

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No. 65-13805

1. Owner City of Emmett Phone No. (208) 365-6050

Current address 501 E Main St., Emmett ID 83617

2. Examiner's name Vicky Music EXAM DATE 8/26/10

3. Accompanied by Bruce Evans Email emmettpublicworks@qwestoffice.net

Address same as applicant

Relationship to permit holder Superintendent of Public Works Phone No. (208) 365-9569

4. Source ground water tributary to _____

B. OVERLAP REVIEW

1. Other water rights with the same place of use City has many water rights for the service are. See narrative.

2. Other water rights with the same point of diversion none

C. DIVERSION AND DELIVERY SYSTEM

1. Point(s) of Diversion:

Ident. No.	Gov't Lot	1/4	1/4	1/4	Sec	Twp	Rge	County	Method of Determination/Remarks
well #9			SE	SE	8	6N	1W	GEM	topo map, GPS

2. Place(s) of Use: Method of determination topo map

Twp	Rge	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	

3. **Delivery System Diagram:** Indicate all major components and distances between components. Indicate weir size/ditch size/pipe diameter (inside), as applicable. Use the space provided or ☒ see attached.

See field exam map for service area system.

Scale: 1" = n/a

- ☒ Copy of USGS Quadrangle attached showing location(s) of point(s) of diversion and place(s) of use (**required**)
- ☒ Aerial photo attached (required for irrigation of 10+ acres)
- ☒ Photo of diversion and system attached

4.

Well or Diversion Identification No.*	Motor Make	Hp	Motor Serial No.	Pump Make	Pump Serial No. or Discharge Size
well # 9	US Electric motor	200	R488A	not available	not available

*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
flowmeter		Badger		0408-040129327869		

- ## 2. Measurements:

no measurements taken. see narrative.

E. NARRATIVE/REMARKS/COMMENTS

Proof of beneficial use was due 2/2/02 but it was not submitted on time. The permit expired and an Order of Reinstatement advancing the priority date to 10/23/98 was issued in 2002. Fees were paid. Data is not available for the development period.

The place of use is in the service area of the City of Emmett. Applicant provided a current service area map.

The application is not clear as to whether the quantity is to be added to the City of Emmett water rights. The City has 14 municipal, irrigation, domestic and industrial rights totalling 18.71 cfs; 17.1 cfs is for municipal use. A table of rights is attached. This additional 4.48 cfs would bring the total to 21.56 cfs for municipal use which is a lot of water.

I sought information regarding how this quantity fit in with the other rights but it was not provided. The applicant provided IDEQ water treatment records forms from 12/2009 - 11/2010 for Wells 6, 7, 8, and 9. However, I spoke with consultant, Justin Walker about these records and he indicated that records for # 6 do not represent a direct diversion from the well. Well # 6 is pumped into a reservoir first. The records for # 7 are incorrect because # 7 is not in service. The records for # 7 refer to data from the Locust Street reservoir. So the pump data in these records cannot be used in my analysis of whether the current demand justifies adding the permit quantity to the current municipal rights.

US Census Bureau statistics are that the population of Emmett grew by 19.4 % from 5490 in 2000 and 6557 in 2010. In comparison, Twin Falls, with a population of about 80,000, currently has municipal rights that total about 31 cfs. The City of Emmett has water rights that far exceed current demand.

I have notes that state well # 9 is to replace well # 7 which lead me to believe that the quantities are not additive. I have also attached a map given to IDWR with the well locations. The map shows 6 of the 9 wells have been abandoned or are out of service. Only well # 6, #8 and #9 are operational. Based on this, I suggest a condition that limits the municipal uses of all of the rights to the current 17.1 cfs. I relayed this limitation to Justin Walker in our recent conversation. The City has met with Department staff regarding a transfer that will be filed that will include this well as a POD for some of the other rights.

Among the equipment is a Badger flowmeter, maximum 150 psi. During the exam, the flowmeter indicated 508 gpm [not the maximum] and the pressure gauge next to it indicated 63 psi. The applicant submitted flow charts with a maximum of approximately 2000 gpm and pressures of a maximum of 73 psi. Pump data was not accessible or provided by the applicant. The motor specs were obtained during the exam. We GPSed the well location and the IDTM NAD 83 coordinates are 2301068, 1410070. We gathered the coordinates outside of the wellhouse about 6' from the well.

