E-02
		Cs-134	<1.32E-02	0.00E+00	1.32E-02
		Cs-137	<1.71E-02	0.00E+00	1.71E-02
		Be-7	<2.03E-01	0.00E+00	2.03E-01
		K-40	4.54E-01	1.40E-01	1.87E-01

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
284650	2/17/2014 - 2/24/2014	I-131	<3.80E-02	0.00E+00	3.80E-02
		Cs-134	<1.50E-02	0.00E+00	1.50E-02
		Cs-137	<2.06E-02	0.00E+00	2.06E-02

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 6 [ INDICATOR - SSW @ 0.2 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
284650	2/17/2014 - 2/24/2014	Be-7	<1.28E-01	0.00E+00	1.28E-01
		K-40	2.68E-01	1.06E-01	3.09E-01
285212	2/24/2014 - 3/3/2014	I-131	<2.65E-02	0.00E+00	2.65E-02
		Cs-134	<1.08E-02	0.00E+00	1.08E-02
		Cs-137	<2.04E-02	0.00E+00	2.04E-02
		Be-7	<1.23E-01	0.00E+00	1.23E-01
		K-40	4.21E-01	1.05E-01	1.98E-01
285819	3/3/2014 - 3/10/2014	I-131	<2.64E-02	0.00E+00	2.64E-02
		Cs-134	<1.59E-02	0.00E+00	1.59E-02
		Cs-137	<2.05E-02	0.00E+00	2.05E-02
		Be-7	<1.61E-01	0.00E+00	1.61E-01
		K-40	5.66E-01	1.24E-01	7.28E-02
286334	3/10/2014 - 3/17/2014	I-131	<1.59E-02	0.00E+00	1.59E-02
		Cs-134	<6.58E-03	0.00E+00	6.58E-03
		Cs-137	<1.16E-02	0.00E+00	1.16E-02
		Be-7	<8.00E-02	0.00E+00	8.00E-02
		K-40	3.75E-01	8.18E-02	4.62E-02
287182	3/17/2014 - 3/24/2014	I-131	<2.64E-02	0.00E+00	2.64E-02
		Cs-134	<1.30E-02	0.00E+00	1.30E-02
		Cs-137	<2.16E-02	0.00E+00	2.16E-02
		Be-7	<8.99E-02	0.00E+00	8.99E-02
		K-40	4.18E-01	1.22E-01	2.76E-01
288439	3/24/2014 - 3/31/2014	I-131	<1.74E-02	0.00E+00	1.74E-02
		Cs-134	<1.94E-02	0.00E+00	1.94E-02
		Cs-137	<1.82E-02	0.00E+00	1.82E-02
		Be-7	<1.59E-01	0.00E+00	1.59E-01
		K-40	4.51E-01	1.36E-01	7.02E-02
289173	3/31/2014 - 4/7/2014	I-131	<3.12E-02	0.00E+00	3.12E-02
		Cs-134	<1.23E-02	0.00E+00	1.23E-02
		Cs-137	<2.04E-02	0.00E+00	2.04E-02
		Be-7	<1.36E-01	0.00E+00	1.36E-01
		K-40	3.45E-01	8.90E-02	2.09E-01
289559	4/7/2014 - 4/14/2014	I-131	<1.97E-02	0.00E+00	1.97E-02
		Cs-134	<2.08E-02	0.00E+00	2.08E-02
		Cs-137	<1.62E-02	0.00E+00	1.62E-02
		Be-7	<1.83E-01	0.00E+00	1.83E-01
		K-40	7.68E-01	1.75E-01	2.26E-01
290041	4/14/2014 - 4/21/2014	I-131	<9.33E-03	0.00E+00	9.33E-03
		Cs-134	<1.00E-02	0.00E+00	1.00E-02
		Cs-137	<1.32E-02	0.00E+00	1.32E-02
		Be-7	<6.62E-02	0.00E+00	6.62E-02
		K-40	3.74E-01	6.83E-02	9.05E-02
292122	4/21/2014 - 4/28/2014	I-131	<1.34E-02	0.00E+00	1.34E-02
		Cs-134	<8.25E-03	0.00E+00	8.25E-03
		Cs-137	<5.74E-03	0.00E+00	5.74E-03
		Be-7	<6.32E-02	0.00E+00	6.32E-02
		K-40	5.26E-01	7.51E-02	9.77E-02
292852	4/28/2014 - 5/5/2014	I-131	<1.91E-02	0.00E+00	1.91E-02

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 6 [ INDICATOR - SSW @ 0.2 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
292852	4/28/2014 - 5/5/2014	Cs-134	<1.85E-02	0.00E+00	1.85E-02
		Cs-137	<1.62E-02	0.00E+00	1.62E-02
		Be-7	<9.57E-02	0.00E+00	9.57E-02
		K-40	<4.52E-01	0.00E+00	4.52E-01
293123	5/5/2014 - 5/12/2014	I-131	<2.51E-02	0.00E+00	2.51E-02
		Cs-134	<1.55E-02	0.00E+00	1.55E-02
		Cs-137	<1.61E-02	0.00E+00	1.61E-02
		Be-7	<1.33E-01	0.00E+00	1.33E-01
		K-40	<5.68E-01	0.00E+00	5.68E-01
294765	5/12/2014 - 5/19/2014	I-131	<1.25E-02	0.00E+00	1.25E-02
		Cs-134	<7.50E-03	0.00E+00	7.50E-03
		Cs-137	<8.21E-03	0.00E+00	8.21E-03
		Be-7	<7.59E-02	0.00E+00	7.59E-02
		K-40	5.11E-01	7.46E-02	9.81E-02
295291	5/19/2014 - 5/26/2014	I-131	<3.14E-02	0.00E+00	3.14E-02
		Cs-134	<1.93E-02	0.00E+00	1.93E-02
		Cs-137	<1.73E-02	0.00E+00	1.73E-02
		Be-7	<1.31E-01	0.00E+00	1.31E-01
		K-40	6.09E-01	1.30E-01	3.20E-01
295615	5/26/2014 - 6/2/2014	I-131	<3.07E-02	0.00E+00	3.07E-02
		Cs-134	<1.65E-02	0.00E+00	1.65E-02
		Cs-137	<2.55E-02	0.00E+00	2.55E-02
		Be-7	<1.40E-01	0.00E+00	1.40E-01
		K-40	3.44E-01	1.32E-01	2.88E-01
296017	6/2/2014 - 6/9/2014	I-131	<1.16E-02	0.00E+00	1.16E-02
		Cs-134	<9.85E-03	0.00E+00	9.85E-03
		Cs-137	<1.06E-02	0.00E+00	1.06E-02
		Be-7	<6.74E-02	0.00E+00	6.74E-02
		K-40	5.18E-02	7.46E-02	8.62E-02
296282	6/9/2014 - 6/16/2014	I-131	<2.21E-02	0.00E+00	2.21E-02
		Cs-134	<8.28E-03	0.00E+00	8.28E-03
		Cs-137	<1.70E-02	0.00E+00	1.70E-02
		Be-7	<1.42E-01	0.00E+00	1.42E-01
		K-40	5.87E-01	1.42E-01	2.03E-01
296812	6/16/2014 - 6/23/2014	I-131	<1.14E-02	0.00E+00	1.14E-02
		Cs-134	<6.89E-03	0.00E+00	6.89E-03
		Cs-137	<9.50E-03	0.00E+00	9.50E-03
		Be-7	<8.33E-02	0.00E+00	8.33E-02
		K-40	6.47E-01	9.37E-02	1.04E-01
297087	6/23/2014 - 6/30/2014	I-131	<3.67E-02	0.00E+00	3.67E-02
		Cs-134	<2.04E-02	0.00E+00	2.04E-02
		Cs-137	<1.86E-02	0.00E+00	1.86E-02
		Be-7	<1.75E-01	0.00E+00	1.75E-01
		K-40	<5.69E-01	0.00E+00	5.69E-01
297442	6/30/2014 - 7/7/2014	I-131	<4.66E-02	0.00E+00	4.66E-02
		Cs-134	<8.67E-03	0.00E+00	8.67E-03
		Cs-137	<9.09E-03	0.00E+00	9.09E-03
		Be-7	<7.74E-02	0.00E+00	7.74E-02
		K-40	3.11E-01	1.59E-01	2.00E-01

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 6 [ INDICATOR - SSW @ 0.2 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
297697	7/7/2014 - 7/14/2014	I-131	<2.30E-02	0.00E+00	2.30E-02
		Cs-134	<6.25E-03	0.00E+00	6.25E-03
		Cs-137	<9.62E-03	0.00E+00	9.62E-03
		Be-7	<5.63E-02	0.00E+00	5.63E-02
		K-40	4.02E-01	1.53E-01	1.42E-01
298254	7/14/2014 - 7/21/2014	I-131	<3.84E-02	0.00E+00	3.84E-02
		Cs-134	<2.15E-02	0.00E+00	2.15E-02
		Cs-137	<2.20E-02	0.00E+00	2.20E-02
		Be-7	<1.25E-01	0.00E+00	1.25E-01
		K-40	3.74E-01	2.20E-01	1.95E-01
350697	7/21/2014 - 7/28/2014	I-131	<2.92E-02	0.00E+00	2.92E-02
		Cs-134	<2.12E-02	0.00E+00	2.12E-02
		Cs-137	<1.99E-02	0.00E+00	1.99E-02
		Be-7	<1.35E-01	0.00E+00	1.35E-01
		K-40	<5.81E-01	0.00E+00	5.81E-01
352353	7/28/2014 - 8/4/2014	I-131	<1.74E-02	0.00E+00	1.74E-02
		Cs-134	<1.89E-02	0.00E+00	1.89E-02
		Cs-137	<1.55E-02	0.00E+00	1.55E-02
		Be-7	<1.39E-01	0.00E+00	1.39E-01
		K-40	<5.49E-01	0.00E+00	5.49E-01
351676	8/4/2014 - 8/11/2014	I-131	<2.62E-02	0.00E+00	2.62E-02
		Cs-134	<1.79E-02	0.00E+00	1.79E-02
		Cs-137	<2.05E-02	0.00E+00	2.05E-02
		Be-7	<1.18E-01	0.00E+00	1.18E-01
		K-40	<5.22E-01	0.00E+00	5.22E-01
351677	8/11/2014 - 8/18/2014	I-131	<2.35E-02	0.00E+00	2.35E-02
		Cs-134	<5.32E-03	0.00E+00	5.32E-03
		Cs-137	<1.77E-02	0.00E+00	1.77E-02
		Be-7	<9.77E-02	0.00E+00	9.77E-02
		K-40	2.94E-01	2.27E-01	2.98E-01
353456	8/18/2014 - 8/25/2014	I-131	<4.06E-02	0.00E+00	4.06E-02
		Cs-134	<2.90E-02	0.00E+00	2.90E-02
		Cs-137	<2.05E-02	0.00E+00	2.05E-02
		Be-7	<1.65E-01	0.00E+00	1.65E-01
		K-40	2.59E-01	1.74E-01	7.80E-02
354116	8/25/2014 - 9/1/2014	I-131	<2.38E-02	0.00E+00	2.38E-02
		Cs-134	<2.15E-02	0.00E+00	2.15E-02
		Cs-137	<2.00E-02	0.00E+00	2.00E-02
		Be-7	<1.15E-01	0.00E+00	1.15E-01
		K-40	3.79E-01	2.37E-01	2.60E-01
354476	9/1/2014 - 9/8/2014	I-131	<2.07E-02	0.00E+00	2.07E-02
		Cs-134	<2.59E-02	0.00E+00	2.59E-02
		Cs-137	<1.53E-02	0.00E+00	1.53E-02
		Be-7	<1.13E-01	0.00E+00	1.13E-01
		K-40	3.34E-01	2.70E-01	3.82E-01
354789	9/8/2014 - 9/15/2014	I-131	<2.24E-02	0.00E+00	2.24E-02
		Cs-134	<1.78E-02	0.00E+00	1.78E-02
		Cs-137	<1.24E-02	0.00E+00	1.24E-02
		Be-7	<1.37E-01	0.00E+00	1.37E-01
		K-40	<6.06E-01	0.00E+00	6.06E-01

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 6 [ INDICATOR - SSW @ 0.2 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
355243	9/15/2014 - 9/22/2014	I-131	<1.72E-02	0.00E+00	1.72E-02
		Cs-134	<2.14E-02	0.00E+00	2.14E-02
		Cs-137	<1.56E-02	0.00E+00	1.56E-02
		Be-7	<1.51E-01	0.00E+00	1.51E-01
		K-40	2.69E-01	2.05E-01	2.49E-01
355677	9/22/2014 - 9/29/2014	I-131	<2.62E-02	0.00E+00	2.62E-02
		Cs-134	<1.81E-02	0.00E+00	1.81E-02
		Cs-137	<1.60E-02	0.00E+00	1.60E-02
		Be-7	<1.02E-01	0.00E+00	1.02E-01
		K-40	<6.36E-01	0.00E+00	6.36E-01
357080	10/7/2014 - 10/13/2014	I-131	<3.55E-02	0.00E+00	3.55E-02
		Cs-134	<2.63E-02	0.00E+00	2.63E-02
		Cs-137	<2.50E-02	0.00E+00	2.50E-02
		Be-7	<1.59E-01	0.00E+00	1.59E-01
		K-40	6.91E-01	4.08E-01	4.93E-01
358077	10/13/2014 - 10/20/2014	I-131	<2.15E-02	0.00E+00	2.15E-02
		Cs-134	<1.18E-02	0.00E+00	1.18E-02
		Cs-137	<1.16E-02	0.00E+00	1.16E-02
		Be-7	<1.51E-01	0.00E+00	1.51E-01
		K-40	4.18E-01	2.35E-01	2.32E-01
358683	10/20/2014 - 10/27/2014	I-131	<1.11E-02	0.00E+00	1.11E-02
		Cs-134	<6.66E-03	0.00E+00	6.66E-03
		Cs-137	<6.81E-03	0.00E+00	6.81E-03
		Be-7	<8.01E-02	0.00E+00	8.01E-02
		K-40	6.08E-01	1.85E-01	1.43E-01
359345	10/27/2014 - 11/3/2014	I-131	<2.17E-02	0.00E+00	2.17E-02
		Cs-134	<1.21E-02	0.00E+00	1.21E-02
		Cs-137	<1.68E-02	0.00E+00	1.68E-02
		Be-7	<1.61E-01	0.00E+00	1.61E-01
		K-40	2.98E-01	2.24E-01	3.02E-01
360061	11/3/2014 - 11/10/2014	I-131	<1.99E-02	0.00E+00	1.99E-02
		Cs-134	<1.68E-02	0.00E+00	1.68E-02
		Cs-137	<1.72E-02	0.00E+00	1.72E-02
		Be-7	<1.23E-01	0.00E+00	1.23E-01
		K-40	4.09E-01	2.45E-01	2.75E-01
360741	11/10/2014 - 11/17/2014	I-131	<2.79E-02	0.00E+00	2.79E-02
		Cs-134	<1.42E-02	0.00E+00	1.42E-02
		Cs-137	<1.76E-02	0.00E+00	1.76E-02
		Be-7	<1.13E-01	0.00E+00	1.13E-01
		K-40	<5.39E-01	0.00E+00	5.39E-01
361601	11/17/2014 - 11/24/2014	I-131	<2.45E-02	0.00E+00	2.45E-02
		Cs-134	<7.63E-03	0.00E+00	7.63E-03
		Cs-137	<8.45E-03	0.00E+00	8.45E-03
		Be-7	<1.08E-01	0.00E+00	1.08E-01
		K-40	5.35E-01	1.73E-01	3.53E-02
361979	11/24/2014 - 12/1/2014	I-131	<1.65E-02	0.00E+00	1.65E-02
		Cs-134	<8.47E-03	0.00E+00	8.47E-03
		Cs-137	<9.59E-03	0.00E+00	9.59E-03
		Be-7	<9.06E-02	0.00E+00	9.06E-02
		K-40	4.88E-01	1.81E-01	1.53E-01

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.





# ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 6 [ INDICATOR - SSW @ 0.2 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
362814	12/1/2014 - 12/8/2014	I-131	<3.15E-02	0.00E+00	3.15E-02
		Cs-134	<1.21E-02	0.00E+00	1.21E-02
		Cs-137	<1.03E-02	0.00E+00	1.03E-02
		Be-7	<1.13E-01	0.00E+00	1.13E-01
		K-40	<5.47E-01	0.00E+00	5.47E-01
363552	12/8/2014 - 12/15/2014	I-131	<1.81E-02	0.00E+00	1.81E-02
		Cs-134	<2.70E-03	0.00E+00	2.70E-03
		Cs-137	<1.50E-02	0.00E+00	1.50E-02
		Be-7	<9.44E-02	0.00E+00	9.44E-02
		K-40	<4.28E-01	0.00E+00	4.28E-01
363997	12/15/2014 - 12/23/2014	I-131	<1.32E-02	0.00E+00	1.32E-02
		Cs-134	<6.24E-03	0.00E+00	6.24E-03
		Cs-137	<5.88E-03	0.00E+00	5.88E-03
		Be-7	<5.40E-02	0.00E+00	5.40E-02
		K-40	2.46E-01	1.12E-01	1.17E-01
364551	12/23/2014 - 12/29/2014	I-131	<1.48E-02	0.00E+00	1.48E-02
		Cs-134	<1.55E-02	0.00E+00	1.55E-02
		Cs-137	<1.38E-02	0.00E+00	1.38E-02
		Be-7	<9.06E-02	0.00E+00	9.06E-02
		K-40	5.56E-01	2.08E-01	5.02E-02

Sample Point 7 [ INDICATOR - ESE @ 6.4 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
280732	12/30/2013 - 1/6/2014	I-131	<2.36E-02	0.00E+00	2.36E-02
		Cs-134	<1.76E-02	0.00E+00	1.76E-02
		Cs-137	<1.58E-02	0.00E+00	1.58E-02
		Be-7	<1.48E-01	0.00E+00	1.48E-01
		K-40	<5.55E-01	0.00E+00	5.55E-01
280915	1/6/2014 - 1/13/2014	I-131	<2.40E-02	0.00E+00	2.40E-02
		Cs-134	<1.89E-02	0.00E+00	1.89E-02
		Cs-137	<2.16E-02	0.00E+00	2.16E-02
		Be-7	<1.12E-01	0.00E+00	1.12E-01
		K-40	4.74E-01	1.15E-01	2.65E-01
281295	1/13/2014 - 1/20/2014	I-131	<1.80E-02	0.00E+00	1.80E-02
		Cs-134	<9.62E-03	0.00E+00	9.62E-03
		Cs-137	<8.03E-03	0.00E+00	8.03E-03
		Be-7	<8.22E-02	0.00E+00	8.22E-02
		K-40	1.88E-01	7.83E-02	1.70E-01
281654	1/20/2014 - 1/27/2014	I-131	<1.50E-02	0.00E+00	1.50E-02
		Cs-134	<1.21E-02	0.00E+00	1.21E-02
		Cs-137	<1.55E-02	0.00E+00	1.55E-02
		Be-7	<7.32E-02	0.00E+00	7.32E-02
		K-40	3.53E-01	8.56E-02	5.61E-02
282222	1/27/2014 - 2/3/2014	I-131	<1.57E-02	0.00E+00	1.57E-02
		Cs-134	<1.51E-02	0.00E+00	1.51E-02
		Cs-137	<1.85E-02	0.00E+00	1.85E-02
		Be-7	<1.20E-01	0.00E+00	1.20E-01
		K-40	2.58E-01	1.49E-01	2.41E-01
283084	2/3/2014 - 2/10/2014	I-131	<3.62E-02	0.00E+00	3.62E-02
		Cs-134	<1.88E-02	0.00E+00	1.88E-02
		Cs-137	<1.85E-02	0.00E+00	1.85E-02

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 7 [ INDICATOR - ESE @ 6.4 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
283084	2/3/2014 - 2/10/2014	Be-7	<1.65E-01	0.00E+00	1.65E-01
		K-40	3.64E-01	1.40E-01	2.05E-01
283466	2/10/2014 - 2/17/2014	I-131	<3.08E-02	0.00E+00	3.08E-02
		Cs-134	<1.91E-02	0.00E+00	1.91E-02
		Cs-137	<1.96E-02	0.00E+00	1.96E-02
		Be-7	<1.48E-01	0.00E+00	1.48E-01
		K-40	2.94E-01	8.85E-02	1.92E-01
284653	2/17/2014 - 2/24/2014	I-131	<3.36E-02	0.00E+00	3.36E-02
		Cs-134	<1.54E-02	0.00E+00	1.54E-02
		Cs-137	<1.81E-02	0.00E+00	1.81E-02
		Be-7	<1.67E-01	0.00E+00	1.67E-01
		K-40	2.88E-01	1.37E-01	3.19E-01
285215	2/24/2014 - 3/3/2014	I-131	<2.59E-02	0.00E+00	2.59E-02
		Cs-134	<1.56E-02	0.00E+00	1.56E-02
		Cs-137	<1.40E-02	0.00E+00	1.40E-02
		Be-7	<1.56E-01	0.00E+00	1.56E-01
		K-40	4.02E-01	1.56E-01	3.48E-01
285822	3/3/2014 - 3/10/2014	I-131	<3.02E-02	0.00E+00	3.02E-02
		Cs-134	<1.74E-02	0.00E+00	1.74E-02
		Cs-137	<2.24E-02	0.00E+00	2.24E-02
		Be-7	<1.61E-01	0.00E+00	1.61E-01
		K-40	3.45E-01	1.28E-01	7.92E-02
286337	3/10/2014 - 3/17/2014	I-131	<1.34E-02	0.00E+00	1.34E-02
		Cs-134	<6.94E-03	0.00E+00	6.94E-03
		Cs-137	<1.49E-02	0.00E+00	1.49E-02
		Be-7	<5.83E-02	0.00E+00	5.83E-02
		K-40	2.02E-01	7.85E-02	1.73E-01
287185	3/17/2014 - 3/24/2014	I-131	<2.30E-02	0.00E+00	2.30E-02
		Cs-134	<1.50E-02	0.00E+00	1.50E-02
		Cs-137	<1.52E-02	0.00E+00	1.52E-02
		Be-7	<1.25E-01	0.00E+00	1.25E-01
		K-40	4.49E-01	1.06E-01	3.23E-01
288442	3/24/2014 - 3/31/2014	I-131	<1.46E-02	0.00E+00	1.46E-02
		Cs-134	<8.98E-03	0.00E+00	8.98E-03
		Cs-137	<8.65E-03	0.00E+00	8.65E-03
		Be-7	<1.05E-01	0.00E+00	1.05E-01
		K-40	6.39E-01	1.15E-01	5.57E-02
289176	3/31/2014 - 4/7/2014	I-131	<2.29E-02	0.00E+00	2.29E-02
		Cs-134	<1.34E-02	0.00E+00	1.34E-02
		Cs-137	<1.55E-02	0.00E+00	1.55E-02
		Be-7	<8.30E-02	0.00E+00	8.30E-02
		K-40	3.90E-01	1.00E-01	1.54E-01
289562	4/7/2014 - 4/14/2014	I-131	<2.47E-02	0.00E+00	2.47E-02
		Cs-134	<1.96E-02	0.00E+00	1.96E-02
		Cs-137	<2.23E-02	0.00E+00	2.23E-02
		Be-7	<1.57E-01	0.00E+00	1.57E-01
		K-40	6.72E-01	1.47E-01	3.06E-01
290044	4/14/2014 - 4/21/2014	I-131	<1.32E-02	0.00E+00	1.32E-02

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 7 [ INDICATOR - ESE @ 6.4 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
290044	4/14/2014 - 4/21/2014	Cs-134	<1.28E-02	0.00E+00	1.28E-02
		Cs-137	<1.48E-02	0.00E+00	1.48E-02
		Be-7	<9.73E-02	0.00E+00	9.73E-02
		K-40	3.30E-01	8.26E-02	1.72E-01
292125	4/21/2014 - 4/28/2014	I-131	<2.00E-02	0.00E+00	2.00E-02
		Cs-134	<1.33E-02	0.00E+00	1.33E-02
		Cs-137	<1.87E-02	0.00E+00	1.87E-02
		Be-7	<1.40E-01	0.00E+00	1.40E-01
		K-40	2.56E-01	1.32E-01	2.58E-01
292855	4/28/2014 - 5/5/2014	I-131	<1.56E-02	0.00E+00	1.56E-02
		Cs-134	<8.79E-03	0.00E+00	8.79E-03
		Cs-137	<1.57E-02	0.00E+00	1.57E-02
		Be-7	<9.44E-02	0.00E+00	9.44E-02
		K-40	4.19E-01	1.15E-01	1.78E-01
293126	5/5/2014 - 5/12/2014	I-131	<1.14E-02	0.00E+00	1.14E-02
		Cs-134	<2.27E-03	0.00E+00	2.27E-03
		Cs-137	<1.09E-02	0.00E+00	1.09E-02
		Be-7	<8.54E-02	0.00E+00	8.54E-02
		K-40	<3.46E-01	0.00E+00	3.46E-01
294768	5/12/2014 - 5/19/2014	I-131	<1.26E-02	0.00E+00	1.26E-02
		Cs-134	<7.86E-03	0.00E+00	7.86E-03
		Cs-137	<1.27E-02	0.00E+00	1.27E-02
		Be-7	<8.81E-02	0.00E+00	8.81E-02
		K-40	<3.56E-01	0.00E+00	3.56E-01
295294	5/19/2014 - 5/26/2014	I-131	<3.19E-02	0.00E+00	3.19E-02
		Cs-134	<1.84E-02	0.00E+00	1.84E-02
		Cs-137	<1.55E-02	0.00E+00	1.55E-02
		Be-7	<1.57E-01	0.00E+00	1.57E-01
		K-40	6.30E-01	1.34E-01	2.74E-01
295618	5/26/2014 - 6/2/2014	I-131	<3.94E-02	0.00E+00	3.94E-02
		Cs-134	<1.44E-02	0.00E+00	1.44E-02
		Cs-137	<2.25E-02	0.00E+00	2.25E-02
		Be-7	<1.18E-01	0.00E+00	1.18E-01
		K-40	4.19E-01	1.08E-01	3.17E-01
296020	6/2/2014 - 6/9/2014	I-131	<1.19E-02	0.00E+00	1.19E-02
		Cs-134	<1.00E-02	0.00E+00	1.00E-02
		Cs-137	<1.29E-02	0.00E+00	1.29E-02
		Be-7	<8.66E-02	0.00E+00	8.66E-02
		K-40	3.02E-01	8.82E-02	1.50E-01
296285	6/9/2014 - 6/16/2014	I-131	<1.56E-02	0.00E+00	1.56E-02
		Cs-134	<1.04E-02	0.00E+00	1.04E-02
		Cs-137	<1.77E-02	0.00E+00	1.77E-02
		Be-7	<8.55E-02	0.00E+00	8.55E-02
		K-40	<3.51E-01	0.00E+00	3.51E-01
296815	6/16/2014 - 6/23/2014	I-131	<8.81E-03	0.00E+00	8.81E-03
		Cs-134	<1.39E-02	0.00E+00	1.39E-02
		Cs-137	<9.84E-03	0.00E+00	9.84E-03
		Be-7	<7.78E-02	0.00E+00	7.78E-02
		K-40	4.23E-01	9.46E-02	5.72E-02

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 7 [ INDICATOR - ESE @ 6.4 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
297090	6/23/2014 - 6/30/2014	I-131	<2.33E-02	0.00E+00	2.33E-02
		Cs-134	<9.59E-03	0.00E+00	9.59E-03
		Cs-137	<1.24E-02	0.00E+00	1.24E-02
		Be-7	<9.68E-02	0.00E+00	9.68E-02
		K-40	2.66E-01	9.68E-02	1.71E-01
297445	6/30/2014 - 7/7/2014	I-131	<5.28E-02	0.00E+00	5.28E-02
		Cs-134	<1.01E-02	0.00E+00	1.01E-02
		Cs-137	<1.47E-02	0.00E+00	1.47E-02
		Be-7	<1.12E-01	0.00E+00	1.12E-01
		K-40	4.74E-01	1.72E-01	4.02E-02
297700	7/7/2014 - 7/14/2014	I-131	<2.60E-02	0.00E+00	2.60E-02
		Cs-134	<9.80E-03	0.00E+00	9.80E-03
		Cs-137	<6.20E-03	0.00E+00	6.20E-03
		Be-7	<7.63E-02	0.00E+00	7.63E-02
		K-40	4.40E-01	1.69E-01	1.65E-01
298257	7/14/2014 - 7/21/2014	I-131	<4.36E-02	0.00E+00	4.36E-02
		Cs-134	<1.02E-02	0.00E+00	1.02E-02
		Cs-137	<4.67E-03	0.00E+00	4.67E-03
		Be-7	<1.28E-01	0.00E+00	1.28E-01
		K-40	5.37E-01	2.80E-01	2.73E-01
350700	7/21/2014 - 7/28/2014	I-131	<1.85E-02	0.00E+00	1.85E-02
		Cs-134	<1.30E-02	0.00E+00	1.30E-02
		Cs-137	<2.09E-02	0.00E+00	2.09E-02
		Be-7	<1.41E-01	0.00E+00	1.41E-01
		K-40	3.19E-01	2.69E-01	3.84E-01
352357	7/28/2014 - 8/4/2014	I-131	<2.17E-02	0.00E+00	2.17E-02
		Cs-134	<1.29E-02	0.00E+00	1.29E-02
		Cs-137	<2.08E-02	0.00E+00	2.08E-02
		Be-7	<1.65E-01	0.00E+00	1.65E-01
		K-40	<6.05E-01	0.00E+00	6.05E-01
351682	8/4/2014 - 8/11/2014	I-131	<2.73E-02	0.00E+00	2.73E-02
		Cs-134	<1.72E-02	0.00E+00	1.72E-02
		Cs-137	<1.31E-02	0.00E+00	1.31E-02
		Be-7	<8.43E-02	0.00E+00	8.43E-02
		K-40	<5.02E-01	0.00E+00	5.02E-01
351683	8/11/2014 - 8/18/2014	I-131	<2.24E-02	0.00E+00	2.24E-02
		Cs-134	<2.67E-02	0.00E+00	2.67E-02
		Cs-137	<2.04E-02	0.00E+00	2.04E-02
		Be-7	<1.31E-01	0.00E+00	1.31E-01
		K-40	4.79E-01	2.58E-01	2.42E-01
353459	8/18/2014 - 8/25/2014	I-131	<2.94E-02	0.00E+00	2.94E-02
		Cs-134	<2.27E-02	0.00E+00	2.27E-02
		Cs-137	<1.88E-02	0.00E+00	1.88E-02
		Be-7	<1.57E-01	0.00E+00	1.57E-01
		K-40	<5.93E-01	0.00E+00	5.93E-01
354129	8/25/2014 - 9/1/2014	I-131	<2.59E-02	0.00E+00	2.59E-02
		Cs-134	<1.52E-02	0.00E+00	1.52E-02
		Cs-137	<1.60E-02	0.00E+00	1.60E-02
		Be-7	<1.55E-01	0.00E+00	1.55E-01
		K-40	<7.12E-01	0.00E+00	7.12E-01

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 7 [ INDICATOR - ESE @ 6.4 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
354479	9/1/2014 - 9/8/2014	I-131	<2.45E-02	0.00E+00	2.45E-02
		Cs-134	<1.92E-02	0.00E+00	1.92E-02
		Cs-137	<1.60E-02	0.00E+00	1.60E-02
		Be-7	<1.02E-01	0.00E+00	1.02E-01
		K-40	4.44E-01	2.64E-01	2.91E-01
354792	9/8/2014 - 9/15/2014	I-131	<3.49E-02	0.00E+00	3.49E-02
		Cs-134	<1.69E-02	0.00E+00	1.69E-02
		Cs-137	<1.63E-02	0.00E+00	1.63E-02
		Be-7	<1.87E-01	0.00E+00	1.87E-01
		K-40	6.49E-01	3.19E-01	3.25E-01
355246	9/15/2014 - 9/22/2014	I-131	<1.53E-02	0.00E+00	1.53E-02
		Cs-134	<1.30E-02	0.00E+00	1.30E-02
		Cs-137	<1.63E-02	0.00E+00	1.63E-02
		Be-7	<1.20E-01	0.00E+00	1.20E-01
		K-40	4.81E-01	2.75E-01	2.95E-01
355680	9/22/2014 - 9/29/2014	I-131	<2.24E-02	0.00E+00	2.24E-02
		Cs-134	<1.06E-02	0.00E+00	1.06E-02
		Cs-137	<1.67E-02	0.00E+00	1.67E-02
		Be-7	<8.39E-02	0.00E+00	8.39E-02
		K-40	2.86E-01	2.48E-01	3.51E-01
356559	9/29/2014 - 10/7/2014	I-131	<2.65E-02	0.00E+00	2.65E-02
		Cs-134	<1.47E-02	0.00E+00	1.47E-02
		Cs-137	<4.12E-03	0.00E+00	4.12E-03
		Be-7	<1.13E-01	0.00E+00	1.13E-01
		K-40	<5.32E-01	0.00E+00	5.32E-01
357083	10/7/2014 - 10/13/2014	I-131	<2.43E-02	0.00E+00	2.43E-02
		Cs-134	<2.00E-02	0.00E+00	2.00E-02
		Cs-137	<1.93E-02	0.00E+00	1.93E-02
		Be-7	<1.43E-01	0.00E+00	1.43E-01
		K-40	6.55E-01	3.33E-01	3.02E-01
358080	10/13/2014 - 10/20/2014	I-131	<2.95E-02	0.00E+00	2.95E-02
		Cs-134	<1.31E-02	0.00E+00	1.31E-02
		Cs-137	<1.64E-02	0.00E+00	1.64E-02
		Be-7	<1.04E-01	0.00E+00	1.04E-01
		K-40	6.25E-01	2.78E-01	8.07E-02
358686	10/20/2014 - 10/27/2014	I-131	<9.67E-03	0.00E+00	9.67E-03
		Cs-134	<8.68E-03	0.00E+00	8.68E-03
		Cs-137	<6.01E-03	0.00E+00	6.01E-03
		Be-7	<6.72E-02	0.00E+00	6.72E-02
		K-40	3.25E-01	1.22E-01	2.94E-02
359351	10/27/2014 - 11/3/2014	I-131	<1.65E-02	0.00E+00	1.65E-02
		Cs-134	<9.55E-03	0.00E+00	9.55E-03
		Cs-137	<1.25E-02	0.00E+00	1.25E-02
		Be-7	<5.86E-02	0.00E+00	5.86E-02
		K-40	5.46E-01	1.75E-01	3.52E-02
360064	11/3/2014 - 11/10/2014	I-131	<2.34E-02	0.00E+00	2.34E-02
		Cs-134	<1.37E-02	0.00E+00	1.37E-02
		Cs-137	<1.98E-02	0.00E+00	1.98E-02
		Be-7	<1.28E-01	0.00E+00	1.28E-01
		K-40	3.98E-01	2.78E-01	3.54E-01

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 7 [ INDICATOR - ESE @ 6.4 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
360744	11/10/2014 - 11/17/2014	I-131	<3.39E-02	0.00E+00	3.39E-02
		Cs-134	<2.54E-02	0.00E+00	2.54E-02
		Cs-137	<2.18E-02	0.00E+00	2.18E-02
		Be-7	<1.40E-01	0.00E+00	1.40E-01
		K-40	7.97E-01	3.20E-01	8.30E-02
361604	11/17/2014 - 11/24/2014	I-131	<2.76E-02	0.00E+00	2.76E-02
		Cs-134	<9.03E-03	0.00E+00	9.03E-03
		Cs-137	<1.31E-02	0.00E+00	1.31E-02
		Be-7	<9.26E-02	0.00E+00	9.26E-02
		K-40	4.97E-01	1.93E-01	1.56E-01
361982	11/24/2014 - 12/1/2014	I-131	<2.16E-02	0.00E+00	2.16E-02
		Cs-134	<6.04E-03	0.00E+00	6.04E-03
		Cs-137	<8.31E-03	0.00E+00	8.31E-03
		Be-7	<7.04E-02	0.00E+00	7.04E-02
		K-40	4.54E-01	1.51E-01	3.15E-02
362817	12/1/2014 - 12/8/2014	I-131	<3.31E-02	0.00E+00	3.31E-02
		Cs-134	<1.75E-02	0.00E+00	1.75E-02
		Cs-137	<1.55E-02	0.00E+00	1.55E-02
		Be-7	<1.57E-01	0.00E+00	1.57E-01
		K-40	<5.99E-01	0.00E+00	5.99E-01
363555	12/8/2014 - 12/15/2014	I-131	<2.01E-02	0.00E+00	2.01E-02
		Cs-134	<1.52E-02	0.00E+00	1.52E-02
		Cs-137	<1.75E-02	0.00E+00	1.75E-02
		Be-7	<8.52E-02	0.00E+00	8.52E-02
		K-40	6.40E-01	2.61E-01	6.94E-02
364000	12/15/2014 - 12/23/2014	I-131	<1.20E-02	0.00E+00	1.20E-02
		Cs-134	<5.57E-03	0.00E+00	5.57E-03
		Cs-137	<9.56E-03	0.00E+00	9.56E-03
		Be-7	<4.80E-02	0.00E+00	4.80E-02
		K-40	3.27E-01	1.15E-01	2.61E-02
364554	12/23/2014 - 12/29/2014	I-131	<2.15E-02	0.00E+00	2.15E-02
		Cs-134	<1.20E-02	0.00E+00	1.20E-02
		Cs-137	<1.95E-02	0.00E+00	1.95E-02
		Be-7	<1.28E-01	0.00E+00	1.28E-01
		K-40	4.24E-01	2.47E-01	3.06E-01

## Sample Point 55 [ INDICATOR - SSE @ 0.2 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
280728	12/30/2013 - 1/6/2014	I-131	<2.53E-02	0.00E+00	2.53E-02
		Cs-134	<1.78E-02	0.00E+00	1.78E-02
		Cs-137	<1.66E-02	0.00E+00	1.66E-02
		Be-7	<1.35E-01	0.00E+00	1.35E-01
		K-40	5.03E-01	1.19E-01	2.66E-01
280911	1/6/2014 - 1/13/2014	I-131	<2.52E-02	0.00E+00	2.52E-02
		Cs-134	<1.46E-02	0.00E+00	1.46E-02
		Cs-137	<1.51E-02	0.00E+00	1.51E-02
		Be-7	<9.15E-02	0.00E+00	9.15E-02
		K-40	<5.23E-01	0.00E+00	5.23E-01
281291	1/13/2014 - 1/20/2014	I-131	<1.79E-02	0.00E+00	1.79E-02
		Cs-134	<1.47E-02	0.00E+00	1.47E-02
		Cs-137	<1.57E-02	0.00E+00	1.57E-02

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 55 [ INDICATOR - SSE @ 0.2 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
281291	1/13/2014 - 1/20/2014	Be-7	<1.39E-01	0.00E+00	1.39E-01
		K-40	7.20E-01	1.29E-01	2.08E-01
281650	1/20/2014 - 1/27/2014	I-131	<1.39E-02	0.00E+00	1.39E-02
		Cs-134	<8.87E-03	0.00E+00	8.87E-03
		Cs-137	<8.08E-03	0.00E+00	8.08E-03
		Be-7	<7.90E-02	0.00E+00	7.90E-02
		K-40	5.06E-01	7.71E-02	1.27E-01
282218	1/27/2014 - 2/3/2014	I-131	<2.46E-02	0.00E+00	2.46E-02
		Cs-134	<1.40E-02	0.00E+00	1.40E-02
		Cs-137	<1.95E-02	0.00E+00	1.95E-02
		Be-7	<1.55E-01	0.00E+00	1.55E-01
		K-40	5.31E-01	1.22E-01	2.09E-01
283080	2/3/2014 - 2/10/2014	I-131	<4.63E-02	0.00E+00	4.63E-02
		Cs-134	<2.16E-02	0.00E+00	2.16E-02
		Cs-137	<2.20E-02	0.00E+00	2.20E-02
		Be-7	<1.57E-01	0.00E+00	1.57E-01
		K-40	<5.30E-01	0.00E+00	5.30E-01
283462	2/10/2014 - 2/17/2014	I-131	<3.87E-02	0.00E+00	3.87E-02
		Cs-134	<1.94E-02	0.00E+00	1.94E-02
		Cs-137	<1.67E-02	0.00E+00	1.67E-02
		Be-7	<1.76E-01	0.00E+00	1.76E-01
		K-40	4.95E-01	1.17E-01	1.98E-01
284649	2/17/2014 - 2/24/2014	I-131	<1.41E-02	0.00E+00	1.41E-02
		Cs-134	<1.27E-02	0.00E+00	1.27E-02
		Cs-137	<8.63E-03	0.00E+00	8.63E-03
		Be-7	<1.28E-01	0.00E+00	1.28E-01
		K-40	5.57E-01	1.14E-01	2.06E-01
285211	2/24/2014 - 3/3/2014	I-131	<2.58E-02	0.00E+00	2.58E-02
		Cs-134	<1.36E-02	0.00E+00	1.36E-02
		Cs-137	<1.70E-02	0.00E+00	1.70E-02
		Be-7	<9.55E-02	0.00E+00	9.55E-02
		K-40	5.41E-01	1.18E-01	3.46E-01
285818	3/3/2014 - 3/10/2014	I-131	<2.71E-02	0.00E+00	2.71E-02
		Cs-134	<1.68E-02	0.00E+00	1.68E-02
		Cs-137	<2.26E-02	0.00E+00	2.26E-02
		Be-7	<1.45E-01	0.00E+00	1.45E-01
		K-40	5.90E-01	1.35E-01	3.46E-01
286333	3/10/2014 - 3/17/2014	I-131	<1.42E-02	0.00E+00	1.42E-02
		Cs-134	<9.35E-03	0.00E+00	9.35E-03
		Cs-137	<1.08E-02	0.00E+00	1.08E-02
		Be-7	<7.88E-02	0.00E+00	7.88E-02
		K-40	3.42E-01	8.08E-02	9.28E-02
287181	3/17/2014 - 3/24/2014	I-131	<1.43E-02	0.00E+00	1.43E-02
		Cs-134	<8.78E-03	0.00E+00	8.78E-03
		Cs-137	<1.07E-02	0.00E+00	1.07E-02
		Be-7	<7.95E-02	0.00E+00	7.95E-02
		K-40	<4.60E-01	0.00E+00	4.60E-01
288438	3/24/2014 - 3/31/2014	I-131	<1.53E-02	0.00E+00	1.53E-02

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.





# ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 55 [ INDICATOR - SSE @ 0.2 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
288438	3/24/2014 - 3/31/2014	Cs-134	<9.31E-03	0.00E+00	9.31E-03
		Cs-137	<9.51E-03	0.00E+00	9.51E-03
		Be-7	<8.54E-02	0.00E+00	8.54E-02
		K-40	<3.34E-01	0.00E+00	3.34E-01
289172	3/31/2014 - 4/7/2014	I-131	<3.33E-02	0.00E+00	3.33E-02
		Cs-134	<1.31E-02	0.00E+00	1.31E-02
		Cs-137	<1.80E-02	0.00E+00	1.80E-02
		Be-7	<1.19E-01	0.00E+00	1.19E-01
		K-40	<4.97E-01	0.00E+00	4.97E-01
289558	4/7/2014 - 4/14/2014	I-131	<1.75E-02	0.00E+00	1.75E-02
		Cs-134	<1.29E-02	0.00E+00	1.29E-02
		Cs-137	<1.92E-02	0.00E+00	1.92E-02
		Be-7	<1.15E-01	0.00E+00	1.15E-01
		K-40	3.39E-01	1.30E-01	2.92E-01
290040	4/14/2014 - 4/21/2014	I-131	<1.40E-02	0.00E+00	1.40E-02
		Cs-134	<9.51E-03	0.00E+00	9.51E-03
		Cs-137	<8.43E-03	0.00E+00	8.43E-03
		Be-7	<9.84E-02	0.00E+00	9.84E-02
		K-40	4.69E-01	1.14E-01	5.43E-02
292121	4/21/2014 - 4/28/2014	I-131	<1.28E-02	0.00E+00	1.28E-02
		Cs-134	<1.20E-02	0.00E+00	1.20E-02
		Cs-137	<8.44E-03	0.00E+00	8.44E-03
		Be-7	<6.82E-02	0.00E+00	6.82E-02
		K-40	3.04E-01	6.20E-02	3.42E-02
292851	4/28/2014 - 5/5/2014	I-131	<1.84E-02	0.00E+00	1.84E-02
		Cs-134	<1.87E-02	0.00E+00	1.87E-02
		Cs-137	<1.72E-02	0.00E+00	1.72E-02
		Be-7	<1.70E-01	0.00E+00	1.70E-01
		K-40	5.50E-01	1.20E-01	2.75E-01
293122	5/5/2014 - 5/12/2014	I-131	<3.06E-02	0.00E+00	3.06E-02
		Cs-134	<1.56E-02	0.00E+00	1.56E-02
		Cs-137	<2.00E-02	0.00E+00	2.00E-02
		Be-7	<9.18E-02	0.00E+00	9.18E-02
		K-40	5.84E-01	1.24E-01	3.95E-01
294764	5/12/2014 - 5/19/2014	I-131	<1.01E-02	0.00E+00	1.01E-02
		Cs-134	<1.01E-02	0.00E+00	1.01E-02
		Cs-137	<9.68E-03	0.00E+00	9.68E-03
		Be-7	<7.63E-02	0.00E+00	7.63E-02
		K-40	3.89E-01	6.99E-02	3.39E-02
295290	5/19/2014 - 5/26/2014	I-131	<3.58E-02	0.00E+00	3.58E-02
		Cs-134	<1.39E-02	0.00E+00	1.39E-02
		Cs-137	<2.09E-02	0.00E+00	2.09E-02
		Be-7	<1.09E-01	0.00E+00	1.09E-01
		K-40	3.86E-01	1.44E-01	2.97E-01
295614	5/26/2014 - 6/2/2014	I-131	<2.20E-02	0.00E+00	2.20E-02
		Cs-134	<1.38E-02	0.00E+00	1.38E-02
		Cs-137	<1.88E-02	0.00E+00	1.88E-02
		Be-7	<8.28E-02	0.00E+00	8.28E-02
		K-40	<3.71E-01	0.00E+00	3.71E-01

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 55 [ INDICATOR - SSE @ 0.2 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
296016	6/2/2014 - 6/9/2014	I-131	<1.20E-02	0.00E+00	1.20E-02
		Cs-134	<6.98E-03	0.00E+00	6.98E-03
		Cs-137	<1.35E-02	0.00E+00	1.35E-02
		Be-7	<8.92E-02	0.00E+00	8.92E-02
		K-40	3.00E-01	1.03E-01	1.86E-01
296281	6/9/2014 - 6/16/2014	I-131	<2.27E-02	0.00E+00	2.27E-02
		Cs-134	<1.37E-02	0.00E+00	1.37E-02
		Cs-137	<1.92E-02	0.00E+00	1.92E-02
		Be-7	<1.06E-01	0.00E+00	1.06E-01
		K-40	4.45E-01	9.70E-02	1.90E-01
296811	6/16/2014 - 6/23/2014	I-131	<1.16E-02	0.00E+00	1.16E-02
		Cs-134	<9.37E-03	0.00E+00	9.37E-03
		Cs-137	<9.53E-03	0.00E+00	9.53E-03
		Be-7	<7.78E-02	0.00E+00	7.78E-02
		K-40	4.26E-01	8.39E-02	1.33E-01
297086	6/23/2014 - 6/30/2014	I-131	<2.68E-02	0.00E+00	2.68E-02
		Cs-134	<2.17E-02	0.00E+00	2.17E-02
		Cs-137	<1.55E-02	0.00E+00	1.55E-02
		Be-7	<1.27E-01	0.00E+00	1.27E-01
		K-40	<4.49E-01	0.00E+00	4.49E-01
297441	6/30/2014 - 7/7/2014	I-131	<4.70E-02	0.00E+00	4.70E-02
		Cs-134	<5.76E-03	0.00E+00	5.76E-03
		Cs-137	<9.18E-03	0.00E+00	9.18E-03
		Be-7	<1.02E-01	0.00E+00	1.02E-01
		K-40	2.86E-01	1.67E-01	2.19E-01
297696	7/7/2014 - 7/14/2014	I-131	<4.20E-02	0.00E+00	4.20E-02
		Cs-134	<9.45E-03	0.00E+00	9.45E-03
		Cs-137	<1.48E-02	0.00E+00	1.48E-02
		Be-7	<1.36E-01	0.00E+00	1.36E-01
		K-40	3.81E-01	2.51E-01	3.13E-01
298253	7/14/2014 - 7/21/2014	I-131	<2.35E-02	0.00E+00	2.35E-02
		Cs-134	<1.17E-02	0.00E+00	1.17E-02
		Cs-137	<2.21E-02	0.00E+00	2.21E-02
		Be-7	<1.41E-01	0.00E+00	1.41E-01
		K-40	3.96E-01	2.46E-01	2.90E-01
350696	7/21/2014 - 7/28/2014	I-131	<3.81E-02	0.00E+00	3.81E-02
		Cs-134	<1.65E-02	0.00E+00	1.65E-02
		Cs-137	<1.46E-02	0.00E+00	1.46E-02
		Be-7	<1.28E-01	0.00E+00	1.28E-01
		K-40	4.47E-01	2.36E-01	2.10E-01
352352	7/28/2014 - 8/4/2014	I-131	<2.51E-02	0.00E+00	2.51E-02
		Cs-134	<1.50E-02	0.00E+00	1.50E-02
		Cs-137	<1.87E-02	0.00E+00	1.87E-02
		Be-7	<1.40E-01	0.00E+00	1.40E-01
		K-40	5.78E-01	2.51E-01	7.12E-02
351674	8/4/2014 - 8/11/2014	I-131	<1.51E-02	0.00E+00	1.51E-02
		Cs-134	<1.37E-02	0.00E+00	1.37E-02
		Cs-137	<1.71E-02	0.00E+00	1.71E-02
		Be-7	<9.47E-02	0.00E+00	9.47E-02
		K-40	6.15E-01	2.62E-01	7.25E-02

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 55 [ INDICATOR - SSE @ 0.2 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
351675	8/11/2014 - 8/18/2014	I-131	<1.89E-02	0.00E+00	1.89E-02
		Cs-134	<2.01E-02	0.00E+00	2.01E-02
		Cs-137	<1.45E-02	0.00E+00	1.45E-02
		Be-7	<1.31E-01	0.00E+00	1.31E-01
		K-40	<4.58E-01	0.00E+00	4.58E-01
353455	8/18/2014 - 8/25/2014	I-131	<3.55E-02	0.00E+00	3.55E-02
		Cs-134	<2.30E-02	0.00E+00	2.30E-02
		Cs-137	<1.71E-02	0.00E+00	1.71E-02
		Be-7	<1.64E-01	0.00E+00	1.64E-01
		K-40	2.85E-01	2.20E-01	2.89E-01
354114	8/25/2014 - 9/1/2014	I-131	<2.34E-02	0.00E+00	2.34E-02
		Cs-134	<1.99E-02	0.00E+00	1.99E-02
		Cs-137	<1.85E-02	0.00E+00	1.85E-02
		Be-7	<1.19E-01	0.00E+00	1.19E-01
		K-40	3.38E-01	1.90E-01	7.05E-02
354475	9/1/2014 - 9/8/2014	I-131	<1.08E-02	0.00E+00	1.08E-02
		Cs-134	<1.99E-02	0.00E+00	1.99E-02
		Cs-137	<1.14E-02	0.00E+00	1.14E-02
		Be-7	<9.11E-02	0.00E+00	9.11E-02
		K-40	<5.85E-01	0.00E+00	5.85E-01
354788	9/8/2014 - 9/15/2014	I-131	<3.37E-02	0.00E+00	3.37E-02
		Cs-134	<1.37E-02	0.00E+00	1.37E-02
		Cs-137	<2.07E-02	0.00E+00	2.07E-02
		Be-7	<1.39E-01	0.00E+00	1.39E-01
		K-40	<5.82E-01	0.00E+00	5.82E-01
355242	9/15/2014 - 9/22/2014	I-131	<1.62E-02	0.00E+00	1.62E-02
		Cs-134	<1.37E-02	0.00E+00	1.37E-02
		Cs-137	<1.47E-02	0.00E+00	1.47E-02
		Be-7	<1.08E-01	0.00E+00	1.08E-01
		K-40	3.64E-01	2.38E-01	2.86E-01
355676	9/22/2014 - 9/29/2014	I-131	<2.32E-02	0.00E+00	2.32E-02
		Cs-134	<1.39E-02	0.00E+00	1.39E-02
		Cs-137	<1.93E-02	0.00E+00	1.93E-02
		Be-7	<7.54E-02	0.00E+00	7.54E-02
		K-40	6.58E-01	2.99E-01	2.75E-01
356555	9/29/2014 - 10/7/2014	I-131	<3.36E-02	0.00E+00	3.36E-02
		Cs-134	<1.56E-02	0.00E+00	1.56E-02
		Cs-137	<1.80E-02	0.00E+00	1.80E-02
		Be-7	<1.02E-01	0.00E+00	1.02E-01
		K-40	5.08E-01	2.21E-01	6.26E-02
357079	10/7/2014 - 10/13/2014	I-131	<2.53E-02	0.00E+00	2.53E-02
		Cs-134	<1.39E-02	0.00E+00	1.39E-02
		Cs-137	<5.05E-03	0.00E+00	5.05E-03
		Be-7	<1.28E-01	0.00E+00	1.28E-01
		K-40	3.46E-01	2.45E-01	2.92E-01
358076	10/13/2014 - 10/20/2014	I-131	<1.84E-02	0.00E+00	1.84E-02
		Cs-134	<1.92E-02	0.00E+00	1.92E-02
		Cs-137	<1.92E-02	0.00E+00	1.92E-02
		Be-7	<1.43E-01	0.00E+00	1.43E-01
		K-40	4.73E-01	2.51E-01	2.43E-01

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 55 [ INDICATOR - SSE @ 0.2 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
358682	10/20/2014 - 10/27/2014	I-131	<1.58E-02	0.00E+00	1.58E-02
		Cs-134	<1.18E-02	0.00E+00	1.18E-02
		Cs-137	<3.34E-03	0.00E+00	3.34E-03
		Be-7	<5.73E-02	0.00E+00	5.73E-02
		K-40	<4.23E-01	0.00E+00	4.23E-01
359343	10/27/2014 - 11/3/2014	I-131	<1.59E-02	0.00E+00	1.59E-02
		Cs-134	<9.97E-03	0.00E+00	9.97E-03
		Cs-137	<1.17E-02	0.00E+00	1.17E-02
		Be-7	<8.49E-02	0.00E+00	8.49E-02
		K-40	3.70E-01	1.51E-01	1.19E-01
360060	11/3/2014 - 11/10/2014	I-131	<1.77E-02	0.00E+00	1.77E-02
		Cs-134	<1.18E-02	0.00E+00	1.18E-02
		Cs-137	<1.71E-02	0.00E+00	1.71E-02
		Be-7	<9.50E-02	0.00E+00	9.50E-02
		K-40	4.28E-01	2.63E-01	3.16E-01
360740	11/10/2014 - 11/17/2014	I-131	<2.01E-02	0.00E+00	2.01E-02
		Cs-134	<1.73E-02	0.00E+00	1.73E-02
		Cs-137	<1.21E-02	0.00E+00	1.21E-02
		Be-7	<1.38E-01	0.00E+00	1.38E-01
		K-40	5.42E-01	2.71E-01	2.50E-01
361600	11/17/2014 - 11/24/2014	I-131	<1.98E-02	0.00E+00	1.98E-02
		Cs-134	<6.82E-03	0.00E+00	6.82E-03
		Cs-137	<1.10E-02	0.00E+00	1.10E-02
		Be-7	<7.26E-02	0.00E+00	7.26E-02
		K-40	<3.32E-01	0.00E+00	3.32E-01
361978	11/24/2014 - 12/1/2014	I-131	<2.17E-02	0.00E+00	2.17E-02
		Cs-134	<9.76E-03	0.00E+00	9.76E-03
		Cs-137	<1.40E-02	0.00E+00	1.40E-02
		Be-7	<8.09E-02	0.00E+00	8.09E-02
		K-40	4.62E-01	1.90E-01	2.00E-01
362813	12/1/2014 - 12/8/2014	I-131	<1.86E-02	0.00E+00	1.86E-02
		Cs-134	<9.96E-03	0.00E+00	9.96E-03
		Cs-137	<1.23E-02	0.00E+00	1.23E-02
		Be-7	<8.93E-02	0.00E+00	8.93E-02
		K-40	2.64E-01	1.30E-01	1.19E-01
363551	12/8/2014 - 12/15/2014	I-131	<1.45E-02	0.00E+00	1.45E-02
		Cs-134	<1.21E-02	0.00E+00	1.21E-02
		Cs-137	<1.17E-02	0.00E+00	1.17E-02
		Be-7	<1.04E-01	0.00E+00	1.04E-01
		K-40	5.85E-01	2.50E-01	2.10E-01
363996	12/15/2014 - 12/23/2014	I-131	<2.46E-02	0.00E+00	2.46E-02
		Cs-134	<7.54E-03	0.00E+00	7.54E-03
		Cs-137	<1.53E-02	0.00E+00	1.53E-02
		Be-7	<1.03E-01	0.00E+00	1.03E-01
		K-40	2.66E-01	2.10E-01	2.93E-01
364550	12/23/2014 - 12/29/2014	I-131	<1.49E-02	0.00E+00	1.49E-02
		Cs-134	<1.42E-02	0.00E+00	1.42E-02
		Cs-137	<1.40E-02	0.00E+00	1.40E-02
		Be-7	<9.20E-02	0.00E+00	9.20E-02
		K-40	5.52E-01	2.42E-01	2.51E-01

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 60 [ INDICATOR - SE @ 0.2 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
280730	12/30/2013 - 1/6/2014	I-131	<1.12E-02	0.00E+00	1.12E-02
		Cs-134	<1.51E-02	0.00E+00	1.51E-02
		Cs-137	<1.95E-02	0.00E+00	1.95E-02
		Be-7	<1.22E-01	0.00E+00	1.22E-01
		K-40	2.43E-01	1.04E-01	2.03E-01
280913	1/6/2014 - 1/13/2014	I-131	<1.77E-02	0.00E+00	1.77E-02
		Cs-134	<1.32E-02	0.00E+00	1.32E-02
		Cs-137	<1.08E-02	0.00E+00	1.08E-02
		Be-7	<1.34E-01	0.00E+00	1.34E-01
		K-40	4.09E-01	1.20E-01	2.66E-01
281293	1/13/2014 - 1/20/2014	I-131	<1.20E-02	0.00E+00	1.20E-02
		Cs-134	<8.79E-03	0.00E+00	8.79E-03
		Cs-137	<1.09E-02	0.00E+00	1.09E-02
		Be-7	<5.77E-02	0.00E+00	5.77E-02
		K-40	4.81E-01	1.04E-01	1.66E-01
281652	1/20/2014 - 1/27/2014	I-131	<1.23E-02	0.00E+00	1.23E-02
		Cs-134	<7.78E-03	0.00E+00	7.78E-03
		Cs-137	<9.91E-03	0.00E+00	9.91E-03
		Be-7	<8.54E-02	0.00E+00	8.54E-02
		K-40	<3.49E-01	0.00E+00	3.49E-01
282220	1/27/2014 - 2/3/2014	I-131	<2.14E-02	0.00E+00	2.14E-02
		Cs-134	<1.65E-02	0.00E+00	1.65E-02
		Cs-137	<2.10E-02	0.00E+00	2.10E-02
		Be-7	7.45E-02	3.36E-02	1.38E-01
		K-40	4.88E-01	1.41E-01	3.08E-01
283082	2/3/2014 - 2/10/2014	I-131	<3.47E-02	0.00E+00	3.47E-02
		Cs-134	<1.98E-02	0.00E+00	1.98E-02
		Cs-137	<1.77E-02	0.00E+00	1.77E-02
		Be-7	<1.70E-01	0.00E+00	1.70E-01
		K-40	5.98E-01	1.27E-01	1.99E-01
283464	2/10/2014 - 2/17/2014	I-131	<3.41E-02	0.00E+00	3.41E-02
		Cs-134	<1.34E-02	0.00E+00	1.34E-02
		Cs-137	<1.94E-02	0.00E+00	1.94E-02
		Be-7	<1.64E-01	0.00E+00	1.64E-01
		K-40	6.35E-01	1.30E-01	1.91E-01
284651	2/17/2014 - 2/24/2014	I-131	<3.20E-02	0.00E+00	3.20E-02
		Cs-134	<1.71E-02	0.00E+00	1.71E-02
		Cs-137	<1.10E-02	0.00E+00	1.10E-02
		Be-7	<1.46E-01	0.00E+00	1.46E-01
		K-40	4.78E-01	1.70E-01	2.32E-01
285213	2/24/2014 - 3/3/2014	I-131	<2.58E-02	0.00E+00	2.58E-02
		Cs-134	<1.64E-02	0.00E+00	1.64E-02
		Cs-137	<1.55E-02	0.00E+00	1.55E-02
		Be-7	<1.48E-01	0.00E+00	1.48E-01
		K-40	4.83E-01	1.14E-01	7.26E-02
285820	3/3/2014 - 3/10/2014	I-131	<2.46E-02	0.00E+00	2.46E-02
		Cs-134	<1.38E-02	0.00E+00	1.38E-02
		Cs-137	<2.40E-02	0.00E+00	2.40E-02
		Be-7	<1.60E-01	0.00E+00	1.60E-01
		K-40	<5.16E-01	0.00E+00	5.16E-01

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 60 [ INDICATOR - SE @ 0.2 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
286335	3/10/2014 - 3/17/2014	I-131	<1.26E-02	0.00E+00	1.26E-02
		Cs-134	<8.23E-03	0.00E+00	8.23E-03
		Cs-137	<9.63E-03	0.00E+00	9.63E-03
		Be-7	<7.68E-02	0.00E+00	7.68E-02
		K-40	5.12E-01	7.55E-02	8.04E-02
287183	3/17/2014 - 3/24/2014	I-131	<1.34E-02	0.00E+00	1.34E-02
		Cs-134	<1.07E-02	0.00E+00	1.07E-02
		Cs-137	<8.34E-03	0.00E+00	8.34E-03
		Be-7	<5.62E-02	0.00E+00	5.62E-02
		K-40	<3.67E-01	0.00E+00	3.67E-01
288440	3/24/2014 - 3/31/2014	I-131	<1.89E-02	0.00E+00	1.89E-02
		Cs-134	<1.13E-02	0.00E+00	1.13E-02
		Cs-137	<1.54E-02	0.00E+00	1.54E-02
		Be-7	<1.22E-01	0.00E+00	1.22E-01
		K-40	4.38E-01	1.31E-01	2.48E-01
289174	3/31/2014 - 4/7/2014	I-131	<2.83E-02	0.00E+00	2.83E-02
		Cs-134	<1.32E-02	0.00E+00	1.32E-02
		Cs-137	<1.59E-02	0.00E+00	1.59E-02
		Be-7	<7.44E-02	0.00E+00	7.44E-02
		K-40	3.57E-01	8.42E-02	5.36E-02
289560	4/7/2014 - 4/14/2014	I-131	<3.13E-02	0.00E+00	3.13E-02
		Cs-134	<2.42E-02	0.00E+00	2.42E-02
		Cs-137	<1.85E-02	0.00E+00	1.85E-02
		Be-7	<1.79E-01	0.00E+00	1.79E-01
		K-40	4.84E-01	1.29E-01	9.33E-02
290042	4/14/2014 - 4/21/2014	I-131	<1.37E-02	0.00E+00	1.37E-02
		Cs-134	<1.04E-02	0.00E+00	1.04E-02
		Cs-137	<1.41E-02	0.00E+00	1.41E-02
		Be-7	<6.47E-02	0.00E+00	6.47E-02
		K-40	2.69E-01	6.73E-02	4.55E-02
292123	4/21/2014 - 4/28/2014	I-131	<1.92E-02	0.00E+00	1.92E-02
		Cs-134	<1.60E-02	0.00E+00	1.60E-02
		Cs-137	<1.59E-02	0.00E+00	1.59E-02
		Be-7	<1.09E-01	0.00E+00	1.09E-01
		K-40	5.30E-01	1.08E-01	1.62E-01
292853	4/28/2014 - 5/5/2014	I-131	<1.90E-02	0.00E+00	1.90E-02
		Cs-134	<9.06E-03	0.00E+00	9.06E-03
		Cs-137	<8.41E-03	0.00E+00	8.41E-03
		Be-7	<5.36E-02	0.00E+00	5.36E-02
		K-40	4.53E-01	1.14E-01	1.65E-01
293124	5/5/2014 - 5/12/2014	I-131	<1.43E-02	0.00E+00	1.43E-02
		Cs-134	<8.97E-03	0.00E+00	8.97E-03
		Cs-137	<1.27E-02	0.00E+00	1.27E-02
		Be-7	<7.04E-02	0.00E+00	7.04E-02
		K-40	3.88E-01	8.48E-02	1.35E-01
294766	5/12/2014 - 5/19/2014	I-131	<1.27E-02	0.00E+00	1.27E-02
		Cs-134	<1.12E-02	0.00E+00	1.12E-02
		Cs-137	<8.12E-03	0.00E+00	8.12E-03
		Be-7	<7.61E-02	0.00E+00	7.61E-02
		K-40	2.63E-01	7.04E-02	5.09E-02

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 60 [ INDICATOR - SE @ 0.2 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
295292	5/19/2014 - 5/26/2014	I-131	<1.95E-02	0.00E+00	1.95E-02
		Cs-134	<7.73E-03	0.00E+00	7.73E-03
		Cs-137	<9.09E-03	0.00E+00	9.09E-03
		Be-7	<6.50E-02	0.00E+00	6.50E-02
		K-40	4.17E-01	7.71E-02	1.25E-01
295616	5/26/2014 - 6/2/2014	I-131	<3.39E-02	0.00E+00	3.39E-02
		Cs-134	<1.58E-02	0.00E+00	1.58E-02
		Cs-137	<1.99E-02	0.00E+00	1.99E-02
		Be-7	<1.27E-01	0.00E+00	1.27E-01
		K-40	<4.66E-01	0.00E+00	4.66E-01
296018	6/2/2014 - 6/9/2014	I-131	<1.21E-02	0.00E+00	1.21E-02
		Cs-134	<8.72E-03	0.00E+00	8.72E-03
		Cs-137	<1.22E-02	0.00E+00	1.22E-02
		Be-7	<8.09E-02	0.00E+00	8.09E-02
		K-40	3.59E-01	8.02E-02	4.85E-02
296283	6/9/2014 - 6/16/2014	I-131	<2.45E-02	0.00E+00	2.45E-02
		Cs-134	<1.95E-02	0.00E+00	1.95E-02
		Cs-137	<1.43E-02	0.00E+00	1.43E-02
		Be-7	<1.17E-01	0.00E+00	1.17E-01
		K-40	4.96E-01	1.14E-01	7.05E-02
296813	6/16/2014 - 6/23/2014	I-131	<2.14E-02	0.00E+00	2.14E-02
		Cs-134	<1.39E-02	0.00E+00	1.39E-02
		Cs-137	<9.06E-03	0.00E+00	9.06E-03
		Be-7	<8.37E-02	0.00E+00	8.37E-02
		K-40	4.31E-01	9.64E-02	5.82E-02
297088	6/23/2014 - 6/30/2014	I-131	<2.29E-02	0.00E+00	2.29E-02
		Cs-134	<1.58E-02	0.00E+00	1.58E-02
		Cs-137	<1.83E-02	0.00E+00	1.83E-02
		Be-7	<1.62E-01	0.00E+00	1.62E-01
		K-40	<4.93E-01	0.00E+00	4.93E-01
297443	6/30/2014 - 7/7/2014	I-131	<4.23E-02	0.00E+00	4.23E-02
		Cs-134	<6.10E-03	0.00E+00	6.10E-03
		Cs-137	<9.98E-03	0.00E+00	9.98E-03
		Be-7	<8.20E-02	0.00E+00	8.20E-02
		K-40	3.46E-01	1.55E-01	1.78E-01
297698	7/7/2014 - 7/14/2014	I-131	<1.55E-02	0.00E+00	1.55E-02
		Cs-134	<5.83E-03	0.00E+00	5.83E-03
		Cs-137	<8.44E-03	0.00E+00	8.44E-03
		Be-7	<6.94E-02	0.00E+00	6.94E-02
		K-40	3.12E-01	1.35E-01	1.43E-01
298255	7/14/2014 - 7/21/2014	I-131	<3.45E-02	0.00E+00	3.45E-02
		Cs-134	<1.72E-02	0.00E+00	1.72E-02
		Cs-137	<1.51E-02	0.00E+00	1.51E-02
		Be-7	<1.68E-01	0.00E+00	1.68E-01
		K-40	<5.34E-01	0.00E+00	5.34E-01
350698	7/21/2014 - 7/28/2014	I-131	<3.35E-02	0.00E+00	3.35E-02
		Cs-134	<1.40E-02	0.00E+00	1.40E-02
		Cs-137	<1.74E-02	0.00E+00	1.74E-02
		Be-7	<1.65E-01	0.00E+00	1.65E-01
		K-40	2.76E-01	2.38E-01	3.40E-01

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 60 [ INDICATOR - SE @ 0.2 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
352354	7/28/2014 - 8/4/2014	I-131	<2.39E-02	0.00E+00	2.39E-02
		Cs-134	<1.16E-02	0.00E+00	1.16E-02
		Cs-137	<1.67E-02	0.00E+00	1.67E-02
		Be-7	<1.07E-01	0.00E+00	1.07E-01
		K-40	<4.94E-01	0.00E+00	4.94E-01
351678	8/4/2014 - 8/11/2014	I-131	<2.63E-02	0.00E+00	2.63E-02
		Cs-134	<1.47E-02	0.00E+00	1.47E-02
		Cs-137	<2.05E-02	0.00E+00	2.05E-02
		Be-7	<8.07E-02	0.00E+00	8.07E-02
		K-40	<5.61E-01	0.00E+00	5.61E-01
351679	8/11/2014 - 8/18/2014	I-131	<4.15E-02	0.00E+00	4.15E-02
		Cs-134	<6.77E-03	0.00E+00	6.77E-03
		Cs-137	<6.14E-03	0.00E+00	6.14E-03
		Be-7	<5.21E-02	0.00E+00	5.21E-02
		K-40	3.06E-01	1.91E-01	7.76E-02
353457	8/18/2014 - 8/25/2014	I-131	<3.63E-02	0.00E+00	3.63E-02
		Cs-134	<2.56E-02	0.00E+00	2.56E-02
		Cs-137	<1.75E-02	0.00E+00	1.75E-02
		Be-7	<1.46E-01	0.00E+00	1.46E-01
		K-40	4.38E-01	2.22E-01	7.41E-02
354118	8/25/2014 - 9/1/2014	I-131	<1.76E-02	0.00E+00	1.76E-02
		Cs-134	<2.08E-02	0.00E+00	2.08E-02
		Cs-137	<1.73E-02	0.00E+00	1.73E-02
		Be-7	<7.59E-02	0.00E+00	7.59E-02
		K-40	3.96E-01	2.33E-01	2.40E-01
354477	9/1/2014 - 9/8/2014	I-131	<2.55E-02	0.00E+00	2.55E-02
		Cs-134	<2.51E-02	0.00E+00	2.51E-02
		Cs-137	<1.72E-02	0.00E+00	1.72E-02
		Be-7	<1.33E-01	0.00E+00	1.33E-01
		K-40	<5.24E-01	0.00E+00	5.24E-01
354790	9/8/2014 - 9/15/2014	I-131	<3.50E-02	0.00E+00	3.50E-02
		Cs-134	<9.65E-03	0.00E+00	9.65E-03
		Cs-137	<1.20E-02	0.00E+00	1.20E-02
		Be-7	<1.18E-01	0.00E+00	1.18E-01
		K-40	5.81E-01	2.99E-01	3.23E-01
355244	9/15/2014 - 9/22/2014	I-131	<1.68E-02	0.00E+00	1.68E-02
		Cs-134	<1.57E-02	0.00E+00	1.57E-02
		Cs-137	<1.20E-02	0.00E+00	1.20E-02
		Be-7	<1.56E-01	0.00E+00	1.56E-01
		K-40	<5.37E-01	0.00E+00	5.37E-01
355678	9/22/2014 - 9/29/2014	I-131	<2.50E-02	0.00E+00	2.50E-02
		Cs-134	<1.42E-02	0.00E+00	1.42E-02
		Cs-137	<1.21E-02	0.00E+00	1.21E-02
		Be-7	<1.26E-01	0.00E+00	1.26E-01
		K-40	3.33E-01	1.94E-01	7.52E-02
356557	9/29/2014 - 10/7/2014	I-131	<2.76E-02	0.00E+00	2.76E-02
		Cs-134	<1.23E-02	0.00E+00	1.23E-02
		Cs-137	<1.53E-02	0.00E+00	1.53E-02
		Be-7	<1.28E-01	0.00E+00	1.28E-01
		K-40	<5.10E-01	0.00E+00	5.10E-01

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.





# ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 60 [ INDICATOR - SE @ 0.2 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
357081	10/7/2014 - 10/13/2014	I-131	<2.95E-02	0.00E+00	2.95E-02
		Cs-134	<1.44E-02	0.00E+00	1.44E-02
		Cs-137	<1.79E-02	0.00E+00	1.79E-02
		Be-7	<1.73E-01	0.00E+00	1.73E-01
		K-40	6.43E-01	3.44E-01	3.81E-01
358078	10/13/2014 - 10/20/2014	I-131	<2.78E-02	0.00E+00	2.78E-02
		Cs-134	<1.23E-02	0.00E+00	1.23E-02
		Cs-137	<1.78E-02	0.00E+00	1.78E-02
		Be-7	<1.38E-01	0.00E+00	1.38E-01
		K-40	2.06E-01	2.31E-01	3.60E-01
358684	10/20/2014 - 10/27/2014	I-131	<5.65E-03	0.00E+00	5.65E-03
		Cs-134	<6.50E-03	0.00E+00	6.50E-03
		Cs-137	<5.31E-03	0.00E+00	5.31E-03
		Be-7	<4.04E-02	0.00E+00	4.04E-02
		K-40	2.78E-01	1.06E-01	2.60E-02
359347	10/27/2014 - 11/3/2014	I-131	<2.06E-02	0.00E+00	2.06E-02
		Cs-134	<9.91E-03	0.00E+00	9.91E-03
		Cs-137	<1.44E-02	0.00E+00	1.44E-02
		Be-7	<1.10E-01	0.00E+00	1.10E-01
		K-40	5.50E-01	2.51E-01	2.21E-01
360062	11/3/2014 - 11/10/2014	I-131	<2.05E-02	0.00E+00	2.05E-02
		Cs-134	<9.69E-03	0.00E+00	9.69E-03
		Cs-137	<1.52E-02	0.00E+00	1.52E-02
		Be-7	<9.82E-02	0.00E+00	9.82E-02
		K-40	5.26E-01	2.45E-01	7.50E-02
360742	11/10/2014 - 11/17/2014	I-131	<1.86E-02	0.00E+00	1.86E-02
		Cs-134	<1.46E-02	0.00E+00	1.46E-02
		Cs-137	<2.03E-02	0.00E+00	2.03E-02
		Be-7	<1.30E-01	0.00E+00	1.30E-01
		K-40	<6.55E-01	0.00E+00	6.55E-01
361602	11/17/2014 - 11/24/2014	I-131	<2.96E-02	0.00E+00	2.96E-02
		Cs-134	<8.72E-03	0.00E+00	8.72E-03
		Cs-137	<1.37E-02	0.00E+00	1.37E-02
		Be-7	<1.21E-01	0.00E+00	1.21E-01
		K-40	8.16E-01	2.96E-01	6.91E-02
361980	11/24/2014 - 12/1/2014	I-131	<3.11E-02	0.00E+00	3.11E-02
		Cs-134	<1.40E-02	0.00E+00	1.40E-02
		Cs-137	<9.78E-03	0.00E+00	9.78E-03
		Be-7	<1.10E-01	0.00E+00	1.10E-01
		K-40	3.99E-01	2.25E-01	2.47E-01
362815	12/1/2014 - 12/8/2014	I-131	<1.59E-02	0.00E+00	1.59E-02
		Cs-134	<1.03E-02	0.00E+00	1.03E-02
		Cs-137	<1.13E-02	0.00E+00	1.13E-02
		Be-7	<1.04E-01	0.00E+00	1.04E-01
		K-40	4.13E-01	1.78E-01	1.88E-01
363553	12/8/2014 - 12/15/2014	I-131	<1.34E-02	0.00E+00	1.34E-02
		Cs-134	<1.35E-02	0.00E+00	1.35E-02
		Cs-137	<1.20E-02	0.00E+00	1.20E-02
		Be-7	<1.22E-01	0.00E+00	1.22E-01
		K-40	3.06E-01	2.03E-01	2.47E-01

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 60 [ INDICATOR - SE @ 0.2 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
363998	12/15/2014 - 12/23/2014	I-131	<1.26E-02	0.00E+00	1.26E-02
		Cs-134	<4.88E-03	0.00E+00	4.88E-03
		Cs-137	<7.93E-03	0.00E+00	7.93E-03
		Be-7	<4.74E-02	0.00E+00	4.74E-02
		K-40	4.43E-01	1.15E-01	7.22E-02

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
364552	12/23/2014 - 12/29/2014	I-131	<1.40E-02	0.00E+00	1.40E-02
		Cs-134	<1.44E-02	0.00E+00	1.44E-02
		Cs-137	<1.43E-02	0.00E+00	1.43E-02
		Be-7	<1.17E-01	0.00E+00	1.17E-01
		K-40	7.39E-01	2.57E-01	1.76E-01

Sample Point 61 [ INDICATOR - WSW @ 0.3 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
280731	12/30/2013 - 1/6/2014	I-131	<2.88E-02	0.00E+00	2.88E-02
		Cs-134	<2.13E-02	0.00E+00	2.13E-02
		Cs-137	<2.05E-02	0.00E+00	2.05E-02
		Be-7	1.40E-01	4.97E-02	1.54E-01
		K-40	5.08E-01	1.23E-01	2.25E-01

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
280914	1/6/2014 - 1/13/2014	I-131	<2.82E-02	0.00E+00	2.82E-02
		Cs-134	<1.02E-02	0.00E+00	1.02E-02
		Cs-137	<1.84E-02	0.00E+00	1.84E-02
		Be-7	<1.21E-01	0.00E+00	1.21E-01
		K-40	5.05E-01	1.22E-01	2.82E-01

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
281294	1/13/2014 - 1/20/2014	I-131	<1.59E-02	0.00E+00	1.59E-02
		Cs-134	<8.13E-03	0.00E+00	8.13E-03
		Cs-137	<1.95E-02	0.00E+00	1.95E-02
		Be-7	<9.32E-02	0.00E+00	9.32E-02
		K-40	<5.79E-01	0.00E+00	5.79E-01

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
281653	1/20/2014 - 1/27/2014	I-131	<1.40E-02	0.00E+00	1.40E-02
		Cs-134	<7.94E-03	0.00E+00	7.94E-03
		Cs-137	<1.03E-02	0.00E+00	1.03E-02
		Be-7	<7.31E-02	0.00E+00	7.31E-02
		K-40	5.28E-01	8.14E-02	1.17E-01

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
282221	1/27/2014 - 2/3/2014	I-131	<2.74E-02	0.00E+00	2.74E-02
		Cs-134	<1.02E-02	0.00E+00	1.02E-02
		Cs-137	<2.15E-02	0.00E+00	2.15E-02
		Be-7	<1.43E-01	0.00E+00	1.43E-01
		K-40	3.87E-01	1.07E-01	2.23E-01

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
283083	2/3/2014 - 2/10/2014	I-131	<3.06E-02	0.00E+00	3.06E-02
		Cs-134	<2.93E-02	0.00E+00	2.93E-02
		Cs-137	<2.46E-02	0.00E+00	2.46E-02
		Be-7	<1.29E-01	0.00E+00	1.29E-01
		K-40	5.58E-01	1.61E-01	3.40E-01

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
283465	2/10/2014 - 2/17/2014	I-131	<4.04E-02	0.00E+00	4.04E-02
		Cs-134	<1.33E-02	0.00E+00	1.33E-02
		Cs-137	<1.85E-02	0.00E+00	1.85E-02
		Be-7	<1.76E-01	0.00E+00	1.76E-01
		K-40	<6.74E-01	0.00E+00	6.74E-01

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
284652	2/17/2014 - 2/24/2014	I-131	<3.67E-02	0.00E+00	3.67E-02
		Cs-134	<2.23E-02	0.00E+00	2.23E-02
		Cs-137	<1.86E-02	0.00E+00	1.86E-02

