

IN THE DISTRICT COURT OF THE FIFTH JUDICIAL DISTRICT OF THE STATE OF IDAHO,
IN AND FOR THE COUNTY OF TWIN FALLS

IN RE THE GENERAL ADJUDICATION
OF RIGHTS TO THE USE OF WATER FROM
THE SNAKE RIVER BASIN WATER SYSTEM.

CIVIL CASE NUMBER: 39576

Ident. Number: A72-00148
Date Received: 12/07/1989
Receipt No: M005338
Received By: SCC

NOTICE OF CLAIM TO A WATER RIGHT
ACQUIRED UNDER STATE LAW

1. Name: DELBERT M. HUGHES 208-879-2365
Address: HC 61 BOX 3054
CHALLIS, ID 83226

OR

Name: DONNA L. HUGHES 208-879-2365
Address: HC 61 BOX 3054
CHALLIS, ID 83226

2. Date of Priority: SEP 14, 1931

3. Source: MORGAN CREEK Trib. to: SALMON RIVER

4. Point of Diversion:

Township	Range	Section	1/4 of	1/4 of	1/4	Lot	County
15N	19E	23	NW	NE			CUSTER

5. Description of diverting works:
HEADGATE, DITCHES.

6. Water is used for the following purposes:

Purpose	From	To	C.F.S	(or)	A.F.A.
IRRIGATION	04/01	11/01	0.400		

7. Total Quantity Appropriated is:
0.400 C.F.S. (and/or) A.F.A.

8. Total consumptive use is 427.5 Acre Feet Per Annum.

9. Non-irrigation uses:

10. Place of Use:

Township	Range	Section	1/4	of	1/4	Lot	Use	Acres
15N	19E	24	NE		NE	2	IRR	5.0
			NW		NE	2	IRR	40.0
			SW		NE	3	IRR	36.0
			SE		NE	3	IRR	6.0
			NE		NW		IRR	25.0
			SE		NW		IRR	32.0
			NE		SW		IRR	27.0

Section Acres 171.0

Total Acres 171.0

11. Place of use in counties: CUSTER

12. Do you own the property listed above as place of use? YES

13. Other Water Rights Used:

A72-00147, A72-04177, A72-04028, A72-04029.

14. Remarks:

RT. IS FOR AMOUNT STATED, SAID AMOUNT TO INCLUDE ANY SPRINGS
ARISING BELOW THE P. D.

15. Basis of Claim: DECREED

Case Number:

Court :

Decree date: 5/02/1935

IVAN HUGHES ET AL

Decree Plaintiff

vs

VAL JONES ET AL

Decree Defendant

MICROFILMED

MAR 1 8 1993

16. Signature(s)

(a.) By signing below, I/We acknowledge that I/We have received, read and understand the form entitled "How you will receive notice in the Snake River Basin Adjudication." (b.) I/We do _____ do not _____ wish to receive and pay a small annual fee for monthly copies of the docket sheet.

Number of attachments: _____

For Individuals:

I/We do solemnly swear or affirm that the statements contained in the foregoing document are true and correct.

Signature of Claimant(s): Robert M. Hughes Date: Dec 7, 1989

Date: _____

State of Idaho)
County of Custer) SS.

Subscribed and sworn (or affirmed) before me this 7th day
of December 19 89 Stuart C. Bell
Notary Public

Seal

Residing at Twin Falls, Idaho

My Commission Expires December 7, 1994



Prepared

CONSERVATION PLAN MAP

UNITED STATES DEPARTMENT of AGRICULTURE & SOIL CONSERVATION SERVICE
cooperating with
CUSTER
S.C. DISTRICT

OWNER **Ivan Hughes**
OPERATOR **Delbert Hughes**
Custer
COUNTY

Idaho

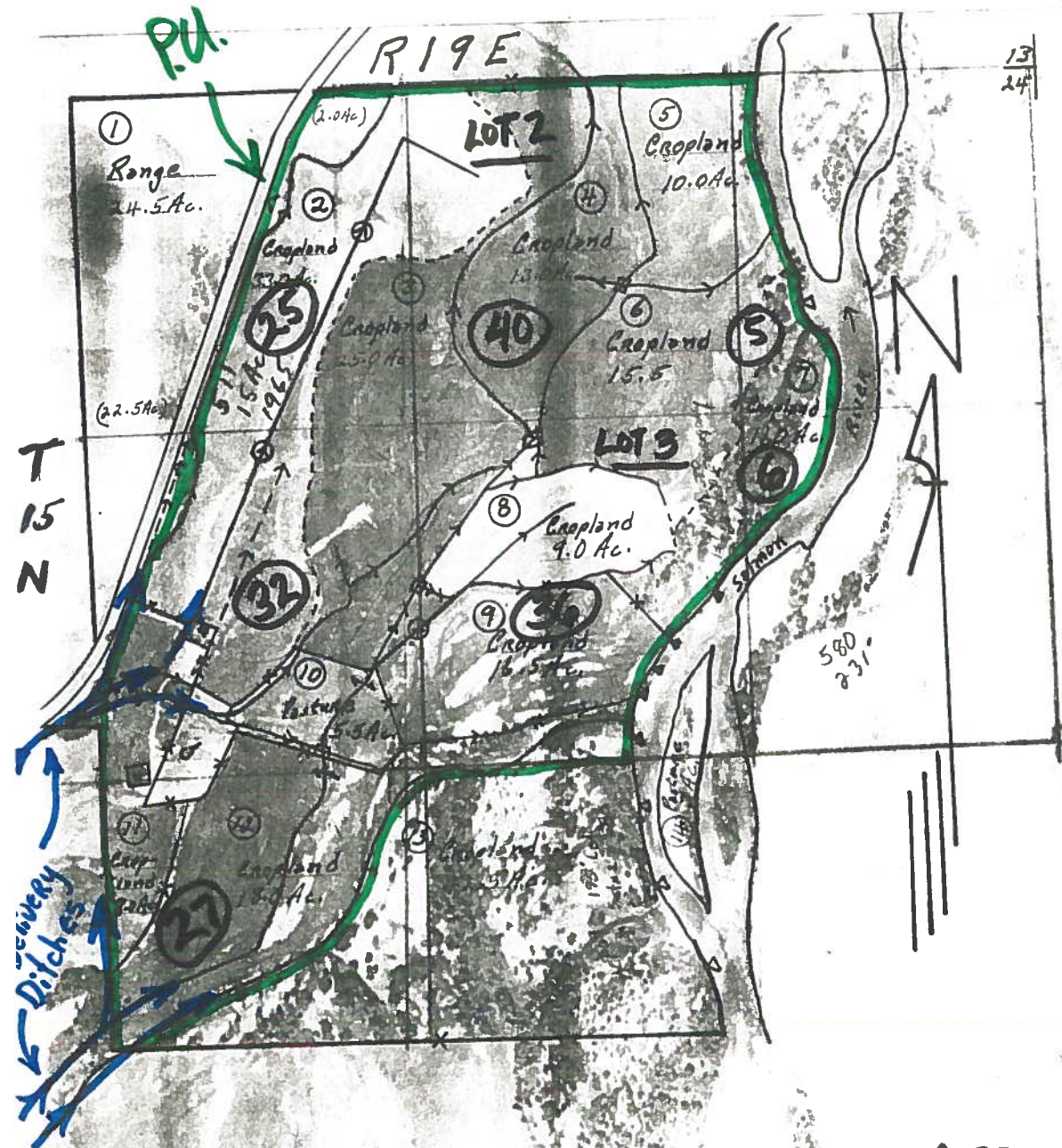
STATE

FARM NO. 161 DATE 11/62

SCALE 8" to 1 mi ACRES 238

PHOTO NO. CVQ-19W-84

USDA SOIL PORTLAND, OREG. 1951



A72-00148

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MAR 18 1993

6/9/94

COMMUNICATION DOCUMENTATION

Claim No. A72-04029
A72-00147

This form is to be used to document public record information requests regarding any SRBA claim or claims. The form may also be used to document IDWR communications requesting information regarding any SRBA claim or claims when the request is not made in writing or the claim verification report is not readily available to document the request. This form is to be filed in all relevant claim files or a central office file.

IDWR Employee/Agent STEVE CLELLAND Date 8-11-94

Contact Person(s) DELOART HUGHES

Nature of Contact He called to ask about the SRBA process.

Substance of Communication _____

He attended a meeting in Salmon & was wondering if
any State or Federal Agencies have protested his water claims.
I outlined to him the SRBA process of the Director's Report
and the Objection phase and provided some examples of
BLM protests on trespass issues. Any protests against his claims
will depend on the timing of the Director's Report filing w/ the Court.
He also ask specifically - Does the NMFS have the
right to shut off Decreed rights under the ESA?
I said yes, they have the authority but I know of no
instances where it has been used.

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NOV 01 1994



State of Idaho

DEPARTMENT OF WATER RESOURCES

Southern Region, 222 Shoshone St. East, Twin Falls, Idaho 83301 (208) 736-3033

CECIL D. ANDRUS
Governor

R. KEITH HIGGINSON
Director

18-Oct-1993

DELBERT HUGHES
HC 61 BOX 3045
CHALLIS ID 83226

RE: SYSTEM ANALYSIS FOR ADJUDICATION CLAIMS FILED ON PROPERTY
AT MOUTH OF MORGAN CREEK.

Dear Mr Hughes

The following is the information determined from my field
verification of your claims.

DITCH MEASUREMENTS

Morgan Creek (on Savage property)	7.14 cfs (MEASURED)
Morgan Creek (at Santee ditch crossing) not measured at this point.	capacity considered close to Salmon River measurement.
Salmon River	8.04 cfs (MEASURED)
theoretical based upon an additional 6" depth =	11.91 cfs (THEORETICAL)
Pump diversion from Santee ditch theoretical	1.43 cfs (THEORETICAL)

ACREAGE DETERMINATION

Total acres above Santee ditch being irrigated with M Cr water.	<u>75</u> acres
Total acres below Santee ditch being irrigated with M Cr water.	<u>76</u> acres
Total acres being irrigated with waste water	19 acres

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HUGHES
PAGE 2
18-Oct-1993

MORGAN CREEK SYSTEM

Soils and irrigation analysis indicate that 13.23 cfs of Morgan Creek water would be required to irrigate the 151 found acres.

SALMON RIVER SYSTEM

System analysis indicates a 1.43 cfs capacity for the 75 acres under the pump system and 9.21 cfs requirement for the 76 acres below the Santee ditch being irrigated with Salmon River water. This gives a total of 10.64 cfs that could be recognized.

WASTE WATER SYSTEM

System analysis of the 19 acres irrigated with waste water resulted in a required diversion rate of 1.31 cfs.

Based upon currently available information the above rates and acres reflect the basis for my potential recommendation of your claims. As you indicated that you wished to claim 'high' water or excessive flow for all three systems and some of your current claims do not reflect your indications or my analysis, I have enclosed copies of;

A72-04028 - source, Salmon River for 96 acres @ 3.84 cfs
A72-04177 - source, Morgan Creek for 81 acres @ 4.00 cfs.

Please cross out any information you wish to change and then enter your corrections by that location. Please initial each change to indicate that you were the individual that made the changes. The corrected claim form needs to be notarized when you sign it before I am allowed to change your claim. As these are your claims please change them only according to your wishes, not necessarily as I have analyzed your system.

I realize that this letter is extremely brief and does not address many aspects of your claims so please call me if you want to discuss anything relating to the claims.

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CLAM SUMMARY AS THEY EXIST AS OF THIS DATE

Morgan Creek	A72-00147	-	171 ⁵ acres	@	1.60 cfs
	A72-00148	-	171 acres	@	0.40 cfs
	→ A72-04177	-	81 [*] acres	@	4.00 cfs
	Total	-	171 ¹⁵¹ acres	@	6.00 cfs*
Salmon River	A72-04028	-	96 acres	@	3.84 cfs*
	A72-04029	-	80 acres	@	1.60 cfs
Waste Water	A72-04030	-	43 acres	@	1.72 cfs

* Indicates acres or rates that are lower than found or calculated.

Your property is the first analyzed on Morgan Creek so no other users have been contacted as of this date. I hope to make one more trip to the Challis area this fall and if so I will try to contact you to discuss your claims if necessary.

