

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 63-12559
Exam Date: 8/5/2016

1. Current Owner:
EAGLE WATER CO INC
PO BOX 455
EAGLE ID 83616-0455
(208)939-0242
2. Accompanied by: Jeff Cornell
Phone No: (208)939-0242
Address: 188 W. State Street; Eagle, ID 83616
Relationship to Permit Holder: Lead Operator

3. **SOURCE:**
GROUND WATER

TRIBUTARY:

B. OVERLAP REVIEW

1. Other water rights with the same place of use: 63-7368, 63-7618, 63-9245, 63-11798, 63-12147
2. Other water rights with the same point-of-diversion: none

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

GROUND WATER L3 (NE¼SW¼) Sec. 15, Twp 04N, Rge 01E, B.M. ADA County

Method of Determination: ArcGIS, GPS

2. **PLACE OF USE:** MUNICIPAL – EWC Service Area

Method of Determination: ArcGIS

3. **SYSTEM MAP:**

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

☒ 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.

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

☒ Photo of Diversion and System Attached

4. **DIVERSION INFRASTRUCTURE:**

Well or Diversion ID No.*	Motor Make	Hp	Motor Serial No.	Pump Make	Pump Serial No. or Discharge Size
Well No. 1 A00003891	Berkeley	50	Unknown	Berkeley Submersible	6 inch
Well No. 2 A0003889	Berkeley	20 Boosters: 25+25+15	Unknown	Berkeley Submersible	6 inch
Well No. 3 A0003890	US Motors	20	Unknown	Berkeley Submersible	6 inch

Well No. 4 E0006120	Priest Electric	300	W06091817	Layne Bowler	10 inch (well) to 12 inch
Well No. 6 E0009067	Priest Electric	250	12338	Layne Bowler	10 inch (well) to 12 inch
Well No. 7	Emerson US Motors	200	BF60A	American Marsh	12 inch
Well No. 8 D0053205	Priest Electric	250	W02V336R136M	American Marsh	12 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
McCrometer (7)	Flow Meter	McPropeller	M0312	06-04351	6 inch, 12 inch	unknown

2. Measurements:

About half of the wells were pumping at the time of the field exam. I obtained the following measurements:

- Well No. 1: This well had been offline for about 1 year (August 2015). Jeff explained that the motor blew in 2015.
- Well No. 2: This well was not running at the time of the exam. Well No. 2 is functional, but it only runs to refill the 90,000 gallon reservoir.
- Well No. 3: This well was taken offline in 1995. EWC has no plans or intentions to bring Well No. 3 back online.
- Well No. 4 (300 hP): The pump was diverting approximately 1250 gpm (2.79 cfs).
- Well No. 6 (250 hP): The pump was producing 1000 gpm (2.23 cfs).
- Well No. 7 (200 hP): The flow meter needle was rapidly fluctuating between 0 and 2500 gpm during the exam, making it difficult to get an accurate measurement.
- Well No. 8 (250 hP): The pump was only discharging about 300 gpm (0.67 cfs).

Eagle Water Company record retention policy requires 10 years of recordkeeping. From 2016, this span only slightly covers the permit development period of 63-12559. Therefore, EWC had almost no records which would be applicable. I obtained the following diversion records from the Idaho Public Utilities Commission Website – Eagle Water Company Annual Reports. These measurement reports were used to calculate the annual usage during the permit development period.

Gallorage (PUC Annual Rpt.)	Total Gal. in Year	Total Gal. Peak Mo.	Total Gal. Peak Day	
2002	609,628,000	92,949,000	4,350,000	63-12559 Permit Development Period
2003	730,965,000	130,295,500	4,647,000	
2004	747,961,000	125,703,000	4,763,000	
2005	694,869,000	97,092,000	5,156,000	
2006	815,222,000	102,403,000	5,261,000	
2007	858,421,000	146,504,000	5,459,000	
2008	811,209,000	121,649,000	5,488,000	
2009	846,790,000	129,476,000	5,557,000	
2010	797,334,000	153,077,000	5,764,000	
2011	768,389,000	152,983,000	5,955,000	
2012	826,090,000	149,333,000	5,566,000	
2013	840,560,000	131,758,000	5,983,000	
2014	870,610,000	161,408,000	5,570,000	

E. FLOW CALCULATIONS

x Additional Computation Sheets Attached

Measured Method: Pump Curve, Theoretical, Measurement Records

MDD		Total Gal. Max Day
		5,459,000
Avg GPM Max Day		Avg CFS Max Day
3790.97		8.45
PHD (cfs)		
Std. Peak Factor	=	1.5
CFS Max Day * PF	=	12.67
High Peak Factor	=	1.75
CFS Max Day * PF	=	14.78

Again, my access to infrastructure records and diversion records was very limited. In many cases, well houses did not display the pump serial information. I relied on the Idaho PUC annual reports to a great extent.

Recommended diversion limit for 63-12559: 3.0 cfs

Water Right	Diversion Rate Limit
63-7368	2.0 cfs
63-7618	1.4 cfs
63-9245	1.1 cfs
63-11798	1.34 cfs
63-12147	5.0 cfs
63-12559	3.0 cfs proposed
Proposed Combined	13.84 cfs

Recommended combined diversion limit for all EWC municipal licenses: None, total rights sum to 13.84 cfs

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation: **N/A**

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

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

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

2. Volume Calculations for Other Uses: **Municipal – Not Applicable**

G. NARRATIVE/REMARKS/COMMENTS

I met Jeff Cornell, lead operator, and his assistant at the Eagle Water Company (EWC) main office at 188 W. State Street in Eagle, ID at 9:30 AM on Friday, August 5, 2016. I caravanned behind Jeff and his assistant to each of the EWC wells during the field exam.

We first visited Well No. 6 (250 hP). This well is located at the SE corner of W. State Street and S. Payette Way, near the entrance to Pine Ridge subdivision. The interior and exterior of well house was clean and tidy. The US Electric motor was running at the time of the exam, and the Layne brand pump was producing 1000 gpm (2.23 cfs).

Next, we drove to Well No. 4 (300 hP). It is located at the northeast corner of the Eagle Industrial Center campus at approximately 1800 E. State Street. The well house interior was spotless and clearly well-maintained. Well No. 4 was on and pumping at the time of the exam; Layne brand pump was diverting approximately 1250 gpm (2.79 cfs).

After that, we visited Well No. 8 (250 hP) located on S. Anaconda Avenue, only 1,200 feet from the Boise River. The well house looked very new and appeared to be designed to blend well with its future residential neighbors. This well

was also pumping at the time of the exam. The flow measurement of the American Marsh pump was only diverting about 300 gpm (0.67 cfs).

Then, we traveled to Well No. 7 (200 hP). Well No. 7 is only about 1,500 feet southeast of Well No. 8; it is also very close to the Boise River. The flow meter needle was rapidly fluctuating between 0 and 2500 gpm, making it difficult to get an accurate measurement. Jeff explained that the flow meters will fluctuate in this fashion just before the well is about to shut off (drop in demand). Flow rate measurement can be very difficult during the close-to-shutoff time.

Moving onward, we drove to Well No. 2. It is located off of E. Ranch Drive near the Eagle Hills Golf Course. This well was not running at the time of the exam. The well house was older but tidy and maintained. A 90,000 gallon square concrete tank is discreetly situated back-to-back with the No. 2 well house. Well No. 2 is functional, but it only runs to refill the 90,000 gallon reservoir. It is equipped with what appeared to be three booster pumps-two 25 hP and one 15 hP. Jeff didn't think that the well still had a submersible pump installed inside the casing. A 1981 field exam stated that the original submersible pump inside the well was 20 hP, with three boosters-two 25 hP and one 15 hP. Note that the field exam for 63-9245 claims a volume of 100,000 gallon capacity of the reservoir.

Next, we moved on to Well No. 1, located at the southwest corner of an empty dirt lot where N. Ash Street and Spring Hill Drive meet. The well house was a bit worn, perhaps not receiving the level of use and maintenance as the previous. The well was equipped with a 50 hP pump but it had been offline for about 1 year (August 2015). Jeff explained that the motor blew in 2015. Subsequent electrical inspections have led EWC to believe that the well house was struck by lightning. Because portions of the well casing are welded, instead of threaded, special equipment will be necessary to rehabilitate the well. EWC has the intention of getting Well No. 1 back online, but no immediate plans for the necessary work.

Finally, we drove a short distance to Well No. 3. It is located on a separate parcel inside the Eagle Hills Golf Course storage yard. Jeff explained that this well was taken offline in 1995. Due to iron and bacterial contamination, the well was disconnected from the drinking water distribution system. EWC has no plans or intentions to bring Well No. 3 back online. We were not able to determine the size of the pump originally installed in Well No. 3 using Eagle Water Company records. A 4000 gallon storage tank is also housed in the well house; it appears to have been connected to the system when the well was operational. The well house was dusty and filled with cobwebs, clearly indicating non-use.

To conclude, we regrouped at the EWC main office and Jeff provided me all his available copies of pump curves and well logs. He mentioned that he was still working with the Idaho PUC to obtain well diversion records submitted to them during the development period of permit 63-12559 (March 1, 2000 to January 2, 2008). I mentioned to him that these records would greatly help me in issuing a more precise water right license, but I would proceed with the process using the information collected at the field exam and in the water right records.

In the week following the field exam, I was able to find 2002-2014 EWC annual reports submitted to the Idaho Public Utilities Commission. These helped greatly in determining annual water use during the development period. I utilized the well log for Well No. 7 to determine the water bearing zone appropriated.

