

State of Idaho
Department of Water Resources

WATER RIGHT LICENSE

License of Water Right No. 29-7289 Priority September 22, 1975 Amount 1.12 cfs

THIS IS TO CERTIFY, that IDAHO STATE UNIVERSITY

of Pocatello, Idaho, has complied with the terms and conditions of Permit No. 29-7289 issued pursuant to Application for Permit dated September 22, 1975, and has submitted proof to the Department of Water Resources on October 25, 1977, that he has applied water to a beneficial use; an examination by the Department indicates that the works have a capacity for the diversion of 1.14 cfs of water from a ground water source, tributary to _____, and that the permit holder has applied to a beneficial use and established a right to use water as follows:

Beneficial Use	Period of Use	Rate of Diversion	Annual Volume
Heating & Cooling	from <u>January 1</u> to <u>December 31</u>	at <u>1.12</u> cfs and <u>N/A</u>	
	from _____ to _____	at _____ cfs and _____	
	from _____ to _____	at _____ cfs and _____	

(both dates inclusive)

Subject, however, to the condition that no more than 1.12 cfs of water be diverted at any one time, and that the amount of water so diverted and to which such right is entitled and confirmed is for the purpose aforementioned and is limited to the amount which can actually be beneficially used and shall not exceed N/A acre feet per year, said waters to be diverted within the SW $\frac{1}{4}$ SW $\frac{1}{4}$, Sec. 25, Twp. 6S Rge. 34E, B.M. in the County of Bannock

Description and location of place of use:

Twp.	Range	Sec.	NE $\frac{1}{4}$				NW $\frac{1}{4}$				SW $\frac{1}{4}$				SE $\frac{1}{4}$				Totals
			NE $\frac{1}{4}$	NW $\frac{1}{4}$	SW $\frac{1}{4}$	SE $\frac{1}{4}$	NE $\frac{1}{4}$	NW $\frac{1}{4}$	SW $\frac{1}{4}$	SE $\frac{1}{4}$	NE $\frac{1}{4}$	NW $\frac{1}{4}$	SW $\frac{1}{4}$	SE $\frac{1}{4}$	NE $\frac{1}{4}$	NW $\frac{1}{4}$	SW $\frac{1}{4}$	SE $\frac{1}{4}$	
6S	34E	25											X						

Total number of acres irrigated _____

NOTE: Modifications to or variance from this license must be made within the limits of Section 42-222, Idaho Code, or the applicable Idaho Law. This right may be forfeited by five years of non-use.

The right to the use of the water hereby confirmed is restricted and appurtenant to the lands or place of use herein described, as provided by the laws of Idaho.

Witness the seal and signature of the Director, affixed at Boise, Idaho, this 29 day of

May

, 1979

Director

MICROFILMED

Identification No. 29 7289

Application No. _____

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
APPLICATION FOR PERMIT

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



1. Name of applicant Idaho State University Phone: 208-236-2208
post office address P.O. Box 8137, Pocatello, Idaho 83201
2. Source of water supply ground water which is a tributary of -----
3. a. Location of point of diversion is SW $\frac{1}{4}$ of SW $\frac{1}{4}$ of Section 25 Township 6S
Range 34E B.M. Bannock County; additional points of diversion if any: (NW corner block 148, Pocatello townsite; no additional point)
- b. If water is not consumed, it will be discharged into disposal well at a point in SW $\frac{1}{4}$ of SW $\frac{1}{4}$ of Section 25 Township 6S Range 34E B.M. (NW corner Block 148)
4. Water will be used for the following purposes:
Amount 1.12 for Heating & Cooling 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)
Amount ----- for ----- purpose from ----- to ----- (both dates inclusive)
(cfs or acre-feet per annum)
5. Total quantity to be appropriated:
a. 1.12 cubic feet per second and/or
b. ----- acre feet per annum.
6. Proposed diverting works:
a. Description of ditches, flumes, pumps, headgates, etc. Heating & cooling system for new I.S.U. Library, scheduled to go into operation June 1, 1977. System is designed to extract approximately 90°F. from water at max. 500 GPM for heating purposes or add 13°F to water for cooling purposes through heat exchangers serving refrigeration units to heat or cool 180,000 sq. ft. building
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 12 inches; proposed depth of well is 200 feet.
7. a. Time required for the completion of the works and application of the water to the proposed beneficial use is 2 years.
b. Estimated construction cost is \$ 86,000 well water system-total building project 4.8 million dollars
8. Description of proposed uses:
a. If water is **not** for irrigation:
(1) Give the place of use of water: SW $\frac{1}{4}$ of SW $\frac{1}{4}$ of Section 25 Township 6S
Range 34E B.M. (NW corner Block 148)
(2) Amount of power to be generated: ----- hp under ----- feet of head.
(3) List number of each kind of livestock to be watered -----

(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: Heating and cooling at Library Building with solar assist panels for heating. Copy of water well specifications attached.

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

[illegible]

Total number of acres to be irrigated_____

c. Describe any other water rights used for the same purposes as described above. None

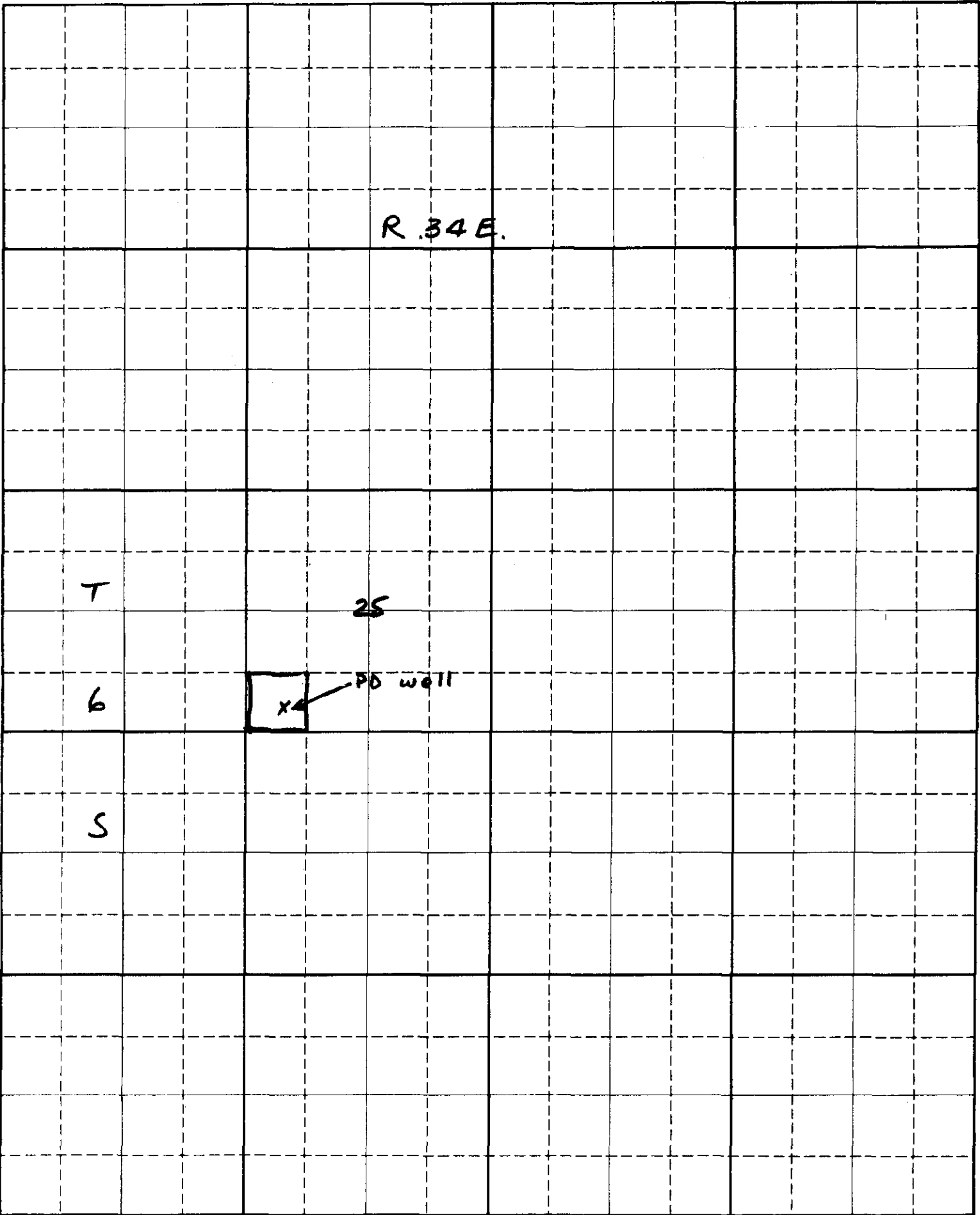
9. a. Who owns the property at the point of diversion State of Idaho, Idaho State University

