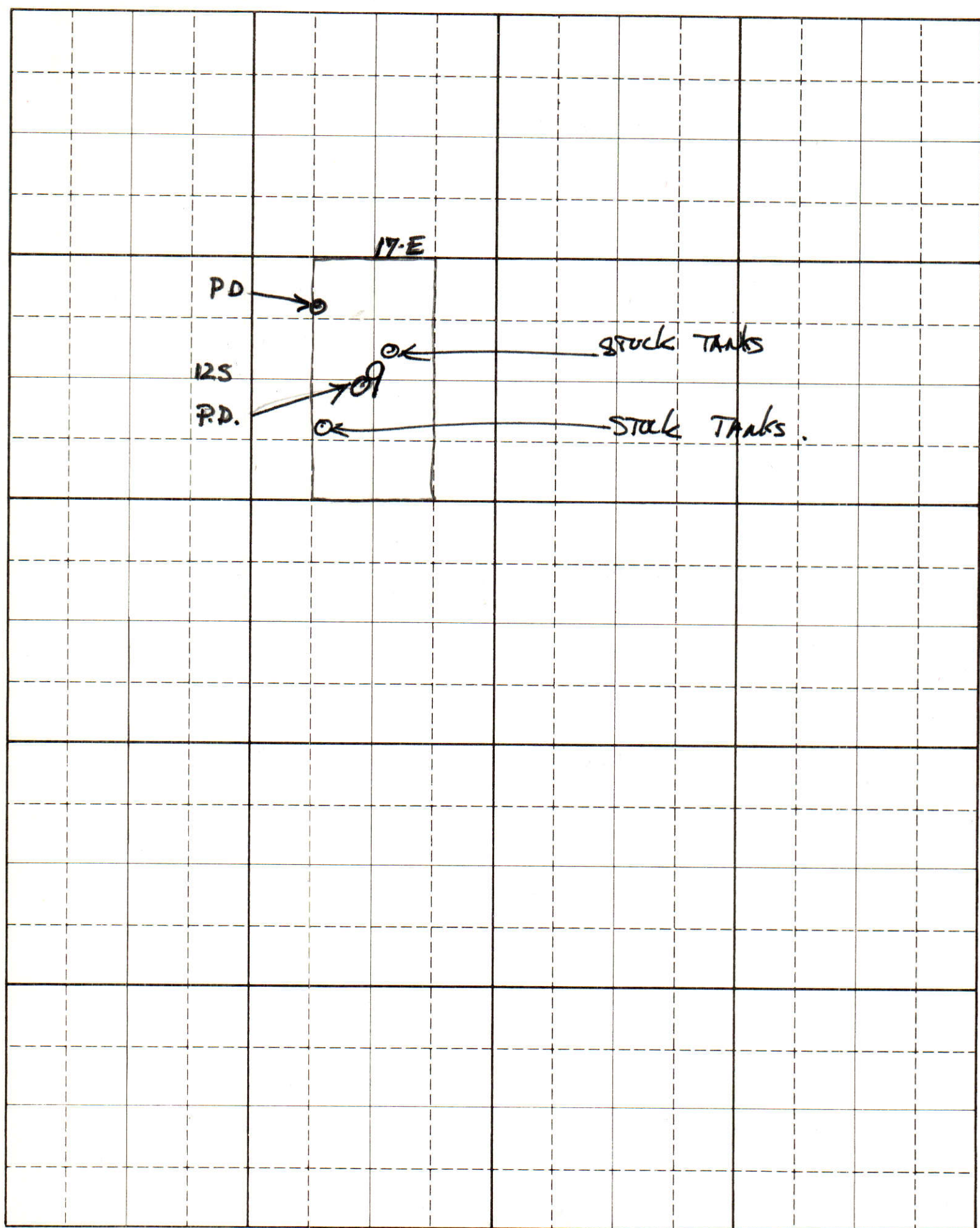


11. Map of proposed project: show clearly the proposed point of diversion, place of use, section number, township and range number.



Scale: 2 inches equal 1 mile

BE IT KNOWN that the undersigned hereby makes application for permit to appropriate the public waters of the State of Idaho as herein set forth.

Walter W. Nelson
(Applicant)
Maxine M. Nelson

RECEIVED

FEB 17 1976

Department of Water Resources
NOTICE OF APPLICATION
FOR WATER PERMIT

Notice is hereby given that Victor W. and/or Maxine M. Nelson, Route #2, Twin Falls, Idaho 83301 has on Jan. 26, 1975 submitted Application No. 47-7319 for a permit to appropriate 6.52 cubic feet per second of water from Groundwater by means of 2 wells pumps, motors within the NE $\frac{1}{4}$ NW $\frac{1}{4}$, Sec. 9 Twp. 12S., Rge. 17E. B.M., NE $\frac{1}{4}$ SW $\frac{1}{4}$, Sec. 9 Twp. 12S, Rge. 17E. B.M., Twin Falls, County to be used from March 15 to Nov. 15 Irrigation of 320 Acre. Jan. 1 to Dec. 31 Stock for Irrigation & Stockwater within the W $\frac{1}{2}$ NE $\frac{1}{4}$, E $\frac{1}{2}$ NW $\frac{1}{4}$, E $\frac{1}{2}$ SW $\frac{1}{4}$, W $\frac{1}{2}$ SE $\frac{1}{4}$, Sec. 9 Twp. 12S., Rge. 17E. B.M., Twin Falls County.

If issued, this permit will be subject to all prior water rights. Protests against the granting of the permit must be filed with the Idaho Department of Water Resources, 1041 Blue Lakes Blvd., North, Twin Falls, Idaho, 83301 on or before Feb. 23.

R. KEITH HIGGINSON
Director
Publish: Feb. 5 and Feb. 12, 1976.

MICROFILMED

O.K.C.
2-18-76

Affidavit of Publication

STATE OF IDAHO,
COUNTY OF TWIN FALLS }

ss.

No 4610

I, Kay Malley being first duly sworn upon oath, depose and say that I am Print Clerk of the TIMES-NEWS, published daily, except Saturday, at Twin Falls, Idaho, and do solemnly swear that a copy of the notice of advertisement, as per clipping attached, was published in the regular and entire issue of said newspaper, and not in any supplement thereof, for two consecutive Thursday, commencing with the issue dated February 5, 19 76, and ending with the issue dated February 12, 19 76.

And I do further certify that said newspaper is a consolidation, effective February 16, 1942, of the Idaho Evening Times, published theretofore daily except Sunday, and the Twin Falls News, published theretofore daily except Monday, both of which newspapers prior to consolidation had been published under said names in said city and county continuously and uninterruptedly during a period of more than twelve consecutive months, and said TIMES-NEWS, since such consolidation, has been published as a daily newspaper except Saturday, under said name in said city and county continuously and uninterruptedly.

And I further certify that pursuant to Section 60-108 Idaho Code, Thursday of each week has been designated as the day on which legal notice by law or by order of any court of competent jurisdiction within the state of Idaho, to be published weekly, will be published; and that at the head of the editorial column of said combined newspapers, and in each issue thereof, Thursday is announced as the day on which said legal notices will be published.

Subscribed and sworn to before me on this Kay Malley day of Feb

February, 19 76.

Maureen L. Reed

Notary Public in and for the County of Twin Falls,
State of Idaho, residing at Twin Falls, Idaho

10. Other water rights on these lands Salmon Falls Canal Co.
11. Other water right diverted from same p.d. NONE
12. **Diversion and Delivery System Diagram:** Indicate all major components and distances between components. Indicate ditch size/pipe i.d. as applicable. Indicate on systems with measurement port the distance between the port and the nearest component/pipe bend/restriction both upstream and downstream, and the inside pipe diameter at the measurement port. On multiple diversion systems indicate how diversion systems are connected.



13. ☒ Photo of Diversion & System Attached ☒ Aerial Photo of Place of Use Attached or Map of Irrigated Acreage Attached

14. Remarks Apparently the top of the map was not facing north on the original Application. Therefore the P.D. and the P.U. was not described correctly.

15. Recommended Amendments
- | | | |
|--|--|--------------------------------|
| ☒ Change P.D. as reflected above | ☐ Add P.D. as reflected above | ☐ None |
| ☒ Change P.U. as reflected above | ☐ Add P.U. as reflected above | ☐ Other |

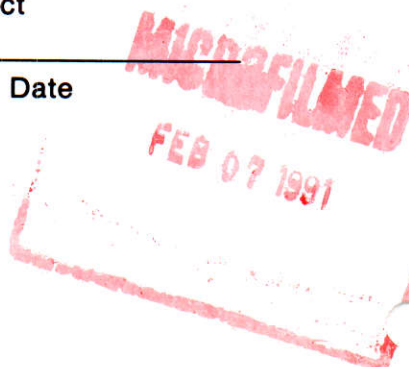
16. Examiner's/Consultant's Signature Larry A. Blau Date 6/26/86

Consultant's License Number _____

IDWR Director's Authorization to Conduct Beneficial Use Examination _____

Date

CONSULTANT SEAL



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LEV 85 RM



NOT FILMED
FEB 07 1991

NOT TO SCALE

1-G
38

State of Idaho
Department of Water Resources

WATER RIGHT LICENSE

WATER RIGHT NO. 47-07319

Priority: February 11, 1976

Maximum Diversion Rate: 1.02 CFS
Maximum Diversion Volume:¹ 466.7 AF

This is to certify, that MAXINE M. NELSON
VICTOR W. NELSON

2895 E. 3300 N.

TWIN FALLS, ID 83301

has complied with the terms and conditions of the permit, issued pursuant to Application for Permit dated January 26, 1976; and has submitted Proof of Beneficial Use on March 17, 1981. An examination indicates that the works have a diversion capacity of 1.020 cfs of water from a GROUNDWATER source, and a water right has been established as follows:

<u>BENEFICIAL USE</u>	<u>PERIOD OF USE</u>	<u>RATE OF DIVERSION</u>	<u>ANNUAL VOLUME</u>
IRRIGATION	03/15 to 11/15	1.02 CFS	460.0 AF
STOCKWATER	01/01 to 12/31	0.12 CFS	6.7 AF
	Totals	1.02 CFS	466.7 AF

LOCATION OF POINT(S) OF DIVERSION:

NWSW , Sec. 9, Township 12S, Range 17E
TWIN FALLS County

PLACE OF USE: IRRIGATION

<u>TWN</u>	<u>RGE</u>	<u>SEC</u>	<u>ACRES</u>	<u>ACRES</u>	<u>ACRES</u>	<u>TOTAL</u>
12S	17E	9	SWNE 11	SENE 25	SWNW 31	
			SENW 7	NESW 15	NWSW 18	
			NESE 8			115

Total number of acres irrigated: 115

PLACE OF USE: STOCKWATER

TWN RGE SEC

12S 17E 9 SENW NESW NESE

CONDITIONS/REMARKS:

1. The maximum diversion volume is defined as the maximum allowable volume of water that may be diverted annually from the source under this right. The use of water confirmed by this right is limited to the amount which can actually be beneficially used. The maximum diversion volume may be adjusted to more accurately describe the beneficial use or to implement accepted standards of diversion and use efficiency.
2. This water right is appurtenant to the described place of use.
3. This right is subject to all prior water rights and may be forfeited by five years of non-use.

MICROFILMED

FEB 07 1991

State of Idaho
Department of Water Resources**WATER RIGHT LICENSE**

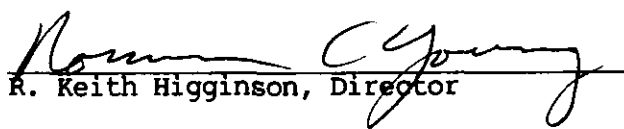
WATER RIGHT NO. 47-07319

CONDITIONS/REMARKS:

4. Modifications to or variance from this license must be made within the limits of Section 42-222, Idaho Code, or the applicable Idaho law.
5. This right when combined with all other rights shall provide no more than .02 cfs per acre nor more than 4.0 afa per acre for the lands above.

