

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 65-13332
Exam Date: 9/7/2018

1. Current Owner:

DARWIN N PANCHERI 11066 MISSOURI AVE NAMPA ID 83686-9242 (208) 602-8779 And/Or
JOAN L PANCHERI 9325 MISSOURI AVE NAMPA ID 83686

2. Accompanied by:

Phone No:

Address:

Relationship to Permit Holder:

3. SOURCE:

SPRING

TRIBUTARY:

MOORES CREEK

B. OVERLAP REVIEW

1. Other water rights with the same place of use: NONE
2. Other water rights with the same point-of-diversion: 65-12891

C. DIVERSION AND DELIVERY SYSTEM1. LOCATION OF POINT(S) OF DIVERSION:

SPRING SE¼NE¼NE¼ Sec. 13, Twp 13N, Rge 03E, B.M. VALLEY County

Method of Determination: GPS, Visual Inspection, and GIS

2.

PLACE OF USE: HEATING

Twp	Rge	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
13N	03E	13	X																

Method of Determination: Visual Inspection, and GIS

3.

Delivery System Diagram Attached (required). Indicate all major components and distances between components.

x Indicate weir size/pipe as applicable.

Map Attached Showing Location(s) of point(s) of diversion and place(s) of use (required). Scale must be 1:24,000 or greater.

x Aerial Photo Attached (required for irrigation of 10+ acres).

x Photo of Diversion and System Attached

4.

Well or Diversion ID No.*	Motor Make	Hp	Motor Serial No.	Pump Make	Pump Serial No. or Discharge Size
Heat pump #1	Unknown	1	2801084915	Unknown	2 inch
Heat Pump #2	Unknown	1	Unknown	Unknown	2 inch

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

D. FLOW MEASUREMENTS

1.

Measurement Equipment	Type	Make	Model No.	Serial No.	Size	Calib. Date

2. Measurements: The piping leaving the well was too small to place a flow meter on. The system wasn't operating when I was at the property, and it would have taken quite a bit of time to charge all of the lines. There was also the possibility that the wells or the lines could have been defective, since they weren't in use for several months. Therefore, the only way to attain a flow rate was to use a theoretical calculation.

E. FLOW

Additional Computation Sheets Attached

CALCULATIONS

Measured Method:

Please see the theoretical calculation sheet attached for the flow rate.

Permit authorizes 0.10 cfs

Theoretical Calculation = 0.09 cfs.

I am recommending 0.09 cfs for this system.

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V_{IR} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) =$$

$$V_{DR} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 =$$

$$V = \text{Smaller of } V_{IR} \text{ and } V_{DR} =$$

2. Volume Calculations for Other Uses:

Please see the attached sheets for the volume calculation. Due to the unorthodox heating system, we were required to use the older heating and cooling spreadsheet. I spoke with our office expert on heating uses, and she informed me that the information did seem reasonable.

Calculation sheet = 39.6 af

Pumping Capacity = 37.8 af

I am recommending an annual volume of 37.8 af.

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

This permit originally authorized the diversion of water from a hot spring on the Pancheri property to the main ranch house and shop for Darwin and Joan Pancheri. The home has recently been sold to their two sons, but change of ownership and assignment of permits have not yet been received. The two sons are Nate Pancheri and Kurt Pancheri. The address that was given to me for the two brothers was 9325 Missouri Avenue, Nampa, ID 83686. There are several corporations in the Pancheri name that lists both brothers and individual corporations for each brother. It does appear as though the 9325 Missouri Avenue, Nampa, ID address is the main address for most of the Pancheri Family Trust corporations and many of the other Pancheri corporations. According to Nate, this is the family's main headquarters.

System Description:

According to Mr. Pancheri, the spring was dug up slightly and filled with 4" stone. A perforated pipe was then laid in the spring area and piped over to a valve on the edge of the spring. The perforated pipe was then covered with more 4 inch stone, and a rubber liner was placed over the top of the stone. A layer of sand was placed on the rubber liner and then the sand was covered back up with the native soil.

The valve at the spring diverts a portion of the water west to the gravity fed pipeline described in water right 65-12891. The other portion of the water at the valve is then diverted to a 3 foot culvert in the southwest corner of Government Lot 1 (NWNW) of Section 18 in Township 13 North, Range 4 East. From the culvert, the water is then pumped by one of two 1 Hp pumps to the home. Both pumps are used to start up the system, because there is approximately 40 feet of head above the pumps to the home. Once the lines are full, only one pump is needed to maintain the 30 psi operating at the pumps.

Once the water reaches the home, the water is run back and forth across the bottom of the floor joists through 1 inch PVC pipe. This part of the system is not very efficient, but it was basically designed to keep the crawlspace below the home warm to prevent freezing of the water pipes delivered from the domestic well serving the home (the well serving the home does not have a license and is operating under the Domestic Exemption offered by Idaho Code § 42-111). The main heat for the 4,000 square foot home is a pellet stove, but the floor heating allows for some heat for the home interior. From the home the water is delivered to the 30 ft by 60 ft shop north of the home. The water at the shop is run under a cement floor to maintain some heat in the shop. The pipe under the floor sits on 12 inches of sand. From the shop, the water is delivered through a pipeline back to the 3 ft culvert where it is open discharged into the culvert. Any excess water in the culvert is then discharged into the original channel that discharged water from the spring into Moores Creek. At the time I was there, there was a significant amount of water flowing in the channel from spring to Moores Creek, and no water being diverted to the 3 ft culvert. I did not check the other pipeline to determine if water was actually being diverted to the place of use authorized by water right 65-12891.

Point of Diversion and Place of Use:

The point of diversion was listed in the permit as being in the NESENE and the SENENE of Section 13, Township 13 North, Range 3 East. However, it is very clear from the aerial photos, tax parcels, and Public Land Survey (PLS) that the spring that was developed is only in the SENENE of Section 13. The Pancheri's do not own any land in the in the NESENE of Section 13, and the fence line for their property clearly follows the 40 acre tract line through the hot spring area. It is very clear that they did not develop any spring usage south of the fence line with the neighbor. The valve box is also in the NESENE, so there is no question that the point of diversion is in the NESENE. The place of use is also clearly in the NENE.

Diversion Rate:

The piping leaving the well was too small to place a flow meter on. The system wasn't operating when I was at the property, and it would have taken quite a bit of time to charge all of the lines. There was also the possibility that the wells or the lines could have been defective, since they weren't in use for several months. Therefore, the only way to attain a flow rate was to use a theoretical calculation. Please see the theoretical calculation sheet attached for the flow rate.

Permit authorizes 0.10 cfs

Theoretical Calculation = 0.09 cfs.

I am recommending 0.09 cfs for this system.

Volume:

This is a very unusual system in that it really isn't used to heat the home, but to provide enough heat in the crawl space to prevent the pipes from freezing and provide some minimal heat in the home. The heat in the shop is a bit more conventional, but it still doesn't provide enough heat to really make the shop comfortable. However, it does provide a beneficial use in that it provides adequate heat to avoid costly frozen pipes and prevent freezing damage to the equipment in the shop.

Please see the attached sheets for the volume calculation. Due to the unorthodox heating system, we were required to use the older heating and cooling spreadsheet. I spoke with our office expert on heating uses, and she informed me that the information did seem reasonable.

Calculation sheet = 39.6 af

Pumping Capacity = 37.8 af

I am recommending an annual volume of 37.8 af.

Season of Use:

The permit authorizes a season of use from 01/01 to 12/31. However, this system is only for heating and provides no cooling capabilities. Based on the information available from the National Oceanic and Atmospheric Administration for the Cascade, Idaho area, the area's average minimum temperatures stay above freezing from May 1 to September 30. Normally, I would recommend a season of use from October 1 to April 30 of each year, but it has been suggested to me by staff to leave the season of use to year round use.

Conditions:

Condition 7 should be changed to the following:

Heating Use is for 1 home and 1 shop.