b. Who owns the land to be irrigated or place of use Idaho State University

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 See attached specifications for well's use.

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.

Idaho State University
[Signature]
(Applicant)
Director physical plant

~~Proposed~~ Priority 9-22-1975

Received by me Date 9-22-75 Time 10:50
Preliminary check by NOT Fee \$35.00
Receipted by me Date 9-22-75 #15429
Publication prepared by me Date 9-23-1975
Published in The Idaho State Journal
Publication dates Oct 2 & Oct 9, 1975
Publication approved OK Date 10-17-75
Priority reduced to _____ Reason _____

Protests filed by: _____
Copies of protests forwarded by _____
Hearing held by _____ Date _____
Recommended for approval denial by RC

ACTION OF THE DIRECTOR, DEPARTMENT OF WATER RESOURCES

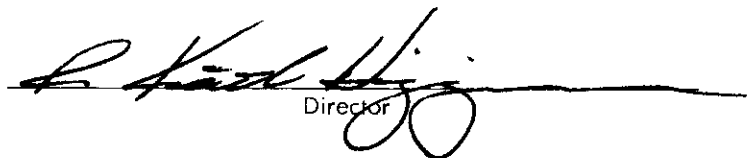
This is to certify that I have examined Application for Permit to appropriate the public waters of the State of Idaho No. 29-7289, and said application is hereby APPROVED.

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 November 1, 19 77.
- 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 28 day of October, 19 75.


Director

SUB-DIVISION 15-J WATER WELLS (ALTERNATE NO. 4)Sec. 15J-01 GENERAL MECHANICAL REQUIREMENTS:

1. This specification provides for furnishing and installation by the Contractor of material, labor, equipment, well casing and whatever else is necessary to drill, log, case, and develop two 500 gallon per minute, sand free water wells for non-consumptive use of well water for heating and cooling purposes. At all times one well will act as a supply well and the other as a disposal well. Both wells to be used as either the supply or disposal well. The wells shall be provided with perforations in two different strata so as to minimize mixing between supply water and disposal water. The well will be located NE 1/4, SW 1/4, SW 1/4, Sec. 25 T6S, R34E B.M., Bannock County, Idaho on the University Campus, Pocatello. All drilling shall be done by rotary drilling.
2. The Contractor will furnish the well pump, column pipe, suction pipe, line shaft, shaft enclosure tube, surface head, and motor, and the Contractor shall install the pump in the well, and connect electrically. Contractor shall obtain well drilling permit and be a licensed well driller in the State of Idaho.
3. Contractor shall investigate the site to determine any special requirements or limitation to his working conditions. No extra compensation will be allowed due to failure to properly study the site. All excess material must be hauled from the site.
4. All work must be performed between the hours of 7:00 A.M. and 6:00 P.M. Precautions shall be made to prevent loss of circulation or settling of solids during periods of shut down. No extra compensation will be allowed for failure to take necessary precautions.

Sec. 15J-02 CONSTRUCTION AND MATERIALS:

1. Well Log The formation samples shall be taken every 5 feet. All strata shall be described in detail as to whether loose or compacted, its color, and if gravel whether it is water worn or angular. Upon completion of well, the log shall be prepared in triplicate and delivered to the Owner. At the Contractor's option, a pilot hole may be drilled to determine the production depth of the two wells.
2. Surface Casing A surface casing, 16" O.D., 1/4 inch thickness American made, structural grade, shall be installed in the hole to

a depth of 30 ft. and cemented in place using Portland Cement, per the Haliburton method or approved equal for the cementing of casing. A minimum time of 48 hours shall elapse before the cement plug is drilled and drilling continues.

3. Unit Prices: The Contractor shall base his bid on two 12" diameter production holes with 10" diameter production casing. The Contractor's bid on the wells shall be as follows:

	<u>Shallow Well</u>	<u>Deep Well</u>
Production Hole - 12" dia.	150 ft.	200 ft.
Production Casing - 10" dia.	150 ft.	200 ft.
Perforations	30 ft.	30 ft.

Actual depth will depend on the depth that the production zones are encountered. Contractor will provide unit prices per foot for the following (See Bid Form):

	<u>Added Depth Per Ft.</u>	<u>Decreased Depth Per Ft.</u>
Production Hole, 12" dia.	_____	_____
Casing, 10" dia.	_____	_____
Perforated casing	_____	_____

4. Inner Casing and Perforations: The production hole shall be reamed to a diameter of 12" from the bottom of the surface casing to a depth required for a water bearing strata to produce 500 gpm with a 10" production casing. The second well shall be drilled through an impervious layer after the first production strata to a lower strata capable of producing 300 gpm. The production casing shall be welded string 10" I.D. .365 wall American made structural grade pipe, and perforations through production zones as described. A 3/4" galvanized steel air line extending from the surface to a depth of 50 feet shall be attached to the outside of the 10" casing. This line will be used to check the drawdown of the water in the well. The wells will be perforated in place using a mills knife perforator. The location and number of perforations to be determined after the water depth of the production zones have been determined. All pipe for casing shall be new American made structural grade pipe. Centralizers shall be welded to the casing and the perforations at 25 foot intervals to center the casing in the hole.