This license is issued pursuant to the provisions of Section 42-219, Idaho Code. Witness the seal and signature of the Director, affixed at Boise, this 15TH day of JANUARY, 1991.

Attest:


R. Keith Higginson, DirectorRECEIVED
FEB 1 1991

State of Idaho
Department of Water Resources

APPLICATION FOR AMENDMENT
(For Licensing Purposes)
WATER RIGHT NO. 47-07319

RECEIVED
APPROVED
JAN 02 1991
Department of Water Resources

Date of Priority: February 11, 1976

Maximum Diversion Rate: 1.02 CFS
Maximum Diversion Volume:¹ 466.7 AF

Comes now

VICTOR W. NELSON
MAXINE M. NELSON

RT. 2

TWIN FALLS, ID 83301

and represents to the Director of the

Idaho Department of Water Resources:

That he is the owner and holder of Permit to appropriate the Public Waters of the State of Idaho No. 47-07319, and requests that the permit be changed as follows:

Source: GROUNDWATER

<u>BENEFICIAL USE</u>	<u>PERIOD OF USE</u>	<u>RATE OF DIVERSION</u>	<u>ANNUAL VOLUME</u>
IRRIGATION	03/15 to 11/15	1.02 CFS	460.0 AF
STOCKWATER	01/01 to 12/31	0.12 CFS	6.7 AF
	Totals	1.02 CFS	466.7 AF

LOCATION OF POINT(S) OF DIVERSION:

NWSW , Sec. 9, Township 12S, Range 17E
TWIN FALLS County

PLACE OF USE: IRRIGATION

<u>TWN RGE SEC</u>	<u>ACRES</u>	<u>ACRES</u>	<u>ACRES</u>	<u>TOTAL</u>
12S 17E 9	SWNE 11	SENE 25	SWNW 31	
	SEnw 7	NESW 15	NWSW 18	
	NESE 8			115
		Total number of acres irrigated:		115

PLACE OF USE: STOCKWATER

TWN RGE SEC

12S 17E 9 SENW NESW NESE

MICROFILMED

FEB 07 1991

State of Idaho
Department of Water Resources

APPLICATION FOR AMENDMENT
(For Licensing Purposes)
WATER RIGHT NO. 47-07319

Permit holder asserts that no one will be injured by such change and that such change will be made at permit holder's own risk.

Signed at Victor W Nelson, this 29 day of Dec, 1990.

Victor W Nelson
(Signature)

MAILED

FEB 07 1991

State of Idaho
Department of Water Resources

APPLICATION FOR AMENDMENT
(For Licensing Purposes)
WATER RIGHT NO. 47-07319

FOR DEPARTMENT USE ONLY

Preliminary check by SC Fee ✓ \$20.00 Received by gy Date 1/9/91 #C019281

ACTION OF THE DEPARTMENT OF WATER RESOURCES

I, R. Keith Higginson, of the Department of Water Resources hereby approve the above Application for Amendment for Permit No. 47-07319 with the following;

CONDITIONS/REMARKS:

1. The maximum diversion volume is defined as the maximum allowable volume of water that may be diverted annually from the source under this right. The use of water confirmed by this right is limited to the amount which can actually be beneficially used. The maximum diversion volume may be adjusted to more accurately describe the beneficial use or to implement accepted standards of diversion and use efficiency.
2. This water right is appurtenant to the described place of use.
3. This right is subject to all prior water rights and may be forfeited by five years of non-use.
4. Modifications to or variance from this license must be made within the limits of Section 42-222, Idaho Code, or the applicable Idaho law.
5. This right when combined with all other rights shall provide no more than .02 cfs per acre nor more than 4.0 afa per acre for the lands above.

Witness my hand this 18TH day of JANUARY, 1991.

Acting for

Norm Cyguy
R. Keith Higginson, Director

MICROFILMED

FEB 07 1991

Identification No. _____

Application No. 47-7319

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
APPLICATION FOR PERMIT

APPROVED

To Appropriate the Public Waters of the State of Idaho
(TYPE OR PRINT IN INK)

1. Name of applicant Victor W. & Maxine M. Nelson Phone: 733-8746
post office address Rd #2, Twin Falls, Idaho
2. Source of water supply Ground Water which is a tributary of _____
3. a. Location of point of diversion is NE $\frac{1}{4}$ of NW $\frac{1}{4}$ of Section 9 Township 12 S.
Range 17 E. B.M. Twin Falls County; additional points of diversion if any: _____
NE⁴SW⁴, Sec 9, Twp 12S, Rge 17E.

b. If water is not consumed, it will be discharged into _____ at a point in _____ $\frac{1}{4}$ of _____ $\frac{1}{4}$ of Section _____ Township _____ Range _____ B.M. _____

4. Water will be used for the following purposes:

Amount 6.4 for Tr purpose from March 15 to Nov. 15 (both dates inclusive)
(cfs or acre-feet per annum)

Amount .12 for Stockwater purpose from Jan 1 to Dec. 31 (both dates inclusive)
(cfs or acre-feet per annum)

Amount _____ for _____ purpose from _____ to _____ (both dates inclusive)
(cfs or acre-feet per annum)

5. Total quantity to be appropriated:

a. 6.52 cubic feet per second and/or

b. _____ acre feet per annum.

6. Proposed diverting works:

a. Description of ditches, flumes, pumps, headgates, etc. 2 Well - 2 Motors, 2 Pumps,

b. Height of storage dam _____ feet, active reservoir capacity _____ acre feet; total reservoir capacity _____ acre feet, materials used in storage dam: _____

Period of year during which storage will occur _____ to _____ inclusive.
(Mo. Day) (Mo. Day)

c. Proposed well diameter is 19 inches; proposed depth of well is 400 feet.

7. a. Time required for the completion of the works and application of the water to the proposed beneficial use is 5 years.

b. Estimated construction cost is \$ 2500.00

8. Description of proposed uses:

a. If water is **not** for irrigation: NE SW
(1) Give the place of use of water: SW $\frac{1}{4}$ of NE $\frac{1}{4}$ of Section 9 Township 12S
Range 17E B.M.

(2) Amount of power to be generated: _____ hp under _____ feet of head.

(3) List number of each kind of livestock to be watered 500 HEAD RANGING CATTLE

(4) Name of municipality to be served _____, or number of families to be supplied with domestic water _____

(5) If water is to be used for other purposes describe: _____

b. If water is for irrigation, indicate acreage in each subdivision in the tabulation below:

TWP.	RANGE	SEC.	NE 1/4				NW 1/4				SW 1/4				SE 1/4				TOTALS
			NE 1/4	NW 1/4	SW 1/4	SE 1/4	NE 1/4	NW 1/4	SW 1/4	SE 1/4	NE 1/4	NW 1/4	SW 1/4	SE 1/4	NE 1/4	NW 1/4	SW 1/4	SE 1/4	
123	17E	9		40	40		40			40	40			40		40	40		320
125	17E	9		Stock				Stock		X									

Total number of acres to be irrigated 320

c. Describe any other water rights used for the same purposes as described above.

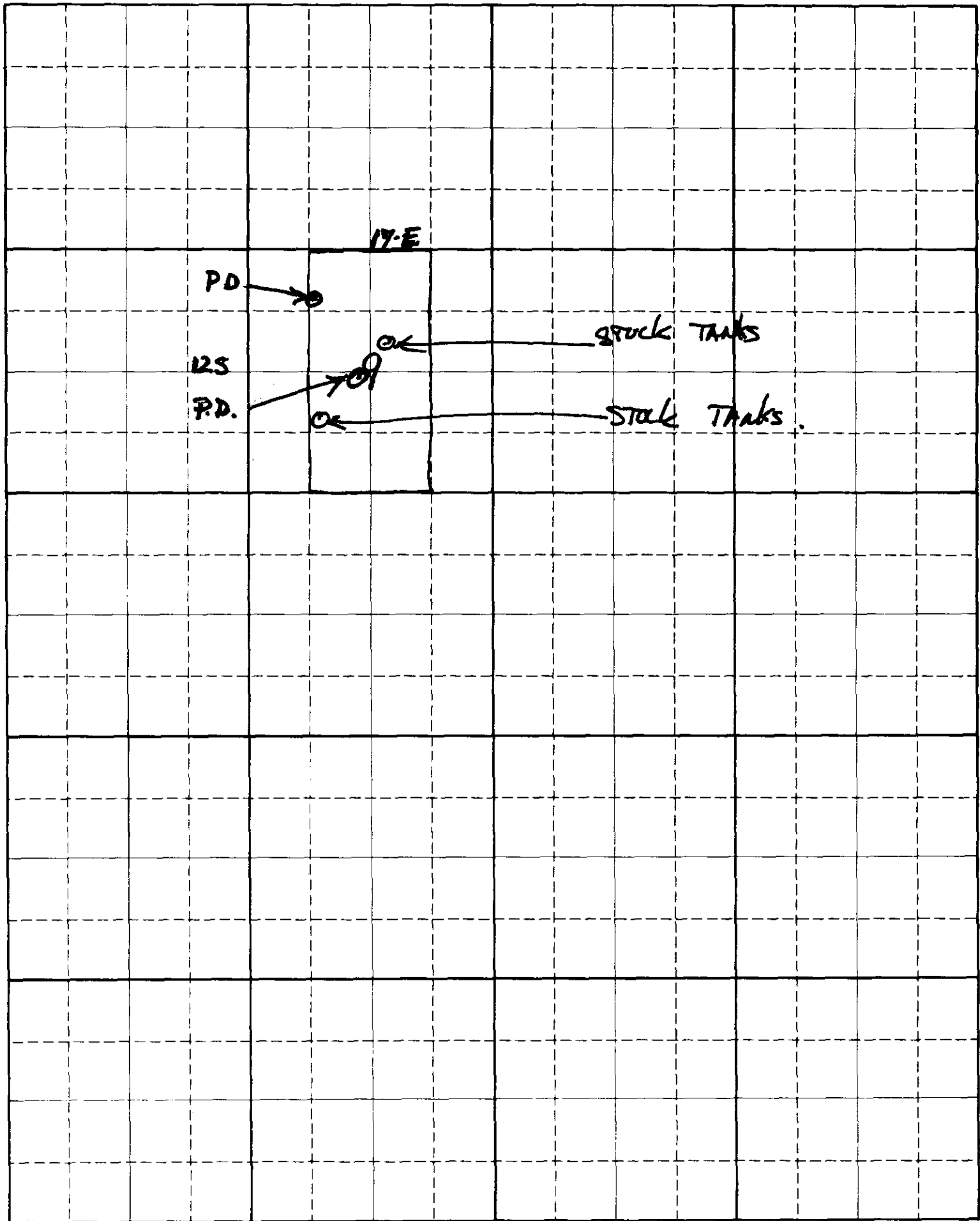
9. a. Who owns the property at the point of diversion Applicant

b. Who owns the land to be irrigated or place of use Applicant

c. If the property is owned by a person other than the applicant, describe the arrangement enabling the applicant to make this filing

10. Remarks

11. Map of proposed project: show clearly the proposed point of diversion, place of use, section number, township and range number.



Scale: 2 inches equal 1 mile

BE IT KNOWN that the undersigned hereby makes application for permit to appropriate the public waters of the State of Idaho as herein set forth.

Walter W. Nelson
(Applicant)
Maxine M. Nelson

Proposed Priority 1-26-76

Received by ADM Date 1-26-76 Time 3:00 # 2001
Preliminary check by ADM Fee \$ 85.00
Receipted by ADM Date 1-26-76
Publication prepared by ADM Date 1-27-76
Published in Times News
Publication dates Feb 5 & Feb 12
Publication approved CC Date 2-18-76
Priority reduced to _____ Reason _____

Protests filed by: _____

Copies of protests forwarded by _____
Hearing held by _____ Date _____
Recommended for approval denial by mls. Der

ACTION OF THE DIRECTOR, DEPARTMENT OF WATER RESOURCES

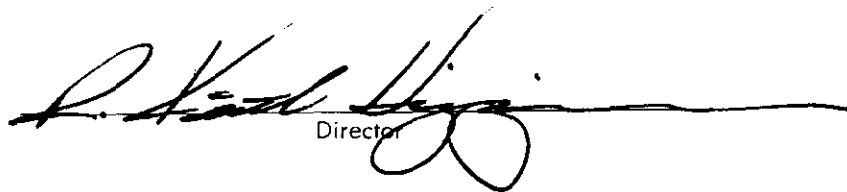
This is to certify that I have examined Application for Permit to appropriate the public waters of the State of Idaho No. 47-7319, and said application is hereby APPROVED.

