

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 51-7318

Exam Date: 4/27/18 and 6/7/18

1. Current Owner:

ACE BLACK RANCHES 28892 HOT SPRINGS RD BRUNEAU ID 83604-5007 (208) 845-2601

2. Accompanied by: Terry Black

Phone No: (208) 845-2601

Address: 28892 Hot Springs Road, Bruneau, ID 83604

Relationship to Permit Holder: Registered agent of Ace Black Ranches

3. SOURCE:

UNNAMED DRAIN

TRIBUTARY:

BRUNEAU RIVER

B. OVERLAP REVIEW

1. Other water rights with the same place of use

Water Right No.	Owner	Source	Use	NENW	NWNW
51-10271	BRUNEAU BUCKAROOO COOP DITCH CO	BRUNEAU RIVER	IRRIGATION	X	X
51-10350	BRUNEAU BUCKAROOO COOP DITCH CO	BRUNEAU RIVER	IRRIGATION	X	X
51-10351	BRUNEAU BUCKAROOO COOP DITCH CO	BRUNEAU RIVER	IRRIGATION	X	X
51-2	BRUNEAU BUCKAROOO COOP DITCH CO	BRUNEAU RIVER	IRRIGATION	X	X
51-3	BRUNEAU BUCKAROOO COOP DITCH CO	BRUNEAU RIVER	IRRIGATION	X	X
51-5	BRUNEAU BUCKAROOO COOP DITCH CO	BRUNEAU RIVER	IRRIGATION	X	X

Comments: Overlapping irrigation water rights with Bruneau Buckaroo Coop Ditch Co exist at the place of use. Currently, canal shares are only used on the upper fields closer to Hot Springs Road and are not used at the place of use for water right 51-7318; however, the license will be conditioned to address this overlap.

2. Other water rights with the same point-of-diversion: None

C. DIVERSION AND DELIVERY SYSTEM

1. LOCATION OF POINT(S) OF DIVERSION:

UNNAMED DRAIN SE¼SE¼ Sec. 30, Twp 06S, Rge 06E, B.M. OWYHEE County

Method of Determination: Field exam, GPS, aerial imagery

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	
06S	05E	25																6.0	6.0
06S	06E	30											17.0 L 4	4.4					21.4
06S	06E	31					6.6	1.7 L 1											8.3

Total Acres: 35.7

Method of Determination: Field exam, aerial imagery

3. MAPS

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
N/A					

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

D. FLOW MEASUREMENTS

1.

Measurement Equipment	Serial No.	Calib. Date
FlowTracker	P4554	Unknown

X

Additional Computation Sheets
Attached

2. Measurements

Discharge: **0.45 cfs**

E. VOLUME CALCULATIONS

Volume Calculations for Irrigation:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 35.7 \text{ acres} \times 4 \text{ af/a/yr} = 143 \text{ af/yr}$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = 232 \text{ af/yr}$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = \mathbf{143 \text{ af/yr}}$$

F. NARRATIVE/REMARKS/COMMENTS**History:**

Water permit 51-7318 was issued in December 2014 and authorized the use of spring water, tributary to the Bruneau River for irrigation. An application was filed for this right in 1989 and a pre-permit field examination was completed by IDWR in November of that year to determine the source of water and to estimate flow rates. During the pre-permit field examination, the flow rate was measured on the crest of a portable 2' Cipoletti weir. A flow rate of 0.99 cubic feet per second of flow was measured at that time; however the measurement included water flowing from the Bruneau Buckaroo Ditch and the field report states that there was loss of water around the ditch and the weir. The field report also noted that Mr. Black said that the flow of the springs was not related to the Buckaroo Ditch and increased during the fall months.

The permit application was held by IDWR and was not processed until 1993 due to property's location within the Swan Falls Trust Water Area and subsequent moratorium on new consumptive uses of public water. An updated Application for Permit was submitted in 1993. The application was still pending at IDWR in 2014. A second pre-permit site visit was conducted in October of 2014 to determine the source of the water for both this permit and permit 51-7319. At that time, springs were determined to be the source of water. The report states that a field drain tile intercepts spring water that then feeds into a drain ditch. Water is used

directly used from the ditches and put into several other small secondary ditches that irrigate the places of use. The diversion rate of 0.99 cfs was issued for the permit based on the flow rate that was measured during the pre-permitting exam in 1989.

