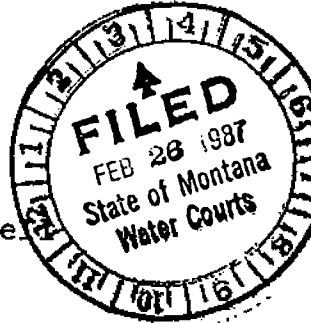


IN THE WATER COURTS OF THE STATE OF MONTANA
YELLOWSTONE DIVISION
BOULDER RIVER BASIN, TRIBUTARY OF YELLOWSTONE RIVER (43BJ)
* * * * *

IN THE MATTER OF THE ADJUDICATION OF)
THE EXISTING RIGHTS TO THE USE OF ALL) CASE NO. 43BJ-20
THE WATER, BOTH SURFACE AND UNDERGROUND,) Claim #43BJ-W-021029
WITHIN THE BOULDER RIVER DRAINAGE AREA)
INCLUDING ALL TRIBUTARIES OF THE BOULDER)
RIVER, TRIBUTARY OF YELLOWSTONE RIVER,)
IN SWEET GRASS AND PARK COUNTIES,)
MONTANA.)

CLAIMANT: Carol J. Powell
OBJECTOR: Dept. of Fish, Wildlife & Parks, Carol J. Powe



MASTER'S REPORT
FINDINGS OF FACT

I.

Objector, Montana Department of Fish, Wildlife & Parks filed an objection to claim 43BJ-W-021029 on August 30, 1985, stating the volume claimed "has been overstated".

II.

Such objection was timely filed.

III.

Claimant Carol Powell filed an objection to claim 43BJ-W-021029 on September 27, 1985, stating that problems existed with the ownership, volume, place of use, acres irrigated and flow rate claimed.

IV.

Such objection was filed late.

V.

Claimant, Carol Powell's late objection appeared on the objection list and was noticed as a late objection for the Temporary Preliminary Decree of the Boulder River, Tributary of the Yellowstone River, Basin.

VI.

No objection was filed to the Court's consideration of the late objection.

VII.

Claim 43BJ-W-021029 is decreed in the Temporary Preliminary Decree of the Boulder River, Tributary of Yellowstone River, Basin.

VIII.

No Notice of Intent to Appear was filed in this case.

IX.

A stipulation was filed with the Water Court on September 4, 1986, between the claimant and objector, Montana Department of Fish, Wildlife & Parks, requesting that the volume in claim 43BJ-W-021029 be amended to 293.0 acre feet per year (af/yr), measured at the place of use.

X.

The Water Court rejected such stipulation on the basis that all volumes decreed by the Court are to be measured at the point of diversion.

XI.

An amended stipulation was filed with the Water Court on October 10, 1986, between the claimant and objector Montana

Department of Fish, Wildlife & Parks, requesting that the volume of water right 43BJ-W-021029 be amended to 395.55 af/yr and measured at the point of diversion.

XII.

The amended stipulation stated further that upon the amendment of the volume of claim 43BJ-W-021029 to 395.55 af/yr, the objection of the Montana Department of Fish, Wildlife & Parks shall be deemed withdrawn.

XIII.

No evidence has been presented to contradict the amended stipulation between claimant and objector, Montana Department of Fish, Wildlife & Parks.

XIV.

An affidavit was filed with the Water Court on September 5, 1986, by claimant's attorney Conrad Fredricks, requesting that the flow rate for claim 43BJ-W-021029 be corrected to 3.75 cubic feet per second (cfs).

XV.

Such affidavit incorporates the affidavit of Frank Biglen, former Soil Conservation Service engineer, in support of the requested flow rate of 3.75 cfs.

XVI.

Mr. Biglen's affidavit is based upon personal inspection of claim 43BJ-W-021029.

XVII.

An affidavit was filed on July 31, 1986, by Martin Peterson in support of the claimant's request to correct the

acres irrigated and place of use to:

001	18.72	S2NE	Sec. 21	T1S	R14E	Sweet Grass County
002	10.00	N2N2SE	Sec. 21,	T1S	R14E	Sweet Grass County
TOTAL:	28.72	Acres				

XVIII.

