

February 28, 2016

Attn: Document Control Desk
U.S. Nuclear Regulatory Commission
Mr. Drew Persinko, Deputy Director
Decommissioning & Uranium Recovery Licensing Directorate
Division of Waste Management & Environmental Protection
Office of Federal and State Materials &
Environmental Management Programs
11545 Rockville Pike
Rockville, MD 20852-2738

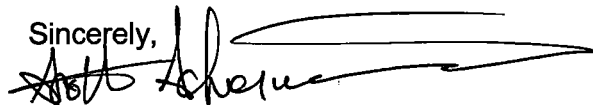
**Subject: License SUA-1314
Docket No. 040-08502
Willow Creek Project
Semi-Annual Effluent and
Environmental Monitoring Report**

Dear Mr. Persinko:

In accordance with 10 CFR 40.65 and per license conditions 12.1 and 12.3 of Source Materials License SUA-1341, please find enclosed the Semi-Annual Effluent and Environmental Monitoring Report for the period of July 1 through December 31, 2015. Additionally the annual land use survey report is included as a separate document

Please contact me should you have any questions regarding this report.

Sincerely,



Scott Schierman
RSO

cc: R.Kukura
G. Kruse

Willow Creek ISR Project
License Number SUA-1341
Docket No.040-08502

Semi-Annual Report

July 01, 2015 through December 31, 2015

Table of Contents

1.0 Introduction	1
2.0 Operational Monitoring.....	1
2.1 Activities Summary	1
2.2 Excursion Well Status.....	1
2.3 Groundwater Injected and Recovered	1
2.4 Injection Manifold Pressures.....	1
2.5 Summary of Mechanical Integrity Testing (MIT) Data	2
3.0 Restoration	2
3.1 Christensen Ranch.....	2
3.2 Irigaray	3
4.0 Environmental Monitoring	3
4.1 Regional Ranch Wells	3
4.2 Surface Water Monitoring.....	3
4.3 Summary of Spills	4
4.4 Soil Sampling	4
4.5 Vegetation Sampling	4
5.0 Air Monitoring.....	4
5.1 Dryer Stack Emissions.....	4
5.2 Environmental Airborne Radionuclides	5
5.3 Environmental Radon Monitoring.....	5
5.4 Environmental Gamma Radiation Monitoring.....	5
5.5 Effluent Released from Willow Creek Facilities	6
6.0 Public Dose	6
7.0 Safety and Environmental Review Panel.....	8
8.0 Other.....	8
8.1 ALARA REVIEW.....	8
8.2 Land Use Survey.....	8

Table of Appendices

Appendix A Tables

- Table 1 Groundwater Volumes Injected and Recovered
- Table 2 Injection Manifold Pressures
- Table 3 Regional Ranch Wells
- Table 4 Surface Water Monitoring
- Table 5 Soil Sampling
- Table 6 Environmental Radon Monitoring
- Table 7 Dryer Stack Emissions Testing Results
- Table 8 Environmental Airborne Radionuclides
- Table 9 Environmental Gamma Radiation Monitoring
- Table 10 Public Dose
- Table 11 Daily Walk Through Inspections
- Table 12 SERP Summary

Appendix B

Figure

- Willow Creek Controlled /Restricted Areas

Appendix C

- October 2015 SERP15-03 Figure Updates to 2008 License Renewal Application (LRA)

1.0 INTRODUCTION

In accordance with Sections 12.1 and 12.3 of the Nuclear Regulatory Commission (NRC) Source License No. SUA-1341, Uranium One USA, Inc. hereby submits the 2014 Semi-Annual Effluent and Monitoring Report. This document summarizes the required operational and environmental monitoring activities conducted at the Irigaray (IR) and Christensen Ranch (CR) projects from July 1, 2015 through December 31, 2015.

2.0 OPERATIONAL MONITORING

2.1 Activities Summary

The operational plan forward for 2015 involves the cessation of injection in the operating wellfields and sustaining a small recovery bleed sufficient to maintain a cone of depression towards the wellfields. During this downtime, wellfield maintenance work was conducted. Maintenance activities include the 5-year mechanical integrity testing (MIT) of well casings in Mine Unit 7 (as per regulatory requirements), replacement of flow meters and electronics where necessary in all wellfield module buildings. This work will prepare the wellfields for additional limited production in 2016.

2.2 Excursion Well Status

One well was on excursion status during the reporting period from July 1, 2015 to December 31, 2015. Written reports were sent to NRC and WDEQ on this issue and will not be duplicated in this report.

2.3 Groundwater Volumes Injected and Recovered

During this reporting period an overall wellfield bleed was maintained at 100%. A total of 0 gallons were injected and 14,749,748 gallons were recovered during this period. During the reporting period all mine units had a 100% bleed. The data is summarized by wellfield in Table 1 and is located in Appendix A of this report.

2.4 Injection Manifold Pressures

Injection manifold pressures at the CR project are limited to 140 psi during wellfield operations and 168 psi during maintenance tasks, as per License Condition 11.1. Injection manifold pressures are continuously logged by pressure chart recorders located in every wellfield module building. The data from these logs are summarized in Table 2 of Appendix A. There was no wellfield injection during the report period.

2.5 Summary of Mechanical Integrity Testing (MIT)

During the report period, Mechanical Integrity Tests (MIT's) were completed on a total of 186 wells. The MIT's were completed using the "Two Packer Pressurized Test Method" approved in Permit No. 478. The table of the MIT records is contained in Attachment A. Of the total of 186 MIT's that were performed, there were 31 failures.

The MIT's were completed in the following areas:

<u>Location</u>	<u>Number MIT's</u>	<u>Number Failures</u>
Mine Unit 6	1	1
Mine Unit 7	184	30
Mine Unit 8	1	0

Uranium One is accessing whether failed MIT wells in Mine Unit 6 and Mine Unit 7 will need to be abandoned or further maintenance work will allow the wells to pass MIT testing.

3.0 Restoration

3.1 Christensen Ranch:

All groundwater restoration activities, including stabilization monitoring, ended at Christensen Ranch Mine Units 2 through 6 on May 30, 2005. The results of all wellfield restoration were compiled into a report and submitted to the WDEQ and NRC on April 8, 2008. On October 23, 2012 in NRC's technical Evaluation Report (TER) listed their basis for denying restoration completeness. Uranium One submitted responses to the October 23, 2012 to NRC comments regarding Christensen Mine Unit 2-6 restoration.

3.2 Irigaray:

Irigaray groundwater restoration activities and stabilization monitoring were conducted from 1990 to 2002. The "Wellfield Restoration Report Irigaray Mine" was submitted to the WDEQ in July of 2004. The WDEQ-LQD approved restoration of Irigaray Mine Units 1-9 via correspondence dated November 1, 2005. After an independent review, Irigaray restoration approval was received from the NRC in correspondence dated September 20, 2006. The Final Decommissioning Report for Irigaray Mine Units 1-9 was submitted to the NRC on August 7, 2015.

4.0 ENVIRONMENTAL MONITORING

4.1 Regional Ranch Wells

Five stock watering and domestic water wells are located within two kilometers of Christensen Ranch mining area, and one is located near Irigaray. Routine quarterly groundwater samples were collected from these six regional ranch wells. The samples were analyzed for Uranium, Thorium-230, Radium-226, Lead-210 and Polonium-210 for both suspended and dissolved parameters. All parameters are in line with historical data presented in Table 5.23 of the SUA-1341 License Renewal Application. Sampling was consistent with the requirements of License Condition 11.3 and Section 5.8 of the License Renewal Application. This data is summarized in Table 3 of Appendix A.

4.2 Surface Water Monitoring

During the reporting period Surface Water samples were collected across the Willow Creek Project. Willow Creek is the only source of surface water present within and adjacent to the permit boundaries of both the IR and CR projects. Willow Creek is an ephemeral stream which was sampled on a quarterly basis. Three sample locations are designated at both project sites; upstream, downstream and within the permit boundary. The Powder River is also sampled annually at the Brubaker Ranch, which is approximately 4.5 miles downstream from its confluence with Willow Creek. Sample location IR-9 is located where Willow Creek meets up with the Powder River.

During the sampling period all surface water locations that are sampled quarterly were below the 10 CFR Appendix B Table 2 Effluent Concentrations.

The surface water sampling for the second half 2015 is summarized in Table 4 of Appendix A.

4.3 Summary of Spills

There was one reportable spill during the reporting period. Emails, written notifications, and summary reports were submitted to the NRC and WDEQ regarding these events and will not be duplicated in this report.

4.4 Soil Sampling

Annual soil sampling at the Willow Creek environmental locations occurred during the previous reporting period. The samples were taken from 5 locations at the Irigaray Project and 4 locations from the Christensen Project. Sampling locations coincide with air particulate stations and radon stations. The soil was analyzed for uranium, radium-226, lead-210, and thorium. Refer to the Semiannual Report for January 1, 2014 through June 30, 2014 for the analytical results.

4.5 Vegetation Sampling

Annual vegetation sampling at the Willow Creek environmental locations occurred during the previous reporting period of January 01, 2014 through June 30, 2014. However, the analytical results were not received until after the report was submitted, so therefore they will be submitted in this report and are shown in Table 5 of Appendix A. The samples were taken from 5 location at the Irigaray project and 4 locations at the Christensen Project. Uranium One. Comparing the vegetation results to historical averages as are presented in Table 5.15 of the SUA 1341 License Renewal Application no upward trends were noted and all samples were within natural variances of the historical averages.

5.0 AIR MONITORING

5.1 Dryer Stack Emissions

No semi-annual Dryer Stack Emission testing was performed during the report period. The dryer was not in operation.

Environmental Airborne Radionuclides

During dryer operations, continuous airborne radionuclide sampling is required at the five specified environmental air sampling locations at the IR project. The yellowcake dryer was not in operation during the third and fourth quarters of 2015. The stations used to monitor airborne radionuclides and are located as follows:

- IR-1 Downwind of Restricted Area
- IR-3 Upwind of Restricted Area
- IR-5 is located at Brubaker Ranch
- IR-6 is the background location
- IR-13 is the employee house trailer and is considered the maximally exposed individual.

Air Particulate samples are collected weekly and then composited quarterly for analysis by an outside laboratory.

Environmental Radon Monitoring

Radon gas is monitored continuously at the six environmental air locations surrounding the Irigaray Project, and five locations surrounding the Christensen Ranch Project. Passive outdoor radon detectors are exchanged quarterly and sent to Landauer for analysis. The data is shown in Table 8 of Appendix A. Data is given as raw data without subtracting the background location. Comparing the data to historical data presented in 5.11 and 5.12 of the SUA 1341 License Renewal Application the data is all below or within historical values.

5.2 Environmental Gamma Radiation Monitoring

Passive gamma radiation is monitored continuously at six environmental air locations surrounding the Irigaray Project and at five locations surrounding the Christensen Ranch Project. Dosimeters are exchanged and analyzed quarterly by the Landauer Dosimetry Services, a NVLP accredited company. A summary of the data is presented in Table 9 of Appendix A. The data seems to be consistent with values presented in Tables 5.19 and 5.20 of the SUA-1341 License Renewal Application.

5.3 Effluent Released from Willow Creek Activities

As part of the 10 CFR 40.65 effluent monitoring requirements the licensee must specify the quantity of each of the principle radionuclides released to unrestricted areas in liquid and in gaseous effluents during the previous six months. Additionally we are required under License Condition 11.3 to quantify the principal radionuclides from all point and diffuse sources. Under this license condition methods for estimating quantity of radionuclides emitted from a facility need to be verified by NRC before implementation. Once verification is achieved by the NRC these estimations will be made and reported under this section of the report.