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m<sup>3</sup>

Sample Point 61 [ INDICATOR - WSW @ 0.3 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
284652	2/17/2014 - 2/24/2014	Be-7	<1.54E-01	0.00E+00	1.54E-01
		K-40	<6.72E-01	0.00E+00	6.72E-01
285214	2/24/2014 - 3/3/2014	I-131	<3.03E-02	0.00E+00	3.03E-02
		Cs-134	<1.29E-02	0.00E+00	1.29E-02
		Cs-137	<2.15E-02	0.00E+00	2.15E-02
		Be-7	<1.40E-01	0.00E+00	1.40E-01
		K-40	4.15E-01	1.41E-01	3.29E-01
285821	3/3/2014 - 3/10/2014	I-131	<2.27E-02	0.00E+00	2.27E-02
		Cs-134	<1.46E-02	0.00E+00	1.46E-02
		Cs-137	<2.40E-02	0.00E+00	2.40E-02
		Be-7	<9.71E-02	0.00E+00	9.71E-02
		K-40	<6.97E-01	0.00E+00	6.97E-01
286336	3/10/2014 - 3/17/2014	I-131	<5.55E-03	0.00E+00	5.55E-03
		Cs-134	<3.91E-03	0.00E+00	3.91E-03
		Cs-137	<5.19E-03	0.00E+00	5.19E-03
		Be-7	<2.82E-02	0.00E+00	2.82E-02
		K-40	3.55E-01	4.34E-02	5.23E-02
287184	3/17/2014 - 3/24/2014	I-131	<1.49E-02	0.00E+00	1.49E-02
		Cs-134	<7.92E-03	0.00E+00	7.92E-03
		Cs-137	<9.26E-03	0.00E+00	9.26E-03
		Be-7	<6.54E-02	0.00E+00	6.54E-02
		K-40	4.65E-01	9.49E-02	1.46E-01
288441	3/24/2014 - 3/31/2014	I-131	<1.01E-02	0.00E+00	1.01E-02
		Cs-134	<8.34E-03	0.00E+00	8.34E-03
		Cs-137	<9.46E-03	0.00E+00	9.46E-03
		Be-7	<7.40E-02	0.00E+00	7.40E-02
		K-40	4.64E-01	7.87E-02	7.84E-02
289175	3/31/2014 - 4/7/2014	I-131	<2.90E-02	0.00E+00	2.90E-02
		Cs-134	<1.39E-02	0.00E+00	1.39E-02
		Cs-137	<1.62E-02	0.00E+00	1.62E-02
		Be-7	<1.42E-01	0.00E+00	1.42E-01
		K-40	<6.00E-01	0.00E+00	6.00E-01
289561	4/7/2014 - 4/14/2014	I-131	<2.24E-02	0.00E+00	2.24E-02
		Cs-134	<2.27E-02	0.00E+00	2.27E-02
		Cs-137	<2.10E-02	0.00E+00	2.10E-02
		Be-7	<1.52E-01	0.00E+00	1.52E-01
		K-40	4.39E-01	1.13E-01	3.38E-01
290043	4/14/2014 - 4/21/2014	I-131	<2.78E-02	0.00E+00	2.78E-02
		Cs-134	<1.62E-02	0.00E+00	1.62E-02
		Cs-137	<2.19E-02	0.00E+00	2.19E-02
		Be-7	<1.34E-01	0.00E+00	1.34E-01
		K-40	3.77E-01	1.05E-01	7.84E-02
292124	4/21/2014 - 4/28/2014	I-131	<1.14E-02	0.00E+00	1.14E-02
		Cs-134	<9.05E-03	0.00E+00	9.05E-03
		Cs-137	<7.56E-03	0.00E+00	7.56E-03
		Be-7	<7.33E-02	0.00E+00	7.33E-02
		K-40	3.09E-01	7.28E-02	1.85E-01
292854	4/28/2014 - 5/5/2014	I-131	<1.09E-02	0.00E+00	1.09E-02

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 61 [ INDICATOR - WSW @ 0.3 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
292854	4/28/2014 - 5/5/2014	Cs-134	<7.45E-03	0.00E+00	7.45E-03
		Cs-137	<9.49E-03	0.00E+00	9.49E-03
		Be-7	<5.75E-02	0.00E+00	5.75E-02
		K-40	<9.00E-02	0.00E+00	9.00E-02
293125	5/5/2014 - 5/12/2014	I-131	<2.85E-02	0.00E+00	2.85E-02
		Cs-134	<1.57E-02	0.00E+00	1.57E-02
		Cs-137	<1.57E-02	0.00E+00	1.57E-02
		Be-7	<1.63E-01	0.00E+00	1.63E-01
		K-40	5.24E-01	1.24E-01	7.87E-02
294767	5/12/2014 - 5/19/2014	I-131	<1.81E-02	0.00E+00	1.81E-02
		Cs-134	<1.40E-02	0.00E+00	1.40E-02
		Cs-137	<2.34E-02	0.00E+00	2.34E-02
		Be-7	<1.10E-01	0.00E+00	1.10E-01
		K-40	5.02E-01	1.12E-01	1.86E-01
295293	5/19/2014 - 5/26/2014	I-131	<3.23E-02	0.00E+00	3.23E-02
		Cs-134	<1.56E-02	0.00E+00	1.56E-02
		Cs-137	<1.50E-02	0.00E+00	1.50E-02
		Be-7	<1.53E-01	0.00E+00	1.53E-01
		K-40	5.84E-01	1.28E-01	2.50E-01
295617	5/26/2014 - 6/2/2014	I-131	<2.56E-02	0.00E+00	2.56E-02
		Cs-134	<1.64E-02	0.00E+00	1.64E-02
		Cs-137	<8.89E-03	0.00E+00	8.89E-03
		Be-7	<1.13E-01	0.00E+00	1.13E-01
		K-40	<5.07E-01	0.00E+00	5.07E-01
296019	6/2/2014 - 6/9/2014	I-131	<8.64E-03	0.00E+00	8.64E-03
		Cs-134	<5.69E-03	0.00E+00	5.69E-03
		Cs-137	<9.99E-03	0.00E+00	9.99E-03
		Be-7	<7.98E-02	0.00E+00	7.98E-02
		K-40	4.87E-01	9.36E-02	4.87E-02
296284	6/9/2014 - 6/16/2014	I-131	<2.75E-02	0.00E+00	2.75E-02
		Cs-134	<1.78E-02	0.00E+00	1.78E-02
		Cs-137	<1.19E-02	0.00E+00	1.19E-02
		Be-7	<1.20E-01	0.00E+00	1.20E-01
		K-40	5.82E-01	1.27E-01	2.66E-01
296814	6/16/2014 - 6/23/2014	I-131	<2.13E-02	0.00E+00	2.13E-02
		Cs-134	<1.52E-02	0.00E+00	1.52E-02
		Cs-137	<1.60E-02	0.00E+00	1.60E-02
		Be-7	<1.51E-01	0.00E+00	1.51E-01
		K-40	<5.63E-01	0.00E+00	5.63E-01
297089	6/23/2014 - 6/30/2014	I-131	<5.02E-02	0.00E+00	5.02E-02
		Cs-134	<1.67E-02	0.00E+00	1.67E-02
		Cs-137	<1.92E-02	0.00E+00	1.92E-02
		Be-7	<1.65E-01	0.00E+00	1.65E-01
		K-40	<5.69E-01	0.00E+00	5.69E-01
297444	6/30/2014 - 7/7/2014	I-131	<5.86E-02	0.00E+00	5.86E-02
		Cs-134	<6.70E-03	0.00E+00	6.70E-03
		Cs-137	<1.14E-02	0.00E+00	1.14E-02
		Be-7	<8.39E-02	0.00E+00	8.39E-02
		K-40	4.67E-01	1.79E-01	1.87E-01

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 61 [ INDICATOR - WSW @ 0.3 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
297699	7/7/2014 - 7/14/2014	I-131	<3.66E-02	0.00E+00	3.66E-02
		Cs-134	<1.14E-02	0.00E+00	1.14E-02
		Cs-137	<1.23E-02	0.00E+00	1.23E-02
		Be-7	<8.60E-02	0.00E+00	8.60E-02
		K-40	<4.82E-01	0.00E+00	4.82E-01
298256	7/14/2014 - 7/21/2014	I-131	<4.68E-02	0.00E+00	4.68E-02
		Cs-134	<1.50E-02	0.00E+00	1.50E-02
		Cs-137	<1.27E-02	0.00E+00	1.27E-02
		Be-7	<1.28E-01	0.00E+00	1.28E-01
		K-40	<5.68E-01	0.00E+00	5.68E-01
350699	7/21/2014 - 7/28/2014	I-131	<3.29E-02	0.00E+00	3.29E-02
		Cs-134	<1.80E-02	0.00E+00	1.80E-02
		Cs-137	<1.84E-02	0.00E+00	1.84E-02
		Be-7	<1.84E-01	0.00E+00	1.84E-01
		K-40	<4.80E-01	0.00E+00	4.80E-01
352355	7/28/2014 - 8/4/2014	I-131	<2.18E-02	0.00E+00	2.18E-02
		Cs-134	<1.94E-02	0.00E+00	1.94E-02
		Cs-137	<1.59E-02	0.00E+00	1.59E-02
		Be-7	<1.43E-01	0.00E+00	1.43E-01
		K-40	<5.45E-01	0.00E+00	5.45E-01
351680	8/4/2014 - 8/11/2014	I-131	<1.67E-02	0.00E+00	1.67E-02
		Cs-134	<1.51E-02	0.00E+00	1.51E-02
		Cs-137	<1.89E-02	0.00E+00	1.89E-02
		Be-7	<1.05E-01	0.00E+00	1.05E-01
		K-40	<5.56E-01	0.00E+00	5.56E-01
351681	8/11/2014 - 8/18/2014	I-131	<2.73E-02	0.00E+00	2.73E-02
		Cs-134	<2.98E-02	0.00E+00	2.98E-02
		Cs-137	<2.28E-02	0.00E+00	2.28E-02
		Be-7	<1.60E-01	0.00E+00	1.60E-01
		K-40	4.52E-01	3.63E-01	5.31E-01
353458	8/18/2014 - 8/25/2014	I-131	<3.30E-02	0.00E+00	3.30E-02
		Cs-134	<1.77E-02	0.00E+00	1.77E-02
		Cs-137	<2.23E-02	0.00E+00	2.23E-02
		Be-7	<1.63E-01	0.00E+00	1.63E-01
		K-40	4.45E-01	2.41E-01	2.28E-01
354120	8/25/2014 - 9/1/2014	I-131	<2.08E-02	0.00E+00	2.08E-02
		Cs-134	<1.50E-02	0.00E+00	1.50E-02
		Cs-137	<2.40E-02	0.00E+00	2.40E-02
		Be-7	<1.54E-01	0.00E+00	1.54E-01
		K-40	2.77E-01	2.31E-01	3.16E-01
354478	9/1/2014 - 9/8/2014	I-131	<1.96E-02	0.00E+00	1.96E-02
		Cs-134	<1.89E-02	0.00E+00	1.89E-02
		Cs-137	<1.25E-02	0.00E+00	1.25E-02
		Be-7	<1.00E-01	0.00E+00	1.00E-01
		K-40	3.74E-01	2.51E-01	3.05E-01
354791	9/8/2014 - 9/15/2014	I-131	<3.51E-02	0.00E+00	3.51E-02
		Cs-134	<1.83E-02	0.00E+00	1.83E-02
		Cs-137	<1.61E-02	0.00E+00	1.61E-02
		Be-7	<1.41E-01	0.00E+00	1.41E-01
		K-40	<5.30E-01	0.00E+00	5.30E-01

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 61 [ INDICATOR - WSW @ 0.3 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
355245	9/15/2014 - 9/22/2014	I-131	<1.77E-02	0.00E+00	1.77E-02
		Cs-134	<1.02E-02	0.00E+00	1.02E-02
		Cs-137	<1.60E-02	0.00E+00	1.60E-02
		Be-7	<1.55E-01	0.00E+00	1.55E-01
		K-40	<6.20E-01	0.00E+00	6.20E-01
355679	9/22/2014 - 9/29/2014	I-131	<2.83E-02	0.00E+00	2.83E-02
		Cs-134	<1.31E-02	0.00E+00	1.31E-02
		Cs-137	<1.90E-02	0.00E+00	1.90E-02
		Be-7	<1.47E-01	0.00E+00	1.47E-01
		K-40	5.31E-01	2.74E-01	2.42E-01
356558	9/29/2014 - 10/7/2014	I-131	<3.70E-02	0.00E+00	3.70E-02
		Cs-134	<3.28E-03	0.00E+00	3.28E-03
		Cs-137	<1.62E-02	0.00E+00	1.62E-02
		Be-7	<1.25E-01	0.00E+00	1.25E-01
		K-40	4.67E-01	2.45E-01	2.43E-01
357082	10/7/2014 - 10/13/2014	I-131	<2.79E-02	0.00E+00	2.79E-02
		Cs-134	<1.52E-02	0.00E+00	1.52E-02
		Cs-137	<1.51E-02	0.00E+00	1.51E-02
		Be-7	<1.21E-01	0.00E+00	1.21E-01
		K-40	4.83E-01	3.23E-01	4.07E-01
358079	10/13/2014 - 10/20/2014	I-131	<2.37E-02	0.00E+00	2.37E-02
		Cs-134	<3.76E-03	0.00E+00	3.76E-03
		Cs-137	<4.69E-03	0.00E+00	4.69E-03
		Be-7	<1.03E-01	0.00E+00	1.03E-01
		K-40	5.85E-01	2.66E-01	7.92E-02
358685	10/20/2014 - 10/27/2014	I-131	<2.24E-02	0.00E+00	2.24E-02
		Cs-134	<1.30E-02	0.00E+00	1.30E-02
		Cs-137	<1.63E-02	0.00E+00	1.63E-02
		Be-7	<1.44E-01	0.00E+00	1.44E-01
		K-40	<5.88E-01	0.00E+00	5.88E-01
359349	10/27/2014 - 11/3/2014	I-131	<1.28E-02	0.00E+00	1.28E-02
		Cs-134	<7.38E-03	0.00E+00	7.38E-03
		Cs-137	<9.89E-03	0.00E+00	9.89E-03
		Be-7	<6.42E-02	0.00E+00	6.42E-02
		K-40	5.07E-01	1.76E-01	1.42E-01
360063	11/3/2014 - 11/10/2014	I-131	<3.30E-02	0.00E+00	3.30E-02
		Cs-134	<1.30E-02	0.00E+00	1.30E-02
		Cs-137	<2.10E-02	0.00E+00	2.10E-02
		Be-7	<1.47E-01	0.00E+00	1.47E-01
		K-40	<6.77E-01	0.00E+00	6.77E-01
360743	11/10/2014 - 11/17/2014	I-131	<2.45E-02	0.00E+00	2.45E-02
		Cs-134	<2.05E-02	0.00E+00	2.05E-02
		Cs-137	<4.90E-03	0.00E+00	4.90E-03
		Be-7	<1.08E-01	0.00E+00	1.08E-01
		K-40	1.92E-01	2.61E-01	4.30E-01
361603	11/17/2014 - 11/24/2014	I-131	<3.64E-02	0.00E+00	3.64E-02
		Cs-134	<1.48E-02	0.00E+00	1.48E-02
		Cs-137	<1.13E-02	0.00E+00	1.13E-02
		Be-7	<7.76E-02	0.00E+00	7.76E-02
		K-40	6.44E-01	2.92E-01	2.69E-01

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 61 [ INDICATOR - WSW @ 0.3 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
361981	11/24/2014 - 12/1/2014	I-131	<2.38E-02	0.00E+00	2.38E-02
		Cs-134	<9.95E-03	0.00E+00	9.95E-03
		Cs-137	<9.38E-03	0.00E+00	9.38E-03
		Be-7	<1.04E-01	0.00E+00	1.04E-01
		K-40	4.20E-01	1.91E-01	2.10E-01
362816	12/1/2014 - 12/8/2014	I-131	<2.51E-02	0.00E+00	2.51E-02
		Cs-134	<1.73E-02	0.00E+00	1.73E-02
		Cs-137	<1.27E-02	0.00E+00	1.27E-02
		Be-7	<8.43E-02	0.00E+00	8.43E-02
		K-40	2.96E-01	1.99E-01	2.34E-01
363554	12/8/2014 - 12/15/2014	I-131	<2.10E-02	0.00E+00	2.10E-02
		Cs-134	<1.01E-02	0.00E+00	1.01E-02
		Cs-137	<1.47E-02	0.00E+00	1.47E-02
		Be-7	<7.98E-02	0.00E+00	7.98E-02
		K-40	2.72E-01	1.86E-01	2.14E-01
363999	12/15/2014 - 12/23/2014	I-131	<1.93E-02	0.00E+00	1.93E-02
		Cs-134	<8.78E-03	0.00E+00	8.78E-03
		Cs-137	<1.01E-02	0.00E+00	1.01E-02
		Be-7	<7.54E-02	0.00E+00	7.54E-02
		K-40	3.58E-01	1.53E-01	1.39E-01
364553	12/23/2014 - 12/29/2014	I-131	<2.13E-02	0.00E+00	2.13E-02
		Cs-134	<9.34E-03	0.00E+00	9.34E-03
		Cs-137	<1.63E-02	0.00E+00	1.63E-02
		Be-7	<1.15E-01	0.00E+00	1.15E-01
		K-40	5.69E-01	2.54E-01	2.68E-01

Media Type: AQUATIC VEGETATION Concentration (Activity): pCi/kg wet

Sample Point 41 [ CONTROL - NNW @ 7.2 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
295896	5/21/2014 - 5/21/2014	Mn-54	<1.66E+01	0.00E+00	1.66E+01
		Co-58	<1.13E+01	0.00E+00	1.13E+01
		Fe-59	<3.59E+01	0.00E+00	3.59E+01
		Co-60	<1.96E+01	0.00E+00	1.96E+01
		Zn-65	<3.08E+01	0.00E+00	3.08E+01
		Zr-95	<2.70E+01	0.00E+00	2.70E+01
		Nb-95	<1.82E+01	0.00E+00	1.82E+01
		I-131	<2.08E+01	0.00E+00	2.08E+01
		Cs-134	<1.60E+01	0.00E+00	1.60E+01
		Cs-137	<1.57E+01	0.00E+00	1.57E+01
		BaLa-140	<1.91E+01	0.00E+00	1.91E+01
		Be-7	1.24E+02	5.48E+01	1.22E+02
		K-40	1.12E+03	1.27E+02	1.91E+02

Sample Point 45 [ INDICATOR - @ 0 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
295878	5/20/2014 - 5/20/2014	Mn-54	<2.45E+01	0.00E+00	2.45E+01
		Co-58	1.16E+02	1.47E+01	2.03E+01
		Fe-59	<3.86E+01	0.00E+00	3.86E+01
		Co-60	<2.49E+01	0.00E+00	2.49E+01
		Zn-65	<3.14E+01	0.00E+00	3.14E+01
		Zr-95	<4.40E+01	0.00E+00	4.40E+01
		Nb-95	<2.82E+01	0.00E+00	2.82E+01
		I-131	<3.52E+01	0.00E+00	3.52E+01
		Cs-134	<2.00E+01	0.00E+00	2.00E+01
		Cs-137	<2.80E+01	0.00E+00	2.80E+01
		BaLa-140	<2.54E+01	0.00E+00	2.54E+01
		Be-7	4.73E+02	1.09E+02	1.74E+02

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



**ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)**

Media Type: AQUATIC VEGETATION Concentration (Activity): pCi/kg wet

Sample Point 45 [ INDICATOR - @ 0 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
295878	5/20/2014 - 5/20/2014	K-40	8.40E+02	1.21E+02	1.65E+02

Sample Point 46 [ INDICATOR - @ 0 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
295886	5/21/2014 - 5/21/2014	Mn-54	<2.25E+01	0.00E+00	2.25E+01
		Co-58	6.50E+01	1.28E+01	2.21E+01
		Fe-59	<3.66E+01	0.00E+00	3.66E+01
		Co-60	<1.94E+01	0.00E+00	1.94E+01
		Zn-65	<3.59E+01	0.00E+00	3.59E+01
		Zr-95	<4.21E+01	0.00E+00	4.21E+01
		Nb-95	<2.50E+01	0.00E+00	2.50E+01
		I-131	<3.51E+01	0.00E+00	3.51E+01
		Cs-134	<2.34E+01	0.00E+00	2.34E+01
		Cs-137	<2.27E+01	0.00E+00	2.27E+01
		BaLa-140	<4.11E+01	0.00E+00	4.11E+01
		Be-7	4.62E+02	1.17E+02	1.56E+02
		K-40	7.47E+02	1.24E+02	2.50E+02

Sample Point 66 [ INDICATOR - @ 0 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
295900	5/22/2014 - 5/22/2014	Mn-54	<1.87E+01	0.00E+00	1.87E+01
		Co-58	<2.35E+01	0.00E+00	2.35E+01
		Fe-59	<3.73E+01	0.00E+00	3.73E+01
		Co-60	<2.24E+01	0.00E+00	2.24E+01
		Zn-65	<3.53E+01	0.00E+00	3.53E+01
		Zr-95	<2.51E+01	0.00E+00	2.51E+01
		Nb-95	<1.23E+01	0.00E+00	1.23E+01
		I-131	<2.81E+01	0.00E+00	2.81E+01
		Cs-134	<1.77E+01	0.00E+00	1.77E+01
		Cs-137	<2.89E+01	0.00E+00	2.89E+01
		BaLa-140	<2.85E+01	0.00E+00	2.85E+01
		Be-7	1.00E+02	5.51E+01	7.64E+01
		K-40	8.72E+02	1.43E+02	1.70E+02
		Ru-103	<1.72E+01	0.00E+00	1.72E+01

Media Type: CROPS Concentration (Activity): pCi/kg wet

Sample Point 49 [ CONTROL - W @ 10 miles ]

Sample ID:	Sample Dates:	TOMATOES	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
351091	7/22/2014 - 7/22/2014		I-131	<2.87E+01	0.00E+00	2.87E+01
			Cs-134	<1.12E+01	0.00E+00	1.12E+01
			Cs-137	<1.37E+01	0.00E+00	1.37E+01
			Be-7	<9.63E+01	0.00E+00	9.63E+01
			K-40	1.68E+03	2.97E+02	1.89E+02

Sample ID:	Sample Dates:	COLLARDS	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
364347	12/9/2014 - 12/9/2014		I-131	<1.35E+01	0.00E+00	1.35E+01
			Cs-134	<1.38E+01	0.00E+00	1.38E+01
			Cs-137	<1.37E+01	0.00E+00	1.37E+01
			Be-7	<1.31E+02	0.00E+00	1.31E+02
			K-40	4.51E+03	5.58E+02	2.48E+02

Sample Point 58 [ INDICATOR - @ 0 miles ]

Sample ID:	Sample Dates:	TOMATOES	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
351092	7/22/2014 - 7/22/2014		I-131	<2.92E+01	0.00E+00	2.92E+01
			Cs-134	<9.54E+00	0.00E+00	9.54E+00
			Cs-137	<1.63E+01	0.00E+00	1.63E+01
			Be-7	<9.23E+01	0.00E+00	9.23E+01
			K-40	2.06E+03	3.30E+02	2.63E+01

Sample ID:	Sample Dates:	COLLARDS	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
364346	12/9/2014 - 12/9/2014		I-131	<1.23E+01	0.00E+00	1.23E+01
			Cs-134	<1.26E+01	0.00E+00	1.26E+01
			Cs-137	<1.39E+01	0.00E+00	1.39E+01

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.





# ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: CROPS Concentration (Activity): pCi/kg wet

Sample Point 58 [ INDICATOR - @ 0 miles ]

Sample ID:	Sample Dates:	COLLARDS	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
364346	12/9/2014 - 12/9/2014		Be-7	1.29E+02	8.76E+01	1.33E+02
			K-40	4.23E+03	5.38E+02	2.58E+02

Media Type: FISH Concentration (Activity): pCi/kg wet

Sample Point 45 [ INDICATOR - @ 0 miles ]

Sample ID:	Sample Dates:	BOTMFEEDER	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
295876	5/20/2014 - 5/20/2014		Mn-54	<1.22E+01	0.00E+00	1.22E+01
			Co-58	<1.37E+01	0.00E+00	1.37E+01
			Fe-59	<3.26E+01	0.00E+00	3.26E+01
			Co-60	<1.31E+01	0.00E+00	1.31E+01
			Zn-65	<3.05E+01	0.00E+00	3.05E+01
			Nb-95	<1.44E+01	0.00E+00	1.44E+01
			I-131	<1.98E+01	0.00E+00	1.98E+01
			Cs-134	<1.22E+01	0.00E+00	1.22E+01
			Cs-137	4.63E+01	6.20E+00	1.29E+01
			Be-7	<1.01E+02	0.00E+00	1.01E+02
			K-40	3.50E+03	1.75E+02	1.19E+02
			Ag-110M	<9.76E+00	0.00E+00	9.76E+00
			Sb-122	<1.07E+02	0.00E+00	1.07E+02
			Sb-125	<2.93E+01	0.00E+00	2.93E+01

Sample ID:	Sample Dates:	FREESWIM	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
295877	5/20/2014 - 5/20/2014		Mn-54	<1.01E+01	0.00E+00	1.01E+01
			Co-58	<1.06E+01	0.00E+00	1.06E+01
			Fe-59	<2.84E+01	0.00E+00	2.84E+01
			Co-60	<1.16E+01	0.00E+00	1.16E+01
			Zn-65	<2.26E+01	0.00E+00	2.26E+01
			Nb-95	<1.33E+01	0.00E+00	1.33E+01
			I-131	<1.73E+01	0.00E+00	1.73E+01
			Cs-134	<1.14E+01	0.00E+00	1.14E+01
			Cs-137	4.75E+01	8.18E+00	1.06E+01
			Be-7	<9.33E+01	0.00E+00	9.33E+01
			K-40	3.30E+03	1.65E+02	9.14E+01
			Ag-110M	<1.10E+01	0.00E+00	1.10E+01
			Sb-122	<9.94E+01	0.00E+00	9.94E+01
			Sb-125	<2.70E+01	0.00E+00	2.70E+01

Sample ID:	Sample Dates:	BOTMFEEDER	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
361170	11/3/2014 - 11/3/2014		Mn-54	<1.29E+01	0.00E+00	1.29E+01
			Co-58	<1.34E+01	0.00E+00	1.34E+01
			Fe-59	<3.10E+01	0.00E+00	3.10E+01
			Co-60	<2.14E+01	0.00E+00	2.14E+01
			Zn-65	<4.28E+01	0.00E+00	4.28E+01
			Nb-95	<1.90E+01	0.00E+00	1.90E+01
			I-131	<2.58E+01	0.00E+00	2.58E+01
			Cs-134	<2.10E+01	0.00E+00	2.10E+01
			Cs-137	1.73E+01	1.19E+01	1.62E+01
			Be-7	<1.27E+02	0.00E+00	1.27E+02
			K-40	3.33E+03	5.22E+02	4.11E+01
			Ag-110M	<1.57E+01	0.00E+00	1.57E+01
			Sb-122	<9.62E+01	0.00E+00	9.62E+01
			Sb-125	<3.65E+01	0.00E+00	3.65E+01

Sample ID:	Sample Dates:	FREESWIM	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
361171	11/3/2014 - 11/3/2014		Mn-54	<1.07E+01	0.00E+00	1.07E+01
			Co-58	<1.23E+01	0.00E+00	1.23E+01
			Fe-59	<2.86E+01	0.00E+00	2.86E+01
			Co-60	<1.98E+01	0.00E+00	1.98E+01
			Zn-65	<2.68E+01	0.00E+00	2.68E+01
			Nb-95	<1.75E+01	0.00E+00	1.75E+01
			I-131	<1.86E+01	0.00E+00	1.86E+01
			Cs-134	<1.56E+01	0.00E+00	1.56E+01
			Cs-137	2.94E+01	1.47E+01	1.89E+01
			Be-7	<1.01E+02	0.00E+00	1.01E+02
			K-40	3.51E+03	5.57E+02	3.11E+02

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: FISH Concentration (Activity): pCi/kg wet

Sample Point 45 [ INDICATOR - @ 0 miles ]

Sample ID:	Sample Dates:	FREESWIM	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
361171	11/3/2014 - 11/3/2014		Ag-110M	<1.57E+01	0.00E+00	1.57E+01
			Sb-122	<9.79E+01	0.00E+00	9.79E+01
			Sb-125	<3.18E+01	0.00E+00	3.18E+01

Sample Point 46 [ INDICATOR - @ 0 miles ]

Sample ID:	Sample Dates:	BOTMFEEDER	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
295884	5/21/2014 - 5/21/2014		Mn-54	<1.35E+01	0.00E+00	1.35E+01
			Co-58	<3.01E+01	0.00E+00	3.01E+01
			Fe-59	<6.51E+01	0.00E+00	6.51E+01
			Co-60	<2.76E+01	0.00E+00	2.76E+01
			Zn-65	<3.79E+01	0.00E+00	3.79E+01
			Nb-95	<2.07E+01	0.00E+00	2.07E+01
			I-131	<3.38E+01	0.00E+00	3.38E+01
			Cs-134	<2.13E+01	0.00E+00	2.13E+01
			Cs-137	4.04E+01	1.67E+01	2.41E+01
			Be-7	<1.91E+02	0.00E+00	1.91E+02
			K-40	3.25E+03	2.96E+02	2.57E+02
			Ag-110M	<2.49E+01	0.00E+00	2.49E+01
			Sb-122	<1.76E+02	0.00E+00	1.76E+02
			Sb-125	<6.09E+01	0.00E+00	6.09E+01

Sample ID:	Sample Dates:	FREESWIM	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
295885	5/21/2014 - 5/21/2014		Mn-54	<1.02E+01	0.00E+00	1.02E+01
			Co-58	<1.25E+01	0.00E+00	1.25E+01
			Fe-59	<3.58E+01	0.00E+00	3.58E+01
			Co-60	<1.28E+01	0.00E+00	1.28E+01
			Zn-65	<3.20E+01	0.00E+00	3.20E+01
			Nb-95	<1.42E+01	0.00E+00	1.42E+01
			I-131	<4.42E+01	0.00E+00	4.42E+01
			Cs-134	<1.26E+01	0.00E+00	1.26E+01
			Cs-137	4.94E+01	8.68E+00	1.28E+01
			Be-7	<9.41E+01	0.00E+00	9.41E+01
			K-40	2.79E+03	1.76E+02	1.45E+02
			Ag-110M	<1.06E+01	0.00E+00	1.06E+01
			Sb-122	<6.94E+02	0.00E+00	6.94E+02
			Sb-125	<3.28E+01	0.00E+00	3.28E+01

Sample ID:	Sample Dates:	BOTMFEEDER	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
361174	11/5/2014 - 11/5/2014		Mn-54	<1.59E+01	0.00E+00	1.59E+01
			Co-58	<2.26E+01	0.00E+00	2.26E+01
			Fe-59	<5.18E+01	0.00E+00	5.18E+01
			Co-60	<1.53E+01	0.00E+00	1.53E+01
			Zn-65	<4.84E+01	0.00E+00	4.84E+01
			Nb-95	<1.82E+01	0.00E+00	1.82E+01
			I-131	<2.66E+01	0.00E+00	2.66E+01
			Cs-134	<2.33E+01	0.00E+00	2.33E+01
			Cs-137	3.39E+01	1.71E+01	1.94E+01
			Be-7	<1.71E+02	0.00E+00	1.71E+02
			K-40	3.99E+03	6.67E+02	2.32E+02
			Ag-110M	<1.20E+01	0.00E+00	1.20E+01
			Sb-122	<8.12E+01	0.00E+00	8.12E+01
			Sb-125	<5.24E+01	0.00E+00	5.24E+01

Sample ID:	Sample Dates:	FREESWIM	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
361175	11/5/2014 - 11/5/2014		Mn-54	<1.87E+01	0.00E+00	1.87E+01
			Co-58	<9.35E+00	0.00E+00	9.35E+00
			Fe-59	<3.49E+01	0.00E+00	3.49E+01
			Co-60	<2.30E+01	0.00E+00	2.30E+01
			Zn-65	<4.08E+01	0.00E+00	4.08E+01
			Nb-95	<1.80E+01	0.00E+00	1.80E+01
			I-131	<2.13E+01	0.00E+00	2.13E+01
			Cs-134	<1.83E+01	0.00E+00	1.83E+01
			Cs-137	3.54E+01	2.11E+01	2.99E+01
			Be-7	<1.38E+02	0.00E+00	1.38E+02
			K-40	3.80E+03	6.07E+02	2.05E+02
			Ag-110M	<1.89E+01	0.00E+00	1.89E+01

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: FISH Concentration (Activity): pCi/kg wet

Sample Point 46 [ INDICATOR - @ 0 miles ]

Sample ID:	Sample Dates:	FREESWIM	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
361175	11/5/2014 - 11/5/2014		Sb-122	<7.20E+01	0.00E+00	7.20E+01
			Sb-125	<4.60E+01	0.00E+00	4.60E+01

Sample Point 47 [ CONTROL - @ 0 miles ]

Sample ID:	Sample Dates:	BOTMFEEDER	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
295892	5/21/2014 - 5/21/2014		Mn-54	<2.06E+01	0.00E+00	2.06E+01
			Co-58	<1.26E+01	0.00E+00	1.26E+01
			Fe-59	<3.64E+01	0.00E+00	3.64E+01
			Co-60	<2.59E+01	0.00E+00	2.59E+01
			Zn-65	<4.85E+01	0.00E+00	4.85E+01
			Nb-95	<2.40E+01	0.00E+00	2.40E+01
			I-131	<2.77E+01	0.00E+00	2.77E+01
			Cs-134	<1.35E+01	0.00E+00	1.35E+01
			Cs-137	1.89E+01	9.44E+00	2.43E+01
			Be-7	<1.87E+02	0.00E+00	1.87E+02
			K-40	2.36E+03	2.41E+02	2.39E+02
			Ag-110M	<2.01E+01	0.00E+00	2.01E+01
			Sb-122	<1.30E+02	0.00E+00	1.30E+02
			Sb-125	<4.78E+01	0.00E+00	4.78E+01

Sample ID:	Sample Dates:	FREESWIM	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
295893	5/21/2014 - 5/21/2014		Mn-54	<1.32E+01	0.00E+00	1.32E+01
			Co-58	<1.37E+01	0.00E+00	1.37E+01
			Fe-59	<3.46E+01	0.00E+00	3.46E+01
			Co-60	<1.59E+01	0.00E+00	1.59E+01
			Zn-65	<3.54E+01	0.00E+00	3.54E+01
			Nb-95	<1.07E+01	0.00E+00	1.07E+01
			I-131	<1.85E+01	0.00E+00	1.85E+01
			Cs-134	<1.20E+01	0.00E+00	1.20E+01
			Cs-137	1.03E+02	9.99E+00	1.24E+01
			Be-7	<9.29E+01	0.00E+00	9.29E+01
			K-40	2.63E+03	2.07E+02	1.61E+02
			Ag-110M	<1.18E+01	0.00E+00	1.18E+01
			Sb-122	<8.30E+01	0.00E+00	8.30E+01
			Sb-125	<3.20E+01	0.00E+00	3.20E+01

Sample ID:	Sample Dates:	BOTMFEEDER	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
361172	11/4/2014 - 11/4/2014		Mn-54	<2.49E+01	0.00E+00	2.49E+01
			Co-58	<2.17E+01	0.00E+00	2.17E+01
			Fe-59	<5.31E+01	0.00E+00	5.31E+01
			Co-60	<2.27E+01	0.00E+00	2.27E+01
			Zn-65	<5.93E+01	0.00E+00	5.93E+01
			Nb-95	<2.20E+01	0.00E+00	2.20E+01
			I-131	<2.90E+01	0.00E+00	2.90E+01
			Cs-134	<2.78E+01	0.00E+00	2.78E+01
			Cs-137	<3.41E+01	0.00E+00	3.41E+01
			Be-7	<1.42E+02	0.00E+00	1.42E+02
			K-40	3.47E+03	6.32E+02	3.47E+02
			Ag-110M	<1.21E+01	0.00E+00	1.21E+01
			Sb-122	<8.74E+01	0.00E+00	8.74E+01
			Sb-125	<4.29E+01	0.00E+00	4.29E+01

Sample ID:	Sample Dates:	FREESWIM	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
361173	11/4/2014 - 11/4/2014		Mn-54	<1.23E+01	0.00E+00	1.23E+01
			Co-58	<1.17E+01	0.00E+00	1.17E+01
			Fe-59	<2.67E+01	0.00E+00	2.67E+01
			Co-60	<1.22E+01	0.00E+00	1.22E+01
			Zn-65	<2.72E+01	0.00E+00	2.72E+01
			Nb-95	<1.22E+01	0.00E+00	1.22E+01
			I-131	<1.95E+01	0.00E+00	1.95E+01
			Cs-134	<1.24E+01	0.00E+00	1.24E+01
			Cs-137	8.35E+01	1.82E+01	2.11E+01
			Be-7	<9.33E+01	0.00E+00	9.33E+01
			K-40	3.77E+03	4.44E+02	2.04E+02
			Ag-110M	<1.04E+01	0.00E+00	1.04E+01
			Sb-122	<1.27E+02	0.00E+00	1.27E+02

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: FISH Concentration (Activity): pCi/kg wet

Sample Point 47 [ CONTROL - @ 0 miles ]

Sample ID:	Sample Dates:	FREESWIM	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
361173	11/4/2014 - 11/4/2014		Sb-125	<2.71E+01	0.00E+00	2.71E+01

Media Type: GROUND WATER Concentration (Activity): pCi/l

Sample Point 42 [ INDICATOR - @ 0 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
286279	2/27/2014 - 2/27/2014	Mn-54	<7.26E+00	0.00E+00	7.26E+00
		Co-58	<6.63E+00	0.00E+00	6.63E+00
		Fe-59	<1.46E+01	0.00E+00	1.46E+01
		Co-60	<1.02E+01	0.00E+00	1.02E+01
		Zn-65	<2.16E+01	0.00E+00	2.16E+01
		Zr-95	<1.05E+01	0.00E+00	1.05E+01
		Nb-95	<8.97E+00	0.00E+00	8.97E+00
		I-131	<1.10E+01	0.00E+00	1.10E+01
		Cs-134	<7.86E+00	0.00E+00	7.86E+00
		Cs-137	<7.42E+00	0.00E+00	7.42E+00
		BaLa-140	<1.41E+01	0.00E+00	1.41E+01
		Be-7	<5.25E+01	0.00E+00	5.25E+01
		K-40	9.51E+01	4.28E+01	7.63E+01
		H3GW	<1.61E+02	0.00E+00	1.85E+02

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
295872	5/21/2014 - 5/21/2014	Mn-54	<4.78E+00	0.00E+00	4.78E+00
		Co-58	<4.55E+00	0.00E+00	4.55E+00
		Fe-59	<8.06E+00	0.00E+00	8.06E+00
		Co-60	<5.19E+00	0.00E+00	5.19E+00
		Zn-65	<9.79E+00	0.00E+00	9.79E+00
		Zr-95	<7.19E+00	0.00E+00	7.19E+00
		Nb-95	<4.71E+00	0.00E+00	4.71E+00
		I-131	<7.64E+00	0.00E+00	7.64E+00
		Cs-134	<4.04E+00	0.00E+00	4.04E+00
		Cs-137	<4.70E+00	0.00E+00	4.70E+00
		BaLa-140	<6.98E+00	0.00E+00	6.98E+00
		Be-7	<3.52E+01	0.00E+00	3.52E+01
		K-40	1.70E+02	2.72E+01	4.65E+01
		H3GW	<3.61E+01	0.00E+00	2.06E+02

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
353843	8/13/2014 - 8/13/2014	Mn-54	<4.09E+00	0.00E+00	4.09E+00
		Co-58	<4.32E+00	0.00E+00	4.32E+00
		Fe-59	<8.08E+00	0.00E+00	8.08E+00
		Co-60	<4.43E+00	0.00E+00	4.43E+00
		Zn-65	<8.59E+00	0.00E+00	8.59E+00
		Zr-95	<7.89E+00	0.00E+00	7.89E+00
		Nb-95	<5.26E+00	0.00E+00	5.26E+00
		I-131	<9.80E+00	0.00E+00	9.80E+00
		Cs-134	<4.55E+00	0.00E+00	4.55E+00
		Cs-137	<3.68E+00	0.00E+00	3.68E+00
		BaLa-140	<9.24E+00	0.00E+00	9.24E+00
		Be-7	<3.42E+01	0.00E+00	3.42E+01
		K-40	3.87E+02	8.13E+01	1.00E+02
		H3GW	<5.97E+01	0.00E+00	1.87E+02