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	3.00 CFS	
<u>Totals:</u>		3.000 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	☒ None

I. AUTHENTICATION Ashley Newbry, PE

Field Examiner's Name

Ashley Newbry

Date

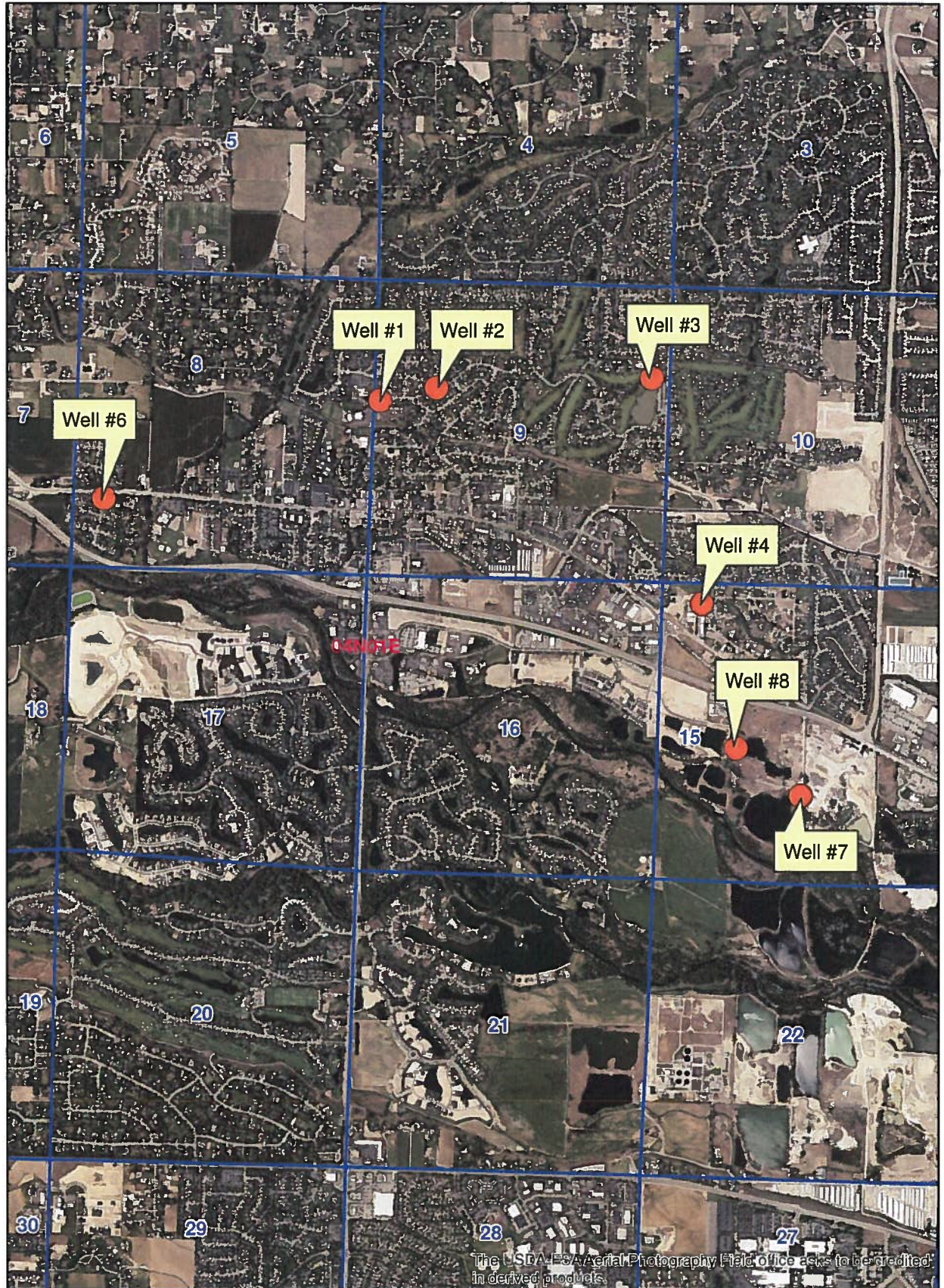
9/1/2016

SUMMARY OF FIELD EXAMS	63-7368 Field Exam	63-7618 Field Exam	63-9245 Field Exam	63-11798 Field Exam	63-12147 Field Exam	63-12559 Field Exam & 2007, 2014 PUC Report
Exam Date	1/29/1981	1/29/1981	1/29/1981	6/8/1994	6/10/1999	8/5/2016
Well No 1 - horsepower	50	50	50			50
Well No 1 - gpm	1100	1100	1100			Out of Order in 2015
Well No 1 - capacity	2000	2000	2000			600
Well No 1 - cfs	2.45	2.45	2.45			1.34
Well No 1 - pump	Berkeley Submers.	Berkeley Submers.	Berkeley Submers.			Berkeley Submers.
Well No 2 - horsepower	20	20	20			20
Well No 2 - gpm	600	600	600			not measured
Well No 2 - capacity	600	600	600			400
Well No 2 - cfs	1.34	1.34	1.34			0.89
Well No 2 - pump	Submersible	Submersible	Submersible			Berkeley Submers.
Well No 2 - reservoir	100,000	100,000	100,000			90,000
Well No 3 - horsepower	60	pod was added after license issued	60			20
Well No 3 - gpm	300	TRANSFER	300			DISCONNECTED in 1995
Well No 3 - capacity	400		400			400
Well No 3 - cfs	0.67		0.67			0.89
Well No 3 - pump	US Motors		US Motors			Berkeley Submers.
Well No 3 - reservoir	4000					4000
Well No 4 - horsepower				260	260	300
Well No 4 - gpm				not measured	not measured	1250
Well No 4 - capacity				2500	3250	2500
Well No 4 - cfs				5.58	7.2	5.57
Well No 4 - pump				Layne/US Electric	Layne/US Electric	Layne & Bowler
Well No 6 - horsepower					250	250
Well No 6 - gpm					not measured	1000
Well No 6 - capacity					3300	2600
Well No 6 - cfs					7.4	5.79
Well No 6 - pump					Layne/US Electric	Layne & Bowler
Well No 7 - horsepower						200
Well No 7 - gpm						Invalid measurement
Well No 7 - capacity						1345
Well No 7 - cfs						3.00
Well No 7 - pump						American Marsh
Well No 8 - horsepower			pod was added after license issued			250
Well No 8 - gpm			TRANSFER			300
Well No 8 - capacity						1800
Well No 8 - cfs						4.01
Well No 8 - pump						American Marsh
Permit, Municipal (cfs)	2.0	1.4	1.1	1.34	5.0	3.00
2000-2008 Capacity (cfs)						16.59
Current Capacity 2016 (cfs)						19.26

Gallage (PUC Annual Rpt.)	Total Gal. in Year	Total Gal. Peak Mo.	Total Gal. Peak Day
2002	609,628,000	92,949,000	4,350,000
2003	730,965,000	130,295,500	4,647,000
2004	747,961,000	125,703,000	4,763,000
2005	694,869,000	97,092,000	5,156,000
2006	815,222,000	102,403,000	5,261,000
2007	858,421,000	146,504,000	5,459,000
2008	811,209,000	121,649,000	5,488,000
2009	846,790,000	129,476,000	5,557,000
2010	797,334,000	153,077,000	5,764,000
2011	768,389,000	152,983,000	5,955,000
2012	826,090,000	149,333,000	5,566,000
2013	840,560,000	131,758,000	5,983,000
2014	870,610,000	161,408,000	5,570,000

63-12559
Permit
Development
Period

MDD	Total Gal. Max Day
	5,459,000
Avg GPM Max Day	Avg CFS Max Day
3790.97	8.45
PHD (cfs)	
Std. Peak Factor	= 1.5
CFS Max Day * PF	= 12.67
High Peak Factor	= 1.75
CFS Max Day * PF	= 14.78
Recommend License (combined limit)	= 13.00 cfs



63-12559

Name: Annual Rpt. to P.U.C Eagle Water Company

SYSTEM ENGINEERING DATA
(continued)

For Year Ended 12/31/2007

- 4 Pump information for ALL system pumps, including wells and boosters.

Designation or Location & Type of Pump**	Horse Power	Rated Capacity (gpm)	Discharge Pressure (psi)	Energy Used This Year
W/H # 1 Sub. Berkley	50	600		
W/H # 2 Sub. Berkley	20	400		
W/H # 3 Sub. Berkley	20	400		
W/H # 4 Layne & Bowler	variable 250	up to 2,500		
W/H # 6 Layne & Bowler	variable 250	up to 2,500		
W/H # 2 Pacific	25	450		
W/H # 2 Pacific	15	220		
W/H # 2 Pacific	25	450		
WH # 7 American Marsh	variable 200	up to 1,345		

**** Submit pump curves unless previously provided or unavailable. Asterisk facilities added this year.
Attach additional sheets if inadequate space is available on this page.**

- 5 If Wells are metered:
- What was the total amount pumped this year? 858,421,000 ga
- What was the total amount pumped during peak month? 146,504,000 ga
- What was the total amount pumped on the peak day? 5,459,000 gal.
- 6 If customers are metered, what was the total amount sold in peak month? 134,862,618
- 7 Was your system designed to supply fire flows? yes
- If Yes: What is current system rating? 3
- 8 How many times were meters read this year? 12
- During which months? January through December
- 9 How many additional customers could be served with no system improvements except a service line and meter? moratorium
- How many of those potential additions are vacant lots? moratorium
- 10 Are backbone plant additions anticipated during the coming year? moratorium
- If Yes, attach an explanation of projects and anticipated costs!
- 11 In what year do you anticipate that the system capacity (supply, storage or distribution) will have to be expanded? _____

2007 Annual Report to PUC

Name: Annual Rpt. to P.U.C. Eagle Water Company

**SYSTEM ENGINEERING DATA
(continued)**

For Year Ended 12/31/2014

- 4 Pump information for ALL system pumps, including wells and boosters.

Designation or Location & Type of Pump**	Horse Power	Rated Capacity (gpm)	Discharge Pressure (psi)	Energy Used This Year
W/H #2 Sub. Berkely	20	400		
W/H #3 Sub. Berkely	20	400		
W/H #4 Layne & Bowler	variable 300	up to 2,500		
W/H #6 Layne & Bowler	variable 250	up to 2,500		
W/H #2 Pacific	25	450		
W/H #2 Pacific	15	220		
W/H #2 Pacific	25	450		
W/H #7 American Marsh	variable 200	up to 1,345		
W/H #8 US Electric Motors	variable 250	up to 2,500		
W/H #8 US Electric Motors	variable 250	up to 2,500		

**** Submit pump curves unless previously provided or unavailable.**

Attach additional sheets if inadequate space is available on this page.