6.0 PUBLIC DOSE

10 CFR 20.1301 requires that each NRC licensee conduct their operations in a manner that the total effective dose equivalent (TEDE) to members of the public does not exceed 100 mrem in a year, and that the dose from external sources in any unrestricted area does not exceed 2 mrem in any hour.

Additionally, 10 CFR 20.1302 requires licensees to show compliance to these dose limits by:

1. Demonstrating by measurement or calculation that the total effective dose equivalent to the individual likely to receive the highest dose from the licensed operation does not exceed the annual dose limit or
2. Demonstrate
 1. The annual average concentration of radioactive material released in gaseous and liquid effluent at the boundary of the unrestricted area do not exceed the values specified in table 2 of appendix B
 2. If an individual were continuously present in an unrestricted area, the dose from the external sources would not exceed 0.002 rem (0.02 mSv) in an hour and 0.05 rem (0.5 mSv) in a year.

Uranium One will demonstrate compliance to the public dose requirements by performing a dose assessment for the individual predicted to be the maximally exposed individual. Uranium One predicts that the highest exposed individual would be operators staying in the man camps off shift. Operators working at Uranium One typically work four shifts of 12 hours and on four shifts off. This equates to a conservative three nights per week spent in workforce housing. For the year this equates to a total of 1872 hours spent in workforce housing.

Dose to individuals at the workforce housing are monitored through the use of Radtrak track etch detectors, OSL environmental dosimeters, and airborne particulate sampling. The concentration is equated to dose using the following equation.

$$D = DCF \sum_i C_i F_i T_i$$

Where

- D = annual dose (mrem/yr);
- DCF = dose conversion factor
- C_i = annual average concentration at the receptor location i;
- F_i = equilibrium factors for receptor location i used for radon; and
- T_i = occupancy time factor (fraction of year) for receptor location i

Dose conversion factors are established by taking effluent concentration limits in 10 CFR 20 Appendix B, Table 2, and using the annual dose limit of 100mrem/yr. Taking the annual dose limit and dividing by the effluent concentration limit will provide the dose conversion factor. Dose conversion factors for radon will be calculated using the daughters present with the 100 % equilibrium.

External gamma radiation will be determined through the use of Landauer environmental dosimeters. A dosimeter will be placed at each maximally exposed individual location. Dose will be assigned to each receptor.

Dose for the workforce housing at Irigaray is summarized in Table 1 shown below.

Table 1 Public Dose

2015 Workforce Housing Irigaray					
	Annual Average Concentration	Annual Average Background Location	Annual Average Concentration with Background Subtracted	Dose Conversion Factor	Dose Assessment
Uranium	8E-15 $\mu\text{Ci} / \text{ml}$	5.6E-14 $\mu\text{Ci} / \text{ml}$	-4.8E-14 $\mu\text{Ci} / \text{ml}$	5.1E13 $\mu\text{Ci mrem} / \text{ml year}$	0
Th-230	N/D	5.6E-14 $\mu\text{Ci} / \text{ml}$	NA	3.3E15 $\mu\text{Ci mrem} / \text{ml year}$	0
Ra-226	3.5E-16 $\mu\text{Ci} / \text{ml}$	5.6E-14 $\mu\text{Ci} / \text{ml}$	-5.565E-14 $\mu\text{Ci} / \text{ml}$	1E14 $\mu\text{Ci mrem} / \text{ml year}$	0
Lead-210	1.5E-14 $\mu\text{Ci} / \text{ml}$	5.6E-14 $\mu\text{Ci} / \text{ml}$	-4.1E-14 $\mu\text{Ci} / \text{ml}$	2E14 $\mu\text{Ci mrem} / \text{ml year}$	0
Radon	7.8E-10 $\mu\text{Ci} / \text{ml}$	8.5E-10 $\mu\text{Ci} / \text{ml}$	1E-10 $\mu\text{Ci} / \text{ml}$	5E11 $\mu\text{Ci mrem} / \text{ml year}$	0
Accumulated External Dose			0.48 mrem		0.48
Total					0.48 mrem

Additionally doses are shown for individuals at the workforce housing at Christensen. The air particulate data was applied to these individuals as a worst case scenario since the Irigaray facility has the potential particulate emission source. The particulates generated at Christensen would be considerable less than what Irigaray would experience. The dose for Christensen is shown in Table 2.

Table 2 Public Dose

2015 Workforce Housing Christensen					
	Annual Average Concentration	Annual Average Background Location	Annual Average Concentration with Background Subtracted	Dose Conversion Factor	Dose Assessment
Uranium	8E-15 $\mu\text{Ci} / \text{ml}$	5.6E-14 $\mu\text{Ci} / \text{ml}$	-4.8E-14 $\mu\text{Ci} / \text{ml}$	5E13 $\mu\text{Ci mrem} / \text{ml year}$	0.02
Th-230	N/D	5.6E-14 $\mu\text{Ci} / \text{ml}$	NA	3E15 $\mu\text{Ci mrem} / \text{ml year}$	0
Ra-226	3.5E-16 $\mu\text{Ci} / \text{ml}$	5.6E-14 $\mu\text{Ci} / \text{ml}$	-5.565E-14 $\mu\text{Ci} / \text{ml}$	1E14 $\mu\text{Ci mrem} / \text{ml year}$	0
Lead-210	1.5E-14 $\mu\text{Ci} / \text{ml}$	5.6E-14 $\mu\text{Ci} / \text{ml}$	-4.1E-14 $\mu\text{Ci} / \text{ml}$	2E14 $\mu\text{Ci mrem} / \text{ml year}$	0
Radon	7E-10 $\mu\text{Ci} / \text{ml}$	6.3E-10 $\mu\text{Ci} / \text{ml}$	1E-10 $\mu\text{Ci} / \text{ml}$	5E11 $\mu\text{Ci mrem} / \text{ml year}$	8
Accumulated External Dose	0.7 mrem	0.7 mrem	0.7		0.7
Total					8.64

7.0 SAFETY AND ENVIRONMENTAL EVALUATIONS

Per License Condition 9.4E Uranium One shall furnish, in an annual report to the NRC, a description of such changes, tests, or experiments, including a summary of the evaluations made by the safety and environmental evaluation panel (SERP). Uranium One completed one SERP during the reporting period. A summary of the SERP conducted for the reporting period is found in Table 12 of Appendix A. Updated Figures 3.10 and 3.11 and page replacement directions resulting from the October 2015 SERP 15-03 are located in Appendix C

8.0 Other

8.1 ALARA REVIEW

As required by License condition 12.3 the licensee shall submit the results of the annual review of the radiation protection program content and implementation performed in accordance with 10CFR20.1101(c). ALARA audit was submitted with the January to June, 2015 semi-annual effluent.

8.2 Land Use Survey

The primary use of surrounding lands at both IR and CR project continues to be rural sheep and cattle ranching. Livestock actively graze these lands, but fencing prevents access to the evaporation ponds, plant sites, and wellfields.

The secondary use of surrounding lands continues to be petroleum production from wells dispersed throughout the region. The closest oil well at the CR project is located approximately one third of a mile west of the CR plant. The closest oil wells at the IR site are located approximately one half mile east of proposed MU 9 wellfield.

Over the past several years (2001-2015) some additional interest has developed in the immediate areas of the IR and CR projects in the development of coal bed methane (CBM) gas. Several CBM wells are located within a half mile of Uranium facilities.

The nearest residence to the IR site is 4 miles to the north (the Brubaker Ranch) and the nearest residence to CR is the John Christensen Ranch located 3 miles southeast of the CR plant site. Both are ranch housing with a population of six or less.

Land use surveys are conducted on an annual basis to verify the use of surrounding lands is consistent with previous assessments. These assessments are used in determining survey locations and which individuals may be potentially affected by Uranium One's activities.

There were two (2) stock wells permit numbers P204566 and P204594 installed during 2015 within two kilometers of the Willow Creek permit boundary. Both are located in T 44N R76W Sections 23 and 26. A copy of the land use survey is included in Appendix B Land Use survey. Additionally a map is provided that is updated annually that shows the oil and gas activities around the site.

8.3 Daily Walk Through Inspections

Daily walk through inspections are done at the Willow Creek central processing and satellite plant as per license condition 11.5 to determine that radiation control practices are being implemented appropriately. A summary of these inspections are in Appendix A Table 11.

During the second half of 2015 at the Irigaray central processing plant no personal were on site during the weekends or holidays during this time all door and gates were locked and secured.

APPENDIX A

Tables 1-12

Table 1**Page 1 of 2****Uranium One USA, Inc. - Willow Creek Project
2015 Semi-Annual Effluent and Monitoring Report, 2nd half
Groundwater Volumes Injected and Recovered**

MU 5-2 Monthly Totals				
Date	Production (gallons)	Injection (gallons)	Bleed (gallons)	% Bleed
July 2015	0	0	0	0.0 %
August 2015	0	0	0	0.0 %
September 2015	0	0	0	0.0 %
October 2015	0	0	0	0.0 %
November 2015	0	0	0	0.0 %
December 2015	0	0	0	0.0 %
Totals	0	0	0	0.0 %

MU 7 Monthly Totals				
Date	Production (gallons)	Injection (gallons)	Bleed (gallons)	% Bleed
July 2015	444,101	0	444,101	100.0 %
August 2015	789,537	0	789,537	100.0 %
September 2015	400,305	0	400,305	100.0 %
October 2015	435,431	0	435,431	100.0 %
November 2015	518,775	0	518,775	100.0 %
December 2015	391,262	0	391,262	100.0 %
Totals	2,979,411	0	2,979,411	100.0 %

MU 8 Monthly Totals				
Date	Production (gallons)	Injection (gallons)	Bleed (gallons)	% Bleed
July 2015	1,791,233	0	1,791,233	100.0 %
August 2015	494,139	0	494,139	100.0 %
September 2015	402,791	0	402,791	100.0 %
October 2015	623,859	0	623,859	100.0 %
November 2015	405,770	0	405,770	100.0 %
December 2015	184,823	0	184,823	100.0 %
Totals	3,902,615	0	3,902,615	100.0 %

Table 1**Page 2 of 2****Uranium One USA, Inc. - Willow Creek Project****2015 Semi-Annual Effluent and Monitoring Report, 2nd half****Groundwater Volumes Injected and Recovered**

MU 10A Monthly Totals				
Date	Production (gallons)	Injection (gallons)	Bleed (gallons)	% Bleed
July 2015	772,096	0	772,096	100.0 %
August 2015	777,124	0	777,124	100.0 %
September 2015	799,537	0	799,537	100.0 %
October 2015	825,762	0	825,762	100.0 %
November 2015	1,144,810	0	1,144,810	100.0 %
December 2015	1,232,704	0	1,232,704	100.0 %
Totals	5,552,033	0	5552033.0	100.0 %

MU 10B Monthly Totals				
Date	Production (gallons)	Injection (gallons)	Bleed (gallons)	% Bleed
July 2015	332,930	0	332,930	100.0 %
August 2015	689,216	0	689,216	100.0 %
September 2015	799,059	0	799,059	100.0 %
October 2015	194,197	0	194,197	100.0 %
November 2015	237,510	0	237,510	100.0 %
December 2015	62,777	0	62,777	100.0 %
Totals	2,315,689	0	2,315,689	100.0 %

Overall	14,749,748	0	14,749,748	100.0 %
----------------	-------------------	----------	-------------------	----------------