Sincerely



Kelly K. Christensen
Sr. Water Resource Agent

enclosures

MICROFILMED
NOV 01 1994

Water Right Number - 72-00148

Prefix Translation:

WATER RIGHT

Old (D) Number -

+ - - - - Last Name - - - - +

+ - First Name - - - +

+ - - - - Address - - - - +

*** C - CURRENT OWNER ***
HUGHES

IVAN

1 -

2 -

3 -

City-

Phone -

State-

Zip-

+ - - Priority Date - - - +
09/14/1931+ - - Region - - - +
17 SOUTHERN+ - - Stage - - - +
D - DECREED

+ - - Status - - - +

Source - - - - +
MORGAN CREEK+ - - Tributary - - - - +
SALMON RIVER

Tw	Rng	Sec	Tract	Lot	Rflg	County	Point of Diversion	Stream Index (Blank if no Index Code)
15N	19E	23	NW NE	(37)	CUSTER			

Code	Description	Period From	Period To	Water Use	Diversion Rate	Diversion Volume
01	IRRIGATION				0.400	

+ - Total Div. Rate - + + - Total Div. Volume - + + - Total Div. Capacity - +
0.400

Tw	Rng	Sec	Tract	Lot	Place of Use	Description	County
15N	19E	24	NE NE	2	01	IRRIGATION	(37) CUSTER
15N	19E	24	NW NE	2	01	IRRIGATION	(37) CUSTER
15N	19E	24	SW NE	3	01	IRRIGATION	(37) CUSTER
15N	19E	24	SE NE	3	01	IRRIGATION	(37) CUSTER
15N	19E	24	NE NW		01	IRRIGATION	(37) CUSTER
15N	19E	24	SE NW		01	IRRIGATION	(37) CUSTER
15N	19E	24	NE SW		01	IRRIGATION	(37) CUSTER

+ - - Diversion Means -

+ - - Non-Irrigation Use -

+ - - Other Rights for Same Use - 72-0147.

Remarks
RT. IS FOR AMOUNT STATED, SAID AMOUNT TO INCLUDE ANY SPRINGS ARISING BELOW THE P. D.

+ - - Old Water Right Numbers - - - - +
No Old Water Right Numbers found.MICROFILMED
NOV 0 1 1994MICROFILMED
NOV 0 1 1994

WATER BYCUT

- - Conditions of Approval - -
- - No Conditions of Approval found.

Decree Defendant
VAL JONES ET AL

--Comments--
No Comments Found

Water Rights Dates and Flags Area

Proof Due Date	00/00/0000	Field Exam Made	00/00/0000	Field Exam Fee	-
Approved/Denied	00/00/0000	Protested Date	00/00/0000	Swan Falls	-
Proof Made Date	00/00/0000	Hearing Date	00/00/0000	Temporary Right	- P
Exam to S.O. Date	00/00/0000	Verified Date	06/18/1985	DLE/Carrey Act	-
Order Show Cause	00/00/0000	Receipt Number	-	Water District	- 72F
Licensed Date	00/00/0000	Appl Received	00/00/0000	Transfer/Amended	-
Decree Date	05/02/1935	Presumption Flag	-		

MICROFILMED
NOV 01 1994

72-00148

November 20, 1998

**NOTICE OF ERROR
REPLY**

Please type or print clearly, fill out this form completely and mail.

Return this reply form to IDWR by the deadline date printed below if you want IDWR to change your recommendation or you want to let IDWR know that you agree with its recommendation.

YOUR DEADLINE FOR RETURNING A NOTICE OF ERROR REPLY IS: December 18, 1998

Water right number: 72-00148

DELBERT M HUGHES
DONNA L HUGHES
HC 61 BOX 3054
CHALLIS ID 83226

Daytime Telephone Number:

Evening Telephone Number:

1. Describe the portion of the proposed recommendation with which you disagree (e.g. priority date, period of use, source):

2. Describe the changes you wish to make in the proposed recommendation:

3. Give a brief explanation as to why you disagree with these portions:

☒ I AGREE with this proposed recommendation; no changes need to be made.

DATE: 12/9/98

SIGNATURE:

Please print your name:

Delbert Hughes
Delbert Hughes

AJ5808NP
(OD-26)

IDAHO DEPARTMENT OF WATER RESOURCES
ADJUDICATION CLAIMS PROOF READING REPORT

11/03/98 11:13:15
Page 1

Water Right Number - R72-00148

Prefix Translation: RESEARCH

Old (D) Number -

+ - - - - Last Name - - - - + + - First Name - - + + - - - - - Address - - - - - +

*** C - CURRENT OWNER ***

HUGHES

DELBERT M

1 - HC 61 BOX 3054

2 -

3 -

City- CHALLIS

Phone - 208-879-2365

State- ID Zip- 83226

HUGHES

DONNA L

1 - HC 61 BOX 3054

2 -

3 -

City- CHALLIS

Phone - 208-879-2365

State- ID Zip- 83226

VERIFIED BY: KKC
11-3-98

+ - - Priority Date - - + + - - Region - - - + + - - Stage - - - + + - - Status - - - - +
09/14/1931 17 SOUTHERN D - DECREED

+ - - - - Source - - - - - + + - - - - Tributary - - - - - +
MORGAN CREEK SALMON RIVER

+ - - - - Point of Diversion - - - - - +
Twn Rng Sec Tract Lot RFlg County Diversion Name
15N 19E 23 NW NW NE - GES 43 (37) CUSTER
24 NE SW SW - 42 7 (37) CUSTER

+ - - - - Water Use - - - - - +
Code Description Period From Period To Diversion Rate Diversion Volume
01 - IRRIGATION 04/15 10/15 0.400

+ - Total Div. Rate - + + - Total Div. Volume - + + - Total Div. Capacity - + + - Total Consumptive Use - + + - KW Usage - +
0.400 0.0

+ - - - - Place of Use - - - - - +
Twn Rng Sec Tract Lot Acres Code Description County
15N 19E 24 NE NE 2 6.8 01 IRRIGATION (37) CUSTER
15N 19E 24 NW NE 2 40.0 01 IRRIGATION (37) CUSTER
15N 19E 24 SW NE 3 33.0 01 IRRIGATION (37) CUSTER
15N 19E 24 SE NE 3 0.3 01 IRRIGATION (37) CUSTER
15N 19E 24 NE NW 16.0 01 IRRIGATION (37) CUSTER
15N 19E 24 SE NW 33.0 01 IRRIGATION (37) CUSTER
15N 19E 24 NE SW 24.0 01 IRRIGATION (37) CUSTER
15N 19E 24 NW SE 6 1.1 01 IRRIGATION (37) CUSTER

Total Acres: 154.2

GES 132 OL with 4029

133 OL with 4028

+ - - Diversion Means - HEADGATE, DITCHES.

+ - - Non-Irrigation Use -

+ - - Other Rights for Same Use - 72-00147, 72-04177, 72-04028, & 72-04029.

Water right number - R72-00148

Prefix Translation: RESEARCH

+ - - - - Remarks - - - - - +

QNT USE OF THE RIGHTS LISTED BELOW IS LIMITED TO A TOTAL COMBINED
DIVERSION RATE OF 14.21 CFS. COMBINED RIGHT NOS.: 72-00147,
72-00148, AND 72-04177.

POU1 USE OF THE RIGHTS LISTED BELOW IS LIMITED TO A THE IRRIGATION
OF A COMBINED TOTAL OF 154.2 ACRES IN A SINGLE IRRIGATION SEASON.
COMBINED RIGHT NOS.: 72-00147, 72-04177, 72-04028, & 72-04029.

Added 00148

*updated
11-3-98
KHC*

EXP THE FOLLOWING RIGHTS ARE DIVERTED THROUGH THE POINTS OF
DIVERSION DESCRIBED ABOVE: 72-00147, 72-00148, AND 72-04177.

+ - - - - Old Water Right Numbers - - - - - +

No Old Water Right Numbers found.

+ - - - - Conditions of Approval - - - - - +

C03 - RIGHT INCLUDES ACCOMPLISHED CHANGE IN POINT OF DIVERSION
- PURSUANT TO SECTION 42-1425, IDAHO CODE.

+ - - - - Decree Plaintiff - - - +

IVAN HUGHES ET AL

+ - - - - Decree Defendant - - - +

VAL JONES ET AL

+ - Decree Date - +

05/02/1935

+ - - Audit Fields - 11/13/92 CLELLAND 01/10/94 CHRISTEN 03/30/95 POST-STD 10/05/98 KCHRISTE 10/06/98 KCHRISTE

+ - - - - Comments - - - - - +

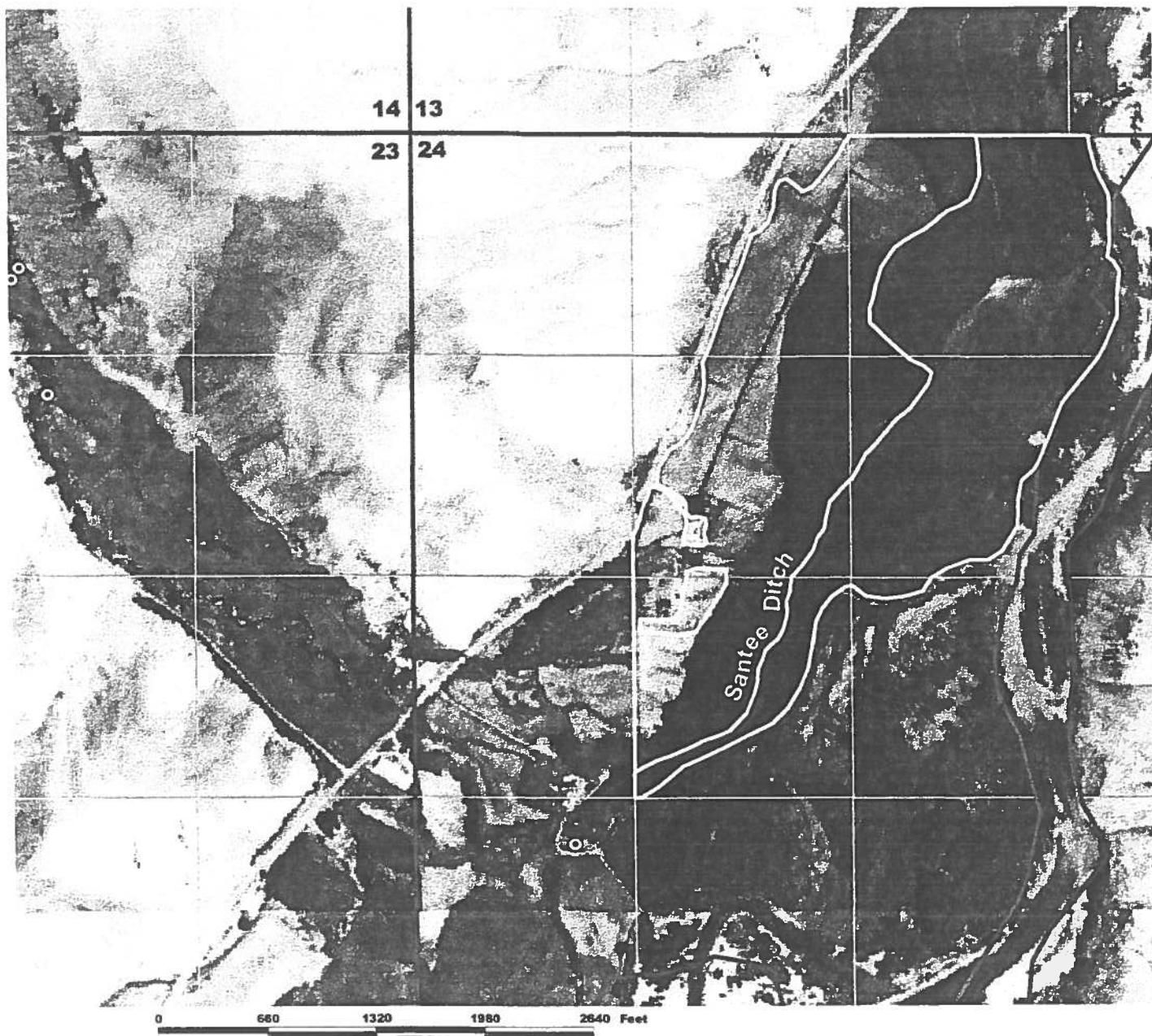
Date: 01/10/1994 User Id: CHRISTEN Subject: COPIED FROM REMARKS

RT. IS FOR AMOUNT STATED, SAID AMOUNT TO INCLUDE ANY SPRINGS ARISING BELOW THE P. D.

+ - - - - Adjudication Rights Dates and Flags Area - - - - - +

Court Report Filing	- 00/00/0000	Field Inspection Made	- 08/19/1993	Civil Case Number	- 39576
Objection Filed Date	- 00/00/0000	Field Inspection Flag	-	Old Case Number	-
Response Filed Date	- 00/00/0000	Verified Date	- 00/00/0000	Old Judicial District	-
Claim Received Date	- 12/07/1989	Last Amended Date	- 00/00/0000	Temporary Right	- P
Proof Due Date	- 00/00/0000	Proof Made Date	- 00/00/0000	Water District	- 72F
Licensed Date	- 00/00/0000	Receipt Number	- M005338	Federal/State Indicator	- S
		POU Ownership Flag	- Y	Presumption Flag	- C
		Name Connector	- OR	Notice of Error Flag	-

**72-00147, 72-00148, & 72-04177
MORGAN CREEK RIGHTS
HUGHES**



**RECOMMENDED PLACE OF USE
TWP 15N. RNG 19E, SEC 24
data entry on August 5, 1998**



- RECOMMENDED POINT OF DIVERSION
- RECOMMENDED PLACE OF USE
- SECTION LINES
- QUARTER/QUARTER LINES

**GIS PLACE OF USE PRESENTATION
1992 USDA-F AERIAL PHOTOGRAPHY
DATA ENTRY BY KELLY K CHRISTENSEN**

72-00147

72-00148

72-04177

10-6-98.