5. Straight Hole: The well shall be straight and plumb, suitable for the operation of a deep well turbine pump. The deviation of the hole alignment from the vertical shall not exceed one degree. The Contractor shall provide the instruments approved by the Architect to check the inclination and deviation of the hole.
6. Development: The well shall be developed by the use of surge plunger and bailing to remove the fines from the formation opposite the well perforations. This procedure shall be continued until the fine sands are removed and the formation and well is stabilized enough to install a test pump.
7. Test Pumping: The Contractor will furnish a test pump of 750 gpm at 125 ft. depth powered by internal combustion engine as electricity may not be available at the site by the time the well is ready for testing.
8. Pump Installation: The Contractor shall install the pump, column and motor as specified on the drawings.
9. Well Head: The Contractor shall construct a well head as detailed on the drawings.
10. Preparation of Well Log: The Contractor shall keep a daily well log in a leather bound field book. This log will reflect all data with regard to the drilling so that each change in strata, difficulty of drilling, problems of the project, setting of casings, screen equipment, sampling, logging and all that is done on the job from the moment the drilling starts to the acceptance by the University, is correctly recorded in legible field notes using a #4 pencil. This book is to be turned over to the University, to be accepted by the University only if proper and complete before the final payment may be due and payable.
11. Role of University Project Engineer: All of the foregoing steps in the drilling, construction, sampling, logging, development, testing, material and equipment used and workmanship performed shall be performed with the complete review and approval of the Architect.
12. Guarantee: The work covered by these specifications shall be free from defects in material and workmanship for a period of one year. Also, if the work or any part thereof, or any material brought on the ground for use in the work, shall be considered by the University as unsuitable, unsafe, or not in conformity with the specifications, the

Contractor shall upon receipt of notice from the University Resident Engineer, remove such material and replace it with acceptable material or otherwise remedy such work so that it shall be in full accordance with this specification.

13. Reference - The Contractor shall furnish the names and addresses of five (5) clients for whom he has drilled similar wells of at least 250 gpm capacity or more in the Pocatello area.

14. Expediting Job - Subject to the above checks, the Contractor shall proceed with all drilling, development, testing operations, and all other work involved in the construction and the placing of this well in an expediting condition, with a minimum of delay and with all possible and reasonable dispatch.

Safety and Cooperation With University - The well site and all drilling equipment shall be maintained in a safe and workmanlike manner. Also, the driller will fully cooperate with the University and its related work by others in the area so that a minimum degree of conflict will result due to the drilling of the well.

PROOF OF PUBLICATION **RECEIVED**

STATE OF IDAHO
County of Bannock

ss.

OCT 15 1975

Department of Water Resources
Eastern District Office

Katherine Wanner

NOTICE OF APPLICATION FOR WATER PERMIT

Whereas, Katherine Wanner, Pocatello, Idaho, has on 9-20-75 submitted Application No. 29750 for a permit to appropriate 1.25 cubic feet per second of water from a gravity water source by means of well and pump within the SW 1/4 Sec. 20, T. 25S, R. 24E, B.M. Bannock, Idaho, to be used for irrigation and for a home and cooling system within the SW 1/4 Sec. 20, T. 25S, R. 24E, B.M. Bannock, Idaho.

If issued, this permit will be subject to the provisions of the Idaho Water Code, and the provisions of the permit must be filed with the Idaho Department of Water Resources, 1515 Lincoln Road, Idaho Falls, Idaho 83401 on or before October 29, 1975.

By John H. Hunsaker
Director
Oct. 2, 9, 1975
No. 566

being first duly sworn on oath deposes and says: That She was at all times herein mentioned a citizen of the United States of America, more than 21 years of age, and the Principal Clerk of THE IDAHO STATE JOURNAL, a daily newspaper, printed and published at Pocatello, Bannock County, Idaho, and having a general circulation therein.

That the document or notice, a true copy of which is attached, was published in the said IDAHO STATE JOURNAL, on the following dates, to-wit:

October 2	1975	19
October 9	1975	19
	19	19
	19	19
	19	19

That said paper has been continuously and uninterruptedly published in said County for a period of seventy-eight weeks prior to the publication of said notice or advertisement and is a newspaper within the meaning of the laws of Idaho.

Katherine Wanner

Subscribed and sworn to before me this 13th day of October, 19 75

Rebecca L. Linsford

Notary Public, State of Idaho
Residence: Pocatello, Idaho

Commission Expires
March 5, 1977

PROOF OF PUBLICATION

STATE OF IDAHO }
County of Bannock }

ss.

Katherine Wanner

NOTICE OF APPLICATION FOR WATER PERMIT

Notice is hereby given that Idaho State University, Pocatello, Idaho, has on 9-22-75 submitted Application No. 29-7289 for a permit to appropriate 1.12 cubic feet per second of water from a ground-water source by means of well and pump within the SW $\frac{1}{4}$ SW $\frac{1}{4}$, Sec. 25, T. 6S, R. 34E, B.M., Bannock County; to be used from Jan. 1 to Dec. 31 for a heating and cooling system within the SW $\frac{1}{4}$ SW $\frac{1}{4}$, Sec. 25, T. 6S, R. 34E, B.M.

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, 1515 Lincoln Road, Idaho Falls, Idaho, 83401 on or before October 20, 1975.

R. Keith Higginson
Director
Oct. 2, 9, 1975
No. 566

being first duly sworn on oath deposes and says: That She was at all times herein mentioned a citizen of the United States of America, more than 21 years of age, and the Principal Clerk of THE IDAHO STATE JOURNAL, a daily newspaper, printed and published at Pocatello, Bannock County, Idaho, and having a general circulation therein.

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October 2	, 19 75	, 19
October 9	, 19 75	, 19
	, 19	, 19
	, 19	, 19
	, 19	, 19

That said paper has been continuously and uninterruptedly published in said County for a period of seventy-eight weeks prior to the publication of said notice or advertisement and is a newspaper within the meaning of the laws of Idaho.

Katherine Wanner

Subscribed and sworn to before me this 13th day of October, 19 75

Reed L. Ladford

Notary Public, State of Idaho

Residence: Pocatello, Idaho

PROOF OF PUBLICATION

RECEIVED

OCT 15 1975

Department of Water Resources
Eastern District Office

STATE OF IDAHO
County of Bannock

ss.

Katherine Wanner

**NOTICE OF APPLICATION
FOR WATER PERMIT**
Notice is hereby given that
Idaho State University, Pocatello,
Idaho, has filed a permitted
Application No. 27722 for a
permit to appropriate 1.25 cubic
feet per second of water from a
ground water source by means of
well and pump within the
SW 1/4 Sec. 22, E. 6S, R. 34E,
B.M.S. Bannock County to be used
from Jan. 1 to Dec. 31 for a
heating and cooling system within
the University, Sec. 22, T. 6S, R.
34E, B.M.S.
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, 1515 Lincoln Road,
Idaho Falls, Idaho, 83401 on or
before October 30, 1975.
R. Keith Higginson
Director
Oct. 29, 1975
No. 566

being first duly sworn on oath deposes and says: That She
was at all times herein mentioned a citizen of the United States of
America, more than 21 years of age, and the Principal Clerk of THE
IDAHO STATE JOURNAL, a daily newspaper, printed and published at
Pocatello, Bannock County, Idaho, and having a general circulation
therein.

That the document or notice, a true copy of which is attached, was
published in the said IDAHO STATE JOURNAL, on the following dates,
to-wit:

October 2	1975	19
October 9	1975	19
	19	19
	19	19
	19	19

That said paper has been continuously and uninterruptedly pub-
lished in said County for a period of seventy-eight weeks prior to the
publication of said notice or advertisement and is a newspaper within
the meaning of the laws of Idaho.

Katherine Wanner

Subscribed and sworn to before me this 13th
day of October, 1975.