Dan Nelson and I visited Ace Black Ranches for a field exam on April 27, 2018. At that time, there was some flow from 51-7318; however, the owner said the flow increases over time during the summer as the fields are irrigated. The water source for this permit is a drain tile running north-south through the field. The tile drains to what Terry Black referred to as "Jones' Wasteway" (see attached Field Exam Map) and is then later diverted from the wasteway to flood irrigate the place of use at a lower elevation closer to the Bruneau River. A pivot has also been recently installed which irrigates some of the originally permitted place of use using wastewater and collected drain tile water from numerous locations on the property. After consultation with Department staff, based on the fact that the flow increases over the summer as the fields are irrigated and there is minimal flow during the non-irrigation season, it was advised that the source of water for this license should be defined as an unnamed drain tributary to the Bruneau River.

A second site visit was conducted on June 7, 2018 in order to measure the flow at a time where flows are typical for the irrigation season. A flow rate of 0.45 cfs was measured using a FlowTracker.

Points of Diversion:

51-7318 According to available tax parcel data, Ace Black Ranches is the owner of the land at the point of diversion. The point of diversion is the location where the drain tile joins the Jones Wasteway.

Place of Use:

According to available tax parcel data, Ace Black Ranches is the owner of the place of use. The place of use is flood irrigated with water under this permit. A portion of the originally permitted and historically irrigated place of use is no longer irrigated with water from this permit as the owner has installed a new pivot in this location. Diversion of water for the pivot will be covered under new applications for permits.

Diversion Rate:

A flow rate of 0.45 cfs was measured using the FlowTracker and will be recommended for the license.

Diversion Volume:

Diversion volume was calculated in Section E of this report based on the number of acres irrigated at the place of use and the irrigation requirement in the place of use location. The calculated value of 143 afa will be recommended for the license.

Overlap:

Bruneau Buckaroo Coop Ditch Company water rights overlap the permit's place of use. Canal water is not currently available for the lower fields which are irrigated from this water right; however, the license will be appropriately conditioned by carrying over condition R64 for licensing. There is no overlap at the point of diversion.

Ownership:

The owner of permits 51-7318 and 51-7319 is Ace Black Ranches and reflects current ownership.

Conditions:

Conditions 1 (01M), 2 (R64), 3 (121), and 5 will all be retained for the license. Condition 4 (051) will be changed to R55 as is customary for licensing.

Have conditions of permit approval been met? ☒ Yes ☐ No

G. RECOMMENDATIONS**1. Recommended Amounts**

<u>BENEFICIAL USE</u>	<u>PERIOD OF USE</u>	<u>DIVERSION RATE</u>	<u>ANNUAL VOLUME</u>
IRRIGATION	03/01 to 11/15	0.45 CFS	143 AFA