Mr. Peterson's affidavit is based upon personal knowledge of claim 43BJ-W-021029.

XIX.

No evidence has been presented to contradict claimant's requests for changes in the Temporary Preliminary Decree of the Boulder River, Tributary of Yellowstone River, Basin, to the flow rate, acres irrigated and place of use of claim 43BJ-W-021029.

CONCLUSIONS OF LAW

I.

The Water Court has jurisdiction to review all objections to temporary preliminary decrees pursuant to 85-2-233, Montana Code Annotated.

II.

The late objection filed by the claimant on September 27, 1985, will be considered by this Court based upon adequate notice and opportunity to object being provided and no objection having been filed.

III.

Adequate and uncontradicted evidence has been presented to this Court to support the requested changes.

IV.

Upon review of these facts, the Master finds that there has been no over-reaching or misunderstanding by the parties in the signing of these stipulations.

V.

The objections filed by Carol Powell and by the Montana Department of Fish, Wildlife & Parks are deemed withdrawn.

VI.

The above changes should be made to correct the Temporary Preliminary Decree of the Boulder River, Tributary of the Yellowstone River, Basin.

DATED this 26th day of February, 1987.


Wynne O'Brien
Water Master

O R D E R

After review of the Master's Report, it is ORDERED, that the above changes be made to the Temporary Preliminary Decree of existing water rights of the Boulder River, Tributary of the Yellowstone River, Basin.

DATED this 26 day of Feb., 1987.


W. W. Lessley
Chief Water Judge

Carol J. Powell
Box 315 McLeod Rt
Big Timber, MT 59011

Josephson & Fredricks
P. O. Box 1047
Big Timber, MT 59011

Robert Lane, Attorney
Dept. of Fish, Wildlife & Parks
1420 East Sixth
Helena, MT 59620

BASIN 43BJ
ABSTRACT OF WATER RIGHT

WATER RIGHT NUMBER 43BJ-W-021029-00

OWNERS: POWELL CAROL J
BOX 315 MCLEOD RT
BIG TIMBER MT 59011

PRIORITY DATE: MAY 1, 1893

FLOW RATE: 3.75 CFS

VOLUME: 395.55 ACRE FEET PER YEAR

STANDARDS ON VOLUMES FOUND IN THE FINDINGS OF FACT ARE ONLY
GUIDELINES. CLAIMED VOLUMES MAY BE MODIFIED BY THE COURT ON
INDIVIDUAL OBJECTION.

CLIMATIC AREA: 2

SOURCE: BOULDER RIVER

MAXIMUM ACRES: 28.72

PURPOSE (USE): IRRIGATION

PERIOD OF USE: APR 15 TO OCT 19

POINTS OF DIVERSION AND MEANS OF DIVERSION:

<u>LOT</u>	<u>BLK</u>	<u>QTR</u>	<u>SEC</u>	<u>SEC</u>	<u>TWP</u>	<u>RGE</u>	<u>COUNTY</u>	
			SESWSW	28	01S	14E	SWEET GRASS	HEADGATE

PLACE OF USE FOR IRRIGATION

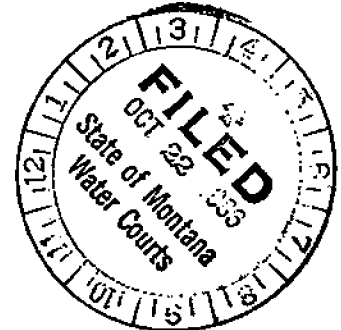
	<u>ACRES</u>	<u>LOT</u>	<u>BLK</u>	<u>QTR</u>	<u>SEC</u>	<u>SEC</u>	<u>TWP</u>	<u>RGE</u>	<u>COUNTY</u>
001	18.72				S2NE	21	01S	14E	SWEET GRASS
002	10.00				N2N2SE	21	01S	14E	SWEET GRASS
TOTAL	28.72								

REMARKS: SEE GENERAL FINDINGS OF FACT AND CONCLUSIONS OF LAW FOR FURTHER
DELINEATION OF THIS RIGHT.