Table 2
Page 1 of 4
Uranium One USA, Inc. - Willow Creek Project
2015 Semi-Annual Effluent and Monitoring Report 2nd Half
Injection Manifold Pressures

Table 2 - Christensen Ranch Weekly Maximum Injection Pressures per Module Building

Mine Unit 7

Week Ending	Weekly Maximum injection Pressure (Maximum Permissible 140 psi)					
	Module 7-1	Module 7-2	Module 7-3	Module 7-4	Module 7-5	Module 7-6
7/5/2015	No Injection	No Injection	No Injection	No Injection	No Injection	No Injection
7/12/2015	No Injection	No Injection	No Injection	No Injection	No Injection	No Injection
7/19/2015	No Injection	No Injection	No Injection	No Injection	No Injection	No Injection
7/26/2015	No Injection	No Injection	No Injection	No Injection	No Injection	No Injection
8/2/2015	No Injection	No Injection	No Injection	No Injection	No Injection	No Injection
8/9/2015	No Injection	No Injection	No Injection	No Injection	No Injection	No Injection
8/16/2015	No Injection	No Injection	No Injection	No Injection	No Injection	No Injection
8/23/2015	No Injection	No Injection	No Injection	No Injection	No Injection	No Injection
8/30/2015	No Injection	No Injection	No Injection	No Injection	No Injection	No Injection
9/6/2015	No Injection	No Injection	No Injection	No Injection	No Injection	No Injection
9/13/2015	No Injection	No Injection	No Injection	No Injection	No Injection	No Injection
9/20/2015	No Injection	No Injection	No Injection	No Injection	No Injection	No Injection
9/27/2015	No Injection	No Injection	No Injection	No Injection	No Injection	No Injection
10/4/2015	No Injection	No Injection	No Injection	No Injection	No Injection	No Injection
10/11/2015	No Injection	No Injection	No Injection	No Injection	No Injection	No Injection
10/18/2015	No Injection	No Injection	No Injection	No Injection	No Injection	No Injection
10/25/2015	No Injection	No Injection	No Injection	No Injection	No Injection	No Injection
11/1/2015	No Injection	No Injection	No Injection	No Injection	No Injection	No Injection
11/8/2015	No Injection	No Injection	No Injection	No Injection	No Injection	No Injection
11/15/2015	No Injection	No Injection	No Injection	No Injection	No Injection	No Injection
11/22/2015	No Injection	No Injection	No Injection	No Injection	No Injection	No Injection
11/29/2015	No Injection	No Injection	No Injection	No Injection	No Injection	No Injection
12/6/2015	No Injection	No Injection	No Injection	No Injection	No Injection	No Injection
12/13/2015	No Injection	No Injection	No Injection	No Injection	No Injection	No Injection
12/20/2015	No Injection	No Injection	No Injection	No Injection	No Injection	No Injection
12/27/2015	No Injection	No Injection	No Injection	No Injection	No Injection	No Injection

Table 2 - Christensen Ranch Weekly Maximum Injection Pressures per Module Building

Mine Unit 8						
Week Ending	Weekly Maximum injection Pressure (Maximum Permissible 140 psi)					
	Module 8-1	Module 8-2	Module 8-3	Module 8-4/5	Module 8-6	Module 8-7
7/5/2015	No Injection	No Injection	No Injection	No Injection	No Injection	No Injection
7/12/2015	No Injection	No Injection	No Injection	No Injection	No Injection	No Injection
7/19/2015	No Injection	No Injection	No Injection	No Injection	No Injection	No Injection
7/26/2015	No Injection	No Injection	No Injection	No Injection	No Injection	No Injection
8/2/2015	No Injection	No Injection	No Injection	No Injection	No Injection	No Injection
8/9/2015	No Injection	No Injection	No Injection	No Injection	No Injection	No Injection
8/16/2015	No Injection	No Injection	No Injection	No Injection	No Injection	No Injection
8/23/2015	No Injection	No Injection	No Injection	No Injection	No Injection	No Injection
8/30/2015	No Injection	No Injection	No Injection	No Injection	No Injection	No Injection
9/6/2015	No Injection	No Injection	No Injection	No Injection	No Injection	No Injection
9/13/2015	No Injection	No Injection	No Injection	No Injection	No Injection	No Injection
9/20/2015	No Injection	No Injection	No Injection	No Injection	No Injection	No Injection
9/27/2015	No Injection	No Injection	No Injection	No Injection	No Injection	No Injection
10/4/2015	No Injection	No Injection	No Injection	No Injection	No Injection	No Injection
10/11/2015	No Injection	No Injection	No Injection	No Injection	No Injection	No Injection
10/18/2015	No Injection	No Injection	No Injection	No Injection	No Injection	No Injection
10/25/2015	No Injection	No Injection	No Injection	No Injection	No Injection	No Injection
11/1/2015	No Injection	No Injection	No Injection	No Injection	No Injection	No Injection
11/8/2015	No Injection	No Injection	No Injection	No Injection	No Injection	No Injection
11/15/2015	No Injection	No Injection	No Injection	No Injection	No Injection	No Injection
11/22/2015	No Injection	No Injection	No Injection	No Injection	No Injection	No Injection
11/29/2015	No Injection	No Injection	No Injection	No Injection	No Injection	No Injection
12/6/2015	No Injection	No Injection	No Injection	No Injection	No Injection	No Injection
12/13/2015	No Injection	No Injection	No Injection	No Injection	No Injection	No Injection
12/20/2015	No Injection	No Injection	No Injection	No Injection	No Injection	No Injection
12/27/2015	No Injection	No Injection	No Injection	No Injection	No Injection	No Injection

Table 2
Page 3 of 4
Uranium One USA, Inc. - Willow Creek Project
2015 Semi-Annual Effluent and Monitoring Report 2nd Half
Injection Manifold Pressures

Table 2 - Christensen Ranch Weekly Maximum Injection Pressures per Module Building

Mine Unit 8 (Cont.) and Mine Unit 5-2

Week Ending	Weekly Maximum injection Pressure (Maximum Permissible 140 psi)					
	Module 8-8	Module 8-9		Module 5-2		
7/5/2015	No Injection	No Injection		No Injection		
7/12/2015	No Injection	No Injection		No Injection		
7/19/2015	No Injection	No Injection		No Injection		
7/26/2015	No Injection	No Injection		No Injection		
8/2/2015	No Injection	No Injection		No Injection		
8/9/2015	No Injection	No Injection		No Injection		
8/16/2015	No Injection	No Injection		No Injection		
8/23/2015	No Injection	No Injection		No Injection		
8/30/2015	No Injection	No Injection		No Injection		
9/6/2015	No Injection	No Injection		No Injection		
9/13/2015	No Injection	No Injection		No Injection		
9/20/2015	No Injection	No Injection		No Injection		
9/27/2015	No Injection	No Injection		No Injection		
10/4/2015	No Injection	No Injection		No Injection		
10/11/2015	No Injection	No Injection		No Injection		
10/18/2015	No Injection	No Injection		No Injection		
10/25/2015	No Injection	No Injection		No Injection		
11/1/2015	No Injection	No Injection		No Injection		
11/8/2015	No Injection	No Injection		No Injection		
11/15/2015	No Injection	No Injection		No Injection		
11/22/2015	No Injection	No Injection		No Injection		
11/29/2015	No Injection	No Injection		No Injection		
12/6/2015	No Injection	No Injection		No Injection		
12/13/2015	No Injection	No Injection		No Injection		
12/20/2015	No Injection	No Injection		No Injection		
12/27/2015	No Injection	No Injection		No Injection		

Table 2
Page 4 of 4
Uranium One USA, Inc. - Willow Creek Project
2015 Semi-Annual Effluent and Monitoring Report 2nd Half
Injection Manifold Pressures

Table 2 - Christensen Ranch Weekly Maximum Injection Pressures per Module Building

Mine Unit 10

Week Ending	Weekly Maximum injection Pressure (Maximum Permissible 140 psi)					
	Module 10-1	Module 10-2	Module 10-3	Module 10-4	Module 10-5	Module 10-6
7/5/2015	No Injection	No Injection	No Injection	No Injection	No Injection	No Injection
7/12/2015	No Injection	No Injection	No Injection	No Injection	No Injection	No Injection
7/19/2015	No Injection	No Injection	No Injection	No Injection	No Injection	No Injection
7/26/2015	No Injection	No Injection	No Injection	No Injection	No Injection	No Injection
8/2/2015	No Injection	No Injection	No Injection	No Injection	No Injection	No Injection
8/9/2015	No Injection	No Injection	No Injection	No Injection	No Injection	No Injection
8/16/2015	No Injection	No Injection	No Injection	No Injection	No Injection	No Injection
8/23/2015	No Injection	No Injection	No Injection	No Injection	No Injection	No Injection
8/30/2015	No Injection	No Injection	No Injection	No Injection	No Injection	No Injection
9/6/2015	No Injection	No Injection	No Injection	No Injection	No Injection	No Injection
9/13/2015	No Injection	No Injection	No Injection	No Injection	No Injection	No Injection
9/20/2015	No Injection	No Injection	No Injection	No Injection	No Injection	No Injection
9/27/2015	No Injection	No Injection	No Injection	No Injection	No Injection	No Injection
10/4/2015	No Injection	No Injection	No Injection	No Injection	No Injection	No Injection
10/11/2015	No Injection	No Injection	No Injection	No Injection	No Injection	No Injection
10/18/2015	No Injection	No Injection	No Injection	No Injection	No Injection	No Injection
10/25/2015	No Injection	No Injection	No Injection	No Injection	No Injection	No Injection
11/1/2015	No Injection	No Injection	No Injection	No Injection	No Injection	No Injection
11/8/2015	No Injection	No Injection	No Injection	No Injection	No Injection	No Injection
11/15/2015	No Injection	No Injection	No Injection	No Injection	No Injection	No Injection
11/22/2015	No Injection	No Injection	No Injection	No Injection	No Injection	No Injection
11/29/2015	No Injection	No Injection	No Injection	No Injection	No Injection	No Injection
12/6/2015	No Injection	No Injection	No Injection	No Injection	No Injection	No Injection
12/13/2015	No Injection	No Injection	No Injection	No Injection	No Injection	No Injection
12/20/2015	No Injection	No Injection	No Injection	No Injection	No Injection	No Injection
12/27/2015	No Injection	No Injection	No Injection	No Injection	No Injection	No Injection

Table 3
Page 1 of 2
Uranium One USA, Inc. - Willow Creek Project
2015 Semi-Annual Effluent and Monitoring Report, 2nd Half
Regional Ranch Wells

Sample Location	Christensen Ranch House #3					
Radionuclide	3rd quarter ($\mu\text{Ci}/\text{ml}$)	Uncertainty ($\pm\mu\text{Ci}/\text{ml}$)	% of EFF Conc*	4th quarter ($\mu\text{Ci}/\text{ml}$)	Uncertainty ($\pm\mu\text{Ci}/\text{ml}$)	% of EFF Conc*
Uranium (Dissolved)	8.2E-09	NA	2.7	N/D	NA	NA
Uranium (Suspended)	N/D	NA	NA	ND	NA	NA
Thorium-230 (Dissolved)	N/D	NA	NA	ND	NA	NA
Thorium-230 (Suspended)	N/D	NA	NA	ND	NA	NA
Radium-226 (Dissolved)	9.0E-10	NA	0.9	N/D	N/A	NA
Radium-226 (Suspended)	N/A	NA	NA	ND	NA	NA
Lead-210 (Dissolved)	1.1E-09	3.0E-10	11.0	ND	NA	NA
Lead-210 (Suspended)	N/D	NA	NA	5.2E-09	2.6E-09	52.0
Polonium-210 (Dissolved)	N/D	NA	NA	ND	NA	NA
Polonium-210 (Suspended)	N/D	NA	NA	N/D	N/A	NA