2. Recommended Amendments

☐ Change POD as reflected above ☐ Add POD as reflected above ☒ None

☐ Change POU as reflected above ☐ Add POU as reflected above ☒ None

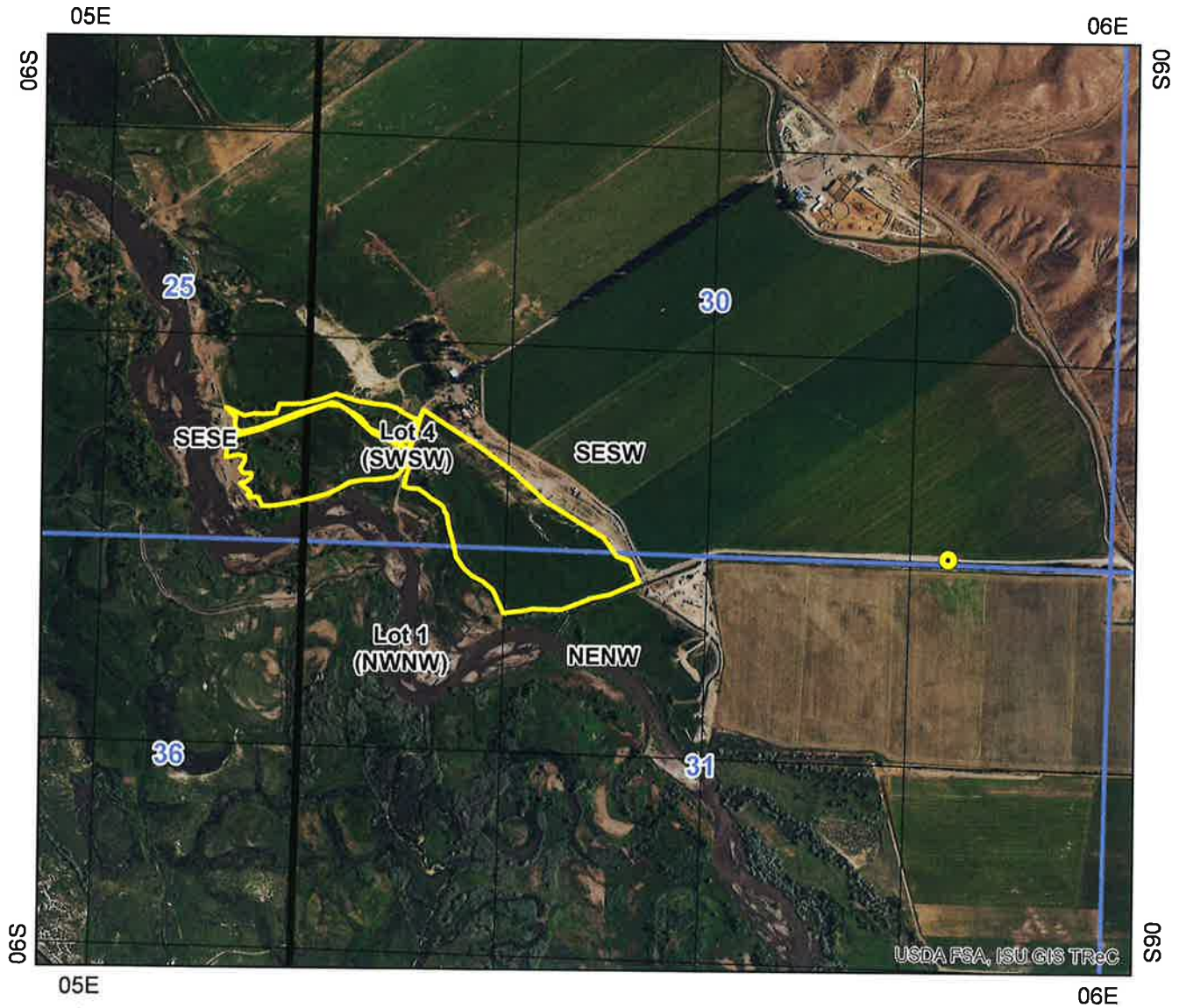
H. AUTHENTICATION – Rachael Smith, Sr. Water Resource Agent

Field Examiner's Name Tal Sh Date 6/14/18

Reviewer Denise A. Miller Date 6-14-18

State of Idaho
Department of Water Resources
Attachment to Field Exam
51-7318

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



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



0 0.125 0.25 0.5 Miles

Discharge Measurement Summary

Date Generated: Mon Jun 11 2018

File Information

File Name 18.WAD
Start Date and Time 2018/06/07 09:50:47

Site Details

Site Name
Operator(s) DO

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	0.5%	2.2%
Velocity	3.3%	9.6%
Width	0.2%	0.2%
Method	2.7%	-
# Stations	2.8%	-
Overall	5.2%	9.9%

Summary

Averaging Int. 40 # Stations 18
Start Edge LEW Total Width 8.000
Mean SNR 23.6 dB Total Area 5.085
Mean Temp 57.23 °F Mean Depth 0.636
Disch. Equation Mid-Section Mean Velocity 0.0878
Total Discharge 0.4463