Condition 3 (01H) will be changed to R02 at licensing. Condition 5 (027) will be carried forward to licensing. Condition 3 (005) will be changed to R04. No additional conditions will be needed. There shouldn't be a need for combined limitation conditions with 65-12891, since they both operate at the same time every year.

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

H. RECOMMENDATIONS**1. Recommended Amounts**

<u>BENEFICIAL USE</u>	<u>PERIOD OF USE</u>	<u>DIVERSION RATE</u>	<u>ANNUAL VOLUME</u>
HEATING	01/01 to 12/31	0.09 CFS	37.8 AF
<u>Totals:</u>		0.090 CFS	37.80 AF

2. 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 ☐ None

I. AUTHENTICATION

DANIEL A. NELSON – Analyst 3

Field Examiner's Name



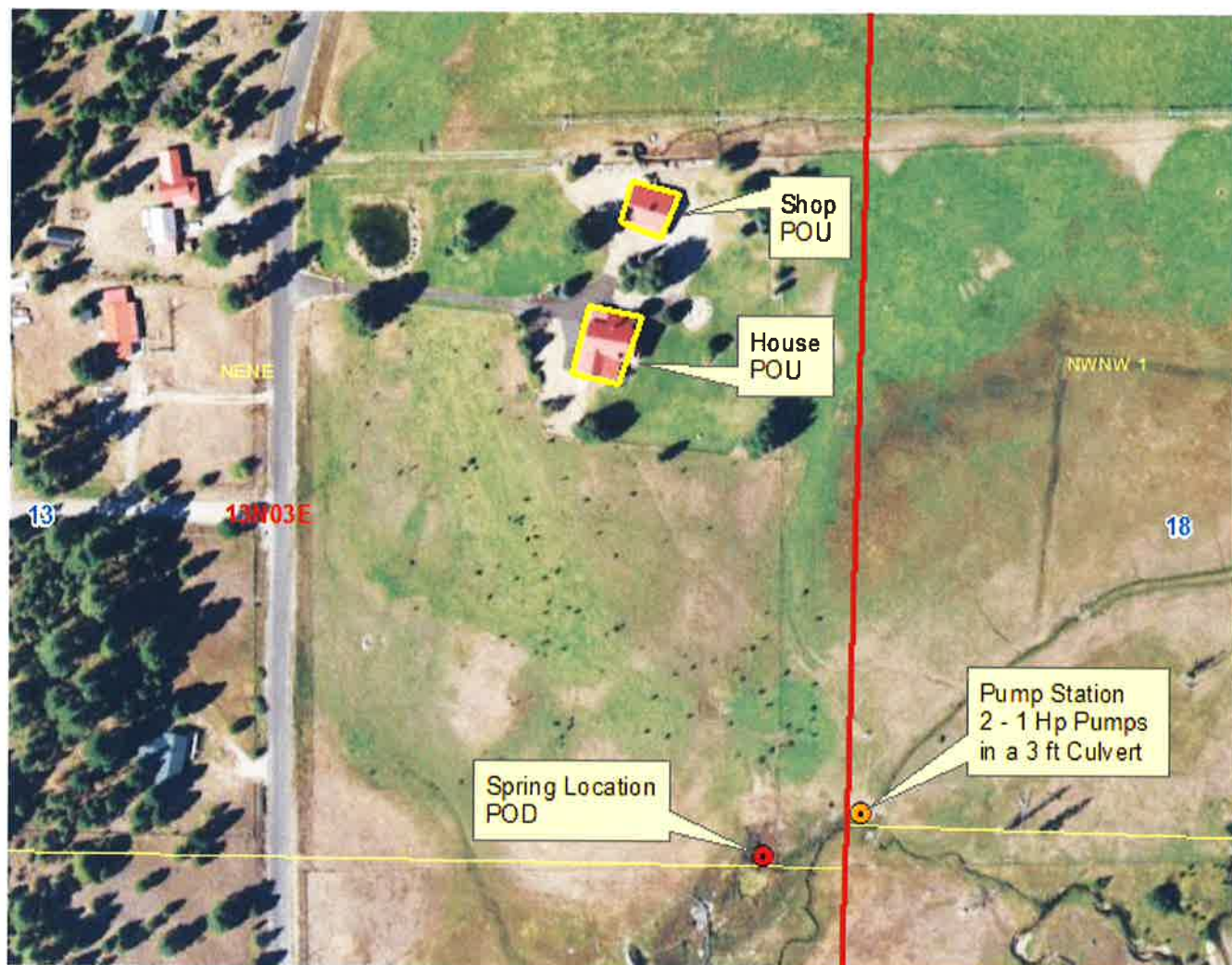
Date

9/13/18

Reviewer

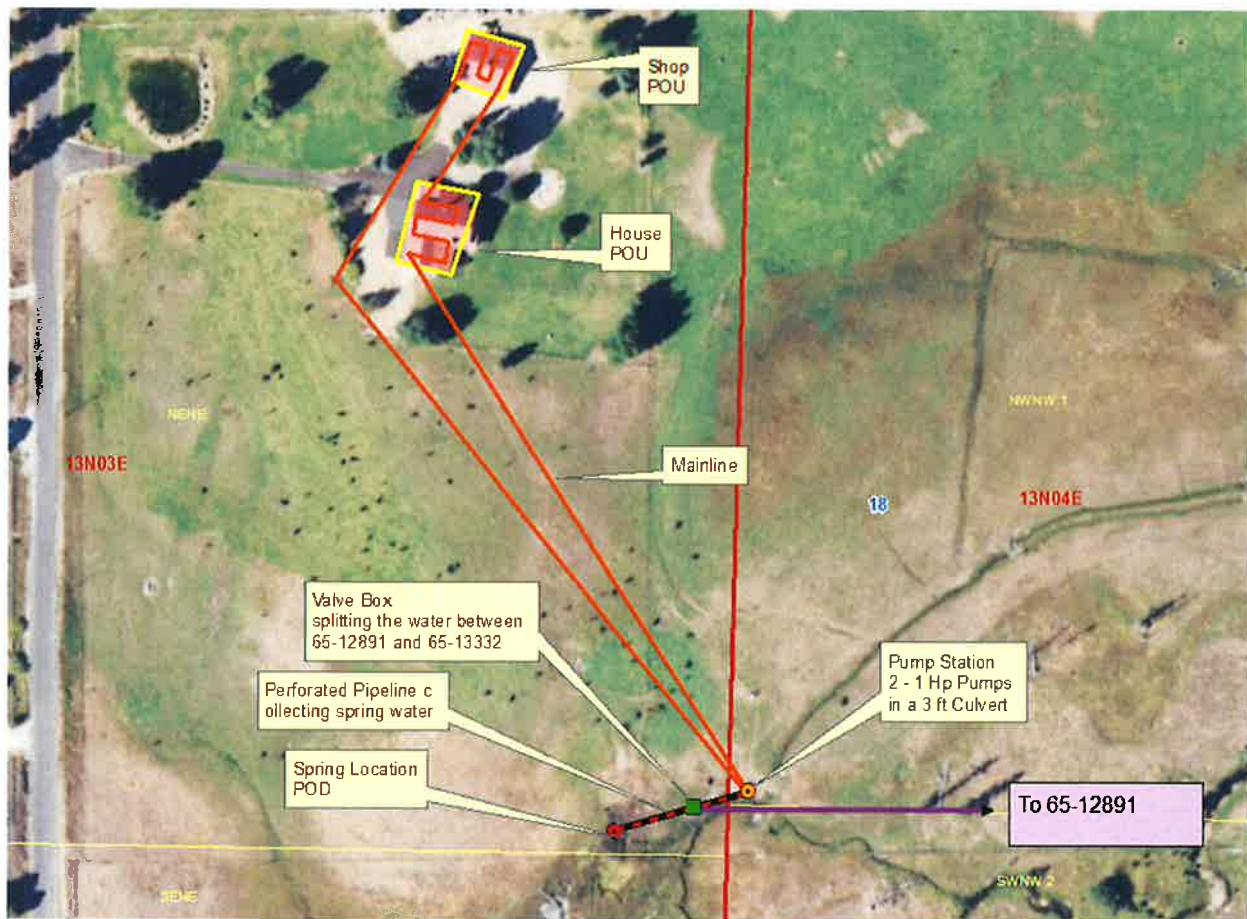
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Field Exam Map – Permit 65-13332



