

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 75-14735

Exam Date: 7/20/2016

1. Current Owner:

MILTON KIRK EBERHARD PO BOX 251 CARMEN ID 83462-0251 (208)756-4137 And

GLORIA H EBERHARD PO BOX 251 CARMEN ID 83462 (208)756-4137

2. Accompanied by: Kirk Eberhand

Phone No: (208)756-4137

Address: PO BOX 251; 7 Austin Rd Carmen Idaho

Relationship to Permit Holder: Permit holder

3. SOURCE:

CARMEN CREEK

TRIBUTARY:

SALMON RIVER

B. OVERLAP REVIEW

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

2. Other water rights with the same point-of-diversion:

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

CARMEN CREEK SW¼SE¼ Sec. 8, Twp 22N, Rge 22E, B.M. LEMHI County

Method of Determination:

2.

PLACE OF USE: IRRIGATION

Twp	Rge	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
22N	22E	8															0.5		.5

Total Acres: 0.5

Method of Determination:

3.

Delivery System Diagram Attached (required). Indicate all major components and distances between components.

☒ X 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

☒ X 1:24,000 or greater.☒ X Aerial Photo Attached (required for irrigation of 10+ acres).☒ X 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
	Meyers	1.5	Model QP15 001G010F		

*Code to correspond with No. on map and aerial photo

D. FLOW MEASUREMENTS

1.

Measurement Equipment	Type	Make	Model No.	Serial No.	Size	Calib. Date
Flow Tracker						

2. Measurements: measured 0.08 cfs at diversion from Carmen Creek
The

E. FLOW CALCULATIONS

Measured Method:

 X Additional Computation Sheets Attached

$$0.5 \text{ acres} \times 0.03 = 0.015$$

Permit allows 0.01 cfs

Recommended Rate 0.01 cfs

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V_{IR} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 0.5 \times 3.5 = 1.75 \text{ af}$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = 0.01 \times 214 \times 1.9835 = 4.2 \text{ af}$$

$$V = \text{Smaller of } V_{IR} \text{ and } V_{DR} = 1.75 \text{ af}$$

2. Volume Calculations for Other Uses: NA

G. NARRATIVE/REMARKS/COMMENTS

A half acre of land surrounds two ponds and small patches of lawn along Carmen Creek. Water is diverted from the creek through a headgate that also supplies water for 75-7607, the water right for the ponds. This water right, 75-14735, provides irrigation to the ½ acre by diverting water from the larger of the two ponds. During this field exam I measured 0.08 cfs flowing from the creek. The ditch flows west from the creek approximately 125 feet to enter the larger of the two ponds. Water is pumped from the pond by a 1.5 hp pump.

