



## **PN20 Pipeline Leak (Spill #480375)**

### **Operator Knowledge - Produced Water Analysis**

Summit Midstream operates gathering lines that receive natural gas from Caerus' Piceance operations. The PN20 spill occurred on one of Summit's gathering lines, transporting natural gas and with entrained produced water that enters the pipeline from the Caerus PN20 well pad upstream of the pipeline. Summit has collected a produced water sample from the PN20 storage tank to determine the pH and Arsenic of produced water being produced from the area. The produced water sample results are outlined below:

<b>Sample Name</b>	<b>Sample Date</b>	<b>Sample Type</b>	<b>pH</b>	<b>Arsenic (mg/kg)</b>
PN20-PW	02/06/2023	Tank	7.22	0.00568

The Operator recognizes that the presumable source for impacts at this location would be associated with produced water that may be entrained in the natural gas transported in the pipeline. Based on the laboratory analytical results of a produced water sample collected from the PN20 tank storage, Summit believes that the pH and Arsenic exceedances found in the remediation excavation are not due to natural gas pipeline transportation but are rather naturally occurring background concentrations within the area.