Diversion Rate Recommendation Analysis.

Revised Hubble gives

above Santee	81.6 acres	6.87 cfs
below Santee	<u>72.4 acres</u>	<u>7.34 cfs</u>
total	154.2*	14.21 cfs.

* Recommended P/u.

claimed rates

72-00147 -	1.60 cfs
00148 -	0.40 cfs
04177 -	<u>12.43 cfs</u>
	14.43 cfs

System Capacity

Morgan Cr P/D in Sec 23	7.14
" " @ Santee ditch	<u>11.91</u>
	18.23 cfs

Analysis: the limiting factor is the beneficial use as identified through the Hubble analysis. Therefore the recommended total limit for the three rights is 14.21 cfs

14.21 system total.	
- 1.60 (00147)	Recommended Rates.
- .40 (00148)	

balance. 12.21 (04177)



KELLY K CHRISTENSEN *KKC*
 SR WATER RESOURCE AGENT
 IDAHO DEPT OF WATER RESOURCES
 SOUTHERN REGION

REEVALUATION OF IRRIGATION RATES BASED UPON 1997 REVISED HUBBLE ANALYSIS PROCEDURES

Pg 1/2

CLAIM NUMBERS
For P/U below
the Santee Ditch

DATE: _____, 1998

REVIEWED BY _____

CHALLIS AREA SOIL REVIEW

SOIL TYPE	BORDER CFS/AC		FURROW CFS/AC		OPTIMUM ROTATION	
	PAST	ALFA	PAST	ALFA	PASTURE	ALFALFA
ATC	.15	.13			6.49	7.62
BB1	.09	.09			6.09	6.17
BBD						
BC1	.16	.17			5.82	5.46
BK1	.07	.06			10.62	11.86
BT1	.18	.16			3.99	4.19
BT2	.41	.32			2.34	2.87
CB1	.06	.06			11.55	13.47
CHA	.21	.21			4.52	4.76
CP1	.36	.36			2.61	2.78
DB1	.13	.11			5.66	6.65
DBB	.13	.11			5.71	6.69
DBC	.13	.11			5.71	6.69
DMF	.18	.21			5.12	4.72
DT2	.05	.04			12.46	16.50
DWA	.14	.14			4.79	5.01
GO1	.10	.12			12.47	10.51
HAYSE						
KEG	.08	.07			8.73	10.06
MUG	.15	.14			4.54	4.98
NDL	.13	.12			5.30	6.06

SOIL TYPE	BORDER CFS/AC		FURROW CFS/AC		OPTIMUM ROTATION	
	PAST	ALFA	PAST	ALFA	PASTURE	ALFALFA
PD2	.11	.12			5.15	4.74
RE2	.29	.21			3.15	4.74
RP1	.19	.21			4.89	4.57
SH1	.06	.05			9.37	12.10
SOC	.08	.07			7.38	8.08
SSA	.15	.14			4.79	5.01
SXF	.12	.11			6.14	6.80
TC1	.06	.06			9.82	9.55
TD1	.04	.03			12.46	16.50
WB2	.13	.13			5.37	5.43
WAA	.19	.16			3.81	4.23
WBB	.17	.14			3.36	3.84
WC1	.07	.06			11.24	13.45
WPT	.19	.15			3.16	3.69
WV1	.07	.06			11.24	13.45
XHS						
YN1	.18	.14			5.38	6.92
Q	.26	.21			13.22	10.39

The rate per acre calculations are based upon a 300 foot run at a 2% slope. An 8 hour set time was also used. Individual graded border evaluations, soil characteristics work sheets, and peak irrigation diversion requirement work sheets have been created and archived separately for each soil type.

Where actual rotation is shorter than the optimal rotation, optimal rotation is the criteria to be used for the recommendation analysis and, therefore, the rotation percentage adjustment is not necessary. The rate becomes the acres per soil type times the rate per acre from the above chart.

SOIL TYPE	OPTIMAL / ROTATION (chart)	ACTUAL ROTATION (field)	ACRES PER SOIL TYPE (field)	RATE PER ACRE (chart)	TOTAL DIVERSION RATE
RP1	4.57	10	45.3	.21	4.35 CFS
CB1	13.47	10	18.0	.06	1.08 CFS
Q	10.29	10	9.1	.21	1.91 CFS
					CFS

7.34 CFS/100

TOTAL ACRES 72.4

Total P/U Reconn. Rate
Pg1 7.34
Pg2 6.87
14.21

DECREED RATE = _____
CLAIMED DIVERSION RATE = _____
MEASURED DIVERSION RATE = _____

REVIEW OF IRRIGATION RATES BASED UPON 1997 REVISED HUBBLE ANALYSIS PROCEDURES

Pg 2/2

CLAIM NUMBERS
For P/U above
Santee Ditch

DATE: _____, 1998

REVIEWED BY _____

CHALLIS AREA SOIL REVIEW

SOIL TYPE	BORDER CFS/AC		FURROW CFS/AC		OPTIMUM ROTATION		SOIL TYPE	BORDER CFS/AC		FURROW CFS/AC		OPTIMUM ROTATION	
	PAST	ALFA	PAST	ALFA	PASTURE	ALFA		PAST	ALFA	PAST	ALFA	PASTURE	ALFA
ATC	.15	.13			6.49	7.62	PD2	.11	.12			5.15	4.74
BB1	.09	.09			6.09	6.17	RE2	.29	.21			3.15	4.74
BBD							RP1	.19	.21			4.89	4.57
BC1	.16	.17			5.82	5.46	SH1	.06	.05			9.37	12.10
BK1	.07	.06			10.62	11.86	SOC	.08	.07			7.38	8.08
BT1	.18	.16			3.99	4.19	SSA	.15	.14			4.79	5.01
BT2	.41	.32			2.34	2.87	SXF	.12	.11			6.14	6.80
CB1	.06	.06			11.55	13.47	TC1	.06	.06			9.82	9.55
CHA	.21	.21			4.52	4.76	TD1	.04	.03			12.46	16.50
CP1	.36	.36			2.61	2.78	WB2	.13	.13			5.37	5.43
DB1	.13	.11			5.66	6.65	WAA	.19	.16			3.81	4.23
DBB	.13	.11			5.71	6.69	WBB	.17	.14			3.36	3.84
DBC	.13	.11			5.71	6.69	WC1	.07	.06			11.24	13.45
DMF	.18	.21			5.12	4.72	WPT	.19	.15			3.16	3.69
DT2	.05	.04			12.46	16.50	WV1	.07	.06			11.24	13.45
DWA	.14	.14			4.79	5.01	XHS						
GO1	.10	.12			12.47	10.51	YN1	.18	.14			5.38	6.92
HAYSE							Q	.26	.21			13.22	10.39
KEG	.08	.07			8.73	10.06							
MUG	.15	.14			4.54	4.98							
NDL	.13	.12			5.30	6.06							

The rate per acre calculations are based upon a 300 foot run at a 2% slope. An 8 hour set time was also used. Individual graded border evaluations, soil characteristics work sheets, and peak irrigation diversion requirement work sheets have been created and archived separately for each soil type.

Where actual rotation is shorter than the optimal rotation, optimal rotation is the criteria to be used for the recommendation analysis and, therefore, the rotation percentage adjustment is not necessary. The rate becomes the acres per soil type times the rate per acre from the above chart.

SOIL TYPE	OPTIMAL ROTATION / (chart)	ACTUAL ROTATION / (field)	ACRES PER SOIL TYPE (field)	RATE PER ACRE (chart)	TOTAL DIVERSION RATE
BB1	6.17	10	29.4	.09	1.63 CFS
GO1	10.51	10	10.6	.12	1.27 CFS
RP1	4.57	10	35.7	.21	3.43 CFS
BT2	2.87	10	5.9	.32	.54 CFS

TOTAL ACRES 81.6

1/2 of the P/U

DECREED RATE = _____

CLAIMED DIVERSION RATE = _____

MEASURED DIVERSION RATE = _____

total 6.87 = 0.084 CFS/Acre

CLAIM NUMBER

72-00147 72-00148
72-04177

DATE

10-5-98

AGENT

KKC

TRANSFER NUMBER

CLAIMED ACRE TOTAL

171

GIS ACRE TOTAL

154.6

	TWP	RNG	SEC	NE				NW				SW				SE				
				NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
CLAIM	15N	19E	24	5	40	36	6	25			32	27								17
GIS																				
RECOM																				
P/U Below Santee Ditch																				
	15N	19E	24	6.8	27.4	28.9	.3				2.4	7.1					1.1			
				6.8	27	28					2.4	7.1					1.1			72
P/U ABOVE SANTEE DITCH																				
	15N	19E	24		12.7	4.6		16.3			30.6	16.7								
CLAIM					13	4.6		16			31	17								81
GIS																				
RECOM	COMBINED P/U			6.8	40	33	.3	16			33	24					1.1			15
CLAIM																				
GIS																				
RECOM																				

B72-DBPOU.SHP

SHAPE NOS.

132 Above Santee Ditch

133 Below Santee Ditch

P/U created with 2 polygons as other
rights from the Salmon River are
recommended according to the Santee Di
split of the property owned by Delbert.

B72-DBPOD.SHP

NOS. DESCRIPTION

43 Sec 23

NW SW NE

42 Sec 24

NE SW SW

DBF TABLES UPDATED

B72-DBPOU.DBF

B72-DBPOD.DBF

R PROOF

CVR

MAPS

PHOTOS

MISC

MICROFILM

NOV 01 1994

Water Right Number - R72-00148

Prefix Translation:

RESEARCH

Old (D) Number -

*** C - CURRENT OWNER ***
HUGHES

DELBERT M.

1 - HC 61 BOX 3054

State- ID Zip- 83226

VERIFIED BY - KKC

HUGHES

DONNA L.

2 -
3 -
City- CHALLIS
Phone - 208-879-2365
1 - HC 61 BOX 3054

State- ID Zip- 83226

3 -
City- CHALLIS
Phone - 208-879-2365+ - Priority Date - +
09/14/1931+ - Region - +
17 SOUTHERN+ - Stage - +
D - DECREED

+ - Status - +

Source - +
MORGAN CREEK+ - Tributary - +
SALMON RIVER+ -
Twn Rng Sec Tract Lot RFlg County Point of Diversion - +
15N 19E 23 NW NW NE (37) CUSTER
24 NE SW SW 7 (37) CUSTER+ -
Code Description Period From Period To Water Use Diversion Rate Diversion Volume
01 - IRRIGATION 04/15 10/15 0.400
+ - Total Div. Rate - + + - Total Div. Volume - +
0.400 + - Total Consumptive Use - + + - KW Usage - +
0.0+ -
Twn Rng Sec Tract Lot Acres Place of Use Code Description County
15N 19E 24 NE NE 2 6.0 01 IRRIGATION (37) CUSTER
15N 19E 24 NW NE 2 40.0 01 IRRIGATION (37) CUSTER
15N 19E 24 SW NE 3 33.0 01 IRRIGATION (37) CUSTER
15N 19E 24 SE NE 3 3.0 01 IRRIGATION (37) CUSTER
15N 19E 24 NE NW 12.0 01 IRRIGATION (37) CUSTER
15N 19E 24 SE NW 27.0 01 IRRIGATION (37) CUSTER
15N 19E 24 NE SW 28.0 01 IRRIGATION (37) CUSTER
15N 19E 24 SE SE 2.0 01 IRRIGATION (37) CUSTER

Total Acres: 151.0

Diversions Means - HEADGATE, DITCHES.

Non-Irrigation Use -

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NOV 0 1 1994

Water right number - R72-00148

Prefix Translation: RESEARCH

+ - - Other Rights for Same Use - 72-00147, 72-04177, 72-04028, & 72-04029.

Remarks - - - - -

THE FOLLOWING RIGHTS ARE ALSO DIVERTED THROUGH POINT OF
DIVERSION DESCRIBED ABOVE: 72-00147 AND 72-04177.
USE OF THIS RIGHT WITH RIGHTS LISTED BELOW IS LIMITED TO A
TOTAL COMBINED DIVERSION RATE OF 13.23 CFS, A TOTAL COMBINED
ANNUAL CONSUMPTIVE USE VOLUME OF 377.5 AF, AND TO THE IRRIGATION
OF A COMBINED TOTAL OF 151 ACRES IN A SINGLE IRRIGATION SEASON.
COMBINED RIGHT NOS.: 72-00147, 04177, 04028, & 04029.

+ - - No Old Water Right Numbers Found

+ - - - - Conditions of Approval - - - - -

C03 - RIGHT INCLUDES ACCOMPLISHED CHANGE IN POINT OF DIVERSION
- PURSUANT TO IDAHO CODE 42-1416A.

+ - - - - Decree Plaintiff - - - + + - - - Decree Defendant - - - + + - - Decree Date - - +

IVAN HUGHES ET AL VAL JONES ET AL 05/02/1935

+ - - Date: 01/10/1994, User Id: CHRISTEN Subject: COPIED FROM REMARKS - Comments - - - - -

RT. IS FOR AMOUNT STATED, SAID AMOUNT TO INCLUDE ANY SPRINGS ARISING BELOW THE P. D.

