

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 57-11752

Exam Date: 8/2/2012

1. Current Owner: CITY OF HOMEDALE
PO BOX 757
HOMEDALE ID 83628
(208)337-4641
2. Accompanied by: Larry Bauer, Public Works Supervisor
Phone No: (208)880-2719
Address: 31 W Wyoming, Homedale, Idaho 83628
Relationship to Permit Holder: Certified Public Water System Operator for the City of Homedale
Email: cityofhomedale@cablone.net attention: Larry Bauer

3. **SOURCE**

TRIBUTARY

GROUND WATER

B. OVERLAP REVIEW

1. **Other water rights with the same place of use:** All of the following water rights are for the same service area boundary for the City of Homedale: 57-7027, 57-7048, 57-7656, 57-10393, 57-11752, 63-9260, 63-31235
2. **Other water rights with the same point of diversion:** None. No other water rights for the City of Homedale include this POD.

C. DIVERSION AND DELIVERY SYSTEM

1. **LOCATION OF POINT(S) OF DIVERSION:**

GROUND WATER L6 NE1/4SE1/4 Sec. 4, Twp 03N, Rge 05W, B.M. OWYHEE County

**The City of Homedale owns the property where Well #7 is located (confirmed by tax lot information updated 4/9/2013). The common name location for where the POD is located is: Riverside Park. An amendment is required (not in SESE).*

Method of Determination: Garmin GPS Map 76S, and ArcMap esri and 2009 – 2013 Imagery, plus confirmed by the certified public water system operator

2.

PLACE OF USE: MUNICIPAL

Service Area Boundary for the City of Homedale.

Method of Determination: Garmin GPS Map 76S, and ArcMap esri and 2009 – 2013 Imagery, plus confirmed by the certified public water system operator

3. ☐ X Delivery System Diagram Attached (required). Indicate all major components and distances between components. Indicate weir size/pipe as applicable.
☐ X 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.

<u>Well or Diversion ID No.*</u>	<u>Motor Make</u>	<u>Hp</u>	<u>Motor Serial No.</u>	<u>Pump Make</u>	<u>Pump Serial No. or Discharge Size</u>
Well #7 A0018539 (on casing), 20 Hp submersible (unknown make/model/discharge size), that shares the pump house with well #5. 4" discharge into the shared pump house.					

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

D. FLOW MEASUREMENTS

1.

<u>Measurement Equipment</u>	<u>Type</u>	<u>Make</u>	<u>Model No.</u>	<u>Serial No.</u>	<u>Size</u>	<u>Calib. Date</u>
4" Ultra Mag flow meter			serial #	UM20090684	4"	unknown

***Well #7 was not running at the time of the field examination due to the entire system being controlled by the SCADA program, a demand system which is controlled by the level in the storage tank, which kicks on or shuts off pumps to maintain the level in the storage tank. #7 Riverside Well (the operator runs this well 1 X/month for about 10 minutes for sampling purposes; this is a back-up well). Flow records were requested from the operator, to show rate at the time of these pumping periods.

2. Measurements:

Flow records: (records were requested for this back-up well) the operator stated what he has measured this well, and historical Well #7 pumps 250 gpm (0.56 cfs). Without any records to show this amount, I would recommend the pipe conversion amount, due this being a "back-up" well and not a primary well.

Theoretical: (using 13.5' static + 10" = 23.5' drawdown)
 $(8.8 \times 20 \text{ Hp} \times 0.7 \text{ eff}) / [23.5 + (76 \text{ psi} \times 2.31)] = 123.2 / 199.06 = 0.62 \text{ cfs}$

Pipe Conversion for a 4" pipe: 0.44 cfs

RECOMMEND:

Municipal 1/1 – 12/31 0.44 cfs (without additional test results submitted)

***This should have a combined limit condition added, since this well is a "back-up" well, and not a primary well.

E. FLOW CALCULATIONS

Measured Method: None

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation: N/A

2. Volume Calculations for Other Uses:

Requested volume records from the City of Homedale for their entire system (showing all wells for one year).

See Administrative Memo licensing #1 (involves case-by case).