1. Approval of said application is subject to the following limitations and conditions:

- a. SUBJECT TO ALL PRIOR WATER RIGHTS.
- b. Proof of construction of works and application of water to beneficial use shall be submitted on or before March 1, 19 81.
- c. Other: A measuring device of a type approved by the Director shall be permanently installed and maintained as part of the diverting works.

2. Denial of said application is for the following reasons: _____

Witness my hand this 4 day of March 19 76.


Director

BEFORE THE DEPARTMENT OF WATER RESOURCES
OF THE
STATE OF IDAHO

IN THE MATTER OF PERMIT NO. 47-7319
IN THE NAME OF VICTOR W. &/OR MAXINE M. NELSON

ORDER OF REINSTATEMENT

WHEREAS, on January 26, 1976, Victor W. and Maxine M. Nelson applied to the Department of Water Resources for a permit to appropriate 6.52 cubic feet per second of water from a groundwater source to be diverted within the NE $\frac{1}{4}$ NW $\frac{1}{4}$, NE $\frac{1}{4}$ SW $\frac{1}{4}$, Sec. 9, Twp. 12S, Rge. 17E B.M., Twin Falls County, to be used for irrigation and stockwatering purposes; and,

WHEREAS, on March 4, 1976, the Department approved said application and issued Permit No. 47-7319 with the condition that proof of construction of works and application of water to beneficial use be submitted on or before March 1, 1981; and,

WHEREAS, on December 31, 1980, the Department notified the permit holders by certified mail that proof was due and instructed the permit holder as to the steps to be taken to make said proof; and,

WHEREAS, on March 9, 1981, the Department notified the permit holders that Permit No. 47-7319 had lapsed for failure of the permit holders to submit proof of beneficial use; and,

WHEREAS, Section 42-218a of the Idaho Code provides that a permit may be reinstated upon a showing of reasonable cause within sixty days from the date of the notice of lapsing; and,

WHEREAS, the permit holders have provided a reasonable showing as to why said permit should be reinstated by submitting proof of beneficial use on March 17, 1981;

IT IS, THEREFORE, HEREBY ORDERED that Permit No. 47-7319 be REINSTATED and the priority advanced to February 11, 1976.

Dated this 23rd day of March, 1981.


L. GLEN SAXTON

Chief, Operations Bureau

MICROFILMED

BEFORE THE DEPARTMENT OF WATER RESOURCES
OF THE
STATE OF IDAHO

IN THE MATTER OF CHANGING THE MEASURING)
DEVICE REQUIREMENT FOR PERMIT NO. 47-7319)

ORDER

WHEREAS, the above numbered permit was approved with the condition that a measuring device of a type approved by the Department be permanently installed and maintained as part of the diverting works; and,

WHEREAS, on July 1, 1978, the Department adopted a new water measurement condition which states: "An access port or other device as specified by the Department shall be installed by the permit holder to provide for the installation of measuring equipment and the determination of the rate of diversion by the Department"; and,

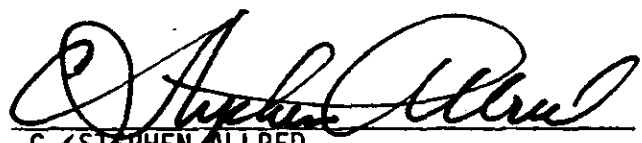
WHEREAS, the former condition required the permit holder to purchase and install a measuring device or hire a professional engineer to certify the rate of diversion; and,

WHEREAS, the measuring device condition effective July 1, 1978, requires less capital expenditure by the permit holder; and,

WHEREAS, to be equitable to holders of permits issued prior to July 1, 1978, the new condition should be retroactive;

NOW THEREFORE, it is hereby ordered that the condition of approval of this permit related to water measurement is hereby changed as follows: "The permit holder shall either install a measuring device or provide a certified measurement by a professional engineer or install an access port or other device as specified by the Department".

Dated this 18th day of August, 1978.


C. STEPHEN ALLRED
Director

MICROFILMED

RECEIVED

FEB 17 1976

De: *[illegible]*

[illegible text]
 Victor
 of Section 11, No. 100, T14S
 20, 100E, Idaho 83221 has on
 Feb. 25, 1975 submitted Application
 No. 47-7290 for a permit to ap-
 propriate 6.02 cubic feet per second
 of water from *[illegible]* by
 means of 2 wells pumps, motors
 within the NE1/4NW1/4, Sec. 9 T14S
 20, R. 17E, B.M., 100E, 100E
 Sec. 9 T14S, R. 17E, B.M., 100E
 Twin Falls, County and State of
 Idaho to be used for irrigation of 200
 Acres, Jan. 1 to Dec. 31 next for
 irrigation & *[illegible]* within the
 NW1/4, E1/4NW1/4, E1/4SW1/4,
 NW1/4, Sec. 9 T14S, R. 17E, B.M., 100E
 Twin Falls, County.
 I issued this permit on
 Feb. 12, 1976. I am prior water right.
 I am the granting of the
 permit and the State of Idaho
 Department of Water Resources,
 1001 Blue Lakes Blvd., Boise, Twin
 Falls, Idaho, 83202 on or before Feb.
 23.

R. KEITH HICKSON
 Director
 Publish: Feb. 5 and Feb. 12, 1976.

*J.K.C.
 2-18-76*

Affidavit of Publication

STATE OF IDAHO, }
 COUNTY OF TWIN FALLS }

ss.

No 4610

I, *[illegible]* being first duly sworn upon
 oath, depose and say that I am *[illegible]* of the TIMES-NEWS,
 published daily, except Saturday, at Twin Falls, Idaho, and do solemnly swear that a copy
 of the notice of advertisement, as per clipping attached, was published in the regular and
 entire issue of said newspaper, and not in any supplement thereof, for *[illegible]*
 consecutive *[illegible]*, commencing with the issue dated
[illegible], 19*[illegible]*, and ending with the issue dated
[illegible], 19*[illegible]*.

And I do further certify that said newspaper is a consolidation, effective February 16,
 1942, of the Idaho Evening Times, published theretofore daily except Sunday, and the
 Twin Falls News, published theretofore daily except Monday, both of which newspapers
 prior to consolidation had been published under said names in said city and county con-
 tinuously and uninterruptedly during a period of more than twelve consecutive months, and
 said TIMES-NEWS, since such consolidation, has been published as a daily newspaper
 except Saturday, under said name in said city and county continuously and uninterruptedly.

And I further certify that pursuant to Section 60-108 Idaho Code, Thursday of each
 week has been designated as the day on which legal notice by law or by order of any
 court of competent jurisdiction within the state of Idaho, to be published weekly, will be
 published; and that at the head of the editorial column of said combined newspapers, and
 in each issue thereof, Thursday is announced as the day on which said legal notices will
 be published.

[illegible]
 Subscribed and sworn to before me on this *[illegible]* day of
[illegible], 19*[illegible]*.

[illegible]
 Notary Public in and for the County of Twin Falls,
 State of Idaho, residing at Twin Falls, Idaho

February 5, 1991

MAXINE M. NELSON
VICTOR W. NELSON
2895 E. 3300 N.
TWIN FALLS, ID 83301

RE: WATER RIGHT NO. 47-07319

Dear Water Right Holder(s):

Enclosed herewith is a copy of the Water Right License issued on the above referenced permit along with a copy of your approved application for amendment.

Should you have any questions regarding these documents, please feel free to contact our office.

Sincerely,

JIM JOHNSON
Water Rights Supervisor

JJ:blm

Enclosure

RECEIVED
FILMED

FEB 07 1991

Victor W. Nelson

Rt. 2 2895 E 3300 N

Twin Falls, Ida. 83301



STATE OF IDAHO

DEPARTMENT OF WATER RESOURCES

1301 North street, Statehouse Mail,

BOISE, IDAHO *83720



December 26, 1990

VICTOR W. NELSON
MAXINE M. NELSON
RT. 2
TWIN FALLS, ID 83301

RE: WATER RIGHT NO. 47-07319

Dear Water Right Holder(s):

We previously forwarded to you an Amendment for Water Permit so that you could amend your permit to correspond with the findings of the Department's field examiner.

As of this date, we have not received the amendment. If we do not receive it within fifteen (15) days, we will assume you no longer have any interest in the permit and cancellation proceedings will begin. Enclosed for your convenience is another amendment form in the event the first one was misplaced.

If you have any questions, please contact us.

Sincerely,

SHARLA CURTIS
Technical Records Specialist

SC:blm

Enclosure

MICROFILMED

FEB 07 1991

November 7, 1990

VICTOR W. NELSON
MAXINE M. NELSON
RT. 2
TWIN FALLS, ID 83301

RE: WATER RIGHT NO. 47-07319

Dear Water Right Holder(s):

The above referenced water right is in the process of being licensed. However, before a license can be issued, your permit must be amended to correspond with the findings of the Department's field examiner.

The enclosed application for amendment contains information that will be included on the license when it is issued. Please review carefully and if you concur, sign the amendment and return with the \$20.00 filing fee within 30 days.

If you do not concur with these findings or if you have any questions, please contact us within the 30-day period.

Sincerely,

JIM JOHNSON
Water Rights Supervisor

JJ:blm

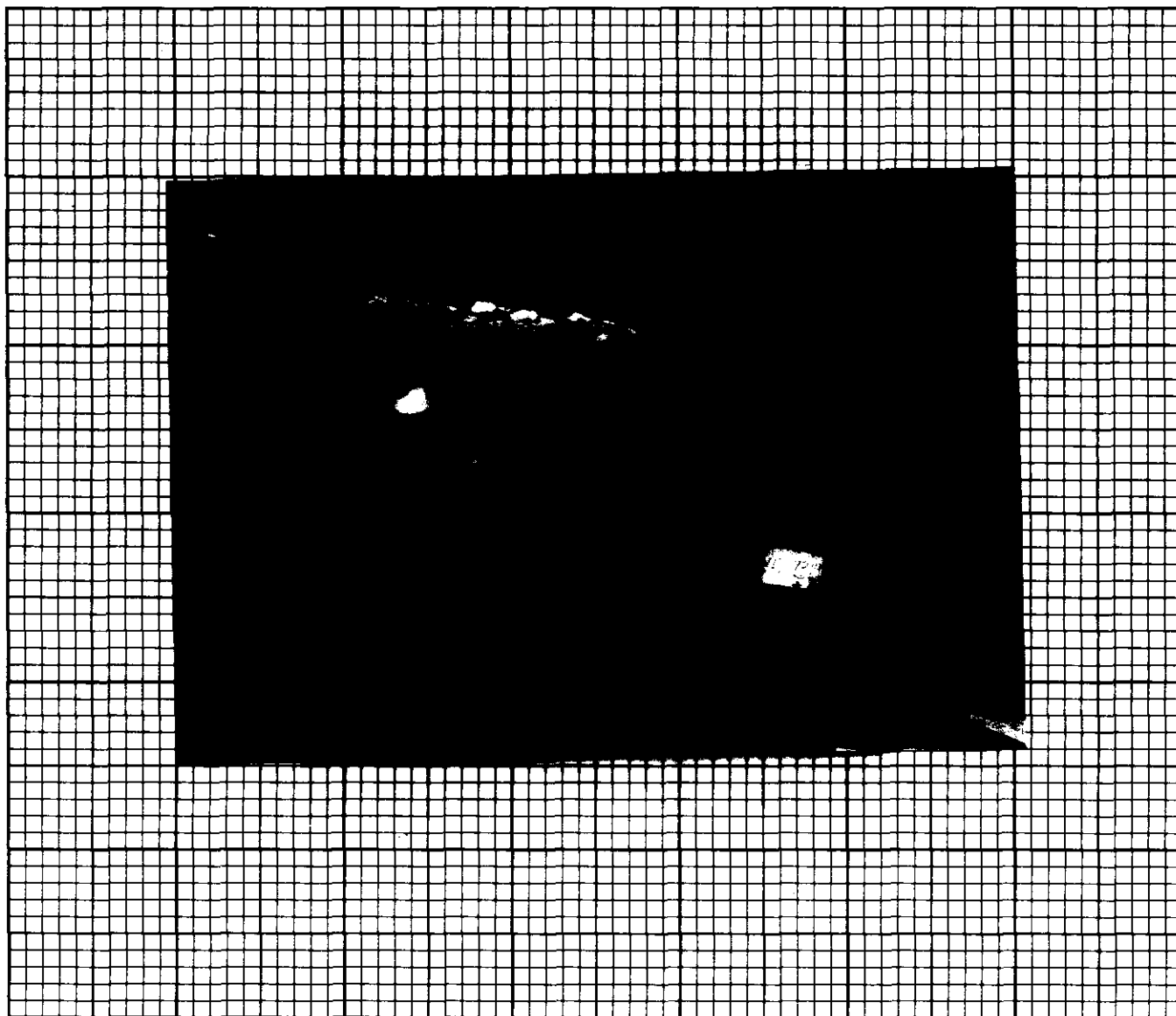
Enclosure

NOV 14 1990

FILED

[illegible]

