

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 86-12087
Exam Date: 06/10/2021

1. Current Owner:
JERRY SLEAD 2081 S GRADE RD JULIAETTA ID 83535-9716
2. Accompanied by: Jerry Slead
Phone No: 208-276-7079
Address: Same as above
Relationship to permit Holder: Permit holder

3. **SOURCE:**
UNNAMED STREAM

Tributary
SINKS

Method of Determination: Arcmap and DRG

B. OVERLAP REVIEW

1. Other water rights with the same place of use: YES Overlap

Comments: City of Juliaetta Municipal water right(s) 86-7043, 86-7096, 86-7100, and 86-10224 are decreed rights that use groundwater with a POU that overlaps this right's POU but are not a concern for overlap.

2. Other water rights with the same point-of-diversion: NO Overlap

C. DIVERSION AND DELIVERY SYSTEM1. **LOCATION OF POINT(S) OF DIVERSION:**

UNNAMED STREAM SW¼ NE¼, Sec. 9, Twp 37N, Rge 03W, B.M. LATAH County

Method of Determination: GPS. POD is located at -116°42.921, 46°34.014.

PLACE OF USE: IRRIGATION

Twp	Rng	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
37N	03W	9	0.6	0.1															0.7

Total Acres: 0.7

Method of Determination: Field exam and Arcmap aerial imagery.

3.
 - ☒ Delivery System Diagram Attached (required). Indicate all major components and distances between components.
 - ☒ Indicate weir size/pipe as applicable.
 - ☒ Map Attached Showing Location(s) of point(s) of diversion and place(s) of use (required). Scale must be 1:24,000 or greater.
 - ☒ Aerial Photo Attached (required for irrigation of 10+ acres).
 - ☒ Photo of Diversion and System Attached

4.

Well or Diversion ID No.*	Motor Make	Hp	Motor Serial No.	Pump Make	Pump Serial No. or Discharge Size
GRAVITY FLOW FROM UNNAMED STREAM POOL					

D. FLOW MEASUREMENTS

1.

Measurement Equipment	Type	Make	Model No.	Serial No.	Size	Calib. Date
5-GAL BUCKET MEASUREMENT						

2. Measurements: a single 5-gallon bucket test was performed from a piece of metal gutter serving as a flow channel from an unnamed stream, resulting in a diversion rate of 5 gal / 128.72 sec x 60 sec/min = 2.33 gpm = **0.01 cfs**, considering department rounding standards.

E. FLOW CALCULATIONS

Measured Method: 5 gal / 128.72 sec x 60 sec/min = 2.33 gpm which is less than the department's minimum diversion rate allowance – defaults to 0.01 cfs.

F. VOLUME CALCULATIONS

1. Volume Calculations for irrigation:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 0.7 \text{ ac} \times 4.0 \text{ afa} = 2.8 \text{ af}$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = 0.01 \text{ cfs} \times 246 \text{ days} \times 1.9835 = 4.9 \text{ af}$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = 2.8 \text{ af}$$

2. Volume Calculations for Other Uses:

This right uses a surface water source and does not receive an annual volume nor maximum diversion volume.

G. NARRATIVE/REMARKS/COMMENTS

Field exam performed on 6/10/2021 with the applicant, Jerry Sleed, show water being diverted from an unnamed stream for irrigation purposes. The applicant had applied to use water from a spring source on his property, which was permit approved but during the field exam it appeared water was being captured and diverted from a small unnamed stream. During licensing review Arcmap DRG layer was reviewed and designates an intermittent stream that headwaters further west and upgrade from the applicant's POD. As a result, I have clarified the water source during licensing review revising it to be the unnamed stream (still tributary to sinks) and removed the 10-acre PLSS quarter-quarter legal description designator.

Mr. Sleed diverts from a small pooling below a vertical embankment of rock using metal gutter and gravity flow to 2ea settling tanks prior to gravity flow into 2ea storage tanks (500 gal & 450 gal). A single 5-gallon bucket test was performed resulting in a diversion rate of 5 gal / 128.72 sec x 60 sec/min = 2.33 gpm = **0.01 cfs**, considering department rounding standards which is recommended as the maximum diversion rate for licensing purposes.

From the two 24hr impoundment tanks, water is routed downgrade via 1-inch poly pipe to the irrigation POU. Mr. Sleed has installed a bleed valve with short section of poly pipe midway down the main irrigation trunk line to periodically remove air from the system. The entire system uses gravity flow, and the applicant states he has sufficient pressure to irrigate all his lawn and garden space. Photographs have been taken to illustrate the water system.