G. NARRATIVE/REMARKS/COMMENTS

The City of Homedale municipal system consists of the following (see attached spreadsheet for water right #'s):

Well #1 (Water Tower Well) & 2 (City Well) were abandoned*

Well #3 McWinney Well

Well #4 Morris Well (problems with bacteria, iron and magnesium; considering abandoning; not used for 4 years.*

Well #5 Riverside Well (located east of pump house, in the same area as well # 7; both share the same pump house)

No Well #6 (never has been a well #6)

Well #7 Riverside Well (located directly west of the pump house)

Ustick Well

Peterson Well (west of wells #5 & 7; not legally abandoned, but the pump was pulled 27 years ago).

**With wells #1 and #2 being abandoned, a transfer was filed thus the existence of well #3 McWinney Well and Well #4 Morris Well which is located in basin 63). Suggest filing a transfer on well #4 if they are going to continue not using this well.*

Wells that make up the current City of Homedale municipal system are:

#3 McWinney Well (run this well 1 X/month for about 10 minutes; this is a back-up well)

#5 Riverside Well (run daily during irrigation season)

#7 Riverside Well (run this well 1 X/month for about 10 minutes for sampling purposes; back-up well)

Ustick Well (Main well)

Note:

There are no current flow records for the following wells, but the operator stated what he has measured from each historically: #3McWinney (100 gpm), #5 (250 gpm) and #7 (250 gpm). At the time of the field examination #5 was measured at (140 gpm), and #7 was not running (due to not enough demand to kick it on).

Elementary school, middle and high school use the municipal use only for internal use, since they are on a separate irrigation system. There is no large commercial use in the City of Homedale. Some lots are irrigated with municipal, and some are irrigated by Gem Irrigation District.

Description of the Wells, Storage Tank, and Distribution System that make up the current City of Homedale municipal system:

#3 McWinney Well (back-up well): see 57-7027, 57-10393, and 63-91260

#5 Riverside Well (irrigation well, and back-up well):

Drilled 5/8/1997 by Metzger Well Drilling #93, 215' deep, 5' static, 12" casing extending 31" above ground level, ID Tag #E0008523 (on casing), 20 Hp submersible (unknown make/model/discharge size), that shares the pump house with well #7. The original well #5 was located inside the original pump house before the system was upgraded and incorporated well #5 and #7 into the same pump house (as shown in pictures on file for original field examination for well #5 for water right 57-7656.

#7 Riverside Well (57-11752) back-up well: 57-11752

Drilled 5/27/2009 by Stevens & Sons #153, 250' deep, 13.5' static, 10" casing that extends 19" above ground level, ID Tag # A0018539 (on casing), 20 Hp submersible (unknown make/model/discharge size), that shares the pump house with well #5.

Riverside Pump House for Wells #5 & #7:

Newly built cinderblock pump house that is for both wells #5 and #7. The SCADA controls are located inside the pump house. Discharge from well #5 into the pump house is by means of 4" ductile iron pipe that goes through a 4" Ultra Mag flow meter serial #UM20090685 at 140 gpm (at the time of the field examination). Flow can either flush to waste or discharge into the distribution system (mainly used to irrigate the 2.0 acre park), otherwise is a back-up well. Discharge into the pump house for well #7 is through 4" ductile iron pipe that discharges through a 4" Ultra Mag flow meter serial # UM20090684, then can either co-mingle with well #5 or be flushed to waste. Well #7 is also a back-up well. The system is maintained at 76 psi. At the time of the field examination, there was not enough demand for well #7 to be running. Inside the pump house is sodium hypochlorite, which is routinely added to the domestic municipal system.

Ustick Well (Main Well): 63-31235

ID Tag #E0008326. Drilled 4/15/2002 by Stevens & Sons #153. I has a 12" casing that extends 21" within a concrete slab, the well is 310' deep, 20.4' static, has a 60 Hp submersible pump (unknown make/model), 8" discharge to an 8" McCrometer flowmeter serial #02-05856-8, running at the time of the field examination at 390 gpm (0.87 cfs), and 52 psi. The water level was showing 142'. Sodium Hypochloride (0.02 ppm) is routinely pumped into the system all the time.

Storage Tank:

One storage tank that was installed in 2002. It is 400,000 gallons, has an 8" ductile iron overflow, and 8" line discharges into the tank from the top, and discharges out to the distribution via an 8" line that converts to 12" PVC.