IN THE WATER COURTS OF THE STATE OF MONTANA
 YELLOWSTONE DIVISION
 BOULDER RIVER BASIN, TRIBUTARY OF YELLOWSTONE RIVER (43BJ)

IN THE MATTER OF THE ADJUDICATION)
 OF THE EXISTING RIGHTS TO THE USE)
 OF ALL THE WATER, BOTH SURFACE AND)
 UNDERGROUND, WITHIN THE BOULDER)
 RIVER DRAINAGE AREA, INCLUDING ALL)
 TRIBUTARIES OF THE BOULDER RIVER,)
 TRIBUTARY OF YELLOWSTONE RIVER,)
 IN SWEET GRASS AND PARK COUNTIES,)
 MONTANA)
 -----)

CASE NO. 43BJ-20



WITHDRAWAL OF OBJECTION

Carol J. Powell, by and through her undersigned attorneys of record, withdraw the Notice of Objection to Claim No. 43BJ-W-021029-00, upon an entry of a decree with the following corrections:

Volume: 395.55 acre/feet per year
 Flow: 3.75 cfs, 150 miners inches
 Acreage: 28.72 acres
 Place of use: Add 4.7 acres in Sec. 21, T2S, R14E, Sweet Grass County

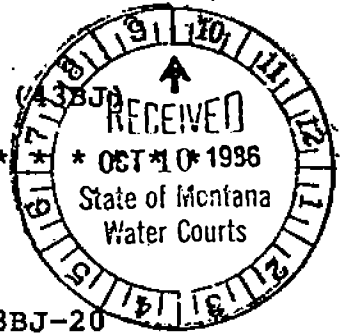
Dated this 21st day of October, 1986.

JOSEPHSON & FREDRICKS

By Conrad B. Fredricks
 Attorneys for Carol J. Powell

115 W. Second Ave. - Box 1047
 Big Timber, MT 59011-1047

IN THE WATER COURTS OF THE STATE OF MONTANA
 YELLOWSTONE DIVISION
 BOULDER RIVER BASIN, TRIBUTARY OF YELLOWSTONE RIVER



IN THE MATTER OF THE ADJUDICATION)
 OF THE EXISTING RIGHTS TO THE USE)
 OF ALL THE WATER, BOTH SURFACE AND)
 UNDERGROUND, WITHIN THE BOULDER)
 RIVER DRAINAGE AREA, INCLUDING ALL)
 TRIBUTARIES OF THE BOULDER RIVER,)
 TRIBUTARY OF YELLOWSTONE RIVER,)
 IN SWEET GRASS AND PARK COUNTIES,)
 MONTANA)
 - - - - -)

CASE NO. 43BJ-20

A M E N D E D S T I P U L A T I O N

Come now Carol J. Powell, claimant and objector, and the Montana Department of Fish, Wildlife and Parks, objector, through their undersigned counsel of record, and stipulate that the volume of Water Right Claim No. 43BJ-W-021029-00 be amended to 395.55 acre-feet per year and that, upon the amendment of the volume as hereinbefore set forth, the objection of the Montana Department of Fish, Wildlife and Parks shall be deemed withdrawn.

Dated this 8th day of October, 1986.

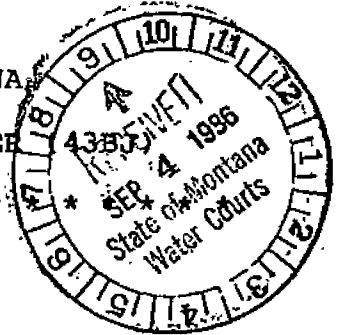
JOSEPHSON & FREDRICKS

By Conrad B. Fredricks
 Attorneys for Carol J. Powell

Stan Bradshaw
 Stan Bradshaw
 Staff Attorney
 Montana Dept. of Fish, Wildlife
 and Parks

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IN THE WATER COURTS OF THE STATE OF MONTANA
 YELLOWSTONE DIVISION
 BOULDER RIVER BASIN, TRIBUTARY OF YELLOWSTONE RIVER



IN THE MATTER OF THE ADJUDICATION)
 OF THE EXISTING RIGHTS TO THE USE)
 OF ALL THE WATER, BOTH SURFACE AND)
 UNDERGROUND, WITHIN THE BOULDER)
 RIVER DRAINAGE AREA, INCLUDING ALL)
 TRIBUTARIES OF THE BOULDER RIVER,)
 TRIBUTARY OF YELLOWSTONE RIVER,)
 IN SWEET GRASS AND PARK COUNTIES,)
 MONTANA)

