

August 1, 2017

Attn: Document Control Desk U.S. Nuclear Regulatory Commission Mr. Ron Linton, Project Manager 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-1341, Docket No. 40-8502 Willow Creek Project July 25, 2017 8S198-1 and 8S199-1 Release Christensen Ranch Mine Unit 8

Dear Mr. Linton:

In accordance with License Conditions 12.2 and 9.2 of the referenced license, this correspondence serves as the written notification for a release of approximately 5,000 gallons of the combination of ISR injection fluid from well 8S198-1 (no Oxygen, Carbon Dioxide, or Bi-Carb was being added to the water at the time of this spill) and ISR production fluid from well 8S199-1, both located approximately 50 feet apart in the Mine Unit 8-6 wellfield area at Willow Creek (Christensen Ranch) located in Johnson County. The spill was discovered on July 25, 2017 at 1800 hours and reported to the environmental department on July 26, 2017. This area is entirely within the fenced MU-8 Controlled Area. The release was reported via e-mail and voice message to the NRC Project Manager, Ron Linton and WDEQ on July 27, 2017.

The details of the spill are included on the attached Spill Report Summary along with a map of the surface spill location. Note that there were no significant impacts to the public, environment, wildlife or livestock.

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

Sincerely,

on

Scott Schierman HSE Manager

cc: Greg Kruse Rick Kukura

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Uranium One USA, Inc. - Willow Creek Project Spill Report Summary 8S198-1 (Injection) Fluid and 8S199-1 (Production) Fluid Releases

Date and Estimated Time (beginning & end)

From: (unknown date), (unknown time) To: July 25, 2017, 6:00 p.m.

Location

Christensen Ranch Mine Unit 8-6 Module 8-6 Section 25, Township 45N, Range 77W Johnson County, Wyoming (See attached map for detailed location)

Spill Type

ISR Injection fluid from 8S198-1 (No Oxygen, Carbon Dioxide, or Bi-carb added to the water) and ISR Production fluid from 8S199-1. These 2 wells are located approximately 50 feet apart and, upon discovery, it was determined that both wells were contributing to this incident.

Estimated Volume Released and Probable Cause

Spilled: Approximately 5,000 gallons of a combination of injection fluid and production fluid was released from ISR injection well 8S198-1 and production well 8S199-1into Mine Unit 8-6 and it overflowed onto the surrounding soil. Upon discovery and investigation of injection well 8S198-1, the source of the injection fluid release, it was determined a 1" steel union fitting had corroded and produced an approximate 1/8" hole on the thread portion of the union. The leak detect device was stuck and not operating properly. Upon discovery and investigation of production well 8S199-1, the source of the production fluid release, it was determined that the transition fitting located on the 1" poly pipe had developed a pin hole. The leak detect device was not operating properly as the float end on the device appeared to be busted. Proactive testing of both of these devices have been replaced and tested prior to putting the wells back into service. The union fitting on 8S198-1 has been replaced with a PVC union and the transition fitting on 8S199-1 has been replaced.

Estimated Volume Recovered

No fluid was recovered as the release quickly soaked into the soil.

Spill Analysis Results

A small volume of the released fluid was obtained on July 25, 2017 from both 8S198-1 well box and 8S199-1 well box and those samples were submitted to the Willow Creek on site lab for analysis. The results were as follows:



Uranium

1.1 ppm (Inside the bottom portion of the well box of 8S198-1)9.7 ppm (Inside the bottom portion of the well box of 8S199-1)

Impacts

The release followed the existing grade, approximately 438' to the southeast of an ephemeral draw located in the north end of the 8-6 wellfield. No wildlife or livestock, nor did the spill reach surface water or the subsidiary to any waterways. No significant erosion resulted from the release.

Soil Surveys & Analysis Results

Soil samples were obtained near injection well 8S198-1 and 8S199-1 along with additional sample approximately 100 feet from where the two releases came together and those samples will be delivered to Intermountain Labs in Sheridan, Wyoming for analyses. The analytical data will be forwarded as soon as it is made available.

Remediation Actions

Uranium One is in the process of budgeting and scheduling the replacement of the steel plumbing components, used to plumb in the wellheads, with plastic parts.

Explanation of the Root Cause

Root cause for the 8S198-1 spill was the 1" steel union fitting had corroded and a small hole in the fitting allowing water to escape. A key component for the spill from this well was the leak detect device did not activate, alarming employees about the release. The root cause for the 8S199-1 spill was the metal transition fitting from the poly pipe to the wellhead plumbing, developed a pin hole allowing water to escape. A key component for the spill is also attributed to the leak detect device, which also failed to alarm employees to the release.

Corrective Actions

Uranium One is in the process of budgeting and scheduling the replacement of metal plumbing parts for plastic (PVC) parts. Also, as a precautionary measure, Uranium One is manually testing all the leaks detect devices in well fields that are in production. Uranium One is also developing a schedule to ensure all leak detect devices are periodically manually checked.

Agency Reporting

WDEQ:

Q: Luke McMahan - Permit Coordinator; July 27, 2017 (phone call, message) July 27, 2017 (e-mail) Written Report to follow

NRC:

Ron Linton - Project Manager; July 27, 2017 (phone call, message) July 27, 2017 (e-mail) Written Report to follow



Attachement: Google Earth Photo of 8S198-1 and 8S199-1 scaled spill area. (explinations); Light blue dots reflect the location of wells 8S198-1 and 8S199-1. The red line reflects the length of the release from start to finish. The dark blue is an approximate of the embodied area that was affected by the spill.