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	09:50	1.30	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0
1	09:50	1.80	0.6	0.200	0.6	0.080	-0.0010	1.00	-0.0010	0.100	-0.0001	0.0
2	09:52	2.30	0.6	0.300	0.6	0.120	0.0584	1.00	0.0584	0.150	0.0088	2.0
3	09:54	2.80	0.6	0.500	0.6	0.200	0.0682	1.00	0.0682	0.250	0.0171	3.8
4	09:56	3.30	0.6	0.600	0.6	0.240	0.0715	1.00	0.0715	0.300	0.0215	4.8
5	09:58	3.80	0.6	0.700	0.6	0.280	0.1325	1.00	0.1325	0.350	0.0464	10.4
6	09:59	4.30	0.6	0.900	0.6	0.360	0.1093	1.00	0.1093	0.450	0.0492	11.0
7	10:00	4.80	0.6	0.900	0.6	0.360	0.0942	1.00	0.0942	0.450	0.0424	9.5
8	10:02	5.30	0.6	0.950	0.6	0.380	0.1224	1.00	0.1224	0.475	0.0581	13.0
9	10:03	5.80	0.6	0.900	0.6	0.360	0.1837	1.00	0.1837	0.450	0.0827	18.5
10	10:05	6.30	0.6	1.000	0.6	0.400	0.1670	1.00	0.1670	0.500	0.0835	18.7
11	10:07	6.80	0.6	0.850	0.6	0.340	0.0043	1.00	0.0043	0.425	0.0018	0.4
12	10:09	7.30	0.6	0.650	0.6	0.260	-0.0003	1.00	-0.0003	0.325	-0.0001	0.0
13	10:12	7.80	0.6	0.650	0.6	0.260	0.0610	1.00	0.0610	0.325	0.0198	4.4
14	10:13	8.30	0.6	0.500	0.6	0.200	0.0538	1.00	0.0538	0.250	0.0135	3.0
15	10:15	8.80	0.6	0.450	0.6	0.180	0.0069	1.00	0.0069	0.225	0.0016	0.3
16	10:16	9.30	0.6	0.400	0.6	0.160	0.0056	1.00	0.0056	0.060	0.0003	0.1
17	10:16	9.10	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