Della L. Lippard

Notary Public, State of Idaho

Residence: Pocatello, Idaho

Commission Expires
March 5, 1977

Duplicate

PROOF OF PUBLICATION

RECEIVED
OCT 15 1975
Department of
Eastern District Court

STATE OF IDAHO
County of Bannock

ss.

Katherine Wannpr

NOTICE OF APPLICATION FOR WATER PERMIT

Notice is hereby given that Idaho State University, Pocatello, Idaho, has on 9-22-75 submitted Application No. 29-7289 for a permit to appropriate 1.12 cubic feet per second of water from a ground-water source by means of well and pump within the SW $\frac{1}{4}$ SW $\frac{1}{4}$, Sec. 25, T. 6S, R. 34E, B.M., Bannock County; to be used from Jan. 1 to Dec. 31 for a heating and cooling system within the SW $\frac{1}{4}$ SW $\frac{1}{4}$, Sec. 25, T. 6S, R. 34E, B.M.

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, 1515 Lincoln Road, Idaho Falls, Idaho, 83401 on or before October 20, 1975.

R. Keith Higginson
Director
Oct. 2, 9, 1975
No. 566

being first duly sworn on oath deposes and says: That... She...
was at all times herein mentioned a citizen of the United States of America, more than 21 years of age, and the Principal Clerk of THE IDAHO STATE JOURNAL, a daily newspaper, printed and published at Pocatello, Bannock County, Idaho, and having a general circulation therein.

That the document or notice, a true copy of which is attached, was published in the said IDAHO STATE JOURNAL, on the following dates, to-wit:

October 2, 1975
October 9, 1975
_____, 19____
_____, 19____
_____, 19____
_____, 19____

That said paper has been continuously and uninterruptedly published in said County for a period of seventy-eight weeks prior to the publication of said notice or advertisement and is a newspaper within the meaning of the laws of Idaho.

Katherine Wannpr

Subscribed and sworn to before me this 13th
day of October, 1975.

Lolla L. Leaphor

Notary Public, State of Idaho
Residence: Pocatello, Idaho

March 9, 1977

May 30, 1979

Re: Permit No. 29-7289

Idaho State University
P.O. Box 8137
Pocatello, ID 83201

Gentlemen:

Enclosed is a copy of the Water Right License issued on the above referenced permit.

Sincerely,

JAN GROVER
Water Rights Supervisor

JG:lr

Enclosure

MICROFILMED



STATE OF IDAHO

DEPARTMENT OF WATER RESOURCES

John V. Evans
Governor

C. Stephen Allred
Director

Statehouse
Boise, Idaho 83720
(208) 384-2215

May 4, 1979

Re: Permit No. 29-7289

Idaho State University
P. O. Box 8137
Pocatello, Idaho 83201

Gentlemen:

A representative of this Department made an examination of the works covered by your Permit No. 29-7289 on December 7, 1977, and has found the following:

Amount of water that can be recognized as beneficially used under
Idaho law: 1.12 cfs Source: groundwater

The maximum quantity diverted shall not exceed N/A acre feet per
year.

Point of diversion: SW $\frac{1}{4}$ SW $\frac{1}{4}$, Sec. 25, Twp. 6S, Rge. 34E, B. M.

Beneficial use: Heating and cooling within the SW $\frac{1}{4}$ SW $\frac{1}{4}$, Sec. 25,
Twp. 6S, Rge. 34E, B. M.

Priority date established: September 22, 1975

If you do not concur with these findings please contact us within 10 days, otherwise a water license will be issued as set forth above.