Has the permit holder met all conditions of permit approval, including any mitigation requirements and/or measuring device installation requirements? ☒ Yes ☐ No If no, what must be done to meet the permit requirements?

Narrative – continued

There is a 12" pipe from the well to the city delivery system south of the wellhouse along 12th Street.

Quantity

I calculated a theoretical using the 73 psi as the maximum pressure from the graphs supplied by applicant, 92' below ground surface pumping level from the well log for a result of 4.72 cfs. Using the maximum flow of 2000 gpm [flow charts], I got a result of 4.46 cfs. So, the permitted quantity of 4.46 cfs is reasonable and should be the licensed quantity.

Conditions

I called Steve Stauffer at IDEQ for information whether applicant added well 9 to their PWS permit. He said that is not necessary or how the process is described. The City has PWS # 3230012 and they submitted engineer specs before they proceeded. So, the applicant complied with the permit condition regarding their public water supply.

These conditions should be added:

X35 - The following rights are limited to 17.1 cfs for municipal use: 65-10, 65-16, 65-17, 65-19, 65-7341, 65-7520, 65-12729 and 63-13805.

124 - Place of use is within the service area of the City of Emmett municipal water supply system as provided for under Idaho Law.

F. FLOW CALCULATIONS

Additional computation sheets attached

Measured Method:

FLOW CHARTS: 2000 gpm/ 448.8 gpm per cfs = 4.46 cfs

Theoretical flow calculation. assumptions: 70% pump efficiency.

WELL # 9: $8.8 \times 200 \text{ hp} \times 0.7 \text{ pump efficiency} / 92' \text{ bgs pumping level from well log} + [73 \text{ psi} \times 2.31] = 1232 / 92 + 168.6 = 1232 / 260.6 = 4.72 \text{ cfs}$

G. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = \text{not applicable}$

$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation Season}) \times 1.9835 =$

$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} =$

2. Volume Calculations for Other Uses:

not applicable

H. RECOMMENDATIONS

1. Recommended Amounts

Beneficial Use	Period of Use From	To	Rate of Diversion Q (cfs)	Annual Volume V (afa)
municipal	1/1	12/31	4.46	
Totals:			4.46	

2. Recommended Amendments

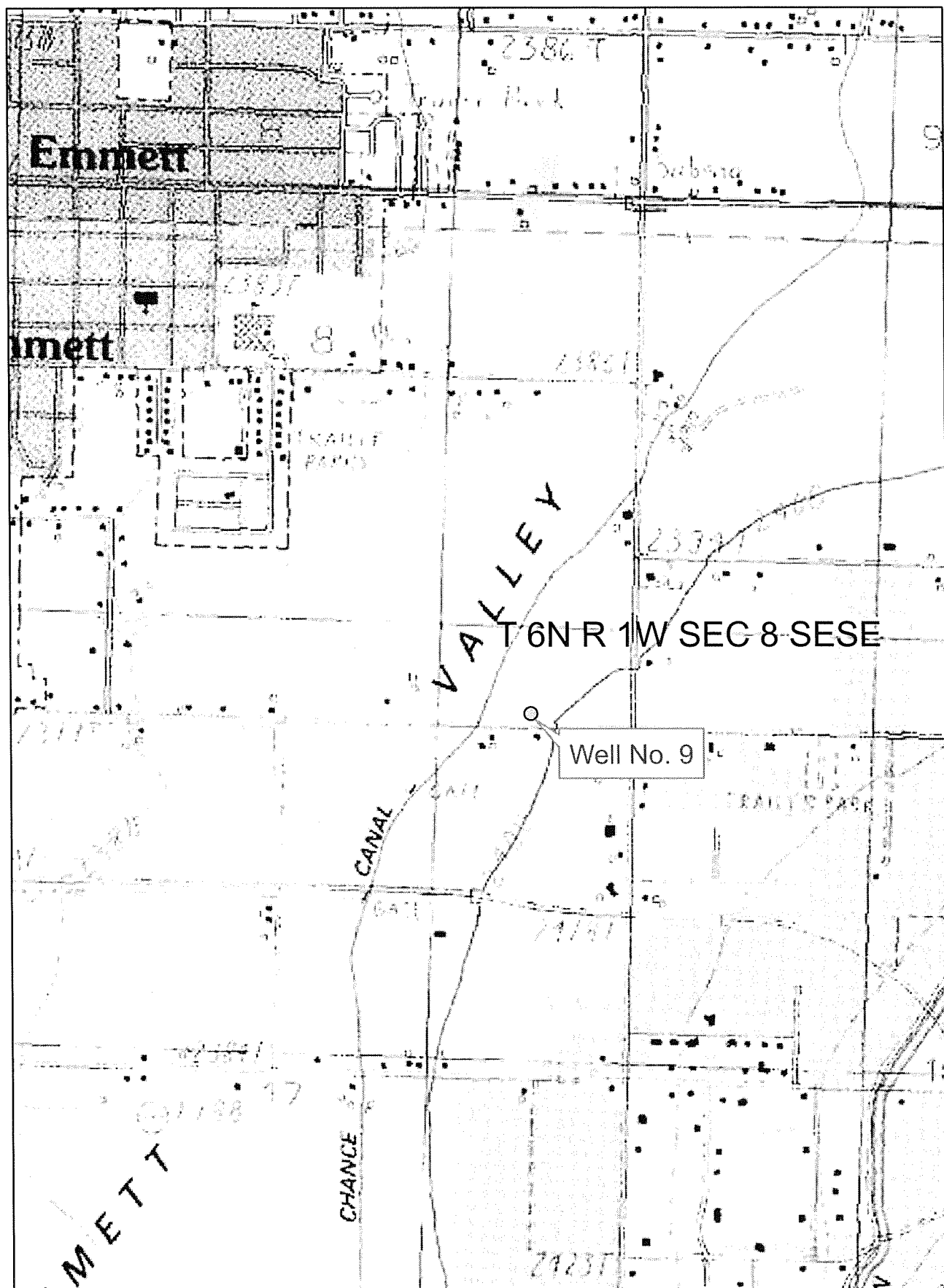
- ☐ Change P.D. as reflected on page 1
 ☐ Add P.D. as reflected on page 1
 ☒ None
☐ Change P.U. as reflected on page 1
 ☐ Add P.U. as reflected on page 1
 ☐ Other