Have conditions of permit approval been met? X Yes No

H. RECOMMENDATIONS

1. Recommended Amounts

BENEFICIAL USE
IRRIGATION

PERIOD OF USE
04/01 to 10/31

DIVERSION RATE
0.01 CFS

ANNUAL VOLUME

Totals: 0.010 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 ☒ None

I. AUTHENTICATION

AUTHENTICATION
Field Examiner's Name Sandra Thiel Date 9/14/2016

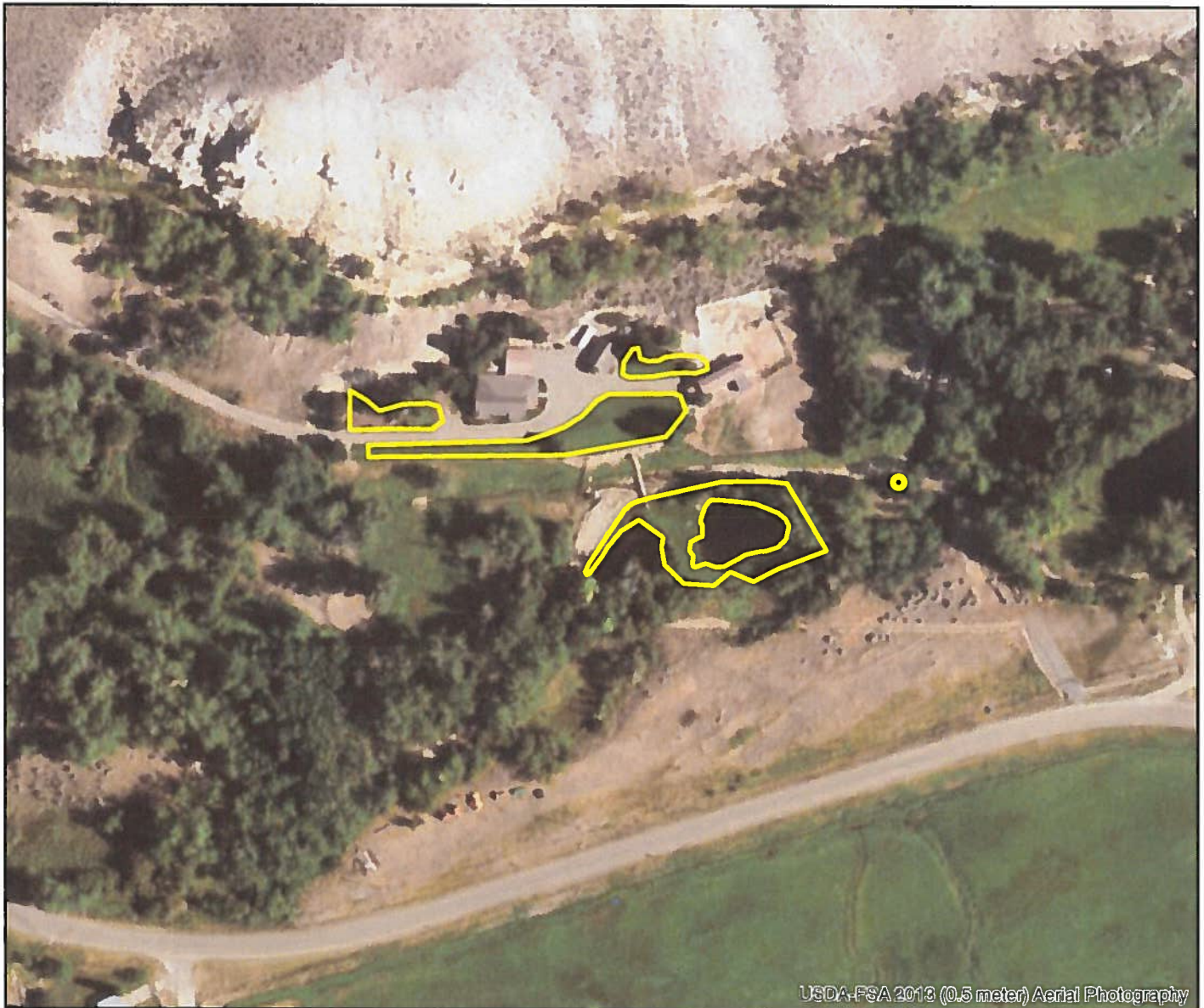
Reviewer _____ Date _____

State of Idaho
Department of Water Resources
Water Right License
75-14735

This map depicts the IRRIGATION place of use boundary and point of diversion for this water right at the time of this approval and is attached to the approval document solely for illustrative purposes.