- 5 If Wells are metered:
- | | | |
|---|--------|---------|
| What was the total amount pumped this year? | | 870,610 |
| What was the total amount pumped during peak month? | July | 161,408 |
| What was the total amount pumped on the peak day? | 17-Jul | 5,570 |
- 6 If customers are metered, what was the total amount sold in peak month? 16140800
- 7 Was your system designed to supply fire flows? yes
If Yes: What is current system rating? 3
- 8 How many times were meters read this year? 12
During which months? January through December
- 9 How many additional customers could be served with no system improvements except a service line and meter? 70-80
How many of those potential additions are vacant lots? 70-80
- 10 Are backbone plant additions anticipated during the coming year? no
If Yes, attach an explanation of projects and anticipated costs!
- 11 In what year do you anticipate that the system capacity (supply, storage or distribution) will have to be expanded? _____

2014 Annual Report to PUC

b3-12559

WELL DRILLER'S REPORT

State law requires that this report be filed with the Director, Department of Water Resources within 30 days after the completion or abandonment of the well.

1. WELL OWNER

Eagle Water Company

Name Eagle Ranch Water Corp.

Address P.O. Box 455, Eagle, Idaho 83616

Owner's Permit No. _____

2. NATURE OF WORK

- ☒ New well ☐ Deepened ☐ Replacement
☐ Abandoned (describe method of abandoning) _____

3. PROPOSED USE

- ☐ Domestic ☐ Irrigation ☐ Test ☒ Municipal
☐ Industrial ☐ Stock ☐ Waste Disposal or Injection
☐ Other _____ (specify type)

4. METHOD DRILLED

- ☒ Rotary ☐ Air ☐ Hydraulic ☒ Reverse rotary
☐ Able ☐ Dug ☐ Other _____

5. WELL CONSTRUCTION

Casing schedule: ☒ Steel ☐ Concrete ☐ Other _____

Thickness	Diameter	From	To
.312 inches	16 inches	2 feet	160 feet
.365 inches	10 inches	160 feet	203 feet
.365 inches	10 inches	228 feet	243 feet
.365 inches	10 inches	268 feet	288 feet
.365 inches	10 inches	308 feet	318 feet

Was casing drive shoe used? ☐ Yes ☒ No

Was a packer or seal used? ☐ Yes ☒ No

Perforated? ☐ Yes ☒ No

How perforated? ☐ Factory ☐ Knife ☐ Torch

Size of perforation _____ inches by _____ inches

Number	From	To
_____ perforations	_____ feet	_____ feet
_____ perforations	_____ feet	_____ feet
_____ perforations	_____ feet	_____ feet

Well screen installed? ☒ Yes ☐ No

Manufacturer's name Johnson

Type 304 Model No. _____

Diameter 10 Slot size 40 Set from 208 feet to 228 feet

Diameter 10 Slot size 40 Set from 248 feet to 308 feet

Gravel packed? ☒ Yes ☐ No ☐ Size of gravel: #8 Sand

Set from 75 feet to 328 feet

Seal depth 75 Material used in seal: ☒ Cement grout

☐ Puddling clay ☐ Well cuttings

Sealing procedure used: ☐ Slurry pit ☐ Temp. surface casing

☒ Overbore to seal depth

Method of joining casing: ☐ Threaded ☒ Welded ☐ Solvent

Weld

☐ Cemented between strata

7. WATER LEVEL

Static water level 38 feet below land surface.

Flowing? ☐ Yes ☒ No G.P.M. flow _____

Artesian closed-in pressure _____ p.s.i.

Controlled by: ☐ Valve ☐ Cap ☐ Plug

Temperature _____ OF Quality _____

8. WELL TEST DATA

☒ Pump ☐ Bailor ☐ Air ☐ Other

Discharge G.P.M.	Pumping Level	Hours Pumped
<u>560</u>		<u>1</u>

9. LITHOLOGIC LOG

Hole Diam.	Depth From	Depth To	Material	Water Yes
28	0	5	Topsoil	
	5	7	Clay	
	7	17	Brn. Sand	
	17	25	Gravel	
	25	42	Sand, Gravel, River Rock	
	42	45	Brn. Clay	
	45	50	Brn. Sand	
	50	58	Brn. Clay	
	58	68	Brn. Sand	
	68	85	Brn. Clay	
	85	126	Brn. Sand w/some Gravel	
	126	130	Brn. Clay	
	130	136	Sand w/small Gravel	
	136	143	Brn. Clay w/Sand Streaks	
	143	148	Brn. Sand-Crse.	
	148	170	Brn. Sand-Crse. w/small Gravel	
	170	176	Brn. Sand-Med. to Crse.	
	176	178	Brn. Clay	
	178	192	Brn. Sand w/Clay Streaks	
	192	205	Brn. Clay	
	205	228	Brn. Sand-Crse. w/small Gravel	
	228	235	Brn. Sand-Fine to Med.	
	235	248	Brn. Clay	
	248	296	Brn. Sand w/some Clay Streaks	
	296	298	Blue Sand-Fine	
	298	308	Blue Sand-Fine w/Clay Streaks	
	308	328	Blue Clay w/some Sand Streaks	

WELL #1

68-1259

Detail Report for Pump Definition: PUMP 1 BERKLEY

Pump Head Characteristics

Pump Type Multiple Point

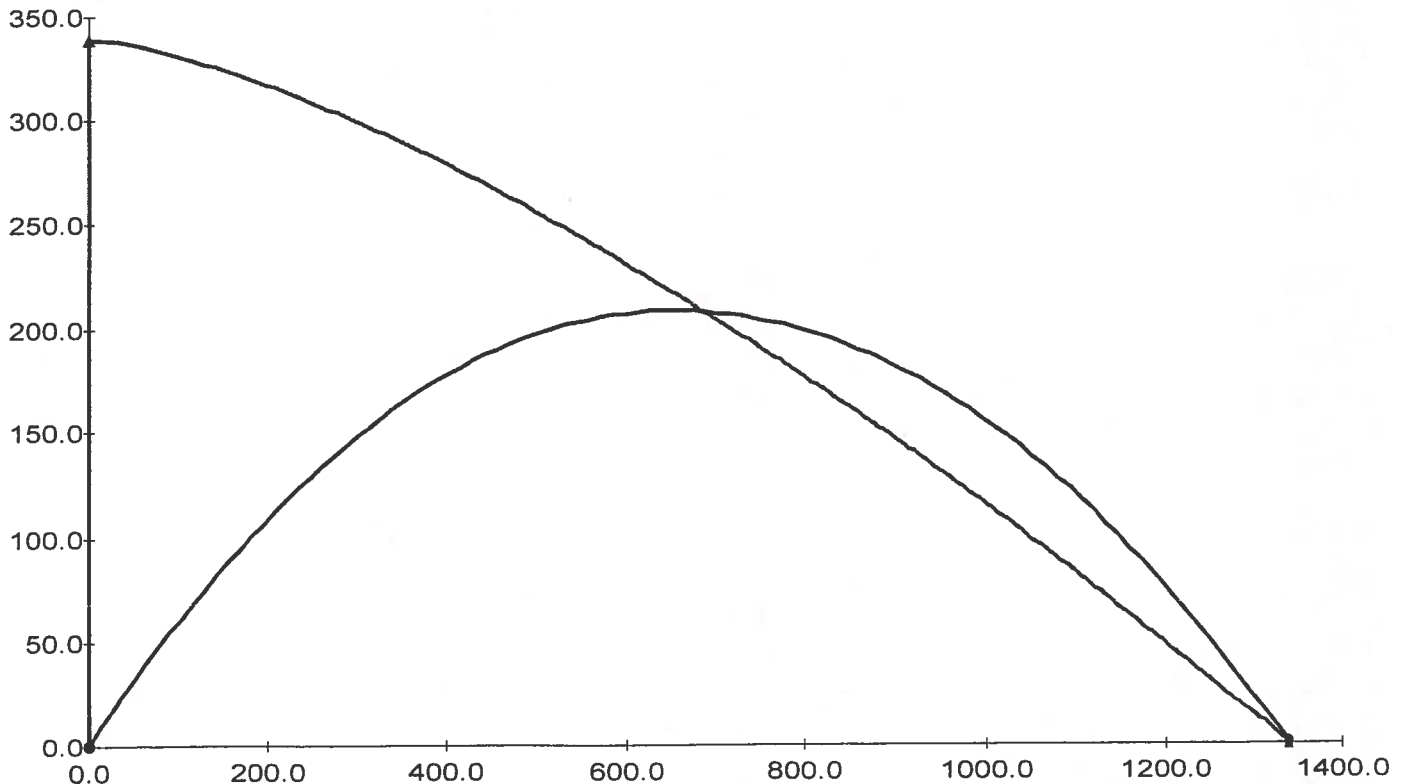
Discharge (gpm)	Head (ft)
0.00	352.00
50.00	339.00
100.00	328.00
150.00	317.00
200.00	308.00
250.00	298.00
308.00	290.00
350.00	288.00
405.00	280.00
485.00	270.00
560.00	252.00
650.00	227.00
800.00	163.00

Pump Efficiency Characteristics

Efficiency Type Best Efficiency Point
 BEP Flow 650.00 gpm
 BEP Efficiency 68.5 %

Motor and Drive Characteristics

Motor Efficiency 90.0 %
 Variable Speed Drive? false



Title: INITIAL RUN

c:\...initial run w-o covenant-gv2.wcd

01/30/06 13:54:54 © Bentley Systems, Inc.

Haestad Methods Solution Center

Watertown, CT 06795 USA

+1-203-755-1666

Project Engineer: DMC

WaterCAD v7.0 [07.00.049.00]

Page 1 of 1

Well #1

63-12559

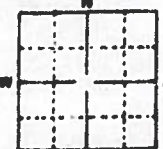
USE TYPEWRITER -
BALL POINT PEN

W/H #2

State of Idaho
Department of Water Administration
WELL DRILLER'S REPORT

Rec'd
9-30-76
D 244

State law requires that this report be filed with the Director, Department of Water Administration within 30 days after the completion or abandonment of the well.