I. AUTHENTICATION

Field Examiner's Signature W. C. M. C. Date 7/8/2011

Reviewer J. L. L. Date 9/9/2011

SEAL





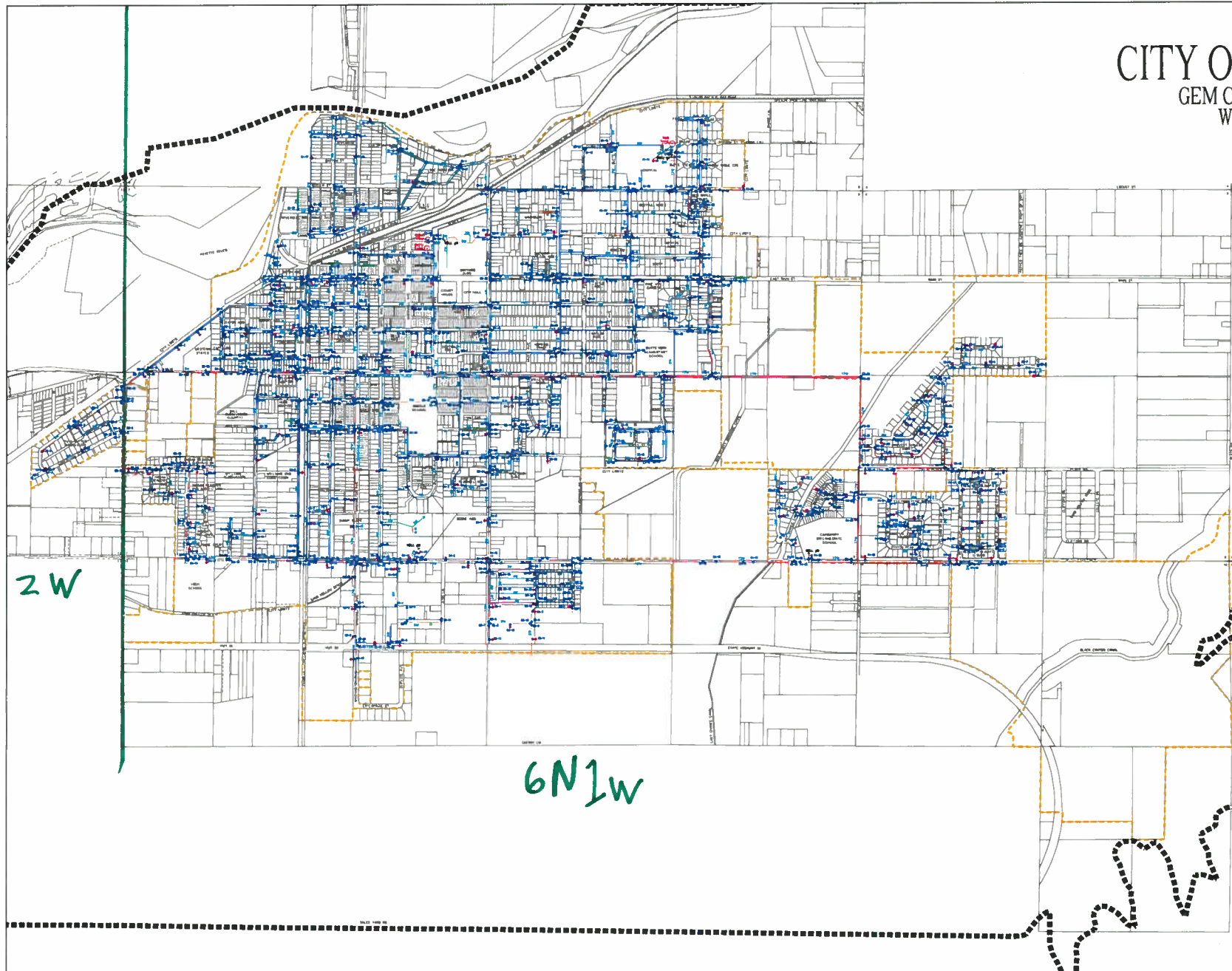
65-13805 City of Emmett permit.school

wellhouse well # 9 -- ties into city distribution system south of wellhouse along 12th St.

CITY OF EMMETT

GEM COUNTY, IDAHO

WATER MAP



LEGEND:

- ESTIMATED RIVER BOUNDARY
- CITY LIMITS
- FIRE HYDRANT (WITH PUMPER)
- FIRE HYDRANT (WITHOUT PUMPER)
- STORAGE TANK
- WELL
- WATER LINE UNIDENTIFIED (W)
- WATER LINE 18"
- WATER LINE 24"
- WATER LINE 30"
- WATER LINE 42"
- WATER LINE 60"
- WATER LINE 84"
- WATER LINE 108"
- WATER LINE 126"
- WATER LINE 144"



This map represents a compilation of public information from various records gathered by the City of Emmett and Holladay Engineering Company. The accuracy for which this map is prepared is an overall general representation of conditions and is not a definitive description of location of any object or condition. There is no responsibility for errors due to any omissions. The City of Emmett and Holladay Engineering Company disclaims all liability for any errors or omissions or the consequences of any information furnished to them for the preparation of this map.