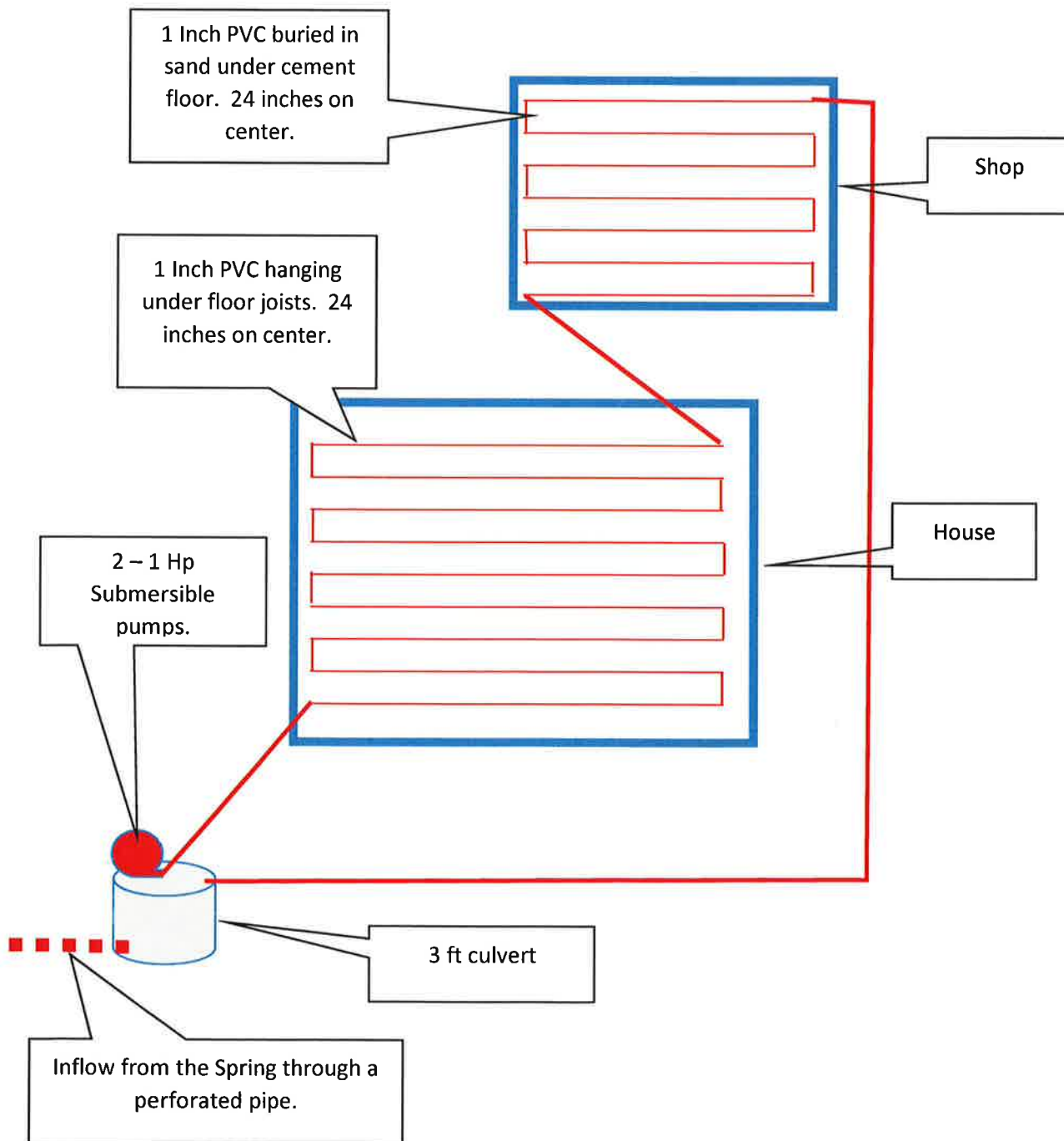
Permit 65-13332 – System Diagram – Part 1

The water from the spring is collected in a perforated pipeline and diverted through a valve to a 3 foot culvert. There is a separate line at the valves that runs due east that gravity feeds water authorized by water right 65-129891. The water for this permit is pumped using one of 2 identical 1 Hp submersible pumps to a mainline that runs to the home. The pumps due run together at the beginning of the season to charge the ipes, but only one pump is needed once the system achieves and maintains a steady 30 psi at the pump station. At the home, the pipeline run back and forth across the bottom of the floor joists to heat the crawl space and supply some heating of the home. After the water leaves the home, the water is diverted to the shop where it flows under the shop floor to warm the shop. This provides minimal heating for the home and the shop. The main heat source for the home is a pellet stove, since the geothermal heating below the house is not enough to keep the house warm during severe temperatures found in Cascade, Idaho.



Permit 65-13332 – System Diagram – Part 2

The water for this permit is pumped using one of 2 identical 1 Hp submersible pumps to a mainline that runs to the home. The pumps due run together at the beginning of the season to charge the pipes, but only one pump is needed once the system achieves and maintains a steady 30 psi at the pump station. At the home, the pipeline run back and forth across the bottom of the floor joists to heat the crawl space and supply some heating of the home. After the water leaves the home, the water is diverted to the shop where it flows under the shop floor to warm the shop. This provides minimal heating for the home and garage. The main heat source for the home is a pellet stove, since the geothermal heating below the house is not enough to keep the house warm during severe temperatures found in Cascade, Idaho.



THEORETICAL HORSEPOWER EQUATION WORKSHEET (cjh 1/92)

Water Right No.: 65-13332
 Reviewer: Dan Nelson
 Date of Review: 9/10/2018

P/D No.:

PUMP HORSEPOWER
 BOOSTER HORSEPOWER

PUMPING LEVEL

DISCHARGE PRESSURE

RATE OF FLOW (cfs)

Heating Well	
	1
	0
	2
	30
	0.09
	39

0.09
 38.77

The above calculates the formula =

$$Q = \frac{8.8 * (\text{Efficiency}) * \text{hp}}{\text{depth to water} + 2.31 * (\text{psi}) + \text{friction}}$$

Assumptions: %70 efficiency.
 No Friction

Examiners Notes:

The pumps were submersible pumps in a culvert. The water level to the pressure gauge was approximately 3 feet. The Owner stated they keep the pressure of the pumps at the guage at a steady 30 psi. This makes sense, since they need to pump the water up approximately 40 feet (17.3 psi) and maintain enough pressure to run the water through the lines under the shop and house.

RESIDENTIAL SPACE HEATING/COOLING REQUIREMENTS FOR COLD OR GEOTHERMAL SOURCES

Worksheet created by Cindy Hodges, 11/93.