CASE NO. 43BJ-20

S T I P U L A T I O N

Come now Carol J. Powell, claimant and objector, and the Montana Department of Fish, Wildlife and Parks, objector, through their undersigned counsel of record, and stipulate that the volume of Water Right Claim No. 43BJ-W-021029-00 be amended to 293.00 acre-feet per year, measured at the place of use, and that, upon the amendment of the volume as hereinbefore set forth, the objection of the Montana Department of Fish, Wildlife and Parks shall be deemed withdrawn.

Dated this 28th day of August, 1986.

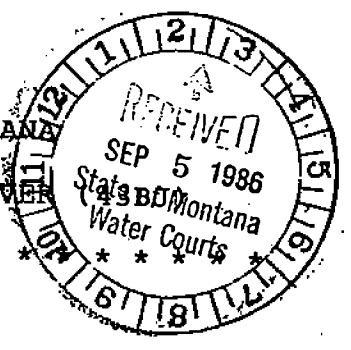
JOSEPHSON & FREDRICKS

By Conrad B. Fredricks
 Attorneys for Carol J. Powell

Stan Bradshaw
 Stan Bradshaw
 Staff Attorney
 Montana Dept. of Fish, Wildlife
 and Parks

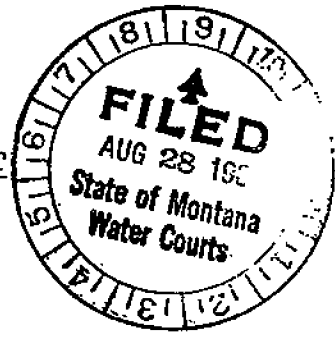
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IN THE WATER COURTS OF THE STATE OF MONTANA
 YELLOWSTONE DIVISION
 BOULDER RIVER BASIN, TRIBUTARY OF YELLOWSTONE RIVER



IN THE MATTER OF THE ADJUDICATION)
 OF THE EXISTING RIGHTS TO THE USE)
 OF ALL THE WATER, BOTH SURFACE AND)
 UNDERGROUND, WITHIN THE BOULDER)
 RIVER DRAINAGE AREA, INCLUDING ALL)
 TRIBUTARIES OF THE BOULDER RIVER,)
 TRIBUTARY OF YELLOWSTONE RIVER,)
 IN SWEET GRASS AND PARK COUNTIES,)
 MONTANA)

CASE NO. 43BJ-20



A F F I D A V I T

State of Montana)
) :ss
 County of Sweet Grass)

Conrad B. Fredricks, being first duly sworn, deposes and says:

That he is one of the attorneys for the objector, Carol J. Powell and makes this affidavit on her behalf.

At the time that the objection to flow rate was prepared, it was apparent that the flow rate, as awarded in the temporary preliminary decree, was inadequate to irrigate the ground described in the place of use. At the time the objection was prepared, no measurements had been made of the irrigation system to determine the historical flow rate through the irrigation system, but it was felt that at least two miner's inches per acre was necessary to irrigate this ground, in view of the soils and the length of the ditch from point of diversion to place of use.

WJ

Since the objection was filed, investigation of the irrigation was made by Frank Biglen and measurements were made of the irrigation system, as more fully appears from the affidavit of Frank Biglen, of July 30, 1986, on file in this case.

It is apparent from the affidavit of Frank Biglen that the historical flow rate for this water right closely corresponds to the original flow rate set forth in the statement of claim - 150 miner's inches or 3.75 cubic feet per second. Therefore, the claimant and objector, Carol J. Powell, moves to amend the "Explanation of Reason for Objection", attached to the "Notice of Objection" to Claim No. 43BJ-W-021029-00, to request a flow rate equal to the amount originally claimed - 150 miner's inches or 3.75 cubic feet per second.

Conrad B. Fredricko

Subscribed and sworn to before me this 27th day of August, 1986.