Sample Location	Christensen Ranch Ellendale #4					
Radionuclide	3rd quarter ($\mu\text{Ci}/\text{ml}$)	Uncertainty ($\pm\mu\text{Ci}/\text{ml}$)	% of EFF Conc*	4th quarter ($\mu\text{Ci}/\text{ml}$)	Uncertainty ($\pm\mu\text{Ci}/\text{ml}$)	% of EFF Conc*
Uranium (Dissolved)	9.0E-10	NA	0.3	6.0E-10	NA	0.2
Uranium (Suspended)	ND	NA	NA	N/D	NA	NA
Thorium-230 (Dissolved)	ND	NA	NA	N/D	NA	NA
Thorium-230 (Suspended)	ND	NA	NA	N/D	NA	NA
Radium-226 (Dissolved)	3.0E-10	1.0E-10	0.3	2.0E-10	1.0E+10	0.2
Radium-226 (Suspended)	ND	NA	NA	N/D	NA	NA
Lead-210 (Dissolved)	ND	NA	NA	N/D	NA	NA
Lead-210 (Suspended)	ND	NA	NA	N/D	NA	NA
Polonium-210 (Dissolved)	ND	NA	NA	N/D	NA	NA
Polonium-210 (Suspended)	ND	NA	NA	N/D	NA	NA

Sample Location	Christensen Ranch First Artesian #1					
Radionuclide	3rd quarter ($\mu\text{Ci}/\text{ml}$)	Uncertainty ($\pm\mu\text{Ci}/\text{ml}$)	% of EFF Conc*	4th quarter ($\mu\text{Ci}/\text{ml}$)	Uncertainty ($\pm\mu\text{Ci}/\text{ml}$)	% of EFF Conc*
Uranium (Dissolved)	6.0E-10	NA	0.2	ND	NA	NA
Uranium (Suspended)	ND	NA	NA	ND	NA	NA
Thorium-230 (Dissolved)	ND	NA	NA	ND	NA	NA
Thorium-230 (Suspended)	ND	NA	NA	ND	NA	NA
Radium-226 (Dissolved)	N/D	N/A	NA	N/D	N/A	NA
Radium-226 (Suspended)	ND	NA	NA	ND	NA	NA
Lead-210 (Dissolved)	N/D	NA	NA	ND	NA	NA
Lead-210 (Suspended)	ND	NA	NA	ND	NA	NA
Polonium-210 (Dissolved)	ND	NA	NA	ND	NA	NA
Polonium-210 (Suspended)	ND	NA	NA	ND	NA	NA

Sample Location	Christensen Ranch Corral #32					
Radionuclide	3rd quarter ($\mu\text{Ci}/\text{ml}$)	Uncertainty ($\pm\mu\text{Ci}/\text{ml}$)	% of EFF Conc*	4th quarter ($\mu\text{Ci}/\text{ml}$)	Uncertainty ($\pm\mu\text{Ci}/\text{ml}$)	% of EFF Conc*
Uranium (Dissolved)	5.0E-10	NA	0.2	Pump Down	NA	NA
Uranium (Suspended)	ND	NA	NA	Pump Down	NA	NA
Thorium-230 (Dissolved)	ND	NA	NA	Pump Down	NA	NA
Thorium-230 (Suspended)	ND	NA	NA	Pump Down	NA	NA
Radium-226 (Dissolved)	2.0E-10	1.0E-10	0.2	Pump Down	N/A	NA
Radium-226 (Suspended)	ND	NA	NA	Pump Down	NA	NA
Lead-210 (Dissolved)	ND	NA	NA	Pump Down	NA	NA
Lead-210 (Suspended)	ND	NA	NA	Pump Down	NA	NA
Polonium-210 (Dissolved)	ND	NA	NA	Pump Down	NA	NA
Polonium-210 (Suspended)	ND	NA	NA	Pump Down	NA	NA

Table 3

Page 2 of 2

Uranium One USA, Inc. - Willow Creek Project
 2015 Semi-Annual Effluent and Monitoring Report, 2nd Half
 Regional Ranch Wells

Sample Location	Christensen Ranch Middle Artesian					
Radionuclide	3rd quarter ($\mu\text{Ci/ml}$)	Uncertainty ($\pm\mu\text{Ci/ml}$)	% of EFF Conc*	4th quarter ($\mu\text{Ci/ml}$)	Uncertainty ($\pm\mu\text{Ci/ml}$)	% of EFF Conc*
Uranium (Dissolved)	9.5E-09	NA	3.2	1.3E-08	NA	4.4
Uranium (Suspended)	N/D	NA	NA	3.4E-09	NA	1.1
Thorium-230 (Dissolved)	ND	NA	NA	N/D	N/A	NA
Thorium-230 (Suspended)	ND	NA	NA	ND	NA	NA
Radium-226 (Dissolved)	N/D	N/A	NA	3.0E-10	1.0E-10	0.3
Radium-226 (Suspended)	ND	NA	NA	5.0E-10	1.0E-10	0.5
Lead-210 (Dissolved)	1.2E-09	4.0E-10	12.0	ND	N/A	NA
Lead-210 (Suspended)	N/D	N/A	NA	1.5E-08	1.0E-09	151.0
Polonium-210 (Dissolved)	ND	NA	NA	ND	NA	NA
Polonium-210 (Suspended)	N/D	N/A	NA	2.3E-09	7.0E-10	0.8

Sample Location	Christensen Ranch Dell Gulch # 13					
Radionuclide	3rd quarter ($\mu\text{Ci/ml}$)	Uncertainty ($\pm\mu\text{Ci/ml}$)	% of EFF Conc*	4th quarter ($\mu\text{Ci/ml}$)	Uncertainty ($\pm\mu\text{Ci/ml}$)	% of EFF Conc*
Uranium (Dissolved)	9.0E-10	NA	0.3	ND	NA	NA
Uranium (Suspended)	ND	NA	NA	ND	NA	NA
Thorium-230 (Dissolved)	ND	NA	NA	ND	NA	NA
Thorium-230 (Suspended)	ND	NA	NA	ND	NA	NA
Radium-226 (Dissolved)	3.0E-10	1.0E-10	0.3	2.0E-10	1.0E-10	0.2
Radium-226 (Suspended)	ND	NA	NA	2.0E-10	1.0E-10	0.2
Lead-210 (Dissolved)	1.0E-09	5.0E-10	10.0	ND	NA	NA
Lead-210 (Suspended)	1.7E-09	5.0E-10	17.0	ND	N/A	NA
Polonium-210 (Dissolved)	ND	NA	NA	ND	NA	NA
Polonium-210 (Suspended)	1.2E-09	4.0E-10	0.4	ND	NA	NA

Sample Location	Irigaray Willow #2					
Radionuclide	3rd quarter ($\mu\text{Ci/ml}$)	Uncertainty ($\pm\mu\text{Ci/ml}$)	% of EFF Conc*	4th quarter ($\mu\text{Ci/ml}$)	Uncertainty ($\pm\mu\text{Ci/ml}$)	% of EFF Conc*
Uranium (Dissolved)	5.0E-10	NA	0.2	ND	NA	NA
Uranium (Suspended)	ND	NA	NA	ND	NA	NA
Thorium-230 (Dissolved)	ND	NA	NA	ND	NA	NA
Thorium-230 (Suspended)	ND	NA	NA	ND	NA	NA
Radium-226 (Dissolved)	ND	NA	NA	ND	NA	NA
Radium-226 (Suspended)	2.0E-10	1.0E-10	0.2	ND	NA	NA
Lead-210 (Dissolved)	ND	NA	NA	ND	NA	NA
Lead-210 (Suspended)	3.3E-09	6.0E-10	33.0	ND	N/A	NA
Polonium-210 (Dissolved)	ND	NA	NA	ND	NA	NA
Polonium-210 (Suspended)	4.8E-09	9.0E-10	1.6	ND	NA	NA

LLD's

Uranium 2.0E-10 $\mu\text{Ci/ml}$
 Thorium-230 2.0E-10 $\mu\text{Ci/ml}$
 Radium-226 2.0E-10 $\mu\text{Ci/ml}$
 Lead-210 1.0E-9 $\mu\text{Ci/ml}$
 Polonium-210 1.0E-9 $\mu\text{Ci/ml}$

ND = NON DETECTABLE

NA= NOT APPLICABLE

*10 CFR 20 Appendix B Table 2 values

Uranium 3.0E-7 $\mu\text{Ci/ml}$
 Thorium-230 6.0E-8 $\mu\text{Ci/ml}$
 Radium-226 1.0E-7 $\mu\text{Ci/ml}$
 Lead-210 1.0E-8 $\mu\text{Ci/ml}$
 Polonium-210 4.0E-8 $\mu\text{Ci/ml}$

Sample Location		Irigaray-9				
Radionuclide	3rd quarter ($\mu\text{Ci}/\text{ml}$)	Uncertainty ($\pm\mu\text{Ci}/\text{ml}$)	% of EFF Conc*	4th quarter ($\mu\text{Ci}/\text{ml}$)	Uncertainty ($\pm\mu\text{Ci}/\text{ml}$)	% of EFF Conc*
Uranium (Dissolved)	1.7E-08	NA	5.5	9.7E-09	NA	3.2
Uranium (Suspended)	ND	NA	NA	3.0E-10	NA	0.1
Thorium-230 (Dissolved)	ND	NA	NA	ND	NA	NA
Thorium-230 (Suspended)	ND	NA	NA	ND	NA	NA
Radium-226 (Dissolved)	N/A	NA	NA	N/D	N/A	NA
Radium-226 (Suspended)	ND	NA	NA	3.0E-10	1.0E-10	5.0
Lead-210 (Dissolved)	ND	NA	NA	ND	N/A	NA
Lead-210 (Suspended)	1.5E-09	5.0E-10	15.0	ND	N/A	NA
Polonium-210 (Dissolved)	ND	NA	NA	ND	NA	NA
Polonium-210 (Suspended)	ND	NA	NA	ND	ND	NA

Sample Location		Irigaray-17				
Radionuclide	3rd quarter ($\mu\text{Ci}/\text{ml}$)	Uncertainty ($\pm\mu\text{Ci}/\text{ml}$)	% of EFF Conc*	4th quarter ($\mu\text{Ci}/\text{ml}$)	Uncertainty ($\pm\mu\text{Ci}/\text{ml}$)	% of EFF Conc*
Uranium (Dissolved)	1.3E-08	NA	4.5	1.9E-08	NA	6.2
Uranium (Suspended)	ND	NA	NA	N/D	NA	NA
Thorium-230 (Dissolved)	ND	NA	NA	ND	NA	NA
Thorium-230 (Suspended)	ND	NA	NA	N/D	N/A	NA
Radium-226 (Dissolved)	ND	NA	NA	N/D	N/A	NA
Radium-226 (Suspended)	ND	NA	NA	N/D	N/A	NA
Lead-210 (Dissolved)	ND	NA	NA	ND	NA	NA
Lead-210 (Suspended)	1.4E-09	4.0E-10	14.0	ND	NA	NA
Polonium-210 (Dissolved)	ND	NA	NA	ND	NA	NA
Polonium-210 (Suspended)	ND	NA	NA	ND	NA	NA