The irrigation POU was observed during the exam, with active irrigation occurring, and sketched out on field maps. During licensing review Arcmap aerial imagery was used to accurately trace out the irrigation acreage equal to 0.7 acres. The annual volume associated with this irrigation equals $0.7 \text{ ac} \times 4.0 \text{ afa} = 2.8 \text{ af}$, but as this water right uses a surface water source there will be no volume metrics applied to the face of the license; condition X31 has been included which describes the volume limitations for this right. The applicant irrigates around his home from multiple frost-free hydrants and hose-to-sprinklers to water fruit trees, lawn space, and a small garden.

Condition R64 was replaced with X31 during licensing review designating irrigation diversion rate and diversion volume associated with acreage less than 1 acre in size. Condition 004 shall be carried forward to the license. The City of Juliaetta has multiple decreed municipal water right(s): 86-7043, 86-7096, 86-7100, and 86-10224 that use groundwater with a POU that overlaps this right's POU but are not a concern for overlap. There are no additional overlap concerns for this water right.

Have conditions of permit approval been met? X Yes No

H. RECOMMENDATIONS

1. Recommended Amounts

<u>Beneficial Use</u>	<u>Period of Use</u>	<u>Rate of Diversion</u>
IRRIGATION	03/15 to 11/15	0.01 CFS