Revised December 2008



Service Area Map

GROUND WATER RIGHTS SUMMARY							
Water Right No.	Basis/Type	Priority Date	Water Uses	Diversion Rate (cfs)	Diversion Rate (gpm)	Location of Points of Diversion	Well I.D.
65-10	Decreed	1/1/1948	Municipal	1.34	601	SESW,Sec05,T6N,R1W - NENE,Sec07,T6N,R1W	Well #7 - Well #5
65-11	Decreed	1/1/1947	Irrigation	0.56	251	NENW,Sec06,T6N,R1W	Cemetery
65-16	Decreed	1/1/1927	Municipal	1.56	700	SESW,Sec05,T6N,R1W - NENE,Sec07,T6N,R1W	Well #7 - Well #6
65-17	Decreed	1/1/1913	Municipal	1.11	498	SESW,Sec05,T6N,R1W - NENE,Sec07,T6N,R1W	Well #7 - Well #6
65-19	Decreed	1/1/1957	Municipal	3.34	1499	SESW,Sec05,T6N,R1W - NENE,Sec07,T6N,R1W	Well #7 - Well #6
65-1476	Decreed	2/10/1966	Domestic	0.04	18	NESE, Sec11,T6N,R2W	-
65-7341	Decreed	3/3/1973	Municipal	4.50	2020	SESW,Sec05,T6N,R1W - NENE,Sec07,T6N,R1W	Well #7 - Well #6
65-7520	Decreed	12/16/1974	Municipal	2.46	1104	SESW,Sec05,T6N,R1W - NENE,Sec07,T6N,R1W	Well #7 - Well #6
65-12182	Decreed	11/14/1978	Irrigation	0.30	135	SESE,Sec14,T6N,R2W	Golf
65-12183	Decreed	11/14/1978	Irrigation	0.30	135	SESE,Sec14,T6N,R2W	Golf
65-12184	Decreed	11/14/1978	Irrigation	0.26	117	NENE,Sec07,T6N,R1W	Well #6
65-12185	Decreed	11/14/1978	Domestic	0.05	22	SESE,Sec14,T6N,R2W	Golf
65-12729	License	2/26/1985	Municipal	2.79	1252	SESE,Sec07,T6N,R1W	Well #8
65-12818	License	12/17/1987	Industrial	0.10	45	SWNW,Sec12,T6N,R2W	WWTP
65-13805	Permit	10/23/1998	Municipal	4.46	2002	SESE,Sec08,T6N,R1W	Well #9
65-22918	Permit	5/25/2003	Municipal	1.12	503	NENE,Sec15,T6N,R2W - NENE,Sec15,T6N,R2W	SBIP
TOTAL (All Uses)				24.29	10902		
TOTAL (Municipal)				22.68	10179		
TOTAL (Irrigation)				1.42	637		
TOTAL (Domestic)				0.09	40		
TOTAL (Industrial)				0.10	45		
TOTAL (Well #5)				1.34	3622		
TOTAL (Well #6)				13.23	6539		
TOTAL (Well #7)				14.31	6423		
TOTAL (Well #8)				2.79	1252		
TOTAL (Well #9)				4.46	2002		

to
license

= older muni rights
e combined ofr

(65.22918 is separate
muni system for
industrial park only)

-SC 9/9/11

WELL DESCRIPTION SUMMARY		
Point of Diversion	Well I.D.	Notes
Municipal Wells		
NENE,Sec07,T6N,R1W	Well #1	
NENE,Sec07,T6N,R1W	Well #2	
NENE,Sec07,T6N,R1W	Well #3	
NENE,Sec07,T6N,R1W	Well #4	
NENE,Sec07,T6N,R1W	Well #5	Abandoned in April, 2004. Well Driller's Report #881227-810925
NENE,Sec07,T6N,R1W	Well #6	Constructed in 1973.
SESW,Sec05,T6N,R1W	Well #7	Constructed in 1975.
SESE,Sec07,T6N,R1W	Well #8	Constructed in 1986.
SESE,Sec08,T6N,R1W	Well #9	
NENE,Sec15,T6N,R2W	SBIP	Shadow Butte Industrial Park - Outside of City Limits. former Gem County Well.
Domestic Wells		
NESE,Sec11,T6N,R1W	-	
Industrial Wells		
SWNW,Sec12,T6N,R2W	WWTP	Constructed in 1988. Located at Wastewater Treatment Plant.
Irrigation Wells		
NENW,Sec06,T6N,R1W	Cemetery	Emmett Cemetery. Constructed in July 1954.
SESE,Sec14,T6N,R2W	Golf	Golf Course? Constructed in 1969.

IDAHO DEPARTMENT OF WATER RESOURCES

WELL INSPECTION FORM

1. DRILLING PERMIT NO: 65-99-00101 OTHER APPLICABLE NO: 65-13805
2. OWNER: City of Emmett Phone: 365-6050
Address: 501 S. Main St., Emmett, ID 83617
3. WELL LOCATION: Twp 6N, Rge. 1W, Sec. 8, SE 1/4 SE 1/4
County Bem (Provide sketch map and photo on reverse.)
4. DRILLER: Riverside Lic. No. 333
When Drilled? 9-19-99
5. WELL CONSTRUCTION:
Casing Diameter 10 inches Water tight cap? ☒ Yes ☐ No Access Port: ☐ Yes ☐ No
Casing $\geq$ 12 inches above ground? ☒ Yes ☐ No - Describe 4
Depth of Casing 485 ft. Method Drilled reverse rotary
Condition of Well Casing: ☒ Good ☐ Fair ☐ Poor Describe 4
Control Valve? ☒ Yes ☐ No Pressure Gauge: ☒ Yes ☐ No
Condition of Piping and Valving excellent
Auger to a depth of na ft. Evidence of Annular Seal ☒ Yes ☐ No
Are there obvious construction problems that may be a source for contamination or waste of water?
☐ Yes ☒ No (Describe in Remarks and Attach Photo - On Reverse)
6. HYDROLOGIC INFORMATION:
Depth to Static Water 18 ft. Water Temperature 66.5 °F
Flowing Artesian ☐ Yes ☒ No Pressure: _____ (psi)
Water Sample Taken? ☐ Yes ☒ No If yes, describe purpose _____
Water Quality Measurements/Observations (Describe) n/a
7. WELL USE:
☐ Domestic ☐ Irrigation ☐ Stock
☐ Test ☒ Municipal ☐ Industrial
☐ Abandoned ☐ Waste Disposal/Injection ☐ Not Used
☐ Other: _____