Sample Location		Christensen Ranch GS-03				
Radionuclide	3rd quarter ($\mu\text{Ci}/\text{ml}$)	Uncertainty ($\pm\mu\text{Ci}/\text{ml}$)	% of EFF Conc*	4th quarter ($\mu\text{Ci}/\text{ml}$)	Uncertainty ($\pm\mu\text{Ci}/\text{ml}$)	% of EFF Conc*
Uranium (Dissolved)	2.0E-08	NA	6.6	2.0E-08	NA	6.6
Uranium (Suspended)	ND	NA	NA	ND	NA	NA
Thorium-230 (Dissolved)	ND	NA	NA	ND	NA	NA
Thorium-230 (Suspended)	ND	NA	NA	ND	NA	NA
Radium-226 (Dissolved)	3.0E-10	1.0E-10	0.3	3.0E-10	1.0E-10	0.3
Radium-226 (Suspended)	N/D	N/A	NA	ND	NA	NA
Lead-210 (Dissolved)	1.5E-09	4.0E-10	15.0	3.2E-09	7.0E-10	32.0
Lead-210 (Suspended)	1.5E-09	4.0E-10	15.0	1.9E-09	7.0E-10	19.0
Polonium-210 (Dissolved)	ND	NA	NA	ND	NA	NA
Polonium-210 (Suspended)	ND	NA	NA	ND	NA	NA

Sample Location		Powder River				
Radionuclide	3rd quarter ($\mu\text{Ci}/\text{ml}$)	Uncertainty ($\pm\mu\text{Ci}/\text{ml}$)	% of EFF Conc*	4th quarter ($\mu\text{Ci}/\text{ml}$)	Uncertainty ($\pm\mu\text{Ci}/\text{ml}$)	% of EFF Conc*
Uranium (Dissolved)	ANNUAL	NA	NA	ANNUAL	NA	NA
Uranium (Suspended)	ANNUAL	NA	NA	ANNUAL	NA	NA
Thorium-230 (Dissolved)	ANNUAL	NA	NA	ANNUAL	NA	NA
Thorium-230 (Suspended)	ANNUAL	NA	NA	ANNUAL	NA	NA
Radium-226 (Dissolved)	ANNUAL	NA	NA	ANNUAL	NA	NA
Radium-226 (Suspended)	ANNUAL	N/A	NA	ANNUAL	NA	NA
Lead-210 (Dissolved)	ANNUAL	NA	NA	ANNUAL	NA	NA
Lead-210 (Suspended)	ANNUAL	NA	NA	ANNUAL	NA	NA
Polonium-210 (Dissolved)	ANNUAL	NA	NA	ANNUAL	NA	NA
Polonium-210 (Suspended)	ANNUAL	NA	NA	ANNUAL	NA	NA

Sample Location		Irigaray-14				
Radionuclide	3rd quarter ($\mu\text{Ci}/\text{ml}$)	Uncertainty ($\pm\mu\text{Ci}/\text{ml}$)	% of EFF Conc*	4th quarter ($\mu\text{Ci}/\text{ml}$)	Uncertainty ($\pm\mu\text{Ci}/\text{ml}$)	% of EFF Conc*
Uranium (Dissolved)	2.8E-08	NA	9.3	2.5E-09	NA	0.8
Uranium (Suspended)	N/D	NA	NA	ND	NA	NA
Thorium-230 (Dissolved)	ND	NA	NA	ND	NA	NA
Thorium-230 (Suspended)	ND	NA	NA	ND	NA	NA
Radium-226 (Dissolved)	3.0E-10	1.0E-10	0.3	2.0E-10	1.0E-10	0.2
Radium-226 (Suspended)	N/D	N/A	NA	ND	NA	NA
Lead-210 (Dissolved)	ND	NA	NA	ND	NA	NA
Lead-210 (Suspended)	ND	N/A	NA	ND	N/A	NA
Polonium-210 (Dissolved)	ND	NA	NA	ND	NA	NA
Polonium-210 (Suspended)	ND	NA	NA	ND	NA	NA

Sample Location		Christensen Ranch GS-01				
Radionuclide	3rd quarter ($\mu\text{Ci}/\text{ml}$)	Uncertainty ($\pm\mu\text{Ci}/\text{ml}$)	% of EFF Conc*	4th quarter ($\mu\text{Ci}/\text{ml}$)	Uncertainty ($\pm\mu\text{Ci}/\text{ml}$)	% of EFF Conc*
Uranium (Dissolved)	DRY	NA	NA	DRY	NA	NA
Uranium (Suspended)	DRY	NA	NA	DRY	NA	NA
Thorium-230 (Dissolved)	DRY	NA	NA	DRY	NA	NA
Thorium-230 (Suspended)	DRY	NA	NA	DRY	NA	NA
Radium-226 (Dissolved)	DRY	NA	NA	DRY	N/A	NA
Radium-226 (Suspended)	DRY	NA	NA	DRY	NA	NA
Lead-210 (Dissolved)	DRY	NA	NA	DRY	NA	NA
Lead-210 (Suspended)	DRY	NA	NA	DRY	NA	NA
Polonium-210 (Dissolved)	DRY	NA	NA	DRY	NA	NA
Polonium-210 (Suspended)	DRY	NA	NA	DRY	NA	NA

Sample Location		Christensen Ranch CG-05				
Radionuclide	3rd quarter ($\mu\text{Ci}/\text{ml}$)	Uncertainty ($\pm\mu\text{Ci}/\text{ml}$)	% of EFF Conc*	4th quarter ($\mu\text{Ci}/\text{ml}$)	Uncertainty ($\pm\mu\text{Ci}/\text{ml}$)	% of EFF Conc*
Uranium (Dissolved)	6.5E-09	NA	2.2	2.3E-08	NA	7.5
Uranium (Suspended)	1.3E-09	NA	NA	ND	NA	NA
Thorium-230 (Dissolved)	ND	NA	NA	ND	NA	NA
Thorium-230 (Suspended)	ND	NA	NA	3.0E-10	1.0E-10	5.0
Radium-226 (Dissolved)	N/D	N/A	NA	ND	NA	NA
Radium-226 (Suspended)	ND	NA	NA	ND	NA	NA
Lead-210 (Dissolved)	ND	NA	NA	3.8E-09	7.0E-10	38.0
Lead-210 (Suspended)	1.1E-08	8.0E-10	106.0	ND	NA	NA
Polonium-210 (Dissolved)	ND	NA	NA	ND	NA	NA
Polonium-210 (Suspended)	2.7E-09	8.0E-10	0.9	ND	NA	NA

*10 CFR 20 Appendix B Table 2 values

Uranium	3.0E-7 $\mu\text{Ci}/\text{ml}$	Lead-210	1.0E-8 $\mu\text{Ci}/\text{ml}$	ND = NON DETECTABLE
Thorium-230	6.0E-8 $\mu\text{Ci}/\text{ml}$	Polonium-210	4.0E-8 $\mu\text{Ci}/\text{ml}$	NA= NOT APPLICABLE
Radium-226	1.0E-7 $\mu\text{Ci}/\text{ml}$			

LLD's

Uranium	2.0E-10 $\mu\text{Ci}/\text{ml}$	Lead-210	1.0E-9 $\mu\text{Ci}/\text{ml}$
Thorium-230	2.0E-10 $\mu\text{Ci}/\text{ml}$	Polonium-210	1.0E-9 $\mu\text{Ci}/\text{ml}$
Radium-226	2.0E-10 $\mu\text{Ci}/\text{ml}$		

Table 5

Page 1 of 1

Uranium One USA, Inc. - Willow Creek Project

2015 Semi-Annual Effluent and Monitoring Report, 2nd half

Soil Sampling

Location	Uranium * μCi / gram	Th-230 μCi / gram	Ra-226 μCi / gram	Pb-210 μCi / gram
IRIGARAY PROJECT				
IR-1 (Downwind of Restricted Area)	9.60E-09	8.00E-10	2.50E-09	1.70E-09
IR-3 (Upwind of Restricted Area)	2.29E-08	5.00E-10	1.50E-09	1.80E-09
IR-4 (North Road - Background)	6.10E-09	8.00E-10	3.70E-09	3.70E-09
IR-5 (Irigaray Ranch - nearest resident)	7.00E-10	4.00E-10	1.00E-09	6.50E-09
IR-6 (Ridge Road S.E.)	1.30E-09	2.00E-10	8.00E-10	1.00E-09
IR-13 (Employee house trailer)	<i>(This sample was missed during the sampling event)</i>			
CHRISTENSEN PROJECT				
AS-1 (Table Mountain - Background))	9.00E-10	8.00E-10	1.10E-09	2.50E-09
AS-5A (CR Plant Upwind S.E.)	1.30E-09	6.00E-10	1.50E-09	2.10E-09
AS-5B (CR Plant Downwind N.W.)	1.20E-09	6.00E-10	1.00E-09	1.70E-09
AS-6 (Christensen Ranch-Nearest Resident)	9.00E-10	5.00E-10	2.00E-10	1.40E-09
AS-7 (Christensen Employee house trailer)	<i>(This sample was missed during the sampling event)</i>			

Analyses performed by Inter-Mountain Labs (IML), Sheridan, Wyoming

* The activity for uranium is a mathematical calculation based on a chemical analysis, therefore, no precision estimate (error) is given.

The Inter-Mountain Lab reporting limit (RL) is listed below are based on the weight of the samples.

RL's ($\mu\text{Ci} / \text{Kg}$): Uranium = 2.00E-10

Th-230 = 2.00E-10

Ra-226 = 2.00E-10

Pb-210 = 1.00E-9

Table 5A

Page 1 of 1

Uranium One USA, Inc. - Willow Creek Project

2015 Semi-Annual Effluent and Monitoring Report, 2nd half

Vegetation Sampling

Location	Uranium * $\mu\text{Ci} / \text{kg}$	Th-230 $\mu\text{Ci} / \text{kg}$	Uncertainty $\pm \mu\text{Ci} / \text{kg}$	Ra-226 $\mu\text{Ci} / \text{kg}$	Uncertainty $\pm \mu\text{Ci} / \text{kg}$	Pb-210 $\mu\text{Ci} / \text{kg}$	Uncertainty $\pm \mu\text{Ci} / \text{kg}$
IRIGARAY PROJECT							
IR-1 (Downwind of Restricted Area)	Resampled	1.8E-05	1.4E-05	1.5E-04	8.9E-06	1.1E-04	4.2E-05
IR-3 (Upwind of Restricted Area)	Resampled	9.0E-05	1.3E-05	4.2E-05	1.1E-05	2.4E-04	6.9E-06
IR-4 (North Road - Background)	8.7E-05	1.7E-05	1.5E-05	8.7E-06	4.6E-06	8.7E-05	4.6E-05
IR-5 (Irigaray Ranch - nearest resident)	9.4E-06	7.2E-06	8.2E-06	7.7E-06	5.5E-06	1.1E-04	6.1E-05
IR-6 (Ridge Road S.E.)	1.2E-05	1.4E-05	1.0E-05	9.1E-06	5.1E-06	1.4E-04	4.8E-05
CHRISTENSEN PROJECT							
AS-1 (Table Mountain - Background))	8.6E-05	1.7E-06	3.3E-06	7.6E-06	4.7E-06	2.2E-04	6.1E-05
AS-5A (CR Plant Upwind S.E.)	5.7E-06	5.2E-06	6.0E-06	1.2E-05	5.1E-06	8.3E-05	4.0E-05
AS-5B (CR Plant Downwind N.W.)	3.4E-06	3.3E-06	6.5E-06	8.9E-06	4.3E-06	9.0E-05	4.0E-05
AS-6 (Christensen Ranch-Nearest Resident)	1.1E-05	1.9E-05	1.2E-05	1.8E-05	7.1E-06	2.2E-04	6.6E-05

Analyses performed by Inter-Mountain Labs (IML), Sheridan, Wyoming

* The activity for uranium is a mathematical calculation based on a chemical analysis, therefore, no precision estimate (error) is given.

