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December 7, 2017

40-9068

ATTN: Document Control Desk  
Nuclear Regulatory Commission  
Washington, D.C. 20555-001

**RE: 60-day Excursion Report for KPW2  
Lost Creek ISR Project PT788**

To Whom It May Concern,

In accordance with License Condition 11.5, this letter serves as the 60-day report for the excursion at the Lost Creek ISR Project for monitor well KPW2. This report declares the excursion corrected and provides the following information:

**Description of the Excursion Event**

A vertical excursion occurred at KPW2 associated with the HH1-6 area shown on attached figure "Header House 1-6 Patterns and Wells". The well, located just to the east of HH1-6, allows monitoring of the KM horizon which underlies the HJ mining horizon. The analysis of a sample collected from KPW2 on September 28, 2017 revealed elevated alkalinity and conductivity that exceeded the UCL (NRC criteria) values indicating a potential excursion. A confirmation sample was collected on October 8, 2017 resulting in a declaration of excursion via notification letter dated October 13, 2017. The excursion declaration was the result of two parameters exceeding the associated UCL albeit not by more than the 20% threshold.

The cause or source of the excursion is not known but several courses of action were taken to recover the water quality in the area of KPW2.

**Corrective Actions Taken**

As described in the initial notification, injection was halted in accordance with License Condition 10.10 by shutting off the following injection wells within a 150 foot radius of KPW2: 1I150, 1I153, 1I161, 1I162, 1I171, 1I301A, 1I303, 1I304, 1I305A, 1I306, 1I307, 1I525, 1I527, 1P153I. A single production well 1P152 initially remained in operation in the vicinity to provide drawdown.

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Additionally, during the corrective action period, the following actions occurred:

- Sampling of KPW2 was increased to weekly during the excursion.
- Additional injection up to a 200 foot radius was halted that included wells 11146, 11164, 11285, 11286, and 11526.
- Pumping was switched to other production wells on an individual basis to determine if drawdown was occurring at KPW2 in an attempt to locate and isolate the source of excursion. The following production wells were operated periodically on an individual basis (i.e. the production well was shut off and another was started): 1P152, 1P154B, 1P078A, 1P151, 1P150. No effect on KPW2 water levels were observed during the pumping.
- Additional injection wells within the 200 foot radius, associated with the adjacent HH1-7 area, were halted including wells 11281, 11288, 11302, and 11328A (see attached figure "HH1-7 Patterns and Wells"). Following this action, water levels in KPW2 slightly decreased and the water quality immediately was affected. The water quality was then restored to non-excursion status relatively quickly.

### Corrective Action Results

The excursion was corrected as shown by the water quality (Table 1).

**TABLE 1: KPW2 UCL Data**

Sample ID	Collection Date	Span	Alkalinity (mg/L)			Chloride (mg/L)			Sp. Cond. (µS/cm)		
			Assay	NRC UCL	% Diff	Assay	NRC UCL	% Diff	Assay	NRC UCL	% Diff
KPW2	9/18/2017	24	130	136	-5	14.7	21	-30	597	615	-3
KPW2	9/28/2017	10	144	136	6	19.2	21	-9	662	615	8
KPW2	10/8/2017	10	143	136	5	20.0	21	-5	648	615	5
KPW2	10/12/2017	4	137	136	1	21.1	21	0	654	615	6
KPW2	10/17/2017	5	139	136	2	17.7	21	-16	652	615	6
KPW2	10/26/2017	9	141	136	3	16.3	21	-22	642	615	4
KPW2	11/2/2017	7	140	136	3	20.6	21	-2	652	615	6
KPW2	11/10/2017	8	154	136	13	21.6	21	3	686	615	12
KPW2	11/14/2017	4	151	136	11	18.9	21	-10	689	615	12
KPW2	11/20/2017	6	153	136	13	22.0	21	5	676	615	10
KPW2	11/22/2017	2	124	136	-9	9.0	21	-57	541	615	-12
KPW2	11/27/2017	5	115	136	-15	7.9	21	-62	522	615	-15
KPW2	12/6/2017	9	122	136	-10	8.2	21	-61	539	615	-12

*Italics (yellow highlight): Percent difference is between 0% and 20%*

***Bold Italics (red highlight): Percent difference is greater than 20%***

The sampling of KPW2 will revert to the routine schedule now that the excursion has been corrected. Water quality through December will be provided in the quarterly excursion report.



Please contact me at the Casper office if you have any questions regarding this submittal.

Regards,



Michael D. Gaither  
Manager EHS and Regulatory Affairs  
Ur-Energy USA, Inc.

Attachments: 2 figures as stated

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