1. WELL OWNER Name: <u>Robert De Shazo</u> Address: <u>Eagle Idaho</u> <u>Eagle Water Co.</u> Owner's Permit No. _____	7. WATER LEVEL Static water level <u>39</u> feet below land surface Flowing? ☒ Yes ☐ No G.P.M. flow _____ Temperature _____ Quality _____ Artesian closed in pressure _____ P.S.I. Controlled by ☐ Valve ☐ Cap ☐ Plug																																																										
2. NATURE OF WORK ☒ New well ☐ Deepened ☐ Replacement ☐ Abandoned (Describe method of abandoning) _____	8. WELL TEST DATA ☒ Pump ☐ Bailor ☐ Other _____ <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Discharge G.P.M.</th> <th>Draw Down</th> <th>Hours Pumped</th> </tr> </thead> <tbody> <tr> <td><u>460 @ 470</u></td> <td><u>101</u></td> <td></td> </tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </tbody> </table>	Discharge G.P.M.	Draw Down	Hours Pumped	<u>460 @ 470</u>	<u>101</u>																																																					
Discharge G.P.M.	Draw Down	Hours Pumped																																																									
<u>460 @ 470</u>	<u>101</u>																																																										
3. PROPOSED USE ☐ Domestic ☐ Irrigation ☐ Test ☐ Other (specify type) _____ ☐ Municipal ☐ Industrial ☐ Stock ☐ Waste Disposal or Injection <u>Sub division</u>	9. LITHOLOGIC LOG <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">Hole Diam.</th> <th colspan="2">Depth</th> <th rowspan="2">Material</th> <th colspan="2">Water</th> </tr> <tr> <th>From</th> <th>To</th> <th>Yes</th> <th>No</th> </tr> </thead> <tbody> <tr> <td><u>12</u></td> <td><u>0</u></td> <td><u>33</u></td> <td><u>dirt</u></td> <td></td> <td></td> </tr> <tr> <td></td> <td><u>33</u></td> <td><u>54</u></td> <td><u>gravel</u></td> <td></td> <td></td> </tr> <tr> <td></td> <td><u>54</u></td> <td><u>143</u></td> <td><u>muddy sand</u></td> <td></td> <td></td> </tr> <tr> <td></td> <td><u>143</u></td> <td><u>170</u></td> <td><u>very sandy</u></td> <td></td> <td></td> </tr> <tr> <td></td> <td><u>170</u></td> <td><u>181</u></td> <td><u>muddy sand</u></td> <td></td> <td></td> </tr> <tr> <td></td> <td><u>181</u></td> <td><u>203</u></td> <td><u>clean sand</u></td> <td></td> <td></td> </tr> <tr> <td></td> <td><u>203</u></td> <td><u>230</u></td> <td><u>sand</u></td> <td></td> <td></td> </tr> <tr> <td></td> <td><u>230</u></td> <td><u>44</u></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <u>screen and 8" liner</u> <u>pipe setting from</u> <u>143 to 230</u>	Hole Diam.	Depth		Material	Water		From	To	Yes	No	<u>12</u>	<u>0</u>	<u>33</u>	<u>dirt</u>				<u>33</u>	<u>54</u>	<u>gravel</u>				<u>54</u>	<u>143</u>	<u>muddy sand</u>				<u>143</u>	<u>170</u>	<u>very sandy</u>				<u>170</u>	<u>181</u>	<u>muddy sand</u>				<u>181</u>	<u>203</u>	<u>clean sand</u>				<u>203</u>	<u>230</u>	<u>sand</u>				<u>230</u>	<u>44</u>			
Hole Diam.	Depth		Material	Water																																																							
	From	To		Yes	No																																																						
<u>12</u>	<u>0</u>	<u>33</u>	<u>dirt</u>																																																								
	<u>33</u>	<u>54</u>	<u>gravel</u>																																																								
	<u>54</u>	<u>143</u>	<u>muddy sand</u>																																																								
	<u>143</u>	<u>170</u>	<u>very sandy</u>																																																								
	<u>170</u>	<u>181</u>	<u>muddy sand</u>																																																								
	<u>181</u>	<u>203</u>	<u>clean sand</u>																																																								
	<u>203</u>	<u>230</u>	<u>sand</u>																																																								
	<u>230</u>	<u>44</u>																																																									
4. METHOD DRILLED ☒ Cable ☐ Rotary ☐ Dug ☐ Other _____																																																											
5. WELL CONSTRUCTION Diameter of hole <u>12</u> inches Total depth <u>230</u> feet Casing schedule: ☒ Steel ☐ Concrete <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Thickness</th> <th>Diameter</th> <th>From</th> <th>To</th> </tr> </thead> <tbody> <tr> <td><u>0.250</u> inches</td> <td><u>12</u> inches</td> <td><u>1</u> feet</td> <td><u>157</u> feet</td> </tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table> Was a packer or seal used? ☐ Yes ☒ No Perforated? ☐ Yes ☒ No How perforated? ☐ Factory ☐ Knife ☐ Torch Size of perforations _____ inches by _____ inches Number _____ From _____ feet To _____ feet perforations _____ feet Well screen installed? ☒ Yes ☐ No Manufacturer's name <u>Johann screen</u> Type _____ Model No. _____ Diameter <u>8</u> Slot size <u>20</u> Set from <u>167</u> feet to <u>167</u> feet Diameter _____ Slot size _____ Set from <u>182</u> feet to <u>192</u> feet <u>118</u> <u>123</u> Gravel packed? ☒ Yes ☐ No Size of gravel <u>1/4" to 3/8"</u> Placed from <u>140</u> feet to <u>140</u> feet Surface seal depth <u>50</u> Material used in seal ☐ Cement grout ☐ Pudding clay ☐ Well cuttings Sealing procedure used ☐ Slurry pit ☐ Temporary surface casing ☐ Overbore to seal depth	Thickness	Diameter	From	To	<u>0.250</u> inches	<u>12</u> inches	<u>1</u> feet	<u>157</u> feet																																																			
Thickness	Diameter	From	To																																																								
<u>0.250</u> inches	<u>12</u> inches	<u>1</u> feet	<u>157</u> feet																																																								
6. LOCATION OF WELL Sketch map location must agree with written location.  Subdivision Name <u>Eagle Ranch</u> Lot No. <u>2</u> Block No. <u>3</u> County <u>Ada</u> <u>3/4</u> Sec. <u>9</u> T. <u>4</u> N. R. <u>1</u> E. M.	10. Work started <u>Nov 15</u> finished <u>Jan 1976</u> 11. DRILLER'S CERTIFICATION Firm Name <u>Russel Coors</u> Firm No. <u>65</u> Address <u>1514 Longmont</u> Signed by (Firm Official) <u>Russel Coors</u> and (Operator) <u>Dave Nailon</u>																																																										

USE ADDITIONAL SHEETS IF NECESSARY

FORWARD THE WHITE COPY TO THE DEPARTMENT

Well #2

63-12559

THEORETICAL HORSEPOWER EQUATION WORKSHEET

Water Right No.: 63-12559
 Reviewer: Ashley Newbry
 Date of Review: 8/5/2016

P/D No.:	Scenario 1	Scenario 2	Scenario 3	
PUMP HORSEPOWER (HP)	20	20	20	
BOOSTER HORSEPOWER (HP)	0	0	0	
PUMPING LEVEL (FT)	70	92	115	
DISCHARGE PRESSURE (PSI)	30	20	10	
RATE OF FLOW (CFS)	0.884	0.891	0.892	AVG
RATE OF FLOW (GPM)	397.0	400.1	400.4	0.89
				399.16
TOTAL DYNAMIC HEAD (FT)	139.3	138.2	138.1	138.5333

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:

Eagle Water Co Municipal Well 2 - Discharge to Reservoir ONLY
 * Pump curve not available

well #2

63-12559

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
WELL DRILLER'S REPORT

USE TYPEWRITER OR
BALLPOINT PEN

State law requires that this report be filed with the Director, Department of Water Resources
within 30 days after the completion or abandonment of the well.

1. WELL OWNER

Name Amyx Construction

Address Eagle Hills Sub. Eagle, Idaho

Owner's Permit No. _____

2. NATURE OF WORK

☐ New well ☒ Deepened ☐ Replacement

☐ Abandoned (describe method of abandoning)

3. PROPOSED USE

☐ Domestic ☐ Irrigation ☐ Test ☒ Other (specify type) _____

☐ Municipal ☐ Industrial ☐ Stock ☐ Waste Disposal or Injection

4. METHOD DRILLED

☐ Cable ☐ Rotary ☐ Dug ☐ Other

5. WELL CONSTRUCTION

Diameter of hole 12 inches Total depth 466 feet

Casing schedule: ☒ Steel ☐ Concrete

Thickness	Diameter	From	To
<u>.250</u> inches	<u>12</u> inches	<u>1</u> feet	<u>250</u> feet
<u>.250</u> inches	<u>10</u> inches	<u>1</u> feet	<u>466</u> feet
<u>.250</u> inches	<u>6</u> inches	_____ feet	_____ feet
_____ inches	_____ inches	_____ feet	_____ feet
_____ inches	_____ inches	_____ feet	_____ feet

Was casing drive shoe used? ☒ Yes ☐ No

Was a packer or seal used? ☒ Yes ☐ No

Perforated? ☐ Yes ☒ No

How perforated? ☐ Factory ☐ Knife ☐ Torch

Size of perforation _____ inches by _____ inches

Number	From	To
_____ perforations	_____ feet	_____ feet
_____ perforations	_____ feet	_____ feet
_____ perforations	_____ feet	_____ feet

Well screen installed? ☒ Yes ☐ No

Manufacturer's name Johnson

Type stainless steel Model No. _____

Diameter 6 TS Slot size 25 Set from _____ feet to _____ feet

_____ Slot size _____ Set from _____ feet to _____ feet

Well packed? ☒ Yes ☐ No Size of gravel #16 sand

Placed from 377 feet to 466 feet

Surface seal depth _____ Material used in seal: ☐ Cement grout

☐ Puddling clay ☒ Well cuttings

Sealing procedure used: ☐ Slurry pit ☐ Temporary surface casing

☒ Overbore to seal depth

7. WATER LEVEL

Static water level 58 feet below land surface.

Flowing? ☐ Yes ☒ No G.P.M. flow _____

Temperature _____ °F. Quality _____

Artesian closed-in pressure _____ p.s.i.