+ - - Audit Fields - - +

01/10/94 CHRISTEN

+ - - - - Adjudication Rights Dates and Flags Area - - - - -

Court Report Filing	Field Inspection Made	Civil Case Number
Objection Filed Date - 00/00/0000	Field Inspection Flag - 01/10/1994	Old Case Number - 39576
Response Filed Date - 00/00/0000	Verified Date - 00/00/0000	Old Judicial District -
Claim Received Date - 12/07/1989	Last Amended Date - M005338	Temporary Right - P
	Receipt Number -	Water District - 72F
	POU Ownership Flag -	Federal/State Indicator - S
	Name Connector - OR	Presumption Flag - C
		Notice of Error Flag -

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WR ELEMENT	FIELD EXAM Y/N	CORRESPONDENCE SENT/RECEIVED BY WHOM/DATE	FIELD EXAM BY WHOM/DATE	CHANGE CLAIM Y/N	VERIFIED BY CODE	COMPLETED REVIEW WHOM/DATE	COMPLETED DATA ENTRY WHOM/DATE	VERIFIED DATE
PRIORITY DATE								
POINT OF DIV	(Y)		8-19-83 KRC	N	1,2,5,6	1-10-94 KRC		
SOURCE			"	N	"	"		
PLACE OF USE	(Y)		"	N	"	"		
DIV. AMOUNT CFS/VOLUME			"	N	"	"		
CONSUMPTIVE USE			"	N	"	"		
PURPOSES			"	N	"	"		
PERIOD OF USE	Y		"	N	"	"		
BASIS OF CLAIM			"	N	"	"		
REMARKS	(Y)		"	N	"	"		

11-16-92
Sw

"VERIFIED BY" CODES

MAPS USED: DATE:

ASCS AA-9 1978

ORTHO T-75 1956

NAPP SCS MAP 243-34

BLM 7-10D-R 7-10-88

THESE CODES ARE USED TO INDICATE HOW THE FIELD EXAMINER VERIFIED THE INFORMATION USED FOR THIS FIELD EXAMINATION. INDICATED ARE ALL CODES WHICH APPLY.

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PAGE: 1
GENERAL INFORMATION

DEPARTMENT OF WATER RESOURCES
ADJUDICATION CLAIM VERIFICATION REPORT

05/30/92

CLAIM NUMBER: A72-00148

LAST: HUGHES
ADDRESS: HC 61 BOX 3054
CITY: CHALLIS
PHONE NUMBER: 208-879-2365
STATE: ID ZIP: 83226

FIRST: DELBERT M.

OWNER CODE: C

LAST: HUGHES
ADDRESS: HC 61 BOX 3054
CITY: CHALLIS
PHONE NUMBER: 208-879-2365
STATE: ID ZIP: 83226

FIRST: DONNA L.

OWNER CODE: C

FIELD EXAM REQUIRED?

DATABASE
Y

FIELD
EXAMINER

VERIFICATION REQUIRED DUE TO REMARKS?

CLAIM REMARKS: RT. IS FOR AMOUNT STATED, SAID AMOUNT TO INCLUDE ANY SPRINGS
ARISING BELOW THE P. D.

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NOV 01 1994

Dalbert Hughes

Abstract

8/19/93

A() P()

No. 0025

Abstract

[illegible]

EMERGENCIES:

A. AJ CLAIM: # A72-00148

PRIORITY DATE: 09-14-1931

STAGE II OK

B. WR RECORD: # 72-00148

PRIORITY DATE: 09-14-1931

STAGE: I

C. FIELD EXAM REQUIRED?

DUE TO PRIORITY DATE DISCREPANCY? (Y/N)

DATABASE
NFIELD
EXAMINERARE THERE OBVIOUS REASONS TO QUESTION THE PRIORITY DATE CLAIMED? Y() N()
IF YES EXPLAIN.

REMARKS:

Claimed priority date matches decessed priority date and P/O is P/O authentic
agree with decessed info.
therefore accept as claimed

RECOMMENDED PRIORITY DATE:
09-14-1931

REVIEWED BY

KKCDATE 1-10-94MICROFILMED
NOV 01 1994

A. AJ CLAIM POINT OF DIVERSION AND SOURCE:

RIGHT	TWP.	RGE.	SEC.	1/4	1/4	1/4	LOT	CNTY
A72-00148	15N	19E	23					

OTHER AJ CLAIMS WITH SAME AJ POD

A PREFIX	R PREFIX	72-00147	72-00151	72-00152	72-00161	72-00162	72-04189	75-02169
A72-00147	NONE							
A72-00151								
A72-00152								
A72-10412								
A72-10413								
A75-02169								

WR RECORDS IN SAME 40 ACRE TRACT

PLACE: MORGAN CREEK

TRIBE: SALMON RIVER

B. WR POINT OF DIVERSION AND SOURCE:

RIGHT	TWP.	RGE.	SEC.	1/4	1/4	1/4	LOT	CNTY
72-00148	15N	19E	23					

OTHER WR RECORDS WITH SAME WR POD

AJ CLAIMS IN SAME 40 ACRE TRACT

A PREFIX	R PREFIX	72-00147	72-00151	72-00152	72-00161	72-00162	72-10163	72-10412	72-10413	75-02169
72-00147										
72-00151										
72-00152										
72-00161										
72-00162										
72-04189										
75-02169										

PLACE: MORGAN CREEK

TRIBE: SALMON RIVER

C. FIELD EXAM REQUIRED?

DUE TO POD DISCREPANCY?	(Y/N)	DATABASE	FIELD EXAMINER
DUE TO SOURCE DISCREPANCY?	(Y/N)		

NOV 11 1981

REMARKS:

Found P/D to be just south of claimed legal. Decided P/D described as
degrees: 1/4 from SW quarter corner of Sec 24. Found legal appears to better
match full degree therefore no change in P/D recognition. A second
P/D where the sample ditch crosses Morgan Creek was found. This is Salmon River
water is made at this point if water is used Morgan is divided. P/D was just
not identified in deed. Flag in 1/4 "C" and add CDS

RECOMMENDED POINT(S) OF DIVERSION AND SOURCE:
TWP. RGE. SEC. 1/4 1/4 1/4 LOT

SOURCE: MORGAN CREEK
TRIB: SALMON RIVER OK

REVIEWED BY: KKC DATE: 1-10-94

COUNTY: Clark
not identified in deed
Flag in 1/4 "C" and add CDS

A. ROOT WATER RIGHT NUMBERS: A72-00148

B. POB LISTING

TWP	RNG	SEC	1/4	1/4	LOT	NAME	AJ #/ACRES	WR #/ACRES	LANDSAT DATA	FIELD EXAM.	RECOMM. ACRES
15N	19E	24	NE	NE	1	HUGHES, DELBERT M.	A72-00148 / 5.0	72-00148 /	48.0	4	4
			NE	NE	2	HUGHES, DELBERT M.	A72-00147 / 5.0	72-00147 /			
			NE	NE	3	HUGHES, DELBERT M.	A72-04028 / 5.0				
			NE	NE	4	PLYE, JOSEPH L.	A72-04153 / 13.0	72-04153 / 13.0			
15N	19E	24	NW	NW	1	HUGHES, DELBERT M.	A72-00148 / 40.0	72-00148 /	48.0	40	40
			NW	NW	2	HUGHES, DELBERT M.	A72-00147 / 40.0	72-00147 /			
			NW	NW	3	HUGHES, DELBERT M.	A72-04028 / 40.0	72-04028 / 45.0			
			NW	NW	4	HUGHES, DELBERT M.	A72-04029 / 3.0	72-04029 / 3.0			
			NW	NW	5	HUGHES, DELBERT M.	A72-04177 / 14.0	72-04177 / 14.0			
19E	24	SW	SW	SW	1	HUGHES, DELBERT M.	A72-00148 / 36.0	72-00148 /	32.0		
			SW	SW	2	HUGHES, DELBERT M.	A72-00147 / 36.0	72-00147 /			
			SW	SW	3	HUGHES, DELBERT M.	A72-04028 / 30.0	72-04028 / 36.0			
			SW	SW	4	HUGHES, DELBERT M.	A72-04177 / 6.0	72-04177 / 6.0			
15N	19E	24	SE	SE	1	HUGHES, DELBERT M.	A72-00148 / 6.0	72-00148 /	32.0		
			SE	SE	2	HUGHES, DELBERT M.	A72-00147 / 6.0	72-00147 /			
			SE	SE	3	HUGHES, DELBERT M.	A72-04028 / 6.0				
15N	19E	24	NE	NE	1	HUGHES, DELBERT M.	A72-00148 / 25.0	72-00148 /	18.0	12	12
			NE	NE	2	HUGHES, DELBERT M.	A72-00147 / 25.0	72-00147 /			
			NE	NE	3	HUGHES, DELBERT M.	A72-04029 / 25.0	72-04029 / 25.0			
			NE	NE	4	HUGHES, DELBERT M.	A72-04177 / 18.0	72-04177 / 18.0			
15N	19E	24	SE	SE	1	HUGHES, DELBERT M.	A72-00148 / 32.0	72-00148 /	34.0	27	27
			SE	SE	2	HUGHES, DELBERT M.	A72-00147 / 32.0	72-00147 /			
			SE	SE	3	HUGHES, DELBERT M.	A72-04028 / 8.0	72-04028 / 8.0			
			SE	SE	4	HUGHES, DELBERT M.	A72-04029 / 32.0	72-04029 / 32.0			
			SE	SE	5	HUGHES, DELBERT M.	A72-10264 /				
			SE	SE	6	HUGHES, DELBERT M.	A72-10265 /				
			SE	SE	7	HUGHES, DELBERT M.	A72-04177 / 28.0	72-04177 / 28.0			
19E	24	NW	NW	NW	1	HUGHES, DELBERT M.	A72-00148 / 27.0	72-00148 /	40.0		
			NW	NW	2	HUGHES, DELBERT M.	A72-00147 / 27.0	72-00147 /			
			NW	NW	3	HUGHES, DELBERT M.	A72-04028 / 7.0	72-04028 / 7.0			
			NW	NW	4	HUGHES, DELBERT M.	A72-04029 / 20.0	72-04029 / 20.0			
			NW	NW	5	HUGHES, DELBERT M.	A72-04030 / 14.0	72-04030 / 14.0			
			NW	NW	6	HUGHES, DELBERT M.	A72-04177 / 15.0	72-04177 / 15.0			
			NW	NW	7	HUGHES, DELBERT M.	A72-07444 / 14.0	72-07444 / 14.0			
TOTAL ACRES							A72-00148	171.00	252.00		

Q/Q not claimed → NW
 64 20 6
 148 148
 2 2
 151 151

ARE IRRIGATED ACRES FOUND IN TRACTS OTHER THAN INDICATED ABOVE, Y (X) N ()
 IF YES SEE ATTACHED SHEET.

C. FIELD EXAM REQUIRED?

DUE TO POU DISCREPANCY? (Y/N)

DATABASE

FIELD
EXAMINER

POU COUNTY: CUSTER

PRESUMPTION FLAG:

REMARKS:

2 found erroneous then claimed and 1 found (based upon exhibit T-95) that 2 Acres North of Mc in the SE of Sec 25 are irrigated via this system. no expansion. After just legal description modification based upon better mapping. PLS recommended w/ this a P/Pu the added Quarter is not considered an expansion.

RECOMMENDATIONS:

TOTAL ACRES:

151

REVIEWED BY:

KRC

DATE:

1-10-94

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A. AS CLAIMED USES:

PURPOSES
A72-00148 IRRIGATION

TOTAL DIVERSION RATE/VOLUME CLAIMED

15 MONTH/DAY 10-15 chg to
FROM 04-01 TO 12-31 Sept Standards

DIVERSION QUANTITY
400 CFS

400 CFS

B. WR RECORDED USES:

PURPOSES
72-00148 IRRIGATION

TOTAL DIVERSION RATE/VOLUME CLAIMED

MONTH/DAY
FROM TO

DIVERSION QUANTITY
400 CFS

400 CFS

SUMPTION FLAG:

C. FIELD EXAM REQUIRED?

DOE TO WATER-USE DISCREPANCY?	(Y/N)	DATABASE	FIELD EXAMINER
DOE TO DIVERSION RATE DISCREPANCY?	(Y/N)	N	
DOE TO PERIOD FROM/TO DISCREPANCY?	(Y/N)	Y	

D. PERIOD OF USE:

RECOMMEND AS CLAIMED?

RECOMMEND TO WR STANDARDS OR OTHER?

Y() N()
Y(X) N()

Explain in remarks, below.

REMARKS:

Claimed rate matches desired rate and is within legal limit, accept as claimed.

See Also Comments attached for
comb right limitation.

A. DOES DIVERSION RATE CLAIMED AGREE WITH EXISTING RECORDS?

Y() N()

AJ TOTAL CLAIMED DIVERSION RATE: 0.400 CFS
 WR ROOT RIGHT TOTAL DIVERSION RATE: 0.400 CFS

*** IF NO or IF STATUTORY CLAIM or BENEFICIAL USE then flow measurement required. ***
 ** If an amount smaller than the original diversion rate is claimed and an exam is NOT required, explain in remarks. **

FLOW MEASUREMENT REQUIRED?