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
362021	11/12/2014 - 11/12/2014	Mn-54	<6.07E+00	0.00E+00	6.07E+00
		Co-58	<4.01E+00	0.00E+00	4.01E+00
		Fe-59	<1.07E+01	0.00E+00	1.07E+01
		Co-60	<6.86E+00	0.00E+00	6.86E+00
		Zn-65	<1.03E+01	0.00E+00	1.03E+01
		Zr-95	<9.31E+00	0.00E+00	9.31E+00
		Nb-95	<4.74E+00	0.00E+00	4.74E+00
		I-131	<8.17E+00	0.00E+00	8.17E+00
		Cs-134	<6.96E+00	0.00E+00	6.96E+00
		Cs-137	<4.72E+00	0.00E+00	4.72E+00
		BaLa-140	<7.02E+00	0.00E+00	7.02E+00
		Be-7	<4.52E+01	0.00E+00	4.52E+01

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: GROUND WATER Concentration (Activity): pCi/l

Sample Point 42 [ INDICATOR - @ 0 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
362021	11/12/2014 - 11/12/2014	K-40	4.58E+01	4.08E+01	6.05E+01
		H3GW	<9.01E+01	0.00E+00	1.75E+02

Sample Point 64 [ INDICATOR - SE @ 0.6 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
286265	2/26/2014 - 2/26/2014	Mn-54	<6.64E+00	0.00E+00	6.64E+00
		Co-58	<5.20E+00	0.00E+00	5.20E+00
		Fe-59	<1.48E+01	0.00E+00	1.48E+01
		Co-60	<7.28E+00	0.00E+00	7.28E+00
		Zn-65	<1.01E+01	0.00E+00	1.01E+01
		Zr-95	<9.36E+00	0.00E+00	9.36E+00
		Nb-95	<6.40E+00	0.00E+00	6.40E+00
		I-131	<7.94E+00	0.00E+00	7.94E+00
		Cs-134	<5.34E+00	0.00E+00	5.34E+00
		Cs-137	<5.70E+00	0.00E+00	5.70E+00
		BaLa-140	<9.19E+00	0.00E+00	9.19E+00
		Be-7	<4.71E+01	0.00E+00	4.71E+01
		K-40	8.67E+01	3.39E+01	6.93E+01
		H3GW	<4.84E+00	0.00E+00	1.86E+02

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
295858	5/21/2014 - 5/21/2014	Mn-54	<8.39E+00	0.00E+00	8.39E+00
		Co-58	<6.79E+00	0.00E+00	6.79E+00
		Fe-59	<1.57E+01	0.00E+00	1.57E+01
		Co-60	<9.53E+00	0.00E+00	9.53E+00
		Zn-65	<1.33E+01	0.00E+00	1.33E+01
		Zr-95	<1.27E+01	0.00E+00	1.27E+01
		Nb-95	<9.51E+00	0.00E+00	9.51E+00
		I-131	<1.04E+01	0.00E+00	1.04E+01
		Cs-134	<6.21E+00	0.00E+00	6.21E+00
		Cs-137	<6.95E+00	0.00E+00	6.95E+00
		BaLa-140	<1.15E+01	0.00E+00	1.15E+01
		Be-7	<5.84E+01	0.00E+00	5.84E+01
		K-40	1.68E+02	3.67E+01	6.74E+01
		H3GW	<8.2E+01	0.00E+00	2.07E+02

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
353827	8/14/2014 - 8/14/2014	Mn-54	<5.82E+00	0.00E+00	5.82E+00
		Co-58	<6.75E+00	0.00E+00	6.75E+00
		Fe-59	<1.47E+01	0.00E+00	1.47E+01
		Co-60	<6.74E+00	0.00E+00	6.74E+00
		Zn-65	<1.37E+01	0.00E+00	1.37E+01
		Zr-95	<1.04E+01	0.00E+00	1.04E+01
		Nb-95	<6.24E+00	0.00E+00	6.24E+00
		I-131	<9.45E+00	0.00E+00	9.45E+00
		Cs-134	<7.39E+00	0.00E+00	7.39E+00
		Cs-137	<5.44E+00	0.00E+00	5.44E+00
		BaLa-140	<7.28E+00	0.00E+00	7.28E+00
		Be-7	<4.34E+01	0.00E+00	4.34E+01
		K-40	3.84E+02	9.67E+01	1.08E+02
		H3GW	<2.15E+01	0.00E+00	1.87E+02

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
362008	11/12/2014 - 11/12/2014	Mn-54	<5.28E+00	0.00E+00	5.28E+00
		Co-58	<5.75E+00	0.00E+00	5.75E+00
		Fe-59	<1.04E+01	0.00E+00	1.04E+01
		Co-60	<5.72E+00	0.00E+00	5.72E+00
		Zn-65	<1.05E+01	0.00E+00	1.05E+01
		Zr-95	<1.02E+01	0.00E+00	1.02E+01
		Nb-95	<6.02E+00	0.00E+00	6.02E+00
		I-131	<9.68E+00	0.00E+00	9.68E+00
		Cs-134	<6.48E+00	0.00E+00	6.48E+00
		Cs-137	<5.52E+00	0.00E+00	5.52E+00
		BaLa-140	<8.61E+00	0.00E+00	8.61E+00
		Be-7	<3.96E+01	0.00E+00	3.96E+01
		K-40	3.73E+02	8.26E+01	8.64E+01

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: GROUND WATER Concentration (Activity): pCi/l

Sample Point 64 [ INDICATOR - SE @ 0.6 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
362008	11/12/2014 - 11/12/2014	H3GW	<-1.1E+02	0.00E+00	1.78E+02

Sample Point 68 [ INDICATOR - @ 0 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
286266	2/27/2014 - 2/27/2014	Mn-54	<5.47E+00	0.00E+00	5.47E+00
		Co-58	<5.69E+00	0.00E+00	5.69E+00
		Fe-59	<1.18E+01	0.00E+00	1.18E+01
		Co-60	<1.01E+01	0.00E+00	1.01E+01
		Zn-65	<1.54E+01	0.00E+00	1.54E+01
		Zr-95	<9.25E+00	0.00E+00	9.25E+00
		Nb-95	<6.92E+00	0.00E+00	6.92E+00
		I-131	<8.83E+00	0.00E+00	8.83E+00
		Cs-134	<7.03E+00	0.00E+00	7.03E+00
		Cs-137	<6.69E+00	0.00E+00	6.69E+00
		BaLa-140	<1.44E+01	0.00E+00	1.44E+01
		Be-7	<5.64E+01	0.00E+00	5.64E+01
		K-40	9.91E+01	3.37E+01	9.25E+01
		Be-7	<2.90E+00	0.00E+00	2.90E+00
		K-40	1.18E+01	2.84E+00	4.21E+00
		LLI-131	<4.99E-01	0.00E+00	4.99E-01
		H3GW	4.25E+02	6.31E+01	1.85E+02

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
295859	5/21/2014 - 5/21/2014	Mn-54	<6.47E+00	0.00E+00	6.47E+00
		Co-58	<5.61E+00	0.00E+00	5.61E+00
		Fe-59	<1.59E+01	0.00E+00	1.59E+01
		Co-60	<9.36E+00	0.00E+00	9.36E+00
		Zn-65	<1.26E+01	0.00E+00	1.26E+01
		Zr-95	<1.28E+01	0.00E+00	1.28E+01
		Nb-95	<5.83E+00	0.00E+00	5.83E+00
		I-131	<1.08E+01	0.00E+00	1.08E+01
		Cs-134	<5.78E+00	0.00E+00	5.78E+00
		Cs-137	<7.48E+00	0.00E+00	7.48E+00
		BaLa-140	<1.13E+01	0.00E+00	1.13E+01
		Be-7	<5.23E+01	0.00E+00	5.23E+01
		K-40	<1.16E+02	0.00E+00	1.16E+02
		Be-7	<2.04E+00	0.00E+00	2.04E+00
		K-40	3.85E+01	2.02E+00	2.23E+00
		LLI-131	<6.49E-01	0.00E+00	6.49E-01
		H3GW	<8.67E+01	0.00E+00	2.06E+02

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
353828	8/13/2014 - 8/13/2014	Mn-54	<5.41E+00	0.00E+00	5.41E+00
		Co-58	<5.42E+00	0.00E+00	5.42E+00
		Fe-59	<9.53E+00	0.00E+00	9.53E+00
		Co-60	<3.92E+00	0.00E+00	3.92E+00
		Zn-65	<9.84E+00	0.00E+00	9.84E+00
		Zr-95	<9.06E+00	0.00E+00	9.06E+00
		Nb-95	<6.46E+00	0.00E+00	6.46E+00
		I-131	<9.64E+00	0.00E+00	9.64E+00
		Cs-134	<6.26E+00	0.00E+00	6.26E+00
		Cs-137	<4.80E+00	0.00E+00	4.80E+00
		BaLa-140	<8.31E+00	0.00E+00	8.31E+00
		Be-7	<4.80E+01	0.00E+00	4.80E+01
		K-40	1.06E+02	5.20E+01	5.90E+01
		LLI-131	<5.52E-01	0.00E+00	5.52E-01
		H3GW	2.38E+02	1.17E+02	1.88E+02

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
362009	11/11/2014 - 11/11/2014	Mn-54	<6.38E+00	0.00E+00	6.38E+00
		Co-58	<8.43E+00	0.00E+00	8.43E+00
		Fe-59	<1.29E+01	0.00E+00	1.29E+01
		Co-60	<6.58E+00	0.00E+00	6.58E+00
		Zn-65	<1.21E+01	0.00E+00	1.21E+01
		Zr-95	<8.43E+00	0.00E+00	8.43E+00
		Nb-95	<7.23E+00	0.00E+00	7.23E+00

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: GROUND WATER Concentration (Activity): pCi/l

Sample Point 68 [ INDICATOR - @ 0 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
362009	11/11/2014 - 11/11/2014	I-131	<1.09E+01	0.00E+00	1.09E+01
		Cs-134	<6.98E+00	0.00E+00	6.98E+00
		Cs-137	<5.66E+00	0.00E+00	5.66E+00
		BaLa-140	<7.77E+00	0.00E+00	7.77E+00
		Be-7	<5.30E+01	0.00E+00	5.30E+01
		K-40	2.30E+02	8.17E+01	1.01E+02
		LLI-131	<6.47E-01	0.00E+00	6.47E-01
		H3GW	1.90E+02	1.09E+02	1.78E+02

Sample Point 69 [ INDICATOR - @ 0 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
286267	2/27/2014 - 2/27/2014	Mn-54	<9.43E+00	0.00E+00	9.43E+00
		Co-58	<9.74E+00	0.00E+00	9.74E+00
		Fe-59	<1.89E+01	0.00E+00	1.89E+01
		Co-60	<1.26E+01	0.00E+00	1.26E+01
		Zn-65	<1.42E+01	0.00E+00	1.42E+01
		Zr-95	<1.25E+01	0.00E+00	1.25E+01
		Nb-95	<8.90E+00	0.00E+00	8.90E+00
		I-131	<1.45E+01	0.00E+00	1.45E+01
		Cs-134	<8.24E+00	0.00E+00	8.24E+00
		Cs-137	<9.15E+00	0.00E+00	9.15E+00
		BaLa-140	<1.29E+01	0.00E+00	1.29E+01
		Be-7	<7.03E+01	0.00E+00	7.03E+01
		K-40	2.33E+02	6.00E+01	9.67E+01
		H3GW	<9.36E+01	0.00E+00	1.85E+02

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
295860	5/21/2014 - 5/21/2014	Mn-54	<5.12E+00	0.00E+00	5.12E+00
		Co-58	<4.93E+00	0.00E+00	4.93E+00
		Fe-59	<1.08E+01	0.00E+00	1.08E+01
		Co-60	<5.04E+00	0.00E+00	5.04E+00
		Zn-65	<1.09E+01	0.00E+00	1.09E+01
		Zr-95	<8.95E+00	0.00E+00	8.95E+00
		Nb-95	<5.91E+00	0.00E+00	5.91E+00
		I-131	<1.02E+01	0.00E+00	1.02E+01
		Cs-134	<4.82E+00	0.00E+00	4.82E+00
		Cs-137	<5.51E+00	0.00E+00	5.51E+00
		BaLa-140	<7.26E+00	0.00E+00	7.26E+00
		Be-7	<4.78E+01	0.00E+00	4.78E+01
		K-40	7.31E+02	4.66E+01	4.81E+01
		H3GW	<2.1E+02	0.00E+00	2.05E+02

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
353829	8/13/2014 - 8/13/2014	Mn-54	<4.10E+00	0.00E+00	4.10E+00
		Co-58	<3.72E+00	0.00E+00	3.72E+00
		Fe-59	<8.76E+00	0.00E+00	8.76E+00
		Co-60	<3.60E+00	0.00E+00	3.60E+00
		Zn-65	<9.51E+00	0.00E+00	9.51E+00
		Zr-95	<7.35E+00	0.00E+00	7.35E+00
		Nb-95	<5.13E+00	0.00E+00	5.13E+00
		I-131	<1.06E+01	0.00E+00	1.06E+01
		Cs-134	<4.20E+00	0.00E+00	4.20E+00
		Cs-137	<3.81E+00	0.00E+00	3.81E+00
		BaLa-140	<8.07E+00	0.00E+00	8.07E+00
		Be-7	<3.23E+01	0.00E+00	3.23E+01
		K-40	2.88E+02	5.70E+01	5.79E+01
		H3GW	<2.14E+01	0.00E+00	1.86E+02

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
362010	11/11/2014 - 11/11/2014	Mn-54	<6.45E+00	0.00E+00	6.45E+00
		Co-58	<5.47E+00	0.00E+00	5.47E+00
		Fe-59	<1.13E+01	0.00E+00	1.13E+01
		Co-60	<5.75E+00	0.00E+00	5.75E+00
		Zn-65	<1.41E+01	0.00E+00	1.41E+01
		Zr-95	<1.06E+01	0.00E+00	1.06E+01
		Nb-95	<6.32E+00	0.00E+00	6.32E+00

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: GROUND WATER Concentration (Activity): pCi/l

Sample Point 69 [ INDICATOR - @ 0 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
362010	11/11/2014 - 11/11/2014	I-131	<1.16E+01	0.00E+00	1.16E+01
		Cs-134	<6.90E+00	0.00E+00	6.90E+00
		Cs-137	<6.61E+00	0.00E+00	6.61E+00
		BaLa-140	<1.00E+01	0.00E+00	1.00E+01
		Be-7	<4.38E+01	0.00E+00	4.38E+01
		K-40	3.29E+02	8.72E+01	9.77E+01
		H3GW	<-7.1E+01	0.00E+00	1.78E+02

Sample Point 70 [ INDICATOR - @ 0 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
286268	2/27/2014 - 2/27/2014	Mn-54	<6.48E+00	0.00E+00	6.48E+00
		Co-58	<7.54E+00	0.00E+00	7.54E+00
		Fe-59	<1.81E+01	0.00E+00	1.81E+01
		Co-60	<8.36E+00	0.00E+00	8.36E+00
		Zn-65	<1.48E+01	0.00E+00	1.48E+01
		Zr-95	<1.44E+01	0.00E+00	1.44E+01
		Nb-95	<8.79E+00	0.00E+00	8.79E+00
		I-131	<1.24E+01	0.00E+00	1.24E+01
		Cs-134	<7.55E+00	0.00E+00	7.55E+00
		Cs-137	<8.80E+00	0.00E+00	8.80E+00
		BaLa-140	<1.26E+01	0.00E+00	1.26E+01
		Be-7	<6.24E+01	0.00E+00	6.24E+01
		K-40	2.14E+02	4.91E+01	8.33E+01
		H3GW	<1.25E+02	0.00E+00	1.85E+02

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
295861	5/21/2014 - 5/21/2014	Mn-54	<6.47E+00	0.00E+00	6.47E+00
		Co-58	<7.58E+00	0.00E+00	7.58E+00
		Fe-59	<1.22E+01	0.00E+00	1.22E+01
		Co-60	<8.34E+00	0.00E+00	8.34E+00
		Zn-65	<1.72E+01	0.00E+00	1.72E+01
		Zr-95	<1.00E+01	0.00E+00	1.00E+01
		Nb-95	<6.24E+00	0.00E+00	6.24E+00
		I-131	<9.32E+00	0.00E+00	9.32E+00
		Cs-134	<5.33E+00	0.00E+00	5.33E+00
		Cs-137	<6.60E+00	0.00E+00	6.60E+00
		BaLa-140	<9.57E+00	0.00E+00	9.57E+00
		Be-7	<5.14E+01	0.00E+00	5.14E+01
		K-40	2.18E+02	3.37E+01	6.31E+01
		H3GW	<9.88E+01	0.00E+00	2.06E+02

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
353830	8/13/2014 - 8/13/2014	Mn-54	<1.33E+00	0.00E+00	1.33E+00
		Co-58	<1.58E+00	0.00E+00	1.58E+00
		Fe-59	<3.14E+00	0.00E+00	3.14E+00
		Co-60	<1.05E+00	0.00E+00	1.05E+00
		Zn-65	<2.56E+00	0.00E+00	2.56E+00
		Zr-95	<2.80E+00	0.00E+00	2.80E+00
		Nb-95	<1.80E+00	0.00E+00	1.80E+00
		I-131	<1.18E+01	0.00E+00	1.18E+01
		Cs-134	<1.38E+00	0.00E+00	1.38E+00
		Cs-137	<1.27E+00	0.00E+00	1.27E+00
		BaLa-140	<5.53E+00	0.00E+00	5.53E+00
		Be-7	<1.32E+01	0.00E+00	1.32E+01
		K-40	8.66E+01	1.71E+01	2.08E+01
		H3GW	<1.03E+02	0.00E+00	1.88E+02

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
362011	11/11/2014 - 11/11/2014	Mn-54	<3.46E+00	0.00E+00	3.46E+00
		Co-58	<3.97E+00	0.00E+00	3.97E+00
		Fe-59	<8.70E+00	0.00E+00	8.70E+00
		Co-60	<4.34E+00	0.00E+00	4.34E+00
		Zn-65	<7.84E+00	0.00E+00	7.84E+00
		Zr-95	<6.17E+00	0.00E+00	6.17E+00
		Nb-95	<4.43E+00	0.00E+00	4.43E+00
		I-131	<1.11E+01	0.00E+00	1.11E+01

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.





**ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)**

Media Type: GROUND WATER Concentration (Activity): pCi/l

Sample Point 70 [ INDICATOR - @ 0 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
362011	11/11/2014 - 11/11/2014	Cs-134	<4.58E+00	0.00E+00	4.58E+00
		Cs-137	<3.21E+00	0.00E+00	3.21E+00
		BaLa-140	<6.89E+00	0.00E+00	6.89E+00
		Be-7	<3.29E+01	0.00E+00	3.29E+01
		K-40	<5.62E+01	0.00E+00	5.62E+01
		H3GW	<7.05E+01	0.00E+00	1.78E+02

Sample Point 71 [ INDICATOR - NNW @ 0.87 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
286269	2/26/2014 - 2/26/2014	Mn-54	<7.67E+00	0.00E+00	7.67E+00
		Co-58	<8.84E+00	0.00E+00	8.84E+00
		Fe-59	<1.41E+01	0.00E+00	1.41E+01
		Co-60	<8.49E+00	0.00E+00	8.49E+00
		Zn-65	<1.75E+01	0.00E+00	1.75E+01
		Zr-95	<1.39E+01	0.00E+00	1.39E+01
		Nb-95	<6.45E+00	0.00E+00	6.45E+00
		I-131	<1.25E+01	0.00E+00	1.25E+01
		Cs-134	<5.68E+00	0.00E+00	5.68E+00
		Cs-137	<8.92E+00	0.00E+00	8.92E+00
		BaLa-140	<1.37E+01	0.00E+00	1.37E+01
		Be-7	<6.14E+01	0.00E+00	6.14E+01
		K-40	7.70E+01	2.69E+01	6.12E+01
		H3GW	<1.69E+02	0.00E+00	1.85E+02

Sample ID: 295862 Sample Dates: 5/21/2014 - 5/21/2014

Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
Mn-54	<6.13E+00	0.00E+00	6.13E+00
Co-58	<7.58E+00	0.00E+00	7.58E+00
Fe-59	<1.44E+01	0.00E+00	1.44E+01
Co-60	<9.15E+00	0.00E+00	9.15E+00
Zn-65	<1.43E+01	0.00E+00	1.43E+01
Zr-95	<1.43E+01	0.00E+00	1.43E+01
Nb-95	<8.76E+00	0.00E+00	8.76E+00
I-131	<1.28E+01	0.00E+00	1.28E+01
Cs-134	<6.39E+00	0.00E+00	6.39E+00
Cs-137	<8.57E+00	0.00E+00	8.57E+00
BaLa-140	<8.98E+00	0.00E+00	8.98E+00
Be-7	<5.68E+01	0.00E+00	5.68E+01
K-40	3.81E+02	4.46E+01	4.79E+01
H3GW	<-1.2E+01	0.00E+00	2.05E+02

Sample Point 72 [ INDICATOR - E @ 0.1 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
286270	2/25/2014 - 2/25/2014	Mn-54	<6.69E+00	0.00E+00	6.69E+00
		Co-58	<5.16E+00	0.00E+00	5.16E+00
		Fe-59	<1.30E+01	0.00E+00	1.30E+01
		Co-60	<7.45E+00	0.00E+00	7.45E+00
		Zn-65	<1.18E+01	0.00E+00	1.18E+01
		Zr-95	<9.40E+00	0.00E+00	9.40E+00
		Nb-95	<6.92E+00	0.00E+00	6.92E+00
		I-131	<1.09E+01	0.00E+00	1.09E+01
		Cs-134	<5.75E+00	0.00E+00	5.75E+00
		Cs-137	<5.76E+00	0.00E+00	5.76E+00
		BaLa-140	<1.11E+01	0.00E+00	1.11E+01
		Be-7	<5.15E+01	0.00E+00	5.15E+01
		K-40	1.56E+02	3.14E+01	4.23E+01
		H3GW	2.08E+02	6.01E+01	1.86E+02

Sample ID: 295863 Sample Dates: 5/21/2014 - 5/21/2014

Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
Mn-54	<7.22E+00	0.00E+00	7.22E+00
Co-58	<6.73E+00	0.00E+00	6.73E+00
Fe-59	<1.49E+01	0.00E+00	1.49E+01
Co-60	<8.23E+00	0.00E+00	8.23E+00
Zn-65	<1.70E+01	0.00E+00	1.70E+01
Zr-95	<1.07E+01	0.00E+00	1.07E+01
Nb-95	<5.43E+00	0.00E+00	5.43E+00

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: GROUND WATER Concentration (Activity): pCi/l

Sample Point 72 [ INDICATOR - E @ 0.1 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
295863	5/21/2014 - 5/21/2014	I-131	<1.20E+01	0.00E+00	1.20E+01
		Cs-134	<5.90E+00	0.00E+00	5.90E+00
		Cs-137	<8.38E+00	0.00E+00	8.38E+00
		BaLa-140	<1.06E+01	0.00E+00	1.06E+01
		Be-7	<5.29E+01	0.00E+00	5.29E+01
		K-40	1.10E+02	3.20E+01	6.51E+01
		H3GW	<1.52E+02	0.00E+00	2.06E+02

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
353832	8/13/2014 - 8/13/2014	Mn-54	<1.13E+00	0.00E+00	1.13E+00
		Co-58	<1.32E+00	0.00E+00	1.32E+00
		Fe-59	<2.91E+00	0.00E+00	2.91E+00
		Co-60	<1.10E+00	0.00E+00	1.10E+00
		Zn-65	<2.30E+00	0.00E+00	2.30E+00
		Zr-95	<2.52E+00	0.00E+00	2.52E+00
		Nb-95	<2.81E+00	0.00E+00	2.81E+00
		I-131	<1.16E+01	0.00E+00	1.16E+01
		Cs-134	<1.32E+00	0.00E+00	1.32E+00
		Cs-137	<1.22E+00	0.00E+00	1.22E+00
		BaLa-140	<4.66E+00	0.00E+00	4.66E+00
		Be-7	<1.08E+01	0.00E+00	1.08E+01
		K-40	9.99E+01	1.66E+01	1.88E+01
		H3GW	2.33E+02	1.17E+02	1.88E+02

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
362012	11/12/2014 - 11/12/2014	Mn-54	<5.84E+00	0.00E+00	5.84E+00
		Co-58	<6.91E+00	0.00E+00	6.91E+00
		Fe-59	<1.28E+01	0.00E+00	1.28E+01
		Co-60	<5.64E+00	0.00E+00	5.64E+00
		Zn-65	<1.17E+01	0.00E+00	1.17E+01
		Zr-95	<1.11E+01	0.00E+00	1.11E+01
		Nb-95	<7.58E+00	0.00E+00	7.58E+00
		I-131	<1.19E+01	0.00E+00	1.19E+01
		Cs-134	<7.69E+00	0.00E+00	7.69E+00
		Cs-137	<6.23E+00	0.00E+00	6.23E+00
		BaLa-140	<6.82E+00	0.00E+00	6.82E+00
		Be-7	<4.45E+01	0.00E+00	4.45E+01
		K-40	3.94E+02	8.90E+01	7.30E+01
		H3GW	<1.38E+02	0.00E+00	1.78E+02

Sample Point 73 [ INDICATOR - ENE @ 0.11 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
286271	2/25/2014 - 2/25/2014	Mn-54	<7.45E+00	0.00E+00	7.45E+00
		Co-58	<6.70E+00	0.00E+00	6.70E+00
		Fe-59	<1.42E+01	0.00E+00	1.42E+01
		Co-60	<7.69E+00	0.00E+00	7.69E+00
		Zn-65	<1.16E+01	0.00E+00	1.16E+01
		Zr-95	<1.23E+01	0.00E+00	1.23E+01
		Nb-95	<6.46E+00	0.00E+00	6.46E+00
		I-131	<1.29E+01	0.00E+00	1.29E+01
		Cs-134	<6.63E+00	0.00E+00	6.63E+00
		Cs-137	<7.25E+00	0.00E+00	7.25E+00
		BaLa-140	<1.14E+01	0.00E+00	1.14E+01
		Be-7	<6.45E+01	0.00E+00	6.45E+01
		K-40	3.24E+02	4.54E+01	6.59E+01
		H3GW	2.66E+02	6.11E+01	1.86E+02

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
295864	5/21/2014 - 5/21/2014	Mn-54	<5.35E+00	0.00E+00	5.35E+00
		Co-58	<5.91E+00	0.00E+00	5.91E+00
		Fe-59	<1.22E+01	0.00E+00	1.22E+01
		Co-60	<7.90E+00	0.00E+00	7.90E+00
		Zn-65	<1.37E+01	0.00E+00	1.37E+01
		Zr-95	<1.08E+01	0.00E+00	1.08E+01
		Nb-95	<6.25E+00	0.00E+00	6.25E+00
		I-131	<8.64E+00	0.00E+00	8.64E+00

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: GROUND WATER Concentration (Activity): pCi/l

Sample Point 73 [ INDICATOR - ENE @ 0.11 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
295864	5/21/2014 - 5/21/2014	Cs-134	<4.99E+00	0.00E+00	4.99E+00
		Cs-137	<7.00E+00	0.00E+00	7.00E+00
		BaLa-140	<1.00E+01	0.00E+00	1.00E+01
		Be-7	<4.97E+01	0.00E+00	4.97E+01
		K-40	1.22E+02	4.13E+01	6.75E+01
		H3GW	6.12E+02	7.16E+01	2.06E+02

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
353833	8/13/2014 - 8/13/2014	Mn-54	<4.61E+00	0.00E+00	4.61E+00
		Co-58	<4.29E+00	0.00E+00	4.29E+00
		Fe-59	<8.99E+00	0.00E+00	8.99E+00
		Co-60	<4.70E+00	0.00E+00	4.70E+00
		Zn-65	<8.44E+00	0.00E+00	8.44E+00
		Zr-95	<8.73E+00	0.00E+00	8.73E+00
		Nb-95	<4.35E+00	0.00E+00	4.35E+00
		I-131	<1.15E+01	0.00E+00	1.15E+01
		Cs-134	<5.01E+00	0.00E+00	5.01E+00
		Cs-137	<4.86E+00	0.00E+00	4.86E+00
		BaLa-140	<8.79E+00	0.00E+00	8.79E+00
		Be-7	<3.24E+01	0.00E+00	3.24E+01
		K-40	8.77E+01	5.01E+01	7.14E+01
		H3GW	8.05E+02	1.34E+02	1.87E+02

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
362013	11/12/2014 - 11/12/2014	Mn-54	<4.18E+00	0.00E+00	4.18E+00
		Co-58	<5.53E+00	0.00E+00	5.53E+00
		Fe-59	<1.02E+01	0.00E+00	1.02E+01
		Co-60	<4.34E+00	0.00E+00	4.34E+00
		Zn-65	<1.02E+01	0.00E+00	1.02E+01
		Zr-95	<7.72E+00	0.00E+00	7.72E+00
		Nb-95	<4.27E+00	0.00E+00	4.27E+00
		I-131	<1.19E+01	0.00E+00	1.19E+01
		Cs-134	<5.04E+00	0.00E+00	5.04E+00
		Cs-137	<3.31E+00	0.00E+00	3.31E+00
		BaLa-140	<1.11E+01	0.00E+00	1.11E+01
		Be-7	<3.47E+01	0.00E+00	3.47E+01
		K-40	6.05E+01	4.01E+01	5.69E+01
		H3GW	7.89E+02	1.28E+02	1.78E+02

## Sample Point 75 [ INDICATOR - NE @ 0.05 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
286272	2/25/2014 - 2/25/2014	Mn-54	<6.02E+00	0.00E+00	6.02E+00
		Co-58	<7.37E+00	0.00E+00	7.37E+00
		Fe-59	<1.20E+01	0.00E+00	1.20E+01
		Co-60	<6.96E+00	0.00E+00	6.96E+00
		Zn-65	<1.19E+01	0.00E+00	1.19E+01
		Zr-95	<1.19E+01	0.00E+00	1.19E+01
		Nb-95	<6.16E+00	0.00E+00	6.16E+00
		I-131	<9.66E+00	0.00E+00	9.66E+00
		Cs-134	<5.40E+00	0.00E+00	5.40E+00
		Cs-137	<5.80E+00	0.00E+00	5.80E+00
		BaLa-140	<9.60E+00	0.00E+00	9.60E+00
		Be-7	<4.98E+01	0.00E+00	4.98E+01
		K-40	2.06E+02	3.34E+01	5.05E+01
		H3GW	2.10E+02	5.99E+01	1.85E+02

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
295865	5/21/2014 - 5/21/2014	Mn-54	<6.87E+00	0.00E+00	6.87E+00
		Co-58	<6.79E+00	0.00E+00	6.79E+00
		Fe-59	<1.32E+01	0.00E+00	1.32E+01
		Co-60	<6.36E+00	0.00E+00	6.36E+00
		Zn-65	<1.31E+01	0.00E+00	1.31E+01
		Zr-95	<1.23E+01	0.00E+00	1.23E+01
		Nb-95	<8.81E+00	0.00E+00	8.81E+00
		I-131	<1.00E+01	0.00E+00	1.00E+01
		Cs-134	<6.01E+00	0.00E+00	6.01E+00

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: GROUND WATER Concentration (Activity): pCi/l

Sample Point 75 [ INDICATOR - NE @ 0.05 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
295865	5/21/2014 - 5/21/2014	Cs-137	<7.33E+00	0.00E+00	7.33E+00
		BaLa-140	<9.84E+00	0.00E+00	9.84E+00
		Be-7	<6.12E+01	0.00E+00	6.12E+01
		K-40	7.99E+01	3.93E+01	9.12E+01
		H3GW	<6.08E+01	0.00E+00	2.08E+02

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
353836	8/13/2014 - 8/13/2014	Mn-54	<4.83E+00	0.00E+00	4.83E+00
		Co-58	<4.65E+00	0.00E+00	4.65E+00
		Fe-59	<9.01E+00	0.00E+00	9.01E+00
		Co-60	<5.23E+00	0.00E+00	5.23E+00
		Zn-65	<8.21E+00	0.00E+00	8.21E+00
		Zr-95	<8.16E+00	0.00E+00	8.16E+00
		Nb-95	<6.28E+00	0.00E+00	6.28E+00
		I-131	<1.20E+01	0.00E+00	1.20E+01
		Cs-134	<5.36E+00	0.00E+00	5.36E+00
		Cs-137	<5.33E+00	0.00E+00	5.33E+00
		BaLa-140	<7.39E+00	0.00E+00	7.39E+00
		Be-7	<4.26E+01	0.00E+00	4.26E+01
		K-40	1.40E+02	5.60E+01	6.28E+01
		H3GW	<1.73E+02	0.00E+00	1.88E+02

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
362014	11/12/2014 - 11/12/2014	Mn-54	<5.51E+00	0.00E+00	5.51E+00
		Co-58	<4.31E+00	0.00E+00	4.31E+00
		Fe-59	<1.07E+01	0.00E+00	1.07E+01
		Co-60	<5.39E+00	0.00E+00	5.39E+00
		Zn-65	<1.33E+01	0.00E+00	1.33E+01
		Zr-95	<8.91E+00	0.00E+00	8.91E+00
		Nb-95	<5.27E+00	0.00E+00	5.27E+00
		I-131	<9.43E+00	0.00E+00	9.43E+00
		Cs-134	<6.57E+00	0.00E+00	6.57E+00
		Cs-137	<5.70E+00	0.00E+00	5.70E+00
		BaLa-140	<5.57E+00	0.00E+00	5.57E+00
		Be-7	<4.17E+01	0.00E+00	4.17E+01
		K-40	<8.77E+01	0.00E+00	8.77E+01
		H3GW	<1.17E+02	0.00E+00	1.78E+02

Sample Point 76 [ INDICATOR - N @ 0.49 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
286273	2/26/2014 - 2/26/2014	Mn-54	<9.60E+00	0.00E+00	9.60E+00
		Co-58	<7.36E+00	0.00E+00	7.36E+00
		Fe-59	<1.48E+01	0.00E+00	1.48E+01
		Co-60	<9.66E+00	0.00E+00	9.66E+00
		Zn-65	<1.93E+01	0.00E+00	1.93E+01
		Zr-95	<1.21E+01	0.00E+00	1.21E+01
		Nb-95	<1.06E+01	0.00E+00	1.06E+01
		I-131	<1.12E+01	0.00E+00	1.12E+01
		Cs-134	<7.02E+00	0.00E+00	7.02E+00
		Cs-137	<7.73E+00	0.00E+00	7.73E+00
		BaLa-140	<8.03E+00	0.00E+00	8.03E+00
		Be-7	<6.60E+01	0.00E+00	6.60E+01
		K-40	1.50E+02	4.34E+01	7.82E+01
		H3GW	<1.40E+02	0.00E+00	1.86E+02

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
295866	5/20/2014 - 5/20/2014	Mn-54	<3.96E+00	0.00E+00	3.96E+00
		Co-58	<4.05E+00	0.00E+00	4.05E+00
		Fe-59	<9.47E+00	0.00E+00	9.47E+00
		Co-60	<4.14E+00	0.00E+00	4.14E+00
		Zn-65	<8.07E+00	0.00E+00	8.07E+00
		Zr-95	<7.48E+00	0.00E+00	7.48E+00
		Nb-95	<4.77E+00	0.00E+00	4.77E+00
		I-131	<8.68E+00	0.00E+00	8.68E+00
		Cs-134	<4.25E+00	0.00E+00	4.25E+00
		Cs-137	<4.66E+00	0.00E+00	4.66E+00

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: GROUND WATER Concentration (Activity): pCi/l

Sample Point 76 [ INDICATOR - N @ 0.49 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
295866	5/20/2014 - 5/20/2014	BaLa-140	<6.81E+00	0.00E+00	6.81E+00
		Be-7	<3.72E+01	0.00E+00	3.72E+01
		K-40	2.59E+02	3.33E+01	4.32E+01
		H3GW	<-3.1E+01	0.00E+00	2.05E+02

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
353837	8/12/2014 - 8/12/2014	Mn-54	<3.87E+00	0.00E+00	3.87E+00
		Co-58	<3.91E+00	0.00E+00	3.91E+00
		Fe-59	<7.91E+00	0.00E+00	7.91E+00
		Co-60	<3.64E+00	0.00E+00	3.64E+00
		Zn-65	<6.84E+00	0.00E+00	6.84E+00
		Zr-95	<7.02E+00	0.00E+00	7.02E+00
		Nb-95	<4.09E+00	0.00E+00	4.09E+00
		I-131	<1.16E+01	0.00E+00	1.16E+01
		Cs-134	<4.29E+00	0.00E+00	4.29E+00
		Cs-137	<4.67E+00	0.00E+00	4.67E+00
		BaLa-140	<6.29E+00	0.00E+00	6.29E+00
		Be-7	<3.20E+01	0.00E+00	3.20E+01
		K-40	7.32E+01	4.09E+01	5.85E+01
		H3GW	<8.36E+01	0.00E+00	1.87E+02

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
362015	11/11/2014 - 11/11/2014	Mn-54	<4.89E+00	0.00E+00	4.89E+00
		Co-58	<5.81E+00	0.00E+00	5.81E+00
		Fe-59	<7.78E+00	0.00E+00	7.78E+00
		Co-60	<5.80E+00	0.00E+00	5.80E+00
		Zn-65	<1.33E+01	0.00E+00	1.33E+01
		Zr-95	<7.63E+00	0.00E+00	7.63E+00
		Nb-95	<8.52E+00	0.00E+00	8.52E+00
		I-131	<1.15E+01	0.00E+00	1.15E+01
		Cs-134	<6.15E+00	0.00E+00	6.15E+00
		Cs-137	<3.71E+00	0.00E+00	3.71E+00
		BaLa-140	<9.60E+00	0.00E+00	9.60E+00
		Be-7	<3.97E+01	0.00E+00	3.97E+01
		K-40	<9.23E+01	0.00E+00	9.23E+01
		H3GW	<9.13E+01	0.00E+00	1.78E+02

## Sample Point 77 [ INDICATOR - SSE @ 0.25 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
286274	2/25/2014 - 2/25/2014	Mn-54	<6.40E+00	0.00E+00	6.40E+00
		Co-58	<6.22E+00	0.00E+00	6.22E+00
		Fe-59	<1.37E+01	0.00E+00	1.37E+01
		Co-60	<8.42E+00	0.00E+00	8.42E+00
		Zn-65	<1.55E+01	0.00E+00	1.55E+01
		Zr-95	<1.22E+01	0.00E+00	1.22E+01
		Nb-95	<7.54E+00	0.00E+00	7.54E+00
		I-131	<1.15E+01	0.00E+00	1.15E+01
		Cs-134	<5.38E+00	0.00E+00	5.38E+00
		Cs-137	<6.87E+00	0.00E+00	6.87E+00
		BaLa-140	<1.37E+01	0.00E+00	1.37E+01
		Be-7	<4.77E+01	0.00E+00	4.77E+01
		K-40	<1.24E+02	0.00E+00	1.24E+02
		H3GW	<1.19E+02	0.00E+00	1.94E+02

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
295867	5/20/2014 - 5/20/2014	Mn-54	<6.17E+00	0.00E+00	6.17E+00
		Co-58	<6.24E+00	0.00E+00	6.24E+00
		Fe-59	<1.55E+01	0.00E+00	1.55E+01
		Co-60	<8.45E+00	0.00E+00	8.45E+00
		Zn-65	<1.58E+01	0.00E+00	1.58E+01
		Zr-95	<1.22E+01	0.00E+00	1.22E+01
		Nb-95	<9.00E+00	0.00E+00	9.00E+00
		I-131	<1.22E+01	0.00E+00	1.22E+01
		Cs-134	<5.17E+00	0.00E+00	5.17E+00
		Cs-137	<6.97E+00	0.00E+00	6.97E+00
		BaLa-140	<1.32E+01	0.00E+00	1.32E+01

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: GROUND WATER Concentration (Activity): pCi/l

Sample Point 77 [ INDICATOR - SSE @ 0.25 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
295867	5/20/2014 - 5/20/2014	Be-7	<6.90E+01	0.00E+00	6.90E+01
		K-40	3.28E+02	5.22E+01	6.59E+01
		H3GW	<1.85E+02	0.00E+00	1.87E+02