The Inter-Mountain Lab LLD's are listed below and are based on the weight of the samples.

LLD's Uranium = 2.0E-07
 Th-230 = 2.0E-07
 Ra-226 = 5.0E-08
 Pb-210 = 1.0E-06

Table 6
Page 1 of 1
Uranium One USA, Inc. - Willow Creek Project
2015 Semi-Annual Effluent and Monitoring Report, 2nd half
Environmental Radon Monitoring

Location	3RD Quarter μCi/ml (2015)	Uncertainty ± μCi/ml	4TH Quarter μCi/ml 2015	Uncertainty ± μCi/ml	Location Average 2015	10CFR APP B Table 2
IRIGARAY PROJECT						
IR-1 (Downwind of Restricted Area)	1.00E-09	6.00E-11	1.00E-09	7.00E-11	1.00E-09	1.00E-10
IR-3 (Upwind of Restricted Area)**	8.00E-10	5.00E-11	1.20E-09	8.00E-11	1.00E-09	1.00E-10
IR-4 (North Road)	1.00E-09	6.00E-11	9.00E-10	7.00E-11	9.50E-10	1.00E-10
IR-5 (Irigaray Ranch)	6.00E-10	4.00E-11	5.00E-10	5.00E-11	5.50E-10	1.00E-10
IR-6 (Rigdge Road - S.E. - Background)	7.00E-10	6.00E-11	1.40E-09	9.00E-11	1.05E-09	1.00E-10
IR-13 (IR Employee House Trailer)	7.00E-10	5.00E-11	4.00E-10	4.00E-11	5.50E-10	1.00E-10
(IR-13 / nearest residence)						
CHRISTENSEN PROJECT						
AS-1 (Table Mountain - Background)	7.00E-10	5.00E-11	6.00E-10	5.00E-11	6.50E-10	1.00E-10
AS-5A (CR Plant Upwind S.E.)	8.00E-10	5.00E-11	4.00E-10	4.00E-11	6.00E-10	1.00E-10
AS-5B (CR Plant Downwind N.W)	6.00E-10	4.00E-11	6.00E-10	5.00E-11	6.00E-10	1.00E-10
AS-6 (Christensen Ranch)	8.00E-10	5.00E-11	7.00E-10	5.00E-11	7.50E-10	1.00E-10
AS-7 (CR Employee House Trailer)*	5.00E-10	4.00E-11	5.00E-10	5.00E-11	5.00E-10	1.00E-10
(AS-7 / nearest residence)						

LLD = 0.06 pCi/l

SUMMARY OF STACK EMISSIONS SURVEY RESULTS
Irigaray Dryer and Packaging Circuit

Time	Total Particulates lbs/hour (% limit)	U3O8 Emissions lbs	Unat. Released Ci	Unat. Uncertainty Ci	Th-230 Released Ci	Th-230 Uncertainty Ci	Ra-226 Released Ci	Ra-226 Uncertainty Ci	Pb-210 Released Ci	Pb-210 Uncertainty Ci
*Jan-March, 2015	0.030 (~10%)	7.56	2.39E-03	NA	4.80E-05	6.57E-06	1.01E-05	3.72E-06	3.39E-04	5.61E-05
**March-June 2015	0.036 (~12%)	5.94	1.83E-03	NA	5.10E-06	1.39E-06	1.89E-06	7.57E-07	1.50E-04	1.90E-05
Total		13.5	4.22E-03		5.31E-05		1.20E-05		4.89E-04	
	Permit Limit 0.30									

COMMENTS: Surveys occurred January 14, 2015 and April 21, 2015. The dryer was in operation for an approximate 2899 hours from January 01, 2015 through June 6, 2015. This is updated from the original amount estimated in the previous report. The total hours of operations were used to calculate the quantity of material released.

8.31E-4 Ci/month 9.17E-6 Ci/month 2.11E-6 Ci/m 9.06E-5 Ci/m

* Honeymoon Processed materials
** Willow Creek Processed Materials

Table 7
Page 2 of 3
Uranium One USA, Inc. - Willow Creek Project
2015 Semi-Annual Effluent and Monitoring Report
Dryer Stack Emissions Testing Results

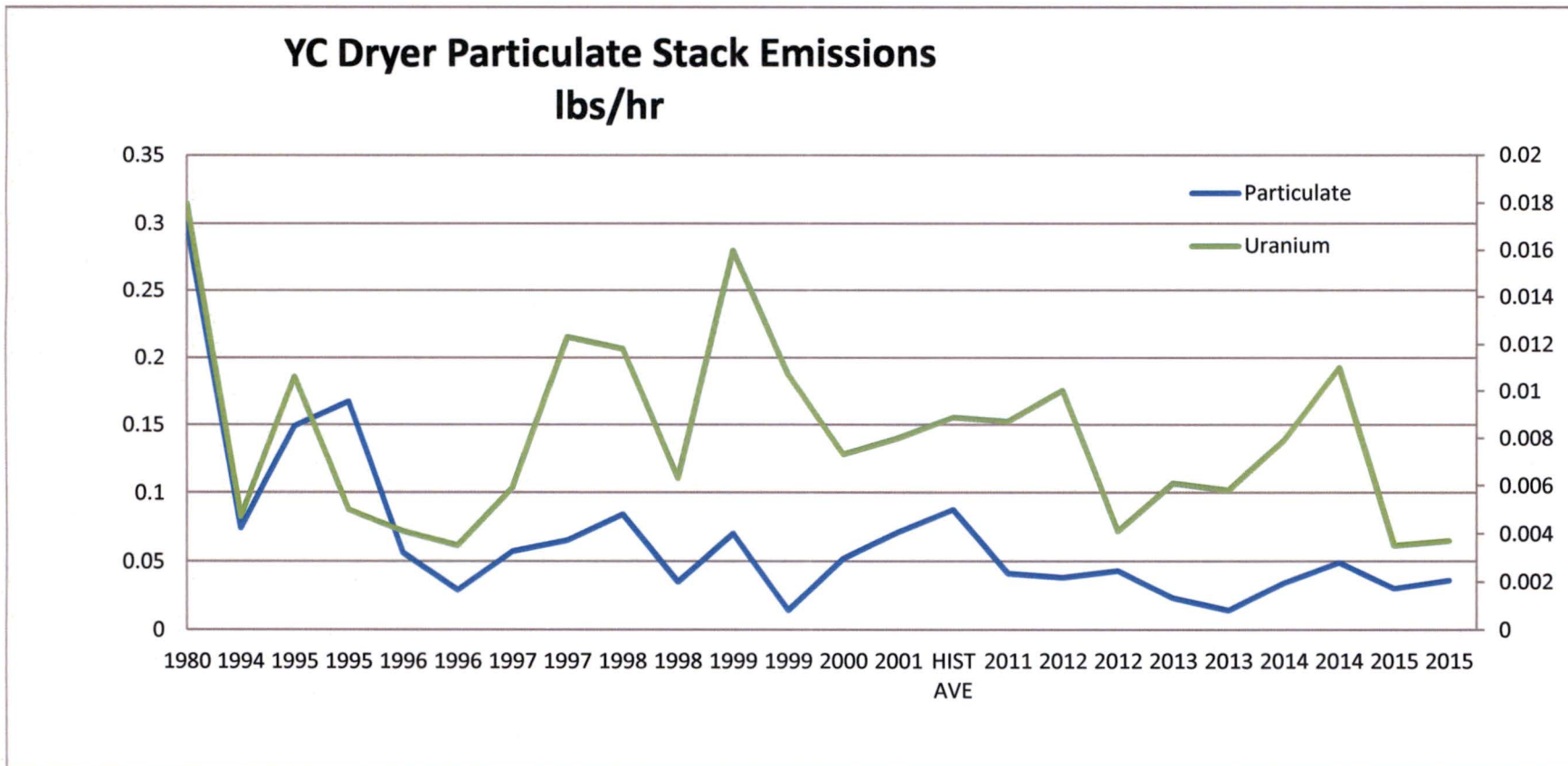


Table 7
Page 3 of 3
Uranium One USA, Inc. - Willow Creek Project
2015 Semi-Annual Effluent and Monitoring Report
Dryer Stack Emissions Testing Results

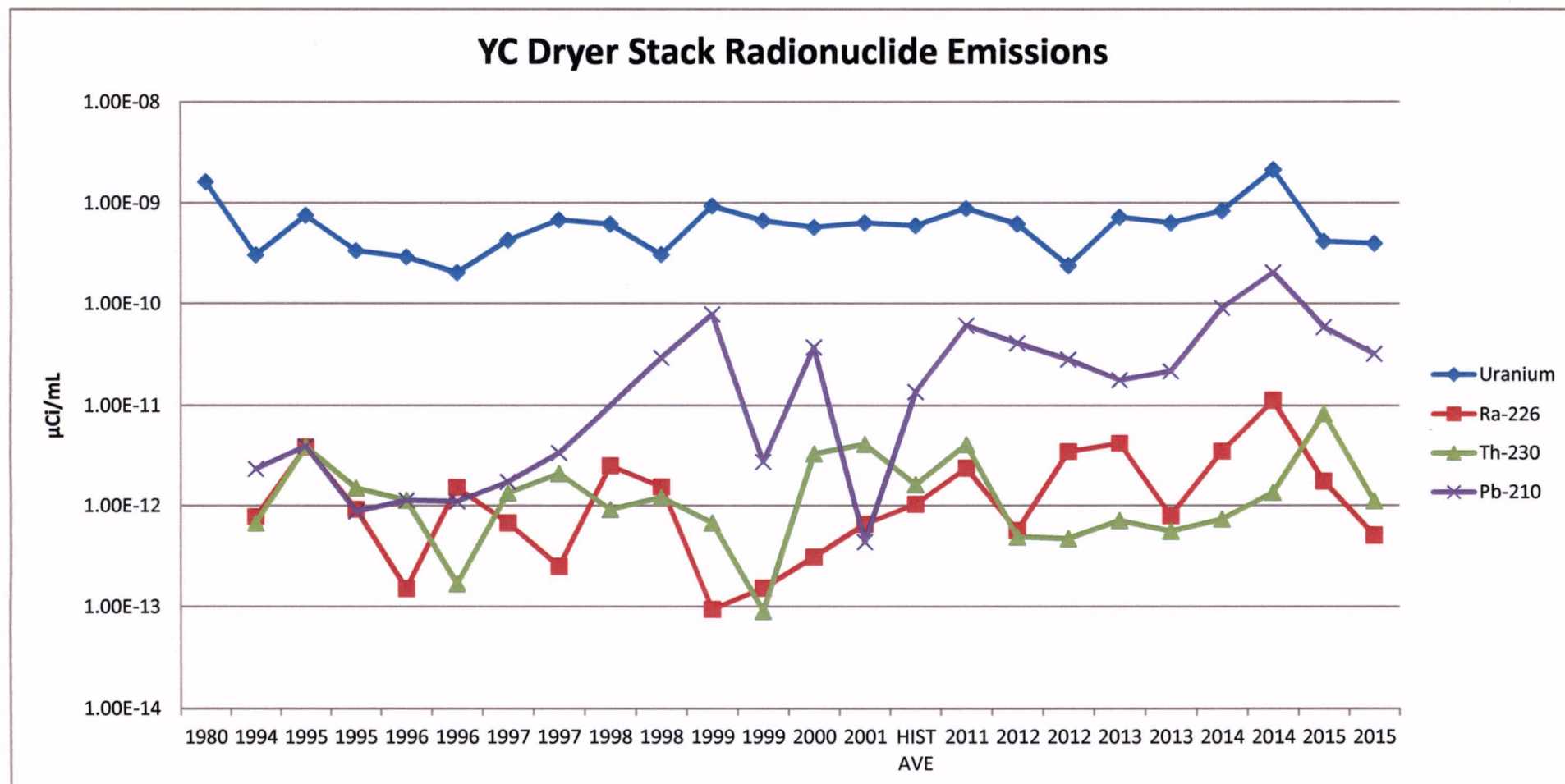


Table 8
Page 1 of 1
Uranium One USA, Inc. - Willow Creek Project
2015 Semi-Annual Effluent and Monitoring Report
Environmental Airborne Radionuclides