8. POSSIBLE CONTAMINATION SOURCES:

Is there evidence of Chemigation? ☒ Yes ☐ No

If yes, is there a check-valve present? ☒ Yes ☐ No

Is there a possible source of contamination nearby? ☐ Yes ☒ No

If yes, what Type? _____

How far away from the well is this source? _____

9. REMARKS:

well tab not visible - well casing in concrete vault
tab may be on well casing.

Signature of Dept. Representative & Title

Inspection Date

PHOTOS, DRAWINGS, OTHER ATTACHMENTS:

see photos

IDAHO DEPARTMENT OF WATER RESOURCES WELL DRILLER'S REPORT

Office Use Only
Inspected by _____
Twp _____ Rge _____ Sec _____
_____ 1/4 _____ 1/4 _____ 1/4
Lat _____ Long _____ : _____

1. WELL TAG NO. D 0009880
DRILLING PERMIT NO. 65-99-WG181-000
Other IDWR No. WR 65-13805

2. OWNER:
Name Independent School Dist. #201
Address 601 E 2nd St.
City Emmett State ID Zip 83607

3. LOCATION OF WELL by legal description:

Sketch map location must agree with written location

North ☒ or South ☐
East ☐ or West ☒
Twp 6 Rge 1 Sec. 8
Gov't Lot _____ County Gem 10 acres 40 acres 160 acres
Lat _____ Long _____
Address of Well Site 12th Street
City Emmett

Lt _____ Blk. _____ Sub _____ Name _____

4. USE:

☐ Domestic ☒ Municipal ☐ Monitor ☐ Irrigation
☐ Thermal ☐ Injection ☐ Other _____

5. TYPE OF WORK check all that apply (Replacement etc)

☒ New Well ☐ Modify ☐ Abandonment ☐ Other _____

6. DRILL METHOD

☐ Air Rotary ☐ Cable ☐ Mud Rotary ☒ Other Reverse

7. SEALING PROCEDURES

SEAL/FILTER PACK	AMOUNT	METHOD
Material	From To Sacks or pounds	
Bentonite	0 314 53,000	Overbore
E. 1/2" Sand		
Graded Silica	350 535 24,300	Overbore

Was drive shoe used? ☐ Y ☒ N Shoe Depth(s) _____
Was drive shoe seal tested? ☐ Y ☐ N How? _____

8. CASING/LINER:

Diameter	From	To	Gauge	Material	Casing	Liner	Welded	Threaded
18"	12	364'	.375	Steel	☒	☐	☒	☐
10"	410	420	.365	Steel	☒	☐	☒	☐
10"	415	485	.365	Steel	☐	☐	☐	☐

Length of Headpipe 25' Length of Tailpipe 10'

9. PERFORATIONS/SCREENS

Perforations Method _____
☒ Screens Screen Type Johnson Wire WRAP

From	To	Slot Size	Number	Diameter	Material	Casing	Liner
375	410	.040		10"	S.S.	☒	☐
420	435	.040		10"	S.S.	☐	☐
435	440	FW.		10"	S.S.	☒	☐
440	450	.030		10"	S.S.	☒	☐

10. STATIC WATER LEVEL OR ARTESIAN PRESSURE:

18 ft. below ground Artesian pressure _____ lb.
Depth flow encountered _____ ft. Describe access port or control devices: 1 1/2" capped line MICROFILMED