10. Other water rights on these lands Salmon Falls Canal Co.
11. Other water right diverted from same p.d. NONE
12. **Diversion and Delivery System Diagram:** Indicate all major components and distances between components. Indicate ditch size/pipe i.d. as applicable. Indicate on systems with measurement port the distance between the port and the nearest component/pipe bend/restriction both upstream and downstream, and the inside pipe diameter at the measurement port. On multiple diversion systems indicate how diversion systems are connected.



13. ☒ Photo of Diversion & System Attached ☒ Aerial Photo of Place of Use Attached or Map of Irrigated Acreage Attached

14. Remarks Apparently the top of the map was not facing north on the original Application Therefore the P.D. and the P.U. was not described correctly.

15. Recommended Amendments

- ☒ Change P.D. as reflected above ☐ Add P.D. as reflected above ☐ None
- ☒ Change P.U. as reflected above ☐ Add P.U. as reflected above ☐ Other

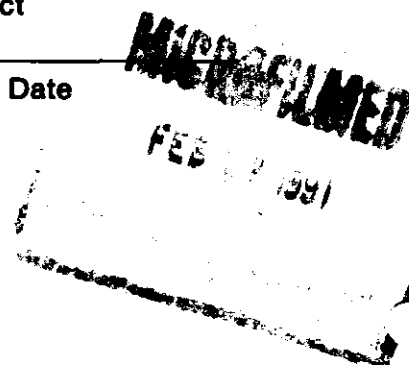
16. Examiner's/Consultant's Signature Larry A. Blau Date 6/26/86

Consultant's License Number _____

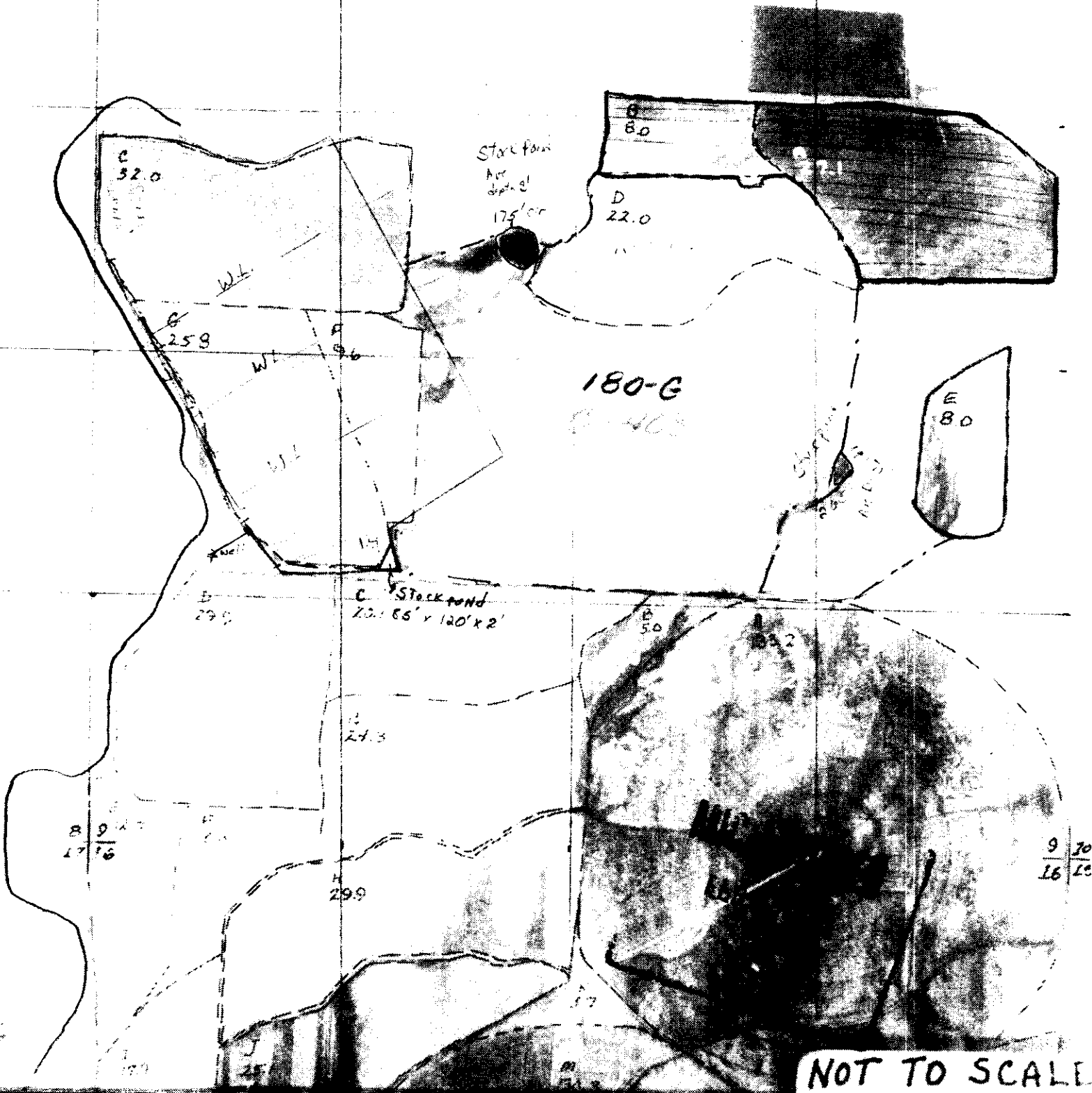
IDWR Director's Authorization to Conduct Beneficial Use Examination _____

Date

CONSULTANT SEAL



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STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
LICENSING REPORT

RECEIVED

SEP 26 1986

47-7319

Permit No.

Department of Water Resources

1. Measurement Calculations

- a) Field Measurement Calculations (Include theoretical capacities and system capacity)

$$\frac{.001 \text{ AF}}{42 \text{ sec}} \times 43,560 \frac{\text{CF}}{\text{AF}} = 1.02 \text{ CFS}$$

$$\text{Theoretical: } \frac{8.8 \times 40 \text{ hp}}{204 + 1.5} \times .70 \text{ eff} = 1.2 \text{ cfs}$$

- b) Volume Calculations for Irrigation:

$$\begin{aligned} V_{I.R.} &= (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 11.5 \text{ AC} \times 4 \text{ AF/ANN/AC} = 460 \text{ AF/ANN} \\ V_{D.R.} &= [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation Season}) \times 1.9835 = 1.02 \times 246 \times 1.9835 = 497.7 \text{ AF/ANN} \\ V &= \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = 460 \text{ AF/ANN} \end{aligned}$$

- c) Volume Calculations for Other Uses:

$$500 \text{ hd Rge Catt} \times 12 \text{ gpd/hd} \times 365 \text{ days} \div 325,851 \text{ gpd/AF} = 6.72 \text{ AF/ANN}$$

2. Overlap Review

- a) Other water rights with same place of use: _____
- b) Other water rights with same point of diversion: _____
- c) Analysis: _____

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RECOMMENDED AMOUNTS

3.	Permit No.	Priority	Amount	App. Date	Date Proof Submitted	System Capacity

4. Permit Holder: _____

Address: _____

5. Source: _____ tributary to _____

6. Beneficial Use	Period of Use		Rate of Diversion Q (cfs)	Annual Volume V (afa)
	From	To		

Irrigation	Mar. 15	Nov. 15	1.02 cfs	460 afa
Stockwater	Jan. 1	Dec. 31	.12 cfs	6.7 afa

Allowable Maximums: 1.02 cfs 466.7 cfs

7. Point(s) of Diversion:

[illegible]

8. Place(s) of Use

[illegible]

9. Recommended Conditions/Remarks: _____

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10. Recommended Amendments

☒ Change P.D. as reflected above ☐ Add P.D. as reflected above ☐ None☒ Change P.U. as reflected above ☐ Add P.U. as reflected above ☐ Other

11. Examiner's Signature Larry S. Blau

Date 7/21/86

Checked in Regional Office by J. Stanton LA 9/4/66

Date 7-25-86

Approved in State Office by _____

Date 12/28/88

Robin 733-7352

Date: August 26, 1980

From: Robin D. Wells

To: Victor Nelson
Route 2
Twin Falls, Idaho 83301

RECEIVED

APR 17 1981

Department of Water Resources
Southern District Office

Enclosed is the pump test results done on August 23, 1980.

I did try to get some additional information on the pump but Auora Pump, Layne Pump, and Art Carrier did not seem to know much about it. I did call Mr. Elsing also. Most of the material in this report you are aware of, but I think you ought to take a second look at the possibilities of leaks and seepage losses you are experiencing in the system at present. Of course this will not solve any of up-grading possibilities where a large increase of pump flow will be needed. Note that according to my estimate, you are only 7.35 Miners Inches (M.I.) from supplying 3 laterals at 65 psi and 32 nozzles per line. I put down some thoughts on that item. I did not include the possibility of using storage at the pump site. Changing the pump and motor would be more practical than running the pump full time into storage. With the deficite for the existing system and running the sprinklers 18 hours out of a 24 hour pumping day, you would need a pond 5 ft. deep and 120 feet on a side.....not practical for you.

I do hope this material will be useful to you.

Sincerely,

Robin Wells
Robin Wells, P.E.



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FEB 07 1991

1/10

Pump Test. , Vic Nelson

To Reach The Site :

From East Five Points, go 11 miles south on the Nat-Soo-Pah road eleven miles. Cross the Salmon Canal, see a blue house on the west side of the road, turn right on dirt road, proceed one-half mile to the pump site.

Description :

The power line comes from the east (from the county road); main power transformers are on utility pole, meter and two service pannels are on a utility pole near the well pump. One pannel supplies the well pump, the other supplies a booster pump which runs three lines. The well and canal water supply a stilling well which in turn supplies the booster. The stilling well may also supply (overflow) the ditch.