R22E

T22N



Point of Diversion



Place Of Use Boundary

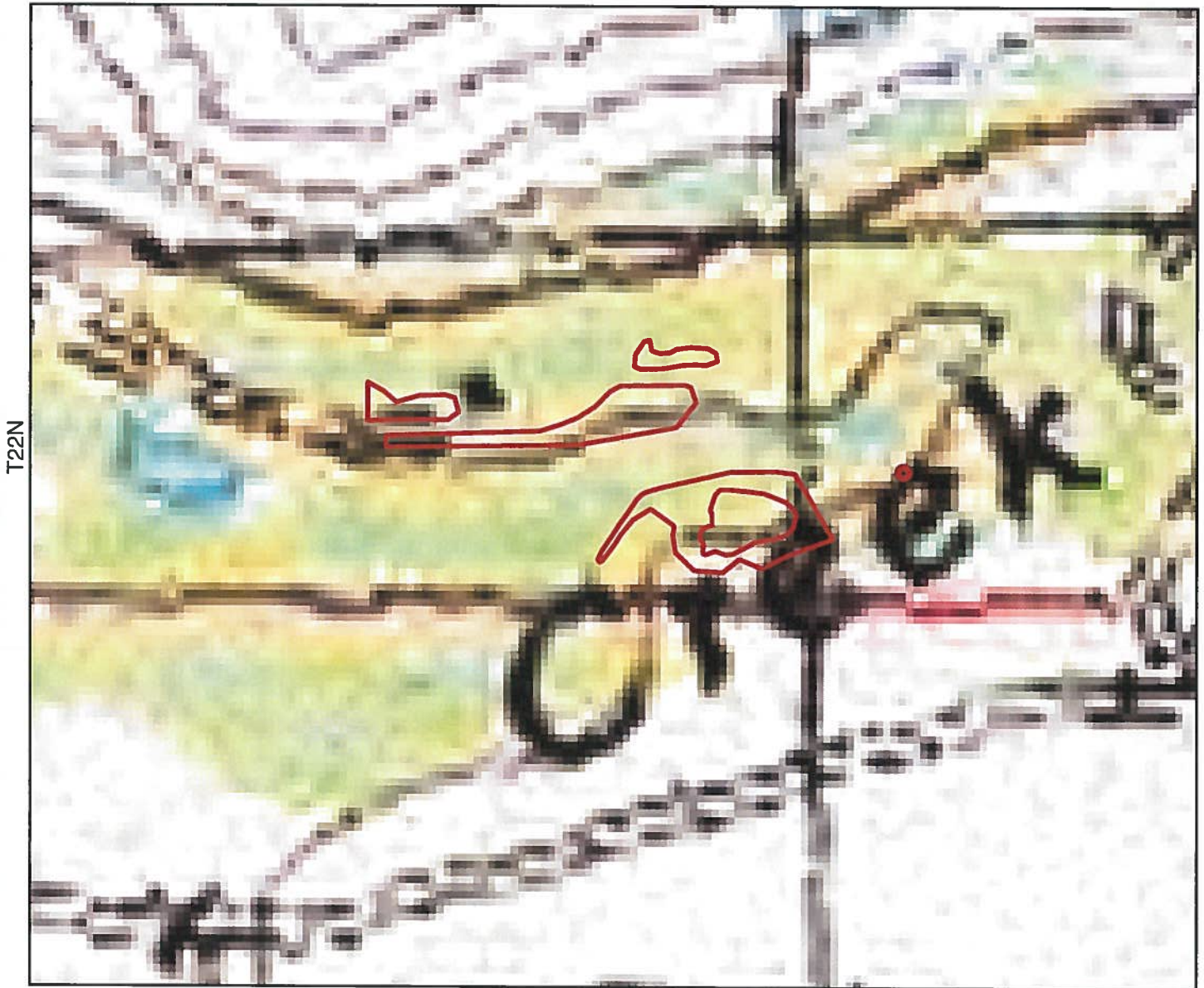


0 250 500 Feet

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R22E



- Point of Diversion
- Place Of Use Boundary



0 250 500 Feet

Water Distribution System Water Right 75-14735



A half acre of land surrounds two ponds and small patches of lawn along Carmen Creek (shown above in blue). Water is diverted from the creek through a headgate that also supplies water for 75-7507, the water right for the ponds. This water right, 75-14735, provides irrigation to the $\frac{1}{2}$ acre by diverting water from the larger of the two ponds. During this field exam I measured 0.08 cfs flowing from the creek. The ditch flows west from the creek approximately 125 feet to enter the larger of the two ponds. Water is pumped from the pond by a 1.5 hp pump. The place of use for right 75-14734 is shown above in brown.