The entire system is controlled by a SCADA program (demand system) that controls when the pumps kick on and controls the level in the storage tank. The controls are at well #7 that maintains 76 psi, and a predetermined level in the tank.

Mains throughout the City of Homedale:

6", 8" and some 12" PVC

Number of connections on the City of Homedale, at the time of the field examination: 864

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>
MUNICIPAL	01/01 to 12/31	0.44 CFS	
<u>Totals:</u>		0.44 CFS	

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 ☐ Other

*An amendment is required since the GPSd location and visible location for Well #7 is located in the NESE L6, not in the SESE.

I. AUTHENTICATION

Field Examiner's Name



Date: 4/13/2014

57-11752 POD: Well #7 A0018539
20 Hp submersible (unknown make/model)
10" casing extending 19" above ground level
unknown size discharge

63-31235 POD: Ustick Well (property owned by city)
discharging to 12" main to the east,
then running southwest to the
City of Homedale.

-7048 Adj. location for 57-7048 POD (well #5)
this is an incorrect location

POD 63-9260, but this may be really be for the Morris We
where a new well was drilled through a "transfer," ①
in connection with replacing abandoned wells #1 & 2, and
the POD location is incorrect.

POD: Morris Well (property owned by city)
" discharge to 12" main that goes
under the bridge to City of Homedale,
discharging to 8" and some 12"
PVC mains

Riverside Pump house for wells # 5 and 7

(3) abandoned City Hall wells

57-7027 and 57-10393 POD McWhinney Well #3
(involved in a transfer, when wells #1 & 2 were
abandoned)

POD: Well #5 (Garmin GPS Map 76S)
Location found at time of field examination.
12" casing extending 31" above ground level
ID Tag# E0008523
20 Hp submersible (unknown make/model)

POU: Service Area Boundary for the following
63-31235, 57-7027, 57-10393, 63-9260, 57-7048,
57-7656, 57-11752,

57-11752

NESE

NWSW

57-7048 Adj. location for 57-7048 POD (w/ #5)
this is an incorrect location

57-11752 POD: Well #7 A0018539
20 Hp submersible (unknown make/model)
10" casing extending 19" above ground level
unknown size discharge

Pump house for wells # 5 and 7

POD: Well #5 (Garmin GPS Map 76S)
Location found at time of field examination.
12" casing extending 31" above ground level
ID Tag# E0008523
20 Hp submersible (unknown make/model)

SESE

SWSW 8

Basin Sequen	Process	Basin	Status	Draft Right	ID	Priority	Date	Div.	Rate	Source List	Water Use	Current Owner	Total Aci	Volume	Well #	Purpose	Comments:
57	7027	Water Right	Decre	Active	N	357128	1/7/1969		0.670	GROUND W MUNICIPALITY OF HOMEDALE					#1 water tower, #2 city well	#3 McWhinney	#1 & #2 were abandoned (need to file transfer)
57	10393	Water Right	Decre	Active	N	357254	1/1/1940		0.890	GROUND W MUNICIPALITY OF HOMEDALE					#1 water tower, #2 city well	#3 McWhinney	#1 & #2 were abandoned (need to file transfer)
63	9260	Water Right	Decre	Active	N	575363	7/3/1979		1.000	GROUND W MUNICIPALITY OF HOMEDALE					#1 water tower, #2 city well	#4 Morris (shapes not linked to #3)	#1 & #2 were abandoned (need to file transfer)
2.56 cfs										conditions say diverted through same PODs							
57	7048	Water Right	Decre	Active	N	219264	4/16/1971		0.040	GROUND W IRRIGATION CITY OF HOMEDALE		2.0	9.0	A0004209	Well #5	irrigation well	Gem Irrigation District is also used for irrigation
57	7656	Water Right	Licenses	Active	N	16277	1/16/1998		0.240	GROUND W MUNICIPALITY OF HOMEDALE				A0004209	Well #5	for increased rate	Changed use after approval from DEQ for municipal use
57	11752	Water Right	Licenses	Active	Y	670267	9/15/2008		1.140	GROUND W MUNICIPALITY OF HOMEDALE				A0018539	Well #7		located within the same building as well #5 (two different casings)
63	31235	Water Right	Licenses	Active	Y	656937	3/31/2001		1.670	GROUND W MUNICIPALITY OF HOMEDALE				E0008326	Ustick Well		Main well

**Gem Irrigation District Water irrigated the bulk of the town and all other parks and lawns. Well #5 when used for irrigation is run by the city for flood and pressurized irrigation systems within individual yards.