Electric Motor (Well)

US Motor SN 1017816

HP = 40

Phase = 3

Volts = 440, 60 Hz (220)

Type = CF4

Amp = 49

RPM = 1800

Type = Code F, B design

Rating = 40°C

Pump (Well)

10" Bows → guess

Est. Aurora Pump (Tel. 733-4278)

Arnold Elsing (Tel. 733-5002)

Art Carrier (423-5929 - Tel)

previously owned by Nebraska

Est. a 6" Col → Indicates probably an 8" bowl

No Information - No Records

Vic Nelson (733-8746) est. 350'

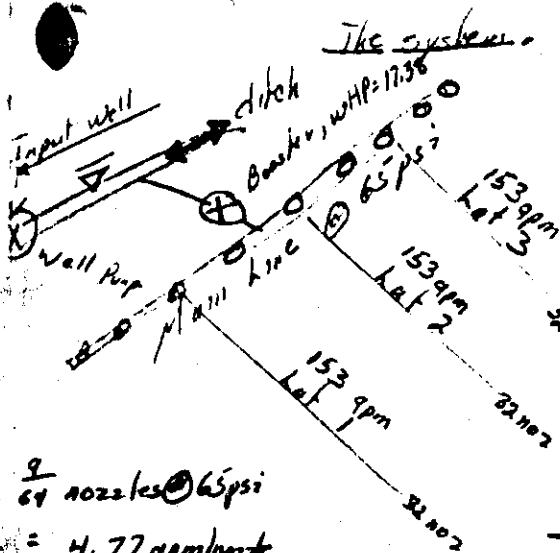
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FEB 07 1991

Background:

The pump and motor were sold by Art Carver to Vic Nelson approximately 3 years from this date (1976-77). Auora Pump of Twin Falls reconditioned and installed the pump (Auora could not "find" the record of pump installation, i.e. the bowl depth setting or pump curve information). Arnold Elsing cleaned the well before the pump was installed.

Elsing or Auora was not able to give the amount of casing or type in the well or the depth of the bowls. Perhaps the pump owner has additional information.



2
64 nozzles @ 65 psi

= 4.77 gpm/nozzle

= 153 gpm/line

= 458 gpm/3 lines

The booster system runs one main line from which 3, 1/4 mi laterals are supplied at an estimated 65 psi at the pump. (Pressure at the nozzle is probably less and the nozzles will probably be putting out less $\rightarrow$ @ 61 psi, output is 4.61 gpm or 3% less/nozzle)

$\rightarrow$ At 65 psi nozzle pressure each 32 nozzle lateral is putting out 153 gpm ($= .34 cfs = 17 inc$) and three laterals are putting out 458 gpm ($= 1.02 cfs = 51 inches$). The booster pump is supplying 17.36 hp power at this rate.

RECEIVED

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The Pump Test:

08/23/80
KW HR = 47091
KW = 31.7

Test was done on 08/23/80 between 10AM and 4PM
Water flow measurement was done with a Collins Meter
Well depth was measured with an electrical well probe.
Power was measured with the watt hour meter and cross
checked with voltage and current measurement.

T₁₀ = 69s

QTR = 1 = PTR

K_n = 57.6

MDR = 10

I = 49.3 amps
E = 458 volts

Electrical
Input

$$\text{Elec. Power} = \frac{3.6 \times K_n \times \text{MDR}}{T_{10}} = 30.05 \text{ kW}$$

$$\text{Elec. Horse Power} = 30.05 / 1.746 = 40.28 \text{ EHP}$$

$$\text{(Check)} = I \times E \times \sqrt{3} \times \text{PF} = 49.3 \times 458 \times 1.732 \times .77 = 35.59 \text{ kW} \quad \text{OK}$$

$$\text{Actual Power Factor} = .77 = \frac{30.05}{39.18} \quad (\text{low})$$

Average Pipe Water Velocity = V = 4.687 ft/sec

Pipe I.D. = 6"

Pipe O.D. = 6.5"

$$\text{Pipe Area} = A = \pi r^2 = \frac{3.14 \times 3^2}{144} = .196 \text{ ft}^2$$

Pump
Discharge

$$Q = V \times A = 4.687 \text{ fps} \times .196 \text{ ft}^2 = 0.92 \text{ CFS} = 413 \text{ gpm}$$

$$= 46 \text{ inches} = (46 \text{ MI}) \quad \text{Milky Water (air entrainment)}$$

Shield on well
Probe provokes
Tip from cascading
water.

Well Depth = 192 ft.

Depth = 205 ft.

First Water (air entrainment)
"Solid Water"

Wet Wire at 175 ft.

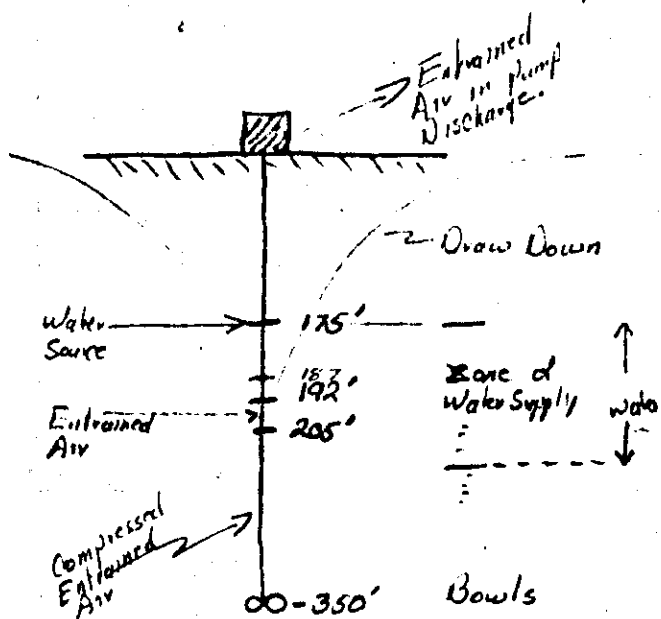
Well Recover after 20 minutes = 187 feet.

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FEB 07 1991

The pump bowl depth setting was not available when the well pump was turned off. (Owner VN estimates bowl setting at 350 ft.) While the

pump was running the well probe was inserted. There was a wet wire below 175 ft. A 192 ft. intermittent contact was made; at 205 ft. fairly solid contact was made. When the pump was turned off, intermittent contact rose as high as 187 then settled at about 192 feet.



Well Driller A. Elsing states that water in the area is "slim". Apparently he meant the water bearing strata is fairly narrow. The pump discharge contains up to 10% air by volume (estimated). The test tends to confirm Elsing's comment. If the water yielding zone is between 175' and approx 205', there will be a strong downward movement in the well and this would cause compression of some of the air bubbles ^{in the well} caused by cascading water at the upper level of water. Most of the air does not go into solution and travels through the impellers as entrained air. This alone will not cause cavitation and pump damage but it does cause ^{approximate} **MICROFICED** in pump efficiency. The actual water yield is

$$0.92 * .90 = .83 \text{ cfs} = 392 \text{ gpm} (= 41 \text{ M.I.}) \text{ FEB 07 1991}$$

V = Volume of Air
E Water Volume
94.6 + 62.4 + 30 = 187 ft.

10% Air by Volume instead of 100% water
10% is estimated

Max Solubility of Air in Water at 20°C and 3600 ft. Elevation is 21cc/100cc = 2.1%
Implies Entrained Air

The present pump "wire-to-water" efficiency

$$E = \left(\frac{.83 \times 187}{8.814} / 40.28 \right) \times 100\%$$

$$= 44\%$$

If there was no air in the system and a reasonable efficiency of 65%, the pump would yield

$$Q = (.65 \times 40 \text{ Hp} \times 8.814) / 192$$

$$= 1.19 \text{ cfs} = 59.7 \text{ MGD} = 536 \text{ gpm} \quad \left(\begin{array}{l} \text{Increase} \\ \approx 19 \text{ inc} \end{array} \right)$$

Stop the
bubbles!

This estimate is based on the following assumptions:

- 1/ The bowls actually are a substantial distance below the well water surface
- 2/ There is no substantial water bearing zones below approx 210 feet.
- 3/ There is no mechanical or hydraulic problem with the pump
- 4/ The pump characteristics will allow a Q of 1.19 cfs at 192 bl. heads. Check This

- At 65 psi, 536 gpm will supply 3½, 32 nozzle laterals with 9/64 nozzles.
- With the present supply from well water, only 2½, 32 nozzle lines at 65 psi.

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Distribution System Options without Pump Modifications

Goal: Supply Three Full 1/4 mi. Lines from the Well

Method:
1/ lower the pressure
2/ Reduce the number of nozzles
and/or 3/ Reduce the Nozzle size

→ 1/ What line pressure would be required to reduce the 3 line demand to 392 gpm

Solution: $392 \div 3 \div 32 = 4.08 \text{ gpm/nozzle}$

May cause some uniformity problems in strong winds at nozzle

	Noz Pressure	Noz Disch.	Total Demand
1/4 nozzle at	65 psi =	4.77 gpm	458 gpm
"	60 psi =	4.57 gpm	439 gpm
"	50 psi =	4.14 gpm	397 gpm
"	48 psi =	4.05 gpm	389 gpm
"	45 psi =	3.91 gpm	376 gpm

At 48 psi it will take 18% more time to apply the same amt. of water as at 65 psi or instead of 12 hours, it would take $12 \times 1.18 = 14.2 \text{ hours}$.

→ 2/ Eliminate enough nozzles to account for the delicate pump supply and sprinkle at 65 psi

Solution:

$392 \div 4.77 \text{ gpm/noz} = 82.2 \text{ noz}$
 $82.2 \div 6 = 13.7 \text{ noz}$

FEB 07 1991

3/ What reduced demand would be realized by changing all nozzles to $\frac{1}{8}$ "?

Target, 4.05 gpm/nozzle

	Noz. Disc.	Tot. Demand
Q, $\frac{1}{8}$ " nozzle at 80 psi = 4.12 gpm		400 gpm
77 psi = 4.09 gpm		~~393 gpm~~
75 psi = 4.03 gpm		387 gpm
70 psi = 3.88 gpm		373 gpm

Comment

Solution 2 and 3 require an 18% increase in irrigation application time.

Consider this option:

- ① Change end nozzles on each lateral to $\frac{1}{8}$ " and leave the remainder at $\frac{3}{4}$ " nozzles.
What system pressure would use 392 gpm

Pressure	System Demand
65 psi	429.6 + 22.3 = 452 gpm
55 psi	411.4 + 21.4 = 433 gpm
53 psi	392.5 + 20.4 = 413 gpm
50 psi	372.8 + 19.4 = 392 gpm

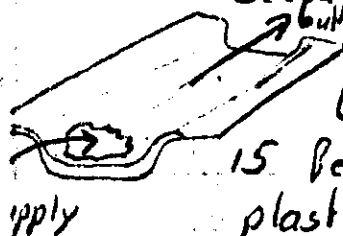
NOT FILMED
FEB 07 1991

If you have any gaskets leaks, leaky chain plugs, cracked lateral or pipes causing loss this will reduce system pressure. Leaks totaling 20 gpm (= 2.23 MI) will reduce ^{system} pressure 5 psi

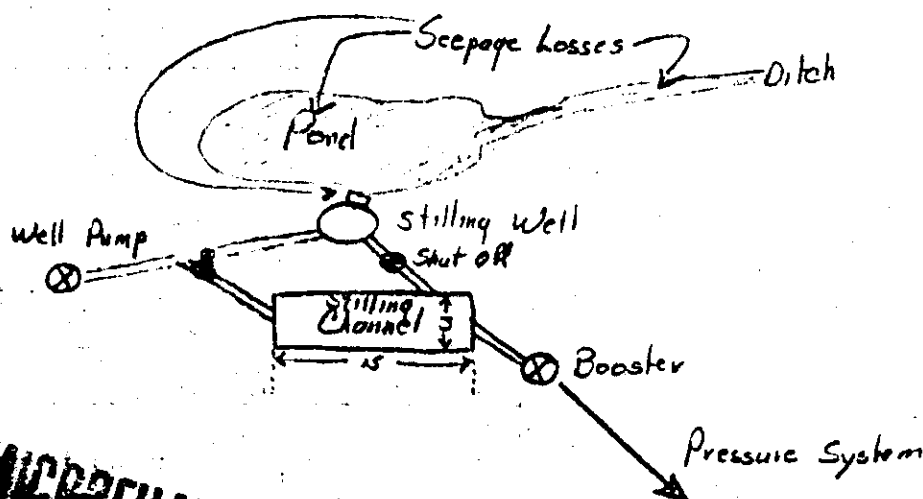
- ② With air coming from the pump discharge, you should have a stilling well to allow air to escape the water but you also have losses in the

ditch connected to the well. Entrained air will reduce booster efficiency. But the unlined ditch and pond have seepage losses. At present, you are only looking for another 7.35 MI. You might have that extra amount if you eliminate seepage and leaks.

