



IDAHO DEPARTMENT OF
WATER RESOURCES

BRBA FLOW MEASUREMENT EXAMINATION REPORT

Claim Number: 11-4313

Exam Date: 08/24/2026

Exam Time: 10:00 AM

IDWR Staff Present: Brent Bonney, Brian Wunsch

Claimant/Representative Present: None

Claim POU, generally the 13S 43E 5 SE

Examiner's Signature:

Purpose of Exam: A flow measurement taken from the POD.

Summary of Exam: Agents arrived near the Source. They walked the stream until it reached a culvert that was suitable to measure the dimensions of. A theoretical measurement was calculated.

Flow/Volume Calculations:

These measurements were taken during a historic drought year and later in the irrigation season. It was observed that the culvert is likely submerged during periods of high flow, resulting in water pooling upstream. To estimate a theoretical diversion rate under full-flow conditions, it was determined that applying Manning's equation would provide the most appropriate calculation. Slope and culvert length were measured using The National Map. The resulting diversion rate is 1.39 CFS, which exceeds the claimed rate of 0.14 CFS.

Radius = **0.5 ft**

Slope S = **0.07168**

Area A = **0.3927 ft²**

Wetted Perimeter P = **1.5708 ft**

Hydraulic Radius R = **0.25 ft**

Final flow rate

Q ≈ 1.39 cubic feet per second (CFS)

Photos:

Figure 1: Depth measurement from mouth of culvert.



Figure 2: Diameter measurement from mouth of culvert.



Figure 3: Tall cottonwood tree is near the source.



Figure 4: Water flowing into the culvert.