NOTES:

#1 & 2 Wells (abandoned)
 #3 McWhinney Well (back-up well)
 #5 Riverside Well (irrigation and back-up well)
 #4 Morris Well *bacte, iron, mag., problems, considering abandoning*
 Well #6: There never has been a well #6.
 #7 Riverside Well (back-up well)
 Ustick Well (main well)
 Peterson well: west of well #5 & 7 (not legally abandoned; pump pulled more than 27 years ago (high hydrogen sulfide)
 McKinney Well (SW part of the city)

Active wells that are used on the system: Ustick (main), #3 McWhinney (run 1X/month approx. 10 min), #5 (runs daily for irrigation), #7 (runs 1X/month approx. 10 minutes for sampling purposes)



Riverside
pump
house
for
wells
#5 +
#7

08/02/2012



located
east of
pump
house

POD
Riverside
Well
#5

E000852
12" casing
extends
31" above
ground
level
20 Hp -
Submersed
(unknown
make/
model/
discharge
size)

08/02/2012

57-11752

S. Hemerway

08/02/2012

4" ductile iron from well #5

well #5 flow meter

57-11752 well #7 flow meter

flush to waste

From well #5
4" Ultra Max Flow meter
serial # UM200 90685
4" ductile iron, 14Dqpm

08/02/2012

57-11752

S. Hemmaway

for
well
#5
140gpm
irrigating

08/02/2012

140

S. Hemenway



controls
for
well
#5

08

Run VFD well 5
then on → VFD
and well will on → Auto

Start well then to Auto then Release
pressure on VFD to stop then turn VFD
VFD should start & Run
Reading should be
42.00 Hz
24.2 A
70.50 Press