1st Quarter 2015 Data				
	Uranium $\mu\text{Ci/ml}$	Th-230 $\mu\text{Ci/ml}$	Ra-226 $\mu\text{Ci/ml}$	Pb-210 $\mu\text{Ci/ml}$
IR-1 Downwind	1.7E-14	2.8E-16	5.7E-16	1.5E-14
Uncertainty	NA	1.0E-16	7.8E-17	1.4E-15
%of Pt, App. B Effluent Limit	0.9%	0.9%	0.1%	2.5%
IR-3 Upwind	3.8E-14	2.6E-16	8.6E-16	1.7E-14
Uncertainty	NA	7.8E-17	1.0E-16	1.5E-15
%of Pt, App. B Effluent Limit	1.9%	0.9%	0.1%	2.8%
IR-5 Brubaker Ranch	2.4E-15	2.5E-16	5.0E-16	1.3E-14
Uncertainty	NA	8.2E-17	8.2E-17	1.5E-15
%of Pt, App. B Effluent Limit	0.1%	0.8%	0.1%	2.2%
IR-6 Background	5.1E-15	2.5E-16	5.3E-16	1.6E-14
Uncertainty	NA	9.0E-17	9.0E-17	1.5E-15
%of Pt, App. B Effluent Limit	0.3%	0.8%	0.1%	2.7%
IR-13 Employee House Trailer	5.2E-15	2.8E-16	4.4E-16	1.5E-14
Uncertainty	NA	1.0E-16	7.8E-17	1.5E-15
%of Pt, App. B Effluent Limit	0.3%	0.9%	0.0%	2.5%

2nd Quarter 2015 Data				
	Uranium $\mu\text{Ci/ml}$	Th-230 $\mu\text{Ci/ml}$	Ra-226 $\mu\text{Ci/ml}$	Pb-210 $\mu\text{Ci/ml}$
IR-1 Downwind	2.1E-14	1.1E-16	1.3E-16	1.4E-14
Uncertainty	NA	5.5E-17	5.5E-17	1.4E-15
%of Pt, App. B Effluent Limit	1.1%	0.4%	0.0%	2.3%
IR-3 Upwind	6.6E-14	ND	ND	1.4E-14
Uncertainty	NA	NA	NA	1.3E-15
%of Pt, App. B Effluent Limit	3.4%	NA	NA	2.3%
IR-5 Brubaker Ranch	1.7E-15	ND	ND	8.1E-15
Uncertainty	NA	NA	NA	1.1E-15
%of Pt, App. B Effluent Limit	0.1%	NA	NA	1.4%
IR-6 Background	1.7E-14	ND	ND	2.7E-15
Uncertainty	NA	NA	NA	8.4E-16
%of Pt, App. B Effluent Limit	0.9%	NA	NA	0.5%
IR-13 Employee House Trailer	6.1E-15	ND	1.1E-16	9.1E-15
Uncertainty	NA	NA	2.8E-17	1.1E-15
%of Pt, App. B Effluent Limit	0.3%	NA	0.0%	1.5%

2015 Summary (Averages)				
	U ($\mu\text{Ci/ml}$)	Th-230 ($\mu\text{Ci/ml}$)	Ra-226 ($\mu\text{Ci/ml}$)	Pb-210 ($\mu\text{Ci/ml}$)
IR-1	1.9E-14	2.0E-16	3.5E-16	1.5E-14
IR-3	9.3E-14	2.6E-16	8.6E-16	1.6E-14
IR-5	2.1E-15	2.5E-16	5.0E-16	1.1E-14
IR-6	1.1E-14	2.3E-16	5.3E-16	9.4E-15
IR-13	5.7E-15	2.8E-16	2.8E-16	1.2E-14

10 CFR Pt. 20, App. B, Effluent Limits ($\mu\text{Ci/ml}$)
 Uranium = $1.95\text{E-}12$ (50%D & 50%W)
 Th-230 = $3.0\text{E-}14$ (Y)
 Ra-226 = $9.0\text{E-}13$ (W)
 Pb-210 = $6.0\text{E-}13$ (D)

Lab LLD's
 Uranium = $1.0\text{E-}16$
 Th-230 = $1.0\text{E-}16$ N/D = Non Detectable
 Ra-226 = $1.0\text{E-}16$
 Pb-210 = $2.0\text{E-}15$

Table 9
Page 1 of 1
Uranium One USA, Inc. - Willow Creek Project
2015 Semi-Annual Effluent and Monitoring Report, 2nd half
Environmental Gamma Radiation Monitoring

Location	3rd Quarter 2015 mrem/quarter	4th Quarter 2015 mrem/quarter	Location Average 2015 mrem/quarter	Year to Date Total 2015 mrem/quarter
IRIGARAY PROJECT				
Control	39.1	25.3	NA	NA
IR-1 (Downwind of Restricted Area)	11.5	5.8	8.7	17.3
IR-3 (Upwind of Restricted Area)	21.5	8.9	15.2	30.4
IR-4 (North Road)	13.5	2.1	7.8	15.6
IR-5 (Irigaray Ranch)	1.8	0.2	1.0	2.0
IR-6 (Ridge Road S.E. - Background)	10.2	3.8	7.0	14.0
IR-13 (I.R. Employee House Trailer) (nearest residence)	9.5	2.5	6.0	12.0
Quarterly Average	11.3	3.9	7.6	7.6
CHRISTENSEN PROJECT				
AS-1 (Table Mountain - Background)	9.9	3.2	6.6	13.1
AS-5A(CR Plant Upwind S.E.)	10.3	3.8	7.1	14.1
AS-5B (CR Plant Downwind N.W.)	9.6	2.1	5.9	11.7
AS-6 (Christensen Ranch)	11.3	5.3	8.3	16.6
AS-7 (C.R. Employee House Trailer) (nearest residence)	1.8	-0.7	0.6	1.1
Quarterly Average	8.6	2.7	5.7	5.7

Table 10

Page 1 of 4

Uranium One USA, Inc. - Willow Creek Project

2015 Semi-Annual Effluent and Monitoring Report

Public Dose - Radon

IR-13 Irigaray Man Camp Site					AS-7 Christensen Man Camp Site				
QTR./YEAR	Man Camp Radon uCi/mL	Bkg uCi/mL	Net uCi/mL	Annual Dose Mrem	QTR./YEAR	Man Camp Radon uCi/mL	Bkg. uCi/mL	Net uCi/mL	Annual Dose Mrem
1st Qtr.	6.0E-10	9.0E-10	0.0E+00		1st Qtr.	4.0E-10	5.0E-10	0.0E+00	
2nd Qtr.	4.0E-10	4.0E-10	0.0E+00		2nd Qtr.	1.4E-09	7.0E-10	7.0E-10	
3rd Qtr.	7.0E-10	7.0E-10	0.0E+00		3rd Qtr.	5.0E-10	7.0E-10	0.0E+00	
4th Qtr.	1.4E-09	1.4E-09	0.0E+00		4th Qtr.	5.0E-10	6.0E-10	0.0E+00	
Yearly. Ave.	7.8E-10	8.5E-10	0.0E+00	0	Yearly. Ave.	7.0E-10	6.3E-10	7.5E-11	8
2015 TOTAL				0.00	2015 TOTAL				7.87

Background for Christensen Site is AS-1 (Table Mountain)

(Rn-222 dtrs present = 1 E-10 µCi/ml = 50 mr/yr)

Background for Irigaray is IR-6 (Ridge Road SE)

Dose assignment was based on 36 hours per week of offshift time spent in mancamp over a 13 week period per quarter. [36 hrs. X 13 weeks = 468 hours/quarter] [1872 hours/year]

Dose assessment concentrations in 10 CFR 20, Appendix B, Table 2 Effluent Concentrations are equivant to a 50 mrem dose if inhaled or injected continuously over a period of 1 year

Therefore the following equation to determine potential dose at the mancamp is applicable

$$24 \text{ hr/d} \times 7 \text{ d/wk} = 168 \text{ hr/wk}$$

$$168 \text{ hr/wk} \times 52 \text{ wk/yr} = 8736 \text{ hrs/yr}$$

$$1872 \text{ hrs/yr at the mancamp in 2013 } 1872 \text{ hr/yr} / 8736 \text{ hrs/yr} = 0.2143 \times 100 = \mathbf{21.43\% \text{ of time spent as time receiving a Public Dose}}$$

Table 10

Page 2 of 4

Uranium One USA, Inc. - Willow Creek Project
 2015 Semi-Annual Effluent and Monitoring Report
 Public Dose - Gamma

IR-13 Irigaray Man Camp Site					AS-7 Christensen Man Camp Site				
QTR./YEAR	Man Camp mR	Bkg mR	NET mR	ANNUAL DOSE Mrem	QTR./YEAR	Man Camp mR	Bkg mR	NET mR	ANNUAL DOSE Mrem
1st Qtr./2015	2.3	0.3	2.0	0.5	1st Qtr./2015	-1.4	8.5	0.0	0.0
2nd Qtr./2015	3.8	4.9	0.0	0.0	2nd Qtr./2015	-0.8	4.1	0.0	0.0
3rd Qtr./2015	9.5	10.2	0.0	0.0	3rd Qtr./2015	1.8	9.9	0.0	0.0
4th Qtr./201	2.5	3.8	0.0	0.0	4th Qtr./2015	3.2	0	3.2	0.7
2015 TOTAL				0.5	2013 TOTAL				0.7

Background for Christensen site is AS-1 (Table Mountain) ,Background for the Irigaray site is IR-6 (Ridge Road)

Dose assignment was based on 36 hours per week spent in mancamp over a 13 week period per quarter. [36 hrs. X 13 weeks = 468 hours/quarter] [1872 hours/year]

N/D = Non-Detectable (less than background)

Table 10
Page 3 of 4
Uranium One USA, Inc. - Willow Creek Project
2015 Semi-Annual Effluent and Monitoring Report
Public Dose - Airborne Radionuclide

2015 IRIGARAY MAN CAMP PUBLIC ENVIRONMENTAL AIRBORNE RADIONUCLIDE DOSE ASSIGNMENT

1st Quarter 2015		IR-13 Irigaray Site			2nd Quarter 2015		IR-13 Irigaray Site		
Sample Period	Radionuclide	Air Conc. uCi/mL	Bkg uCi/mL	Net uCi/mL	Sample Period	Radionuclide	Air Conc. uCi/mL	Bkg uCi/mL	Net uCi/mL
1/2/15 through 4/1/15	Unat	5.2E-15	5.1E-15	1.0E-16	4/1/15 thru 6/30/15	Unat	6.0E-15	1.7E-14	-1.1E-14
1/2/15 through 4/1/15	Th-230	2.8E-16	2.5E-16	3.0E-17	4/1/15 thru 6/30/15	Th-230	N/D	N/D	0.0E+00
1/2/15 through 4/1/15	Ra-226	4.4E-16	5.3E-16	-9.0E-17	4/1/15 thru 6/30/15	Ra-226	1.1E-16	N/D	0.0E+00
1/2/15 through 4/1/15	Pb-210	1.5E-14	1.6E-14	-1.0E-15	4/1/15 thru 6/30/15	Pb-210	9.1E-15	2.7E-15	6.4E-15

3rd Quarter 2015		IR-13 Irigaray Site			4th Quarter 2015		IR-13 Irigaray Site		
Sample Period	Radionuclide	Air Conc. uCi/mL	Bkg uCi/mL	Net uCi/mL	Sample Period	Radionuclide	Air Conc. uCi/mL	Bkg uCi/mL	Net uCi/mL
Dryer off	Unat				Dryer off	Unat			
Dryer off	Th-230				Dryer off	Th-230			
Dryer off	Ra-226				Dryer off	Ra-226			
Dryer off	Pb-210				Dryer off	Pb-210			

2015			
Conc uCi/ml	10 CFR Effluent Limit	% Effluent Conc.	DOSE Mrem
-2.7E-15	2.0E-12	-0.14	-0.03
7.5E-18	3.0E-14	0.00	0.00
-2.3E-17	9.0E-13	-0.003	0.00
1.4E-15	6.0E-13	0.23	0.06
2015 TOTAL			0.02

There is no environmental airborne radionuclide sampling performed at the Christensen Satellite Facility as only release is radon.