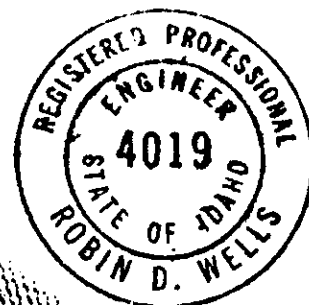
= .15
= 66%



Consider making a channel 3 ft. wide, 15 feet long and 2 feet deep, lined with plastic. The discharge from the pump would supply the ^{lined} long channel or stilling well. The channel would allow bubbles to escape before entering the booster pump directly without any connection to the ditch. Provide a diversion so that the well pump could be switched to supply the ditch. (Flexible 6" Hose?)



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FEB 07 1991



I ADW
9/10

VISUAL INSPECTION OF PUMPING PLANT ELECTRICAL SYSTEM

OWNER-OPERATOR V.C. Nelson

INSPECTED BY ADW

SITE and LOCATION 11 mi. se. of E 5pts in Twin Falls, Sect. 9

DATE 08/23/80

Yes No*

A. Visible Wire Integrity (includes main and remote components)

- ☐ 1. Are conductors properly fixed to prevent flexing and shorting hazards ✓ —
- ☐ 2. Is the system clear of physical dangers to shielded and unshielded such as tree limbs, other unsecured conductors or pipes ✓ —
- ☐ 3. Is the system free of frayed or broken wires and worn insulation ✓ —
- ☐ 4. Does the system have a mother earth ground at the panel exclusive of the pumping plant ✓ —

B. External Seals, Grommets, and Conductor Shields

Are the following items in good repair and functioning?

- ☐ 5. Service head grommet ✓ — N
- ☐ 6. Meter, service box, and motor conduit entrance connection ✓ — N
- ☐ 7. Conduit and shielded cables ✓ — N

C. Service Panel

Service box integrity

- ☐ 8. Is the box free of post installation ventilation holes ✓ —
- ☐ 9. Are there functioning door latches ✓ —
- ☐ 10. Does the door have adequate door seals or drip traps ✓ —

Internal Service Box

- ☐ 11. Is the service box free of moisture and contaminant intrusion including insects and rodents — ✓
- ☐ 12. Are electrical connections secure and free of visible signs of arcing or resistance heating ✓ —
- ☐ 13. Are there lightning arrestors on the meter and motor sides of the buss and breaker — ✓

D. Motors and Peripheral Drives

- ☐ 14. Are there wire screens over ventilation openings ✓ —
- ☐ 15. Are motor and drive units free of abnormal arcing or resistance heating ✓ —
- ☐ 16. Are drive units free of abnormal moisture and contaminant intrusion into housing ✓ —

E. General

- ☐ 17. Is the pumping plant shaded or housed — ✓ Sufficient
- ☐ 18. Are pump units protected from sun, precipitation, sprinklers and flooding ✓ —

*If checked, identify by number and comment on back.

Blow out main panel with compressed air when dust is dry.
No lightning Arrestor on meter side of panel

Date: August 26, 1980

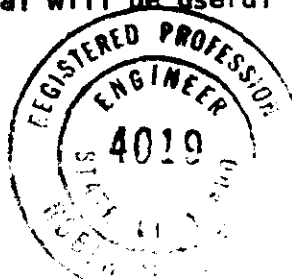
From: Robin D. Wells

To: Victor Nelson
Route 2
Twin Falls, Idaho 83301

Enclosed is the pump test results done on August 23, 1980.

I did try to get some additional information on the pump but Auora Pump, Layne Pump, and Art Carrier did not seem to know much about it. I did call Mr. Elsing also. Most of the material in this report you are aware of, but I think you ought to take a second look at the possibilities of leaks and seepage losses you are experiencing in the system at present. Of course this will not solve any of up-grading possibilities where a large increase of pump flow will be needed. Note that according to my estimate, you are only 7.35 Miners Inches (M.I.) from supplying 3 laterals at 65 psi and 32 nozzles per line. I put down some thoughts on that item. I did not include the possibility of using storage at the pump site. Changing the pump and motor would be more practical than running the pump full time into storage. With the deficite for the existing system and running the sprinklers 18 hours out of a 24 hour pumping day, you would need a pond 5 ft. deep and 120 feet on a side.....not practical for just irrigation.

I do hope this material will be useful to you.



Sincerely,

Robin Wells
Robin Wells, P.E.

MICROFILMED

Pump Test. , Vic Nelson

To Reach the Site :

From East Five Points, go 11 miles south on the Nat-Soo-Pah road eleven miles. Cross the Salmon Canal, see a blue house on the west side of the road, Turn right on dirt road, proceed one-half mile to the pump site.

Description :

The power line comes from the east (from the county road); main power transformers are on utility pole, meter and two service pannels are on a utility pole near the well pump. One pannel supplies the well pump, the other supplies a booster pump which runs three lines. The well and canal water supply a stilling well which in turn supplies the booster. The stilling well may also supply (overflow) the ditch.

Electric Motor (well)

US Motor SN 1017816

HP = 40

Phase = 3

Volts = 440, 60hz (220)

Type = CF4

Amp = 49 (98)

RPM = 1800

Type = Code F, B design

Rating = 40°C

Pump (well)

10" Bows → guess

~~Point~~ Aurora Pump (Tel. 733-4278)

Arnold Elsing (Tel. 733-5002)

Art Carrier (423-5929 - Tel)

previously owned by Nelson^⑦

Est. a 6" Col → Indicates
probably an 8" bowl

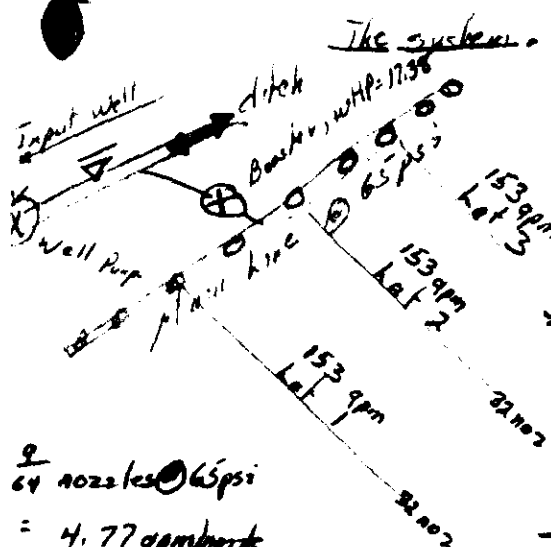
No Information - No Records

Vic Nelson (733-8746) est. 350' deep

Background:

The pump and motor were sold by Art Carrier to Vic Nelson approximately 3 years from this date (1976-77). Aurora Pump of Twin Falls reconditioned^(?) and installed the pump (Aurora could not "find" the record of pump installation, i.e. the bowl depth setting or pump curve information). Arnold Elsing cleared the well before the pump was installed.

Elsing or Aurora was not able to give the amount of casing or type in the well or the depth of the bowls. Perhaps the pump owner has additional information.



$$\begin{aligned}
 & 2 \text{ nozzles @ } 65 \text{ psi} \\
 & = 4.77 \text{ gpm/nozzle} \\
 & = 153 \text{ gpm/lateral} \\
 & = 458 \text{ gpm/3 laterals}
 \end{aligned}$$

The booster system runs one main line from which 3, 1/4 mi laterals are supplied at an estimated 65 psi at the pump. (Pressure at the nozzle is probably less and the nozzles will probably be putting out less $\rightarrow$ @ 61 psi, output is 4.61 gpm or 3% less/nozzle)

$\rightarrow$ At 65 psi nozzle pressure each 32 nozzle lateral is putting out 153 gpm ($= .34 \text{ cfs} = 17 \text{ inches}$) and three laterals are putting out 458 gpm ($= 1.02 \text{ cfs} = 51 \text{ inches}$). The booster pump is supplying 17.38 water horsepower at this rate.

The Pump Test:

08/23/80
KW HP = 4.7091
KW = 3.47

Test was done on 08/23/80 between 10AM and 4PM
Water flow measurement was done with a Collins Meter
Well depth was measured with an electrical well probe.
Power was measured with the watt hour meter and cross
checked with voltage and current measurement.

$T_{10} = 69s$

CTA = 1 = PTR

$K_n = 57.6$

MOR = 10

$I = 49.3 \text{ amps}$
 $E = 458 \text{ volts}$

Electrical
Input

$$\text{Elec. Power} = \frac{3.6 \times K_n \times MOR}{T_{10}} = 30.05 \text{ kW}$$

$$\text{Elect. Horse Power} = 30.05 / 1.746 = 40.28 \text{ EHP}$$

$$\text{(Check)} = I \times E \times \sqrt{3} \times \text{PF} = 35.59 \text{ kW} \quad \text{ok}$$

$$\text{Actual Power Factor} = .77 = \frac{30.05}{39.18} \quad (\text{low})$$

Average Pipe Water Velocity = $V = 4.687 \text{ ft/sec}$

Pipe I.D. = 6"

Pipe O.D. = 6.5"

$$\text{Pipe Area} = A = \pi r^2 = \frac{3.14 \times 3^2}{144} = .196 \text{ ft}^2$$

Pump
Discharge

$$Q = V \times A = 4.687 \text{ fps} \times 0.196 \text{ ft}^2 = 0.92 \text{ CFS} = 413 \text{ gpm}$$

$$= 46 \text{ inches} = (46 \text{ MI}) \quad \text{Milky Water (air entrainment)}$$

Shield on well
probe probably
tip from cascading
water.

Well Depth = 192 ft.

Depth = 205 ft.

First Water (air entrainment)

"Solid Water"

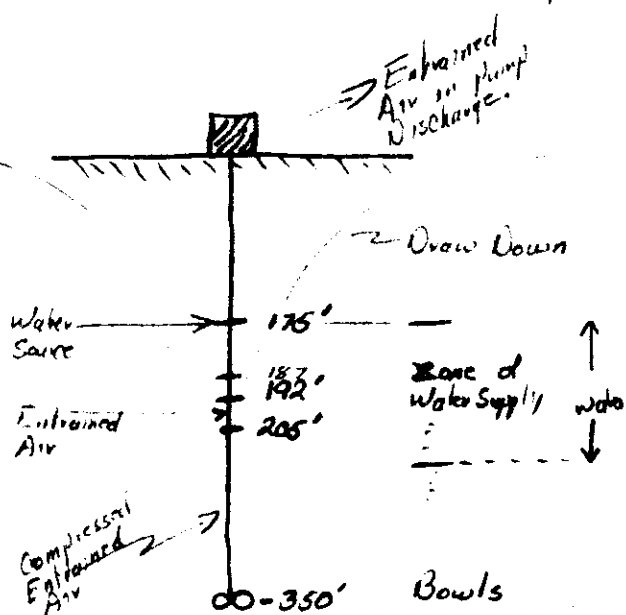
Wet Wire at 175 ft.

Well Recover after 20 minutes = 187 feet.

MICROFILM

The pump bowl depth setting was not available when the well pump was turned off. (Owner VN estimates bowl setting at 350 ft.) While the

pump was running the well probe was inserted. There was a wet wire below 175 ft. A 192 ft. intermittent contact was made; at 205 ft. fairly solid contact was made. When the pump was turned off, intermittent contact rose as high as 187 then settled at about 192 feet.