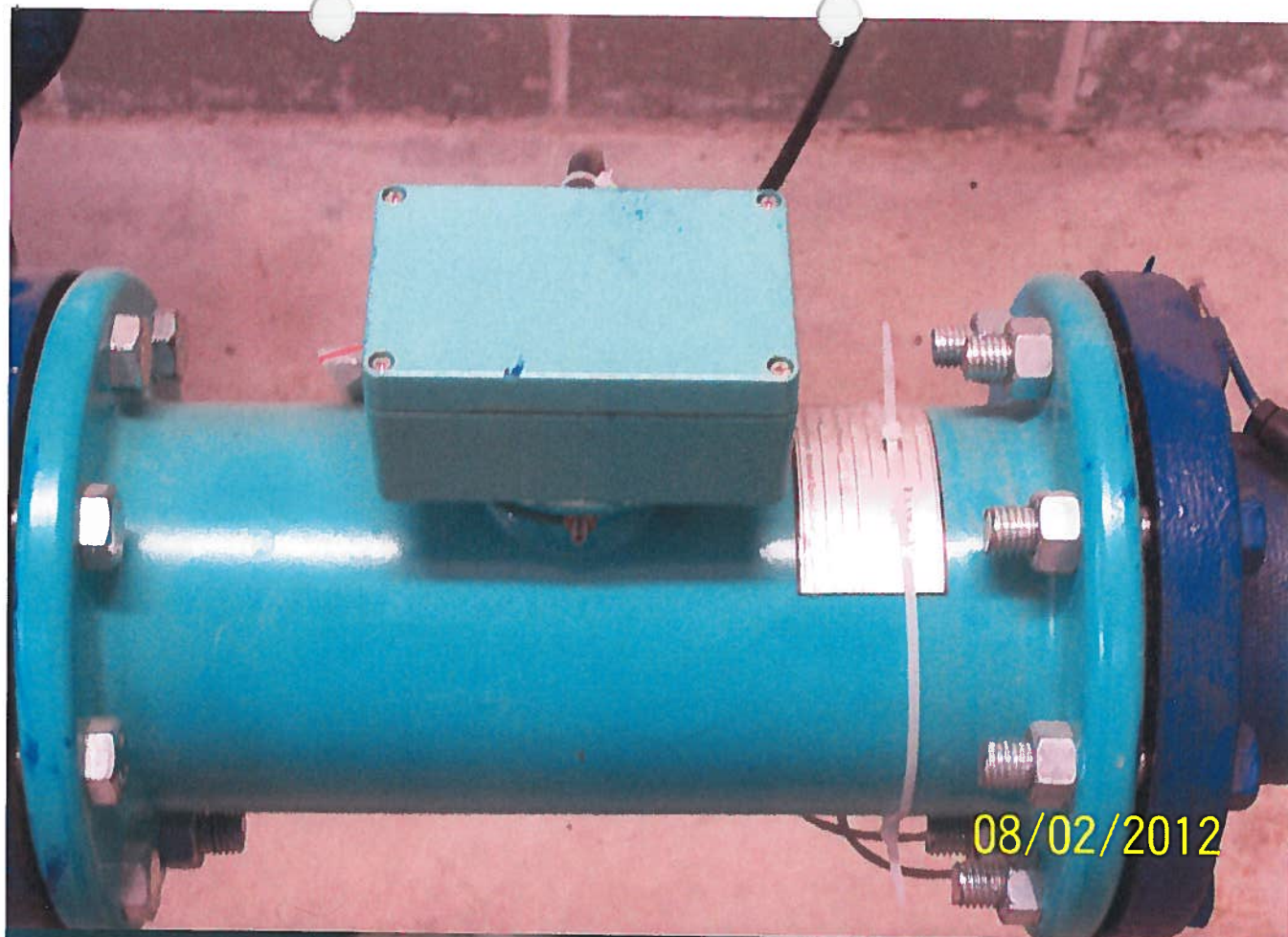
57-11752

S. Hemerway

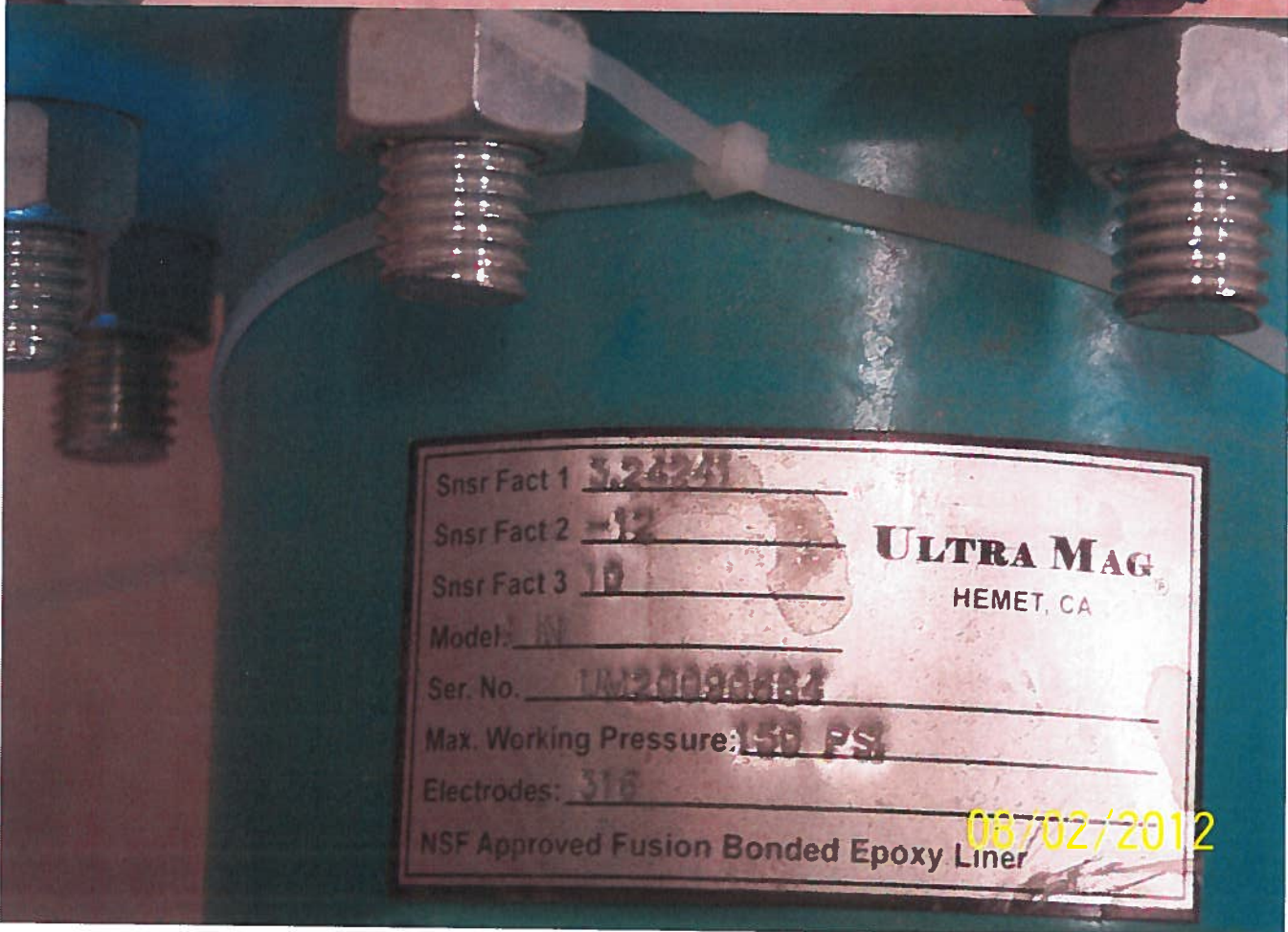
57-11752

For
well
#7
4"
Ultra
Mag
Serial

UM200
90684



08/02/2012



57-11752

For
well
#7

Snsr Fact 1 3.24241
Snsr Fact 2 -12
Snsr Fact 3 10
Model: UM
Ser. No. UM20090684
Max. Working Pressure: 150 PSI
Electrodes: 316
NSF Approved Fusion Bonded Epoxy Liner

ULTRA MAG
HEMET, CA

08/02/2012

57-11752

S. Hemerway



08/02/2012

well #7
57-11752
No flow at time of field exam, due to SCADA program + no demands on the system (back-up well)