DUE TO STAGE OR DIVERSION RATE DISCREPANCY? (Y/N)

Y DATABASE EXAMINER

MEASUREMENT METHOD

*Measured 9/24/91 @ 7.14 CFS
 FCG measured 8/6/92 @ 12.9 CFS*

SEE ATTACHED CALCULATIONS.

C. ARE OTHER WATER RIGHTS USED? Y() N()

OTHER RIGHTS LISTED IN CLAIM: A72-00147, A72-04177, A72-04029, A72-04029.

LIST ALL RIGHTS WITH A SAME POU AND IRRIGATION USAGE:

CLAIM NO.	SOURCE	NAME	DIV. RATE	DIV. RATE/ACRE	DIV. VOL.	DIV. VOL./ACRE
A72-00148	MORGAN CREEK	HUGHES, DELBERT M.	0.400	0.002		
A72-00147	MORGAN CREEK	HUGHES, DELBERT M.	1.600	0.009		
A72-04028	SALMON RIVER	HUGHES, DELBERT M.	3.840	0.040		
A72-04029	SALMON RIVER	HUGHES, DELBERT M.	1.600	0.020		
A72-04030	WASTE WATER	HUGHES, DELBERT M.	1.720	0.040		
A72-04153	SALMON RIVER	PYLE, JOSEPH L.	1.020	0.024		
A72-04177	MORGAN CREEK	HUGHES, DONNA L.	5.200	0.064		

LIST ALL RIGHTS WITH SAME POU BUT NOT USED FOR IRRIGATION.

CLAIM NO.	PURPOSES	NAME	MONTH/DAY	RATE	VOLUME
A72-10264	DOMESTIC	HUGHES, DELBERT M.	FROM 01-01 TO 12-31	.040 CFS	

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RATE/VOLUME CALCULATIONS: (IRRIGATION)

1a. IRRIGATION RATE

ACRES 151 X 0.02 CFS/ACRE = 3.02 CFS
(Taken from p/v review)

DOES AMOUNT CLAIMED EXCEED 0.02 CFS/ACRE?

Y(☒) N(☐)

*** IF YES ADDITIONAL WATER USE FORM FILED AND ATTACHED?

Y(☒) N(☐) ***

2. IRRIGATION CONSUMPTIVE USE

CLAIMED CONSUMPTIVE USE = 427.5 AF/A

ACRES X CONSUMPTIVE VOL. AF/A FOR AREA =

TOTAL CONSUMPTIVE USE AF/A

3. IRRIGATION DIVERSION VOLUME

CLAIMED DIVERSION VOLUME = AF/A

ACRES X DIVERSION VOL. AF/A FOR AREA

TOTAL DIVERSION VOLUME AF/A

4. CALCULATIONS FOR USES OTHER THAN IRRIGATION:

SEE ATTACHED SHEET? Y(☐) N(☐)

REMARKS: (Include limitations on CONSUMPTIVE USE for combined rights.)

*Combined right
see for
see Remarks sheet*

1b. CALCULATIONS

NOA 10/1/01
JRG

RECOMMENDATIONS:

REC.
PURPOSES

REC. PERIOD
FROM TO

REC. DIV
RATE CFS

REC. DIV
VOL. AF/A

REC. CON
USE

IRRIGATION

04-01 15 10-15 12-01

DATABASE EXAMINER
0.400 OK

DATABASE EXAMINER

DATABASE EXAMINER
427.5

TOTAL FOR THIS RIGHT

0.400

27.5

REVIEWED BY:

K.K.C

DATE:

1-10-94

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A. CHECK ONLY THE FOLLOWING THAT APPLY:

OWNERSHIP
FOREST/ABANDON
ADDITIONAL DIV. AMOUNT

ACCEPTED
AS CLAIMED
()
()
()
NEEDS
REVIEW
()
()
()

B. SPLIT WATER RIGHT REVIEW

ROOT WATER RIGHT NUMBER: 72-00148
TOTAL DIVERSION RATE OF WR SPLITS

DATABASE
0.400

EXAMINER

CFS

SPLITS:

OLD RIGHT
NUMBERS

CURRENT
CLAIM NUMBERS

DIVERSION
RATE

CURRENT "R"
CLAIM NUM.

"R" DIV.
RATE

WR RIGHT
NUMBERS

DIVERSION
RATE

A72-00148

0.400

-

72-00148

0.400

TOTAL CFS

0.400

0.400

DIVERSION RATE REVIEW

DO THE SUM CFS RATE OF THE SPLITS EQUAL THE ROOT RIGHT CFS RATE? (Y/N)
IF NO, is the written review sheet attached? (Y/N)

DATABASE
Y

FIELD
EXAMINER

REMARKS:

AUTHENTICATION:

SIGNATURE:

Kelly D. Christman

DATE:

1-10-94

NAME OF FIELD EXAMINER:

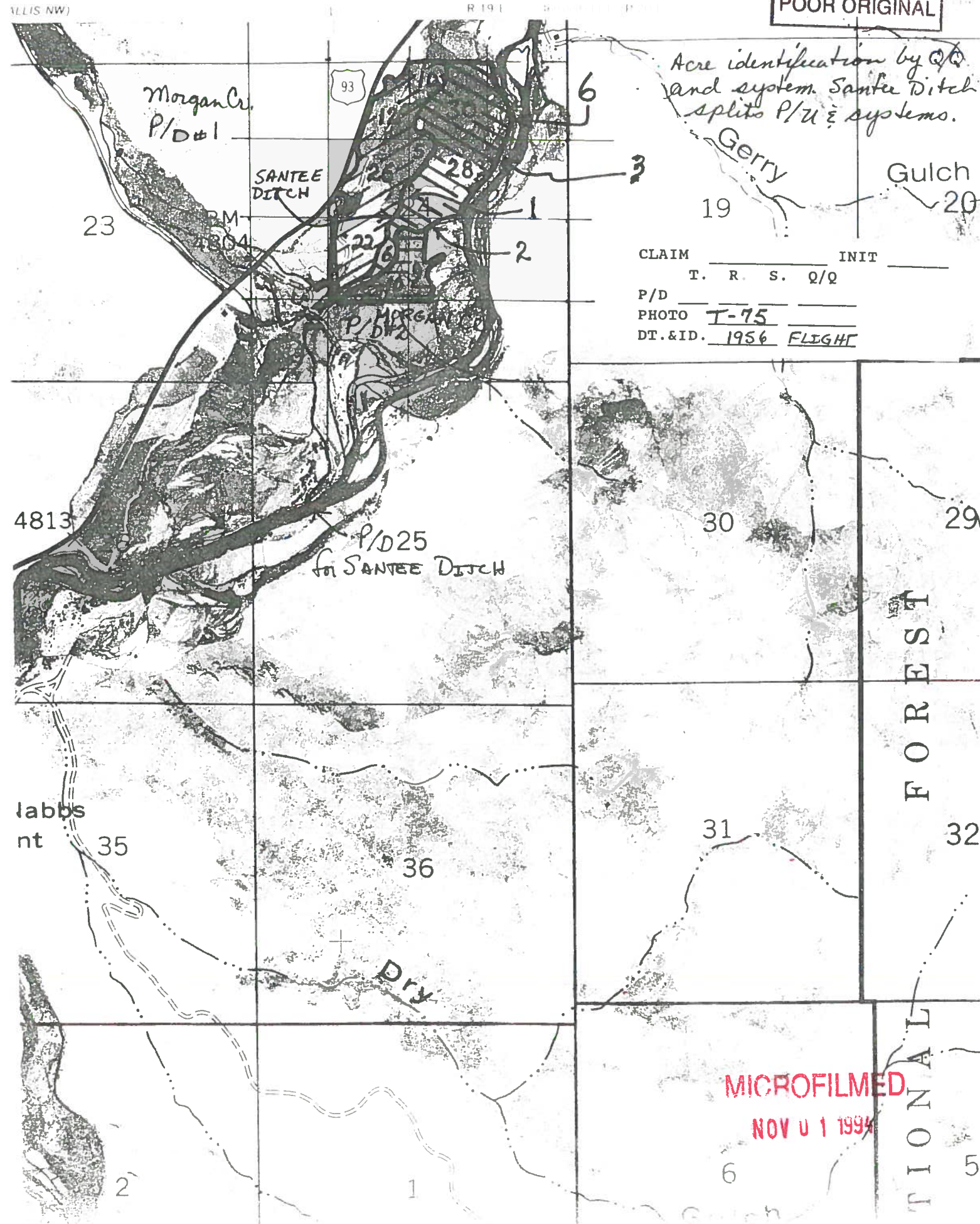
TITLE:

SD Water Resource Agent

MAILED
JAN 11 1994

POOR ORIGINAL

POOR ORIGINAL



POOR ORIGINAL

CLAIMS: MORGAN Cr 72-00147
-00148

CLAIMS: SALMON R. 72-04177
-04028
-04029

CLAIM INIT
T. R. S. 1 2 3 NW SW NE LT MORGAN
P/D 15N 19E 24 NE SW SW CR
PHOTO BLM 7-10-D-8
DT. & ID. 7-10-88 Flight

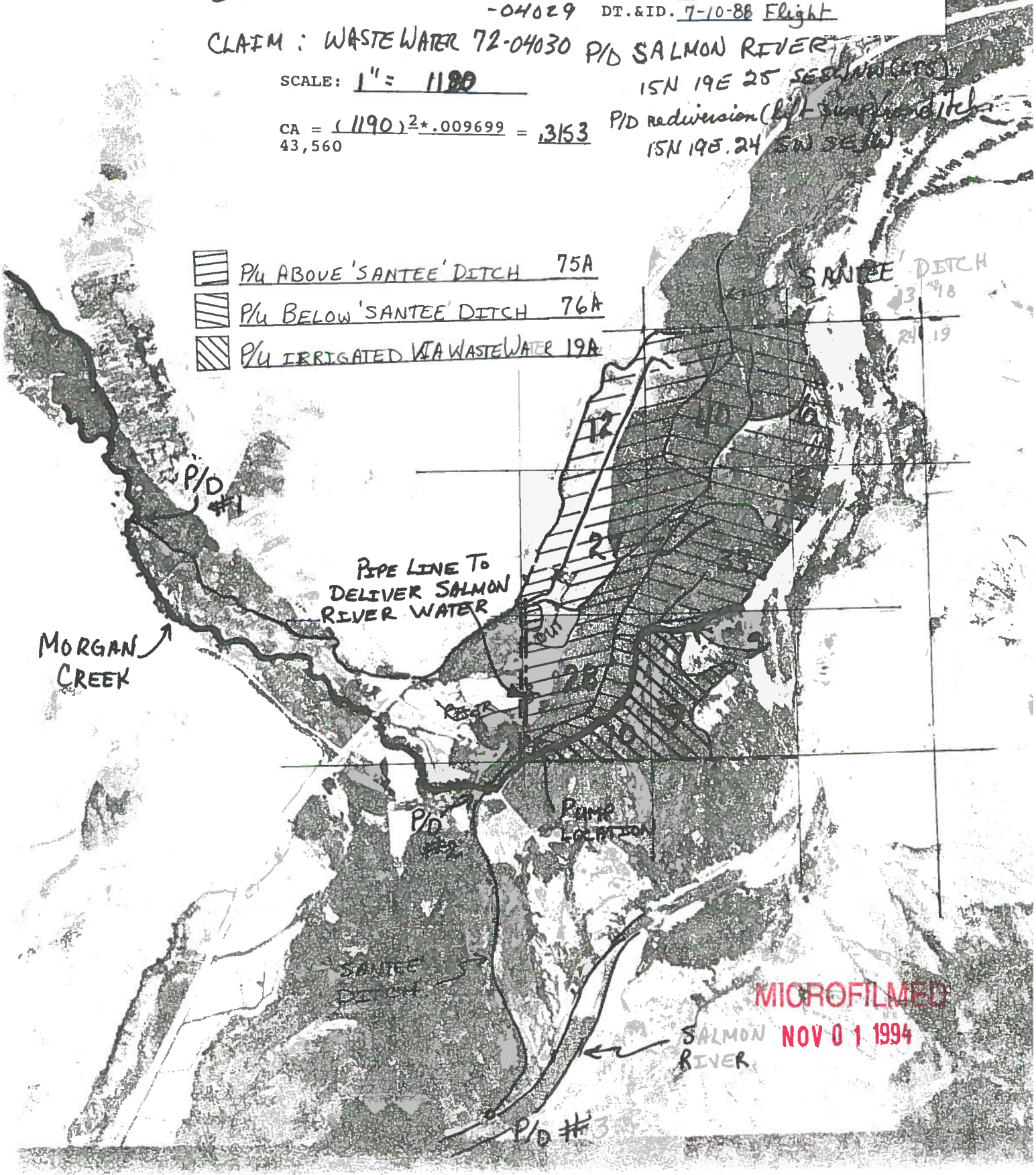
CLAIM: WASTEWATER 72-04030 P/D SALMON RIVER