Data entered by: Dan Nelson
Exam Date: 09/10/18
File No: 65-13332
Computations for: heating

REQUIRED DATA:

Area of livable floor space, ft² (A) 5800
2 story? (N=1, Y=2) 1
House efficiency factor (e) * 1.11
Inside design temperature (Ti) 55
Average outside temperature (To) ** 9.7
Source temperature, degrees F (S) 101
Heating/cooling days per season (D) 212
Hours/day system operates (H) 24

* e values are as follows:

- 0.28 Best energy efficiency - extra insulation, caulked and weatherstripped, with storm windows and doors
- 0.44 Better energy efficiency - standard insulation, caulked and weatherstripped, with storm windows and/or doors
- 0.67 Average residence - standard insulation, no weatherproofing but with storm windows or double panes
- 1.11 Poor energy efficiency - minimal insulation, no weatherproofing or storm windows (older homes, shops or greenhouses)

** Suggested average outside temperatures:

WINTER

4 deg F Boise
6 deg F Grand View
-8 deg F Cascade

SUMMER

80 deg F Boise
90 deg F Grand View
70 deg F Cascade

CALCULATED DATA:

DESIGN HEAT LOAD (BTU/hr required)

Formula: $E = [e \times (T_i - T_o)] A$

Applies factor of 0.8 for two-story dwelling

E = 291,641 BTU/hour

TEMPERATURE DROP ACROSS SYSTEM

Formula: $T_s = 0.3 \times [S - T_i]$

Ts = 13.8 degrees F

FLOW RATE REQUIRED (at given source temperature)

Formula: $Q = E / (500 \times T_s) \times 448.8$

Q = 0.09 cfs

DIVERTED VOLUME OVER SEASON

Formula: $V_{div} = Q \times D \times H / 24 \times 1.9835$

Vdiv = 39.6 AFA

ACTUAL PUMP CAPACITY

0.09 cfs x 212 days x 1.9835 = 37.8

MAXIMUM CAPACITY = 37.8 AF

CLIMATOGRAPHY OF THE UNITED STATES NO. 81



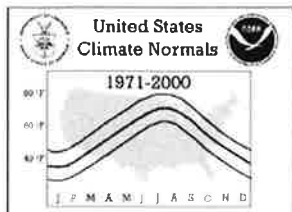
**Monthly Station Normals
of Temperature, Precipitation,
and Heating and Cooling
Degree Days
1971 - 2000**



**10
IDAHO**



NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL ENVIRONMENTAL SATELLITE, DATA, AND INFORMATION SERVICE
NATIONAL CLIMATIC DATA CENTER
ASHEVILLE, NC



CLIMATOGRAPHY OF THE UNITED STATES NO. 81

Monthly Normals of Temperature, Precipitation, and Heating and Cooling Degree Days

1971-2000

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Page 3

NOTES

Product Description:

This Climatography includes 1971-2000 normals of monthly and annual maximum, minimum, and mean temperature (degrees F), monthly and annual total precipitation (inches), and heating and cooling degree days (base 65 degrees F). Normals stations include both National Weather Service Cooperative Network and Principal Observation (First-Order) locations in the 50 states, Puerto Rico, the Virgin Islands, and Pacific Islands.

Abbreviations:

No. = Station Number in State Map

COOP ID = Cooperative Network ID (1:2=State ID, 3:6=Station Index)

WBAN ID = Weather Bureau Army Navy ID, if assigned

Elements = Input Elements (X=Maximum Temperature, N=Minimum Temperature, P=Precipitation)

Call = 3-Letter Station Call Sign, if assigned

MAX = Normal Maximum Temperature (degrees Fahrenheit)

MEAN = Average of MAX and MIN (degrees Fahrenheit)

MIN = Normal Minimum Temperature (degrees Fahrenheit)

HDD = Total Heating Degree Days (base 65 degrees Fahrenheit)

CDD = Total Cooling Degree Days (base 65 degrees Fahrenheit)

Latitude = Latitude in degrees, minutes, and hemisphere (N=North, S=South)

Longitude = Longitude in degrees, minutes, and hemisphere (W=West, E=East)

Elev = Elevation in feet above mean sea level

Flag 1 = * if a published *Local Climatological Data* station

Flag 2 = + if WMO Fully Qualified (see *Note* below)

HIGHEST MEAN/YEAR = Maximum Mean Monthly Value/Year, 1971-2000

MEDIAN = Median Mean Monthly Value/Year, 1971-2000

LOWEST MEAN/YEAR = Minimum Mean Monthly Value/Year, 1971-2000

MAX OBS TIME ADJUSTMENT = Add to MAX to Get Midnight Obs. Schedule

MIN OBS TIME ADJUSTMENT = Add to MIN to Get Midnight Obs. Schedule

Note: In 1989, the World Meteorological Organization (WMO) prescribed standards of data completeness for the 1961-1990 WMO Standard Normals. For full qualification, no more than three consecutive year-month values can be missing for a given month or no more than five overall values can be missing for a given month (out of 30 values). Stations meeting these standards are indicated with a '+' sign in Flag 2. Otherwise, stations are included in the normals if they have at least 10 year-month values for each month and have been active since January 1999 or were a previous normals station.

Map Legend: Numbers correspond to 'No.' in Station Inventory; Shaded Circles indicate Temperature and Precipitation Stations, Triangles (Point Up) indicate Precipitation-Only Stations, Triangles (Point Down) indicate Temperature-Only Stations, and Hexagons indicate stations with Flag 1 = *.

Computational Procedures:

A climate normal is defined, by convention, as the arithmetic mean of a climatological element computed over three consecutive decades (WMO, 1989). Ideally, the data record for such a 30-year period should be free of any inconsistencies in observational practices (e.g., changes in station location, instrumentation, time of observation, etc.) and be serially complete (i.e., no missing values). When present, inconsistencies can lead to a non-climatic bias in one period of a station's record relative to another, yielding an "inhomogeneous" data record. Adjustments and estimations can make a climate record "homogeneous" and serially complete, and allow a climate normal to be calculated simply as the average of the 30 monthly values.

The methodology employed to generate the 1971-2000 normals is not the same as in previous normals, as it addresses inhomogeneity and missing data value problems using several steps. The technique developed by Karl *et al.* (1986) is used to adjust monthly maximum and minimum temperature observations of continuous U.S. stations to a consistent midnight-to-midnight schedule. All monthly temperature averages and precipitation totals are cross-checked against archived daily observations to ensure internal consistency. Each monthly observation is evaluated using a modified quality control procedure (Peterson *et al.*, 1998), where station observation departures are computed, compared with neighboring stations, and then flagged and estimated where large differences with neighboring values exist. Missing or discarded temperature and precipitation observations are replaced using a weighting function derived from the observed relationship between a candidate's monthly observations and those of up to 20 neighboring stations whose observations are most strongly correlated with the candidate site. For temperature estimates, neighboring stations were selected from the U.S. Historical Climatology Network (USHCN; Karl *et al.* 1990). For precipitation estimates, all available stations were potential neighbors, maximizing station density for estimating the more spatially variable precipitation values.

Peterson and Easterling (1994) and Easterling and Peterson (1995) outline the method for adjusting temperature inhomogeneities. This technique involves comparing the record of the candidate station with a reference series generated from neighboring data. The reference series is reconstructed using a weighted average of first difference observations (the difference from one year to the next) for neighboring stations with the highest correlation with the candidate. The underlying assumption behind this methodology is that temperatures over a region have similar tendencies in variation. If this assumption is violated, the potential discontinuity is evaluated for statistical significance. Where significant discontinuities are detected, the difference in average annual temperatures before and after the inhomogeneity is applied to adjust the mean of the earlier block with the mean of the latter block of data. Such an evaluation requires a minimum of five years between discontinuities. Consequently, if multiple changes occur within five years or if a change occurs very near the end of the normals period (e.g., after 1995), the discontinuity may not be detectable using this methodology.

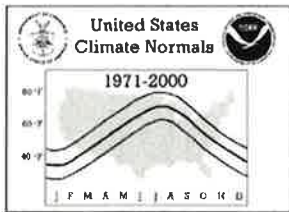
The monthly normals for maximum and minimum temperature and precipitation are computed simply by averaging the appropriate 30 values from the 1971-2000 record. The monthly average temperature normals are computed by averaging the corresponding monthly maximum and minimum normals. The annual temperature normals are calculated by taking the average of the 12 monthly normals. The annual precipitation and degree day normals are the sum of the 12 monthly normals. Trace precipitation totals are shown as zero. Precipitation totals include rain and the liquid equivalent of frozen and freezing precipitation (e.g., snow, sleet, freezing rain, and hail). For many NWS locations, indicated with an '*' next to 'HDD' and 'CDD' in the degree day table, degree day normals are computed directly from daily values for the 1971-2000 period. For all other stations, estimated degree day totals are based on a modification of the rational conversion formula developed by Thom (1966), using daily spline-fit means and standard deviations of average temperature as inputs.