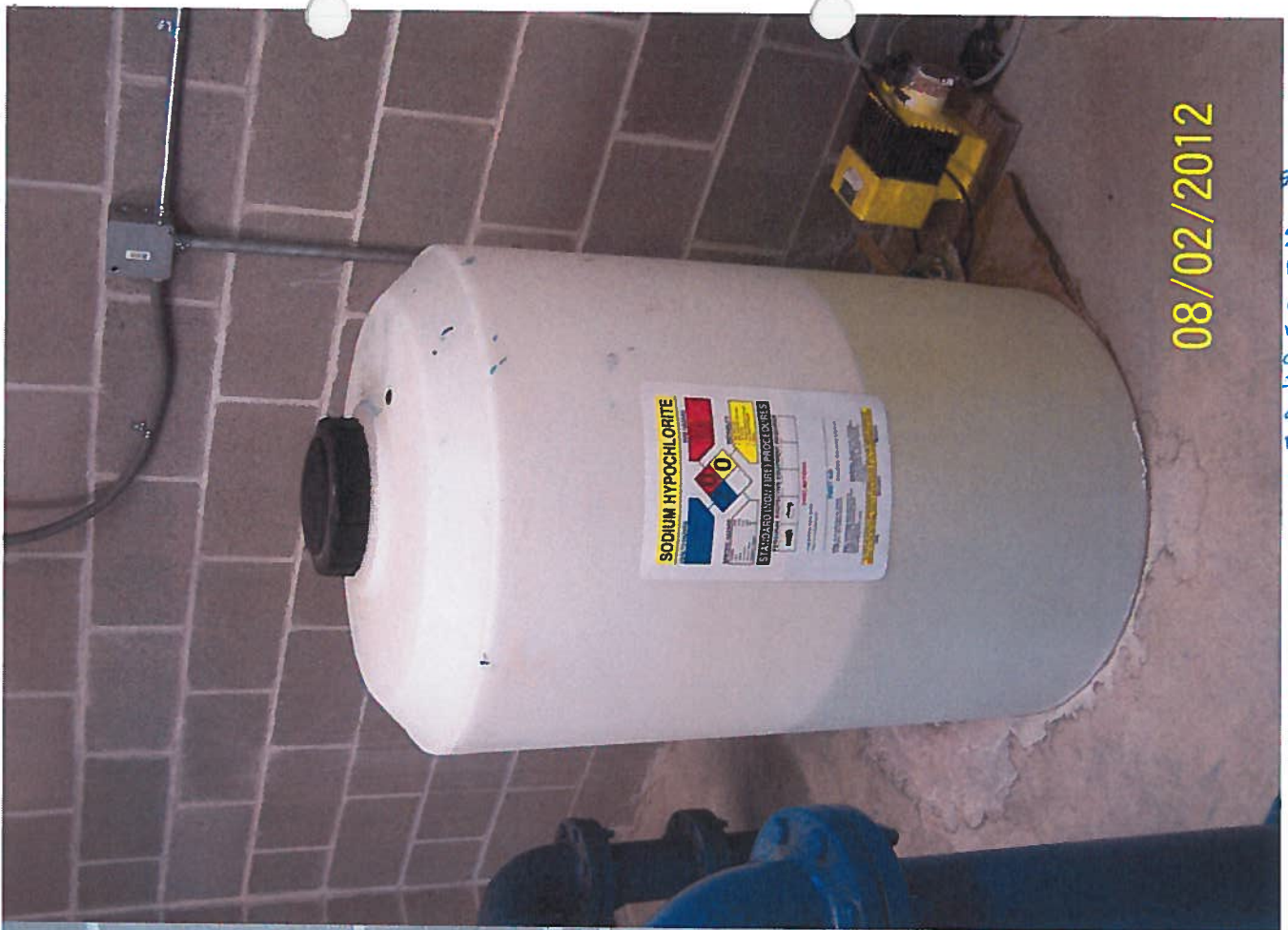


08/02/2012

57-11752
operator stated system average is maintain at 76psi with the SCADA program (system pressure)

57-11752

S. Hemenway



08/02/2012

57-11752

Sodium Hypo-chlorite routinely added to the domestic municipal system



08/02/2012

A0018539

57-11752

POD #7
10" casing extends 19' above ground level
20HP submersible (unknown make/model)

located on west side of pump house

57-11752

S. Hemerway

* COLLECTED Bore Diameter *
IDAHO DEPARTMENT OF WATER RESOURCES
WELL DRILLER'S REPORT

1. WELL TAG NO. D 0053559

Drilling Permit No. 907669-855629

Water right or injection well # 57-11752

2. OWNER: City of Homedale

Name _____

Address PO Box 757

City Homedale State ID Zip 83628

3. WELL LOCATION:

Twp. 3 North ☒ or South ☐ Rge. 5 East ☐ or West ☒

Sec. 4 N/E 1/4 S/E 1/4 S/E 1/4 ☒

Gov't Lot _____ County Owyhee

Lat. 43 ° 37 : 16 N (Deg. and Decimal minutes)

Long. 116 ° 55 : 56 W (Deg. and Decimal minutes)

Address of Well Site Oregon Av & First St E

City Homedale

Lot. _____ Blk. _____ Sub. Name City of Homedale,

Riverside Park

4. USE:

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

☐ Other _____

5. TYPE OF WORK:

☒ New well ☐ Replacement well ☐ Modify existing well

☒ Abandonment ☐ Other _____

6. DRILL METHOD:

☐ Air Rotary ☒ Mud Rotary ☐ Cable ☐ Other _____

7. SEALING PROCEDURES:

Seal material	From (ft)	To (ft)	Quantity (lbs or ft³)	Placement method/procedure
bentonite chips	0	3	100#	poured
cement	3	176	6440#	pumped

8. CASING/LINER:

Diameter (nominal)	From (ft)	To (ft)	Gauge/Schedule	Material	Casing	Liner	Threaded	Welded
10	+3	206'6"	365	steel	☒	☐	☐	☒
					☐	☐	☐	☐
					☐	☐	☐	☐
					☐	☐	☐	☐