THEORETICAL HORSEPOWER EQUATION WORKSHEET (cjh 1/92)

Water Right No.: 75-14735
 Reviewer: Sandy Thiel
 Date of Review: 9/14/2016

P/D No.:

	Option 1	OPTION 2	OPTION 3	
PUMP HORSEPOWER	1.5	1.5	1.5	
BOOSTER HORSEPOWER	0	0	0	
PUMPING LEVEL	40	40	40	
DISCHARGE PRESSURE	40	50	60	
RATE OF FLOW (cfs)	0.07	0.06	0.05	Average
GPM	31	27	23	27.07

The above calculates the formula =

$$Q = \frac{8.8 * (\text{Efficiency}) * \text{hp}}{\text{depth to water} + 2.31 * (\text{psi}) + \text{friction}}$$

Assumptions: 70 efficiency.
 No Friction

Examiners Notes:

Meyers 1.5 hp pump from pond to irrigate 0.5 acres

Discharge Measurement Summary

Date Generated: Wed Sep 14 2016

File Information

File Name EBER.WAD
Start Date and Time 2016/07/20 10:37:27

Site Details

Site Name
Operator(s) SBT

System Information

Sensor Type FlowTracker
Serial # P4554
CPU Firmware Version 3.9
Software Ver 2.30
Mounting Correction 0.0%

Units (English Units)

Distance ft
Velocity ft/s
Area ft²
Discharge cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.8%	5.5%
Velocity	4.4%	35.9%
Width	0.3%	0.3%
Method	4.0%	-
# Stations	7.8%	-
Overall	9.9%	36.3%

Summary

Averaging Int.	40	# Stations	7
Start Edge	LEW	Total Width	1.800
Mean SNR	26.8 dB	Total Area	0.615
Mean Temp	59.10 °F	Mean Depth	0.342
Disch. Equation	Mid-Section	Mean Velocity	0.1323
		Total Discharge	0.0814

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	10:37	1.70	None	0.250	0.0	0.0	0.0000	1.00	0.4219	0.025	0.0105	12.9
1	10:37	1.90	0.6	0.300	0.6	0.120	0.4219	1.00	0.4219	0.075	0.0316	38.9
2	10:40	2.20	0.6	0.400	0.6	0.160	0.1929	1.00	0.1929	0.120	0.0232	28.5
3	10:41	2.50	0.6	0.400	0.6	0.160	-0.0164	1.00	-0.0164	0.120	-0.0020	-2.4
4	10:42	2.80	0.6	0.450	0.6	0.180	0.1345	1.00	0.1345	0.135	0.0182	22.3
5	10:43	3.10	0.6	0.400	0.6	0.160	-0.0010	1.00	-0.0010	0.140	-0.0001	-0.2
6	10:43	3.50	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0

Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

Discharge Measurement Summary

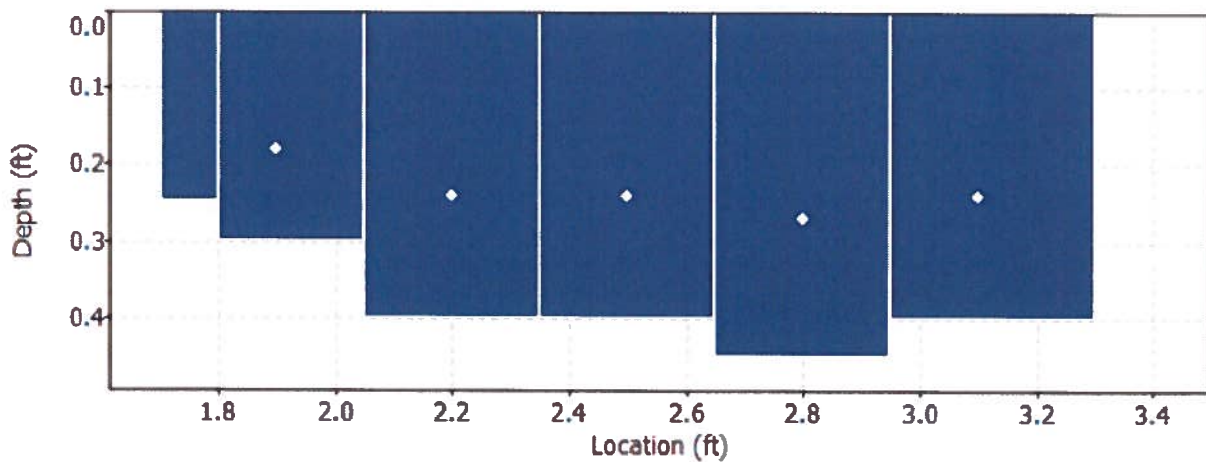
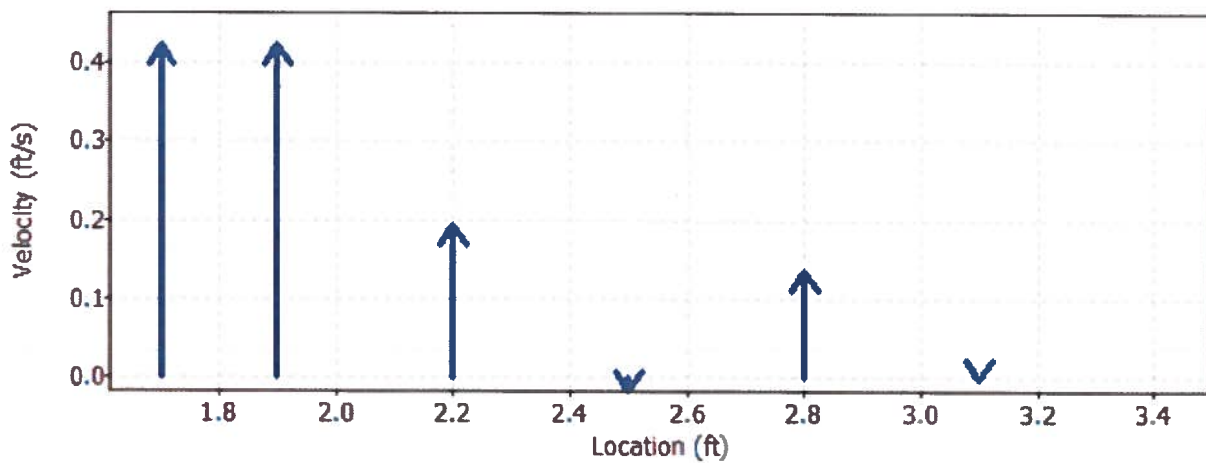
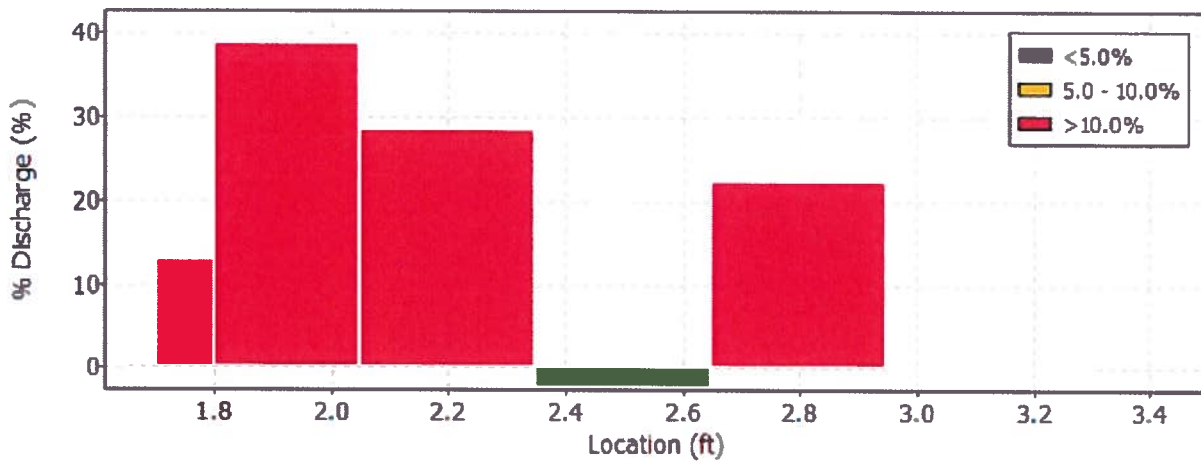
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Start Date and Time 2016/07/20 10:37:27