Controlled by: ☐ Valve ☐ Cap ☐ Plug

8. WELL TEST DATA

☒ Pump ☐ Bailer ☐ Other

Discharge G.P.M.	Drawdown	Hours Pumped
600	60	24

9. LITHOLOGIC LOG

Hole Diam.	Depth		Material	Water	
	From	To		Yes	No
10	250	377	Gray sandy clay	x	
	377	381	Blue clay		x
	381	396	Blue sand, fine	x	
	396	406	Sandy clay gray	x	
	406	421	Fine sand gray	x	
	421	436	Sandy clay blue	x	
	436	446	Fine sand gray	x	
	446	456	Sandy clay blue	x	
	456	466	Gray sand, fine	x	

SCREEN SETTING

6" TS stainless screen assb.

Screen _____ Blank _____

381 to 396 377 to 381

406 421 396 406

436 446 421 436

456 466 446 456

WENT OFFLINE
IN 1995

WELL #3

63-12559

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
WELL DRILLER'S REPORTUSE TYPEWRITER
BALLPOINT PENState law requires that this report be filed with the Director, Department of Water Resources
within 30 days after the completion or abandonment of the well.

1. WELL OWNER

EAGLE WATER CO. INC.

Name _____

Address P.O. BOX 445 EAGLE 8361663-92-C-174

Drilling Permit No. _____

Water Right Permit No. 63-11798

7. WATER LEVEL

2

Static water level _____ feet below land surface.

Flowing? ☐ Yes ☐ No G.P.M. flow _____

Artesian closed-in pressure _____ p.s.i.

Controlled by: ☐ Valve ☐ Cap ☐ PlugTemperature _____ °F. Quality _____
Describe artesian or temperature zones below.

2. NATURE OF WORK

NEW WELL

- ☐ New well ☐ Deepened ☐ Replacement
☐ Well diameter increase ☐ Modification
☐ Abandoned (describe abandonment or modification procedures
such as liners, screen, materials, plug depths, etc. in lithologic
log, section 9.)

8. WELL TEST DATA

☐ Pump ☐ Bailer ☐ Air ☐ Other _____

Discharge G.P.M.	Pumping Level	Hours Pumped
3046	145	3

3. PROPOSED USE WATER UTILITY

- ☐ Domestic ☐ Irrigation ☐ Monitor
☐ Industrial ☐ Stock ☐ Waste Disposal or Injection
☒ Other _____ (specify type)

9. LITHOLOGIC LOG

Bore Diam.	Depth		Material	Water	
	From	To		Yes	N
28	0	1	TOPSOIL		X
	1	35	SAND GRAVEL ROCK	X	
	35	47	FINE TO CRSE SAND	X	
	47	49	LITE BRN CLAY		X
	49	105	FINE TO CRSE SAND	X	
	105	109	BRN SANDY CLAY		X
	109	133	FINE TO CRSE SAND	X	
	133	137	BRN CLAY		X
	137	142	FINE TO CRSE SAND	X	
	142	180	BRN CLAY		X
	180	183	FINE SAND	X	
	183	187	BRN CLAY		X
	187	194	FINE TO MED SAND	X	
	194	197	BRN CLAY		X
	197	205	FINE TO MED SAND	X	
	205	219	BRN CLAY		X
	219	245	FINE SAND	X	
	245	251	BRN CLAY		X
	251	278	FINE TO MED SAND	X	
	278	289	BRN CLAY		X
	289	327	FINE TO CRSE SAND	X	
	327	330	BRN CLAY		X
	330	333	FINE TO CRSE SAND	X	
	333	335	BRN CLAY		X
	335	347	FINE TO MED SAND	X	
	347	355	FINE SAND W/ CLAY	X	
	355	365	FINE TO MED SAND	X	
	365	371	GREY CLAY		X
	371	385	BRN CLAY		X

4. METHOD DRILLED

REVERSE ROTARY

- ☐ Rotary ☐ Air ☐ Auger ☐ Reverse rotary
☐ Cable ☐ Mud ☐ Other _____
(backhoe, hydraulic, etc.)

5. WELL CONSTRUCTION

SEE ATTACHED

Casing schedule: ☒ Steel ☐ Concrete ☐ Other _____
Thickness Diameter From To
_____ inches _____ inches + _____ feet _____ feet
_____ inches _____ inches _____ feet _____ feet
_____ inches _____ inches _____ feet _____ feet

Was casing drive shoe used? ☐ Yes ☒ NoWas a packer or seal used? ☐ Yes ☒ NoPerforated? ☐ Yes ☒ NoHow perforated? ☐ Factory ☐ Knife ☐ Torch ☐ Gun

Size of perforation? _____ inches by _____ inches

Number	From	To
_____ perforations	_____ feet	_____ feet
_____ perforations	_____ feet	_____ feet
_____ perforations	_____ feet	_____ feet

Well screen installed? ☒ Yes ☐ NoManufacturer ROSCOE MOSS Type VEE WIRE

Top Packer or Headpipe _____

Bottom of Tailpipe _____

Diameter _____ Slot size _____ Set from _____ feet to _____ feet

Diameter _____ Slot size _____ Set from _____ feet to _____ feet

Gravel packed? ☒ Yes ☐ No ☐ Size of gravel 3/8Placed from 385 feet to 180 feetSurface seal depth 180 Material used in seal: ☐ Cement grout☒ Bentonite ☐ Puddling clay ☐ _____Sealing procedure used: ☐ Slurry pit☐ Temp. surface casing ☒ Overbore to seal depth

WELL #4

63-12559

Eagle Ranch East Well

2500 GPM

340' TDH

260 BHP

CURVE NO.
18-151X
6-1-80

No. Stages	Eff. Change	MATERIAL	Eff. Change
1	-1	IMP.—C.I.	-1
2	0	IMP.—NI-RI	-1
3		BOWL—BRZ.	-1
4		BOWL—NI-R.	-1

14THC

1770

R.P.M.

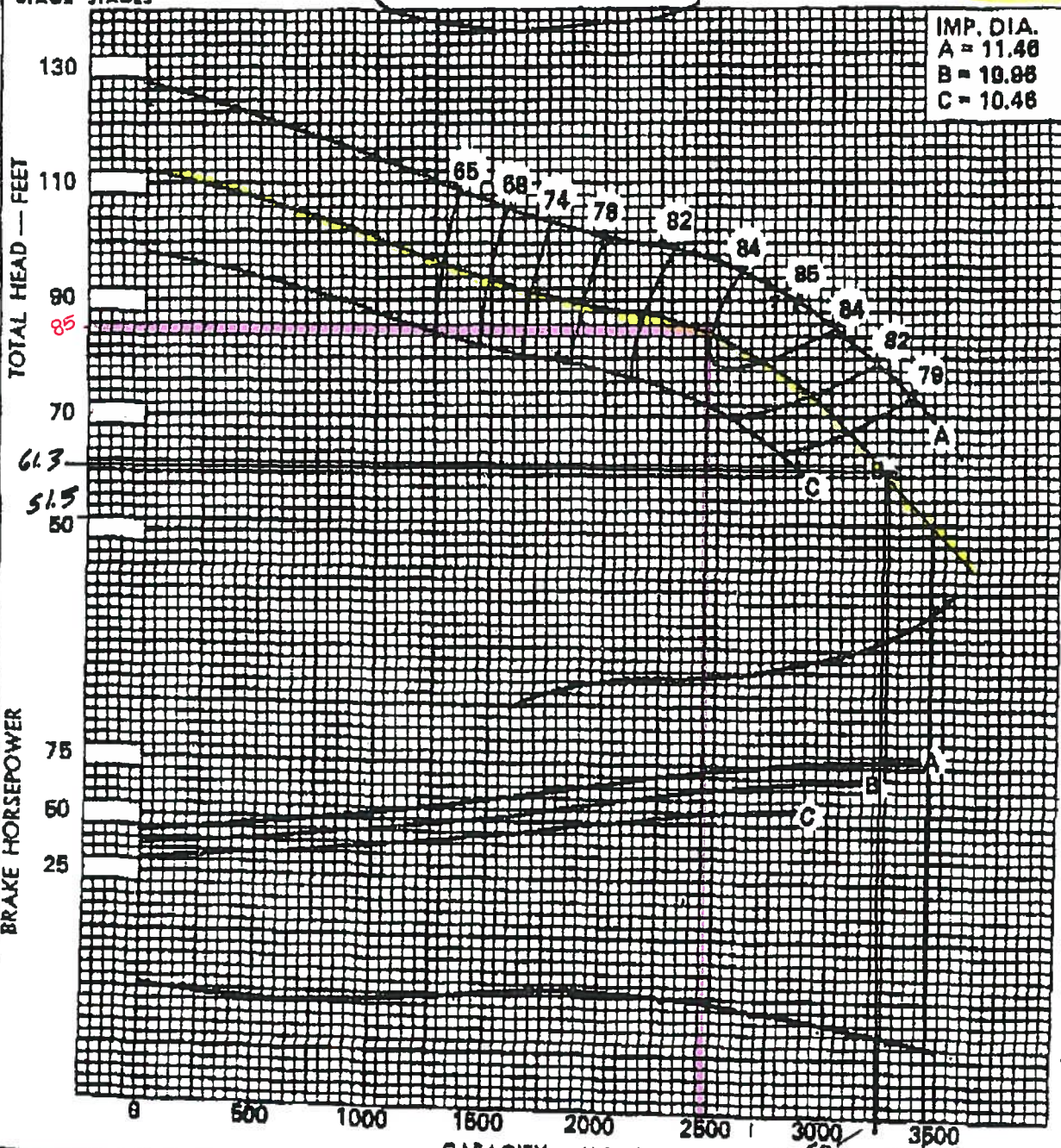
SINGLE STAGE LAB PERFORMANCE WITH STANDARD MATERIALS. EFFICIENCY SHOWN FOR 2 OR MORE STAGES. HORSE POWER SHOWN FOR ONE STAGE BASED ON 2 STAGE EFFICIENCY. CORRECTIONS SHOULD BE MADE FOR STAGES AND MATERIAL.