Totals: 0.01 CFS

2. Recommended Amendments

Change P.D. as reflected above Add P.D. as reflected above ☒ None

Change P.U. as reflected above Add P.U. as reflected above X None

I. AUTHENTICATION

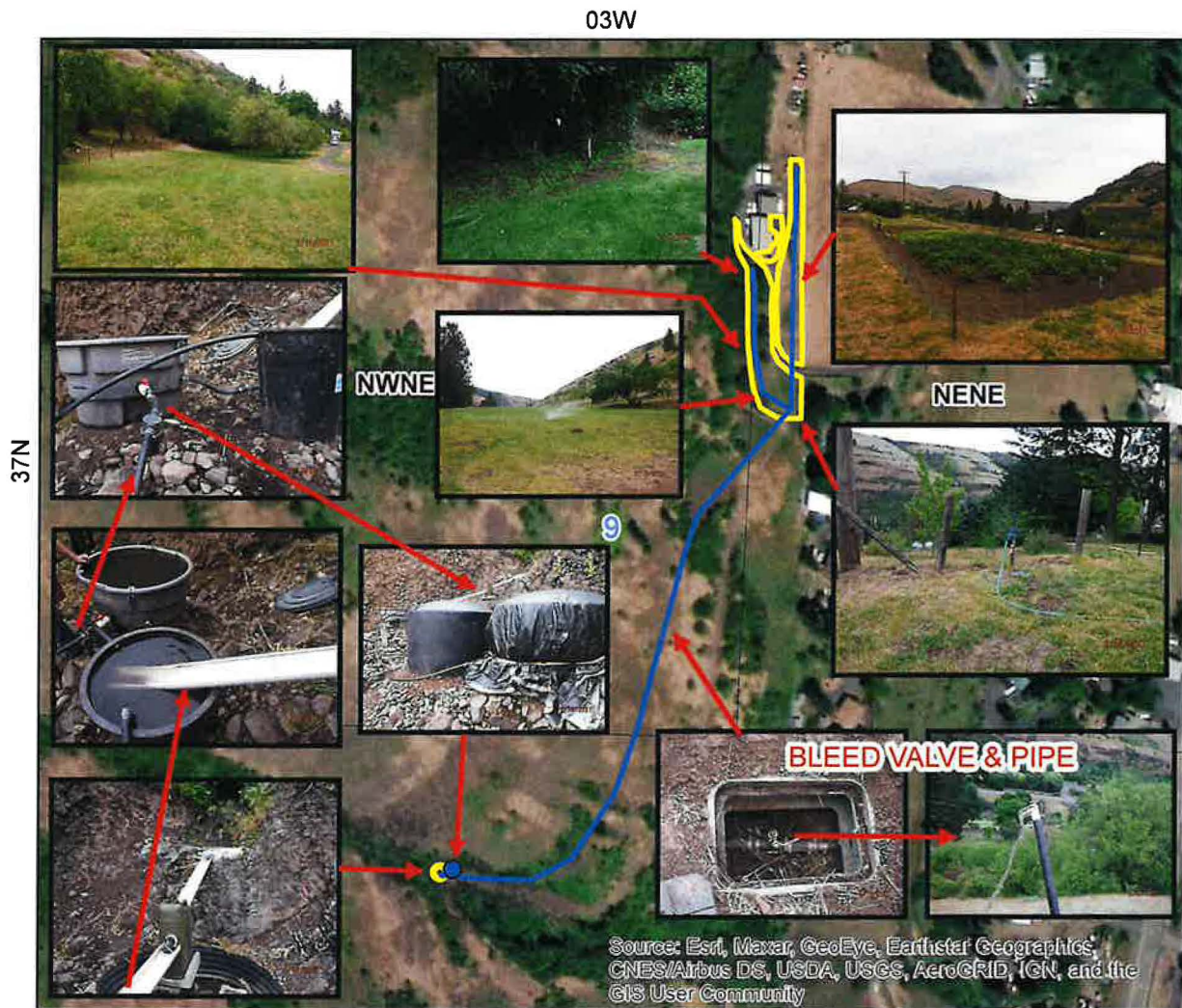
Luke Bates - Water Resource Agent

Field Examiner's Name *[Signature]* Date 10/6/2021

Reviewer Ade Fink Date 10/15/2021

State of Idaho
Department of Water Resources
Attachment to Field Exam
86-12087

IRRIGATION system diagram.

