

**From:** [Cherry, Robert N CIV USARMY IMCOM HQ \(USA\)](#)  
**To:** [Johnson, Jamie R.](#); "[Andrew.B.Evens@usace.army.mil](#)"  
**Cc:** [Valadez, Ernesto Jr CIV USARMY IMCOM HQ \(USA\)](#); [John Ford](#); [Hutchinson, Bennie S CIV USARMY IMCOM CENTRAL \(USA\)](#); [Yadav, Priya](#); [Cerar, Randall J CIV USARMY IMCOM AEC \(USA\)](#)  
**Subject:** [External\_Sender] RE: Davy Crockett 3Q 2020 - SW above 30 ug/L  
**Date:** Monday, December 14, 2020 11:50:41 AM  
**Attachments:** [20201210 Crockett 2020 O3 Results Table.xlsx](#)

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Thank you, Jamie. Fortunately, you did not see any indication that DU is in this sample with a U238/U234 ratio of 0.60 +/- 0.13. This result implies that the U-234 concentration was enhanced by its recoil out of rock crystal structure when the parent U-238 nucleus decayed.

The EPA says we can equate 27 pCi U/L with 30 ug U/L, which assumes natural uranium. That would make the activity concentration equivalent to 59 +/- 6 ug/L. However, we have the actual isotope distribution, so I set up a spreadsheet using the specific activity for each uranium isotope and calculated 63 +/- 9 ug/L, which is close to the assumed value for natural uranium.

I will CC this email to the NRC as our notification and to the Fort Carson garrison RSO, so he can inform the garrison environmental staff, in case they want to follow up.

In any event, elevated results for uranium concentrations in water is not a surprise for Colorado. It is safe to say our DU did not contribute to this result in any significant way.

Bob

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**From:** Johnson, Jamie R. <[JAMIE.R.JOHNSON@leidos.com](mailto:JAMIE.R.JOHNSON@leidos.com)>  
**Sent:** Thursday, December 10, 2020 5:09 PM  
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**Subject:** [Non-DoD Source] Davy Crockett 3Q 2020 - SW above 30 ug/L

Brooks and Bob,

Within the 3Q 2020 surface water data, there is a project action level exceedance. The total uranium concentration detected in surface water at Fort Carson SWS-03 was 53 +/- 5.15 pCi/L, which is above the 30 µg/L level defined in the UFP-QAPP. The 3Q results are summarized in the attached spreadsheet.

While the total uranium concentrations detected in surface water at Fort Carson SWS-02 and SWS-03 have historically exceeded this level, this is the first detection above 30 µg/L in 2020.

The 4Q 2020 sampling at Fort Carson is scheduled for 14-16 December.

Let me know if you have any additional questions.

Thanks,

Jamie

**Jamie Johnson, PMP | Leidos**

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