ONE STAGE (4) 2 B TRIM

CUSTOM PERFORMANCE

#4

Well #4



N.P.S.H. REQUIRED — FEET

THRUST FACTOR

FEY AREA — SQ. IN.	= 38.81
WR ² PER IMPELLER	= 2.76 LB.-FT.
MAX. SPHERE SIZE	= 1.28 in.
MAX. NO. STD. STAGES	= 7
MAX. OPERATING P.S.I.	= 300
STD. LATERAL	= 0.78 in.
STD. SHAFT DIA.	= 1.937 in.
MAX. SHAFT DIA.	= 1.987 in.

IMPELLER WT.—LBS.	= 31.8
ONE STAGE WT.—LBS.	= 435
ADD'L STAGE WT.—LBS.	= 164
IMPELLER NUMBER	= 7T17
DISCH. SIZES	= 10.12
SUCTION SIZES	= 10
MAX. LATERAL	= 1.28 in.

DEEP WELL TYPE



SHORT-COUPLED TYPE

Well #4

63-12559

Detailed Report for Pump Definition: PUMP #4

Pump Head Characteristics

Pump Type Multiple Point

Discharge (gpm)	Head (ft)
0.00	480.00
1,250.00	400.00
1,500.00	676.00
1,800.00	360.00
1,950.00	352.00
2,200.00	344.00
2,500.00	320.00
2,750.00	296.00
3,150.00	220.00

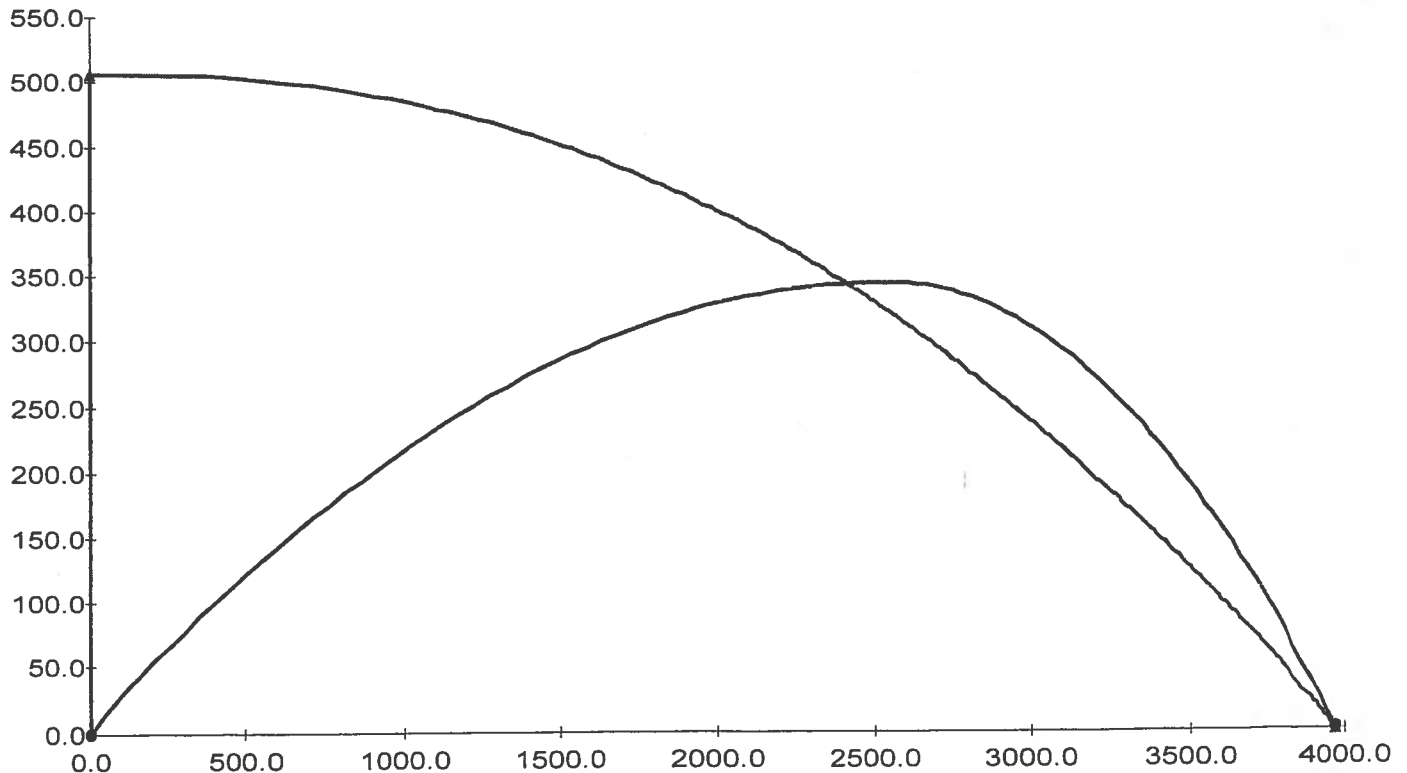
Pump Efficiency Characteristics

Efficiency Type Best Efficiency Point
 BEP Flow 2,550.00 gpm
 BEP Efficiency 84.0 %

Motor and Drive Characteristics

Motor Efficiency 90.0 %
 Variable Speed Drive? true

Speed	Efficiency (%)
1,770.00	90.0



Title: INITIAL RUN

c:\...initial run w-o covenant-gv2.wcd

01/30/06 13:54:09 © Bentley Systems, Inc.

Haestad Methods Solution Center

Watertown, CT 06795 USA

+1-203-755-1666

Project Engineer: DMC

WaterCAD v7.0 [07.00 049.00]

Page 1 of 1

Well #4

63-12559

RECEIVED

IDAHO DEPARTMENT OF WATER RESOURCES

MAY 24 1996

WELL DRILLER'S REPORT

Use Typewriter or Ballpoint Pen

Well #6

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

WATER RESOURCES

1. DRILLING PERMIT NO. 63-94-W-848-0
 Other IDWR No. 63-12147

2. OWNER:

Name EAGLE WATER CO. INC.
 Address P.O. BOX 433
 City EAGLE State ID Zip 83616

3. LOCATION OF WELL by legal description:

Sketch map location must agree with written location.

N
 W
 E
 S

Twp. 4 N North ☐ or South ☐
 Rge. 1 E East ☐ or West ☒ SW
 Sec. 8 1/4 SW 1/4 SE 1/4
 Gov't Lot _____ County ADA
 Lat: : : Long: : :

Address of Well Site APPROX 1400 W. STATE

STREET

(Give at least name of road + Distance to Road or Landmark)

City EAGLE

Lt. _____ Blk. _____ Sub. Name _____

4. USE:

MUNICIPAL

☐ Domestic ☒ Municipal ☐ Monitor ☐ Irrigation
☐ Thermal ☐ Injection ☐ Other _____
5. TYPE OF WORK check all that apply NEW WELL replacement etc.)☒ New Well ☐ Modify ☐ Abandonment ☐ Other _____6. DRILL METHOD REVERSE CIRCULATION☐ Air Rotary ☐ Cable ☐ Mud Rotary ☒ Other _____

7. SEALING PROCEDURES

SEAL/FILTER PACK			AMOUNT		METHOD
Material	From	To	Sacks or Pounds		
BENTONITE	336	340	5000#		POURED
BENTONITE	232	0	37500#		POURED
FILTER PACK	140	336	62400#		POURED

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
16"	+2	240	230	STEEL	☒	☐	☒	☐
10"	240	245	230	STEEL	☒	☐	☒	☐
10"	263	291	230	STEEL	☒	☐	☒	☐

Length of Headpipe _____ Length of Tailpipe _____

9. PERFORATIONS/SCREENS

☐ Perforations Method _____
☒ Screens Screen Type HOUSTON STAINLESS STEEL

From	To	Slot Size	Number	Diameter	Material	Casing	Liner
245	263	35	304	10"	STEEL	☒	☐
291	331	35	304	10"	STEEL	☒	☐
367	377	35	304	10"	STEEL	☒	☐

10. STATIC WATER LEVEL OR ARTESIAN PRESSURE:

24" ft. below ground Artesian pressure 0 lb.
 Depth flow encountered _____ ft. Describe access port or control devices: _____

11. WELL TESTS:

☒ Pump ☐ Bailor ☐ Air ☐ Flowing Artesian

Yield gal./min.	Drawdown	Pumping Level	Time
3900 GPM	70 ft	200 ft	10 HRS

Water Temp. COLD Bottom hole temp. COLDWater Quality test or comments: GOOD, CLEARDepth first Water Encountered 15 FT

12. LITHOLOGIC LOG: (Describe repairs or abandonment)

Water

Bore Dia.	From	To	Remarks: Lithology, Water Quality & Temperature	Y	N
28"	0	15	SAND	☒	☐
	15	46	RIVER ROCK & QUARTZ SAND	☒	☐
	46	58	BROWN CLAY	☐	☒
	58	61	COURSE SAND	☒	☐
	61	67	BROWN CLAY	☐	☒
	67	74	QUARTZ SAND	☒	☐
	74	86	BROWN CLAY	☐	☒
	86	98	COURSE SAND	☒	☐
	98	105	BROWN CLAY	☐	☒
	105	111	COURSE SAND	☒	☐
	111	138	BROWN CLAY	☐	☒
	138	139	COURSE SHARP SAND	☒	☐
	139	145	BROWN CLAY	☐	☒
	145	160	CREE SAND & PEA GRAVEL	☒	☐
	160	163	BROWN CLAY	☐	☒
	163	165	CREE SAND	☒	☐
	165	175	BROWN CLAY	☐	☒
	175	187	MED. BRN END & PEA GRAVEL	☒	☐
	187	194	BROWN CLAY	☐	☒
	194	229	COURSE SAND & PEA GRAVEL	☒	☐
	229	242	BROWN CLAY	☐	☒
	242	245	CREE END, GRAVEL, CLAY LAYERED	☒	☐
	245	270	CREE BRN END & SOME PEA GRAVEL	☒	☐
	270	275	IRONISH COLORED CLAY	☐	☒
	275	276	SHARP CREE SAND	☒	☐
	276	285	SAND, CLAY LAYERED	☒	☐
	285	291	GREEN, GRAY, BRN CLAY MIXED	☐	☒
	291	337	COURSE, BRN SAND	☒	☐
	337	367	GREEN & BRN CLAY	☐	☒
	367	377	CREE QUARTZ END	☒	☐
	377	379	BRN CLAY	☐	☒
	379	407	MED. TO CREE SAND	☒	☐
	407	410	BLUE MED. SAND	☒	☐

Completed Depth 414 FEET (Measurable)Date: Started 4/19/96 Completed 5/1/96

13. DRILLER'S CERTIFICATION

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

Firm Name PETE COPE DRILLING CO., INC. Firm No. 213Firm Official Jerry Cope Date 5-8-96

and _____

Supervisor or Operator _____ Date _____

(Sign once if Firm Official & Operator)

FORWARD WHITE COPY TO WATER RESOURCES

63-12559

 SEE ATTACHED
 for static Access port.
 Well #6

WELL DRILLER'S REPORT

Use Typewriter or Ballpoint Pen

Page 2 of 2

Office Use Only			
Inspected by _____			
Twp _____	Rge _____	Sec _____	
1/4 _____		1/4 _____	
Lat: _____		Long: _____	
☐ Air ☐ Flowing Artesian			

1. DRILLING PERMIT NO. 03-94-W-0848-000

Other IDWR No. _____

2. OWNER:

Name _____

Address _____

City _____ State _____ Zip _____

3. LOCATION OF WELL by legal description:

Sketch map location must agree with written location.