Sincerely,

JAN GROVER
Water Rights Supervisor

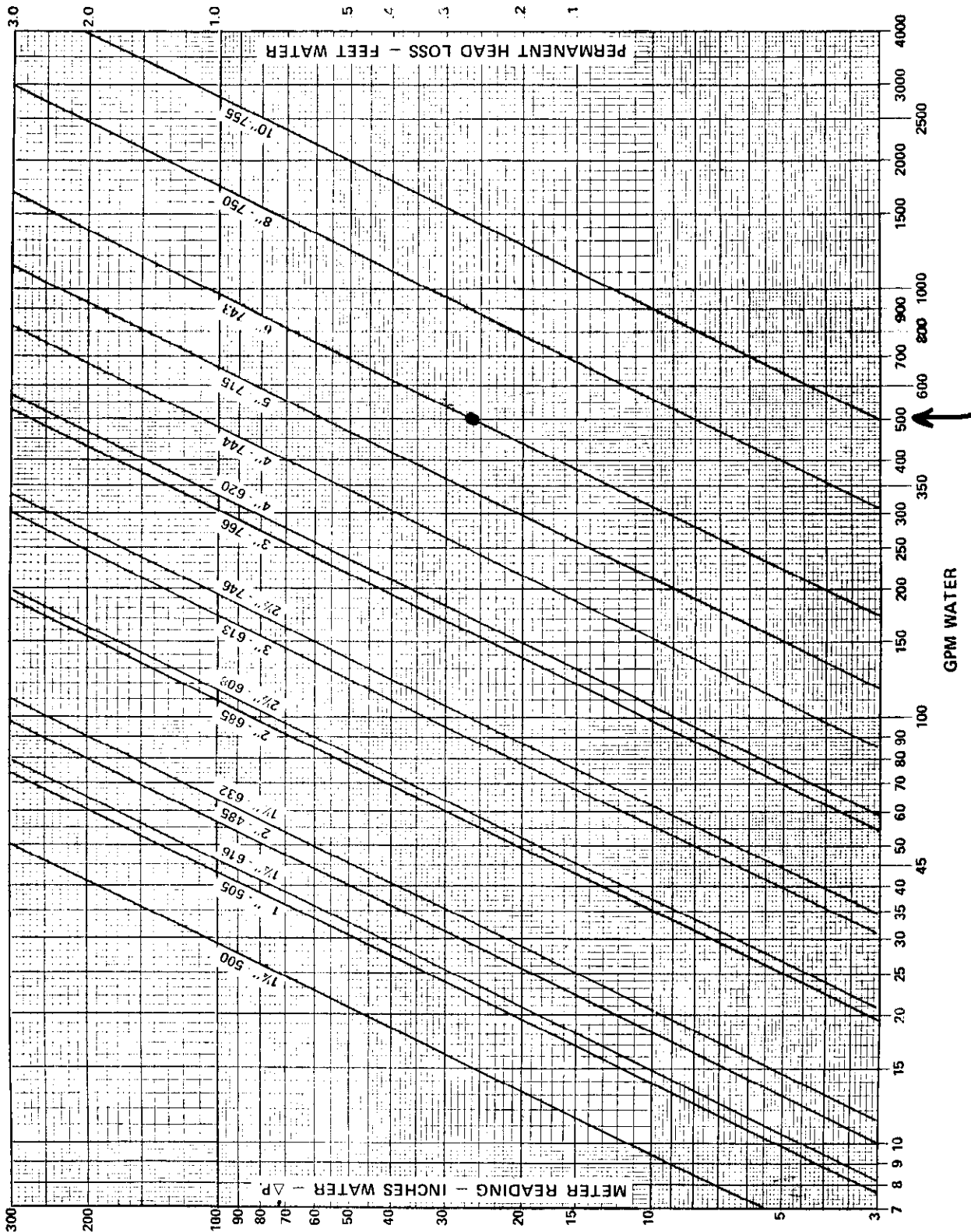
JG/kw

MAILED
MAY 10 1979
FBI - BOISE



ARMSTRONG VENTURUS CAPACITY CURVES

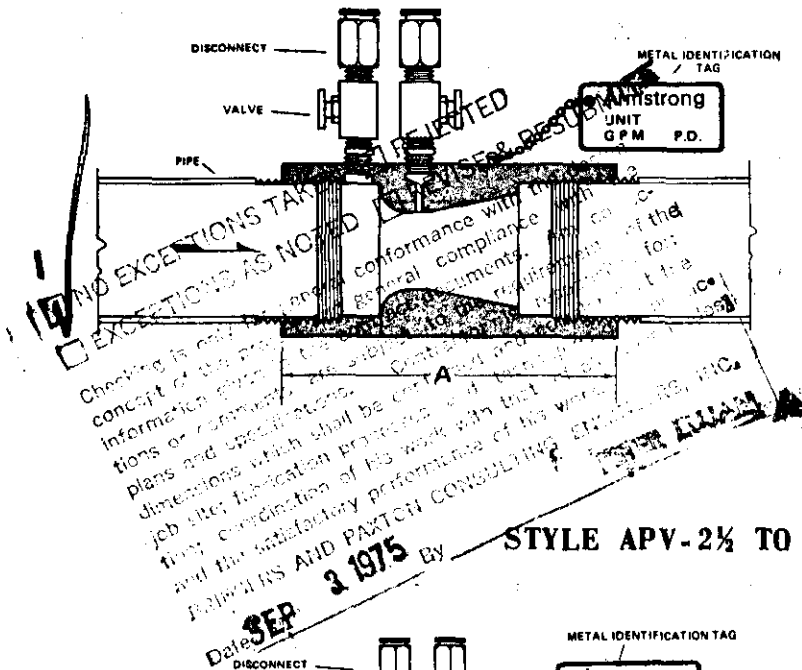
FILE NO.: 5035.31
DATE: Oct. 15, 1972
SUPERSEDES: 5035.31
DATE: Jan. 14, 1972



STYLE APV-1 1/4 TO APV-10

ARMSTRONG VENTURIS

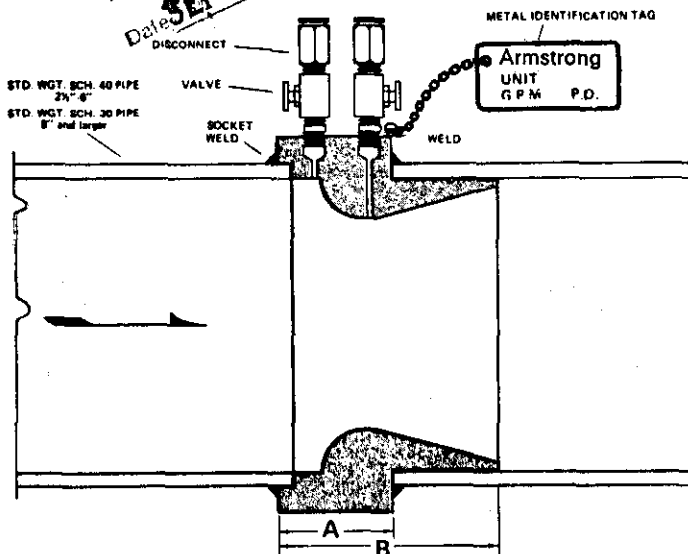
STYLE APV-1½ TO STYLE APV-2



Material-Brass Hex Stock
Tolerances — .001"
Accuracy — 2%

SIZE	A	TYPE
1-1/4" - 500	4-1/4"	Screwed
1-1/4" - 616	4"	Screwed
1-1/2" - 505	4-1/2"	Screwed
1-1/2" - 632	4-1/4"	Screwed
2" - 485	5-3/4"	Screwed
2" - 685	5"	Screwed

STYLE APV-2½ TO STYLE APV-10*



Material-Machined Steel-Zinc Plated
Tolerances — .001"
Accuracy — 2%

SIZE	A	B	TYPE
2-1/2" - 608	1-3/4"	2-3/4"	Welded
2-1/2" - 746	1-9/16"	2-1/2"	Welded
3" - 613	1-7/8"	3-1/4"	Welded
3" - 766	1-5/8"	2-1/2"	Welded
4" - 620	2"	3-3/4"	Welded
4" - 744	1-3/4"	3"	Welded
5" - 715	2"	3-3/4"	Welded
6" - 743	2"	4-1/2"	Welded
8" - 750	2-1/4"	5-1/2"	Welded
10" - 755	2-5/8"	6"	Welded

*LARGER SIZES AVAILABLE.

RECEIVED

NOV 10 1977

- Department of Water Resources
Eastern District Office
Physical Plant

- (name spring, stream, etc.)

- Permit No. 29-7289
- Examination for Wdy

- [illegible]