11. WELL TESTS:

Yield gal/min	Drawdown	Pumping Level	Time
1850		92'	10 HRS

Water Temp 66.5° Bottom hole temp. _____
Water Quality test or comments 240 mmhes

12. LITHOLOGIC LOG: (Describe repairs or abandonment) Water

Bore Dia	From	To	Remarks: Lithology, Water Quality & Temperature	Y	N
28	0	9	Top Soil		
	9	54	River Gravel & Coarse Sand		
	54	150	Clay & Sand Strs		
	150	179	Coarse Blue Sand		
	179	190	Blue & Gray Clay		
	190	205	Coarse Sand		
	205	220	Sand & Clay Strs		
	220	270	Coarse Sand Clay Strs		
	270	320	Coarse Sand Clay Strs		
	320	330	Coarse Sand Sm Gravel		
	330	364	Blue Clay Strs Sand		
18	364	376	Coarse Sand & Clay		
	376	410	Coarse Blue Sand		
	410	420	Sandy Blue Clay		
	420	439	Coarse Sand & Gravel		
	439	432	Gray Clay		
	432	438	Coarse Sand		
	438	445	Clay & Sand		
	445	446	Green Clay Strs Sand		
	446	485	Coarse Sand Strs Clay		
	485	525	Coarse Blue Sand		
18	525	535	Clay		

RECEIVED

OCT 04 1999

Department of Water Resources

Completed Depth 535' (Measurable)
Date Started 7-19-99 Completed 9-19-99

13. DRILLER'S CERTIFICATION

I/We certify that all minimum well construction standards were complied with at the time the rig was removed.

Company Name Riverside Inc. Firm No. 333

Firm Official _____ Date _____

and _____

Driller or Operator _____ Date 10-1-99

(Sign once if Firm Official & Operator)