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
353838	8/13/2014 - 8/13/2014	Mn-54	<4.72E+00	0.00E+00	4.72E+00
		Co-58	<5.27E+00	0.00E+00	5.27E+00
		Fe-59	<1.13E+01	0.00E+00	1.13E+01
		Co-60	<5.29E+00	0.00E+00	5.29E+00
		Zn-65	<1.10E+01	0.00E+00	1.10E+01
		Zr-95	<8.27E+00	0.00E+00	8.27E+00
		Nb-95	<6.70E+00	0.00E+00	6.70E+00
		I-131	<1.12E+01	0.00E+00	1.12E+01
		Cs-134	<5.94E+00	0.00E+00	5.94E+00
		Cs-137	<6.01E+00	0.00E+00	6.01E+00
		BaLa-140	<9.77E+00	0.00E+00	9.77E+00
		Be-7	<3.73E+01	0.00E+00	3.73E+01
		K-40	7.57E+01	5.40E+01	7.97E+01
		H3GW	<6.85E+01	0.00E+00	1.85E+02

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
362016	11/11/2014 - 11/11/2014	Mn-54	<4.22E+00	0.00E+00	4.22E+00
		Co-58	<5.48E+00	0.00E+00	5.48E+00
		Fe-59	<1.11E+01	0.00E+00	1.11E+01
		Co-60	<6.70E+00	0.00E+00	6.70E+00
		Zn-65	<1.06E+01	0.00E+00	1.06E+01
		Zr-95	<1.04E+01	0.00E+00	1.04E+01
		Nb-95	<6.99E+00	0.00E+00	6.99E+00
		I-131	<1.10E+01	0.00E+00	1.10E+01
		Cs-134	<5.80E+00	0.00E+00	5.80E+00
		Cs-137	<6.46E+00	0.00E+00	6.46E+00
		BaLa-140	<1.07E+01	0.00E+00	1.07E+01
		Be-7	<3.89E+01	0.00E+00	3.89E+01
		K-40	6.70E+01	3.98E+01	6.60E+01
		H3GW	2.30E+02	1.11E+02	1.78E+02

Sample Point 78 [ INDICATOR - SSE @ 0.17 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
286275	2/25/2014 - 2/25/2014	Mn-54	<9.76E+00	0.00E+00	9.76E+00
		Co-58	<8.13E+00	0.00E+00	8.13E+00
		Fe-59	<1.35E+01	0.00E+00	1.35E+01
		Co-60	<1.10E+01	0.00E+00	1.10E+01
		Zn-65	<1.64E+01	0.00E+00	1.64E+01
		Zr-95	<1.34E+01	0.00E+00	1.34E+01
		Nb-95	<9.47E+00	0.00E+00	9.47E+00
		I-131	<1.27E+01	0.00E+00	1.27E+01
		Cs-134	<9.42E+00	0.00E+00	9.42E+00
		Cs-137	<8.66E+00	0.00E+00	8.66E+00
		BaLa-140	<8.79E+00	0.00E+00	8.79E+00
		Be-7	<6.00E+01	0.00E+00	6.00E+01
		K-40	1.72E+02	4.44E+01	8.80E+01
		H3GW	<1.03E+02	0.00E+00	1.95E+02

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
295868	5/20/2014 - 5/20/2014	Mn-54	<7.57E+00	0.00E+00	7.57E+00
		Co-58	<8.00E+00	0.00E+00	8.00E+00
		Fe-59	<1.77E+01	0.00E+00	1.77E+01
		Co-60	<8.23E+00	0.00E+00	8.23E+00
		Zn-65	<1.40E+01	0.00E+00	1.40E+01
		Zr-95	<1.27E+01	0.00E+00	1.27E+01
		Nb-95	<8.54E+00	0.00E+00	8.54E+00
		I-131	<1.10E+01	0.00E+00	1.10E+01
		Cs-134	<6.49E+00	0.00E+00	6.49E+00
		Cs-137	<7.41E+00	0.00E+00	7.41E+00
		BaLa-140	<1.34E+01	0.00E+00	1.34E+01
		Be-7	<6.19E+01	0.00E+00	6.19E+01

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



**ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)**

Media Type: GROUND WATER Concentration (Activity): pCi/l

Sample Point 78 [ INDICATOR - SSE @ 0.17 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
295868	5/20/2014 - 5/20/2014	K-40	3.69E+02	5.72E+01	9.03E+01
		H3GW	1.90E+02	5.99E+01	1.87E+02

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
353839	8/13/2014 - 8/13/2014	Mn-54	<5.07E+00	0.00E+00	5.07E+00
		Co-58	<4.92E+00	0.00E+00	4.92E+00
		Fe-59	<9.54E+00	0.00E+00	9.54E+00
		Co-60	<4.76E+00	0.00E+00	4.76E+00
		Zn-65	<1.03E+01	0.00E+00	1.03E+01
		Zr-95	<9.34E+00	0.00E+00	9.34E+00
		Nb-95	<5.41E+00	0.00E+00	5.41E+00
		I-131	<8.97E+00	0.00E+00	8.97E+00
		Cs-134	<6.00E+00	0.00E+00	6.00E+00
		Cs-137	<4.50E+00	0.00E+00	4.50E+00
		BaLa-140	<7.14E+00	0.00E+00	7.14E+00
		Be-7	<3.98E+01	0.00E+00	3.98E+01
		K-40	4.00E+02	7.70E+01	7.57E+01
		H3GW	1.98E+02	1.15E+02	1.86E+02

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
362017	11/11/2014 - 11/11/2014	Mn-54	<6.02E+00	0.00E+00	6.02E+00
		Co-58	<5.51E+00	0.00E+00	5.51E+00
		Fe-59	<1.07E+01	0.00E+00	1.07E+01
		Co-60	<6.00E+00	0.00E+00	6.00E+00
		Zn-65	<9.98E+00	0.00E+00	9.98E+00
		Zr-95	<1.12E+01	0.00E+00	1.12E+01
		Nb-95	<6.65E+00	0.00E+00	6.65E+00
		I-131	<1.01E+01	0.00E+00	1.01E+01
		Cs-134	<6.43E+00	0.00E+00	6.43E+00
		Cs-137	<5.02E+00	0.00E+00	5.02E+00
		BaLa-140	<8.40E+00	0.00E+00	8.40E+00
		Be-7	<4.08E+01	0.00E+00	4.08E+01
		K-40	2.82E+02	7.26E+01	7.87E+01
		H3GW	1.94E+02	1.10E+02	1.78E+02

**Sample Point 79 [ INDICATOR - N @ 1 miles ]**

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
286276	2/26/2014 - 2/26/2014	Mn-54	<7.25E+00	0.00E+00	7.25E+00
		Co-58	<4.61E+00	0.00E+00	4.61E+00
		Fe-59	<1.22E+01	0.00E+00	1.22E+01
		Co-60	<8.44E+00	0.00E+00	8.44E+00
		Zn-65	<1.45E+01	0.00E+00	1.45E+01
		Zr-95	<8.85E+00	0.00E+00	8.85E+00
		Nb-95	<5.68E+00	0.00E+00	5.68E+00
		I-131	<9.31E+00	0.00E+00	9.31E+00
		Cs-134	<4.91E+00	0.00E+00	4.91E+00
		Cs-137	<6.61E+00	0.00E+00	6.61E+00
		BaLa-140	<1.18E+01	0.00E+00	1.18E+01
		Be-7	<5.35E+01	0.00E+00	5.35E+01
		K-40	<1.23E+02	0.00E+00	1.23E+02
		H3GW	1.69E+03	8.23E+01	1.94E+02

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
295869	5/20/2014 - 5/20/2014	Mn-54	<4.66E+00	0.00E+00	4.66E+00
		Co-58	<4.98E+00	0.00E+00	4.98E+00
		Fe-59	<1.03E+01	0.00E+00	1.03E+01
		Co-60	<6.86E+00	0.00E+00	6.86E+00
		Zn-65	<1.10E+01	0.00E+00	1.10E+01
		Zr-95	<9.49E+00	0.00E+00	9.49E+00
		Nb-95	<5.22E+00	0.00E+00	5.22E+00
		I-131	<8.80E+00	0.00E+00	8.80E+00
		Cs-134	<5.26E+00	0.00E+00	5.26E+00
		Cs-137	<5.67E+00	0.00E+00	5.67E+00
		BaLa-140	<9.41E+00	0.00E+00	9.41E+00
		Be-7	<4.55E+01	0.00E+00	4.55E+01
		K-40	7.41E+01	2.80E+01	6.50E+01

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: GROUND WATER Concentration (Activity): pCi/l

Sample Point 79 [ INDICATOR - N @ 1 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
295869	5/20/2014 - 5/20/2014	H3GW	1.76E+03	8.23E+01	1.87E+02

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
353840	8/12/2014 - 8/12/2014	Mn-54	<5.56E+00	0.00E+00	5.56E+00
		Co-58	<5.57E+00	0.00E+00	5.57E+00
		Fe-59	<1.05E+01	0.00E+00	1.05E+01
		Co-60	<4.66E+00	0.00E+00	4.66E+00
		Zn-65	<1.09E+01	0.00E+00	1.09E+01
		Zr-95	<1.11E+01	0.00E+00	1.11E+01
		Nb-95	<6.28E+00	0.00E+00	6.28E+00
		I-131	<9.62E+00	0.00E+00	9.62E+00
		Cs-134	<7.08E+00	0.00E+00	7.08E+00
		Cs-137	<4.73E+00	0.00E+00	4.73E+00
		BaLa-140	<9.57E+00	0.00E+00	9.57E+00
		Be-7	<4.53E+01	0.00E+00	4.53E+01
		K-40	4.29E+02	8.68E+01	7.77E+01
		H3GW	1.57E+03	1.53E+02	1.85E+02

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
362018	11/11/2014 - 11/11/2014	Mn-54	<4.16E+00	0.00E+00	4.16E+00
		Co-58	<3.27E+00	0.00E+00	3.27E+00
		Fe-59	<9.62E+00	0.00E+00	9.62E+00
		Co-60	<4.98E+00	0.00E+00	4.98E+00
		Zn-65	<7.18E+00	0.00E+00	7.18E+00
		Zr-95	<6.57E+00	0.00E+00	6.57E+00
		Nb-95	<5.49E+00	0.00E+00	5.49E+00
		I-131	<1.08E+01	0.00E+00	1.08E+01
		Cs-134	<5.47E+00	0.00E+00	5.47E+00
		Cs-137	<3.43E+00	0.00E+00	3.43E+00
		BaLa-140	<8.33E+00	0.00E+00	8.33E+00
		Be-7	<3.94E+01	0.00E+00	3.94E+01
		K-40	1.19E+02	5.30E+01	7.03E+01
		H3GW	1.62E+03	1.52E+02	1.79E+02

## Sample Point 81 [ INDICATOR - SSE @ 0.19 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
286277	2/25/2014 - 2/25/2014	Mn-54	<7.84E+00	0.00E+00	7.84E+00
		Co-58	<7.30E+00	0.00E+00	7.30E+00
		Fe-59	<1.49E+01	0.00E+00	1.49E+01
		Co-60	<7.12E+00	0.00E+00	7.12E+00
		Zn-65	<1.61E+01	0.00E+00	1.61E+01
		Zr-95	<1.09E+01	0.00E+00	1.09E+01
		Nb-95	<9.24E+00	0.00E+00	9.24E+00
		I-131	<1.39E+01	0.00E+00	1.39E+01
		Cs-134	<8.26E+00	0.00E+00	8.26E+00
		Cs-137	<6.98E+00	0.00E+00	6.98E+00
		BaLa-140	<1.35E+01	0.00E+00	1.35E+01
		Be-7	<6.52E+01	0.00E+00	6.52E+01
		K-40	3.01E+02	4.56E+01	5.87E+01
		H3GW	4.07E+02	6.53E+01	1.94E+02

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
295870	5/20/2014 - 5/20/2014	Mn-54	<6.72E+00	0.00E+00	6.72E+00
		Co-58	<6.47E+00	0.00E+00	6.47E+00
		Fe-59	<1.53E+01	0.00E+00	1.53E+01
		Co-60	<8.03E+00	0.00E+00	8.03E+00
		Zn-65	<1.16E+01	0.00E+00	1.16E+01
		Zr-95	<1.03E+01	0.00E+00	1.03E+01
		Nb-95	<7.74E+00	0.00E+00	7.74E+00
		I-131	<1.30E+01	0.00E+00	1.30E+01
		Cs-134	<6.26E+00	0.00E+00	6.26E+00
		Cs-137	<8.47E+00	0.00E+00	8.47E+00
		BaLa-140	<1.26E+01	0.00E+00	1.26E+01
		Be-7	<5.40E+01	0.00E+00	5.40E+01
		K-40	9.68E+01	2.84E+01	6.10E+01

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.





# ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: GROUND WATER Concentration (Activity): pCi/l

Sample Point 81 [ INDICATOR - SSE @ 0.19 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
295870	5/20/2014 - 5/20/2014	H3GW	7.15E+02	6.81E+01	1.87E+02
353841	8/13/2014 - 8/13/2014	Mn-54	<3.76E+00	0.00E+00	3.76E+00
		Co-58	<4.00E+00	0.00E+00	4.00E+00
		Fe-59	<7.14E+00	0.00E+00	7.14E+00
		Co-60	<4.41E+00	0.00E+00	4.41E+00
		Zn-65	<5.58E+00	0.00E+00	5.58E+00
		Zr-95	<6.19E+00	0.00E+00	6.19E+00
		Nb-95	<4.98E+00	0.00E+00	4.98E+00
		I-131	<1.17E+01	0.00E+00	1.17E+01
		Cs-134	<3.99E+00	0.00E+00	3.99E+00
		Cs-137	<3.88E+00	0.00E+00	3.88E+00
		BaLa-140	<7.02E+00	0.00E+00	7.02E+00
		Be-7	<2.84E+01	0.00E+00	2.84E+01
		K-40	6.02E+01	3.80E+01	5.52E+01
		H3GW	4.17E+02	1.22E+02	1.86E+02
362019	11/11/2014 - 11/11/2014	Mn-54	<9.54E-01	0.00E+00	9.54E-01
		Co-58	<1.18E+00	0.00E+00	1.18E+00
		Fe-59	<2.45E+00	0.00E+00	2.45E+00
		Co-60	<8.86E-01	0.00E+00	8.86E-01
		Zn-65	<2.04E+00	0.00E+00	2.04E+00
		Zr-95	<2.19E+00	0.00E+00	2.19E+00
		Nb-95	<1.67E+00	0.00E+00	1.67E+00
		I-131	<9.50E+00	0.00E+00	9.50E+00
		Cs-134	<1.14E+00	0.00E+00	1.14E+00
		Cs-137	<1.03E+00	0.00E+00	1.03E+00
		BaLa-140	<4.31E+00	0.00E+00	4.31E+00
		Be-7	<9.94E+00	0.00E+00	9.94E+00
		K-40	9.32E+01	1.37E+01	1.38E+01
		H3GW	3.61E+02	1.15E+02	1.77E+02

Sample Point 82 [ INDICATOR - SSE @ 0.3 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
286280	2/26/2014 - 2/26/2014	Beta	<3.44E-01	0.00E+00	1.34E+00
		Mn-54	<6.45E+00	0.00E+00	6.45E+00
		Co-58	<5.80E+00	0.00E+00	5.80E+00
		Fe-59	<1.34E+01	0.00E+00	1.34E+01
		Co-60	<7.23E+00	0.00E+00	7.23E+00
		Zn-65	<1.13E+01	0.00E+00	1.13E+01
		Zr-95	<1.07E+01	0.00E+00	1.07E+01
		Nb-95	<7.36E+00	0.00E+00	7.36E+00
		I-131	<1.05E+01	0.00E+00	1.05E+01
		Cs-134	<6.24E+00	0.00E+00	6.24E+00
		Cs-137	<6.28E+00	0.00E+00	6.28E+00
		BaLa-140	<8.70E+00	0.00E+00	8.70E+00
		Be-7	<5.38E+01	0.00E+00	5.38E+01
		K-40	3.19E+02	4.99E+01	8.34E+01
		Be-7	<3.24E+00	0.00E+00	3.24E+00
		K-40	4.19E+01	3.75E+00	4.34E+00
		LLI-131	<5.33E-01	0.00E+00	5.33E-01
		H3GW	<5.6E+01	0.00E+00	1.94E+02
295873	5/21/2014 - 5/21/2014	Beta	1.84E+00	4.07E-01	1.24E+00
		Mn-54	<6.68E+00	0.00E+00	6.68E+00
		Co-58	<8.11E+00	0.00E+00	8.11E+00
		Fe-59	<1.72E+01	0.00E+00	1.72E+01
		Co-60	<1.04E+01	0.00E+00	1.04E+01
		Zn-65	<1.52E+01	0.00E+00	1.52E+01
		Zr-95	<1.41E+01	0.00E+00	1.41E+01
		Nb-95	<8.94E+00	0.00E+00	8.94E+00
		I-131	<1.19E+01	0.00E+00	1.19E+01
		Cs-134	<6.64E+00	0.00E+00	6.64E+00

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: GROUND WATER Concentration (Activity): pCi/l

Sample Point 82 [ INDICATOR - SSE @ 0.3 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
295873	5/21/2014 - 5/21/2014	Cs-137	<8.23E+00	0.00E+00	8.23E+00
		BaLa-140	<1.03E+01	0.00E+00	1.03E+01
		Be-7	<6.76E+01	0.00E+00	6.76E+01
		K-40	2.14E+02	4.48E+01	8.24E+01
		Be-7	<3.10E+00	0.00E+00	3.10E+00
		K-40	4.09E+01	3.18E+00	4.18E+00
		LLI-131	<6.42E-01	0.00E+00	6.42E-01
		H3GW	<3.13E+01	0.00E+00	1.87E+02

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
353844	8/13/2014 - 8/13/2014	Beta	1.46E+00	7.84E-01	1.25E+00
		Mn-54	<5.19E+00	0.00E+00	5.19E+00
		Co-58	<6.06E+00	0.00E+00	6.06E+00
		Fe-59	<9.53E+00	0.00E+00	9.53E+00
		Co-60	<6.70E+00	0.00E+00	6.70E+00
		Zn-65	<1.25E+01	0.00E+00	1.25E+01
		Zr-95	<1.13E+01	0.00E+00	1.13E+01
		Nb-95	<6.65E+00	0.00E+00	6.65E+00
		I-131	<1.02E+01	0.00E+00	1.02E+01
		Cs-134	<7.09E+00	0.00E+00	7.09E+00
		Cs-137	<4.80E+00	0.00E+00	4.80E+00
		BaLa-140	<1.01E+01	0.00E+00	1.01E+01
		Be-7	<4.10E+01	0.00E+00	4.10E+01
		K-40	9.44E+01	5.03E+01	6.02E+01
		LLI-131	<6.49E-01	0.00E+00	6.49E-01
		H3GW	<4.0E+01	0.00E+00	1.85E+02

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
362022	11/11/2014 - 11/11/2014	Beta	1.23E+00	7.24E-01	1.15E+00
		Mn-54	<6.08E+00	0.00E+00	6.08E+00
		Co-58	<5.36E+00	0.00E+00	5.36E+00
		Fe-59	<1.40E+01	0.00E+00	1.40E+01
		Co-60	<6.18E+00	0.00E+00	6.18E+00
		Zn-65	<1.04E+01	0.00E+00	1.04E+01
		Zr-95	<6.47E+00	0.00E+00	6.47E+00
		Nb-95	<6.03E+00	0.00E+00	6.03E+00
		I-131	<8.92E+00	0.00E+00	8.92E+00
		Cs-134	<6.15E+00	0.00E+00	6.15E+00
		Cs-137	<5.14E+00	0.00E+00	5.14E+00
		BaLa-140	<1.11E+01	0.00E+00	1.11E+01
		Be-7	<4.08E+01	0.00E+00	4.08E+01
		K-40	5.98E+01	5.37E+01	8.25E+01
		LLI-131	<6.47E-01	0.00E+00	6.47E-01
		H3GW	<2.34E+00	0.00E+00	1.78E+02

Media Type: SEDIMENT\_BOTTOM Concentration (Activity): pCi/kg dry

Sample Point 41 [ CONTROL - NNW @ 7.2 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
295898	5/21/2014 - 5/21/2014	Mn-54	<6.18E+01	0.00E+00	6.18E+01
		Co-58	<4.86E+01	0.00E+00	4.86E+01
		Fe-59	<1.46E+02	0.00E+00	1.46E+02
		Co-60	<6.50E+01	0.00E+00	6.50E+01
		Zn-65	<1.09E+02	0.00E+00	1.09E+02
		Zr-95	<1.18E+02	0.00E+00	1.18E+02
		Nb-95	<7.76E+01	0.00E+00	7.76E+01
		I-131	<2.59E+02	0.00E+00	2.59E+02
		Cs-134	<5.55E+01	0.00E+00	5.55E+01
		Cs-137	1.70E+02	3.68E+01	6.46E+01
		Be-7	<4.63E+02	0.00E+00	4.63E+02
		K-40	2.98E+03	4.65E+02	5.81E+02
		Co-57	<4.57E+01	0.00E+00	4.57E+01
		Mo-99	<2.76E+04	0.00E+00	2.76E+04
		Ag-110M	<5.63E+01	0.00E+00	5.63E+01
		Sb-122	<6.56E+03	0.00E+00	6.56E+03
		Sb-125	<1.36E+02	0.00E+00	1.36E+02

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



**ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)**

Media Type: **SEDIMENT\_BOTTOM** Concentration (Activity): **pCi/kg dry**

Sample Point 45 [ INDICATOR - @ 0 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
295879	5/20/2014 - 5/20/2014	Mn-54	<9.93E+00	0.00E+00	9.93E+00
		Co-58	<1.05E+01	0.00E+00	1.05E+01
		Fe-59	<1.96E+01	0.00E+00	1.96E+01
		Co-60	<9.43E+00	0.00E+00	9.43E+00
		Zn-65	<1.73E+01	0.00E+00	1.73E+01
		Zr-95	<1.70E+01	0.00E+00	1.70E+01
		Nb-95	<1.21E+01	0.00E+00	1.21E+01
		I-131	<3.78E+01	0.00E+00	3.78E+01
		Cs-134	<7.93E+00	0.00E+00	7.93E+00
		Cs-137	<9.95E+00	0.00E+00	9.95E+00
		Be-7	<8.46E+01	0.00E+00	8.46E+01
		K-40	3.09E+02	4.50E+01	6.99E+01
		Co-57	<7.95E+00	0.00E+00	7.95E+00
		Mo-99	<7.94E+03	0.00E+00	7.94E+03
		Ag-110M	<7.26E+00	0.00E+00	7.26E+00
		Sb-122	<1.43E+03	0.00E+00	1.43E+03
		Sb-125	<2.57E+01	0.00E+00	2.57E+01

Sample Point 46 [ INDICATOR - @ 0 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
295887	5/21/2014 - 5/21/2014	Mn-54	<9.85E+01	0.00E+00	9.85E+01
		Co-58	<1.24E+02	0.00E+00	1.24E+02
		Fe-59	<1.88E+02	0.00E+00	1.88E+02
		Co-60	<1.48E+02	0.00E+00	1.48E+02
		Zn-65	<2.00E+02	0.00E+00	2.00E+02
		Zr-95	<2.15E+02	0.00E+00	2.15E+02
		Nb-95	<1.40E+02	0.00E+00	1.40E+02
		I-131	<3.44E+02	0.00E+00	3.44E+02
		Cs-134	<9.36E+01	0.00E+00	9.36E+01
		Cs-137	5.56E+02	5.82E+01	9.42E+01
		Be-7	<8.00E+02	0.00E+00	8.00E+02
		K-40	<2.24E+03	0.00E+00	2.24E+03
		Co-57	<6.42E+01	0.00E+00	6.42E+01
		Mo-99	<6.26E+04	0.00E+00	6.26E+04
		Ag-110M	<8.44E+01	0.00E+00	8.44E+01
		Sb-122	<1.35E+04	0.00E+00	1.35E+04
		Sb-125	<2.85E+02	0.00E+00	2.85E+02

Sample Point 66 [ INDICATOR - @ 0 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
295902	5/22/2014 - 5/22/2014	Mn-54	<3.55E+01	0.00E+00	3.55E+01
		Co-58	<3.46E+01	0.00E+00	3.46E+01
		Fe-59	<7.22E+01	0.00E+00	7.22E+01
		Co-60	<2.76E+01	0.00E+00	2.76E+01
		Zn-65	<7.72E+01	0.00E+00	7.72E+01
		Zr-95	<6.87E+01	0.00E+00	6.87E+01
		Nb-95	<4.42E+01	0.00E+00	4.42E+01
		I-131	<1.22E+02	0.00E+00	1.22E+02
		Cs-134	<3.12E+01	0.00E+00	3.12E+01
		Cs-137	3.50E+01	1.59E+01	3.53E+01
		Be-7	4.28E+02	1.62E+02	3.15E+02
		K-40	1.76E+03	2.00E+02	3.27E+02
		Co-57	<2.71E+01	0.00E+00	2.71E+01
		Mo-99	<1.57E+04	0.00E+00	1.57E+04
		Ag-110M	<2.96E+01	0.00E+00	2.96E+01
		Sb-122	<3.30E+03	0.00E+00	3.30E+03
		Sb-125	<9.07E+01	0.00E+00	9.07E+01

Media Type: **SEDIMENT\_SHORE** Concentration (Activity): **pCi/kg dry**

Sample Point 44 [ INDICATOR - NNE @ 1.6 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
286093	2/20/2014 - 2/20/2014	Mn-54	<1.46E+01	0.00E+00	1.46E+01
		Co-58	<1.48E+01	0.00E+00	1.48E+01

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: SEDIMENT\_SHORE Concentration (Activity): pCi/kg dry

Sample Point 44 [ INDICATOR - NNE @ 1.6 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
286093	2/20/2014 - 2/20/2014	Fe-59	<3.56E+01	0.00E+00	3.56E+01
		Co-60	<1.56E+01	0.00E+00	1.56E+01
		Zn-65	<3.56E+01	0.00E+00	3.56E+01
		Zr-95	<2.35E+01	0.00E+00	2.35E+01
		Nb-95	<1.84E+01	0.00E+00	1.84E+01
		I-131	<2.96E+01	0.00E+00	2.96E+01
		Cs-134	<1.23E+01	0.00E+00	1.23E+01
		Cs-137	7.01E+00	5.41E+00	1.17E+01
		Be-7	<1.45E+02	0.00E+00	1.45E+02
		K-40	3.67E+02	6.94E+01	9.36E+01
		Co-57	<1.08E+01	0.00E+00	1.08E+01
		Mo-99	<1.37E+03	0.00E+00	1.37E+03
		Ag-110M	<1.19E+01	0.00E+00	1.19E+01
		Sb-122	<2.68E+02	0.00E+00	2.68E+02
		Sb-125	<3.24E+01	0.00E+00	3.24E+01

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
354326	8/19/2014 - 8/19/2014	Mn-54	<1.25E+01	0.00E+00	1.25E+01
		Co-58	<2.10E+01	0.00E+00	2.10E+01
		Fe-59	<4.98E+01	0.00E+00	4.98E+01
		Co-60	<2.36E+01	0.00E+00	2.36E+01
		Zn-65	<1.19E+01	0.00E+00	1.19E+01
		Zr-95	<2.22E+01	0.00E+00	2.22E+01
		Nb-95	<2.30E+01	0.00E+00	2.30E+01
		I-131	<2.71E+01	0.00E+00	2.71E+01
		Cs-134	<2.68E+01	0.00E+00	2.68E+01
		Cs-137	<1.73E+01	0.00E+00	1.73E+01
		Be-7	<2.31E+02	0.00E+00	2.31E+02
		K-40	<3.63E+02	0.00E+00	3.63E+02
		Co-57	<1.45E+01	0.00E+00	1.45E+01
		Mo-99	<7.11E+02	0.00E+00	7.11E+02
		Ag-110M	<1.56E+01	0.00E+00	1.56E+01
		Sb-122	<8.07E+01	0.00E+00	8.07E+01
		Sb-125	<4.97E+01	0.00E+00	4.97E+01

Sample Point 57 [ INDICATOR - @ 0 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
286094	2/20/2014 - 2/20/2014	Mn-54	<7.21E+01	0.00E+00	7.21E+01
		Co-58	<7.66E+01	0.00E+00	7.66E+01
		Fe-59	<1.70E+02	0.00E+00	1.70E+02
		Co-60	<6.18E+01	0.00E+00	6.18E+01
		Zn-65	<1.53E+02	0.00E+00	1.53E+02
		Zr-95	<1.29E+02	0.00E+00	1.29E+02
		Nb-95	<9.28E+01	0.00E+00	9.28E+01
		I-131	<1.56E+02	0.00E+00	1.56E+02
		Cs-134	<6.18E+01	0.00E+00	6.18E+01
		Cs-137	<6.96E+01	0.00E+00	6.96E+01
		Be-7	<6.33E+02	0.00E+00	6.33E+02
		K-40	1.99E+04	8.79E+02	6.78E+02
		Co-57	<5.25E+01	0.00E+00	5.25E+01
		Mo-99	<8.35E+03	0.00E+00	8.35E+03
		Ag-110M	<6.73E+01	0.00E+00	6.73E+01
		Sb-122	<1.56E+03	0.00E+00	1.56E+03
		Sb-125	<1.83E+02	0.00E+00	1.83E+02

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
354327	8/19/2014 - 8/19/2014	Mn-54	<5.19E+01	0.00E+00	5.19E+01
		Co-58	<4.19E+01	0.00E+00	4.19E+01
		Fe-59	<9.60E+01	0.00E+00	9.60E+01
		Co-60	<4.30E+01	0.00E+00	4.30E+01
		Zn-65	<9.31E+01	0.00E+00	9.31E+01
		Zr-95	<8.60E+01	0.00E+00	8.60E+01
		Nb-95	<5.26E+01	0.00E+00	5.26E+01
		I-131	<6.32E+01	0.00E+00	6.32E+01
		Cs-134	<7.92E+01	0.00E+00	7.92E+01

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: SEDIMENT\_SHORE Concentration (Activity): pCi/kg dry

Sample Point 57 [ INDICATOR - @ 0 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
354327	8/19/2014 - 8/19/2014	Cs-137	<4.32E+01	0.00E+00	4.32E+01
		Be-7	<3.50E+02	0.00E+00	3.50E+02
		K-40	1.38E+04	1.63E+03	9.66E+02
		Co-57	<3.85E+01	0.00E+00	3.85E+01
		Mo-99	<1.51E+03	0.00E+00	1.51E+03
		Ag-110	<3.00E+01	0.00E+00	3.00E+01
		Sb-122	<2.09E+02	0.00E+00	2.09E+02
		Sb-125	<1.00E+02	0.00E+00	1.00E+02

Media Type: SURFACE WATER Concentration (Activity): pCi/l

Sample Point 40 [ INDICATOR - ESE @ 0.6 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
284107	1/7/2014 - 2/3/2014	Mn-54	<3.55E+00	0.00E+00	3.55E+00
		Co-58	<4.53E+00	0.00E+00	4.53E+00
		Fe-59	<6.02E+00	0.00E+00	6.02E+00
		Co-60	<3.75E+00	0.00E+00	3.75E+00
		Zn-65	<7.49E+00	0.00E+00	7.49E+00
		Zr-95	<7.14E+00	0.00E+00	7.14E+00
		Nb-95	<4.23E+00	0.00E+00	4.23E+00
		I-131	<1.44E+01	0.00E+00	1.44E+01
		Cs-134	<3.31E+00	0.00E+00	3.31E+00
		Cs-137	<3.69E+00	0.00E+00	3.69E+00
		BaLa-140	<9.16E+00	0.00E+00	9.16E+00
		Be-7	<3.70E+01	0.00E+00	3.70E+01
		K-40	1.84E+02	2.29E+01	3.37E+01
		H3SW	3.08E+03	9.93E+01	1.98E+02

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
287396	2/3/2014 - 3/3/2014	Mn-54	<1.40E+00	0.00E+00	1.40E+00
		Co-58	<1.75E+00	0.00E+00	1.75E+00
		Fe-59	<3.94E+00	0.00E+00	3.94E+00
		Co-60	<1.50E+00	0.00E+00	1.50E+00
		Zn-65	<3.05E+00	0.00E+00	3.05E+00
		Zr-95	<2.99E+00	0.00E+00	2.99E+00
		Nb-95	<2.16E+00	0.00E+00	2.16E+00
		I-131	<1.15E+01	0.00E+00	1.15E+01
		Cs-134	<1.45E+00	0.00E+00	1.45E+00
		Cs-137	<1.70E+00	0.00E+00	1.70E+00
		BaLa-140	<5.69E+00	0.00E+00	5.69E+00
		Be-7	<1.76E+01	0.00E+00	1.76E+01
		K-40	1.76E+02	1.27E+01	1.55E+01
		H3SW	2.03E+03	8.65E+01	1.92E+02

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
290445	3/3/2014 - 4/8/2014	Mn-54	<1.43E+00	0.00E+00	1.43E+00
		Co-58	<1.62E+00	0.00E+00	1.62E+00
		Fe-59	<3.00E+00	0.00E+00	3.00E+00
		Co-60	<1.47E+00	0.00E+00	1.47E+00
		Zn-65	<2.98E+00	0.00E+00	2.98E+00
		Zr-95	<3.12E+00	0.00E+00	3.12E+00
		Nb-95	<1.91E+00	0.00E+00	1.91E+00
		I-131	<1.12E+01	0.00E+00	1.12E+01
		Cs-134	<1.38E+00	0.00E+00	1.38E+00
		Cs-137	<1.63E+00	0.00E+00	1.63E+00
		BaLa-140	<6.62E+00	0.00E+00	6.62E+00
		Be-7	<1.41E+01	0.00E+00	1.41E+01
		K-40	5.52E+01	1.15E+01	1.37E+01
		H3SW	2.05E+03	8.86E+01	2.00E+02

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
295140	4/8/2014 - 5/6/2014	Mn-54	<2.40E+00	0.00E+00	2.40E+00
		Co-58	<2.58E+00	0.00E+00	2.58E+00
		Fe-59	<6.32E+00	0.00E+00	6.32E+00
		Co-60	<3.03E+00	0.00E+00	3.03E+00
		Zn-65	<3.75E+00	0.00E+00	3.75E+00

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



**ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)**

Media Type: SURFACE WATER Concentration (Activity): pCi/l

Sample Point 40 [ INDICATOR - ESE @ 0.6 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
295140	4/8/2014 - 5/6/2014	Zr-95	<4.90E+00	0.00E+00	4.90E+00
		Nb-95	<3.47E+00	0.00E+00	3.47E+00
		I-131	<1.24E+01	0.00E+00	1.24E+01
		Cs-134	<2.12E+00	0.00E+00	2.12E+00
		Cs-137	<2.75E+00	0.00E+00	2.75E+00
		BaLa-140	<7.52E+00	0.00E+00	7.52E+00
		Be-7	<2.39E+01	0.00E+00	2.39E+01
		K-40	8.73E+01	1.70E+01	2.46E+01
		H3SW	2.69E+03	9.49E+01	1.96E+02

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
296671	5/5/2014 - 6/2/2014	Mn-54	<2.00E+00	0.00E+00	2.00E+00
		Co-58	<2.32E+00	0.00E+00	2.32E+00
		Fe-59	<4.32E+00	0.00E+00	4.32E+00
		Co-60	<2.07E+00	0.00E+00	2.07E+00
		Zn-65	<3.90E+00	0.00E+00	3.90E+00
		Zr-95	<4.30E+00	0.00E+00	4.30E+00
		Nb-95	<3.17E+00	0.00E+00	3.17E+00
		I-131	<1.42E+01	0.00E+00	1.42E+01
		Cs-134	<2.01E+00	0.00E+00	2.01E+00
		Cs-137	<2.20E+00	0.00E+00	2.20E+00
		BaLa-140	<6.72E+00	0.00E+00	6.72E+00
		Be-7	<2.22E+01	0.00E+00	2.22E+01
		K-40	1.74E+02	1.41E+01	1.80E+01
		H3SW	1.78E+03	8.44E+01	1.96E+02

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
350014	6/2/2014 - 7/7/2014	Mn-54	<7.58E-01	0.00E+00	7.58E-01
		Co-58	<9.63E-01	0.00E+00	9.63E-01
		Fe-59	<2.10E+00	0.00E+00	2.10E+00
		Co-60	<6.64E-01	0.00E+00	6.64E-01
		Zn-65	<1.50E+00	0.00E+00	1.50E+00
		Zr-95	<1.74E+00	0.00E+00	1.74E+00
		Nb-95	<1.41E+00	0.00E+00	1.41E+00
		I-131	<1.20E+01	0.00E+00	1.20E+01
		Cs-134	<6.16E-01	0.00E+00	6.16E-01
		Cs-137	<7.49E-01	0.00E+00	7.49E-01
		BaLa-140	<4.15E+00	0.00E+00	4.15E+00
		Be-7	<8.36E+00	0.00E+00	8.36E+00
		K-40	4.89E+01	9.33E+00	1.10E+01
		H3SW	1.45E+03	1.61E+02	2.08E+02

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
352399	7/7/2014 - 8/4/2014	Mn-54	<2.83E+00	0.00E+00	2.83E+00
		Co-58	<2.66E+00	0.00E+00	2.66E+00
		Fe-59	<6.18E+00	0.00E+00	6.18E+00
		Co-60	<2.86E+00	0.00E+00	2.86E+00
		Zn-65	<4.37E+00	0.00E+00	4.37E+00
		Zr-95	<4.71E+00	0.00E+00	4.71E+00
		Nb-95	<3.28E+00	0.00E+00	3.28E+00
		I-131	<1.08E+01	0.00E+00	1.08E+01
		Cs-134	<2.02E+00	0.00E+00	2.02E+00
		Cs-137	<2.61E+00	0.00E+00	2.61E+00
		BaLa-140	<6.60E+00	0.00E+00	6.60E+00
		Be-7	<2.73E+01	0.00E+00	2.73E+01
		K-40	7.14E+01	2.80E+01	3.30E+01
		H3SW	1.02E+03	1.40E+02	1.87E+02

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
354947	8/4/2014 - 9/1/2014	Mn-54	<2.14E+00	0.00E+00	2.14E+00
		Co-58	<2.26E+00	0.00E+00	2.26E+00
		Fe-59	<5.16E+00	0.00E+00	5.16E+00
		Co-60	<2.35E+00	0.00E+00	2.35E+00
		Zn-65	<4.00E+00	0.00E+00	4.00E+00
		Zr-95	<4.30E+00	0.00E+00	4.30E+00
		Nb-95	<3.41E+00	0.00E+00	3.41E+00
		I-131	<1.20E+01	0.00E+00	1.20E+01