Well Driller A. Elsing states that water in the area is "slim". Apparently he meant the water bearing strata is fairly narrow. The pump discharge contains up to 10% air by volume (estimated). The test tends to confirm Elsing's comment. If the water yielding zone is between 175' and approx 205', there will be a strong downward movement in the well and this would cause compression of some of the air bubbles ^{caused} by cascading water at the upper level of ^{well} water. Most of the air does not go into solution and travels through the impellers as entrained air. This alone will not cause cavitation and pump damage but it does cause a decrease in pump efficiency. The actual ^{approximate} water yield is $0.92 * .90 = .83 \text{ cfs} = 392 \text{ gpm} (= 41 \text{ MI})$

V = Volume of Air
= Water Volume
 $= 94.6 + 62.4 + 130 = 187 \text{ ft.}$

10% Air by Volume instead of 100% water
10% is estimated

Max Solubility of Air in Water at 20°C and 3600 ft. Elevation is 21cc/100cc = 2.1%
Implies Entrained Air

The present pump "wire-to-water" efficiency

$$E = \left(\frac{.83 * 187}{8.814} / 40.28 \right) * 100\%$$

$$= 44\%$$

If there was no air in the system and a reasonable efficiency of 65%, the pump would yield

$$Q = (.65 * 40HP * 8.814) / 192$$

$$= 1.19 \text{ cfs} = 59.7 \text{ MI} = 536 \text{ gpm} \quad \left(\begin{array}{l} \text{Increase of} \\ \approx 19 \text{ inches} \end{array} \right)$$

Stop the
bubbles!

This estimate is based on the following assumptions:

- 1/ The bowls actually are a substantial distance below the well water surface
- 2/ There is no substantial water bearing zones below approx 210 feet.
- 3/ There is no mechanical or hydraulic problem with the pump
- 4/ The pump characteristics will allow a Q of 1.19 cfs at 192 Bl. heads. Check This

- At 65 psi, 536 gpm will supply 3½, 32 nozzle laterals with 9/64 nozzles.
- With the present supply from well water, only 2½, 32 nozzle lines at 65 psi.

Distribution System Options without Pump Modifications

Goal: Supply Three Full $\frac{1}{4}$ mi. Lines from the Well

Method:
1/ Lower the pressure
2/ Reduce the number of nozzles
and/or 3/ Reduce the Nozzle size

→ 1/ What line pressure would be required to reduce the 3 line demand to 392 gpm

Solution: $392 \div 3 = 130.67 \div 32 = 4.08 \text{ gpm/nozzle}$

May cause some uniformity problems in strong winds at nozzle

	Noz Pressure	Noz Disch.	Total Demand
$\frac{9}{64}$ nozzle at	65 psi =	4.77 gpm	458 gpm
"	60 psi =	4.57 gpm	439 gpm
"	50 psi =	4.14 gpm	397 gpm
"	48 psi =	4.05 gpm	389 gpm
"	45 psi =	3.91 gpm	376 gpm

At 48 psi it will take 18% more time to apply the same amt. of water as at 65 psi or instead of 12 hours, it would take $12 \times 1.18 = 14.2$ hours.

→ 2/ Eliminate enough nozzles to account for the delicate pump supply and sprinkle at 65 psi

Solution:

$$458 - 392 = 66 \text{ gpm}$$

$$66 \text{ gpm} \div 4.77 \text{ gpm/noz} = 13.8 \text{ noz.}$$

3/ What reduced demand would be realized by changing all nozzles to $\frac{1}{8}$ "?

Target, 4.08 gpm
nozzle

Q, $\frac{1}{8}$ " nozzle at	Noz. Disc.	Tot. Demand
80 psi = 4.17 gpm		400 gpm
~~77 psi = 4.09 gpm~~		~~393 gpm~~
75 psi = 4.03 gpm		387 gpm
70 psi = 3.88 gpm		373 gpm

Comment

Solution 2 and 3 require an 18% increase in irrigation application time.

Consider this option:

① Change end nozzles on each lateral to $\frac{1}{8}$ " and leave the remainder at $\frac{3}{4}$ " nozzles.

What system pressure would use 392 gpm

Pressure	System Demand
90 nozzles at $\frac{3}{4}$ " + 6 nozzles at $\frac{1}{8}$ "	
65 psi	429.6 + 22.3 = 452 gpm
60 psi	411.4 + 21.4 = 433 gpm
55 psi	392.5 + 20.4 = 413 gpm
→ 50 psi	372.8 + 19.4 = 392 gpm

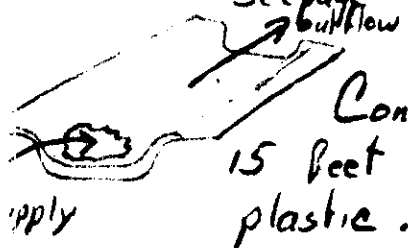
If you have any gaskets leaks, leaky drain plugs, cracked lateral or pipes causing loss this will reduce system pressure. Leaks totaling 20 gpm (= 2.23 MI) will reduce ^{system} pressure 5 psi

② With air coming from the pump discharge, you should have a stilling well to allow air to escape the water but you also have losses in the

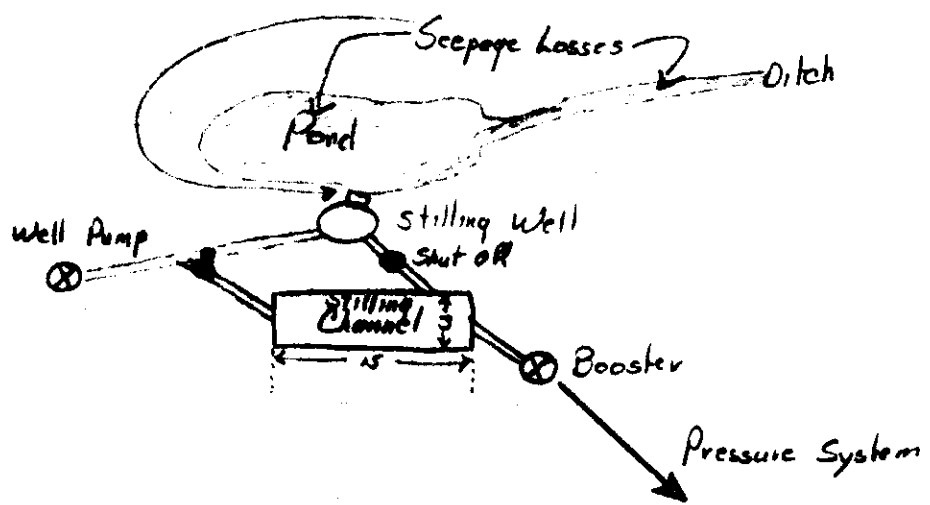
ditch connected to the well. Entrained air will reduce booster efficiency. But the unlined ditch and pond have seepage losses. At present, you are only looking for another 7.35 MI.

= .15 cfs
= 66 gpm

You might have that extra amount if you eliminate seepage and leaks.



Consider making a channel 3 ft. wide, 15 feet long and 2 feet deep, lined with plastic. The discharge from the pump would supply the ^{lined} long channel or stilling well. The channel would allow bubbles to escape before entering the booster pump directly without any connection to the ditch. Provide a diversion so that the well pump could be switched to supply the ditch. (Flexible 6" Hose?)



MICROFILMED



I ADW
9/10

VISUAL INSPECTION OF PUMPING PLANT ELECTRICAL SYSTEM

OWNER-OPERATOR V.C. Nelson

INSPECTED BY ADW

SITE and LOCATION 11 mi. so. of E Spts in Twin Falls, Sect. 9

DATE 68/23/80

Yes No*

A. Visible Wire Integrity (includes main and remote components)

- ☐ 1. Are conductors properly fixed to prevent flexing and shorting hazards ✓
- ☐ 2. Is the system clear of physical dangers to shielded and unshielded such as tree limbs, other unsecured conductors or pipes ✓
- ☐ 3. Is the system free of frayed or broken wires and worn insulation ✓
- ☐ 4. Does the system have a mother earth ground at the panel exclusive of the pumping plant ✓

B. External Seals, Grommets, and Conductor Shields

Are the following items in good repair and functioning?

- ☐ 5. Service head grommet ✓ New
- ☐ 6. Meter, service box, and motor conduit entrance connection ✓ New
- ☐ 7. Conduit and shielded cables ✓ New

C. Service Panel

Service box integrity

- ☐ 8. Is the box free of post installation ventilation holes ✓
- ☐ 9. Are there functioning door latches ✓
- ☐ 10. Does the door have adequate door seals or drip traps ✓

Internal Service Box

- ☐ 11. Is the service box free of moisture and contaminant intrusion including insects and rodents ✓
- ☐ 12. Are electrical connections secure and free of visible signs of arcing or resistance heating ✓
- ☐ 13. Are there lightning arrestors on the meter and motor sides of the buss and breaker ✓

D. Motors and Peripheral Drives

- ☐ 14. Are there wire screens over ventilation openings ✓
- ☐ 15. Are motor and drive units free of abnormal arcing or resistance heating ✓
- ☐ 16. Are drive units free of abnormal moisture and contaminant intrusion into housing ✓

E. General

- ☐ 17. Is the pumping plant shaded or housed ✓ Sufficient
- ☐ 18. Are pump units protected from sun, precipitation, sprinklers and flooding ✓

*If checked, identify by number and comment on back.

Blow out main panel with compressed air when dust is dry.

No Lightning Arrestor on meter side of panel

VISUAL INSPECTION OF PUMPING PLANT MECHANICAL SYSTEM

OWNER-OPERATOR Vic Nelson

INSPECTED BY ADW

PUMP ID and LOCATION 11 mi. se. of E 5 pts in Twin Falls, Sed. 9

DATE 08/23/80

INSTALLATION TYPE: SURFACE, GROUNDWATER, CENTRIFUGAL, TURBINE, MIXED FLOW

A. House, Foundation and Pumping Unit Support

1. If there is a house, does it function as an effective "Plant shelter" ☒ Yes ☐ No
2. Have potential combustibles been kept safely away from facility ☒ Yes ☐ No
3. Are herbicides and pesticides stored away from the pumping facility ☒ Yes ☐ No
4. Is there lightning protection separate from pumps and pipes ☒ Yes ☐ No
5. Is there adequate fire protection on site ☒ Yes ☐ No
6. Is the plant free of extraordinary mechanical or physical hazards ☒ Yes ☐ No
7. If the facility is manned, is there reasonable protection from sound, heat, and vibration ☒ Yes ☐ No
8. Does the facility have a stable foundation and deck ☒ Yes ☐ No
9. Is each unit adequately supported and secured ☒ Yes ☐ No
10. Is pumping bay or well accessible for routine inspection ☒ Yes ☐ No
11. Can heavy equipment repair and maintenance aids (jacks and hoists) be easily applied ☒ Yes ☐ No

B. Pump and Motor Housing and Mounts

12. Is there evidence of reasonable corrosion protection on exposed pump unit parts ☒ Yes ☐ No
13. Are pump unit accessories and shields attached and functioning ☒ Yes ☐ No
14. Are motor mounts and housing free of cracks and breaks ☒ Yes ☐ No
15. Are hydraulic gaskets and seals functioning ☒ Yes ☐ No

C. Resistance, Friction, and Cooling

16. Is the motor free from evidence of excess heat due to electrical load ☒ Yes ☐ No
17. Are coils and rotating parts adequately ventilated ☒ Yes ☐ No
18. Are all bearings adequately lubricated and cooled ☒ Yes ☐ No

D. Balance and Symmetry

19. Are impellers running quietly, smoothly, and at a steady speed ☒ Yes ☐ No
20. Is there an absence of ground vibration ☒ Yes ☐ No
21. Is the motor running quietly and free of excess vibration ☒ Yes ☐ No

E. Plant Hydraulics

22. Are there adequate trash racks around wells, bays, and sumps ☒ Yes ☐ No
23. Is turbulence and water velocity minimized around pump intakes ☒ Yes ☐ No
24. Is plant yield controlled by valve rather than spill ☒ Yes ☐ No
25. Is the system secure from water hammer ☒ Yes ☐ No
26. Does the system have an air relief for pumping unit drain down ☒ Yes ☐ No
27. Is there a functioning pressure gage at the pump ☒ Yes ☐ No
28. Is there provision for measuring pump lift ☒ Yes ☐ No
29. Are there taps at the pump to measure pressure head ☒ Yes ☐ No
30. Does the system have provision for measuring total pump discharge ☒ Yes ☐ No
31. Is water free of abrasives ☒ Yes ☐ No

* Number and comment on back

25 1 min
26 1 min

DEPARTMENT OF WATER RESOURCES

The Idaho Department of Water Resources will consider this card as a statement that the permit holder(s) has completed development to the extent shown below of Permit No. 47-7319.