TOTAL ACREAGE

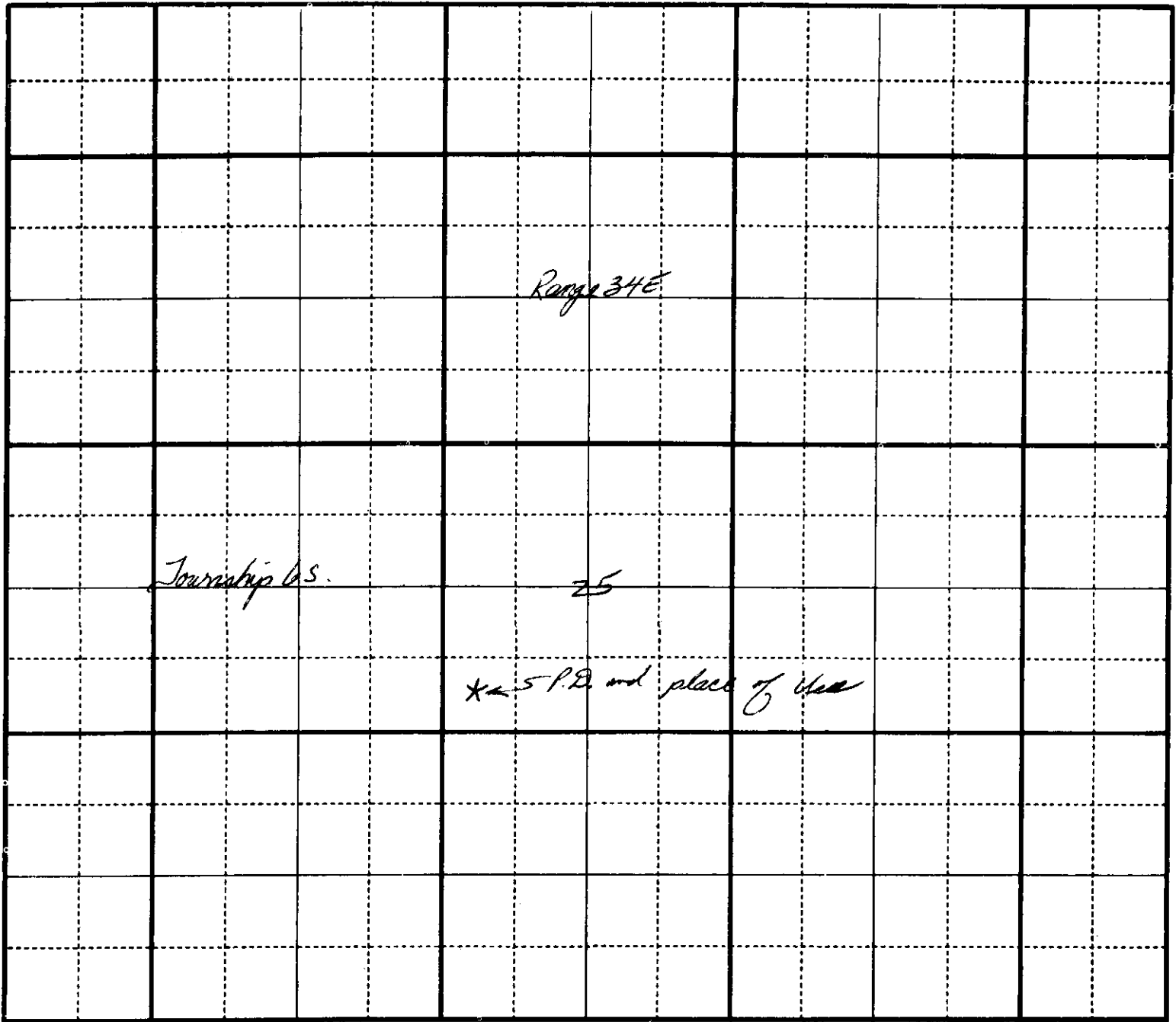
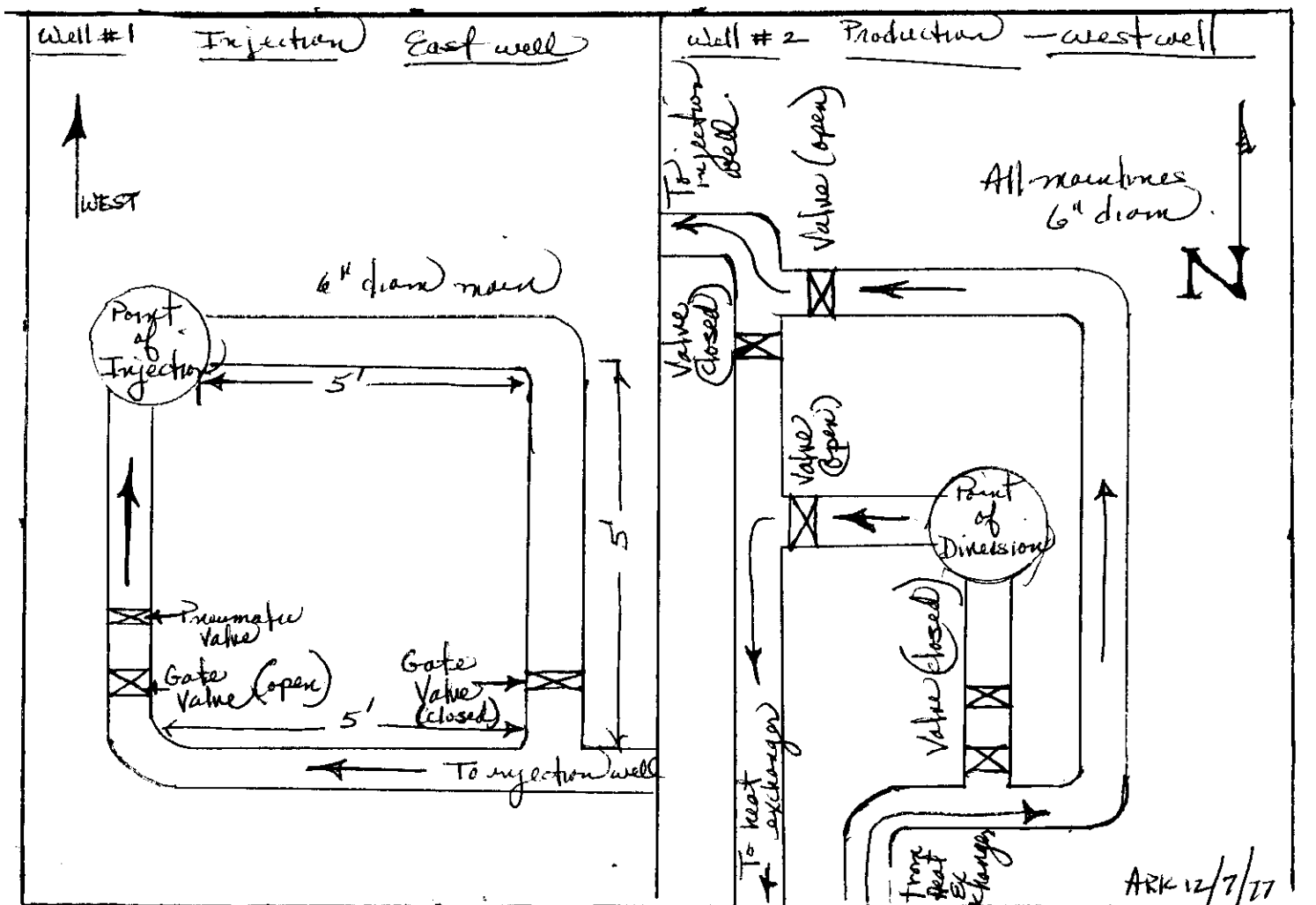


Diagram of System



DATE OF EXAM 12/7/77

ACREAGE
Found n/a
Recommended n/a

Irrigation Requirement n/a Ac Ft/Ac

USE
Irrigation Q = 1.12 c.f.s. V = 810.86 AF/Ann. from Jan 1 to Dec 31
Domestic Q = _____ c.f.s. V = _____ AF/Ann. from _____ to _____
Livestock Q = _____ c.f.s. V = _____ AF/Ann. from _____ to _____

Is water co-mingled? yes _____ no X

Name source: n/a
twp. _____ N/S, Rge _____ E/W, B.M., Sec. _____, Sub. _____ 1/4 _____ 1/4 _____ County _____

Exchange? yes _____ no X

Name source exchanged with: n/a
twp. _____ N/S, Rge _____ E/W, B.M., Sec. _____, Sub. _____ 1/4 _____ 1/4 _____ County _____

Point of injection: n/a
twp. _____ N/S, Rge _____ E/W, B.M., Sec. _____, Sub. _____ 1/4 _____ 1/4 _____ County _____

Point of exchange: n/a
twp. _____ N/S, Rge _____ E/W, B.M., Sec. _____, Sub. _____ 1/4 _____ 1/4 _____ County _____

Total Q measured 1.12 cfs Method of measurement in line Venturi type
Total Q recommended 1.12 cfs Meter No. 6"-743 Type Armstrong Condition good
Total V recommended 810.86 AF/yr N/A API-6
Recommended Amendments: 1/4

P.D. _____
Place of Use _____
Other _____
None

MEASUREMENT CALCULATION:
Measured Height in manometer tube and determined rate of flow in gpm from a table provided by the manufacturer of entitled "Armstrong Venturi capacity curves". Measured 26.5" in plastic tube. (From table) about 510 gpm was determined to be the rate of flow. $510 \text{ gpm} \div 448.8 \text{ gpm/cfs} = 1.14 \text{ cfs}$
 $\sqrt{1.12 \text{ cfs} \times 365 \text{ days} \times 1.4835} = 810.86 \text{ AF/yr}$

SYSTEM DESCRIPTION:
Groundwater is diverted from well #2. This well is 250' deep with 12" casing and a SWL of 100'. Water is diverted continuously by a 30 H.P. General Electric Tri-clad induction motor, 3ph, 235X#501A, S/N - BNI-223451 and by a Layre #3 Bowler pump. Water from this well flows into the new library and passes thru two heat exchangers wherein heat is transferred either out of or into the groundwater depending on which cycle is being run. During the exam water entered the system at 58° and left the system at 58° (no temp change).
REMARKS:
However in the hottest part of the summer water is heated 5° F and is returned to the aquifer at this higher temperature. The system is designed so that the function of each well can be repeated in the event that a motor & pump wears out or breaks down so that a continuous flow of water thru the system is guaranteed. The injection well #1 is also equipped with a 30 HP GE Tri-clad induction motor (sp).