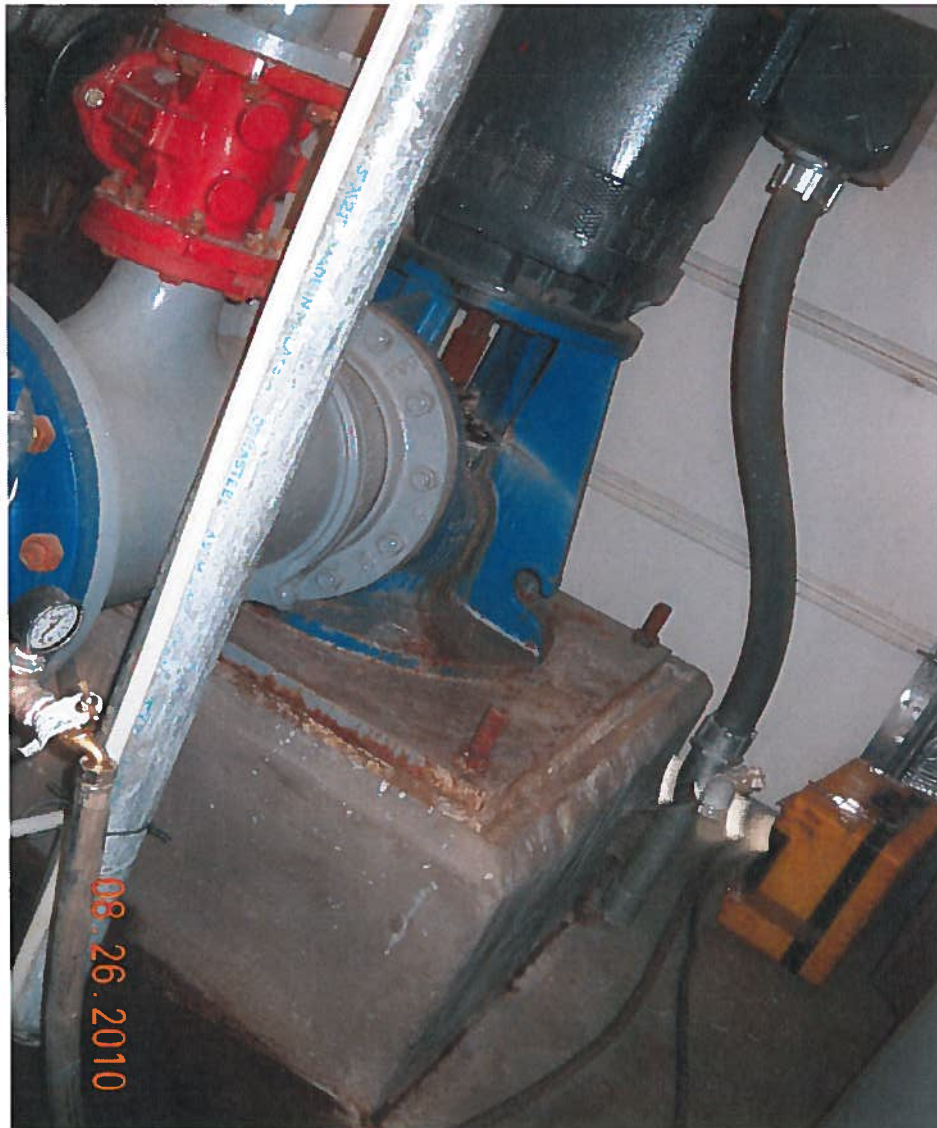


Wellhouse north of 12 th Street and southwest of Carberry School. Well is located just inside the white door seen at end of building.

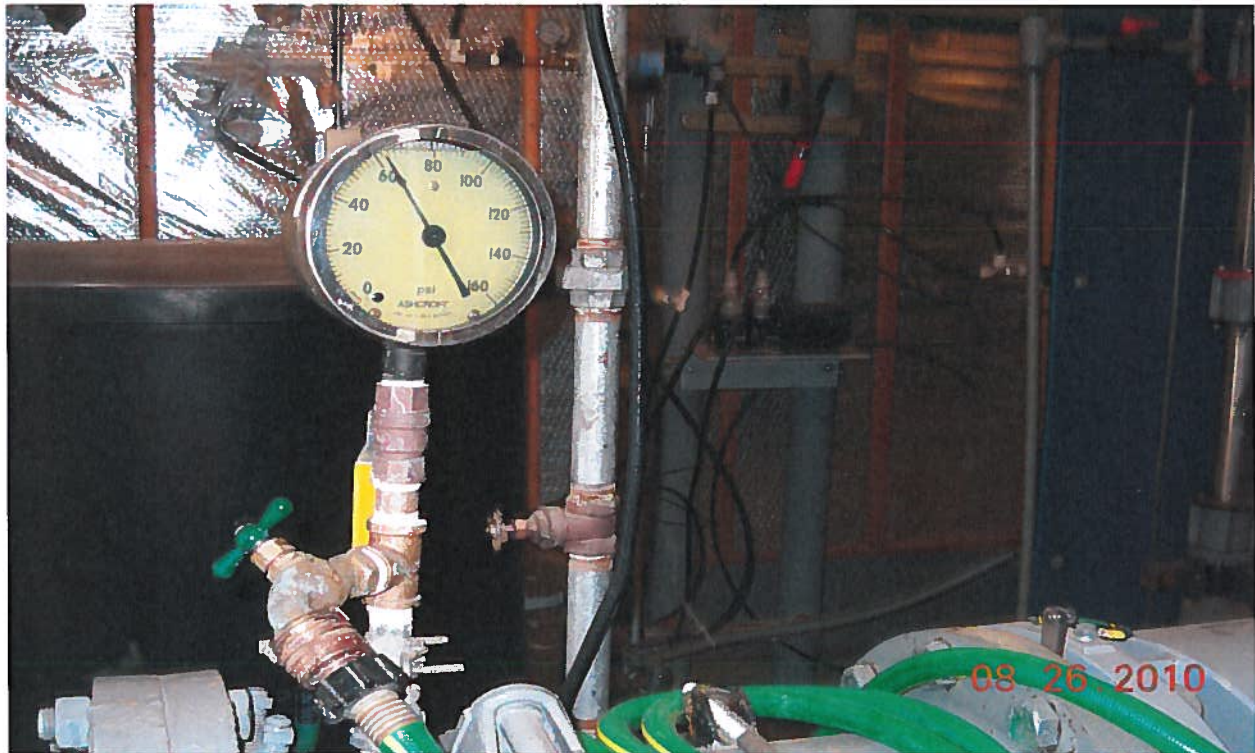


Inside wellhouse. Well is at far end of building.

Inside wellhouse looking west. Well is at far end of building. Pressure gauge in front left of photo



The well is located under this concrete block so the well and the pump information was not accessible.



Pressure gauge.



Flowmeter