References:

- Easterling, D.R., and T.C. Peterson, 1995: [A new method for detecting and adjusting for undocumented discontinuities in climatological time series](#). *Int'l. J. Clim.*, **15**, 369-377.
- Karl, T.R., C.N. Williams, Jr., P.J. Young, and W.M. Wendland, 1986: [A model to estimate the time of observation bias associated with monthly mean maximum, minimum, and mean temperatures for the United States](#). *J. Clim. Appl. Met.*, **25**, 145-160.
- Peterson, T.C., and D.R. Easterling, 1994: [Creation of homogeneous composite climatological reference series](#). *Int'l. J. Clim.*, **14**, 671-679.
- Peterson, T.C., R. Vose, R. Schmoyer, and V. Razuvayev, 1998: [Global Historical Climatology Network \(GHCN\) quality control of monthly temperature data](#). *Int'l. J. Clim.*, **18**, 1169-1179.
- Thom, H.C.S., 1966: [Normal degree days above any base by the universal truncation coefficient](#). *Month. Wea. Rev.*, **94**, 461-465.
- World Meteorological Organization, 1989: [Calculation of Monthly and Annual 30-Year Standard Normals](#), WCDP-No. 10, WMO-TD/No. 341, Geneva: World Meteorological Organization.

Release Date: Revised 02/2002*

National Climatic Data Center/NESDIS/NOAA, Asheville, North Carolina



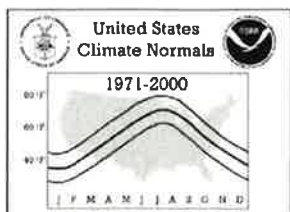
CLIMATOGRAPHY OF THE UNITED STATES NO. 81

Monthly Normals of Temperature, Precipitation, and Heating and Cooling Degree Days 1971-2000

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Page 7

			TEMPERATURE NORMALS (Degrees Fahrenheit)												
No.	Station Name	Element	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
001	ABERDEEN EXPERIMNT STN	MAX	31.0	37.1	47.3	57.9	66.9	76.3	85.0	85.1	74.7	62.0	44.2	32.9	58.4
		MEAN	21.4	26.7	35.9	44.0	52.5	60.6	67.1	65.9	56.2	45.3	32.5	22.6	44.2
		MIN	11.7	16.3	24.5	30.1	38.1	44.8	49.1	46.7	37.7	28.5	20.8	12.2	30.0
002	AMERICAN FALLS 3 NW	MAX	32.9	39.2	49.7	60.1	68.7	78.2	86.3	85.8	75.4	61.8	44.1	33.8	59.7
		MEAN	25.2	30.5	39.2	47.5	55.4	63.6	70.4	69.7	60.4	49.1	35.7	26.3	47.8
		MIN	17.5	21.8	28.6	34.9	42.0	48.9	54.5	53.6	45.3	36.4	27.3	18.7	35.8
003	ANDERSON DAM	MAX	35.9	40.3	48.6	59.6	69.4	79.4	89.1	88.5	77.7	64.4	45.6	35.6	61.2
		MEAN	27.0	30.0	37.5	46.2	54.9	63.2	71.3	70.8	61.6	50.6	36.4	27.3	48.1
		MIN	18.1	19.7	26.4	32.8	40.3	46.9	53.4	53.0	45.4	36.7	27.1	18.9	34.9
004	ARBON 2 NW	MAX	30.2	34.9	45.1	56.2	65.8	76.0	84.9	84.2	74.1	60.4	41.9	31.7	57.1
		MEAN	22.4	26.5	35.1	43.3	51.4	59.8	67.0	66.4	57.2	46.0	32.4	23.4	44.2
		MIN	14.6	18.1	25.0	30.4	36.9	43.6	49.1	48.5	40.3	31.6	22.9	15.1	31.3
005	ARCO	MAX	29.5	35.5	45.7	58.1	67.0	76.6	84.6	83.2	73.6	61.1	41.9	30.4	57.3
		MEAN	17.2	22.6	33.2	43.5	51.8	60.0	66.5	65.1	55.8	45.1	29.8	18.3	42.4
		MIN	4.8	9.6	20.7	28.8	36.6	43.4	48.4	47.0	38.0	29.0	17.6	6.2	27.5
006	ARROWROCK DAM	MAX	34.7	41.5	50.9	60.3	69.6	79.4	89.2	89.0	77.6	63.8	45.3	35.4	61.4
		MEAN	28.0	33.2	41.1	48.5	56.6	65.0	73.0	72.6	62.3	50.8	37.6	28.9	49.8
		MIN	21.3	24.9	31.2	36.7	43.5	50.5	56.8	56.2	46.9	37.8	29.8	22.4	38.2
007	ASHTON	MAX	29.5	34.4	41.9	53.3	64.4	73.6	81.6	82.0	72.9	60.6	41.8	30.9	55.6
		MEAN	19.0	23.9	31.5	41.3	50.7	58.0	63.9	63.2	54.7	44.5	30.4	20.0	41.8
		MIN	8.5	13.4	21.1	29.3	36.9	42.3	46.2	44.3	36.5	28.3	18.9	9.0	27.9
008	AVERY RS #2	MAX	32.1	36.7	47.2	58.4	68.2	76.0	84.5	84.7	73.3	56.2	38.4	31.2	57.2
		MEAN	26.8	30.3	38.1	46.4	54.4	61.4	67.4	67.1	58.3	45.6	33.3	26.9	46.3
		MIN	21.4	23.8	28.9	34.3	40.6	46.7	50.3	49.5	43.2	34.9	28.1	22.5	35.4
009	BAYVIEW MODEL BASIN	MAX	35.1	39.0	46.5	56.2	65.6	73.5	80.5	80.1	68.6	55.7	42.4	35.5	56.6
		MEAN	28.5	31.5	36.8	44.0	52.0	59.1	64.7	63.9	54.3	43.9	35.3	29.1	45.3
		MIN	21.8	23.9	27.0	31.8	38.4	44.7	48.9	47.6	39.9	32.0	28.1	22.7	33.9
010	BLACKFOOT 1 SE	MAX	30.5	37.4	48.7	59.0	67.8	77.3	85.0	84.8	74.8	61.9	43.9	32.0	58.6
		MEAN	22.3	28.0	37.1	45.2	53.2	61.1	67.5	66.8	57.7	46.8	33.4	23.1	45.2
		MIN	14.0	18.6	25.5	31.4	38.5	44.9	50.0	48.7	40.5	31.6	22.9	14.2	31.7
011	BLISS 4 NW	MAX	35.9	43.1	53.7	62.8	71.8	81.6	90.1	89.1	78.8	66.2	48.0	37.2	63.2
		MEAN	27.2	33.0	41.1	48.7	56.9	65.4	72.2	70.7	61.5	50.3	37.0	28.4	49.4
		MIN	18.4	22.8	28.4	34.5	41.9	49.2	54.3	52.3	44.2	34.4	25.9	19.5	35.5
012	BOISE 7 N	MAX	35.6	42.0	50.2	58.4	67.7	77.8	87.6	86.8	75.4	61.7	45.3	36.2	60.4
		MEAN	28.8	34.1	40.7	47.0	54.7	63.5	72.0	71.8	62.2	50.8	37.7	29.3	49.4
		MIN	22.0	26.2	31.1	35.5	41.7	49.1	56.3	56.8	48.9	39.9	30.1	22.4	38.3
013	BOISE LUCKY PEAK DAM	MAX	38.6	45.4	54.4	62.9	72.1	81.4	90.2	90.0	79.5	66.8	49.3	39.1	64.1
		MEAN	30.2	35.9	42.8	50.0	58.0	65.7	72.9	72.8	63.4	53.1	39.9	30.8	51.3
		MIN	21.7	26.4	31.1	37.1	43.8	49.9	55.6	55.5	47.3	39.3	30.4	22.4	38.4
014	BOISE AIR TERMINAL	MAX	36.7	44.5	53.6	61.7	70.7	80.3	89.2	88.0	77.2	64.3	47.5	37.2	62.6
		MEAN	30.2	36.7	43.8	50.6	58.6	67.2	74.7	73.9	64.2	52.8	39.9	30.6	51.9
		MIN	23.6	28.8	34.0	39.4	46.6	54.2	60.3	59.8	51.2	41.3	32.4	24.1	41.3
015	BONNERS FERRY	MAX	33.3	39.2	49.5	60.4	69.3	76.0	83.1	83.4	72.3	57.4	41.3	33.5	58.2
		MEAN	26.9	31.8	39.3	47.6	55.5	61.8	66.9	66.7	57.1	45.8	35.0	27.8	46.9
		MIN	20.5	24.3	29.1	34.7	41.6	47.6	50.7	50.0	41.9	34.1	28.6	22.1	35.4
016	BROWNLEE DAM	MAX	37.7	44.9	55.3	65.0	74.1	83.5	94.1	93.7	82.1	67.5	49.1	39.3	65.5
		MEAN	30.5	36.0	44.7	52.9	61.1	69.5	78.0	77.7	67.4	55.0	41.0	32.3	53.8
		MIN	23.3	27.0	34.0	40.7	48.0	55.5	61.9	61.7	52.7	42.4	32.8	25.2	42.1
017	BRUNEAU	MAX	40.2	48.3	58.3	66.7	75.1	84.6	93.0	92.0	81.5	68.6	51.1	40.0	66.6
		MEAN	31.4	37.5	45.1	51.9	59.9	68.1	75.1	73.7	63.8	52.8	40.2	31.1	52.6
		MIN	22.5	26.7	31.9	37.1	44.6	51.6	57.1	55.3	46.0	37.0	29.3	22.2	38.4
018	BUHL NO 2	MAX	33.5	40.1	49.7	58.7	67.1	76.6	85.7	85.0	74.5	62.2	45.1	34.9	59.4
		MEAN	26.3	31.6	39.4	46.8	54.8	63.2	70.9	69.8	60.1	49.3	36.0	27.3	48.0
		MIN	19.0	23.1	29.1	34.8	42.4	49.7	56.1	54.5	45.6	36.4	26.8	19.6	36.4
019	BURLEY MUNICIPAL AP	MAX	36.9	43.9	52.8	61.8	70.5	80.6	88.6	87.8	77.0	64.5	47.7	38.0	62.5
		MEAN	28.3	34.1	41.5	48.8	56.9	65.3	71.9	70.7	61.0	50.3	37.4	29.0	49.6
		MIN	19.7	24.2	30.1	35.8	43.2	50.0	55.2	53.5	45.0	36.0	27.1	19.9	36.6
020	CABINET GORGE	MAX	31.6	37.3	45.7	55.2	64.3	70.8	79.6	79.7	69.7	55.8	39.5	32.4	55.1
		MEAN	26.3	30.4	37.0	44.5	52.3	58.6	64.9	64.9	56.7	46.0	34.4	27.8	45.3
		MIN	20.9	23.5	28.2	33.7	40.3	46.3	50.1	50.0	43.6	36.2	29.3	23.2	35.4
021	CALDWELL	MAX	37.1	46.1	57.4	66.3	75.1	84.2	92.6	91.7	80.8	67.0	49.3	37.9	65.5
		MEAN	29.1	36.2	45.0	52.4	60.7	68.5	75.4	73.8	63.3	51.8	38.9	29.6	52.1
		MIN	21.1	26.2	32.6	38.5	46.2	52.8	58.1	55.8	45.8	36.6	28.4	21.3	38.6
022	CAMBRIDGE	MAX	30.8	38.1	51.7	63.0	72.0	81.0	90.6	89.8	79.5	65.0	45.1	32.6	61.6
		MEAN	23.0	28.9	40.5	49.3	57.2	65.2	72.6	71.3	61.3	49.4	35.8	24.7	48.3
		MIN	15.1	19.6	29.2	35.5	42.4	49.3	54.5	52.7	43.1	33.8	26.5	16.8	34.9
023	CASCADE 1 NW	MAX	29.2	34.7	42.1	51.1	61.2	70.1	79.4	79.3	69.3	56.8	39.0	29.8	53.5
		MEAN	19.5	23.6	30.7	38.4	47.1	54.6	61.5	60.7	51.6	41.6	29.5	20.6	40.0
		MIN	9.7	12.5	19.2	25.7	32.9	39.0	43.6	42.0	33.8	26.3	19.9	11.3	26.3