(Notarial Seal)

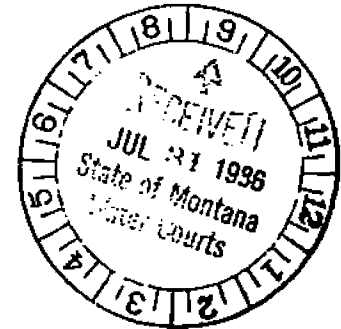
Carmen D. Hodges
Notary Public for the State of Montana
Residing at Big Timber, Montana
My Commission expires 11-16-87

IN THE WATER COURTS OF THE STATE OF MONTANA
 YELLOWSTONE DIVISION
 BOULDER RIVER BASIN, TRIBUTARY OF YELLOWSONE RIVER (43BJ)

* * * * *

IN THE MATTER OF THE ADJUDICATION) OF THE EXISTING RIGHTS TO THE USE) OF ALL THE WATER, BOTH SURFACE AND) UNDERGROUND, WITHIN THE BOULDER) RIVER BASIN, TRIBUTARY OF YELLOW-) STONE RIVER, DRAINAGE AREA, INCLUD-) ING ALL TRIBUTARIES OF THE BOULDER) RIVER, TRIBUTARY OF YELLOWSTONE) RIVER, IN SWEET GRASS AND PARK) COUNTIES, MONTANA) -----)	CASE NO. 43BJ-20 Water Right No. 021029
--	--

A F F I D A V I T



State of Montana)
) :ss
 County of Sweet Grass)

Frank Biglen, being first duly sworn, deposes and says that:

His qualifications as an expert witness are set forth in the letter to Wynne O'Brien, Water Master, dated July 7, 1986, a copy of which is attached hereto.

He inspected the property of Carol Powell, to which the water right is appurtenant, on July 23, 1986, and checked the irrigation system. He had previously designed parts of the system while working for the Soil Conservation Service.

The irrigated property has two 12" C.M.P. turnouts with 101 headgates attached. When irrigating, there is 0.3 foot of head of water above the headgates. Using the formula for orifice flow, a copy of which is attached, each headgate will flow 2.11 cubic feet per second. The irrigated field has one 12" concrete

pipeline with 3 turnouts into contour ditches, plus one other 12" turnout into a contour ditch.

When water is available in the spring or later in the irrigation season when no one is irrigating, 4.22 cubic feet per second of water can be and has been, apparently, historically used efficiently to irrigate this land.

The Crest Ditch traverses through gravelly, cobbly, silty, clay loams for about two miles before reaching the subject lands. There is severe water loss in sections of this ditch. The soils are classified as Sweet Grass cobbly clay loam. Normally, these soils have a 6-12 inch "A" horizon underlain with gravels, silt, cobbles and sand. Affiant does not feel that the 0.91 cfs flow rate, in the temporary preliminary decree, is enough flow rate to do an efficient job of irrigation because of the soils.

Affiant believes, from his personal experience, that the 10.2 acre-feet per year per acre, set forth in the volume "guideline", placed upon the 28.72 acres irrigated is adequate.

Frank Bigler

Subscribed and sworn to before me this 30th day of July, 1986.

(Notarial Seal)

Cairnes D. Hodges
Notary Public for the State of Montana
Residing at Big Timber, Montana
My Commission expires 11-16-87

July 7, 1986

Mont. State Water Courts
Box 879
Bozeman, Mt.

To: Wynn O'Brien
From: Frank Biglen
Subject: Water Rights (Flow Rate)

My qualifications to give expert opinions on this subject are:

1. I worked as a Civil Engineering Technician in Sweet Grass County for 23 years with the Soil Conservation Service. At least 90% of my time was spent on field surveys, design and supervision of construction on irrigation projects. I computed flow rate on ditch flow, syphons, structures, ditch lining, pipes, irrigation pipe lines, and for the installation of measuring devices.
2. I retired in 1981 and since that time I have been doing private surveying of which about 35% are irrigation practices.
3. I spent two years in Afghanistan with Morrison & Knudsen Construction Co. setting vertical & horizontal control for large irrigation projects.
4. I worked over seas as an Apprentice Engineer for J.H. Pomeroy and Co. for 2 years in 1946-48 on the same type of projects.
5. I have spent many hours working and assisting ranchers with irrigation projects and irrigating. For the past 10 years I have irrigated for an old couple here in Sweet Grass Co. I am familiar with the amount of water it takes to do an efficient and fast job of irrigation.
6. I have worked with Soils Scientists both with the S.C.S and Morrison Knudson Construction Co. I am familiar with the Unified Soils Classification System of soils. During my 23 years with the S.C.S. I have gone to numerous workshops in design, surveying, soils, water application, rates and all aspects of irrigation.
7. I have been called as an expert witness on several court cases during my years with the S.C.S.