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



**ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)**

Media Type: SURFACE WATER Concentration (Activity): pCi/l

Sample Point 40 [ INDICATOR - ESE @ 0.6 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
354947	8/4/2014 - 9/1/2014	Cs-134	<2.15E+00	0.00E+00	2.15E+00
		Cs-137	<2.65E+00	0.00E+00	2.65E+00
		BaLa-140	<7.57E+00	0.00E+00	7.57E+00
		Be-7	<2.43E+01	0.00E+00	2.43E+01
		K-40	1.06E+02	2.56E+01	2.80E+01
		H3SW	9.58E+02	1.36E+02	1.83E+02
358732	9/1/2014 - 10/7/2014	Mn-54	<1.03E+00	0.00E+00	1.03E+00
		Co-58	<1.18E+00	0.00E+00	1.18E+00
		Fe-59	<2.87E+00	0.00E+00	2.87E+00
		Co-60	<9.53E-01	0.00E+00	9.53E-01
		Zn-65	<2.01E+00	0.00E+00	2.01E+00
		Zr-95	<2.33E+00	0.00E+00	2.33E+00
		Nb-95	<1.64E+00	0.00E+00	1.64E+00
		I-131	<1.07E+01	0.00E+00	1.07E+01
		Cs-134	<1.15E+00	0.00E+00	1.15E+00
		Cs-137	<9.02E-01	0.00E+00	9.02E-01
		BaLa-140	<4.28E+00	0.00E+00	4.28E+00
		Be-7	<1.10E+01	0.00E+00	1.10E+01
		K-40	1.77E+02	2.06E+01	1.78E+01
				H3SW	7.72E+02
361166	10/7/2014 - 11/3/2014	Mn-54	<1.25E+00	0.00E+00	1.25E+00
		Co-58	<1.45E+00	0.00E+00	1.45E+00
		Fe-59	<3.40E+00	0.00E+00	3.40E+00
		Co-60	<1.27E+00	0.00E+00	1.27E+00
		Zn-65	<2.54E+00	0.00E+00	2.54E+00
		Zr-95	<2.75E+00	0.00E+00	2.75E+00
		Nb-95	<1.89E+00	0.00E+00	1.89E+00
		I-131	<7.75E+00	0.00E+00	7.75E+00
		Cs-134	<1.57E+00	0.00E+00	1.57E+00
		Cs-137	<1.27E+00	0.00E+00	1.27E+00
		BaLa-140	<3.47E+00	0.00E+00	3.47E+00
		Be-7	<1.29E+01	0.00E+00	1.29E+01
		K-40	1.67E+02	2.27E+01	1.99E+01
				H3SW	6.64E+02
363862	11/3/2014 - 12/1/2014	Mn-54	<8.42E-01	0.00E+00	8.42E-01
		Co-58	<1.07E+00	0.00E+00	1.07E+00
		Fe-59	<2.39E+00	0.00E+00	2.39E+00
		Co-60	<7.92E-01	0.00E+00	7.92E-01
		Zn-65	<1.82E+00	0.00E+00	1.82E+00
		Zr-95	<1.97E+00	0.00E+00	1.97E+00
		Nb-95	<1.61E+00	0.00E+00	1.61E+00
		I-131	<1.07E+01	0.00E+00	1.07E+01
		Cs-134	<1.02E+00	0.00E+00	1.02E+00
		Cs-137	<9.09E-01	0.00E+00	9.09E-01
		BaLa-140	<4.41E+00	0.00E+00	4.41E+00
		Be-7	<1.00E+01	0.00E+00	1.00E+01
		K-40	5.34E+01	1.08E+01	1.25E+01
				H3SW	7.56E+02
366731	12/1/2014 - 1/6/2015	Mn-54	<1.37E+00	0.00E+00	1.37E+00
		Co-58	<1.58E+00	0.00E+00	1.58E+00
		Fe-59	<3.56E+00	0.00E+00	3.56E+00
		Co-60	<1.34E+00	0.00E+00	1.34E+00
		Zn-65	<2.88E+00	0.00E+00	2.88E+00
		Zr-95	<2.94E+00	0.00E+00	2.94E+00
		Nb-95	<2.28E+00	0.00E+00	2.28E+00
		I-131	<1.14E+01	0.00E+00	1.14E+01
		Cs-134	<1.57E+00	0.00E+00	1.57E+00
		Cs-137	<1.23E+00	0.00E+00	1.23E+00
		BaLa-140	<4.91E+00	0.00E+00	4.91E+00

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: SURFACE WATER Concentration (Activity): pCi/l

Sample Point 40 [ INDICATOR - ESE @ 0.6 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
366731	12/1/2014 - 1/6/2015	Be-7	<1.52E+01	0.00E+00	1.52E+01
		K-40	1.75E+02	2.36E+01	2.01E+01
		H3SW	7.77E+02	1.36E+02	1.91E+02

Sample Point 41 [ CONTROL - N @ 8 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
284108	1/7/2014 - 2/3/2014	Mn-54	<3.06E+00	0.00E+00	3.06E+00
		Co-58	<3.59E+00	0.00E+00	3.59E+00
		Fe-59	<6.94E+00	0.00E+00	6.94E+00
		Co-60	<2.88E+00	0.00E+00	2.88E+00
		Zn-65	<4.79E+00	0.00E+00	4.79E+00
		Zr-95	<5.29E+00	0.00E+00	5.29E+00
		Nb-95	<3.63E+00	0.00E+00	3.63E+00
		I-131	<1.15E+01	0.00E+00	1.15E+01
		Cs-134	<2.42E+00	0.00E+00	2.42E+00
		Cs-137	<2.88E+00	0.00E+00	2.88E+00
		BaLa-140	<8.50E+00	0.00E+00	8.50E+00
		Be-7	<2.69E+01	0.00E+00	2.69E+01
		K-40	<4.66E+01	0.00E+00	4.66E+01
		H3SW	<-3.4E+01	0.00E+00	2.00E+02

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
287397	2/3/2014 - 3/3/2014	Mn-54	<1.71E+00	0.00E+00	1.71E+00
		Co-58	<1.82E+00	0.00E+00	1.82E+00
		Fe-59	<4.38E+00	0.00E+00	4.38E+00
		Co-60	<2.12E+00	0.00E+00	2.12E+00
		Zn-65	<3.74E+00	0.00E+00	3.74E+00
		Zr-95	<3.99E+00	0.00E+00	3.99E+00
		Nb-95	<2.47E+00	0.00E+00	2.47E+00
		I-131	<1.14E+01	0.00E+00	1.14E+01
		Cs-134	<1.48E+00	0.00E+00	1.48E+00
		Cs-137	<1.82E+00	0.00E+00	1.82E+00
		BaLa-140	<7.02E+00	0.00E+00	7.02E+00
		Be-7	<1.62E+01	0.00E+00	1.62E+01
		K-40	7.51E+01	1.24E+01	1.49E+01
		H3SW	<3.38E+01	0.00E+00	1.92E+02

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
290446	3/3/2014 - 4/8/2014	Mn-54	<1.95E+00	0.00E+00	1.95E+00
		Co-58	<2.12E+00	0.00E+00	2.12E+00
		Fe-59	<4.34E+00	0.00E+00	4.34E+00
		Co-60	<2.29E+00	0.00E+00	2.29E+00
		Zn-65	<3.65E+00	0.00E+00	3.65E+00
		Zr-95	<3.88E+00	0.00E+00	3.88E+00
		Nb-95	<2.45E+00	0.00E+00	2.45E+00
		I-131	<1.43E+01	0.00E+00	1.43E+01
		Cs-134	<1.69E+00	0.00E+00	1.69E+00
		Cs-137	<2.02E+00	0.00E+00	2.02E+00
		BaLa-140	<7.73E+00	0.00E+00	7.73E+00
		Be-7	<2.07E+01	0.00E+00	2.07E+01
		K-40	7.39E+01	1.03E+01	1.60E+01
		H3SW	<1.24E+01	0.00E+00	2.03E+02

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
295141	4/8/2014 - 5/6/2014	Mn-54	<2.85E+00	0.00E+00	2.85E+00
		Co-58	<2.58E+00	0.00E+00	2.58E+00
		Fe-59	<6.90E+00	0.00E+00	6.90E+00
		Co-60	<3.21E+00	0.00E+00	3.21E+00
		Zn-65	<6.12E+00	0.00E+00	6.12E+00
		Zr-95	<6.53E+00	0.00E+00	6.53E+00
		Nb-95	<4.18E+00	0.00E+00	4.18E+00
		I-131	<1.44E+01	0.00E+00	1.44E+01
		Cs-134	<2.82E+00	0.00E+00	2.82E+00
		Cs-137	<3.09E+00	0.00E+00	3.09E+00
		BaLa-140	<1.00E+01	0.00E+00	1.00E+01
		Be-7	<3.17E+01	0.00E+00	3.17E+01

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.





# ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: SURFACE WATER Concentration (Activity): pCi/l

Sample Point 41 [ CONTROL - N @ 8 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
295141	4/8/2014 - 5/6/2014	K-40	<5.14E+01	0.00E+00	5.14E+01
		H3SW	<0.00E+00	0.00E+00	1.94E+02
296672	5/5/2014 - 6/2/2014	Mn-54	<2.58E+00	0.00E+00	2.58E+00
		Co-58	<2.70E+00	0.00E+00	2.70E+00
		Fe-59	<5.86E+00	0.00E+00	5.86E+00
		Co-60	<2.95E+00	0.00E+00	2.95E+00
		Zn-65	<5.30E+00	0.00E+00	5.30E+00
		Zr-95	<4.33E+00	0.00E+00	4.33E+00
		Nb-95	<3.26E+00	0.00E+00	3.26E+00
		I-131	<1.45E+01	0.00E+00	1.45E+01
		Cs-134	<2.36E+00	0.00E+00	2.36E+00
		Cs-137	<2.69E+00	0.00E+00	2.69E+00
		BaLa-140	<9.13E+00	0.00E+00	9.13E+00
		Be-7	<2.41E+01	0.00E+00	2.41E+01
		K-40	<4.45E+01	0.00E+00	4.45E+01
		H3SW	<-6.6E+01	0.00E+00	1.98E+02
350015	6/2/2014 - 7/7/2014	Mn-54	<7.82E-01	0.00E+00	7.82E-01
		Co-58	<9.60E-01	0.00E+00	9.60E-01
		Fe-59	<2.08E+00	0.00E+00	2.08E+00
		Co-60	<6.79E-01	0.00E+00	6.79E-01
		Zn-65	<1.71E+00	0.00E+00	1.71E+00
		Zr-95	<1.81E+00	0.00E+00	1.81E+00
		Nb-95	<1.41E+00	0.00E+00	1.41E+00
		I-131	<1.20E+01	0.00E+00	1.20E+01
		Cs-134	<6.57E-01	0.00E+00	6.57E-01
		Cs-137	<8.50E-01	0.00E+00	8.50E-01
		BaLa-140	<3.65E+00	0.00E+00	3.65E+00
		Be-7	<8.88E+00	0.00E+00	8.88E+00
		K-40	4.51E+01	1.02E+01	1.31E+01
		H3SW	<-1.3E+02	0.00E+00	2.06E+02
352400	7/7/2014 - 8/4/2014	Mn-54	<3.13E+00	0.00E+00	3.13E+00
		Co-58	<3.81E+00	0.00E+00	3.81E+00
		Fe-59	<4.49E+00	0.00E+00	4.49E+00
		Co-60	<3.13E+00	0.00E+00	3.13E+00
		Zn-65	<6.40E+00	0.00E+00	6.40E+00
		Zr-95	<6.40E+00	0.00E+00	6.40E+00
		Nb-95	<3.97E+00	0.00E+00	3.97E+00
		I-131	<1.11E+01	0.00E+00	1.11E+01
		Cs-134	<2.35E+00	0.00E+00	2.35E+00
		Cs-137	<3.90E+00	0.00E+00	3.90E+00
		BaLa-140	<6.59E+00	0.00E+00	6.59E+00
		Be-7	<3.23E+01	0.00E+00	3.23E+01
		K-40	3.93E+01	2.59E+01	3.57E+01
		H3SW	<5.74E+01	0.00E+00	1.87E+02
354948	8/4/2014 - 9/1/2014	Mn-54	<1.86E+00	0.00E+00	1.86E+00
		Co-58	<2.24E+00	0.00E+00	2.24E+00
		Fe-59	<4.49E+00	0.00E+00	4.49E+00
		Co-60	<1.95E+00	0.00E+00	1.95E+00
		Zn-65	<4.13E+00	0.00E+00	4.13E+00
		Zr-95	<4.20E+00	0.00E+00	4.20E+00
		Nb-95	<2.75E+00	0.00E+00	2.75E+00
		I-131	<1.14E+01	0.00E+00	1.14E+01
		Cs-134	<2.08E+00	0.00E+00	2.08E+00
		Cs-137	<1.71E+00	0.00E+00	1.71E+00
		BaLa-140	<5.71E+00	0.00E+00	5.71E+00
		Be-7	<1.89E+01	0.00E+00	1.89E+01
		K-40	1.69E+02	2.94E+01	2.89E+01
		H3SW	<4.00E+01	0.00E+00	1.82E+02

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: SURFACE WATER Concentration (Activity): pCi/l

Sample Point 41 [ CONTROL - N @ 8 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
358733	9/1/2014 - 10/7/2014	Mn-54	<1.13E+00	0.00E+00	1.13E+00
		Co-58	<1.40E+00	0.00E+00	1.40E+00
		Fe-59	<2.68E+00	0.00E+00	2.68E+00
		Co-60	<1.23E+00	0.00E+00	1.23E+00
		Zn-65	<2.36E+00	0.00E+00	2.36E+00
		Zr-95	<2.46E+00	0.00E+00	2.46E+00
		Nb-95	<1.87E+00	0.00E+00	1.87E+00
		I-131	<1.05E+01	0.00E+00	1.05E+01
		Cs-134	<1.42E+00	0.00E+00	1.42E+00
		Cs-137	<1.34E+00	0.00E+00	1.34E+00
		BaLa-140	<4.58E+00	0.00E+00	4.58E+00
		Be-7	<1.26E+01	0.00E+00	1.26E+01
		K-40	5.58E+01	2.49E+01	3.84E+01
		H3SW	<-1.2E+01	0.00E+00	1.81E+02

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
361167	10/7/2014 - 11/3/2014	Mn-54	<1.09E+00	0.00E+00	1.09E+00
		Co-58	<1.21E+00	0.00E+00	1.21E+00
		Fe-59	<2.46E+00	0.00E+00	2.46E+00
		Co-60	<9.26E-01	0.00E+00	9.26E-01
		Zn-65	<2.24E+00	0.00E+00	2.24E+00
		Zr-95	<2.33E+00	0.00E+00	2.33E+00
		Nb-95	<1.70E+00	0.00E+00	1.70E+00
		I-131	<6.38E+00	0.00E+00	6.38E+00
		Cs-134	<1.18E+00	0.00E+00	1.18E+00
		Cs-137	<1.15E+00	0.00E+00	1.15E+00
		BaLa-140	<3.37E+00	0.00E+00	3.37E+00
		Be-7	<1.04E+01	0.00E+00	1.04E+01
		K-40	5.14E+01	1.52E+01	2.08E+01
		H3SW	<-6.3E+01	0.00E+00	1.73E+02

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
363863	11/3/2014 - 12/1/2014	Mn-54	<7.27E-01	0.00E+00	7.27E-01
		Co-58	<9.27E-01	0.00E+00	9.27E-01
		Fe-59	<2.10E+00	0.00E+00	2.10E+00
		Co-60	<7.18E-01	0.00E+00	7.18E-01
		Zn-65	<1.59E+00	0.00E+00	1.59E+00
		Zr-95	<1.36E+00	0.00E+00	1.36E+00
		Nb-95	<1.14E+00	0.00E+00	1.14E+00
		I-131	<9.68E+00	0.00E+00	9.68E+00
		Cs-134	<8.85E-01	0.00E+00	8.85E-01
		Cs-137	<6.62E-01	0.00E+00	6.62E-01
		BaLa-140	<4.03E+00	0.00E+00	4.03E+00
		Be-7	<8.10E+00	0.00E+00	8.10E+00
		K-40	3.01E+01	8.37E+00	1.14E+01
		H3SW	<8.87E+01	0.00E+00	1.94E+02

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
366732	12/1/2014 - 1/6/2015	Mn-54	<1.41E+00	0.00E+00	1.41E+00
		Co-58	<1.79E+00	0.00E+00	1.79E+00
		Fe-59	<3.45E+00	0.00E+00	3.45E+00
		Co-60	<1.66E+00	0.00E+00	1.66E+00
		Zn-65	<3.31E+00	0.00E+00	3.31E+00
		Zr-95	<3.16E+00	0.00E+00	3.16E+00
		Nb-95	<2.26E+00	0.00E+00	2.26E+00
		I-131	<1.19E+01	0.00E+00	1.19E+01
		Cs-134	<1.45E+00	0.00E+00	1.45E+00
		Cs-137	<1.49E+00	0.00E+00	1.49E+00
		BaLa-140	<6.35E+00	0.00E+00	6.35E+00
		Be-7	<1.65E+01	0.00E+00	1.65E+01
		K-40	1.90E+01	1.40E+01	2.14E+01
		H3SW	<1.10E+02	0.00E+00	1.87E+02

## Sample Point 57 [ INDICATOR - @ 0 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
284109	1/7/2014 - 2/3/2014	Mn-54	<4.61E+00	0.00E+00	4.61E+00

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: SURFACE WATER Concentration (Activity): pCi/l

Sample Point 57 [ INDICATOR - @ 0 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
284109	1/7/2014 - 2/3/2014	Co-58	<4.64E+00	0.00E+00	4.64E+00
		Fe-59	<1.04E+01	0.00E+00	1.04E+01
		Co-60	<6.59E+00	0.00E+00	6.59E+00
		Zn-65	<8.17E+00	0.00E+00	8.17E+00
		Zr-95	<8.38E+00	0.00E+00	8.38E+00
		Nb-95	<6.00E+00	0.00E+00	6.00E+00
		I-131	<1.19E+01	0.00E+00	1.19E+01
		Cs-134	<3.35E+00	0.00E+00	3.35E+00
		Cs-137	<5.29E+00	0.00E+00	5.29E+00
		BaLa-140	<1.37E+01	0.00E+00	1.37E+01
		Be-7	<4.35E+01	0.00E+00	4.35E+01
		K-40	7.05E+01	2.34E+01	5.00E+01
		H3SW	<5.85E+01	0.00E+00	1.99E+02
		287398	2/3/2014 - 3/3/2014	Mn-54	<1.57E+00
Co-58	<1.79E+00			0.00E+00	1.79E+00
Fe-59	<3.84E+00			0.00E+00	3.84E+00
Co-60	<1.57E+00			0.00E+00	1.57E+00
Zn-65	<3.53E+00			0.00E+00	3.53E+00
Zr-95	<3.42E+00			0.00E+00	3.42E+00
Nb-95	<2.50E+00			0.00E+00	2.50E+00
I-131	<1.20E+01			0.00E+00	1.20E+01
Cs-134	<1.56E+00			0.00E+00	1.56E+00
Cs-137	<1.70E+00			0.00E+00	1.70E+00
BaLa-140	<5.56E+00			0.00E+00	5.56E+00
Be-7	<1.79E+01			0.00E+00	1.79E+01
K-40	1.89E+02			1.46E+01	1.32E+01
H3SW	<7.76E+01			0.00E+00	1.93E+02
290447	3/3/2014 - 4/8/2014	Mn-54	<1.68E+00	0.00E+00	1.68E+00
		Co-58	<2.04E+00	0.00E+00	2.04E+00
		Fe-59	<4.00E+00	0.00E+00	4.00E+00
		Co-60	<1.62E+00	0.00E+00	1.62E+00
		Zn-65	<3.46E+00	0.00E+00	3.46E+00
		Zr-95	<3.63E+00	0.00E+00	3.63E+00
		Nb-95	<2.66E+00	0.00E+00	2.66E+00
		I-131	<1.44E+01	0.00E+00	1.44E+01
		Cs-134	<1.64E+00	0.00E+00	1.64E+00
		Cs-137	<1.76E+00	0.00E+00	1.76E+00
		BaLa-140	<5.99E+00	0.00E+00	5.99E+00
		Be-7	<1.87E+01	0.00E+00	1.87E+01
		K-40	1.56E+02	1.27E+01	1.51E+01
		H3SW	<4.94E+01	0.00E+00	2.02E+02
295142	4/8/2014 - 5/6/2014	Mn-54	<1.95E+00	0.00E+00	1.95E+00
		Co-58	<2.28E+00	0.00E+00	2.28E+00
		Fe-59	<4.73E+00	0.00E+00	4.73E+00
		Co-60	<2.12E+00	0.00E+00	2.12E+00
		Zn-65	<3.65E+00	0.00E+00	3.65E+00
		Zr-95	<4.17E+00	0.00E+00	4.17E+00
		Nb-95	<2.96E+00	0.00E+00	2.96E+00
		I-131	<1.22E+01	0.00E+00	1.22E+01
		Cs-134	<2.11E+00	0.00E+00	2.11E+00
		Cs-137	<2.36E+00	0.00E+00	2.36E+00
		BaLa-140	<6.81E+00	0.00E+00	6.81E+00
		Be-7	<2.04E+01	0.00E+00	2.04E+01
		K-40	1.64E+02	2.13E+01	1.84E+01
		H3SW	<2.42E+00	0.00E+00	1.95E+02
296673	5/5/2014 - 6/2/2014	Mn-54	<1.83E+00	0.00E+00	1.83E+00
		Co-58	<2.09E+00	0.00E+00	2.09E+00
		Fe-59	<4.87E+00	0.00E+00	4.87E+00
		Co-60	<1.78E+00	0.00E+00	1.78E+00

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: SURFACE WATER Concentration (Activity): pCi/l

Sample Point 57 [ INDICATOR - @ 0 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
296673	5/5/2014 - 6/2/2014	Zn-65	<4.29E+00	0.00E+00	4.29E+00
		Zr-95	<3.80E+00	0.00E+00	3.80E+00
		Nb-95	<3.16E+00	0.00E+00	3.16E+00
		I-131	<1.31E+01	0.00E+00	1.31E+01
		Cs-134	<1.73E+00	0.00E+00	1.73E+00
		Cs-137	<2.02E+00	0.00E+00	2.02E+00
		BaLa-140	<6.35E+00	0.00E+00	6.35E+00
		Be-7	<2.05E+01	0.00E+00	2.05E+01
		K-40	1.70E+02	1.33E+01	1.75E+01
		H3SW	<-6.8E+01	0.00E+00	1.96E+02
		350016	6/2/2014 - 7/7/2014	Mn-54	<7.43E-01
Co-58	<9.39E-01			0.00E+00	9.39E-01
Fe-59	<2.08E+00			0.00E+00	2.08E+00
Co-60	<6.96E-01			0.00E+00	6.96E-01
Zn-65	<1.51E+00			0.00E+00	1.51E+00
Zr-95	<1.74E+00			0.00E+00	1.74E+00
Nb-95	<2.12E+00			0.00E+00	2.12E+00
I-131	<1.20E+01			0.00E+00	1.20E+01
Cs-134	<6.21E-01			0.00E+00	6.21E-01
Cs-137	<7.84E-01			0.00E+00	7.84E-01
BaLa-140	<3.63E+00			0.00E+00	3.63E+00
Be-7	<8.09E+00			0.00E+00	8.09E+00
K-40	4.85E+01			9.81E+00	1.22E+01
H3SW	<-1.2E+01			0.00E+00	2.08E+02
352401	7/7/2014 - 8/4/2014	Mn-54	<2.47E+00	0.00E+00	2.47E+00
		Co-58	<2.29E+00	0.00E+00	2.29E+00
		Fe-59	<5.49E+00	0.00E+00	5.49E+00
		Co-60	<2.51E+00	0.00E+00	2.51E+00
		Zn-65	<5.04E+00	0.00E+00	5.04E+00
		Zr-95	<7.28E+00	0.00E+00	7.28E+00
		Nb-95	<3.98E+00	0.00E+00	3.98E+00
		I-131	<1.10E+01	0.00E+00	1.10E+01
		Cs-134	<3.19E+00	0.00E+00	3.19E+00
		Cs-137	<3.46E+00	0.00E+00	3.46E+00
		BaLa-140	<5.72E+00	0.00E+00	5.72E+00
		Be-7	<2.95E+01	0.00E+00	2.95E+01
		K-40	5.25E+01	2.90E+01	3.81E+01
		H3SW	<4.12E+01	0.00E+00	1.89E+02
354949	8/4/2014 - 9/1/2014	Mn-54	<1.65E+00	0.00E+00	1.65E+00
		Co-58	<1.98E+00	0.00E+00	1.98E+00
		Fe-59	<4.04E+00	0.00E+00	4.04E+00
		Co-60	<1.63E+00	0.00E+00	1.63E+00
		Zn-65	<3.54E+00	0.00E+00	3.54E+00
		Zr-95	<3.50E+00	0.00E+00	3.50E+00
		Nb-95	<2.58E+00	0.00E+00	2.58E+00
		I-131	<1.20E+01	0.00E+00	1.20E+01
		Cs-134	<2.13E+00	0.00E+00	2.13E+00
		Cs-137	<1.64E+00	0.00E+00	1.64E+00
		BaLa-140	<5.25E+00	0.00E+00	5.25E+00
		Be-7	<1.67E+01	0.00E+00	1.67E+01
		K-40	1.65E+02	2.62E+01	2.48E+01
		H3SW	<1.22E+02	0.00E+00	1.82E+02
358734	9/1/2014 - 10/7/2014	Mn-54	<1.27E+00	0.00E+00	1.27E+00
		Co-58	<1.60E+00	0.00E+00	1.60E+00
		Fe-59	<3.14E+00	0.00E+00	3.14E+00
		Co-60	<1.37E+00	0.00E+00	1.37E+00
		Zn-65	<2.65E+00	0.00E+00	2.65E+00
		Zr-95	<3.00E+00	0.00E+00	3.00E+00
		Nb-95	<2.00E+00	0.00E+00	2.00E+00

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: SURFACE WATER Concentration (Activity): pCi/l

Sample Point 57 [ INDICATOR - @ 0 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
358734	9/1/2014 - 10/7/2014	I-131	<1.20E+01	0.00E+00	1.20E+01
		Cs-134	<1.51E+00	0.00E+00	1.51E+00
		Cs-137	<1.31E+00	0.00E+00	1.31E+00
		BaLa-140	<5.97E+00	0.00E+00	5.97E+00
		Be-7	<1.30E+01	0.00E+00	1.30E+01
		K-40	8.92E+01	1.65E+01	1.95E+01
		H3SW	<2.39E+01	0.00E+00	1.81E+02

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
361169	10/7/2014 - 11/3/2014	Mn-54	<1.02E+00	0.00E+00	1.02E+00
		Co-58	<1.22E+00	0.00E+00	1.22E+00
		Fe-59	<2.38E+00	0.00E+00	2.38E+00
		Co-60	<9.00E-01	0.00E+00	9.00E-01
		Zn-65	<1.81E+00	0.00E+00	1.81E+00
		Zr-95	<2.12E+00	0.00E+00	2.12E+00
		Nb-95	<1.52E+00	0.00E+00	1.52E+00
		I-131	<7.18E+00	0.00E+00	7.18E+00
		Cs-134	<1.14E+00	0.00E+00	1.14E+00
		Cs-137	<1.05E+00	0.00E+00	1.05E+00
		BaLa-140	<3.43E+00	0.00E+00	3.43E+00
		Be-7	<1.04E+01	0.00E+00	1.04E+01
		K-40	4.47E+01	1.16E+01	1.48E+01
		H3SW	<4.42E+01	0.00E+00	1.72E+02

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
363864	11/3/2014 - 12/1/2014	Mn-54	<6.88E-01	0.00E+00	6.88E-01
		Co-58	<9.04E-01	0.00E+00	9.04E-01
		Fe-59	<1.71E+00	0.00E+00	1.71E+00
		Co-60	<7.08E-01	0.00E+00	7.08E-01
		Zn-65	<1.48E+00	0.00E+00	1.48E+00
		Zr-95	<1.29E+00	0.00E+00	1.29E+00
		Nb-95	<1.16E+00	0.00E+00	1.16E+00
		I-131	<9.92E+00	0.00E+00	9.92E+00
		Cs-134	<7.61E-01	0.00E+00	7.61E-01
		Cs-137	<6.24E-01	0.00E+00	6.24E-01
		BaLa-140	<3.44E+00	0.00E+00	3.44E+00
		Be-7	<7.92E+00	0.00E+00	7.92E+00
		K-40	3.25E+01	7.90E+00	1.05E+01
		H3SW	<3.55E+01	0.00E+00	1.89E+02

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
366733	12/1/2014 - 1/6/2015	Mn-54	<1.20E+00	0.00E+00	1.20E+00
		Co-58	<1.51E+00	0.00E+00	1.51E+00
		Fe-59	<3.62E+00	0.00E+00	3.62E+00
		Co-60	<1.54E+00	0.00E+00	1.54E+00
		Zn-65	<2.68E+00	0.00E+00	2.68E+00
		Zr-95	<2.94E+00	0.00E+00	2.94E+00
		Nb-95	<2.12E+00	0.00E+00	2.12E+00
		I-131	<1.19E+01	0.00E+00	1.19E+01
		Cs-134	<1.50E+00	0.00E+00	1.50E+00
		Cs-137	<1.52E+00	0.00E+00	1.52E+00
		BaLa-140	<5.58E+00	0.00E+00	5.58E+00
		Be-7	<1.44E+01	0.00E+00	1.44E+01
		K-40	3.81E+01	1.53E+01	2.12E+01
		H3SW	<6.73E+01	0.00E+00	1.87E+02

Sample Point 66 [ INDICATOR - @ 0 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
284110	1/7/2014 - 2/3/2014	Mn-54	<2.59E+00	0.00E+00	2.59E+00
		Co-58	<2.78E+00	0.00E+00	2.78E+00
		Fe-59	<6.94E+00	0.00E+00	6.94E+00
		Co-60	<4.06E+00	0.00E+00	4.06E+00
		Zn-65	<5.93E+00	0.00E+00	5.93E+00
		Zr-95	<5.18E+00	0.00E+00	5.18E+00
		Nb-95	<3.98E+00	0.00E+00	3.98E+00
		I-131	<1.25E+01	0.00E+00	1.25E+01

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: SURFACE WATER Concentration (Activity): pCi/l

Sample Point 66 [ INDICATOR - @ 0 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
284110	1/7/2014 - 2/3/2014	Cs-134	<2.74E+00	0.00E+00	2.74E+00
		Cs-137	<2.59E+00	0.00E+00	2.59E+00
		BaLa-140	<6.52E+00	0.00E+00	6.52E+00
		Be-7	<2.88E+01	0.00E+00	2.88E+01
		K-40	9.65E+01	1.55E+01	2.48E+01
		H3SW	1.97E+03	8.75E+01	1.99E+02
287399	2/3/2014 - 3/3/2014	Mn-54	<2.27E+00	0.00E+00	2.27E+00
		Co-58	<2.45E+00	0.00E+00	2.45E+00
		Fe-59	<5.76E+00	0.00E+00	5.76E+00
		Co-60	<2.64E+00	0.00E+00	2.64E+00
		Zn-65	<4.79E+00	0.00E+00	4.79E+00
		Zr-95	<4.74E+00	0.00E+00	4.74E+00
		Nb-95	<3.29E+00	0.00E+00	3.29E+00
		I-131	<1.45E+01	0.00E+00	1.45E+01
		Cs-134	<2.18E+00	0.00E+00	2.18E+00
		Cs-137	<2.20E+00	0.00E+00	2.20E+00
		BaLa-140	<7.80E+00	0.00E+00	7.80E+00
		Be-7	<2.32E+01	0.00E+00	2.32E+01
		K-40	5.91E+01	1.54E+01	1.79E+01
		H3SW	1.44E+03	7.93E+01	1.92E+02
290448	3/3/2014 - 4/8/2014	Mn-54	<1.31E+00	0.00E+00	1.31E+00
		Co-58	<1.48E+00	0.00E+00	1.48E+00
		Fe-59	<3.14E+00	0.00E+00	3.14E+00
		Co-60	<1.42E+00	0.00E+00	1.42E+00
		Zn-65	<2.66E+00	0.00E+00	2.66E+00
		Zr-95	<2.74E+00	0.00E+00	2.74E+00
		Nb-95	<2.13E+00	0.00E+00	2.13E+00
		I-131	<1.39E+01	0.00E+00	1.39E+01
		Cs-134	<1.33E+00	0.00E+00	1.33E+00
		Cs-137	<1.36E+00	0.00E+00	1.36E+00
		BaLa-140	<4.84E+00	0.00E+00	4.84E+00
		Be-7	<1.55E+01	0.00E+00	1.55E+01
		K-40	4.57E+01	9.84E+00	1.13E+01
		H3SW	1.46E+03	8.14E+01	1.99E+02
295143	4/8/2014 - 5/6/2014	Mn-54	<2.78E+00	0.00E+00	2.78E+00
		Co-58	<2.82E+00	0.00E+00	2.82E+00
		Fe-59	<6.93E+00	0.00E+00	6.93E+00
		Co-60	<2.88E+00	0.00E+00	2.88E+00
		Zn-65	<5.34E+00	0.00E+00	5.34E+00
		Zr-95	<5.20E+00	0.00E+00	5.20E+00
		Nb-95	<3.53E+00	0.00E+00	3.53E+00
		I-131	<1.40E+01	0.00E+00	1.40E+01
		Cs-134	<2.42E+00	0.00E+00	2.42E+00
		Cs-137	<2.98E+00	0.00E+00	2.98E+00
		BaLa-140	<8.91E+00	0.00E+00	8.91E+00
		Be-7	<2.75E+01	0.00E+00	2.75E+01
		K-40	2.15E+02	2.29E+01	2.87E+01
		H3SW	2.43E+03	9.18E+01	1.95E+02
296674	5/5/2014 - 6/2/2014	Mn-54	<2.22E+00	0.00E+00	2.22E+00
		Co-58	<2.72E+00	0.00E+00	2.72E+00
		Fe-59	<5.29E+00	0.00E+00	5.29E+00
		Co-60	<2.44E+00	0.00E+00	2.44E+00
		Zn-65	<3.80E+00	0.00E+00	3.80E+00
		Zr-95	<4.24E+00	0.00E+00	4.24E+00
		Nb-95	<3.30E+00	0.00E+00	3.30E+00
		I-131	<1.32E+01	0.00E+00	1.32E+01
		Cs-134	<2.00E+00	0.00E+00	2.00E+00
		Cs-137	<2.46E+00	0.00E+00	2.46E+00
		BaLa-140	<8.22E+00	0.00E+00	8.22E+00

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



**ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)**

Media Type: SURFACE WATER Concentration (Activity): pCi/l

Sample Point 66 [ INDICATOR - @ 0 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
296674	5/5/2014 - 6/2/2014	Be-7	<2.46E+01	0.00E+00	2.46E+01
		K-40	6.44E+01	1.39E+01	2.51E+01
		H3SW	1.46E+03	8.13E+01	1.99E+02

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
350017	6/2/2014 - 7/7/2014	Mn-54	<6.72E-01	0.00E+00	6.72E-01
		Co-58	<8.20E-01	0.00E+00	8.20E-01
		Fe-59	<1.74E+00	0.00E+00	1.74E+00
		Co-60	<6.13E-01	0.00E+00	6.13E-01
		Zn-65	<1.37E+00	0.00E+00	1.37E+00
		Zr-95	<1.57E+00	0.00E+00	1.57E+00
		Nb-95	<1.23E+00	0.00E+00	1.23E+00
		I-131	<1.12E+01	0.00E+00	1.12E+01
		Cs-134	<5.41E-01	0.00E+00	5.41E-01
		Cs-137	<6.13E-01	0.00E+00	6.13E-01
		BaLa-140	<3.69E+00	0.00E+00	3.69E+00
		Be-7	<7.54E+00	0.00E+00	7.54E+00
		K-40	1.72E+02	1.67E+01	1.01E+01
H3SW	1.00E+03	1.48E+02	2.06E+02		

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
352402	7/7/2014 - 8/4/2014	Mn-54	<3.10E+00	0.00E+00	3.10E+00
		Co-58	<3.28E+00	0.00E+00	3.28E+00
		Fe-59	<6.93E+00	0.00E+00	6.93E+00
		Co-60	<3.15E+00	0.00E+00	3.15E+00
		Zn-65	<6.16E+00	0.00E+00	6.16E+00
		Zr-95	<5.65E+00	0.00E+00	5.65E+00
		Nb-95	<4.12E+00	0.00E+00	4.12E+00
		I-131	<1.11E+01	0.00E+00	1.11E+01
		Cs-134	<2.51E+00	0.00E+00	2.51E+00
		Cs-137	<2.77E+00	0.00E+00	2.77E+00
		BaLa-140	<6.50E+00	0.00E+00	6.50E+00
		Be-7	<2.82E+01	0.00E+00	2.82E+01
		K-40	1.17E+02	3.32E+01	3.67E+01
H3SW	6.49E+02	1.30E+02	1.88E+02		

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
354950	8/4/2014 - 9/1/2014	Mn-54	<1.86E+00	0.00E+00	1.86E+00
		Co-58	<1.95E+00	0.00E+00	1.95E+00
		Fe-59	<5.01E+00	0.00E+00	5.01E+00
		Co-60	<1.97E+00	0.00E+00	1.97E+00
		Zn-65	<4.19E+00	0.00E+00	4.19E+00
		Zr-95	<4.22E+00	0.00E+00	4.22E+00
		Nb-95	<2.72E+00	0.00E+00	2.72E+00
		I-131	<1.19E+01	0.00E+00	1.19E+01
		Cs-134	<2.17E+00	0.00E+00	2.17E+00
		Cs-137	<1.89E+00	0.00E+00	1.89E+00
		BaLa-140	<5.08E+00	0.00E+00	5.08E+00
		Be-7	<1.86E+01	0.00E+00	1.86E+01
		K-40	1.09E+02	2.45E+01	2.91E+01
H3SW	4.43E+02	1.20E+02	1.82E+02		

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
358735	9/1/2014 - 10/7/2014	Mn-54	<1.15E+00	0.00E+00	1.15E+00
		Co-58	<1.41E+00	0.00E+00	1.41E+00
		Fe-59	<3.11E+00	0.00E+00	3.11E+00
		Co-60	<1.09E+00	0.00E+00	1.09E+00
		Zn-65	<2.37E+00	0.00E+00	2.37E+00
		Zr-95	<2.49E+00	0.00E+00	2.49E+00
		Nb-95	<1.89E+00	0.00E+00	1.89E+00
		I-131	<1.20E+01	0.00E+00	1.20E+01
		Cs-134	<1.29E+00	0.00E+00	1.29E+00
		Cs-137	<1.22E+00	0.00E+00	1.22E+00
		BaLa-140	<4.68E+00	0.00E+00	4.68E+00
		Be-7	<1.27E+01	0.00E+00	1.27E+01
		K-40	4.31E+01	1.93E+01	1.24E+01

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



**ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)**

Media Type: SURFACE WATER Concentration (Activity): pCi/l

Sample Point 66 [ INDICATOR - @ 0 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
358735	9/1/2014 - 10/7/2014	H3SW	5.15E+02	1.23E+02	1.83E+02

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
361168	10/7/2014 - 11/3/2014	Mn-54	<1.30E+00	0.00E+00	1.30E+00
		Co-58	<1.29E+00	0.00E+00	1.29E+00
		Fe-59	<3.21E+00	0.00E+00	3.21E+00
		Co-60	<1.32E+00	0.00E+00	1.32E+00
		Zn-65	<2.47E+00	0.00E+00	2.47E+00
		Zr-95	<2.54E+00	0.00E+00	2.54E+00
		Nb-95	<1.75E+00	0.00E+00	1.75E+00
		I-131	<7.25E+00	0.00E+00	7.25E+00
		Cs-134	<1.43E+00	0.00E+00	1.43E+00
		Cs-137	<1.19E+00	0.00E+00	1.19E+00
		BaLa-140	<4.10E+00	0.00E+00	4.10E+00
		Be-7	<1.15E+01	0.00E+00	1.15E+01
		K-40	2.79E+01	1.42E+01	2.13E+01
		H3SW	4.72E+02	1.16E+02	1.72E+02

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
363865	11/3/2014 - 12/1/2014	Mn-54	<8.30E-01	0.00E+00	8.30E-01
		Co-58	<1.02E+00	0.00E+00	1.02E+00
		Fe-59	<2.12E+00	0.00E+00	2.12E+00
		Co-60	<7.25E-01	0.00E+00	7.25E-01
		Zn-65	<1.81E+00	0.00E+00	1.81E+00
		Zr-95	<2.01E+00	0.00E+00	2.01E+00
		Nb-95	<1.52E+00	0.00E+00	1.52E+00
		I-131	<1.15E+01	0.00E+00	1.15E+01
		Cs-134	<9.73E-01	0.00E+00	9.73E-01
		Cs-137	<8.98E-01	0.00E+00	8.98E-01
		BaLa-140	<4.30E+00	0.00E+00	4.30E+00
		Be-7	<9.03E+00	0.00E+00	9.03E+00
		K-40	5.08E+01	1.03E+01	1.20E+01
		H3SW	5.86E+02	1.29E+02	1.89E+02

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
366734	12/1/2014 - 1/6/2015	Mn-54	<1.18E+00	0.00E+00	1.18E+00
		Co-58	<1.58E+00	0.00E+00	1.58E+00
		Fe-59	<3.03E+00	0.00E+00	3.03E+00
		Co-60	<1.17E+00	0.00E+00	1.17E+00
		Zn-65	<2.59E+00	0.00E+00	2.59E+00
		Zr-95	<2.83E+00	0.00E+00	2.83E+00
		Nb-95	<1.98E+00	0.00E+00	1.98E+00
		I-131	<1.19E+01	0.00E+00	1.19E+01
		Cs-134	<1.55E+00	0.00E+00	1.55E+00
		Cs-137	<1.14E+00	0.00E+00	1.14E+00
		BaLa-140	<4.71E+00	0.00E+00	4.71E+00
		Be-7	<1.35E+01	0.00E+00	1.35E+01
		K-40	1.60E+02	2.18E+01	2.01E+01
		H3SW	5.66E+02	1.27E+02	1.87E+02

Media Type: TLD Concentration (Activity): mR/Standard Quarter

Sample Point 1 [ CONTROL - ESE @ 24.4 miles ]

TLD RING TLD\_CTRL

Sample ID:	Sample Dates:	Nuclide	Activity
289714	1/16/2014 - 4/10/2014	mR/Std Qtr	15.50

Sample ID:	Sample Dates:	Nuclide	Activity
298065	4/10/2014 - 7/16/2014	mR/Std Qtr	13.75

Sample ID:	Sample Dates:	Nuclide	Activity
365756	7/16/2014 - 10/21/2014	mR/Std Qtr	12.70

Sample Point 2 [ INDICATOR - S @ 0.2 miles ]

TLD RING TLD\_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
289756	1/16/2014 - 4/10/2014	mR/Std Qtr	16.43

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.





# ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: TLD Concentration (Activity): mR/Standard Quarter

## Sample Point 2 [ INDICATOR - S @ 0.2 miles ]

TLD RING TLD\_INNER

Sample ID: 298107 Sample Dates: 4/10/2014 - 7/16/2014 Nuclide Activity  
mR/Std Qtr 14.10

Sample ID: 365757 Sample Dates: 7/16/2014 - 10/21/2014 Nuclide Activity  
mR/Std Qtr 12.28

## Sample Point 3 [ INDICATOR - N @ 0.5 miles ]

TLD RING TLD\_INNER

Sample ID: 289715 Sample Dates: 1/16/2014 - 4/10/2014 Nuclide Activity  
mR/Std Qtr 17.05

Sample ID: 298066 Sample Dates: 4/10/2014 - 7/16/2014 Nuclide Activity  
mR/Std Qtr 14.52

Sample ID: 365758 Sample Dates: 7/16/2014 - 10/21/2014 Nuclide Activity  
mR/Std Qtr 16.02

## Sample Point 4 [ INDICATOR - ESE @ 0.4 miles ]

TLD RING TLD\_INNER

Sample ID: 289716 Sample Dates: 1/16/2014 - 4/10/2014 Nuclide Activity  
mR/Std Qtr 20.60

Sample ID: 298067 Sample Dates: 4/10/2014 - 7/16/2014 Nuclide Activity  
mR/Std Qtr 12.12

Sample ID: 365759 Sample Dates: 7/16/2014 - 10/21/2014 Nuclide Activity  
mR/Std Qtr 11.36

## Sample Point 5 [ INDICATOR - ENE @ 0.9 miles ]

TLD RING TLD\_INNER

Sample ID: 289717 Sample Dates: 1/16/2014 - 4/10/2014 Nuclide Activity  
mR/Std Qtr 15.76

Sample ID: 298068 Sample Dates: 4/10/2014 - 7/16/2014 Nuclide Activity  
mR/Std Qtr 12.91

Sample ID: 365760 Sample Dates: 7/16/2014 - 10/21/2014 Nuclide Activity  
mR/Std Qtr 13.95

## Sample Point 6 [ INDICATOR - SSW @ 0.2 miles ]

TLD RING TLD\_INNER

Sample ID: 289718 Sample Dates: 1/16/2014 - 4/10/2014 Nuclide Activity  
mR/Std Qtr 17.54

Sample ID: 298069 Sample Dates: 4/10/2014 - 7/16/2014 Nuclide Activity  
mR/Std Qtr 15.40

Sample ID: 365761 Sample Dates: 7/16/2014 - 10/21/2014 Nuclide Activity  
mR/Std Qtr 14.76

## Sample Point 7 [ INDICATOR - ESE @ 6.4 miles ]

TLD RING TLD\_OUTER

Sample ID: 289719 Sample Dates: 1/16/2014 - 4/10/2014 Nuclide Activity  
mR/Std Qtr 17.52

Sample ID: 298070 Sample Dates: 4/10/2014 - 7/16/2014 Nuclide Activity  
mR/Std Qtr 12.70

Sample ID: 365762 Sample Dates: 7/16/2014 - 10/21/2014 Nuclide Activity  
mR/Std Qtr 15.09

## Sample Point 8 [ INDICATOR - SSE @ 0.8 miles ]

TLD RING TLD\_INNER

Sample ID: 289720 Sample Dates: 1/16/2014 - 4/10/2014 Nuclide Activity  
mR/Std Qtr 13.86

Sample ID: 298071 Sample Dates: 4/10/2014 - 7/16/2014 Nuclide Activity  
mR/Std Qtr 12.44

Sample ID: 365763 Sample Dates: 7/16/2014 - 10/21/2014 Nuclide Activity  
mR/Std Qtr 12.11

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: TLD Concentration (Activity): mR/Standard Quarter

## Sample Point 9 [ INDICATOR - S @ 1 miles ]

TLD RING TLD\_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
289721	1/16/2014 - 4/10/2014	mR/Std Qtr	13.39
298072	4/10/2014 - 7/16/2014	mR/Std Qtr	12.35
365764	7/16/2014 - 10/21/2014	mR/Std Qtr	11.40

## Sample Point 10 [ INDICATOR - WSW @ 1 miles ]

TLD RING TLD\_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
289722	1/16/2014 - 4/10/2014	mR/Std Qtr	15.28
298073	4/10/2014 - 7/16/2014	mR/Std Qtr	12.71
365765	7/16/2014 - 10/21/2014	mR/Std Qtr	12.39

## Sample Point 11 [ INDICATOR - SW @ 1 miles ]

TLD RING TLD\_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
289723	1/16/2014 - 4/10/2014	mR/Std Qtr	13.66
298074	4/10/2014 - 7/16/2014	mR/Std Qtr	11.84
365766	7/16/2014 - 10/21/2014	mR/Std Qtr	13.01

## Sample Point 12 [ INDICATOR - SSW @ 1.2 miles ]

TLD RING TLD\_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
289724	1/16/2014 - 4/10/2014	mR/Std Qtr	20.69
298075	4/10/2014 - 7/16/2014	mR/Std Qtr	17.63
365767	7/16/2014 - 10/21/2014	mR/Std Qtr	17.96

## Sample Point 13 [ INDICATOR - W @ 0.7 miles ]

TLD RING TLD\_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
289725	1/16/2014 - 4/10/2014	mR/Std Qtr	17.20
298076	4/10/2014 - 7/16/2014	mR/Std Qtr	14.35
365768	7/16/2014 - 10/21/2014	mR/Std Qtr	13.86

## Sample Point 14 [ INDICATOR - WNW @ 0.8 miles ]

TLD RING TLD\_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
289726	1/16/2014 - 4/10/2014	mR/Std Qtr	23.42
298077	4/10/2014 - 7/16/2014	mR/Std Qtr	18.63
365769	7/16/2014 - 10/21/2014	mR/Std Qtr	20.20

## Sample Point 15 [ INDICATOR - NW @ 0.7 miles ]

TLD RING TLD\_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
289727	1/16/2014 - 4/10/2014	mR/Std Qtr	16.82
298078	4/10/2014 - 7/16/2014	mR/Std Qtr	12.83

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: TLD Concentration (Activity): mR/Standard Quarter

Sample Point 15 [ INDICATOR - NW @ 0.7 miles ]

TLD RING TLD\_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
365770	7/16/2014 - 10/21/2014	mR/Std Qtr	12.13

Sample Point 16 [ INDICATOR - NNW @ 1 miles ]

TLD RING TLD\_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
289728	1/16/2014 - 4/10/2014	mR/Std Qtr	17.72

Sample ID:	Sample Dates:	Nuclide	Activity
298079	4/10/2014 - 7/16/2014	mR/Std Qtr	13.23

Sample ID:	Sample Dates:	Nuclide	Activity
365771	7/16/2014 - 10/21/2014	mR/Std Qtr	15.17

Sample Point 17 [ INDICATOR - N @ 1.2 miles ]

TLD RING TLD\_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
289729	1/16/2014 - 4/10/2014	mR/Std Qtr	20.47

Sample ID:	Sample Dates:	Nuclide	Activity
298080	4/10/2014 - 7/16/2014	mR/Std Qtr	16.79

Sample ID:	Sample Dates:	Nuclide	Activity
365772	7/16/2014 - 10/21/2014	mR/Std Qtr	16.40

Sample Point 18 [ INDICATOR - SE @ 0.7 miles ]

TLD RING TLD\_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
298081	4/10/2014 - 7/16/2014	mR/Std Qtr	20.69

Sample ID:	Sample Dates:	Nuclide	Activity
367041	7/16/2014 - 10/21/2014	mR/Std Qtr	15.25

Sample Point 19 [ INDICATOR - E @ 1 miles ]

TLD RING TLD\_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
289731	1/16/2014 - 4/10/2014	mR/Std Qtr	16.82

Sample ID:	Sample Dates:	Nuclide	Activity
298082	4/10/2014 - 7/16/2014	mR/Std Qtr	13.90

Sample ID:	Sample Dates:	Nuclide	Activity
365773	7/16/2014 - 10/21/2014	mR/Std Qtr	13.59

Sample Point 20 [ INDICATOR - ENE @ 1 miles ]

TLD RING TLD\_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
289732	1/16/2014 - 4/10/2014	mR/Std Qtr	17.04

Sample ID:	Sample Dates:	Nuclide	Activity
298083	4/10/2014 - 7/16/2014	mR/Std Qtr	14.25

Sample ID:	Sample Dates:	Nuclide	Activity
365774	7/16/2014 - 10/21/2014	mR/Std Qtr	13.87

Sample Point 21 [ INDICATOR - NE @ 1.4 miles ]

TLD RING TLD\_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
289733	1/16/2014 - 4/10/2014	mR/Std Qtr	15.34

Sample ID:	Sample Dates:	Nuclide	Activity
298084	4/10/2014 - 7/16/2014	mR/Std Qtr	13.80

Sample ID:	Sample Dates:	Nuclide	Activity
365775	7/16/2014 - 10/21/2014	mR/Std Qtr	14.74

Sample Point 22 [ INDICATOR - NNE @ 1.7 miles ]

TLD RING TLD\_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
289734	1/16/2014 - 4/10/2014	mR/Std Qtr	16.12

Sample ID:	Sample Dates:	Nuclide	Activity
298085	4/10/2014 - 7/16/2014	mR/Std Qtr	15.55

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: TLD Concentration (Activity): mR/Standard Quarter

Sample Point 22 [ INDICATOR - NNE @ 1.7 miles ]

TLD RING TLD\_INNER

Sample ID: 365776	Sample Dates: 7/16/2014 - 10/21/2014	Nuclide	Activity
		mR/Std Qtr	13.52

Sample Point 23 [ INDICATOR - ESE @ 1 miles ]

TLD RING TLD\_INNER

Sample ID: 289735	Sample Dates: 1/16/2014 - 4/10/2014	Nuclide	Activity
		mR/Std Qtr	17.98

Sample ID: 298086	Sample Dates: 4/10/2014 - 7/16/2014	Nuclide	Activity
		mR/Std Qtr	16.62

Sample ID: 365777	Sample Dates: 7/16/2014 - 10/21/2014	Nuclide	Activity
		mR/Std Qtr	16.07

Sample Point 24 [ INDICATOR - NW @ 4.6 miles ]

TLD RING TLD\_OUTER

Sample ID: 289736	Sample Dates: 1/16/2014 - 4/10/2014	Nuclide	Activity
		mR/Std Qtr	22.94

Sample ID: 298087	Sample Dates: 4/10/2014 - 7/16/2014	Nuclide	Activity
		mR/Std Qtr	17.91

Sample ID: 365778	Sample Dates: 7/16/2014 - 10/21/2014	Nuclide	Activity
		mR/Std Qtr	18.12

Sample Point 25 [ INDICATOR - NNW @ 4 miles ]

TLD RING TLD\_OUTER

Sample ID: 289737	Sample Dates: 1/16/2014 - 4/10/2014	Nuclide	Activity
		mR/Std Qtr	18.29

Sample ID: 298088	Sample Dates: 4/10/2014 - 7/16/2014	Nuclide	Activity
		mR/Std Qtr	15.56

Sample ID: 365779	Sample Dates: 7/16/2014 - 10/21/2014	Nuclide	Activity
		mR/Std Qtr	15.22

Sample Point 26 [ INDICATOR - N @ 5 miles ]

TLD RING TLD\_OUTER

Sample ID: 298089	Sample Dates: 4/10/2014 - 7/16/2014	Nuclide	Activity
		mR/Std Qtr	14.06

Sample ID: 367042	Sample Dates: 7/16/2014 - 10/21/2014	Nuclide	Activity
		mR/Std Qtr	12.55

Sample Point 27 [ INDICATOR - NNE @ 5.4 miles ]

TLD RING TLD\_OUTER

Sample ID: 289739	Sample Dates: 1/16/2014 - 4/10/2014	Nuclide	Activity
		mR/Std Qtr	15.59

Sample ID: 298090	Sample Dates: 4/10/2014 - 7/16/2014	Nuclide	Activity
		mR/Std Qtr	12.54

Sample ID: 365780	Sample Dates: 7/16/2014 - 10/21/2014	Nuclide	Activity
		mR/Std Qtr	13.54

Sample Point 28 [ INDICATOR - NE @ 4.3 miles ]

TLD RING TLD\_OUTER

Sample ID: 289740	Sample Dates: 1/16/2014 - 4/10/2014	Nuclide	Activity
		mR/Std Qtr	22.26

Sample ID: 298091	Sample Dates: 4/10/2014 - 7/16/2014	Nuclide	Activity
		mR/Std Qtr	18.77

Sample ID: 365781	Sample Dates: 7/16/2014 - 10/21/2014	Nuclide	Activity
		mR/Std Qtr	19.69

Sample Point 29 [ INDICATOR - ENE @ 4 miles ]

TLD RING TLD\_OUTER

Sample ID: 289741	Sample Dates: 1/16/2014 - 4/10/2014	Nuclide	Activity
		mR/Std Qtr	16.96

Sample ID: 298092	Sample Dates: 4/10/2014 - 7/16/2014	Nuclide	Activity
		mR/Std Qtr	12.62

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: TLD Concentration (Activity): mR/Standard Quarter

## Sample Point 29 [ INDICATOR - ENE @ 4 miles ]

TLD RING TLD\_OUTER

Sample ID: 365782	Sample Dates: 7/16/2014 - 10/21/2014	Nuclide	Activity
		mR/Std Qtr	11.87

## Sample Point 30 [ INDICATOR - E @ 4.4 miles ]

TLD RING TLD\_OUTER

Sample ID: 289742	Sample Dates: 1/16/2014 - 4/10/2014	Nuclide	Activity
		mR/Std Qtr	18.08

Sample ID: 298093	Sample Dates: 4/10/2014 - 7/16/2014	Nuclide	Activity
		mR/Std Qtr	14.87

Sample ID: 365783	Sample Dates: 7/16/2014 - 10/21/2014	Nuclide	Activity
		mR/Std Qtr	18.89

## Sample Point 31 [ INDICATOR - ESE @ 4.6 miles ]

TLD RING TLD\_OUTER

Sample ID: 289743	Sample Dates: 1/16/2014 - 4/10/2014	Nuclide	Activity
		mR/Std Qtr	17.15

Sample ID: 298094	Sample Dates: 4/10/2014 - 7/16/2014	Nuclide	Activity
		mR/Std Qtr	15.95

Sample ID: 365784	Sample Dates: 7/16/2014 - 10/21/2014	Nuclide	Activity
		mR/Std Qtr	15.92

## Sample Point 32 [ INDICATOR - SE @ 4 miles ]

TLD RING TLD\_OUTER

Sample ID: 289744	Sample Dates: 1/16/2014 - 4/10/2014	Nuclide	Activity
		mR/Std Qtr	16.89

Sample ID: 298095	Sample Dates: 4/10/2014 - 7/16/2014	Nuclide	Activity
		mR/Std Qtr	16.41

Sample ID: 365785	Sample Dates: 7/16/2014 - 10/21/2014	Nuclide	Activity
		mR/Std Qtr	14.74

## Sample Point 33 [ INDICATOR - SSE @ 4.5 miles ]

TLD RING TLD\_OUTER

Sample ID: 289745	Sample Dates: 1/16/2014 - 4/10/2014	Nuclide	Activity
		mR/Std Qtr	18.28

Sample ID: 365786	Sample Dates: 7/16/2014 - 10/21/2014	Nuclide	Activity
		mR/Std Qtr	15.59

## Sample Point 34 [ INDICATOR - S @ 4.7 miles ]

TLD RING TLD\_OUTER

Sample ID: 298097	Sample Dates: 4/10/2014 - 7/16/2014	Nuclide	Activity
		mR/Std Qtr	11.47

Sample ID: 367043	Sample Dates: 7/16/2014 - 10/21/2014	Nuclide	Activity
		mR/Std Qtr	10.44

## Sample Point 35 [ INDICATOR - SSW @ 4.5 miles ]

TLD RING TLD\_OUTER

Sample ID: 289747	Sample Dates: 1/16/2014 - 4/10/2014	Nuclide	Activity
		mR/Std Qtr	25.65

Sample ID: 298098	Sample Dates: 4/10/2014 - 7/16/2014	Nuclide	Activity
		mR/Std Qtr	21.80

Sample ID: 365787	Sample Dates: 7/16/2014 - 10/21/2014	Nuclide	Activity
		mR/Std Qtr	22.32

## Sample Point 36 [ INDICATOR - SW @ 5 miles ]

TLD RING TLD\_OUTER

Sample ID: 289748	Sample Dates: 1/16/2014 - 4/10/2014	Nuclide	Activity
		mR/Std Qtr	24.11

Sample ID: 298099	Sample Dates: 4/10/2014 - 7/16/2014	Nuclide	Activity
		mR/Std Qtr	21.12

Sample ID: 365788	Sample Dates: 7/16/2014 - 10/21/2014	Nuclide	Activity
		mR/Std Qtr	21.13

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: TLD Concentration (Activity): mR/Standard Quarter

## Sample Point 37 [ INDICATOR - WSW @ 5 miles ]

TLD RING TLD\_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
289749	1/16/2014 - 4/10/2014	mR/Std Qtr	24.43
298100	4/10/2014 - 7/16/2014	mR/Std Qtr	21.75
365789	7/16/2014 - 10/21/2014	mR/Std Qtr	20.85

## Sample Point 38 [ INDICATOR - W @ 4.9 miles ]

TLD RING TLD\_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
289750	1/16/2014 - 4/10/2014	mR/Std Qtr	19.26
298101	4/10/2014 - 7/16/2014	mR/Std Qtr	16.59
365790	7/16/2014 - 10/21/2014	mR/Std Qtr	17.02

## Sample Point 39 [ INDICATOR - WNW @ 5.1 miles ]

TLD RING TLD\_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
289751	1/16/2014 - 4/10/2014	mR/Std Qtr	17.94
298102	4/10/2014 - 7/16/2014	mR/Std Qtr	15.84
365791	7/16/2014 - 10/21/2014	mR/Std Qtr	15.44

## Sample Point 55 [ INDICATOR - SSE @ 0.2 miles ]

TLD RING TLD\_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
289752	1/16/2014 - 4/10/2014	mR/Std Qtr	15.93
298103	4/10/2014 - 7/16/2014	mR/Std Qtr	15.17
365792	7/16/2014 - 10/21/2014	mR/Std Qtr	15.26

## Sample Point 56 [ INDICATOR - NNW @ 0.4 miles ]

TLD RING TLD\_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
289753	1/16/2014 - 4/10/2014	mR/Std Qtr	18.43
298104	4/10/2014 - 7/16/2014	mR/Std Qtr	16.23
365793	7/16/2014 - 10/21/2014	mR/Std Qtr	16.74

## Sample Point 61 [ INDICATOR - WSW @ 0.3 miles ]

TLD RING TLD\_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
289754	1/16/2014 - 4/10/2014	mR/Std Qtr	26.16
298105	4/10/2014 - 7/16/2014	mR/Std Qtr	18.90
365794	7/16/2014 - 10/21/2014	mR/Std Qtr	20.46

## Sample Point 65 [ INDICATOR - WNW @ 0.3 miles ]

TLD RING TLD\_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
289755	1/16/2014 - 4/10/2014	mR/Std Qtr	22.40
298106	4/10/2014 - 7/16/2014	mR/Std Qtr	19.67

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: TLD Concentration (Activity): mR/Standard Quarter

Sample Point 65 [ INDICATOR - WNW @ 0.3 miles ]

TLD RING TLD\_INNER

Sample ID: 365795 Sample Dates: 7/16/2014 - 10/21/2014  
 Nuclide Activity  
 mR/Std Qtr 23.44

Media Type: VEGETATION Concentration (Activity): pCi/kg wet

Sample Point 50 [ INDICATOR - SSE @ 0 miles ]

Sample ID	Sample Dates	Plant	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
295390	5/13/2014 - 5/13/2014	WAXMYRTLE	I-131	<3.41E+01	0.00E+00	3.41E+01
			Cs-134	<1.82E+01	0.00E+00	1.82E+01
			Cs-137	<3.17E+01	0.00E+00	3.17E+01
			Be-7	3.28E+02	1.26E+02	2.19E+02
			K-40	3.00E+03	2.98E+02	1.92E+02
295391	5/13/2014 - 5/13/2014	WILDCHERRY	I-131	<4.00E+01	0.00E+00	4.00E+01
			Cs-134	<2.29E+01	0.00E+00	2.29E+01
			Cs-137	<4.64E+01	0.00E+00	4.64E+01
			Be-7	3.36E+02	1.02E+02	1.62E+02
			K-40	3.87E+03	3.42E+02	2.31E+02
295392	5/13/2014 - 5/13/2014	SASSAFRAS	I-131	<2.09E+01	0.00E+00	2.09E+01
			Cs-134	<1.33E+01	0.00E+00	1.33E+01
			Cs-137	4.16E+01	9.11E+00	1.43E+01
			Be-7	2.46E+02	7.21E+01	1.20E+02
			K-40	3.46E+03	1.73E+02	9.72E+01
297389	6/18/2014 - 6/18/2014	WAXMYRTLE	I-131	<3.54E+01	0.00E+00	3.54E+01
			Cs-134	<2.26E+01	0.00E+00	2.26E+01
			Cs-137	<3.12E+01	0.00E+00	3.12E+01
			Be-7	5.00E+02	1.22E+02	2.18E+02
			K-40	2.10E+03	2.81E+02	2.81E+02
297390	6/18/2014 - 6/18/2014	SASSAFRAS	I-131	<2.06E+01	0.00E+00	2.06E+01
			Cs-134	<1.57E+01	0.00E+00	1.57E+01
			Cs-137	4.61E+01	1.19E+01	1.77E+01
			Be-7	6.11E+02	7.94E+01	1.34E+02
			K-40	4.35E+03	2.28E+02	1.86E+02
297391	6/18/2014 - 6/18/2014	WILDCHERRY	I-131	<2.68E+01	0.00E+00	2.68E+01
			Cs-134	<2.19E+01	0.00E+00	2.19E+01
			Cs-137	<3.08E+01	0.00E+00	3.08E+01
			Be-7	1.74E+02	8.66E+01	1.90E+02
			K-40	3.60E+03	3.27E+02	2.69E+02
350816	7/17/2014 - 7/17/2014	WAXMYRTLE	Mn-54	<2.23E+01	0.00E+00	2.23E+01
			Co-58	<2.13E+01	0.00E+00	2.13E+01
			Fe-59	<4.80E+01	0.00E+00	4.80E+01
			Co-60	<2.81E+01	0.00E+00	2.81E+01
			Zn-65	<4.70E+01	0.00E+00	4.70E+01
			Zr-95	<4.75E+01	0.00E+00	4.75E+01
			Nb-95	<2.39E+01	0.00E+00	2.39E+01
			I-131	<3.85E+01	0.00E+00	3.85E+01
			Cs-134	<1.99E+01	0.00E+00	1.99E+01
			Cs-137	<2.51E+01	0.00E+00	2.51E+01
			BaLa-140	<3.49E+01	0.00E+00	3.49E+01
			Be-7	7.70E+02	2.31E+02	2.75E+02
			K-40	3.29E+03	5.71E+02	2.66E+02
350817	7/17/2014 - 7/17/2014	SASSAFRAS	Mn-54	<1.48E+01	0.00E+00	1.48E+01
			Co-58	<2.33E+01	0.00E+00	2.33E+01
			Fe-59	<4.50E+01	0.00E+00	4.50E+01
			Co-60	<2.13E+01	0.00E+00	2.13E+01

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: VEGETATION Concentration (Activity): pCi/kg wet

Sample Point 50 [ INDICATOR - SSE @ 0 miles ]

Sample ID:	Sample Dates:	Location:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
350817	7/17/2014 - 7/17/2014	SASSAFRAS	Zn-65	<3.77E+01	0.00E+00	3.77E+01
			Zr-95	<3.46E+01	0.00E+00	3.46E+01
			Nb-95	<2.12E+01	0.00E+00	2.12E+01
			I-131	<2.93E+01	0.00E+00	2.93E+01
			Cs-134	<1.37E+01	0.00E+00	1.37E+01
			Cs-137	<2.20E+01	0.00E+00	2.20E+01
			BaLa-140	<2.97E+01	0.00E+00	2.97E+01
			Be-7	8.93E+02	2.26E+02	2.51E+02
			K-40	3.15E+03	5.25E+02	2.42E+02
			350818	7/17/2014 - 7/17/2014	WILDCHERRY	Mn-54
Co-58	<2.66E+01	0.00E+00				2.66E+01
Fe-59	<5.46E+01	0.00E+00				5.46E+01
Co-60	<3.40E+01	0.00E+00				3.40E+01
Zn-65	<5.25E+01	0.00E+00				5.25E+01
Zr-95	<4.97E+01	0.00E+00				4.97E+01
Nb-95	<2.53E+01	0.00E+00				2.53E+01
I-131	<4.76E+01	0.00E+00				4.76E+01
Cs-134	<2.62E+01	0.00E+00				2.62E+01
Cs-137	<3.25E+01	0.00E+00				3.25E+01
BaLa-140	<4.25E+01	0.00E+00				4.25E+01
Be-7	5.34E+02	2.45E+02				3.56E+02
K-40	3.88E+03	6.07E+02				2.14E+02
353756	8/13/2014 - 8/13/2014	CHERRY	Mn-54	<2.98E+01	0.00E+00	2.98E+01
			Co-58	<2.87E+01	0.00E+00	2.87E+01
			Fe-59	<6.78E+01	0.00E+00	6.78E+01
			Co-60	<3.94E+01	0.00E+00	3.94E+01
			Zn-65	<6.35E+01	0.00E+00	6.35E+01
			Zr-95	<5.51E+01	0.00E+00	5.51E+01
			Nb-95	<2.86E+01	0.00E+00	2.86E+01
			I-131	<3.15E+01	0.00E+00	3.15E+01
			Cs-134	<3.65E+01	0.00E+00	3.65E+01
			Cs-137	5.74E+01	2.43E+01	2.54E+01
			BaLa-140	<4.17E+01	0.00E+00	4.17E+01
			Be-7	1.44E+03	3.13E+02	2.43E+02
			K-40	3.62E+03	7.07E+02	7.66E+01
353757	8/13/2014 - 8/13/2014	WAXMYRTLE	Mn-54	<1.73E+01	0.00E+00	1.73E+01
			Co-58	<2.56E+01	0.00E+00	2.56E+01
			Fe-59	<4.49E+01	0.00E+00	4.49E+01
			Co-60	<2.28E+01	0.00E+00	2.28E+01
			Zn-65	<5.51E+01	0.00E+00	5.51E+01
			Zr-95	<3.61E+01	0.00E+00	3.61E+01
			Nb-95	<2.45E+01	0.00E+00	2.45E+01
			I-131	<3.00E+01	0.00E+00	3.00E+01
			Cs-134	<2.81E+01	0.00E+00	2.81E+01
			Cs-137	1.42E+01	1.75E+01	2.85E+01
			BaLa-140	<3.07E+01	0.00E+00	3.07E+01
			Be-7	1.79E+03	3.25E+02	2.28E+02
			K-40	2.24E+03	5.20E+02	4.18E+02
353758	8/13/2014 - 8/13/2014	SASSAFRAS	Mn-54	<3.46E+01	0.00E+00	3.46E+01
			Co-58	<3.13E+01	0.00E+00	3.13E+01
			Fe-59	<6.88E+01	0.00E+00	6.88E+01
			Co-60	<4.26E+01	0.00E+00	4.26E+01
			Zn-65	<4.14E+01	0.00E+00	4.14E+01
			Zr-95	<5.04E+01	0.00E+00	5.04E+01
			Nb-95	<2.38E+01	0.00E+00	2.38E+01
			I-131	<4.64E+01	0.00E+00	4.64E+01
			Cs-134	<2.51E+01	0.00E+00	2.51E+01
			Cs-137	<4.28E+01	0.00E+00	4.28E+01
			BaLa-140	<6.29E+01	0.00E+00	6.29E+01

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.





# ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: VEGETATION Concentration (Activity): pCi/kg wet

Sample Point 50 [ INDICATOR - SSE @ 0 miles ]

Sample ID:	Sample Dates:	SASSAFRAS	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
353758	8/13/2014 - 8/13/2014		Be-7	1.72E+03	3.80E+02	3.22E+02
			K-40	1.83E+03	6.58E+02	7.67E+02
356797	9/18/2014 - 9/18/2014	WAXMYRTLE	Mn-54	<1.64E+01	0.00E+00	1.64E+01
			Co-58	<2.31E+01	0.00E+00	2.31E+01
			Fe-59	<3.89E+01	0.00E+00	3.89E+01
			Co-60	<2.21E+01	0.00E+00	2.21E+01
			Zn-65	<3.87E+01	0.00E+00	3.87E+01
			Zr-95	<2.70E+01	0.00E+00	2.70E+01
			Nb-95	<2.23E+01	0.00E+00	2.23E+01
			I-131	<2.57E+01	0.00E+00	2.57E+01
			Cs-134	<1.83E+01	0.00E+00	1.83E+01
			Cs-137	<2.10E+01	0.00E+00	2.10E+01
			BaLa-140	<3.77E+01	0.00E+00	3.77E+01
			Be-7	1.50E+03	2.92E+02	2.70E+02
			K-40	2.97E+03	5.19E+02	1.93E+02
			356798	9/18/2014 - 9/18/2014	WILDCHERRY	Mn-54
Co-58	<2.88E+01	0.00E+00				2.88E+01
Fe-59	<4.85E+01	0.00E+00				4.85E+01
Co-60	<3.18E+01	0.00E+00				3.18E+01
Zn-65	<5.19E+01	0.00E+00				5.19E+01
Zr-95	<5.20E+01	0.00E+00				5.20E+01
Nb-95	<2.39E+01	0.00E+00				2.39E+01
I-131	<3.04E+01	0.00E+00				3.04E+01
Cs-134	<2.45E+01	0.00E+00				2.45E+01
Cs-137	<4.10E+01	0.00E+00				4.10E+01
BaLa-140	<4.30E+01	0.00E+00				4.30E+01
Be-7	1.24E+03	3.20E+02				3.59E+02
K-40	2.13E+03	5.44E+02				5.07E+02
356799	9/18/2014 - 9/18/2014	SASSAFRAS				Mn-54
			Co-58	<6.43E+00	0.00E+00	6.43E+00
			Fe-59	<1.69E+01	0.00E+00	1.69E+01
			Co-60	<7.48E+00	0.00E+00	7.48E+00
			Zn-65	<1.46E+01	0.00E+00	1.46E+01
			Zr-95	<1.29E+01	0.00E+00	1.29E+01
			Nb-95	<9.94E+00	0.00E+00	9.94E+00
			I-131	<4.79E+01	0.00E+00	4.79E+01
			Cs-134	<1.69E+01	0.00E+00	1.69E+01
			Cs-137	4.07E+01	8.53E+00	1.12E+01
			BaLa-140	<2.57E+01	0.00E+00	2.57E+01
			Be-7	8.50E+02	1.13E+02	1.15E+02
			K-40	2.61E+03	2.52E+02	1.01E+02

## Sample Point 51 [ INDICATOR - SSW @ 0 miles ]

Sample ID:	Sample Dates:	WAXMYRTLE	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
295393	5/13/2014 - 5/13/2014		I-131	<2.64E+01	0.00E+00	2.64E+01
			Cs-134	<2.60E+01	0.00E+00	2.60E+01
			Cs-137	<3.46E+01	0.00E+00	3.46E+01
			Be-7	4.26E+02	8.97E+01	3.12E+01
			K-40	2.76E+03	2.87E+02	8.09E+01
295395	5/13/2014 - 5/13/2014	SASSAFRAS	I-131	<3.69E+01	0.00E+00	3.69E+01
			Cs-134	<1.80E+01	0.00E+00	1.80E+01
			Cs-137	2.83E+02	2.08E+01	2.44E+01
			Be-7	2.25E+02	1.30E+02	2.01E+02
			K-40	3.89E+03	3.29E+02	3.23E+02
295405	5/13/2014 - 5/13/2014	WILDCHERRY	I-131	<3.38E+01	0.00E+00	3.38E+01
			Cs-134	<3.35E+01	0.00E+00	3.35E+01

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: VEGETATION Concentration (Activity): pCi/kg wet

Sample Point 51 [ INDICATOR - SSW @ 0 miles ]

Sample ID:	Sample Dates:	Sample Name:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
295405	5/13/2014 - 5/13/2014	WILDCHERRY	Cs-137	2.70E+01	1.30E+01	3.01E+01
			Be-7	3.45E+02	9.92E+01	2.53E+02
			K-40	4.15E+03	4.28E+02	4.18E+02
297393	6/18/2014 - 6/18/2014	WAXMYRTLE	I-131	<3.98E+01	0.00E+00	3.98E+01
			Cs-134	<2.71E+01	0.00E+00	2.71E+01
			Cs-137	<3.30E+01	0.00E+00	3.30E+01
			Be-7	7.29E+02	1.09E+02	2.17E+02
			K-40	1.98E+03	2.16E+02	2.47E+02
297394	6/18/2014 - 6/18/2014	SASSAFRAS	I-131	<4.14E+01	0.00E+00	4.14E+01
			Cs-134	<3.72E+01	0.00E+00	3.72E+01
			Cs-137	<5.04E+01	0.00E+00	5.04E+01
			Be-7	6.46E+02	1.57E+02	2.79E+02
			K-40	3.46E+03	4.14E+02	3.31E+02
297395	6/18/2014 - 6/18/2014	WILDCHERRY	I-131	<3.50E+01	0.00E+00	3.50E+01
			Cs-134	<2.65E+01	0.00E+00	2.65E+01
			Cs-137	<3.14E+01	0.00E+00	3.14E+01
			Be-7	3.34E+02	9.39E+01	2.16E+02
			K-40	4.20E+03	2.99E+02	2.08E+02
350819	7/17/2014 - 7/17/2014	WAXMYRTLE	Mn-54	<3.67E+01	0.00E+00	3.67E+01
			Co-58	<4.11E+01	0.00E+00	4.11E+01
			Fe-59	<5.45E+01	0.00E+00	5.45E+01
			Co-60	<3.60E+01	0.00E+00	3.60E+01
			Zn-65	<9.11E+01	0.00E+00	9.11E+01
			Zr-95	<6.64E+01	0.00E+00	6.64E+01
			Nb-95	<3.61E+01	0.00E+00	3.61E+01
			I-131	<4.63E+01	0.00E+00	4.63E+01
			Cs-134	<1.85E+01	0.00E+00	1.85E+01
			Cs-137	<3.71E+01	0.00E+00	3.71E+01
			BaLa-140	<5.27E+01	0.00E+00	5.27E+01
			Be-7	2.83E+02	2.88E+02	4.64E+02
			K-40	3.25E+03	7.20E+02	4.51E+02
			350820	7/17/2014 - 7/17/2014	SASSAFRAS	Mn-54
Co-58	<2.09E+01	0.00E+00				2.09E+01
Fe-59	<5.14E+01	0.00E+00				5.14E+01
Co-60	<2.78E+01	0.00E+00				2.78E+01
Zn-65	<5.84E+01	0.00E+00				5.84E+01
Zr-95	<3.50E+01	0.00E+00				3.50E+01
Nb-95	<2.60E+01	0.00E+00				2.60E+01
I-131	<3.65E+01	0.00E+00				3.65E+01
Cs-134	<2.17E+01	0.00E+00				2.17E+01
Cs-137	3.45E+01	2.62E+01				4.07E+01
BaLa-140	<4.16E+01	0.00E+00				4.16E+01
Be-7	7.56E+02	2.50E+02				3.32E+02
K-40	3.31E+03	5.61E+02				3.22E+02
350821	7/17/2014 - 7/17/2014	WILDCHERRY				Mn-54
			Co-58	<2.32E+01	0.00E+00	2.32E+01
			Fe-59	<5.01E+01	0.00E+00	5.01E+01
			Co-60	<2.22E+01	0.00E+00	2.22E+01
			Zn-65	<5.43E+01	0.00E+00	5.43E+01
			Zr-95	<4.36E+01	0.00E+00	4.36E+01
			Nb-95	<2.92E+01	0.00E+00	2.92E+01
			I-131	<4.48E+01	0.00E+00	4.48E+01
			Cs-134	<2.17E+01	0.00E+00	2.17E+01
			Cs-137	<2.29E+01	0.00E+00	2.29E+01
			BaLa-140	<5.45E+01	0.00E+00	5.45E+01

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: VEGETATION Concentration (Activity): pCi/kg wet

Sample Point 51 [ INDICATOR - SSW @ 0 miles ]

Sample ID:	Sample Dates:	Location:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
350821	7/17/2014 - 7/17/2014	WILDCHERRY	Be-7	5.01E+02	1.95E+02	2.51E+02
			K-40	3.45E+03	6.12E+02	3.54E+02
353759	8/13/2014 - 8/13/2014	CHERRY	Mn-54	<3.66E+01	0.00E+00	3.66E+01
			Co-58	<4.06E+01	0.00E+00	4.06E+01
			Fe-59	<6.35E+01	0.00E+00	6.35E+01
			Co-60	<2.41E+01	0.00E+00	2.41E+01
			Zn-65	<6.81E+01	0.00E+00	6.81E+01
			Zr-95	<7.02E+01	0.00E+00	7.02E+01
			Nb-95	<3.35E+01	0.00E+00	3.35E+01
			I-131	<4.38E+01	0.00E+00	4.38E+01
			Cs-134	<2.02E+01	0.00E+00	2.02E+01
			Cs-137	<3.63E+01	0.00E+00	3.63E+01
			BaLa-140	<1.43E+01	0.00E+00	1.43E+01
			Be-7	1.45E+03	3.63E+02	3.57E+02
			K-40	2.90E+03	7.15E+02	5.21E+02
353760	8/13/2014 - 8/13/2014	WAXMYRTLE	Mn-54	<2.29E+01	0.00E+00	2.29E+01
			Co-58	<2.51E+01	0.00E+00	2.51E+01
			Fe-59	<5.22E+01	0.00E+00	5.22E+01
			Co-60	<2.75E+01	0.00E+00	2.75E+01
			Zn-65	<6.25E+01	0.00E+00	6.25E+01
			Zr-95	<4.64E+01	0.00E+00	4.64E+01
			Nb-95	<2.24E+01	0.00E+00	2.24E+01
			I-131	<2.74E+01	0.00E+00	2.74E+01
			Cs-134	<1.65E+01	0.00E+00	1.65E+01
			Cs-137	<2.37E+01	0.00E+00	2.37E+01
			BaLa-140	<3.10E+01	0.00E+00	3.10E+01
			Be-7	1.84E+03	3.46E+02	3.29E+02
			K-40	2.10E+03	4.60E+02	3.18E+02
353761	8/13/2014 - 8/13/2014	SASSAFRAS	Mn-54	<1.62E+01	0.00E+00	1.62E+01
			Co-58	<1.65E+01	0.00E+00	1.65E+01
			Fe-59	<4.72E+01	0.00E+00	4.72E+01
			Co-60	<1.09E+01	0.00E+00	1.09E+01
			Zn-65	<4.52E+01	0.00E+00	4.52E+01
			Zr-95	<3.02E+01	0.00E+00	3.02E+01
			Nb-95	<2.16E+01	0.00E+00	2.16E+01
			I-131	<2.36E+01	0.00E+00	2.36E+01
			Cs-134	<1.56E+01	0.00E+00	1.56E+01
			Cs-137	<1.98E+01	0.00E+00	1.98E+01
			BaLa-140	<3.52E+01	0.00E+00	3.52E+01
			Be-7	1.53E+03	2.61E+02	1.82E+02
			K-40	1.70E+03	3.95E+02	3.49E+02
356800	9/18/2014 - 9/18/2014	WAXMYRTLE	Mn-54	<2.86E+01	0.00E+00	2.86E+01
			Co-58	<1.03E+01	0.00E+00	1.03E+01
			Fe-59	<5.44E+01	0.00E+00	5.44E+01
			Co-60	<2.82E+01	0.00E+00	2.82E+01
			Zn-65	<4.21E+01	0.00E+00	4.21E+01
			Zr-95	<5.20E+01	0.00E+00	5.20E+01
			Nb-95	<1.84E+01	0.00E+00	1.84E+01
			I-131	<2.61E+01	0.00E+00	2.61E+01
			Cs-134	<3.62E+01	0.00E+00	3.62E+01
			Cs-137	<2.67E+01	0.00E+00	2.67E+01
			BaLa-140	<2.92E+01	0.00E+00	2.92E+01
			Be-7	1.39E+03	2.97E+02	2.78E+02
			K-40	1.94E+03	4.61E+02	3.41E+02
356801	9/18/2014 - 9/18/2014	WILDCHERRY	Mn-54	<2.22E+01	0.00E+00	2.22E+01
			Co-58	<2.61E+01	0.00E+00	2.61E+01
			Fe-59	<5.47E+01	0.00E+00	5.47E+01