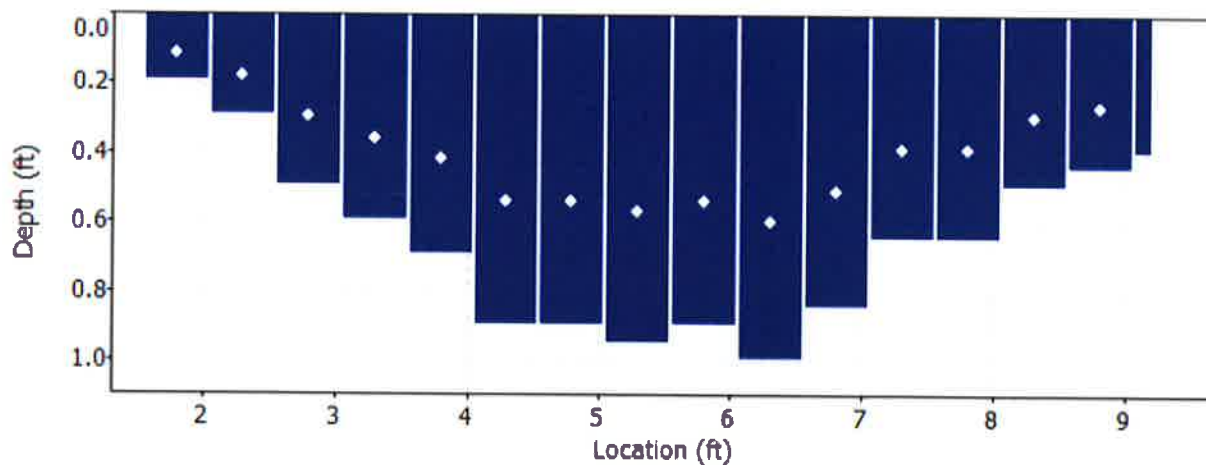
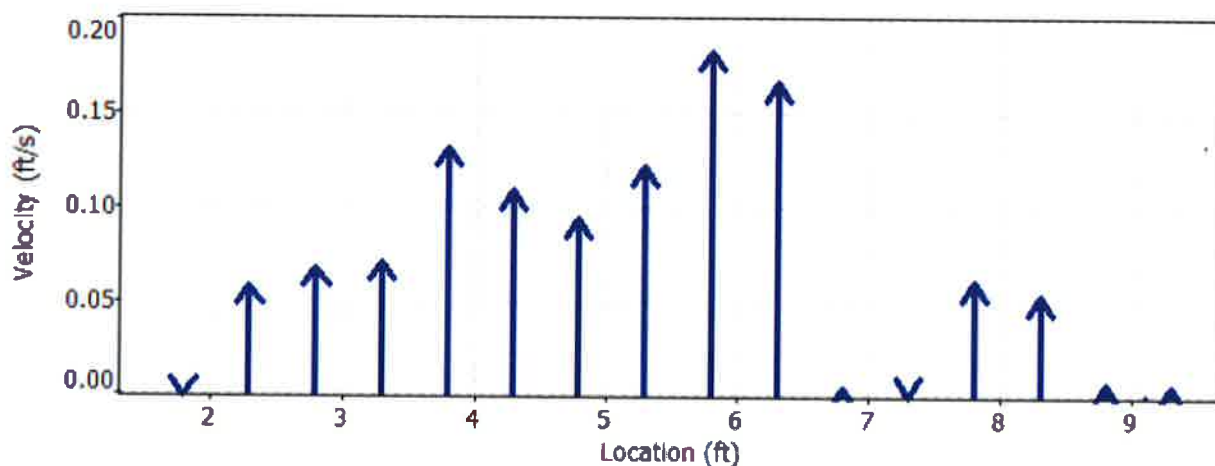
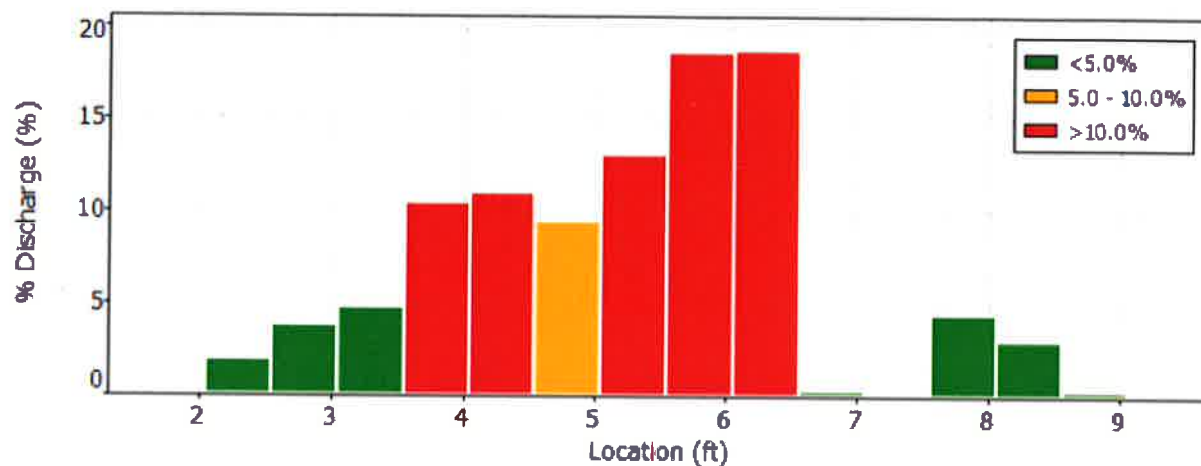
Date Generated: Mon Jun 11 2018

File Information

File Name 18.WAD
Start Date and Time 2018/06/07 09:50:47

Site Details

Site Name
Operator(s) DO



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File Name 18.WAD
Start Date and Time 2018/06/07 09:50:47