N	
W	E
S	

Twp. 4 North ☒ or South ☐
Rge. 1 East ☒ or West ☐
Sec. 08 1/4 SW 1/4 SW 1/4
Gov't Lot _____ County Ada 10 acres 160 acres
Lat: _____ Long: _____

Address of Well Site _____

(Give at least name of road + Distance to Road or Landmark)

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 _____

7. SEALING PROCEDURES

SEAL/FILTER PACK			AMOUNT	METHOD
Material	From	To	Sacks or Pounds	
FILTER PACK	340	232	36400#	POURED

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
10"	331	367	.250	STEEL	☒	☐	☒	☐
10"	377	383	.250	STEEL	☒	☐	☒	☐
10"	403	441	.250	STEEL	☒	☐	☒	☐

Length of Headpipe _____ Length of Tailpipe _____

9. PERFORATIONS/SCREENS

☐ Perforations Method _____☒ Screens Screen Type HOUSTON STAINLESS STEEL

From	To	Slot Size	Number	Diameter	Material	Casing	Liner
383	403	<u>35</u>	304	10"	STEEL	☒	☐

10. STATIC WATER LEVEL OR ARTESIAN PRESSURE:

_____ ft. below ground Artesian pressure _____ lb.

Depth flow encountered _____ ft. Describe access port or control devices: _____

11. WELL TESTS:

- ☐ Pump ☐ Bailer ☐ Air ☐ Flowing Artesian

Yield gal./min.	Drawdown	Pumping Level	Time

Water Temp. _____ Bottom hole temp. _____

Water Quality test or comments: _____

Depth first Water Encountered _____

12. LITHOLOGIC LOG: (Describe repairs or abandonment)

Bore Dia.	From	To	Remarks: Lithology, Water Quality & Temperature	Water	
				Y	N
	410	416	BLUE CLAY		X
	416	422	BROWN CLAY		X
	422	425	SANDY BRN CLAY		X
	425	428	BRN CLAY		X
	428	429	CRSE SAND	X	
	429	431	SANDY CLAY	X	
	431	433	BLUE-GREEN SAND	X	
	433	435	BLUE CLAY		X
	435	440	BLUE CLAY		X
	440		BLUE CLAY		X

RECEIVED
SEP 10 1995
Department of Water Resources

RECEIVED
MAY 24 1996
WATER RESOURCES
WESTERN REGION

Completed Depth _____ (Measurable)
Date: Started _____ Completed _____

13. DRILLER'S CERTIFICATION

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

Firm Name _____ Firm No. _____

Firm Official _____ Date _____

and _____

Supervisor or Operator _____ Date _____

(Sign once if Firm Official & Operator)

Well #6 cont'd

FORWARD WHITE COPY TO WATER RESOURCES

63-12559

158-12250
7 names

Sub #2

Date April 1994

Supersedes All previous catalog materials

NYC 100

4 stage 2-8" trim
2-8" full

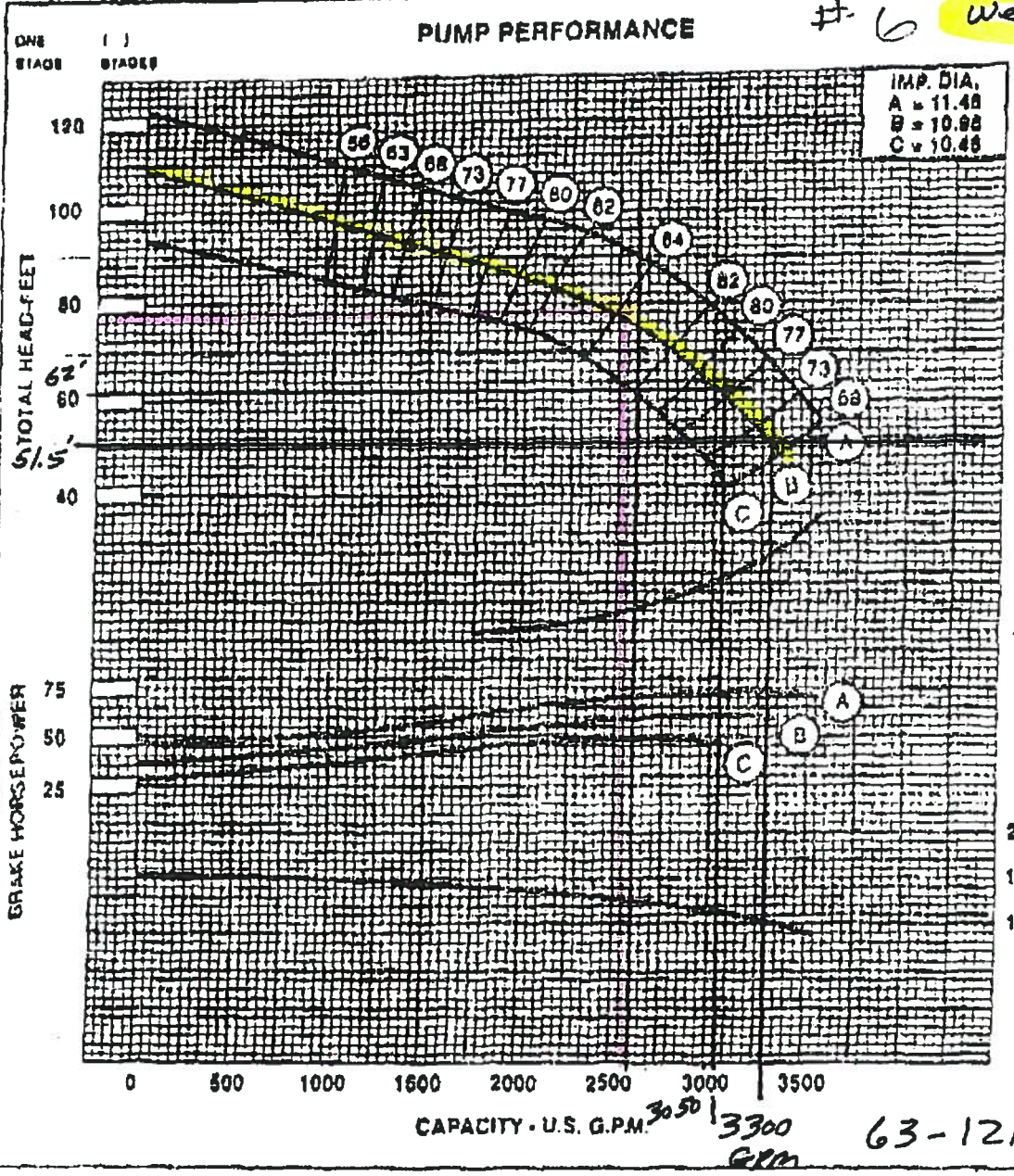
2600 GPM 320' TDH 2606



NO. STAGES	GR. CHANGE	MATERIAL	BR. CHANGE
1	-1	IMP. - C.I.	-1
2	0	IMP. - H.R.	-2
3		BOWL - BRZ	-1
4		BOWL - H.R.	-1

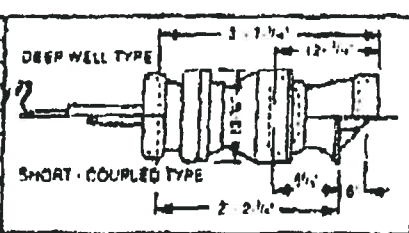
14THC 1770 RPM
SINGLE STAGE LAB PERFORMANCE WITH STANDARD MATERIALS. EFFICIENCY SHOWN FOR 3 OR MORE STAGES. HORSE POWER SHOWN FOR ONE STAGE BASED ON 1 STAGE EFFICIENCY. CORRECTIONS SHOULD BE MADE FOR STAGES AND MATERIAL.