Examiner's Signature Anthony R. Kofrowski Date 12/1/77
Checked by Ernest M. Colan Date 2-28-78
Approved by _____ Date _____

m/n - 5K6235X#501A, S/N - AMJ 825302. The bowls of both pumps are of special design so that they can allow the unimpeded travel of return flows. Injection pump # 82910. This well is 275' with a SWL of 60'. It is perforated along the lower 75'. The other well (production type) is perforated along the lower 50'.

November 9, 1977

Re: Permit No. 29-7289

Idaho State University
Attn: Mr. John J. Korbis, Director of Physical Plant
P. O. Box 8137
Pocatello, Idaho 83201

Dear Mr. Korbis:

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 during which part of the irrigation season this examination will be made, but our examiner will try to contact you at the time he makes the exam so that you may show him the system.

If you have any questions regarding the field examination, please contact our Regional Office in Idaho Falls.

Sincerely,

JANICE RENK
Water Rights Bureau

/jr

Identification No. _____

Permit No. _____

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES

RECEIVED

OCT 25 1977

Department of Water Resources

PROOF OF APPLICATION OF WATER TO BENEFICIAL USE

1. a) Name of Permit Holder IDAHO STATE UNIVERSITY
b) Post Office Address P. O. Box 8137, Pocatello, Idaho 83209
2. Permit Number 29-7289
3. Date of Priority that you are prepared to establish June 1, 1977
4. a) Source from which water was appropriated Ground Water (2 Wells)
b) Location of the point of diversion: SW ¼ SW ¼, Section 25
Township 6S, Range 34EBM Boise Meridian, Other points of diversion:
NW CORNER & NE CORNER OF BLOCK 148, POCATELLO, IDAHO. NO ADDITIONAL POINT.
5. a) The amount of water and use to which the water has been applied:
Amount 1.12 for Heating & Cooling purposes from Jan. 1 to Dec. 31 incl.
(cfs and/or acre-feet per annum) (Month-Day) (Month-Day)
Amount _____ for _____ purposes from _____ to _____ incl.
(cfs and/or acre-feet per annum) (Month-Day) (Month-Day)
Amount _____ for _____ purposes from _____ to _____ incl.
(cfs and/or acre-feet per annum) (Month-Day) (Month-Day)
b) Total amount appropriated 1.12 CFS cfs and/or acre-feet per annum
c) Describe how and by whom measurement of rate of flow or amount of storage was made and the qualifications of the person making the measurement: Electric pump with maximum capacity of 500 G.P.M.
6. If the means of diversion and conveyance are owned by someone other than the Permit Holder:
a) Give the name or description of the canal, ditch or other works by which the water is conducted to the place of use:
N/A
b) Describe the agreement or understanding by which you take water from the works: By permit application dated 9/10/75 to Dept. of Water Resources for State of Idaho.
7. a) Briefly describe the works for diverting and conveying the water to the place of use, (if from a subterranean source, give the pump size, motor size, size of well casing, depth of well; if from surface water, give brief description of diversion structure and/or canal or ditch) 200 Ft. Deep Well (2) each 12 inch casings with a capacity (pump) of 500 gals./min., water is pumped from 1 well, taken through heat exchanger where heat is added or extracted and disposed of in other well.
b) Describe the type and size of measuring device which you have installed at your point of diversion: Pump capacity with fixed flow rate. By valve throttle, capacity can be reduced; but not increased. Manometer used for rate. Armstrong Venturi #743 installed - see attached 2 sheets.
c) Give well driller's name and address and the date the well was completed: Arnold Elsing Well Drilling Co., P. O. Box 919, Twin Falls, Idaho.
Accepted June 27, 1976.
8. If for other than irrigation, describe the beneficial use to which you have applied the water and the place of use: Water is cycled from well to well to provide heating and cooling for heat pump system for the University Library Building, completed June 1, 1977.

Exam typed 11/8/77 by [signature]

If you are irrigating 15 or more acres, please submit an aerial photo of the property with this affidavit.

9. Irrigation uses: describe the lands irrigated by giving the acreages irrigated within each 40 acre subdivision:

N/A

T	R	SEC.	NE¼				NW¼				SW¼				SE¼				TOTAL
			NE¼	NW¼	SW¼	SE¼	NE¼	NW¼	SW¼	SE¼	NE¼	NW¼	SW¼	SE¼	NE¼	NW¼	SW¼	SE¼	

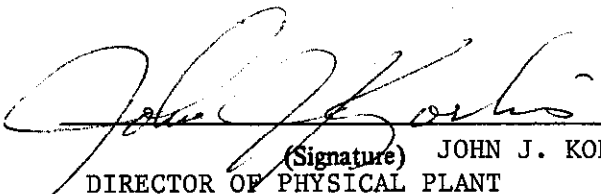
Total number of acres irrigated _____

10. Remarks: _____

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

Oct. 19, 1977

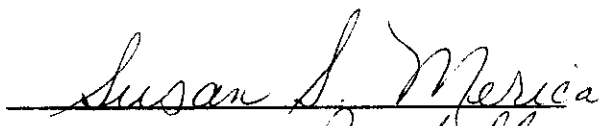
(Date)


(Signature) JOHN J. KORBIS
DIRECTOR OF PHYSICAL PLANT

IDAHO STATE UNIVERSITY

State of Idaho)
County of Bannock) ss.

On this 20th day of October, 19 77, personally appeared before me the signer(s) of the above instrument, who duly acknowledged to me that he (she) (they) executed the same.


Notary Public residing at Bozelle

My commission expires 3-19-81

August 31, 1977

CERTIFIED MAIL

138928

Re: Permit No. 29-7289

Idaho State University
P. O. Box 8137
Pocatello, Idaho 83201

Gentlemen:

One of the conditions of approval of your water Permit No. 29-7289 (see last page of your approved permit) was that evidence of the extent of development be submitted as proof of application of water to beneficial use to this office on or before November 1, 1977. Enclosed is an affidavit form which must 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.

Either the beneficial use affidavit 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.



C. STEPHEN ALLRED
Director

CSA:jfr

Enc: Proof affidavit

RECEIVED
SEP 1 1977
IDAHO DEPT OF AGRICULTURE

October 28, 1975

Re: Permit No. 29-7289

Idaho State University
P. O. Box 8137
Pocatello, ID 83201

Gentlemen:

Enclosed is a copy of your approved Application for Permit No. 29-7289 . We direct your attention to the conditions of approval as listed on the fourth page.