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: VEGETATION Concentration (Activity): pCi/kg wet

Sample Point 51 [ INDICATOR - SSW @ 0 miles ]

Sample ID:	Sample Dates:	WILDCHERRY	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
356801	9/18/2014 - 9/18/2014	WILDCHERRY	Co-60	<2.60E+01	0.00E+00	2.60E+01
			Zn-65	<5.13E+01	0.00E+00	5.13E+01
			Zr-95	<3.93E+01	0.00E+00	3.93E+01
			Nb-95	<2.91E+01	0.00E+00	2.91E+01
			I-131	<3.14E+01	0.00E+00	3.14E+01
			Cs-134	<3.20E+01	0.00E+00	3.20E+01
			Cs-137	<2.95E+01	0.00E+00	2.95E+01
			BaLa-140	<4.09E+01	0.00E+00	4.09E+01
			Be-7	4.67E+02	2.38E+02	3.50E+02
			K-40	2.25E+03	4.71E+02	2.92E+02

Sample ID:	Sample Dates:	SASSAFRAS	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
356802	9/18/2014 - 9/18/2014	SASSAFRAS	Mn-54	<5.14E+00	0.00E+00	5.14E+00
			Co-58	<6.26E+00	0.00E+00	6.26E+00
			Fe-59	<1.68E+01	0.00E+00	1.68E+01
			Co-60	<6.01E+00	0.00E+00	6.01E+00
			Zn-65	<1.31E+01	0.00E+00	1.31E+01
			Zr-95	<1.22E+01	0.00E+00	1.22E+01
			Nb-95	<8.28E+00	0.00E+00	8.28E+00
			I-131	<4.65E+01	0.00E+00	4.65E+01
			Cs-134	<6.50E+00	0.00E+00	6.50E+00
			Cs-137	4.03E+01	9.42E+00	1.30E+01
			BaLa-140	<1.88E+01	0.00E+00	1.88E+01
			Be-7	8.78E+02	1.08E+02	9.40E+01
			K-40	2.93E+03	2.78E+02	9.43E+01

Sample Point 52 [ CONTROL - W @ 10 miles ]

Sample ID:	Sample Dates:	WAXMYRTLE	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
295396	5/13/2014 - 5/13/2014	WAXMYRTLE	I-131	<2.70E+01	0.00E+00	2.70E+01
			Cs-134	<1.69E+01	0.00E+00	1.69E+01
			Cs-137	2.07E+01	6.60E+00	1.64E+01
			Be-7	2.17E+02	8.16E+01	1.59E+02
			K-40	2.86E+03	2.20E+02	2.52E+02

Sample ID:	Sample Dates:	WILDCHERRY	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
295397	5/13/2014 - 5/13/2014	WILDCHERRY	I-131	<2.82E+01	0.00E+00	2.82E+01
			Cs-134	<2.59E+01	0.00E+00	2.59E+01
			Cs-137	<3.23E+01	0.00E+00	3.23E+01
			Be-7	<3.23E+02	0.00E+00	3.23E+02
			K-40	3.21E+03	3.24E+02	3.40E+02

Sample ID:	Sample Dates:	SASSAFRAS	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
295398	5/13/2014 - 5/13/2014	SASSAFRAS	I-131	<2.25E+01	0.00E+00	2.25E+01
			Cs-134	<1.25E+01	0.00E+00	1.25E+01
			Cs-137	6.39E+01	1.02E+01	1.67E+01
			Be-7	2.56E+02	6.74E+01	1.24E+02
			K-40	2.98E+03	1.76E+02	1.42E+02

Sample ID:	Sample Dates:	WAXMYRTLE	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
297396	6/18/2014 - 6/18/2014	WAXMYRTLE	I-131	<3.91E+01	0.00E+00	3.91E+01
			Cs-134	<2.54E+01	0.00E+00	2.54E+01
			Cs-137	<3.67E+01	0.00E+00	3.67E+01
			Be-7	8.68E+02	1.69E+02	2.31E+02
			K-40	2.55E+03	3.30E+02	3.18E+02

Sample ID:	Sample Dates:	SASSAFRAS	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
297397	6/18/2014 - 6/18/2014	SASSAFRAS	I-131	<1.82E+01	0.00E+00	1.82E+01
			Cs-134	<1.10E+01	0.00E+00	1.10E+01
			Cs-137	5.54E+01	9.34E+00	1.20E+01
			Be-7	3.18E+02	6.72E+01	1.00E+02
			K-40	4.11E+03	1.66E+02	1.24E+02

Sample ID:	Sample Dates:	WILDCHERRY	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
297398	6/18/2014 - 6/18/2014	WILDCHERRY	I-131	<4.47E+01	0.00E+00	4.47E+01
			Cs-134	<3.11E+01	0.00E+00	3.11E+01
			Cs-137	<4.24E+01	0.00E+00	4.24E+01
			Be-7	2.05E+02	8.77E+01	2.37E+02

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: VEGETATION Concentration (Activity): pCi/kg wet

Sample Point 52 [ CONTROL - W @ 10 miles ]

Sample ID:	Sample Dates:	Location:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
297398	6/18/2014 - 6/18/2014	WILDCHERRY	K-40	3.78E+03	3.86E+02	3.54E+02
350822	7/17/2014 - 7/17/2014	WAXMYRTLE	Mn-54	<2.74E+01	0.00E+00	2.74E+01
			Co-58	<2.85E+01	0.00E+00	2.85E+01
			Fe-59	<4.38E+01	0.00E+00	4.38E+01
			Co-60	<3.43E+01	0.00E+00	3.43E+01
			Zn-65	<5.97E+01	0.00E+00	5.97E+01
			Zr-95	<5.12E+01	0.00E+00	5.12E+01
			Nb-95	<3.22E+01	0.00E+00	3.22E+01
			I-131	<4.08E+01	0.00E+00	4.08E+01
			Cs-134	<2.49E+01	0.00E+00	2.49E+01
			Cs-137	<3.07E+01	0.00E+00	3.07E+01
			BaLa-140	<4.92E+01	0.00E+00	4.92E+01
			Be-7	6.02E+02	2.32E+02	3.06E+02
			K-40	1.99E+03	5.09E+02	4.56E+02
350823	7/17/2014 - 7/17/2014	SASSAFRAS	Mn-54	<2.66E+01	0.00E+00	2.66E+01
			Co-58	<2.48E+01	0.00E+00	2.48E+01
			Fe-59	<5.35E+01	0.00E+00	5.35E+01
			Co-60	<3.57E+01	0.00E+00	3.57E+01
			Zn-65	<4.56E+01	0.00E+00	4.56E+01
			Zr-95	<3.94E+01	0.00E+00	3.94E+01
			Nb-95	<2.07E+01	0.00E+00	2.07E+01
			I-131	<3.67E+01	0.00E+00	3.67E+01
			Cs-134	<2.67E+01	0.00E+00	2.67E+01
			Cs-137	3.91E+01	2.42E+01	3.51E+01
			BaLa-140	<3.40E+01	0.00E+00	3.40E+01
			Be-7	1.33E+03	3.84E+02	5.07E+02
			K-40	2.32E+03	5.39E+02	4.88E+02
350824	7/17/2014 - 7/17/2014	WILDCHERRY	Mn-54	<1.61E+01	0.00E+00	1.61E+01
			Co-58	<1.76E+01	0.00E+00	1.76E+01
			Fe-59	<4.33E+01	0.00E+00	4.33E+01
			Co-60	<2.32E+01	0.00E+00	2.32E+01
			Zn-65	<4.63E+01	0.00E+00	4.63E+01
			Zr-95	<3.19E+01	0.00E+00	3.19E+01
			Nb-95	<1.73E+01	0.00E+00	1.73E+01
			I-131	<3.14E+01	0.00E+00	3.14E+01
			Cs-134	<1.52E+01	0.00E+00	1.52E+01
			Cs-137	5.27E+01	2.12E+01	2.76E+01
			BaLa-140	<3.88E+01	0.00E+00	3.88E+01
			Be-7	1.89E+02	1.72E+02	2.76E+02
			K-40	3.82E+03	5.65E+02	1.71E+02
353762	8/13/2014 - 8/13/2014	CHERRY	Mn-54	<2.49E+01	0.00E+00	2.49E+01
			Co-58	<1.96E+01	0.00E+00	1.96E+01
			Fe-59	<6.54E+01	0.00E+00	6.54E+01
			Co-60	<2.27E+01	0.00E+00	2.27E+01
			Zn-65	<3.93E+01	0.00E+00	3.93E+01
			Zr-95	<5.15E+01	0.00E+00	5.15E+01
			Nb-95	<2.27E+01	0.00E+00	2.27E+01
			I-131	<3.49E+01	0.00E+00	3.49E+01
			Cs-134	<2.99E+01	0.00E+00	2.99E+01
			Cs-137	<3.70E+01	0.00E+00	3.70E+01
			BaLa-140	<3.66E+01	0.00E+00	3.66E+01
			Be-7	9.93E+02	2.95E+02	3.17E+02
			K-40	2.46E+03	6.53E+02	5.45E+02
353763	8/13/2014 - 8/13/2014	WAXMYRTLE	Mn-54	<3.36E+01	0.00E+00	3.36E+01
			Co-58	<2.82E+01	0.00E+00	2.82E+01
			Fe-59	<6.12E+01	0.00E+00	6.12E+01
			Co-60	<4.74E+01	0.00E+00	4.74E+01

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: VEGETATION Concentration (Activity): pCi/kg wet

Sample Point 52 [ CONTROL - W @ 10 miles ]

Sample ID:	Sample Dates:	Location:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
353763	8/13/2014 - 8/13/2014	WAXMYRTLE	Zn-65	<7.17E+01	0.00E+00	7.17E+01
			Zr-95	<6.21E+01	0.00E+00	6.21E+01
			Nb-95	<4.32E+01	0.00E+00	4.32E+01
			I-131	<4.72E+01	0.00E+00	4.72E+01
			Cs-134	<2.43E+01	0.00E+00	2.43E+01
			Cs-137	<3.34E+01	0.00E+00	3.34E+01
			BaLa-140	<3.75E+01	0.00E+00	3.75E+01
			Be-7	7.54E+02	3.22E+02	4.40E+02
			K-40	1.81E+03	6.19E+02	6.77E+02
			353764	8/13/2014 - 8/13/2014	SASSAFRAS	Mn-54
Co-58	<2.59E+01	0.00E+00				2.59E+01
Fe-59	<7.08E+01	0.00E+00				7.08E+01
Co-60	<2.34E+01	0.00E+00				2.34E+01
Zn-65	<7.10E+01	0.00E+00				7.10E+01
Zr-95	<6.19E+01	0.00E+00				6.19E+01
Nb-95	<3.42E+01	0.00E+00				3.42E+01
I-131	<4.29E+01	0.00E+00				4.29E+01
Cs-134	<1.58E+01	0.00E+00				1.58E+01
Cs-137	1.47E+02	4.28E+01				5.17E+01
BaLa-140	<3.28E+01	0.00E+00				3.28E+01
Be-7	1.41E+03	3.21E+02				3.43E+02
K-40	2.76E+03	5.84E+02				4.04E+02
356803	9/18/2014 - 9/18/2014	WAXMYRTLE				Mn-54
			Co-58	<1.08E+01	0.00E+00	1.08E+01
			Fe-59	<6.19E+01	0.00E+00	6.19E+01
			Co-60	<3.74E+01	0.00E+00	3.74E+01
			Zn-65	<3.90E+01	0.00E+00	3.90E+01
			Zr-95	<3.33E+01	0.00E+00	3.33E+01
			Nb-95	<2.46E+01	0.00E+00	2.46E+01
			I-131	<3.13E+01	0.00E+00	3.13E+01
			Cs-134	<2.99E+01	0.00E+00	2.99E+01
			Cs-137	<2.58E+01	0.00E+00	2.58E+01
			BaLa-140	<2.50E+01	0.00E+00	2.50E+01
			Be-7	9.43E+02	2.64E+02	3.01E+02
			K-40	2.69E+03	5.39E+02	2.85E+02
			356804	9/18/2014 - 9/18/2014	WILDCHERRY	Mn-54
Co-58	<1.62E+01	0.00E+00				1.62E+01
Fe-59	<4.98E+01	0.00E+00				4.98E+01
Co-60	<3.16E+01	0.00E+00				3.16E+01
Zn-65	<5.00E+01	0.00E+00				5.00E+01
Zr-95	<3.51E+01	0.00E+00				3.51E+01
Nb-95	<2.15E+01	0.00E+00				2.15E+01
I-131	<3.51E+01	0.00E+00				3.51E+01
Cs-134	<3.03E+01	0.00E+00				3.03E+01
Cs-137	2.28E+01	1.91E+01				2.92E+01
BaLa-140	<3.76E+01	0.00E+00				3.76E+01
Be-7	2.09E+03	3.66E+02				3.07E+02
K-40	3.60E+03	6.36E+02				3.87E+02
356805	9/18/2014 - 9/18/2014	SASSAFRAS				Mn-54
			Co-58	<2.08E+01	0.00E+00	2.08E+01
			Fe-59	<5.35E+01	0.00E+00	5.35E+01
			Co-60	<2.78E+01	0.00E+00	2.78E+01
			Zn-65	<3.02E+01	0.00E+00	3.02E+01
			Zr-95	<4.30E+01	0.00E+00	4.30E+01
			Nb-95	<1.87E+01	0.00E+00	1.87E+01
			I-131	<3.03E+01	0.00E+00	3.03E+01
			Cs-134	<2.27E+01	0.00E+00	2.27E+01
			Cs-137	3.91E+01	2.31E+01	3.32E+01
			BaLa-140	<2.85E+01	0.00E+00	2.85E+01

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: VEGETATION Concentration (Activity): pCi/kg wet

Sample Point 52 [ CONTROL - W @ 10 miles ]

Sample ID:	Sample Dates:	SASSAFRAS	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
356805	9/18/2014 - 9/18/2014		Be-7	1.33E+03	2.69E+02	2.21E+02
			K-40	2.96E+03	5.73E+02	4.13E+02

Sample Point 62 [ INDICATOR - SE @ 0 miles ]

Sample ID:	Sample Dates:	WAXMYRTLE	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
295399	5/13/2014 - 5/13/2014		I-131	<2.71E+01	0.00E+00	2.71E+01
			Cs-134	<1.98E+01	0.00E+00	1.98E+01
			Cs-137	<2.60E+01	0.00E+00	2.60E+01
			Be-7	1.00E+03	1.14E+02	1.56E+02
			K-40	4.24E+03	2.71E+02	2.26E+02

Sample ID:	Sample Dates:	WILDCHERRY	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
295400	5/13/2014 - 5/13/2014		I-131	<2.90E+01	0.00E+00	2.90E+01
			Cs-134	<2.37E+01	0.00E+00	2.37E+01
			Cs-137	<2.96E+01	0.00E+00	2.96E+01
			Be-7	1.70E+02	8.20E+01	2.08E+02
			K-40	3.58E+03	3.14E+02	2.93E+02

Sample ID:	Sample Dates:	SASSAFRAS	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
295401	5/13/2014 - 5/13/2014		I-131	<2.10E+01	0.00E+00	2.10E+01
			Cs-134	<1.08E+01	0.00E+00	1.08E+01
			Cs-137	4.59E+01	9.72E+00	1.48E+01
			Be-7	2.71E+02	7.60E+01	9.82E+01
			K-40	3.41E+03	2.00E+02	1.47E+02

Sample ID:	Sample Dates:	WAXMYRTLE	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
297399	6/18/2014 - 6/18/2014		I-131	<2.16E+01	0.00E+00	2.16E+01
			Cs-134	<1.73E+01	0.00E+00	1.73E+01
			Cs-137	<2.13E+01	0.00E+00	2.13E+01
			Be-7	5.51E+02	8.66E+01	1.32E+02
			K-40	3.34E+03	2.25E+02	1.80E+02

Sample ID:	Sample Dates:	SASSAFRAS	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
297400	6/18/2014 - 6/18/2014		I-131	<1.70E+01	0.00E+00	1.70E+01
			Cs-134	<1.06E+01	0.00E+00	1.06E+01
			Cs-137	6.12E+01	9.94E+00	1.49E+01
			Be-7	4.80E+02	6.32E+01	1.05E+02
			K-40	3.26E+03	1.59E+02	1.17E+02

Sample ID:	Sample Dates:	WILDCHERRY	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
297401	6/18/2014 - 6/18/2014		I-131	<1.74E+01	0.00E+00	1.74E+01
			Cs-134	<1.09E+01	0.00E+00	1.09E+01
			Cs-137	2.81E+01	7.04E+00	1.34E+01
			Be-7	3.57E+02	6.47E+01	1.00E+02
			K-40	3.46E+03	1.73E+02	1.44E+02

Sample ID:	Sample Dates:	WAXMYRTLE	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
350825	7/17/2014 - 7/17/2014		Mn-54	<3.70E+01	0.00E+00	3.70E+01
			Co-58	<3.71E+01	0.00E+00	3.71E+01
			Fe-59	<5.92E+01	0.00E+00	5.92E+01
			Co-60	<3.51E+01	0.00E+00	3.51E+01
			Zn-65	<8.08E+01	0.00E+00	8.08E+01
			Zr-95	<4.66E+01	0.00E+00	4.66E+01
			Nb-95	<4.23E+01	0.00E+00	4.23E+01
			I-131	<4.77E+01	0.00E+00	4.77E+01
			Cs-134	<3.01E+01	0.00E+00	3.01E+01
			Cs-137	<3.48E+01	0.00E+00	3.48E+01
			BaLa-140	<4.06E+01	0.00E+00	4.06E+01
			Be-7	6.35E+02	2.91E+02	4.02E+02
			K-40	2.86E+03	6.49E+02	3.53E+02

Sample ID:	Sample Dates:	SASSAFRAS	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
350826	7/17/2014 - 7/17/2014		Mn-54	<2.43E+01	0.00E+00	2.43E+01
			Co-58	<2.41E+01	0.00E+00	2.41E+01
			Fe-59	<6.27E+01	0.00E+00	6.27E+01
			Co-60	<3.81E+01	0.00E+00	3.81E+01
			Zn-65	<6.99E+01	0.00E+00	6.99E+01

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: VEGETATION Concentration (Activity): pCi/kg wet

Sample Point 62 [ INDICATOR - SE @ 0 miles ]

Sample ID:	Sample Dates:	Location:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
350826	7/17/2014 - 7/17/2014	SASSAFRAS	Zr-95	<4.62E+01	0.00E+00	4.62E+01
			Nb-95	<3.43E+01	0.00E+00	3.43E+01
			I-131	<4.04E+01	0.00E+00	4.04E+01
			Cs-134	<2.91E+01	0.00E+00	2.91E+01
			Cs-137	<3.49E+01	0.00E+00	3.49E+01
			BaLa-140	<4.66E+01	0.00E+00	4.66E+01
			Be-7	8.69E+02	2.41E+02	2.51E+02
			K-40	2.91E+03	6.30E+02	5.61E+02
350827	7/17/2014 - 7/17/2014	WILDCHERRY	Mn-54	<2.78E+01	0.00E+00	2.78E+01
			Co-58	<2.45E+01	0.00E+00	2.45E+01
			Fe-59	<5.63E+01	0.00E+00	5.63E+01
			Co-60	<2.47E+01	0.00E+00	2.47E+01
			Zn-65	<6.02E+01	0.00E+00	6.02E+01
			Zr-95	<5.27E+01	0.00E+00	5.27E+01
			Nb-95	<2.84E+01	0.00E+00	2.84E+01
			I-131	<4.35E+01	0.00E+00	4.35E+01
			Cs-134	<1.89E+01	0.00E+00	1.89E+01
			Cs-137	<2.58E+01	0.00E+00	2.58E+01
			BaLa-140	<2.39E+01	0.00E+00	2.39E+01
			Be-7	4.11E+02	2.21E+02	3.28E+02
			K-40	5.02E+03	7.66E+02	4.39E+02
353765	8/13/2014 - 8/13/2014	CHERRY	Mn-54	<2.34E+01	0.00E+00	2.34E+01
			Co-58	<2.11E+01	0.00E+00	2.11E+01
			Fe-59	<4.72E+01	0.00E+00	4.72E+01
			Co-60	<2.88E+01	0.00E+00	2.88E+01
			Zn-65	<4.18E+01	0.00E+00	4.18E+01
			Zr-95	<4.26E+01	0.00E+00	4.26E+01
			Nb-95	<2.03E+01	0.00E+00	2.03E+01
			I-131	<2.73E+01	0.00E+00	2.73E+01
			Cs-134	<2.28E+01	0.00E+00	2.28E+01
			Cs-137	<2.11E+01	0.00E+00	2.11E+01
			BaLa-140	<2.33E+01	0.00E+00	2.33E+01
			Be-7	3.98E+02	1.88E+02	2.00E+02
			K-40	3.44E+03	5.84E+02	3.77E+02
			353766	8/13/2014 - 8/13/2014	WAXMYRTLE	Mn-54
Co-58	<2.45E+01	0.00E+00				2.45E+01
Fe-59	<4.12E+01	0.00E+00				4.12E+01
Co-60	<3.87E+01	0.00E+00				3.87E+01
Zn-65	<5.62E+01	0.00E+00				5.62E+01
Zr-95	<3.92E+01	0.00E+00				3.92E+01
Nb-95	<2.45E+01	0.00E+00				2.45E+01
I-131	<3.13E+01	0.00E+00				3.13E+01
Cs-134	<1.96E+01	0.00E+00				1.96E+01
Cs-137	<3.37E+01	0.00E+00				3.37E+01
BaLa-140	<3.28E+01	0.00E+00				3.28E+01
Be-7	2.99E+03	4.41E+02				2.80E+02
K-40	3.52E+03	6.38E+02				4.19E+02
353767	8/13/2014 - 8/13/2014	SASSAFRAS				Mn-54
			Co-58	<3.05E+01	0.00E+00	3.05E+01
			Fe-59	<6.59E+01	0.00E+00	6.59E+01
			Co-60	<4.45E+01	0.00E+00	4.45E+01
			Zn-65	<7.71E+01	0.00E+00	7.71E+01
			Zr-95	<5.27E+01	0.00E+00	5.27E+01
			Nb-95	<2.78E+01	0.00E+00	2.78E+01
			I-131	<3.57E+01	0.00E+00	3.57E+01
			Cs-134	<2.29E+01	0.00E+00	2.29E+01
			Cs-137	6.58E+01	3.63E+01	5.01E+01
			BaLa-140	<5.90E+01	0.00E+00	5.90E+01
			Be-7	1.91E+03	4.12E+02	3.50E+02

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.





# ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: VEGETATION Concentration (Activity): pCi/kg wet

Sample Point 62 [ INDICATOR - SE @ 0 miles ]

Sample ID:	Sample Dates:	Indicator	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
353767	8/13/2014 - 8/13/2014	SASSAFRAS	K-40	2.20E+03	6.26E+02	4.86E+02
356806	9/18/2014 - 9/18/2014	WAXMYRTLE	Mn-54	<5.11E+00	0.00E+00	5.11E+00
			Co-58	<5.80E+00	0.00E+00	5.80E+00
			Fe-59	<1.55E+01	0.00E+00	1.55E+01
			Co-60	<6.32E+00	0.00E+00	6.32E+00
			Zn-65	<1.17E+01	0.00E+00	1.17E+01
			Zr-95	<1.22E+01	0.00E+00	1.22E+01
			Nb-95	<8.10E+00	0.00E+00	8.10E+00
			I-131	<4.79E+01	0.00E+00	4.79E+01
			Cs-134	<5.91E+00	0.00E+00	5.91E+00
			Cs-137	6.98E+00	6.42E+00	1.04E+01
			BaLa-140	<2.36E+01	0.00E+00	2.36E+01
			Be-7	2.10E+03	2.05E+02	9.59E+01
			K-40	2.73E+03	2.58E+02	8.61E+01
356807	9/18/2014 - 9/18/2014	WILDCHERRY	Mn-54	<2.18E+01	0.00E+00	2.18E+01
			Co-58	<1.98E+01	0.00E+00	1.98E+01
			Fe-59	<5.42E+01	0.00E+00	5.42E+01
			Co-60	<2.80E+01	0.00E+00	2.80E+01
			Zn-65	<5.35E+01	0.00E+00	5.35E+01
			Zr-95	<4.04E+01	0.00E+00	4.04E+01
			Nb-95	<2.63E+01	0.00E+00	2.63E+01
			I-131	<3.49E+01	0.00E+00	3.49E+01
			Cs-134	<3.05E+01	0.00E+00	3.05E+01
			Cs-137	<3.00E+01	0.00E+00	3.00E+01
			BaLa-140	<7.52E+00	0.00E+00	7.52E+00
			Be-7	3.79E+02	1.79E+02	2.51E+02
			K-40	3.17E+03	5.81E+02	4.30E+02
356808	9/18/2014 - 9/18/2014	SASSAFRAS	Mn-54	<1.90E+01	0.00E+00	1.90E+01
			Co-58	<1.86E+01	0.00E+00	1.86E+01
			Fe-59	<4.55E+01	0.00E+00	4.55E+01
			Co-60	<2.37E+01	0.00E+00	2.37E+01
			Zn-65	<5.22E+01	0.00E+00	5.22E+01
			Zr-95	<4.37E+01	0.00E+00	4.37E+01
			Nb-95	<2.41E+01	0.00E+00	2.41E+01
			I-131	<2.84E+01	0.00E+00	2.84E+01
			Cs-134	<2.80E+01	0.00E+00	2.80E+01
			Cs-137	3.31E+01	1.75E+01	2.35E+01
			BaLa-140	<3.90E+01	0.00E+00	3.90E+01
			Be-7	1.01E+03	2.71E+02	3.36E+02
			K-40	2.77E+03	4.95E+02	2.62E+02

## Sample Point 67 [ INDICATOR - S @ 0 miles ]

Sample ID:	Sample Dates:	Indicator	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
295402	5/13/2014 - 5/13/2014	WAXMYRTLE	I-131	<3.73E+01	0.00E+00	3.73E+01
			Cs-134	<2.76E+01	0.00E+00	2.76E+01
			Cs-137	<3.90E+01	0.00E+00	3.90E+01
			Be-7	5.05E+02	1.03E+02	1.65E+02
			K-40	2.21E+03	2.60E+02	2.35E+02
295403	5/13/2014 - 5/13/2014	WILDCHERRY	I-131	<4.71E+01	0.00E+00	4.71E+01
			Cs-134	<2.70E+01	0.00E+00	2.70E+01
			Cs-137	<3.23E+01	0.00E+00	3.23E+01
			Be-7	<3.64E+02	0.00E+00	3.64E+02
			K-40	4.66E+03	3.43E+02	4.37E+02
295404	5/13/2014 - 5/13/2014	SASSAFRAS	I-131	<3.59E+01	0.00E+00	3.59E+01
			Cs-134	<2.34E+01	0.00E+00	2.34E+01
			Cs-137	1.26E+02	1.37E+01	2.16E+01

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: VEGETATION Concentration (Activity): pCi/kg wet

Sample Point 67 [ INDICATOR - S @ 0 miles ]

Sample ID:	Sample Dates:	Indicator:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD		
295404	5/13/2014 - 5/13/2014	SASSAFRAS	Be-7	2.35E+02	1.01E+02	1.78E+02		
			K-40	2.99E+03	2.44E+02	2.17E+02		
297402	6/18/2014 - 6/18/2014	WAXMYRTLE	I-131	<3.91E+01	0.00E+00	3.91E+01		
			Cs-134	<2.37E+01	0.00E+00	2.37E+01		
			Cs-137	<3.45E+01	0.00E+00	3.45E+01		
			Be-7	5.61E+02	1.69E+02	2.25E+02		
			K-40	2.75E+03	3.02E+02	3.11E+02		
297403	6/18/2014 - 6/18/2014	SASSAFRAS	I-131	<1.95E+01	0.00E+00	1.95E+01		
			Cs-134	<1.53E+01	0.00E+00	1.53E+01		
			Cs-137	3.90E+01	1.00E+01	1.59E+01		
			Be-7	4.62E+02	7.95E+01	1.21E+02		
			K-40	2.58E+03	1.85E+02	1.83E+02		
297404	6/18/2014 - 6/18/2014	WILDCHERRY	I-131	<3.47E+01	0.00E+00	3.47E+01		
			Cs-134	<2.33E+01	0.00E+00	2.33E+01		
			Cs-137	<2.06E+01	0.00E+00	2.06E+01		
			Be-7	5.23E+02	1.06E+02	1.72E+02		
			K-40	2.85E+03	2.87E+02	2.42E+02		
350828	7/17/2014 - 7/17/2014	WAXMYRTLE	Mn-54	<5.03E+01	0.00E+00	5.03E+01		
			Co-58	<3.59E+01	0.00E+00	3.59E+01		
			Fe-59	<7.15E+01	0.00E+00	7.15E+01		
			Co-60	<4.69E+01	0.00E+00	4.69E+01		
			Zn-65	<8.91E+01	0.00E+00	8.91E+01		
			Zr-95	<7.72E+01	0.00E+00	7.72E+01		
			Nb-95	<4.34E+01	0.00E+00	4.34E+01		
			I-131	<4.77E+01	0.00E+00	4.77E+01		
			Cs-134	<2.82E+01	0.00E+00	2.82E+01		
			Cs-137	<3.92E+01	0.00E+00	3.92E+01		
			BaLa-140	<1.45E+01	0.00E+00	1.45E+01		
			Be-7	6.16E+02	2.95E+02	4.18E+02		
			K-40	3.99E+03	8.00E+02	5.29E+02		
			350829	7/17/2014 - 7/17/2014	SASSAFRAS	Mn-54	<2.95E+01	0.00E+00
Co-58	<2.72E+01	0.00E+00				2.72E+01		
Fe-59	<5.45E+01	0.00E+00				5.45E+01		
Co-60	<3.50E+01	0.00E+00				3.50E+01		
Zn-65	<6.67E+01	0.00E+00				6.67E+01		
Zr-95	<5.64E+01	0.00E+00				5.64E+01		
Nb-95	<2.99E+01	0.00E+00				2.99E+01		
I-131	<4.16E+01	0.00E+00				4.16E+01		
Cs-134	<2.23E+01	0.00E+00				2.23E+01		
Cs-137	3.16E+01	3.31E+01				5.35E+01		
BaLa-140	<4.03E+01	0.00E+00				4.03E+01		
Be-7	9.81E+02	2.58E+02				2.77E+02		
K-40	4.17E+03	6.78E+02				5.46E+01		
350830	7/17/2014 - 7/17/2014	WILDCHERRY				Mn-54	<2.49E+01	0.00E+00
			Co-58	<2.40E+01	0.00E+00	2.40E+01		
			Fe-59	<5.69E+01	0.00E+00	5.69E+01		
			Co-60	<3.72E+01	0.00E+00	3.72E+01		
			Zn-65	<7.37E+01	0.00E+00	7.37E+01		
			Zr-95	<4.19E+01	0.00E+00	4.19E+01		
			Nb-95	<2.48E+01	0.00E+00	2.48E+01		
			I-131	<4.42E+01	0.00E+00	4.42E+01		
			Cs-134	<2.01E+01	0.00E+00	2.01E+01		
			Cs-137	<2.46E+01	0.00E+00	2.46E+01		
			BaLa-140	<5.33E+01	0.00E+00	5.33E+01		
			Be-7	<3.12E+02	0.00E+00	3.12E+02		

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: VEGETATION Concentration (Activity): pCi/kg wet

Sample Point 67 [ INDICATOR - S @ 0 miles ]

Sample ID:	Sample Dates:	Plant Name:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
350830	7/17/2014 - 7/17/2014	WILDCHERRY	K-40	4.37E+03	7.22E+02	4.41E+02
353768	8/13/2014 - 8/13/2014	CHERRY	Mn-54	<2.41E+01	0.00E+00	2.41E+01
			Co-58	<2.92E+01	0.00E+00	2.92E+01
			Fe-59	<5.95E+01	0.00E+00	5.95E+01
			Co-60	<3.49E+01	0.00E+00	3.49E+01
			Zn-65	<7.88E+01	0.00E+00	7.88E+01
			Zr-95	<4.93E+01	0.00E+00	4.93E+01
			Nb-95	<3.01E+01	0.00E+00	3.01E+01
			I-131	<2.86E+01	0.00E+00	2.86E+01
			Cs-134	<1.97E+01	0.00E+00	1.97E+01
			Cs-137	1.69E+01	2.14E+01	3.51E+01
			BaLa-140	<4.16E+01	0.00E+00	4.16E+01
			Be-7	<3.75E+02	0.00E+00	3.75E+02
			K-40	4.14E+03	6.70E+02	5.44E+01
353769	8/13/2014 - 8/13/2014	WAXMYRTLE	Mn-54	<2.88E+01	0.00E+00	2.88E+01
			Co-58	<2.93E+01	0.00E+00	2.93E+01
			Fe-59	<6.44E+01	0.00E+00	6.44E+01
			Co-60	<3.65E+01	0.00E+00	3.65E+01
			Zn-65	<8.77E+01	0.00E+00	8.77E+01
			Zr-95	<6.53E+01	0.00E+00	6.53E+01
			Nb-95	<3.91E+01	0.00E+00	3.91E+01
			I-131	<3.21E+01	0.00E+00	3.21E+01
			Cs-134	<2.35E+01	0.00E+00	2.35E+01
			Cs-137	<3.64E+01	0.00E+00	3.64E+01
			BaLa-140	<3.62E+01	0.00E+00	3.62E+01
			Be-7	2.55E+03	4.50E+02	3.03E+02
			K-40	2.89E+03	6.42E+02	8.33E+01
353770	8/13/2014 - 8/13/2014	SASSAFRAS	Mn-54	<1.99E+01	0.00E+00	1.99E+01
			Co-58	<1.85E+01	0.00E+00	1.85E+01
			Fe-59	<3.83E+01	0.00E+00	3.83E+01
			Co-60	<2.49E+01	0.00E+00	2.49E+01
			Zn-65	<4.37E+01	0.00E+00	4.37E+01
			Zr-95	<3.38E+01	0.00E+00	3.38E+01
			Nb-95	<2.28E+01	0.00E+00	2.28E+01
			I-131	<2.34E+01	0.00E+00	2.34E+01
			Cs-134	<1.69E+01	0.00E+00	1.69E+01
			Cs-137	4.10E+01	2.16E+01	3.01E+01
			BaLa-140	<2.45E+01	0.00E+00	2.45E+01
			Be-7	1.76E+03	4.59E+02	6.27E+02
			K-40	2.13E+03	4.62E+02	3.76E+02
356809	9/18/2014 - 9/18/2014	WAXMYRTLE	Mn-54	<2.38E+01	0.00E+00	2.38E+01
			Co-58	<2.53E+01	0.00E+00	2.53E+01
			Fe-59	<4.89E+01	0.00E+00	4.89E+01
			Co-60	<2.66E+01	0.00E+00	2.66E+01
			Zn-65	<4.08E+01	0.00E+00	4.08E+01
			Zr-95	<4.26E+01	0.00E+00	4.26E+01
			Nb-95	<2.30E+01	0.00E+00	2.30E+01
			I-131	<3.29E+01	0.00E+00	3.29E+01
			Cs-134	<2.48E+01	0.00E+00	2.48E+01
			Cs-137	<2.94E+01	0.00E+00	2.94E+01
			BaLa-140	<7.94E+00	0.00E+00	7.94E+00
			Be-7	8.95E+02	2.54E+02	3.06E+02
			K-40	2.83E+03	5.06E+02	4.82E+01
356810	9/18/2014 - 9/18/2014	WILDCHERRY	Mn-54	<3.12E+01	0.00E+00	3.12E+01
			Co-58	<2.99E+01	0.00E+00	2.99E+01
			Fe-59	<5.58E+01	0.00E+00	5.58E+01
			Co-60	<4.36E+01	0.00E+00	4.36E+01

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



**ROBINSON Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)**

Media Type: VEGETATION Concentration (Activity): pCi/kg wet

Sample Point 67 [ INDICATOR - S @ 0 miles ]

Sample ID:	Sample Dates:	WILDCHERRY	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD			
356810	9/18/2014 - 9/18/2014	WILDCHERRY	Zn-65	<7.92E+01	0.00E+00	7.92E+01			
			Zr-95	<4.61E+01	0.00E+00	4.61E+01			
			Nb-95	<2.67E+01	0.00E+00	2.67E+01			
			I-131	<3.70E+01	0.00E+00	3.70E+01			
			Cs-134	<3.14E+01	0.00E+00	3.14E+01			
			Cs-137	<3.18E+01	0.00E+00	3.18E+01			
			BaLa-140	<3.98E+01	0.00E+00	3.98E+01			
			Be-7	1.50E+03	4.45E+02	5.99E+02			
			K-40	1.94E+03	4.93E+02	4.00E+02			
			356811	9/18/2014 - 9/18/2014	SASSAFRAS	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
						Mn-54	<2.45E+01	0.00E+00	2.45E+01
Co-58	<2.52E+01	0.00E+00				2.52E+01			
Fe-59	<5.01E+01	0.00E+00				5.01E+01			
Co-60	<3.02E+01	0.00E+00				3.02E+01			
Zn-65	<6.40E+01	0.00E+00				6.40E+01			
Zr-95	<4.38E+01	0.00E+00				4.38E+01			
Nb-95	<2.98E+01	0.00E+00				2.98E+01			
I-131	<3.02E+01	0.00E+00				3.02E+01			
Cs-134	<2.88E+01	0.00E+00				2.88E+01			
Cs-137	2.06E+01	1.64E+01				2.47E+01			
BaLa-140	<4.13E+01	0.00E+00				4.13E+01			
Be-7	5.74E+02	2.52E+02				3.66E+02			
K-40	2.77E+03	5.37E+02				4.17E+02			

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



**APPENDIX F**

**ERRATA TO  
PREVIOUS REPORTS**

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# **APPENDIX F**

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## **ERRATA TO THE 2014 AREOR**

There are no errata to be appended to the 2014 RNP AREOR.

# **APPENDIX G**

## **Anomalous RNP REMP TLD Results for 4<sup>th</sup> Quarter 2014**

# RNP 4<sup>th</sup> Quarter 2014 TLD Results

Start Date: 21OCT2014

End Date: 16JAN2015

TLD Locations	Dose (mR/StdQtr)
1 (Control)	17.78
2	7.83
3	12.08
4	7.81
5	5.91
6	9.60
7	11.20
8	9.13
9	4.59
10	11.42
11	11.10
12	16.69
13	17.94
14	22.33
15	13.32
16	19.18
17	22.09
18	24.51
19	16.40
20	15.29
21	68.44
22	68.45
23	71.45
24	78.99
25	62.46
26	66.89
27	62.12
28	69.70
29	55.41
30	57.93
31	58.15
32	57.58
33	56.97
34	52.47
35	73.40
36	65.55
37	82.98
38	61.13
39	55.97
55	51.87
56	55.78
61	59.98
65	57.26

CR # 731352 or PIP # G-15-00261 was written due to elevated RNP 4<sup>th</sup> Quarter 2014 Environmental TLD dose readings for both control and indicator TLDs. The above readings are the actual results which are not included in Appendix E with the other 2014 RNP TLD Environmental results, since these results were deemed invalid. Additional information will be provided upon request.