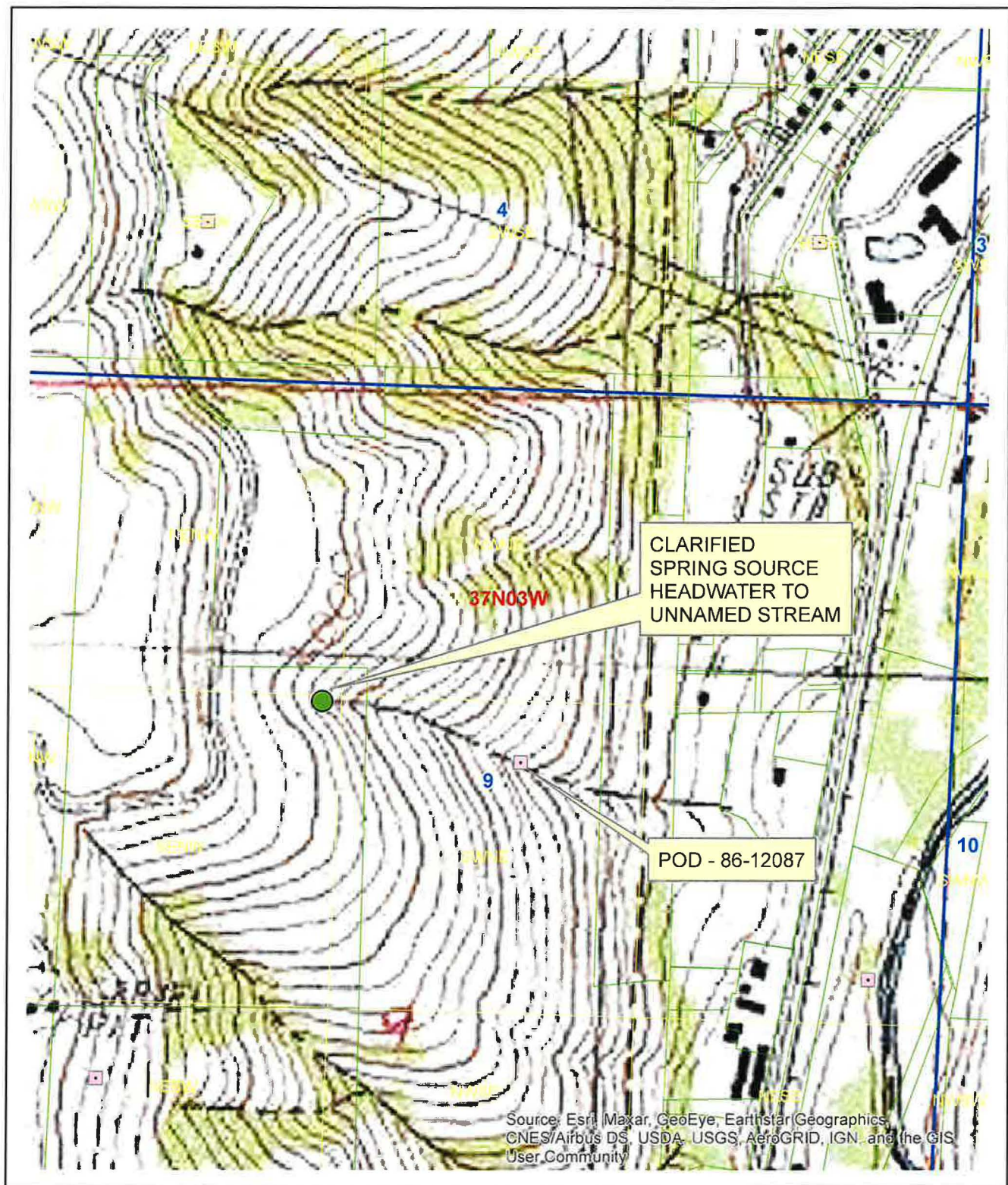


- Point of Diversion
- Place Of Use Boundary
- Townships
- PLS Sections
- Quarter Quarters