SCALE: 1" = 1180

CA = $\frac{(1190)^2 \times .009699}{43,560}$ = 1353

15N 19E 25 SE SW (175)
P/D rediversion (by) - Santee ditch
15N 19E 24 SW 3E (16)

-  P/U ABOVE 'SANTEE' DITCH 75A
-  P/U BELOW 'SANTEE' DITCH 76A
-  P/U IRRIGATED VIA WASTEWATER 19A



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1413
2324

D. M. HUGHES

Went after M. Creek is
made into a ditch or sufficient
to cover all the
Barred Pipeline
Cannons ~~to make~~ we L. Long
Salmon River we L. Long
& Salmon was
S. Sal

Hughes
Morgan Creek
ditch

MORGAN
CREEK

Morgan
Creek

SANTEE
DITCH

O P/O

DELBERT
SANTER

FIELD MAP

CLAIM A72-00148 INIT KKC

T. R. S. Q/Q

P/D

PHOTO ID. ASCS AN-9 1978
Flight

NAME OF STREAM OR DITCH SALMON RIVER: LOCALLY CALLED SANTEE DITCH
 LOCATION ----- APPROX 500 YARDS DOWNSTREAM FROM P/D
 PURPOSE OF MEASUREMENT -- ADJUDICATION REVIEW
 BASIS OF VELOCITY CALCULATIONS
 IF YOU ARE USING A PYGMY METER ENTER ----- 1
 IF YOU ARE USING A AA METER ENTER ----- 2
 ENTRY ---- = 1

WATER RIGHT NUMBER IF APPLICABLE -----
 AGENT CONDUCTING MEASUREMENT & DATE --
 ACCOMPANIED BY -----
 PREMEASUREMENT SPIN TEST (MIN/SEC) ---
 POST MEASUREMENT SPIN TEST (MIN/SEC) -

A72-04028, 04029; & SANTEE
 KKC 9-01-93
 DELBERT HUGHES

FOLLOWING THE LAST ENTRY IN:
 "DISTANCE FROM INIT PT" ENTRY MUST = "END"

INITIAL POINT	ANGLE OF COEFFICIENT	DISTANCE FROM INIT PT	DEPTH IN FEET	CALC DEPTH END PTS	1ST MEASUREMENT REVS	VELOCITY DATA		CALC WIDTH	AREA IN SQ FT	CALCULATED VELOCITY			DISCHARGE IN CFS
						1ST TIME/SEC	2ND TIME/SEC			1ST VELOCITY	2ND VELOCITY	MEAN VELOCITY	
0.00				0.15	0	0.0		0.55	0.083			0.00	0.00
1.11			0.30		16	62.8		1.11	0.333	0.25		0.25	0.20
2.22			0.70		60	53.6		1.11	0.776	1.12		1.12	1.36
3.33			1.10		60	53.4		1.11	1.219	1.12		1.12	1.37
4.43			1.10		60	49.4		1.11	1.275	1.22		1.22	1.55
5.54			1.15		60	49.7		1.11	1.350	1.21		1.21	1.60
6.65			1.20		60	69.7		1.11	1.108	0.86		0.86	0.95
7.76			1.00		40	60.0		1.11	0.776	0.67		0.67	0.52
8.87			0.70		30	64.7		1.11	0.942	0.46		0.46	0.44
9.98			0.85					0.55	0.236			0.23	0.05
11.08				0.43									
END													
													8.05

MICROFILMED
 NOV 01 1994

NAME OF STREAM OR DITCH SALMON RIVER, LOCALLY CALLED SANTEE DITCH
 LOCATION ----- APPROX 500 YARDS DOWNSTREAM FROM P/D
 PURPOSE OF MEASUREMENT -- ADJUDICATION REVIEW
 BASIS OF VELOCITY CALCULATIONS
 IF YOU ARE USING A PYGMY METER ENTER ----- 1
 IF YOU ARE USING A AA METER ENTER ----- 2
 ENTRY ----- 1

WATER RIGHT NUMBER IF APPLICABLE -----
 AGENT CONDUCTING MEASUREMENT & DATE --
 ACCOMPANIED BY -----
 PREMEASUREMENT SPIN TEST (MIN/SEC) ---
 POST MEASUREMENT SPIN TEST (MIN/SEC) -

AT72-04028, 04029; & SANTEE
 KKC 9-01-93
 DELBERT HUGHES

FOLLOWING THE LAST ENTRY IN: "END"
 "DISTANCE FROM INIT PT" ENTRY MUST =

INITIAL POINT	ANGLE OF COEFFICIENT	DISTANCE FROM INIT PT	DEPTH IN FEET	CALC DEPTH END PTS	VELOCITY DATA				CALC WIDTH	AREA IN SQ FT	CALCULATED VELOCITY			DISCHARGE IN CFS
					1ST MEASUREMENT REVS	2ND MEASUREMENT REVS	TIME/SEC	TIME/SEC			1ST POINT VELOCITY	2ND POINT VELOCITY	MEAN VELOCITY	
0.00				0.40										
1.11		0.80			0	0.0			0.55	0.222			0.00	0.00
2.22		1.20			16	62.8			1.11	0.887		0.25	0.25	0.34
3.33		1.60			60	53.6			1.11	1.773		1.12	1.12	1.99
4.43		1.60			60	53.4			1.11	1.773		1.12	1.12	1.99
5.54		1.65			60	49.4			1.11	1.829		1.22	1.22	2.22
6.65		1.70			60	49.7			1.11	1.884		1.21	1.21	2.27
7.76		1.50			60	69.7			1.11	1.663		0.86	0.86	1.43
8.87		1.20			40	60.0			1.11	1.330		0.67	0.67	0.89
9.98		1.35			30	64.7			1.11	1.496		0.46	0.46	0.69
11.08				0.68					0.55	0.374			0.23	0.09
END														11.91

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 NOV 01 1994

This analysis represents an additional 6" depth of ditch above the measured rate. The ditch has a capacity greater than the measured + the additional 6" but the 6" additional is closer to the high water level in the ditch. The system was measured late in the irrigation season and lower river water levels give a lower diversion without diversion structures work.
 KKC

10-5-93

Claims A72-00148

A72-04028

A72-04177

A72-00147

A72-04030

POOR ORIGINAL

System description:

The P/U can be segmented into 3 parcels with the Salmon River diversion ditch being the major Boundary through the middle of the P/U. The third parcel is ground laying SE of Morgan Creek. This ground is irrigated only with waste water from the Thornock Property (19A).

The balance of the P/U (75A above & 76A below the Santee is irrigated with Morgan Creek and/or Salmon River water. Both sources can irrigate all 151 acres.

Morgan Creek can be diverted at two different points. The NW P/D #1 is on the Savage property and irrigates the ground above the Santee Ditch (75A). Morgan creek flows through the Santee ditch at P/D #2 thus allowing any available ^{Morgan} water to reach any of the 76 Acres Below the ditch.

Salmon river water reaches the 76A below the ditch through the ditch system. The ⁷⁵ acres above the Santee ditch can be irrigated via water being pumped from the Santee ditch at the SW corner of The P/U and delivered to the headgate structure where the P/D #1 ditch system crosses Highway 93 & enters the P/U. The acres are then flood irrigated through the existing ditch system. The pump is 10 HP with open discharge

MICROFILMED
NOV 8 1994

POOR ORIGINAL

P/O # 1, Morgan Creek on Savage Property

Measured 7.14 CFS

P/O # 2 Morgan Creek where 'Santee' ditch crosses
Morgan Creek. *

Not measured at this point. The ditch carries
water measured @ P/O # 3 & if Salmon River water
was not being diverted then the Morgan Creek
water could be diverted at that rate.

Measured 8.05

P/O # 3 Salmon River, source for 'Santee' ditch

Measured 8.05 CFS, ditch Not at capacity

system measured 9-1-93 *

estimating an additional 6" depth for the same
velocity would generate 11.91 CFS at the same
measurement location.

System capacity for Morgan Creek & the Salmon
River diversions are greater than the excess flow
calculated rates therefore the calculations are the limiting
factor.

Fish & Game measured the Santee ditch just
downstream from the Morgan Creek crossing and
found 12.9 CFS measurement made 9-13-1993
& accept this measurement as the system capacity.

MICROFILMED

NOV 01 1994

FIELD EXAM ATTACHMENT

POOR ORIGINAL

DATE: 1-10-94

PAGE: _____

AGENT: KKC

FILES: _____

ATTACHMENT SUBJECT: Combined diversion Rate Analysis

<u>Morgan Creek water recommendation:</u>	<u>72-00147</u>	<u>1.60 CFS</u>
	<u>00148</u>	<u>0.40 CFS</u>
<u>excess flow analysis for</u>	<u>Sub total</u>	<u>2.00 CFS</u>
<u>151 acres gives a total</u>	<u>04177</u>	<u>11.23 CFS</u>
<u>of 13.23 CFS</u>	<u>total</u>	<u>13.23 CFS</u>

<u>Salmon River Water recommendation:</u>	<u>72-04028</u>	<u>7.21 CFS (Flow)</u>
<u>excess flow based upon RPI soils</u>	<u>-04029</u>	<u>1.60 CFS (Pump)</u>
<u>gives a rate of 7.21 CFS for 76 acres.</u>	<u>total</u>	<u>8.81 CFS</u>

The 76 Salmon River acres are within the 151 total acres. When all rights are considered for all of the P/L, the system limit is 13.23 CFS (legal limit)

When Salmon River water is used alone the limit is 8.81 CFS for the 151 acres this reflects the 7.21 CFS excess flow rate for 76 acres and the pump capacity of 1.60 CFS for the balance (75 acres).

Pump system theoretical.

$$\frac{10 \times 8.8 \times .7}{40 + (2.3 \times 0)} = 1.54 \text{ CFS} \quad \bigg/ \quad \frac{10 \times 8.8 \times .7}{38 + (2.3 \times 0)} = 1.62 \text{ CFS}$$

lift from quad map estimated to be approx 40'. as 38' lift theoretically gives the claimed rate I recommend the claimed rate as valid.

RECORDED
NOV 01 1994

A72 00147 - 00148
04177 -

AGENT
INITIALS KKC
DATE 1-10-94

04028 } Same Salmon River.
04029 } but using same delivery
system

MICROFILMED
NOV 01 1994

8-17

Delbert

POOR ORIGINAL

Morgan IPPD on Savage Prop

1 P/D when Morgan Cr. crosses Santa Lee ditch

P/D Salmon below Thorneck P/D,

Relift pump @ ~~Morgan Cr.~~ Santa Lee ditch entering prop.

Thorneck

Morgan Cr. inside Savage Prop

P/D Salmon River water

Relift pump where Santa joins Morgan Cr.

use =

Delbert

irr west P/u Morgan Cr - 10 days (with high water)

" East with Salmon 10 days

no dry days.

Morgan Creek Cattle Co.

2 P/Ds

2 main ditches thru main field

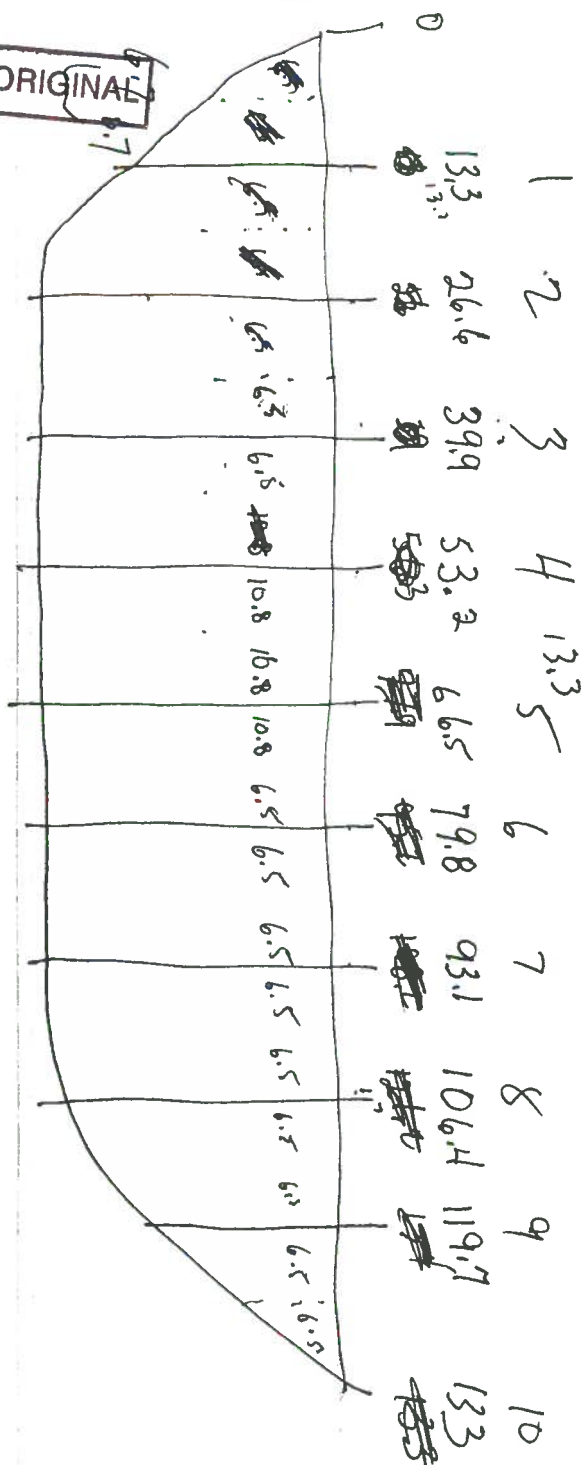
14 days to cross (guess) maybe closer to 10 days.