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

9. PERFORATIONS/SCREENS:

Perforations ☐ Y ☒ N Method _____

Manufactured screen ☒ Y ☐ N Type Johnson V wire

Method of installation _____

10. FILTER PACK:

Filter Material	From (ft)	To (ft)	Quantity (lbs or ft³)	Placement method
10-20 sand	176	250	7990#	poured

Length of Headpipe _____ Length of Tailpipe _____

Packer ☐ Y ☒ N Type _____

11. FLOWING ARTESIAN:

Flowing Artesian? ☐ Y ☒ N Artesian Pressure (PSIG) _____

Describe control device _____

12. STATIC WATER LEVEL and WELL TESTS:

Depth first water encountered (ft) _____ Static water level (ft) 13.5

Water temp. (°F) _____ Bottom hole temp. (°F) _____

Describe access port _____

Well test:

Drawdown (feet)	Discharge or yield (gpm)	Test duration (minutes)
60	439	1440

Test method:

Pump	Bailer	Air	Flowing artesian
☒	☐	☐	☐

Water quality test or comments: _____

13. LITHOLOGIC LOG and/or repairs or abandonment:

Bore Dia. (in)	From (ft)	To (ft)	Remarks, lithology or description of repairs or abandonment, water temp.	Water	
				Y	N
15	0	2	topsoil		X
	2	12	cemented sand & small gravel		X
	12	16	tan clay		X
	16	100	blue clay w/ shale streaks		X
	100	112	sandy blue clay		X
	112	130	blue clay		X
	130	162	sandy blue clay		X
	162	192	blue clay		X
	192	205	sandy blue clay		X
	205	234	fine black & blue sand	X	
	234	236	black sandstone	X	
	236	242	black sand	X	
	242	250	blue clay		X

RECEIVED

JUN 22 2009

WATER RESOURCES
WESTERN REGION

Completed Depth (Measurable): 241'6"

Date Started: 4/27/09 Date Completed: 5/27/09

14. DRILLER'S CERTIFICATION:

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

Company Name Stevens & Sons Co. No. 153

*Principal Driller [Signature] Date 5/28/09

*Driller [Signature] Date _____

*Operator II _____ Date _____

Operator I _____ Date _____

* Signature of Principal Driller and rig operator are required.

57-11752

(1)

Attachment I
D0053559

Conceptual Geologic Section
Water Table 5 Feet
0 to 17' Sandy Clay

17' to 215' Blue Clay

215' to 240' Black Sand

240' to 245' Blue Clay

Total Depth Approximately 245'

Note: Drawing not to scale

Well Design

Temporary Surface Casing to be
Installed at Drillers Discretion
To be withdrawn with Sandpack
and Seal Emplacement
0' to TBD'

Centralizers on Minimum of 60'
Interval. Commercially Available
"Lantern" Style or As Approved
by the Engineer.

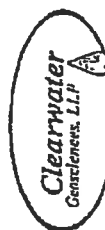
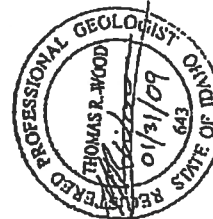
Drill Actual 14" or greater diameter
Borehole to Total Depth
0' to 245'

10", 0.365" Wall Steel Casing
0' to 215'

Neat Cement Grout or Bentonite
Grout, Determined as Site
Conditions Dictate. Per
IDAPA 58.01.08 510.3.g
0' to 190'

Colorado Silica Sand (est 10 - 12")
Minimum 25' Above Top of Well
Screen. Actual Size to be Determined by Sieve Analysis of
Aquifer Material
190' to 245'

10' SS Well Screen (est 25' Slot)
"High Flow" V-Slot Continuous
Wire Wrapped. Set Across Water
Bearing Sands. Actual Slot Size to
be Determined
215' to 240'



Client: Schiess & Associates
Location: County: Owyhee State: ID
Township: 03 N Range: 5 W
Section: 4 QQ: NE Q: SE
Project Geologist: T. Wood
Revision: 01/31/09

Clearwater Geosciences, LLP

groundwater scientists serving industry since 1994

510 E. 17th St., Suite 205, Idaho Falls, ID 83404

Phone: 208-589-5555 FAX: 208-542-1489

www.idahowaterwells.com

Project: City of Homedale Well #7 - Riverside
Well Design