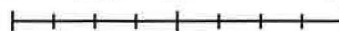
0 0.04 0.08 0.16 Miles



86-12087 Clarification of Water Source for Licensing Purposes



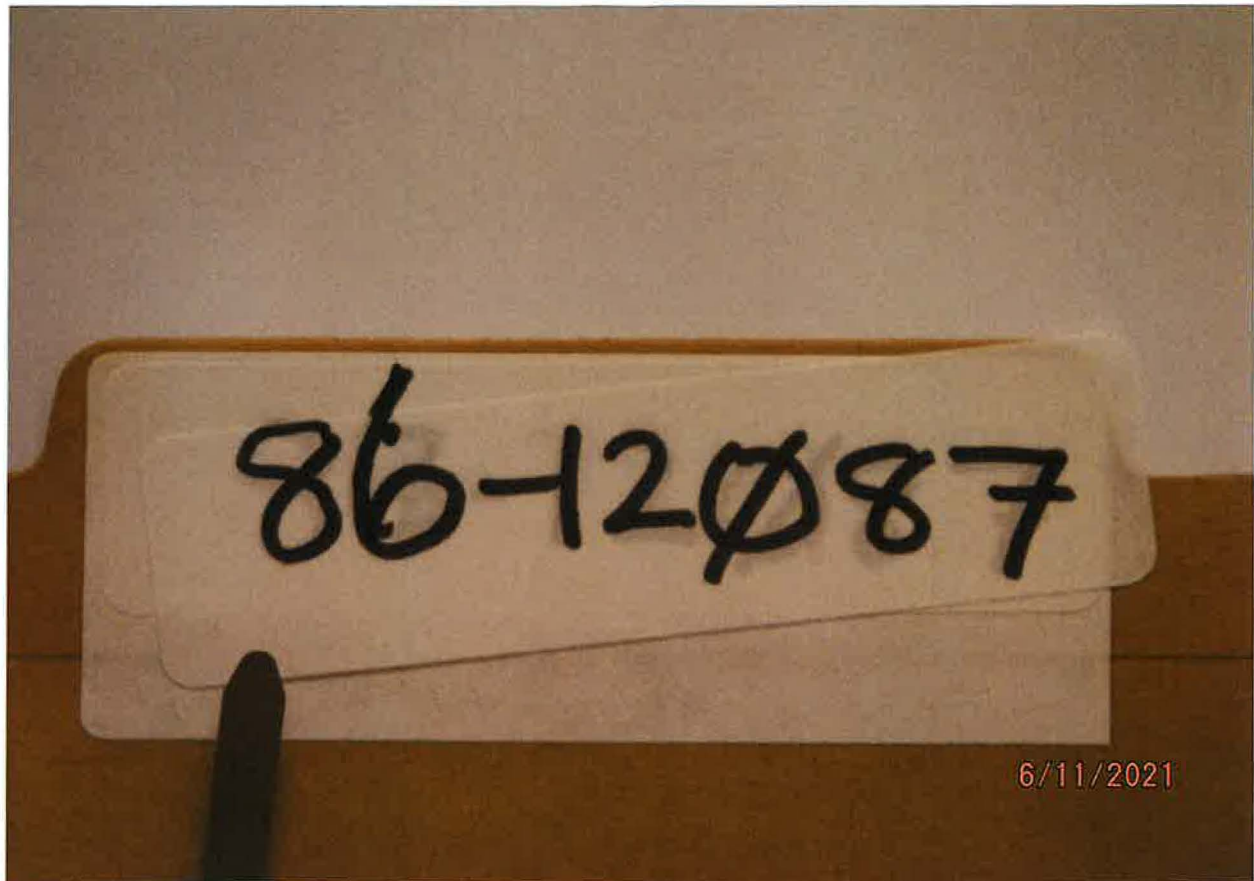
0 0.05 0.1 0.2 Miles



Legend

-  Township/Range
-  Sections
- QQ





FIELD EXAM 6/10/2021



POD – UNNAMED STREAM FLOW FROM CONCRETED RIM IN ROCK BASIN



POD – 5 GAL BUCKET MEASUREMENT TAKEN FROM DIVERTING WORKS





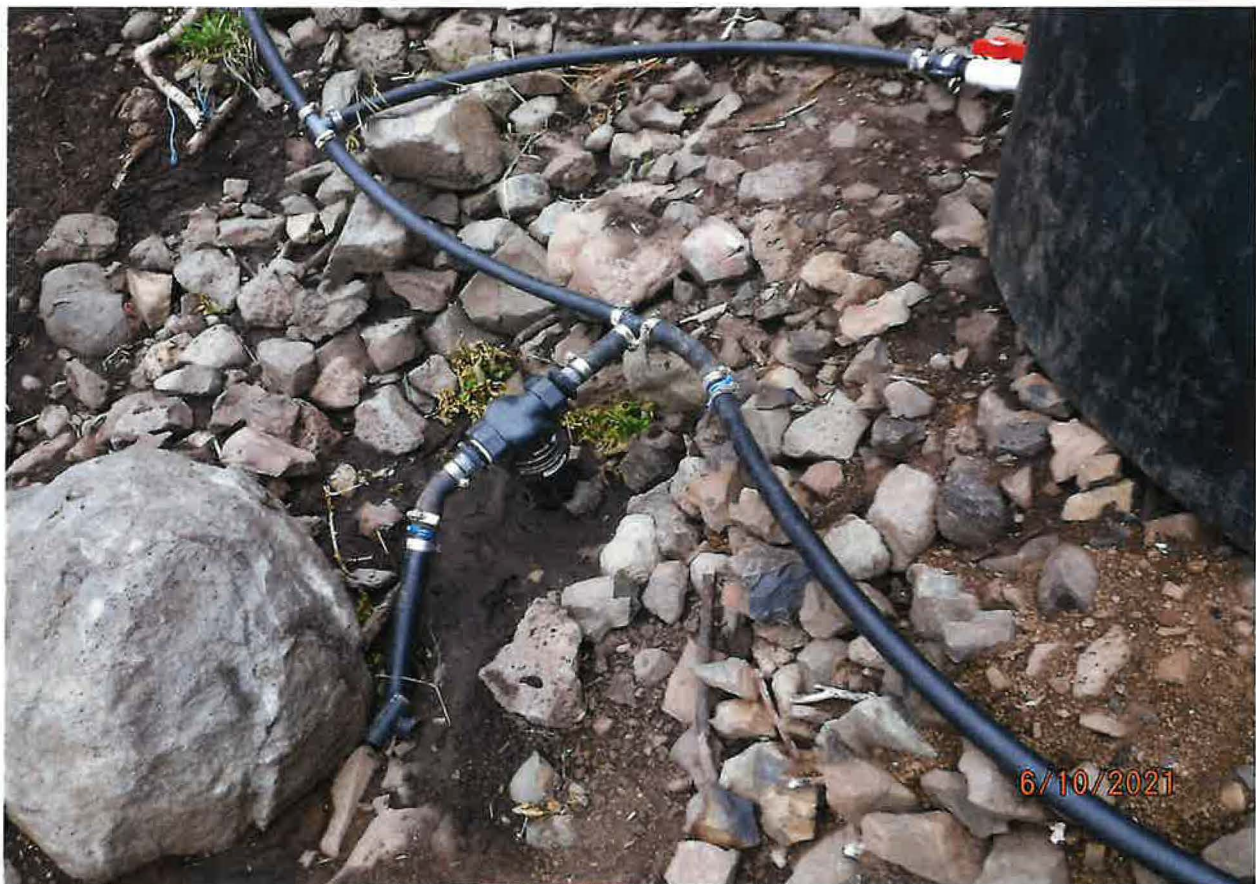
AT POD – 2 OPEN AIR SETTLING TANKS THAT ROUTE TO 2 CLOSED TANK 24HR IMPOUNDMENT TANKS