Be sure to note that a special condition requiring you to install and maintain a measuring device at your point of diversion has been placed upon your permit. We are enclosing a letter describing different types of measuring devices accepted by this office.

Sincerely,

BOBBY D. FLEENOR
Chief, Water Rights

BDF:jfr

Enclosures

STATE OF IDAHO

Cecil D. Andrus, governor

James A. Bax, director

DIVISION OF ENVIRONMENT
636 Pershing
Pocatello, Idaho 83201

September 29, 1975

RECEIVED

SEP 30 1975

Depa:

East:

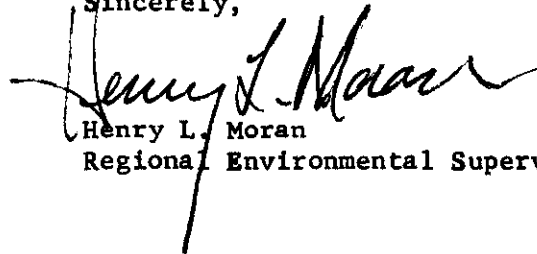
Mr. Ronald D. Carlson
District Engineer
Idaho Department of Water Resources
Eastern District
1515 Lincoln Road
Idaho Falls, Idaho 83401

Re: Application for Permit
No. 29-7289

Dear Mr. Carlson:

We have received and reviewed the above referenced application to appropriate the public waters of the State of Idaho and have no comments or objections concerning the project.

Sincerely,



Henry L. Moran
Regional Environmental Supervisor

HLM/bf

department of health and welfare

NOT NEGOTIABLE

9-18-75

IDAHO STATE UNIVERSITY
POCATELLO, IDAHO

SERIES

2- 07164

In payment of statutory filing fee for
permit to appropriate public water of
the State of Idaho, necessary in
construction of new Library Building

903

027-30

8190

35.00

isujsp

DETACH BEFORE DEPOSITING

September 24, 1975

C
RE: Application for Permit No. 29-7289

O
Shirl C. Boyce, Jr.
Southeast Idaho Regional Director
Idaho State Planning & Community Affairs Agency
Idaho State University
Box 8073
Pocatello, Idaho 83201

P
Dear Mr. Boyce:

Y
We are enclosing a copy of an application that may be of interest to your agency. Please review the application and if you have any comments, submit them to our Department as soon as possible. The last date of protest is October 20, 1975, and we are required to take final action shortly thereafter.

If we may be of further assistance, please feel free to contact us.

Very truly yours,

RONALD D. CARLSON
District Engineer

RDC:ME

Enclosure

September 24, 1975

RE: Application for Permit No. 29-7289

C
O
P
Y

Henry L. Moran
Regional Environmental Supervisor
Department of Health & Welfare
Division of Environment
636 Pershing
Pocatello, Idaho 83201

Dear Mr. Moran:

We are enclosing a copy of an application that may be of interest to your agency. Please review the application and if you have any comments, submit them to our Department as soon as possible. The last date of protest is October 20, 1975, and we are required to take final action shortly thereafter.

If we may be of further assistance, please feel free to contact us.

Very truly yours,

RONALD D. CARLSON
District Engineer

RDC:ME

Enclosure

September 23, 1975

RE: Application for Permit No. 29-7289

The Idaho State Journal
Box 431
Pocatello, Idaho 83201

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 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.

An affidavit of publication must be submitted to the Department along with the publication bill.

Very truly yours,

RONALD D. CARLSON
District Engineer

RDC:ME

Bill submitted 10-15-1975 by ME

Legal Notice (1)

NOTICE OF APPLICATION FOR WATER PERMIT

Notice is hereby given that Idaho State University,

Pocatello, Idaho,

has on 9-22-75 submitted Application No. 29-7289

for a permit to appropriate 1.12 cubic feet per second ~~acre feet per annum~~

of water from a ground water source

by means of well and pump

within the SW $\frac{1}{4}$ SW $\frac{1}{4}$, Sec. 25, T. 6S, R. 34E, B.M., Bannock County;

to be used from Jan. 1 to Dec. 31

for a heating and cooling system

within the SW $\frac{1}{4}$ SW $\frac{1}{4}$, Sec. 25, T. 6S, R. 34E, B.M.

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, 1515 Lincoln Road, Idaho Falls, Idaho, 83401 on or before _____

October 20, 1975

R. KEITH HIGGINSON

Director

Published in the Idaho State Journal, Pocatello, Idaho

on October 2 and October 9, 1975.

*Aw-L.
Jul-A.*

September 2, 1975

Mr. John J. Korbis
Director Physical Plant
Idaho State University
P.O. Box 8137
Pocatello, Idaho 83201

Dear Mr. Korbis:

Please find enclosed the application for permit to appropriate the public water of the State of Idaho which we have retyped. Please note we have completed Item 3a and corrected the legal description on Item 3b. We have also corrected Item 3a(1) and completed Item 3c and Item 11.

Please check the retyped application for corrections and if it meets with your approval, sign and return to this office with the statutory filing fee of \$35.00.

If you have any questions concerning this matter, please feel free to contact me.

Very truly yours,

LOY H. JOHNSON
Water Resource Supervisor

LHJ:cw

Enclosure

Rita

District should contact Idaho State University about permit for "waste disposal well permit" if they haven't.

Bob

Memo sent 10-28-75

DEPARTMENT OF WATER RESOURCES
- STAFF ANALYSIS -

Item Initial Date

Application No.

Idaho State University

- ☒ Source
☒ Point of Diversion
☒ County
☒ Quantity of Water and Period of Use
☒ Description of Diverting Works
☒ Time required for B/U of water
☒ Place of Use or Acres Irrigated
☒ Map
☒ Signature
☒ Fee

- (1) KDF 9-22-75 yes In form to receipt
- (2) " " Send Copies to:
☒ Idaho State Health Department
☐ Idaho Fish and Game Department
☐ Bureau of Land Management
☒ Shirl Boyce
☐ Request Special Use Permit from U.S.F.S.
☐ Request Easement from B.L.M.
☐ Request Information from Applicant
- (3) " "
- (4) " " yes In form for advertising
- (5) " " Platted on Map No. 65-34E
- (6) " " NA Located within Water District No. _____
- (7) " " Critical groundwater area: yes _____ no L
- (8) " " ? Groundwater levels:
_____ Declining, _____ Stable, _____ Increasing
(comment) No obs. well in area
- (9) " " NO Other rights on the same place of use
- (10) " " Comments: No G.W. rights platted.
- (11) me 10-15-75 Affidavit of Publication received (date) 10-15-1975
- (12) me 10-20-75 Final date for protests October 20, 1975
Protests received: yes _____ no ✓
- (13) RDC 10/20/75 All requested information received from agencies or applicant: yes OK no _____
- (14) " 11 Action recommended:
☒ Approve _____ Deny
9/22/75 Proposed Priority
_____ Reason for Reduction _____
☒ Measuring device required
_____ See attached sheet for other conditions of approval
_____ No special conditions for approval
- (15) District E By RDC Date 10/20/75

RECEIVED

9-23-75
RDC
KDF