Site Details

Site Name
Operator(s) DO

Quality Control

St	Loc	%Dep	Message
1	1.80	0.6	SNR (38.7) is different from typical SNR (23.6)
		0.6	Boundary QC is Good; possible boundary interference
2	2.30	0.6	High angle: 34
		0.6	SNR (38.7) is different from typical SNR (23.6)
		0.6	High SNR variation during measurement: 10.8,11.2
3	2.80	0.6	SNR (36.7) is different from typical SNR (23.6)
		0.6	High SNR variation during measurement: 14.6,15.0
4	3.30	0.6	High SNR variation during measurement: 8.6,9.5
5	3.80	0.6	High SNR variation during measurement: 9.9,10.8
6	4.30	0.6	SNR (10.3) is different from typical SNR (23.6)
		0.6	High SNR variation during measurement: 5.2,5.2
		0.6	Boundary QC is Good; possible boundary interference
7	4.80	0.6	SNR (8.8) is different from typical SNR (23.6)
		0.6	High SNR variation during measurement: 3.4,5.2
		0.6	Boundary QC is Good; possible boundary interference
8	5.30	0.6	SNR (7.9) is different from typical SNR (23.6)
		0.6	Boundary QC is Good; possible boundary interference
9	5.80	0.6	SNR (9.0) is different from typical SNR (23.6)
		0.6	High SNR variation during measurement: 6.5,6.0
		0.6	Boundary QC is Good; possible boundary interference
10	6.30	0.6	SNR (9.6) is different from typical SNR (23.6)
		0.6	High SNR variation during measurement: 6.9,7.3
		0.6	Boundary QC is Fair; possible boundary interference
11	6.80	0.6	Boundary QC is Fair; possible boundary interference
12	7.30	0.6	SNR (75.2) is different from typical SNR (23.6)
		0.6	Boundary QC is Good; possible boundary interference
13	7.80	0.6	SNR (9.5) is different from typical SNR (23.6)
		0.6	High SNR variation during measurement: 5.2,5.6
		0.6	Boundary QC is Poor; possible boundary interference
14	8.30	0.6	SNR (11.2) is different from typical SNR (23.6)
		0.6	Boundary QC is Good; possible boundary interference
16	9.30	0.6	High SNR variation during measurement: 5.2,6.0

Discharge Measurement Summary

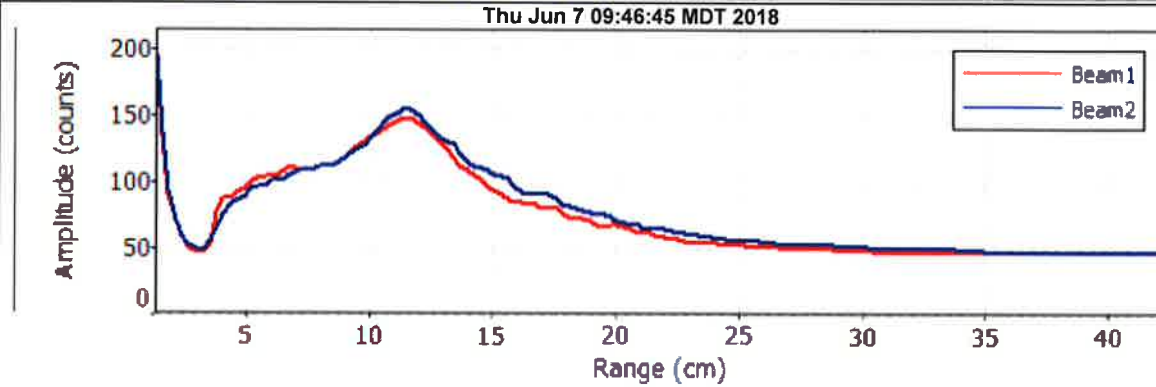
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Start Date and Time 2018/06/07 09:50:47

Site Details

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Operator(s) DO

Automatic Quality Control Test (BeamCheck)

- ✓ Noise level check - Pass
- ✓ SNR check - Pass
- ✓ Peak location check - Pass
- ✓ Peak shape check - Pass

Ace Black Ranches

Water Right 51-7318

Field exam completed April 27, 2018 and June 7, 2018



POD for water right 51-7318
(location where drain tile drains to Jones Wasteway)



The ditch on the right is split from the main wasteway
on the left and used to irrigate the field on the right



The field with the drain tile (unnamed drain) which serves
as the source for 51-7318