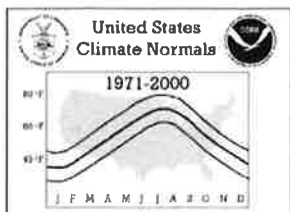
CLIMATOGRAPHY OF THE UNITED STATES NO. 81

Monthly Normals of Temperature, Precipitation, and Heating and Cooling Degree Days 1971-2000

IDAHO

Page 15

No.	Station Name	Element	DEGREE DAYS (Total)												ANNUAL
			JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	
001	ABERDEEN EXPERIMNT STN	HDD	1352	1074	902	631	389	165	53	64	281	613	976	1317	7817
		CDD	0	0	0	0	1	31	116	92	16	0	0	0	256
002	AMERICAN FALLS 3 NW	HDD	1235	967	800	526	312	124	24	25	185	495	879	1201	6773
		CDD	0	0	0	0	12	80	191	171	45	2	0	0	501
003	ANDERSON DAM	HDD	1178	980	853	563	325	127	24	27	166	450	860	1171	6724
		CDD	0	0	0	0	11	72	218	206	61	3	0	0	571
004	ARBON 2 NW	HDD	1320	1077	929	650	424	192	55	59	253	589	978	1290	7816
		CDD	0	0	0	0	1	36	117	101	18	0	0	0	273
005	ARCO	HDD	1484	1189	987	648	409	185	72	89	294	619	1058	1448	8482
		CDD	0	0	0	0	1	35	118	91	17	0	0	0	262
006	ARROWROCK DAM	HDD	1147	891	742	495	278	102	17	19	153	442	824	1118	6228
		CDD	0	0	0	0	16	100	266	254	70	2	0	0	708
007	ASHTON	HDD	1427	1151	1038	712	446	229	103	114	317	637	1040	1397	8611
		CDD	0	0	0	0	1	18	69	57	8	0	0	0	153
008	AVERY RS #2	HDD	1186	974	835	559	337	155	68	64	233	604	952	1183	7150
		CDD	0	0	0	0	8	45	143	129	30	0	0	0	355
009	BAYVIEW MODEL BASIN	HDD	1133	940	876	631	404	198	94	102	330	656	893	1113	7370
		CDD	0	0	0	0	2	21	85	66	7	0	0	0	181
010	BLACKFOOT 1 SE	HDD	1326	1036	866	594	369	157	49	51	237	566	948	1299	7498
		CDD	0	0	0	0	1	41	126	104	16	0	0	0	288
011	BLISS 4 NW	HDD	1173	897	743	491	267	90	14	21	168	459	841	1136	6300
		CDD	0	0	0	0	13	101	237	196	63	3	0	0	613
012	BOISE 7 N	HDD	1121	866	756	543	330	132	24	25	158	442	820	1108	6325
		CDD	0	0	0	0	11	85	240	236	74	2	0	0	648
013	BOISE LUCKY PEAK DAM	HDD	1081	814	691	452	239	90	18	19	135	374	755	1062	5730
		CDD	0	0	0	3	20	109	263	258	87	3	0	0	743
014	BOISE AIR TERMINAL	HDD*	1095	807	672	451	245	71	12	15	110	398	768	1083	5727
		CDD*	0	0	0	3	31	122	297	275	74	5	0	0	807
015	BONNERS FERRY	HDD	1181	931	798	524	301	137	63	50	253	597	901	1154	6890
		CDD	0	0	0	0	5	41	122	102	17	0	0	0	287
016	BROWNLEE DAM	HDD	1070	813	631	378	180	50	7	11	82	322	723	1016	5283
		CDD	0	0	0	12	58	184	411	403	154	10	0	0	1232
017	BRUNEAU	HDD	1044	770	617	397	187	53	7	8	116	381	745	1052	5377
		CDD	0	0	0	5	27	145	319	277	78	1	0	0	852
018	BUHL NO 2	HDD	1202	936	794	548	326	122	34	37	197	488	873	1171	6728
		CDD	0	0	0	0	8	66	217	185	49	1	0	0	526
019	BURLEY MUNICIPAL AP	HDD	1138	867	731	489	268	90	19	30	175	458	827	1118	6210
		CDD	0	0	0	2	15	98	232	205	55	1	0	0	608
020	CABINET GORGE	HDD	1200	970	870	617	396	212	87	87	269	589	918	1153	7368
		CDD	0	0	0	0	1	19	83	83	18	0	0	0	204
021	CALDWELL	HDD	1113	807	621	385	176	55	10	14	134	411	784	1096	5606
		CDD	0	0	0	7	41	160	332	286	83	2	0	0	911
022	CAMBRIDGE	HDD	1304	1012	761	473	254	92	19	27	174	484	876	1250	6726
		CDD	0	0	0	0	11	97	253	221	63	1	0	0	646
023	CASCADE 1 NW	HDD	1413	1159	1065	798	557	322	162	169	409	726	1066	1378	9224
		CDD	0	0	0	0	0	7	53	34	6	0	0	0	100
024	CASTLEFORD 2 N	HDD	1155	874	734	492	280	101	22	32	179	470	846	1141	6326
		CDD	0	0	0	4	10	80	192	156	38	1	0	0	481
026	CHALLIS	HDD	1337	1030	856	589	364	158	47	58	241	560	966	1329	7535
		CDD	0	0	0	0	3	54	157	121	27	0	0	0	362
027	CHILLY BARTON FLAT	HDD	1476	1208	1065	759	532	280	116	137	369	701	1121	1455	9219
		CDD	0	0	0	0	0	11	53	32	3	0	0	0	99
028	COBALT	HDD	1417	1112	991	721	507	270	121	141	359	691	1081	1426	8837
		CDD	0	0	0	0	0	7	55	33	5	0	0	0	100
029	COEUR D'ALENE	HDD	1135	895	789	552	324	143	46	41	191	499	849	1076	6540
		CDD	0	0	0	0	4	43	160	171	48	0	0	0	426
030	COTTONWOOD 2 WSW	HDD	1122	899	839	625	424	220	92	79	246	536	896	1120	7098
		CDD	0	0	0	0	2	26	119	131	43	1	0	0	322
031	COUNCIL	HDD	1232	966	772	492	273	110	22	23	149	454	846	1186	6525
		CDD	0	0	0	0	15	99	270	258	75	2	0	0	719
032	CRATERS OF THE MOON	HDD	1391	1129	1015	686	431	190	53	62	270	604	1040	1370	8241
		CDD	0	0	0	0	3	47	159	136	33	0	0	0	378
033	DEER FLAT DAM	HDD	1050	764	588	364	176	53	9	10	103	350	712	1026	5205
		CDD	0	0	0	4	34	125	281	256	88	2	0	0	790
034	DIXIE	HDD	1482	1242	1186	940	700	443	277	294	530	837	1180	1471	10582
		CDD	0	0	0	0	0	0	8	6	0	0	0	0	14
035	DRIGGS	HDD	1443	1197	1096	787	537	278	126	137	374	708	1079	1417	9179
		CDD	0	0	0	0	0	8	50	28	4	0	0	0	90



CLIMATOGRAPHY OF THE UNITED STATES NO. 81

Monthly Normals of Temperature, Precipitation, and Heating and Cooling Degree Days 1971-2000