Name(s) of Permit Holder: Vesta W Nelson Maxine M Nelson

Post Office Address: R#2 Twin Falls Idaho

Tel. No. 733-8746

Source of Water: Well Ground Water

Extent of Use: ☐ Domestic (number of households)
☒ Stockwater 500 (number and type of stock)
☒ Irrigation 320 (acres)
☐ Other

Measuring Device: Required? ☐ Yes ☐ No Installed? ☐ Yes ☐ No *for Collins*
 Access Port: Required? ☒ Yes ☐ No Installed? ☒ Yes ☐ No *meter*

The above information is a true statement of the extent to which the above numbered permit has been developed.

Jan 5 1987
Date

RECEIVED

Maxine M Nelson
Vesta W Nelson
 Signature of Permit Holder

PLACE
TEN CENT
STAMP
HERE



IDAHO DEPARTMENT OF WATER RESOURCES
STATEHOUSE
BOISE, IDAHO 83720



STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
SOUTHERN REGION

John V. Evans
Governor

C. Stephen Allred
Director

1041 Blue Lakes Blvd. North
Twin Falls, Idaho 83301
(208) 734-3578

April 21, 1981

Victor W. &/or Maxine M. Nelson
Route 2
Twin Falls, Idaho 83301

Re: Permit No. 47-7319

Dear Mr. & Mrs. Nelson:

We acknowledge receipt of the affidavit submitted as proof of beneficial use for the above referenced permit.

Before a license can be issued, a field examination must be made by a representative of this Department. We cannot tell just when this examination will be made, but our examiner will try to contact you at the time he makes the examination so that you may show him the system.

Field examinations must be done while the system is in operation. For this reason we concentrate on irrigation permits during the summer months and do examinations on permits for other uses during the non-irrigating months.

If you have any questions regarding the field examination, please contact our office.

Sincerely,

Gary L. Funderburg
Senior Water Resource Agent

GLF:marya

MICROFILMED

RE: App. # 47-7319

RECEIVED

MAR 17 1981

Dear Sirs:

Department of Water Resources

I filled out but misplaced the proof card that you sent. I am sending the proof card also a pump test by an engineer. I hope this will be sufficient information to reinstate this permit

Sincerely
Victor N. Nelson

RECEIVED

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES

STATEHOUSE
BOISE, IDAHO 83720
(208) 334-4440

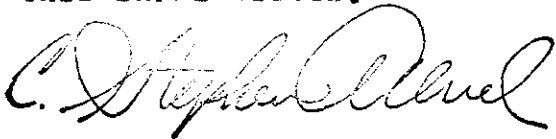
NELSON, VICTOR W. & MAXINE
RT. 2
TWIN FALLS, ID 83301

MARCH 05, 1981

DEAR PERMIT HOLDER:

YOU ARE HEREBY NOTIFIED THAT UNDER THE PROVISIONS OF SECTION 42-218A OF THE IDAHO CODE, PERMIT NO. 47-7319 HAS LAPSED SINCE YOU HAVE NOT NOTIFIED US THAT YOU HAVE COMPLETED THE PROJECT BY THE DATE REQUIRED ON YOUR PERMIT. YOU WERE PROVIDED FORMS FOR THAT PURPOSE IN OUR NOTICE TO YOU DATED DECEMBER 31, 1980.

YOUR PERMIT CANNOT BE REINSTATED UNLESS YOU SUBMIT THE STATEMENT OF BENEFICIAL USE POSTCARD, ENCLOSED, OR SHOW OTHER REASONABLE CAUSE WHY THE PERMIT SHOULD BE REINSTATED WITHIN 60 DAYS FROM THE DATE OF THIS LAPSE NOTICE.



C. STEPHEN ALLRED
DIRECTOR

ENCLOSURE

RECEIVED
MARCH 11 1981
TWIN FALLS, IDAHO

WARNING

CANCELLED OR LAPSED

This permit has been officially CANCELLED or LAPSED.

Ninety days following the date of official action this file will be DESTROYED.

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES

STATEHOUSE
BOISE, IDAHO 83720
(208) 334-4440

NELSON, VICTOR W. & MAXINE
RT. 2
TWIN FALLS, ID 83301

MARCH 05, 1981

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C. STEPHEN ALLRED
DIRECTOR

ENCLOSURE

RECEIVED
APR 9, 1981
Robert L. Fleck

MICROFILMED

S T A E O F I D A H O
DEPARTMENT OF WATER RESOURCES

STATEHOUSE
BOISE, IDAHO 83720
(208) 334-4440
CERTIFIED MAIL

NELSON, VICTOR W. & MAXINE
RT. 2
TWIN FALLS, ID 83301

138762

DECEMBER 31, 1980

DEAR PERMIT HOLDER:

ONE OF THE CONDITIONS OF APPROVAL OF YOUR WATER PERMIT NO. 47-7319 WAS THAT EVIDENCE OF THE EXTENT OF DEVELOPMENT MUST BE SUBMITTED TO THIS OFFICE ON OR BEFORE MARCH 01, 1981. (SEE LAST PAGE OF YOUR APPROVED PERMIT). ENCLOSED IS A POST CARD WHICH MAY BE USED TO SUBMIT THE REQUIRED PROOF OF BENEFICIAL USE.

IF YOU HAVE NOT FULLY COMPLETED YOUR PROJECT, AND YOU HAVE NOT PREVIOUSLY RECEIVED AN EXTENSION OF TIME, YOU MAY REQUEST AN EXTENSION OF TIME PROVIDED THE DELAY IS FOR REASONABLE CAUSE AS INDICATED IN SECTION 42-204, IDAHO CODE, AMENDED. IF YOU HAVE BEEN PREVENTED FROM PROCEEDING BY A GOVERNMENTAL AGENCY OR BY LITIGATION, MORE THAN ONE EXTENSION OF TIME CAN BE GRANTED. A REQUEST FOR EXTENSION OF TIME FORM IS ENCLOSED FOR YOUR CONVENIENCE. PLEASE NOTE THAT A FEE OF \$15.00 MUST BE SUBMITTED WITH THIS FORM.

EITHER THE BENEFICIAL USE POST CARD OR A REQUEST FOR AN EXTENSION OF TIME MUST BE RECEIVED BY THIS DEPARTMENT ON OR BEFORE THE ABOVE MENTIONED DATE, OTHERWISE, THE PERMIT WILL LAPSE AND BE OF NO FURTHER FORCE OR EFFECT WITHIN 60 DAYS.

SINCERELY,

RITA FLECK
SR. SECRETARY

ENCLOSURES

MICROFILMED

FEB 07 1991

3/79

IDENT. NO. 47-7319

IDAHO DEPARTMENT OF WATER RESOURCES

WATER RIGHT
DATA ENTRY LOG

[illegible]



State of Idaho
DEPARTMENT OF WATER RESOURCES
STATE OFFICE, 450 W. State Street, Boise, Idaho

JOHN V. EVANS
Governor

C. STEPHEN ALLRED
Director

Mailing address:
Statehouse
Boise, Idaho 83720
(208) 334-4440

July 11, 1980

Dear Wateruser:

The enclosed Order changes the measuring device condition of approval on your water right permit.

The changed condition is less restrictive and provides you the option to install an access port or have your system measured and certified by a professional engineer. Instructions for access port installation are also enclosed.

If you have questions regarding this matter, please contact the Regional Office nearest to you.

Sincerely,

David R. Tuthill Jr.

DAVID R. TUTHILL JR., P.E.
Supervisor, Water Allocations Section

DRT:jg

Enclosures

Northern Region Office
Rt. #5 Box 203, Government Way
Coeur d'Alene, Idaho 83814

Southern Region Office
1041 Blue Lake Boulevard North
Twin Falls, Idaho 83301

Eastern Region Office
1515 Lincoln Road
Idaho Falls, Idaho 83401

Western Region Office
92 South Cole Road
Boise, Idaho 83705

MICROFILMED

FEB 17 1991

March 4, 1976

Re: Permit No. 47-7319

Victor W. &/or Maxine M. Nelson
Rt. #2
Twin Falls, ID 83301

Dear Mr. and Mrs. Nelson:

Enclosed is a copy of your approved Application for Permit No. 47-7319. We direct your attention to the conditions of approval as listed on the fourth page.

Sincerely,

BOBBY D. FLEENOR
Chief, Water Rights

BDF:jfr

Enclosure

January 27, 1976

Re; Application for Permit # 47-7319 Victor W. &/or Maxine M. Nelson

Times News
P.O. Box 548
Twin Falls, Idaho 83301

Gentlemen:

Enclosed you will find a legal notice which we wish to have published once a week for two consecutive weekly issues of your newspaper. We have inserted the publication dates allowing ample time for you to submit us a galley proof for review before publication.

After sending us a galley proof, proceed with the publication on the dates we have inserted, assuming the notice is correct. If we have any corrections, we will notify you before the first publication. If you cannot publish the notice on the proposed dates, please contact us immediately.

In order to receive payment, an affidavit of publication must be submitted to the Department along with the publication bill.

Sincerely,

Michael L. Steele
Southern Region Supervisor

MLS:rjn

enclosed

Bill submitted: 2-18-76

**NOTICE OF APPLICATION
FOR WATER PERMIT**

Notice is hereby given that Victor W. and/or Maxine M. Nelson, Route #2, Twin Falls, Idaho 83301 has on Jan. 26, 1975 submitted Application No. 47-7319 for a permit to appropriate 6.52 cubic feet per second of water from Groundwater by means of 2 wells pumps, motors within the NE $\frac{1}{4}$ NW $\frac{1}{4}$, Sec. 9 Twp. 12S., Rge. 17E. B.M., NE $\frac{1}{4}$ SW $\frac{1}{4}$, Sec. 9 Twp. 12S., Rge. 17E. B.M., Twin Falls, County to be used from March 15 to Nov. 15 Irrigation of 320 Acre. Jan. 1 to Dec. 31 Stock for Irrigation & Stockwater within the W $\frac{1}{2}$ NE $\frac{1}{4}$, E $\frac{1}{2}$ NW $\frac{1}{4}$, E $\frac{1}{2}$ SW $\frac{1}{4}$, W $\frac{1}{2}$ SE $\frac{1}{4}$, Sec. 9 Twp. 12S., Rge. 17E. B.M., Twin Falls County.

If issued, this permit will be subject to all prior water rights. Protests against the granting of the permit must be filed with the Idaho Department of Water Resources, 1041 Blue Lakes Blvd., North, Twin Falls, Idaho, 83301 on or before Feb. 23.

R. KEITH HIGGINSON
Director
Publish: Feb. 5 and Feb. 12, 1976.

OK
Feb 6
DJ

NOTICE OF APPLICATION FOR WATER PERMIT

Notice is hereby given that Victor W. &/or Maxine M. Nelson
Route # 2 Twin Falls, Idaho 83301
has on Jan. 26, 1975 submitted Application No. 47-7319
for a permit to appropriate 6.52 cubic feet per second ~~acres~~ ~~feet per annum~~
of water from Groundwater
by means of 2 wells pumps, motors
within the NE1/4NW1/4, Sec. 9 Twp. 12S., Rge. 17E. B.M. NE1/4SW1/4, Sec. 9 Twp. 12S., Rge. 17E. B.M.
Twin Falls, County

to be used from March 15 to Nov. 15 Irrigation of 320 Acre. Jan. 1 to Dec. 31 Stock
for Irrigation & Stockwater

within the W1/2NE1/4, E1/2NW1/4, E1/2SW1/4, W1/2SE1/4, Sec. 9 Twp. 12S., Rge. 17E. B.M. L
Twin Falls, County

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R. KEITH HIGGINSON

Director

Published in the Times News
on Feb. 5 and Feb. 12