Site Details

Site Name
Operator(s) SBT



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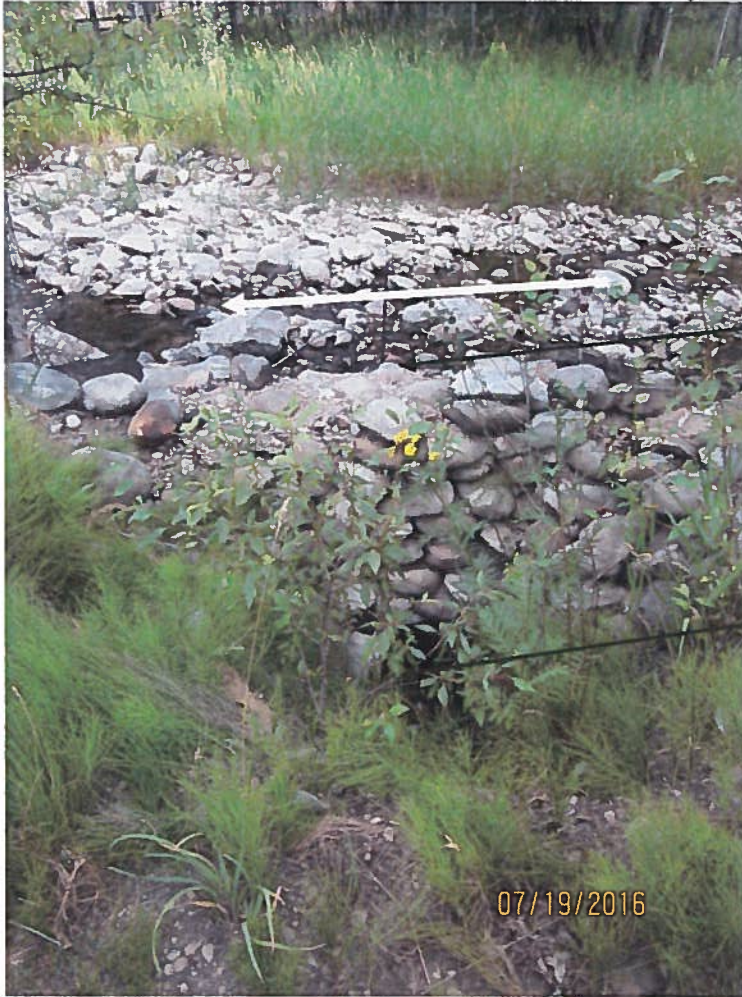
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Quality Control

St	Loc	%Dep	Message
3	2.50	0.6	High SNR variation during measurement: 5.2,6.5
4	2.80	0.6	High SNR variation during measurement: 5.6,5.2
5	3.10	0.6	High differences in beam SNR: 40.8,25.3
		0.6	Boundary QC is Fair; possible boundary interference

PHOTOGRAPHER AND DATE OF PHOTOS: Sandy Thiel, July 19, 2016



The white arrow shows the direction of flow for Carmen Creek

Headgate is on the other side of the rock wall

Ditch to pond



Headgate with screen



These photos show irrigated land surrounding the upper pond



Information on the pump





Pump location, between the ponds to the north west of the larger, upper pond



The lower pond is visible through the trees in the lower right hand side of this photograph

The blue arrow shows the direction of flow for Carmen Creek

Irrigation

Outlet to Carmen Creek