IDAHO

Page 21

			NORMALS STATISTICS													
No.	Station Name	Element	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL	
021	CALDWELL	HIGHEST MEAN	36.3	42.4	49.8	59.1	66.4	75.4	80.1	79.2	70.3	59.2	44.7	37.9	80.1	
		MEDIAN	30.6	37.4	45.1	51.7	60.1	68.2	75.9	74.5	63.1	51.9	39.6	30.6	52.3	
		LOWEST MEAN	14.7	21.0	38.3	46.7	56.6	63.8	66.7	68.3	55.1	47.5	28.5	11.9	11.9	
		HIGHEST MEAN YEAR	1978	1995	1992	1987	1992	1986	1975	1971	1990	1988	1999	1973	1975	
		LOWEST MEAN YEAR	1979	1989	1985	1975	1977	1993	1993	1985	1985	1985	1985	1985	1985	
		MIN OBS TIME ADJUSTMENT	-0.8	-0.7	-0.7	-0.8	-0.6	-0.7	-0.6	-0.8	-0.8	-1.0	-1.1	-0.6		
		MAX OBS TIME ADJUSTMENT	-0.8	-0.7	-0.8	-1.2	-1.0	-1.0	-0.9	-1.4	-1.0	-0.9	-1.0	-0.6		
022	CAMBRIDGE	HIGHEST MEAN	31.7	36.6	47.7	54.4	62.7	71.0	77.3	75.7	68.5	56.7	40.6	32.8	77.3	
		MEDIAN	22.9	29.7	41.5	48.3	57.2	65.2	72.5	71.7	61.2	49.2	37.1	26.0	48.8	
		LOWEST MEAN	10.0	13.2	29.1	43.1	53.0	60.6	63.9	66.6	55.5	45.8	26.6	10.5	10.0	
		HIGHEST MEAN YEAR	1990	1978	1992	1990	1992	1977	1985	1986	1990	1988	1999	1977	1985	
		LOWEST MEAN YEAR	1985	1989	1976	1975	1977	1993	1993	1993	1985	1995	1985	1985	1985	
		MIN OBS TIME ADJUSTMENT	-0.8	-0.7	-0.6	-0.7	-0.7	-0.6	-0.5	-0.7	-0.7	-0.9	-1.0	-0.7		
		MAX OBS TIME ADJUSTMENT	-0.5	-0.4	-0.4	-0.6	-0.4	-0.5	-0.4	-0.9	-0.6	-0.6	-0.7	-0.5		
023	CASCADE 1 NW	HIGHEST MEAN	26.6	31.0	37.0	44.0	52.5	61.0	66.4	64.7	57.1	47.4	36.4	27.6	66.4	
		MEDIAN	20.5	23.5	30.6	38.6	47.3	54.0	62.0	61.0	51.4	41.8	30.3	20.7	40.1	
		LOWEST MEAN	6.6	14.2	24.0	30.6	43.1	50.7	53.0	56.2	44.2	36.0	20.8	8.2	6.6	
		HIGHEST MEAN YEAR	1998	1995	1992	1987	1993	1977	1975	1994	1990	1988	1999	1979	1975	
		LOWEST MEAN YEAR	1979	1985	1976	1975	1999	1993	1993	1985	1985	1984	1985	1985	1979	
		MIN OBS TIME ADJUSTMENT	0.4	0.6	0.0	-0.6	-0.7	-0.6	-0.6	-0.7	-0.8	-0.5	0.2	0.3		
		MAX OBS TIME ADJUSTMENT	0.3	0.3	0.3	0.3	0.1	0.2	0.1	0.0	-0.2	-0.1	0.0	0.2		
024	CASTLEFORD 2	HIGHEST MEAN	36.3	40.2	47.7	55.6	62.6	69.8	74.8	72.4	66.5	57.3	44.2	36.3	74.8	
		MEDIAN	27.5	34.0	41.4	47.7	55.9	64.4	70.4	69.5	59.9	49.8	37.5	29.1	49.4	
		LOWEST MEAN	16.2	23.1	33.8	41.3	52.1	59.9	63.2	63.9	53.9	45.2	26.2	13.3	13.3	
		HIGHEST MEAN YEAR	1998	1992	1986	1987	1992	1986	1998	1998	1971	1990	1988	1999	1995	1998
		LOWEST MEAN YEAR	1979	1985	1985	1975	1975	1995	1993	1976	1985	1984	1985	1985	1985	
		MIN OBS TIME ADJUSTMENT	-1.0	-0.8	-0.8	-0.9	-0.6	-0.6	-0.5	-0.7	-0.8	-1.1	-1.1	-0.8		
		MAX OBS TIME ADJUSTMENT	-1.3	-1.3	-1.4	-1.9	-1.5	-1.5	-1.2	-1.7	-1.5	-1.5	-1.7	-1.1		
026	CHALLIS	HIGHEST MEAN	29.6	35.3	43.2	51.7	60.3	68.4	74.1	70.9	63.1	55.3	40.3	31.3	74.1	
		MEDIAN	21.4	28.8	37.9	45.4	53.5	61.1	68.7	67.6	57.8	46.6	33.7	23.1	45.8	
		LOWEST MEAN	7.5	18.0	30.3	38.5	49.3	56.5	60.2	61.6	51.7	42.9	23.6	8.7	7.5	
		HIGHEST MEAN YEAR	1990	1991	1992	1990	1992	1988	1985	1981	1990	1988	1999	1980	1985	
		LOWEST MEAN YEAR	1979	1985	1985	1975	1996	1998	1993	1976	1986	1984	1985	1985	1979	
		MIN OBS TIME ADJUSTMENT	-1.1	-0.9	-0.8	-0.9	-0.8	-0.6	-0.6	-0.8	-0.9	-1.2	-1.4	-1.1		
		MAX OBS TIME ADJUSTMENT	-0.9	-0.7	-1.0	-1.6	-1.8	-1.3	-1.1	-1.2	-1.8	-1.7	-1.2	-1.0		
027	CHILLY BARTON	HIGHEST MEAN	24.6	29.8	38.5	45.4	54.6	61.7	67.5	65.2	57.6	49.6	35.7	26.6	67.5	
		MEDIAN	17.5	22.1	31.2	39.2	47.8	56.3	62.9	62.1	53.2	41.9	28.0	18.8	40.3	
		LOWEST MEAN	5.0	12.7	24.6	32.1	43.0	50.9	55.4	57.2	47.3	37.0	20.1	8.2	5.0	
		HIGHEST MEAN YEAR	1981	1991	1992	1992	1992	1988	1988	2000	1990	1988	1999	1980	1988	