Sincerely,

Frank L. Biglen
Frank L. Biglen

JUL 8 1986

7/23/56

To: CONRAD FREDRICKS, ATTORNEY.

SUBJECT: CAROL POWELL TURN-OUTS (WATER FLOW)

$$Q = CA\sqrt{2gh}$$

C = COEFFICIENT OF ENTRANCE = 0.61

A = AREA OF ORFICE = 0.7854

g = ACCELERATION OF GRAVITY = 32.2 FT./SEC

h = HEAD OF WATER ABOVE ORFICE = 0.3 FT

$$Q = CA\sqrt{2gh}$$

$$Q = (.61)(.7854)\sqrt{(2)(32.2)(.3)}$$

$$Q = (.4791)(4.395) = 2.11 \text{ C.F.S. OR } 84.2 \text{ M.I.}$$

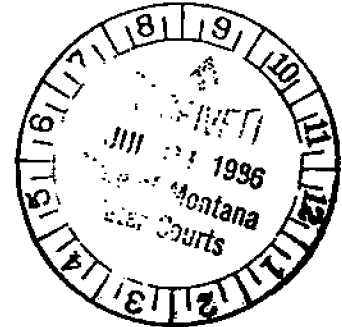
THE TWO HEADGATES CAN BE USE INDEPENTLY OR TOGETHER. THIS WOULD MAKE A TOTAL OF 4.22 C.F.S. THAT COULD BE USED AT ONE TIME.

SUBMITTED BY,
FRANK BIGLEN
FRANK BIGLEN
Box 134
BIG TIMBER, MT.
59011

IN THE WATER COURTS OF THE STATE OF MONTANA
 YELLOWSTONE DIVISION
 BOULDER RIVER BASIN, TRIBUTARY OF YELLOWSTONE RIVER (43BJ)

IN THE MATTER OF THE ADJUDICATION)
 OF THE EXISTING RIGHTS TO THE USE)
 OF ALL THE WATER, BOTH SURFACE AND)
 UNDERGROUND, WITHIN THE BOULDER)
 RIVER BASIN, TRIBUTARY OF YELLOW-)
 STONE RIVER, DRAINAGE AREA, INCLUD-)
 ING ALL TRIBUTARIES OF THE BOULDER)
 RIVER, TRIBUTARY OF YELLOWSTONE)
 RIVER, IN SWEET GRASS AND PARK)
 COUNTIES, MONTANA)

CASE NO. 43BJ-20



A F F I D A V I T

State of Montana)
 :ss
 County of Sweet Grass)

Martin Peterson, being first duly sworn, deposes and says:

That he is acquainted with the lands which are irrigated which are described, under "Place of Use for Irrigation", in the abstract of Water Right No. 43BJ-W-021029-00, in the Temporary Preliminary Decree in the above-entitled Basin, and is acquainted with the 5.013 acre tract immediately north of said lands, which tract is described in that Certificate of Survey filed as Document NO. 96585, in the records of Sweet Grass County, Montana.

That he first became acquainted with said lands in 1950 or 1951, when he first irrigated said lands. At that time, the 24.02 acres described in the aforementioned abstract of water right, as well as 4.7 acres in the 5.013 acre tract, were

irrigated and, apparently, had been irrigated since the ditch serving said lands was originally put in. These lands, and all of them, to the best of his knowledge, have been continually irrigated since and continue to be irrigated out of said ditch.

Martin Peterson
Martin Peterson

Subscribed and sworn to before me this 30th day of July, 1986.

(Notarial Seal)



Conrad B Fredricks
Notary Public for the State of Montana
Residing at Big Timber, Montana
My Commission expires 6/27/89