Dose in the above table is shown as 100% of time as Public Dose exposure. Being used to demonstrate compliance with 40 CFR 190 limit of 10 mrem excluding radon.

When in actuality time spent at man camp as member of Public is as follows:
Dose assignment was based on 36 hours per week of offshift time spent in mancamp over a 13 week period per quarter. [36 hrs. X 13 weeks = 468 hours/quarter] [1872 hours/year]

Dryer Operations were performed during the 1st and 2nd Quarters in 2015.

Table 10
Page 4 of 4
Uranium One USA, Inc. - Willow Creek Project
2015 Semi-Annual Effluent and Monitoring Report
Public Dose - Airborne Radionuclide

2015 PUBLIC DOSE SUMMARY

Irigaray Site				
YEAR	Radon	Gamma	Airborne Uranium	Annual Public Dose Mrem
2015	0.0	0.5	0.02	0.48

Christensen Satellite Site				
YEAR	Radon	Gamma	Airborne Uranium*	Annual Public Dose Mrem
2015	7.9	0.7	0.02	8.64

* There is no environmental airborne radionuclide sampling performed at the Christensen Satellite Facility, utilized data from Irigaray Site to be a conservative estimate.

Table 11
Uranium One USA, Inc. - Willow Creek Project
2015 Semi-Annual Effluent and Monitoring Report, 2nd Half
Daily Walk-Through Inspections

Irigaray Site				Christensen Site			
Date: Week	YES	NO	COMMENTS	Date: Week	YES	NO	COMMENTS
1/4/2015	X			1/4/2015	X		
1/11/2015	X			1/11/2015	X		
1/18/2015	X			1/18/2015	X		
1/25/2015	X			1/25/2015	X		
2/1/2015	X			2/1/2015	X		
2/8/2015	X			2/8/2015	X		
2/15/2015	X			2/15/2015	X		
2/22/2015	X			2/22/2015	X		
3/1/2015	X			3/1/2015	X		
3/8/2015	X			3/8/2015	X		
3/15/2015	X			3/15/2015	X		
3/22/2015	X			3/22/2015	X		
3/29/2015	X			3/29/2015	X		
4/5/2015	X			4/5/2015	X		
4/12/2015	X			4/12/2015	X		
4/19/2015	X			4/19/2015	X		
4/26/2015	X			4/26/2015	X		
5/3/2015	X			5/3/2015	X		
5/10/2015	X			5/10/2015	X		
5/17/2015	X			5/17/2015	X		
5/24/2015	X			5/24/2015	X		
5/31/2015	X			5/31/2015	X		
6/7/2015	X			6/7/2015	X		
6/14/2015	X			6/14/2015	X		
6/21/2015	X			6/21/2015	X		
6/28/2015	X			6/28/2015	X		
7/5/2015	X			7/5/2015	X		
7/12/2015	X			7/12/2015	X		
7/19/2015	X			7/19/2015	X		
7/26/2015	X			7/26/2015	X		

Table 11
Uranium One USA, Inc. - Willow Creek Project
2015 Semi-Annual Effluent and Monitoring Report, 2nd Half
Daily Walk-Through Inspections

Irigaray Site				Christensen Site			
Date: Week	YES	NO	COMMENTS	Date: Week	YES	NO	COMMENTS
8/2/2015	X			8/2/2015	X		
8/9/2015	X			8/9/2015	X		
8/16/2015	X			8/16/2015	X		
8/23/2015	X			8/23/2015	X		
8/30/2015	X			8/30/2015	X		
9/6/2015	X			9/6/2015	X		
9/13/2015	X			9/13/2015	X		
9/20/2015	X			9/20/2015	X		
9/27/2015	X			9/27/2015	X		
10/4/2015	X			10/4/2015	X		
10/11/2015	X			10/11/2015	X		
10/18/2015	X			10/18/2015	X		
10/25/2015	X			10/25/2015	X		
11/1/2015	X			11/1/2015	X		
11/8/2015	X			11/8/2015	X		
11/15/2015	X			11/15/2015	X		
11/22/2015	X			11/22/2015	X		
11/29/2015	X			11/29/2015	X		
12/6/2015	X			12/6/2015	X		
12/13/2015	X			12/13/2015	X		
12/20/2015	X			12/20/2015	X		
12/27/2015	X			12/27/2015	X		

Table 12
Page of 1 of 1
Uranium One USA, Inc-Willow Creek Project
2015 Semi-Annual Effluent and Monitoring Report, 2nd half
SERP Summary

SERP No.	Date	SERP Topic	Evaluation Summary
15-03	10-23-15	Resin Toll Milling Circuit	Addition of a resin storage tank for toll resin processing.

APPENDIX B

2015 Land Use Figure

The following Drawing specifically reference

APPENDIX B

2015 Land Use Figure

D01X

APPENDIX C

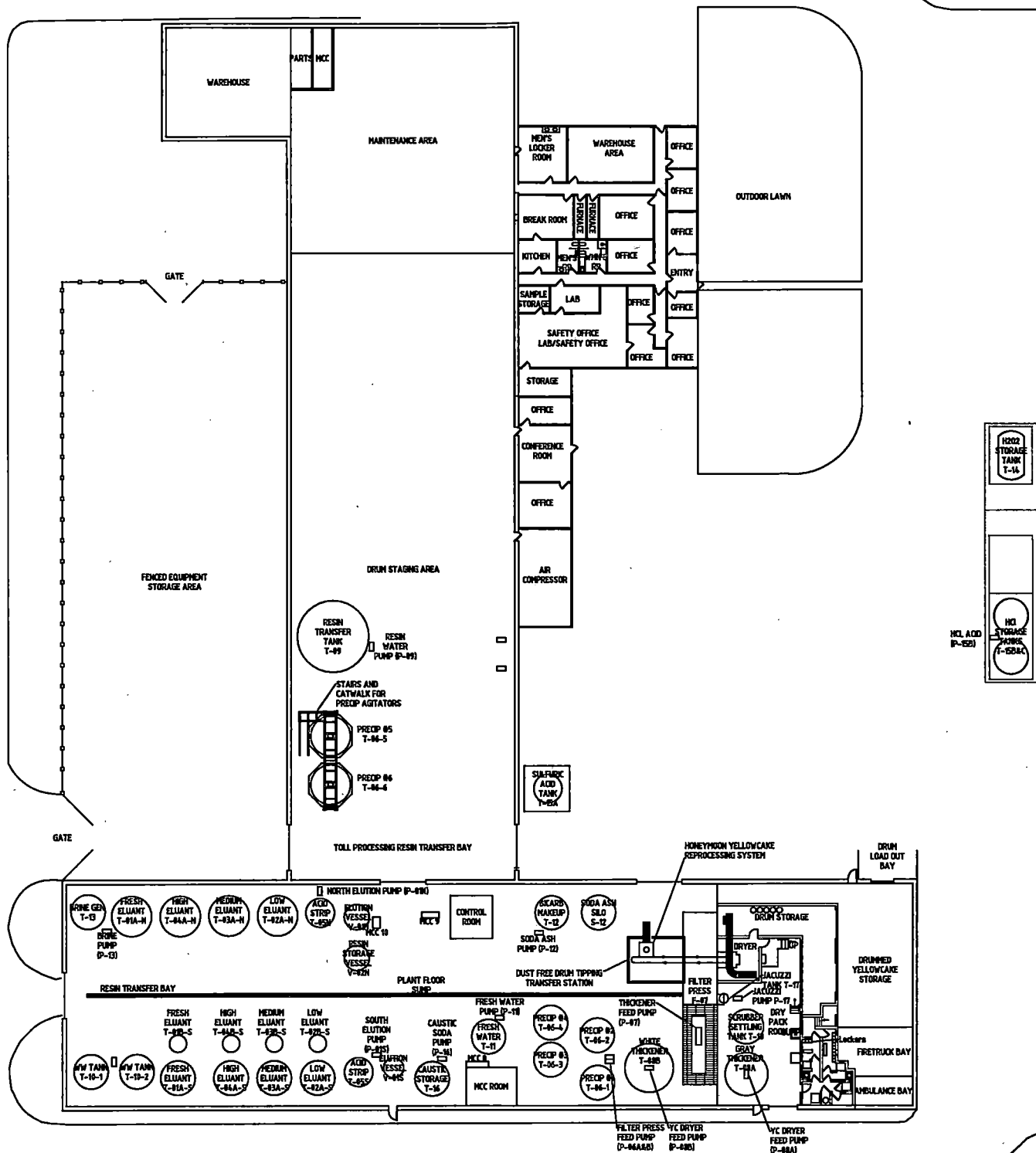
October 2015 SERP Updates LRA

February 2016

Semi-Annual Effluent
And Monitoring Report
Willow Creek Project
SUA-1341

SUA-1341, 2008 License Renewal Application
October, 2015 SERP Figure Updates
Page Replacement Directions

Page(s) Removed	Page(s) Inserted	Description of Change
3-30	3-30	Revised Figure 3.10 Irigaray Processing Facility General Plant Arrangement to include Resin Storage Vessel for toll resin processing
3-35	3-35	Revise Figure 3.11 Irigaray Process Facility Process Flow Diagram to include Resin Storage Vessel for toll resin processing



Satellite Coordinates:

43° 48' 19.09" N
106° 02' 20.16" W

Elevation:

4,649 ft



VERIFY SCALE

SCALE : 1"=50'



Irigaray Processing Facility
General Plant Arrangement

Date: 10/25/10	By: CM	Checked:	Approved:
Rev. No.	Description	Date	By
0	Initial Draft	10/25/10	CM
1	Added Add'l Resin Tanks	01/24/12	CM
2	Drum Tipping & Transfer Station	2/26/2014	TM
3	N. Elution Stripped Resin Storage	10/28/2015	TM
Project Name: WILLOW CREEK		Figure #	REV
		3.10	3

Figure 3-11
Irigaray Processing Facility
Process Flow Diagram