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NOV 01 1994

04 NNW	04 NNW	04 NNE	04 NNE	03 NNW	03 NNW	03 NNE	03 NNE	02 NNW	02 NNW	02 NNE	02 NNE	01 NNW	01 NNW	01 NNE	01 NNE
04 SWW	04 SWW	04 SNE	04 SNE	03 SWW	03 SWW	03 SNE	03 SNE	02 SWW	02 SWW	02 SNE	02 SNE	01 SWW	01 SWW	01 SNE	01 SNE
04 WSW	04 WSW	04 WSE	04 WSE	03 WSW	03 WSW	03 WSE	03 WSE	02 WSW	02 WSW	02 WSE	02 WSE	01 WSW	01 WSW	01 WSE	01 WSE
04 SSW	04 SSW	04 SSE	04 SSE	03 SSW	03 SSW	03 SSE	03 SSE	02 SSW	02 SSW	02 SSE	02 SSE	01 SSW	01 SSW	01 SSE	01 SSE
09 NNW	09 NNW	09 NNE	09 NNE	10 NNW	10 NNW	10 NNE	10 NNE	11 NNW	11 NNW	11 NNE	11 NNE	12 NNW	12 NNW	12 NNE	12 NNE
09 SWW	09 SWW	09 SNE	09 SNE	10 SWW	10 SWW	10 SNE	10 SNE	11 SWW	11 SWW	11 SNE	11 SNE	12 SWW	12 SWW	12 SNE	12 SNE
09 WSW	09 WSW	09 WSE	09 WSE	10 WSW	10 WSW	10 WSE	10 WSE	11 WSW	11 WSW	11 WSE	11 WSE	12 WSW	12 WSW	12 WSE	12 WSE
09 SSW	09 SSW	09 SSE	09 SSE	10 SSW	10 SSW	10 SSE	10 SSE	11 SSW	11 SSW	11 SSE	11 SSE	12 SSW	12 SSW	12 SSE	12 SSE
16 NNW	16 NNW	16 NNE	16 NNE	15 NNW	15 NNW	15 NNE	15 NNE	14 NNW	14 NNW	14 NNE	14 NNE	13 NNW	13 NNW	13 NNE	13 NNE
16 SWW	16 SWW	16 SNE	16 SNE	15 SWW	15 SWW	15 SNE	15 SNE	14 SWW	14 SWW	14 SNE	14 SNE	13 SWW	13 SWW	13 SNE	13 SNE
16 WSW	16 WSW	16 WSE	16 WSE	15 WSW	15 WSW	15 WSE	15 WSE	14 WSW	14 WSW	14 WSE	14 WSE	13 WSW	13 WSW	13 WSE	13 LT01
16 SSW	16 SSW	16 SSE	16 SSE	15 SSW	15 SSW	15 SSE	15 SSE	14 SSW	14 SSW	14 SSE	14 SSE	13 SSW	13 SSW	13 SSE	13 LT02
21 NNW	21 NNW	21 NNE	21 NNE	22 NNW	22 NNW	22 NNE	22 NNE	23 NNW	23 NNW	23 NNE	23 NNE	24 NNW	24 NNW	24 LT02	24 LT03
21 SWW	21 SWW	21 SNE	21 SNE	22 SWW	22 SWW	22 SNE	22 SNE	23 SWW	23 SWW	23 SNE	23 SNE	24 SWW	24 SWW	24 LT03	24 LT04
21 WSW	21 WSW	21 WSE	21 WSE	22 WSW	22 WSW	22 WSE	22 WSE	23 WSW	23 WSW	23 WSE	23 WSE	24 WSW	24 WSW	24 LT04	24 LT05
21 SSW	21 SSW	21 SSE	21 SSE	22 SSW	22 SSW	22 SSE	22 SSE	23 SSW	23 SSW	23 SSE	23 SSE	24 SSW	24 SSW	24 LT05	24 LT06
26 NNW	26 NNW	26 NNE	26 NNE	27 NNW	27 NNW	27 NNE	27 NNE	28 NNW	28 NNW	28 NNE	28 NNE	25 LT04	25 LT03	25 LT01	25 NENE
26 SWW	26 SWW	26 SNE	26 SNE	27 SWW	27 SWW	27 SNE	27 SNE	28 SWW	28 LT03	28 LT02	28 LT01	25 LT06	25 LT05	25 SNE	25 SENE
26 WSW	26 WSW	26 WSE	26 WSE	27 WSW	27 WSW	27 WSE	27 WSE	28 WSW	28 LT04	28 LT03	28 LT02	25 LT08	25 LT07	25 WSE	25 LT06
26 SSW	26 SSW	26 SSE	26 SSE	27 SSW	27 SSW	27 SSE	27 SSE	28 SSW	28 LT05	28 LT04	28 LT03	25 LT09	25 LT08	25 SSE	25 LT07
33 NNW	33 NNW	33 NNE	33 NNE	34 NNW	34 NNW	34 NNE	34 NNE	35 NNW	35 NNW	35 NNE	35 NNE	36 NNW	36 NNW	36 NNE	36 NNE
33 SWW	33 SWW	33 SNE	33 SNE	34 SWW	34 SWW	34 SNE	34 SNE	35 SWW	35 LT01	35 LT03	35 SNE	36 SWW	36 SWW	36 SNE	36 SNE

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NOV 01 1994

POOR ORIGINAL



9-1-93
 Delbert Hughes
 Sante Ditch
 Delbert was with.

Stat	Depth	Rev	Sec
1	.3	0	
2	.7	16	1.02.81
3	1.2	60	53.59
4	1.1	60	53.38
5	1.1 1/2	60	49.38
6	1.2	60	49.72
7	1.	60	1.09.7
8	.7	40	1.00.03
9	.85	30	1.04.69

MICROFILMED
 NOV 01 1994

CLAIM NO. --- A72-00147, 00148, 04029 Lotus Program:
 AGENT ----- KKC IRR-PRAC.WK3
 DATE ----- 10/18/93 Date form revised:
 4/21/93 by KKC

 SOIL CHARACTERISTICS

Soil Type = RP1; FEZIP...FINE SANDY LOAM, GRAVELLY SANDY LOAM
 Source of Soils Data = Printout From SCS State Office

soil depth (inches)		AWC (in/in)		PH		organic (%)		soil depth (ft)	AWC (inches)	intake family	
lower	upper	lower	upper	lower	upper	lower	upper			flood	furrow
0	6	0.1	0.14	6.1	7.3	2	3	1	1.17	3	0.7
6	16	0.06	0.09	6.1	7.3			1	1.25		
16	26	0.1	0.14	6.1	7.3			3	2.92		
26	60	0.01	0.04	6.1	7.3			4	3.22	alternate	
								5	3.52	method	
										NA	NA

Management Allowed Deficit (MAD)

crop	root depth (ft)	stress point (INCHES)	MAD	FIELD NOTES AND CALCULATIONS			
				FIELD 1	FIELD 2	FIELD 3	FIELD 4
				FIELD WIDTH	11700	0	
				IRRIGATION DAYS	10		
				DRY DAYS	0		
				SET TIME(hours)	8		
				CALCULATED RUN (run = acres*43560/width)			
				LENGTH (RUN) =	395		
				CALCULATED BORDER WIDTH (ditch length/irr days * cha			
				WIDTH =	390		
				THEORETICAL ROTATION (mad/net irr req in inches per			
				SELECTED MAD =	1.76		
				ROTATION =	7.2 DAYS		

 PEAK IRRIGATION DIVERSION REQUIREMENT AT FIELD

Weather Station = CHALLIS
 Figure No = 10-15

crop	acres	system	recomm. eff.	Net Irrigation Requirement (mm/day)							
				mar	apr	may	jun	jul	aug	sep	oct
PASTURE	0	FLOOD			1.47	3.84	4.87	5.86	4.56	3.23	2.07
ALFALFA	106	FLOOD	7.8		1.28	4.51	5.65	6.25	4.45	2.52	0.7

Summary 106 8 1.28 4.51 5.65 6.25 4.45 2.52 0.70
 Peak Net Irrigation Requirement (mm/day) = 6.25

 Program Operation based upon "GUIDELINES FOR THE EVALUATION OF IRRIGATION DIVERSION RATES"
 HUBBLE ENGINEERING INC. OCTOBER 1991
 Soil Characteristics based upon SOIL CONSERVATION SERVICE STUDIES
 Peak Irrigation Diversion based upon ALLEN & BROCKWAY WEATHER INFORMATION 1983

MICROFILMED
 NOV 01 1994

GRADED BORDER EVALUATION

Job name: A72-00147 -- 04029
By: KKC

Location: RP1 SOIL FOR 106 ACRES
Date: Oct 18, 1993

Roughness coefficient (n)= 0.150 Intake family (If)=3.00
Slope (S)= 0.0200 ft/ft Border width (W)= 390 ft
Net application (Fn)= 1.76 inches Border length (L)= 395 ft
Inflow time (Ti)= 8 hours, 0 minutes

Flow per Border (cfs)	Unit Flow (cfs/ft)	Gross Application (in)	Deep Percolation (in)	Runoff (in)	Application Efficiency (percent)	Note
10.00	Gross depth is less than required gross application depth					
10.01	Gross depth is less than required gross application depth					
10.02	Gross depth is less than required gross application depth					
10.03	Gross depth is less than required gross application depth					
10.04	Gross depth is less than required gross application depth					
10.05	Gross depth is less than required gross application depth					
10.06	0.026	22.57	20.79	0.01	7.8	
10.07	0.026	22.59	20.79	0.04	7.8	
10.08	0.026	22.61	20.79	0.06	7.8	
10.09	0.026	22.64	20.79	0.08	7.8	
10.10	0.026	22.66	20.79	0.10	7.8	
10.11	0.026	22.68	20.79	0.13	7.8	
10.12	0.026	22.70	20.79	0.15	7.8	
10.13	0.026	22.73	20.79	0.17	7.7	
10.14	0.026	22.75	20.79	0.19	7.7	
10.15	0.026	22.77	20.79	0.22	7.7	

Morgan Creek water covers
 $10.06 \text{ CFS} / 106 \text{ A} = .0949 \text{ CFS/ACRE}$

Salmon River water irrigates
 $97 \text{ Acres w flood therefore } 97 \text{ Acres} * .0949 = \underline{\underline{9.206 \text{ CFS}}}$

MICROFILMED

NOV 01 1994

4030

CLAIM NO. --- A72- 0404	Lotus Program:
AGENT ----- KKC	IRR-PRAC.WK3
DATE ----- 10/18/93	Date form revised:
	4/21/93 by KKC

SOIL CHARACTERISTICS

Soil Type = CB1; TOHOBIT...SILT LOAM, VERY FINE SANDY LOAM
Source of Soils Data = Printout From SCS State Office

soil depth (inches)		AWC (in/in)		PH		organic (%)		soil depth (ft)	AWC (inches)	intake family
lower	upper	lower	upper	lower	upper	lower	upper			flood furrow
0	9	0.16	0.2	7.4	8.4	1	2	1	2.12	2 0.55
9	19	0.14	0.19	7.4	8.4			1	2.28	
19	49	0.01	0.03	7.4	8.4			3	3.61	
49	55	0.03	0.05	7.4	8.4			4	3.85	alternate
55	60	0.08	0.14	7.4	8.4			5	4.66	method
										NA NA

Management Allowed Deficit (MAD)

crop	root depth (ft)	stress point (INCHES)	MAD	FIELD NOTES AND CALCULATIONS				
				FIELD 1	FIELD 2	FIELD 3	FIELD 4	
				FIELD WIDTH	2335	0		
				IRRIGATION DAYS	10			
				DRY DAYS	0			
				SET TIME(hours)	8			
				CALCULATED RUN (run = acres*43560/width)				
				RUN =	354			
				CALCULATED BORDER WIDTH (ditch length/irr days * cha				
				WIDTH =	78			
				THEORETICAL ROTATION (mad/net irr req in inches per				
				SELECTED MAD =	1.8			
				ROTATION =	7.8 DAYS			

PEAK IRRIGATION DIVERSION REQUIREMENT AT FIELD

Weather Station = CHALLIS
Figure No = 10-15

crop	acres	system	recomm. eff.	Net Irrigation Requirement (mm/day)							
				mar	apr	may	jun	jul	aug	sep	oct
PASTURE	19	FLOOD			1.47	3.84	4.87	5.86	4.56	3.23	2.07
ALFALFA		FLOOD			1.28	4.51	5.65	6.25	4.45	2.52	0.7

Summary	19			1.47	3.84	4.87	5.86	4.56	3.23	2.07
Peak Net Irrigation Requirement (mm/day) =				5.86						