		LOWEST MEAN YEAR	1979	1985	1985	1975	1977	1998	1993	1976	1986	1984	1985	1990	1979	
		MIN OBS TIME ADJUSTMENT	-1.1	-0.9	-0.8	-0.9	-0.6	-0.6	-0.5	-0.7	-0.8	-1.1	-1.2	-0.9		
		MAX OBS TIME ADJUSTMENT	-1.5	-1.4	-1.3	-1.8	-1.4	-1.4	-1.2	-1.7	-1.5	-1.5	-1.7	-1.2		
028	COBALT	HIGHEST MEAN	26.7	31.0	39.0	47.9	54.1	61.5	67.7	64.3	59.0	49.7	36.5	25.8	67.7	
		MEDIAN	19.8	26.3	33.3	41.1	48.1	55.9	62.8	61.7	52.9	42.4	29.3	20.1	41.0	
		LOWEST MEAN	6.2	14.8	26.8	32.7	43.7	52.1	55.2	57.6	48.3	37.0	22.5	10.5	6.2	
		HIGHEST MEAN YEAR	1983	1991	1992	1987	1992	1988	1985	1982	1998	1988	1999	1979	1985	
		LOWEST MEAN YEAR	1979	1989	1985	1975	1974	1984	1993	1993	1971	1984	1985	1983	1979	
		MIN OBS TIME ADJUSTMENT	-1.1	-1.0	-0.8	-0.9	-0.7	-0.6	-0.5	-0.7	-0.8	-1.1	-1.3	-1.0		
		MAX OBS TIME ADJUSTMENT	-1.5	-1.4	-1.4	-1.8	-1.4	-1.4	-1.2	-1.7	-1.5	-1.5	-1.8	-1.3		
029	COEUR D'ALENE	HIGHEST MEAN	35.4	39.6	44.4	51.3	59.6	67.3	75.2	75.4	66.1	55.5	42.3	35.1	75.4	
		MEDIAN	29.1	34.0	39.8	46.2	55.2	61.5	68.7	69.8	60.4	48.7	36.9	30.8	48.1	
		LOWEST MEAN	14.8	21.5	34.5	41.4	50.6	56.8	62.1	64.3	54.3	45.5	25.9	21.3	14.8	
		HIGHEST MEAN YEAR	1994	1991	1992	1987	1993	1986	1985	1986	1998	1988	1999	1979	1986	
		LOWEST MEAN YEAR	1979	1989	1976	1975	1984	1981	1993	1980	1985	1984	1985	1983	1979	
		MIN OBS TIME ADJUSTMENT	1.0	0.6	-0.1	-0.5	-0.6	-0.6	-0.6	-0.7	-0.8	-0.6	0.2	0.2		
		MAX OBS TIME ADJUSTMENT	0.4	0.3	0.3	0.2	0.1	0.2	0.1	0.0	-0.2	0.0	0.0	0.1		
030	COTTONWOOD 2	HIGHEST MEAN	35.1	40.6	45.1	51.3	57.4	65.0	73.0	71.2	66.4	56.1	42.9	35.9	73.0	
		MEDIAN	28.9	33.3	38.0	43.0	50.8	58.5	65.9	67.8	58.7	47.3	35.0	29.5	46.4	
		LOWEST MEAN	17.3	22.8	31.9	36.6	47.5	53.6	56.2	61.5	50.9	42.3	23.4	19.9	17.3	
		HIGHEST MEAN YEAR	1994	1991	1992	1987	1992	1986	1985	1986	1990	1988	1999	1980	1985	
		LOWEST MEAN YEAR	1979	1989	1976	1975	1996	1991	1993	1976	1985	1984	1985	1990	1979	
		MIN OBS TIME ADJUSTMENT	-0.8	-0.7	-0.7	-0.8	-0.6	-0.6	-0.5	-0.7	-0.8	-1.0	-1.0	-0.7		
		MAX OBS TIME ADJUSTMENT	-0.8	-0.9	-0.9	-1.1	-0.9	-1.0	-0.8	-1.3	-0.9	-0.9	-1.1	-0.7		
031	COUNCIL	HIGHEST MEAN	32.7	39.8	46.8	55.1	61.9	71.2	79.0	77.9	68.9	58.4	42.1	33.7	79.0	
		MEDIAN	26.3	30.7	40.4	48.0	56.4	64.4	73.7	73.4	62.1	50.2	37.5	28.0	49.4	
		LOWEST MEAN	12.7	17.1	29.7	42.0	51.5	58.0	64.2	67.0	56.1	45.7	27.3	13.8	12.7	
		HIGHEST MEAN YEAR	1981	1991	1992	1987	1992	1977	1985	1971	1990	1988	1999	1977	1985	
		LOWEST MEAN YEAR	1979	1989	1976	1975	1977	1993	1993	1993	1985	1985	1985	1985	1979	
		MIN OBS TIME ADJUSTMENT	-1.0	-0.8	-0.7	-0.8	-0.7	-0.6	-0.5	-0.8	-0.9	-1.1	-1.2	-0.9		
		MAX OBS TIME ADJUSTMENT	-1.4	-1.2	-1.3	-1.8	-1.5	-1.5	-1.2	-1.8	-1.6	-1.5	-1.7	-1.2		

PHOTOGRAPHER AND DATE OF PHOTOS Dan Nelson 9/7/2018

FILE NUMBER 65-13332



The photos above show the spring. The Pipeline runs along side the stream shown in the photo on the left, and the spring shown in picture on the right over by the toolies.

The photos below show the pump house and the 3 ft culvert. In the culvert you can see the two pump casings. The white 1" pipeline going across the culvert is the return flow pipe from the home and shop. The bigger pipe just above the water level is an overflow that ensures any excess water goes back to the creek.



The photos below show the pump house on the left (please note the two pressure regulators at the bottom of the photo to ensure the pressures stays a constant 30 psi. The photo on the right shows the 1 inch heating pipes under the home.