1EA 500 GAL & 1EA 450 GAL 24HR IMPOUNDMENT TANKS



2EA OVERFLOW PIPES FROM 2EA SETTLING TANKS RETURN FLOW TO STREAM CHANNEL



1 INCH POLY PIPE SERVICE LINE ROUTES DOWN HILL TO POU



VIEW LOOKING UP HILL TO DIVERTING WORKS



BLEED VALVE INSTALLED $\frac{1}{2}$ WAY FROM POD-TO-POU



6/10/2021

FLOW FROM BLEED VALVE PIPE



6/10/2021

IRRIGATION POU – FROST FREE HYDRANT TO HOSE AND SPRINKLER



IRRIGATION POU





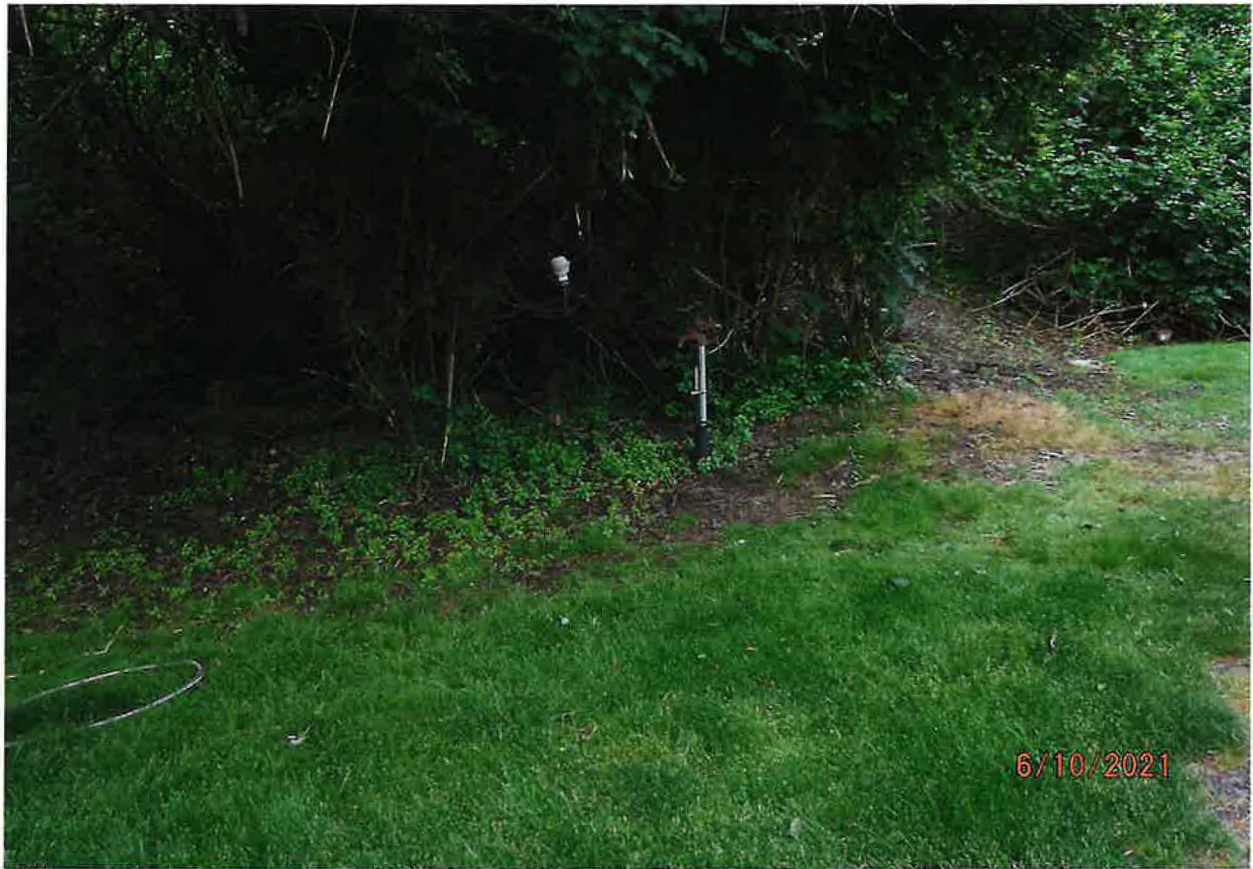
IRRIGATION POU





IRRIGATION POU





IRRIGATION POU – FROST FREE HYDRANT



IRRIGATION POU