Program Operation based upon "GUIDELINES FOR THE EVALUATION OF IRRIGATION DIVERSION RATES"
HUBBLE ENGINEERING INC. OCTOBER 1991
Soil Characteristics based upon SOIL CONSERVATION SERVICE STUDIES
Peak Irrigation Diversion based upon ALLEN & BROCKWAY WEATHER INFORMATION 1983

MICROFILMED
NOV 01 1994

GRADED BORDER EVALUATION

Job name: A72-04030
By: KKC

Location: CB1 SOILS FOR 19 ACRES
Date: Oct 18, 1993

Roughness coefficient (n)= 0.250 Intake family (If)=2.00
Slope (S)= 0.0200 ft/ft Border width (W)= 78 ft
Net application (Fn)= 1.80 inches Border length (L)= 354 ft
Inflow time (Ti)= 8 hours, 0 minutes

Flow per Border (cfs)	Unit Flow (cfs/ft)	Gross Application (in)	Deep Percolation (in)	Runoff (in)	Application Efficiency (percent)	Note:
1.30	Gross depth is less than required gross application depth					
1.31	0.017	16.40	14.49	0.11	11.0	
1.32	0.017	16.52	14.49	0.23	10.9	
1.33	0.017	16.65	14.49	0.36	10.8	
1.34	0.017	16.77	14.49	0.48	10.7	
1.35	0.017	16.90	14.49	0.61	10.7	
1.36	0.017	17.02	14.49	0.73	10.6	
1.37	0.018	17.15	14.49	0.86	10.5	
1.38	0.018	17.27	14.49	0.98	10.4	
1.39	0.018	17.40	14.49	1.11	10.3	

MICROFILMED
NOV 01 1994

CLAIM NO. --- A72-00147, 00148, 04029 Lotus Program:
 AGENT ----- KKC IRR-PRAC.WK3
 DATE ----- 10/18/93 Date form revised:
 4/21/93 by KKC

SOIL CHARACTERISTICS

Soil Type = G01; GRANDJEAN... HEMIC MATERIAL, EXTREMELY GRAVELLY COARSE SAND
 Source of Soils Data = Printout From SCS State Office

soil depth (inches)		AWC (in/in)		PH		organic (%)		soil depth (ft)	AWC (inches)	intake family	
lower	upper	lower	upper	lower	upper	lower	upper			flood	furrow
0	6	0.2	0.28	5.1	6	40	80	1	3.00	4	0.85
6	27	0.22	0.3	5.6	6.5			1	3.26		
27	60	0.02	0.03	6.1	7.3			3	7.13		
								4	7.43	alternate	
								5	7.73	method	
										NA	NA

Management Allowed Deficit (MAD)

crop	root depth (ft)	stress point (INCHES)	MAD	FIELD NOTES AND CALCULATIONS			
				FIELD 1	FIELD 2	FIELD 3	FIELD 4
alfalfa (hay or seed)	5	0.5	3.86	FIELD WIDTH	3738	0	
corn (field or silage)	4	0.5	3.71	IRRIGATION DAYS	16		
grain (winter or spring)	4	0.5	3.71	DRY DAYS	0		
pasture (or grass hay)	3	0.5	3.56	SET TIME(hours)	8		
other (enter below)				CALCULATED RUN (run = acres*43560/width)			
				LENGTH (RUN) =	140		
				CALCULATED BORDER WIDTH (ditch length/irr days * cha			
				WIDTH =	78		
				THEORETICAL ROTATION (mad/net irr req in inches per			
				SELECTED MAD =	3.86		
				ROTATION =	15.7 DAYS		

PEAK IRRIGATION DIVERSION REQUIREMENT AT FIELD

Weather Station = CHALLIS
 Figure No = 10-15

crop	acres	system	Net Irrigation Requirement (mm/day)							
			recomm. eff.	mar	apr	may	jun	jul	aug	sep
PASTURE		FLOOD			1.47	3.84	4.87	5.86	4.56	3.23
ALFALFA	12	FLOOD	13.6		1.28	4.51	5.65	6.25	4.45	2.52

Summary 12 14 1.28 4.51 5.65 6.25 4.45 2.52 0.70
 Peak Net Irrigation Requirement (mm/day) = 6.25

Program Operation based upon "GUIDELINES FOR THE EVALUATION OF IRRIGATION DIVERSION RATES"
 HUBBLE ENGINEERING INC. OCTOBER 1991
 Soil Characteristics based upon SOIL CONSERVATION SERVICE STUDIES
 Peak Irrigation Diversion based upon ALLEN & BROCKWAY WEATHER INFORMATION 1983

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GRADED BORDER EVALUATION

Job name: A72-00147 --04029
By: KKC

Location: G01 SOIL FOR 12 ACRES
Date: Oct 18, 1993

Roughness coefficient (n)= 0.150 Intake family (If)=4.00
Slope (S)= 0.0200 ft/ft Border width (W)= 78 ft
Net application (Fn)= 3.86 inches Border length (L)= 140 ft
Inflow time (Ti)= 8 hours, 0 minutes

Flow per Border (cfs)	Unit Flow (cfs/ft)	Gross Application (in)	Deep Percolation (in)	Runoff (in)	Application Efficiency (percent)	Note
0.88	Gross depth is less than required gross application depth					
0.89	Gross depth is less than required gross application depth					
0.90	0.012	28.48	24.58	0.04	13.6	
0.91	0.012	28.80	24.58	0.36	13.4	
0.92	0.012	29.12	24.58	0.68	13.3	

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CLAIM NO. --- A72-00147, 00148, 04D29
 AGENT ----- KKC
 DATE ----- 10/18/93

Lotus Program:
 IRR-PRAC.WK3
 Date form revised:
 4/21/93 by KKC

 SOIL CHARACTERISTICS

Soil Type = BB1; TOHOBIT...SILT LOAM FINE SANDY LOAM
 Source of Soils Data = Printout From SCS State Office

soil depth (inches)		AWC (in/in)		PH		organic (%)		soil depth (ft)	AWC (inches)	intake family	
lower	upper	lower	upper	lower	upper	lower	upper			flood	furrow
0	9	0.16	0.2	7.4	8.4	1	2	1	2.12	2	0.55
9	19	0.14	0.19	7.4	8.4			1	2.28		
19	49	0.01	0.03	7.4	8.4			3	3.61		
49	55	0.03	0.05	7.4	8.4			4	3.85	alternate	
55	60	0.08	0.14	7.4	8.4			5	4.66	method	
										NA	NA

Management Allowed Deficit (MAD)

crop	root depth (ft)	stress point (INCHES)	MAD	FIELD NOTES AND CALCULATIONS				
				FIELD 1	FIELD 2	FIELD 3	FIELD 4	
				FIELD WIDTH	4426			
				IRRIGATION DAYS	10			
				DRY DAYS	0			
				SET TIME(hours)	8			
				CALCULATED RUN (run = acres*43560/width)				
				RUN =	325			
				CALCULATED BORDER WIDTH (ditch length/irr days * cha				
				WIDTH =	148			
				THEORETICAL ROTATION (mad/net irr req in inches per				
				SELECTED MAD =	2.33			
				ROTATION =	9.5 DAYS			

PEAK IRRIGATION DIVERSION REQUIREMENT AT FIELD

Weather Station = CHALLIS
 Figure No = 10-15

crop	acres	system	recomm. eff.	Net Irrigation Requirement (mm/day)						
				mar	apr	may	jun	jul	aug	sep
PASTURE	0	FLOOD			1.47	3.84	4.87	5.86	4.56	3.23
ALFALFA	33	FLOOD	14.3		1.28	4.51	5.65	6.25	4.45	2.52

Summary 33 14 1.28 4.51 5.65 6.25 4.45 2.52 0.70
 Peak Net Irrigation Requirement (mm/day) = 6.25

 Program Operation based upon "GUIDELINES FOR THE EVALUATION OF IRRIGATION DIVERSION RATES"
 HUBBLE ENGINEERING INC. OCTOBER 1991
 Soil Characteristics based upon SOIL CONSERVATION SERVICE STUDIES
 Peak Irrigation Diversion based upon ALLEN & BROCKWAY WEATHER INFORMATION 1983

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GRADED BORDER EVALUATION

Job name: A72-00147 --04029
By: KKC

Location: BB1 SOILS FOR 33 ACRES
Date: Oct 18, 1993

Roughness coefficient (n)= 0.150 Intake family (If)=2.00
Slope (S)= 0.0200 ft/ft Border width (W)= 148 ft
Net application (Fn)= 2.33 inches Border length (L)= 325 ft
Inflow time (Ti)= 8 hours, 0 minutes

Flow per Border (cfs)	Unit Flow (cfs/ft)	Gross Application (in)	Deep Percolation (in)	Runoff (in)	Application Efficiency (percent)	Note
2.20	Gross depth is less than required gross application depth					
2.21	Gross depth is less than required gross application depth					
2.22	Gross depth is less than required gross application depth					
2.23	Gross depth is less than required gross application depth					
2.24	Gross depth is less than required gross application depth					
2.25	Gross depth is less than required gross application depth					
2.26	Gross depth is less than required gross application depth					
2.27	0.015	16.31	13.96	0.02	14.3	(4)
2.28	0.015	16.38	13.96	0.10	14.2	(4)
2.29	0.015	16.45	13.96	0.17	14.2	(4)
2.30	0.016	16.53	13.96	0.24	14.1	(4)

(4) Less than minimum recommended depth of flow.

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NAME OF STREAM OR DITCH MORGAN CREEK
 LOCATION ----- NORTH END OF SAVAGE P/U
 PURPOSE OF MEASUREMENT -- ADJUDICATION REVIEW
 BASIS OF VELOCITY CALCULATIONS
 IF YOU ARE USING A PYGMY METER ENTER ----- 1
 IF YOU ARE USING A AA METER ENTER ----- 2
 ENTRY ----- 1

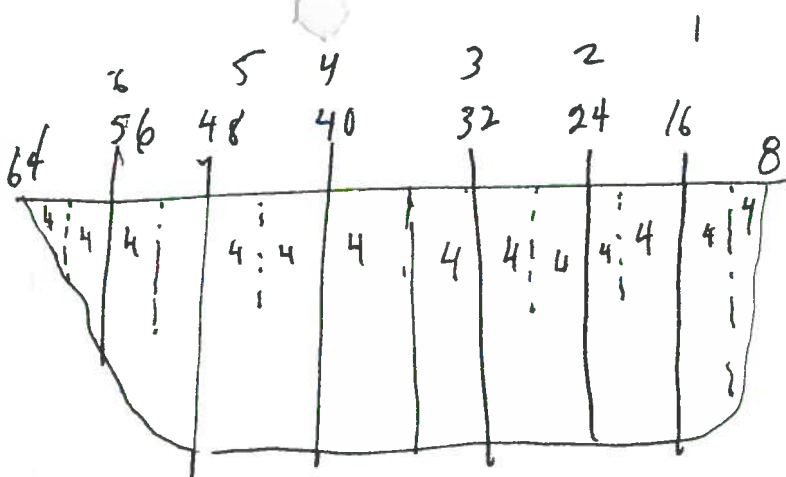
WATER RIGHT NUMBER IF APPLICABLE ----- A72-00147, 00148, & 04177
 AGENT CONDUCTING MEASUREMENT & DATE -- KKC 8-17-93
 ACCOMPANIED BY ----- NO ONE
 PREMEASUREMENT SPIN TEST (MIN/SEC) ---
 POST MEASUREMENT SPIN TEST (MIN/SEC) -

FOLLOWING THE LAST ENTRY IN:
 "DISTANCE FROM INIT PT" ENTRY MUST = "END"

INITIAL POINT	ANGLE OF COEFFICIENT	DISTANCE FROM INIT PT	DEPTH IN FEET	CALC DEPTH END PTS	1ST MEASUREMENT REVS	VELOCITY DATA		CALC WIDTH	AREA IN SQ FT	CALCULATED VELOCITY			DISCHARGE IN CFS
						2ND MEASUREMENT TIME/SEC	TIME/SEC			1ST POINT VELOCITY	2ND POINT VELOCITY	MEAN VELOCITY	
0.67				0.54									
1.33			1.08		60	46.5		0.33	0.181	1.29		0.64	0.12
2.00			1.17		60	33.1		0.67	0.778	1.82		1.29	0.93
2.67			1.13		60	25.1		0.67	0.778	1.82		1.82	1.41
3.33			1.17		60	30.5		0.67	0.750	2.39		2.39	1.80
4.00			1.08		60	45.4		0.67	0.778	1.96		1.96	1.53
4.67			0.67		40	50.0		0.67	0.722	1.32		1.32	0.95
5.33				0.33				0.67	0.444	0.80		0.80	0.36
END								0.33	0.111			0.40	0.04
													7.14

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8-17-93

Hughes diu
from Morgan Cr.
on Savage pier

Stat	depth	Rev	Sec
1	13	60	46.57 46.47
2	14		33.57 32.53
3	13 1/2		25.31 24.81
4	14.0		31.03 30.04
5	13		46.34 44.55
6	8	40	49.94
		40	50.1

water clear on side vent off
Sloping bottom gravel but
relatively clear of vegetation
within a 30' straight stretch
Measurement based

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