TDH = 245' @ 105 PSI
TDH = 206' @ start-up (88 PSI)



4 Stage
TDH/stage
= 206
4
= 51.5'
@ 88 PSI
= 62'
@
105 PSI

Eye Area - sq. in.	36.8	Impeller Wt. - lbs.	31.8
Wt. per Impeller - lbs.	2.76	One Stage Wt. - lbs.	635
Max. Sphere Size	0	Acc. Stage Wt. - lbs.	164
Max. No. Stg. Stages	7	Impeller Number	22 77?
Max. Operating PSI	990	Disch. - in.	10.12
Std. Lateral - in.	0.75	Fluction - in.	10
Std. Shaft Dia. - in.	1.632	Max. Lateral - in.	0
Max. Shaft Dia. - in.	0	Bowl Conn. Flanged Collet	
Min. Submergence - in.	47	Add 15' per additional stage	



Well #6

63-12559

Detailed Report for Pump Definition: PUMP #6

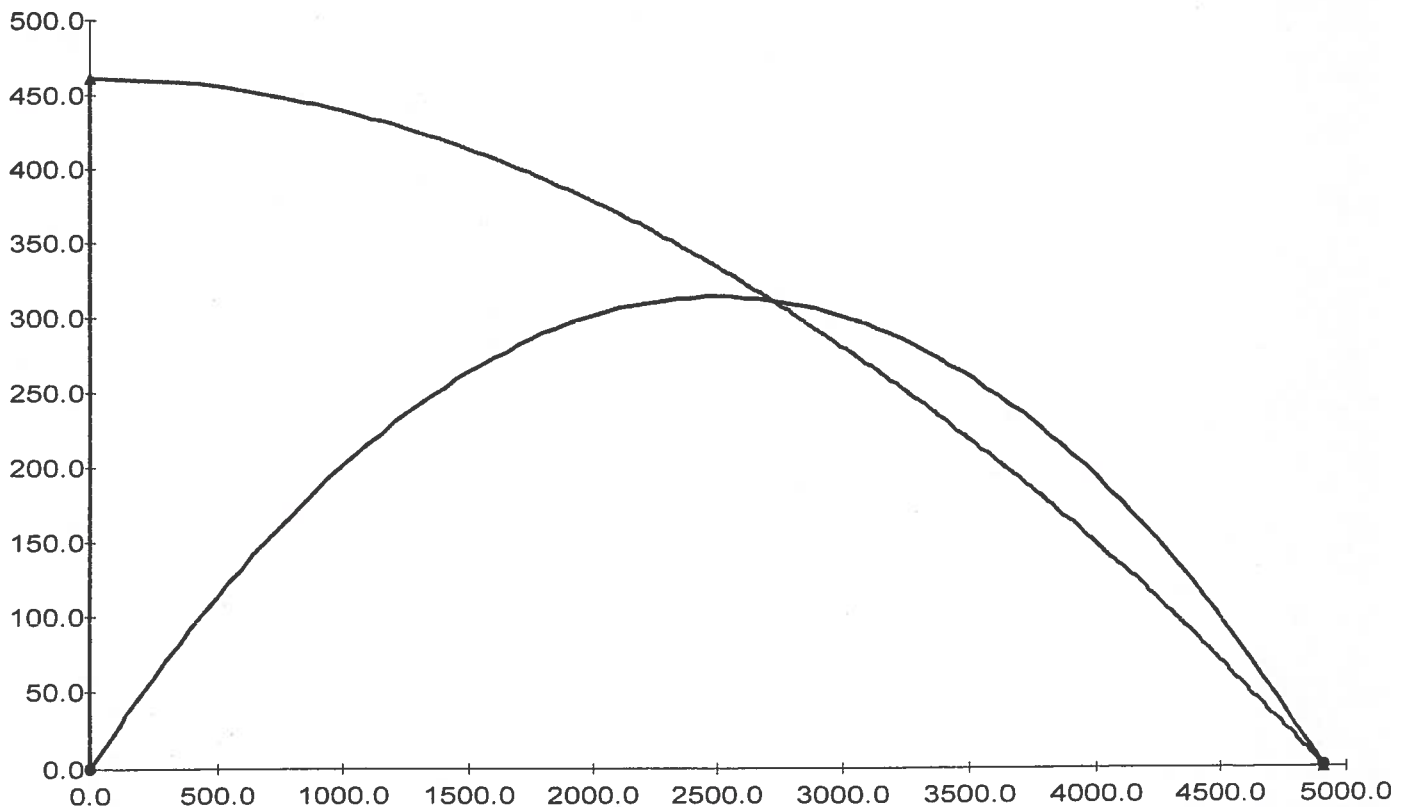
Pump Head Characteristics	
Pump Type	Multiple Point

Discharge (gpm)	Head (ft)
0.00	464.00
1,850.00	374.00
2,250.00	356.00
2,500.00	338.00
2,600.00	330.00
2,750.00	314.00
3,100.00	268.00
3,250.00	242.00

Pump Efficiency Characteristics	
Efficiency Type	Best Efficiency Point
BEP Flow	2,500.00 gpm
BEP Efficiency	84.0 %

Motor and Drive Characteristics	
Motor Efficiency	90.0 %
Variable Speed Drive?	true

Speed	Efficiency (%)
1,760.00	90.0



Well #6

63-12559

W/H #7

Form 238-7
6/02IDAHO DEPARTMENT OF WATER RESOURCES
WELL DRILLER'S REPORT

Office Use Only			
Well ID No.			
Inspected by			
Twp	Rge	Sec	
1/4	1/4	1/4	
Lat:	:	Long:	:

1. WELL TAG NO. D 12610
 DRILLING PERMIT NO. 63-99-W-1019-000
 Water Right or Injection Well No. 63-12559

2. OWNER:
 Name Eagle Water Co Inc
 Address PO Box 455
 City Eagle State ID Zip 83616

3. LOCATION OF WELL by legal description:

You must provide address or Lot, Blk, Sub. or Directions to well.
 Twp. 4 North ☒ or South ☐
 Rge. 1 East ☒ or West ☐
 Sec. 15 N/E 1/4 N/E 1/4 S/W 1/4
 Gov't Lot 3 County Ada
 Lat: : Long: :
 Address of Well Site Hwy 55/ State St 1500' +- South
(well #7) west of Hwy 56 City Eagle
 Lt. Blk. Sub. Name

4. USE:

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

5. TYPE OF WORK check all that apply

☒ New Well ☐ Modify ☐ Abandonment ☐ Other (Replacement etc.)

6. DRILL METHOD:

☐ Air Rotary ☐ Cable ☐ Mud Rotary ☐ Other reverse

7. SEALING PROCEDURES

Seal Material	From	To	Weight / Volume	Seal Placement Method
bentonite chips	0	23	3000#	poured
bentonite grout	23	300	14 yd	pumped

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
16"	+4	325'	375	steel	☒	☐	☒	☐
10"	260	331	365	steel	☐	☒	☒	☐
10"	366	376	365	steel	☐	☒	☒	☐

Length of Headpipe 52' has Length of Tailpipe 42' from
 Packer ☒ Y ☐ N Type top. sledge packer 4" 6" long

9. PERFORATIONS/SCREENS PACKER TYPE 12" pipe with figure K

Perforation Method

Screen Type & Method of Installation Johnson 304 V wire

From	To	Slot Size	Number	Diameter	Material	Casing	Liner
331	366	30		10	stnls	☐	☒
376	401	30		10	stnls	☐	☒

10. FILTER PACK

Filter Material	From	To	Weight / Volume	Placement Method
8-12 sand	269	403	4-2/3 yd	poured

11. STATIC WATER LEVEL OR ARTESIAN PRESSURE:

4' ft. below ground Artesian pressure lb.
 Depth flow encountered ft. Describe access port or control devices:

12. WELL TESTS:

Yield gal/min.	Drawdown	Pumping Level	Time
1353	154.3	160	
1345	160.5	160	

Water Temp. Water Quality test or comments: Bottom hole temp.

13. LITHOLOGIC LOG: (Describe repairs or abandonment)

Bore Dia.	From	To	Remarks: Lithology, Water Quality & Temperature	Y	N
24"	0	6	sand & gravel	X	
	6	27	cemented sand & gravel	X	
	27	38	sand, gravel, boulders	X	
	38	115	brown clay	X	
	115	140	sandy brown clay, clay	X	
	140	152	sand, fine to medium	X	
	152	167	clay	X	
	167	180	sand, fine to medium	X	
	180	192	brown clay	X	
	192	206	sand	X	
	206	230	blue clay	X	
	230	232	brown sand, blue clay streaks	X	
24"	232	242	blue clay	X	
to	250	280	brown sand	X	
326	280	331	brown clay with sand streaks	X	
15	331	366	fine brown sand	X	
	366	376	brown clay	X	
	376	388	fine to medium sand	X	
	388	390	brown clay	X	
	390	402	sand	X	
	402	403	brown clay	X	

pump depth 200 ft

cement grout 300-325 pumped

Completed Depth 401' (Measurable)Date: Started 11/27/05 Completed 3/5/06

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 Firm No. 153

Principal Driller Ron Stevens Date 3/9/06

and Driller or Operator II Ron Stevens Date 3/9/06

Operator I Date

Principal Driller and Rig Operator Required.
 Operator I must have signature of Driller/Operator II.

Well #7

FORWARD WHITE COPY TO WATER RESOURCES

63-12559



Customer :
Reference :

Pump Performance Datasheet

American-Marsh Pumps Quotation System 16.3.1.0

Well 7

Item number	: 004	Size	: 13MC
Service	:	Stages	: 7
Quantity	: 1	Based on curve number	: 13MC
Quote number	: 523093	Date last saved	: 09 Aug 2016 4:32 PM

Operating Conditions

Flow, rated	: 1,345.0 USgpm
Differential head / pressure, rated (requested)	: 455.0 ft
Differential head / pressure, rated (actual)	: 465.8 ft
Suction pressure, rated / max	: 0.00 / 0.00 psi.g
NPSH available, rated	: Ample
Frequency	: 60 Hz

Performance

Speed, rated	: 1770 rpm
Impeller diameter, rated	: 9.81 in
Impeller diameter, maximum	: 9.94 in
Impeller diameter, minimum	: 8.63 in
Efficiency (bowl / pump)	: 85.37 / - %
NPSH required / margin required	: 17.47 / 0.50 ft
Ns (total flow) / Nss (imp. eye flow)	: 2,665 / 7,615 US Units
MCSF	: 786.5 USgpm
Head, maximum, rated diameter	: 623.3 ft
Head rise to shutoff (bowl / pump)	: 37.00 / - %
Flow, best eff. point (bowl / pump)	: 1,319.5 / - USgpm
Flow ratio, rated / BEP (bowl / pump)	: 101.93 / - %
Diameter ratio (rated / max)	: 98.74 %
Head ratio (rated dia / max dia)	: 93.14 %
Cq/Ch/Ce/Cn [ANSI/HI 9.6.7-2010]	: 1.00 / 1.00 / 1.00 / 1.00
Selection status	: Acceptable

Liquid

Liquid type	: Water
Additional liquid description	:
Solids diameter, max	: 0.00 in
Solids concentration, by volume	: 0.00 %
Temperature, max	: 68.00 deg F
Fluid density, rated / max	: 1.000 / 1.000 SG
Viscosity, rated	: 1.00 cP
Vapor pressure, rated	: 0.34 psi.a

Material

Material selected	: Cast iron - Standard
-------------------	------------------------

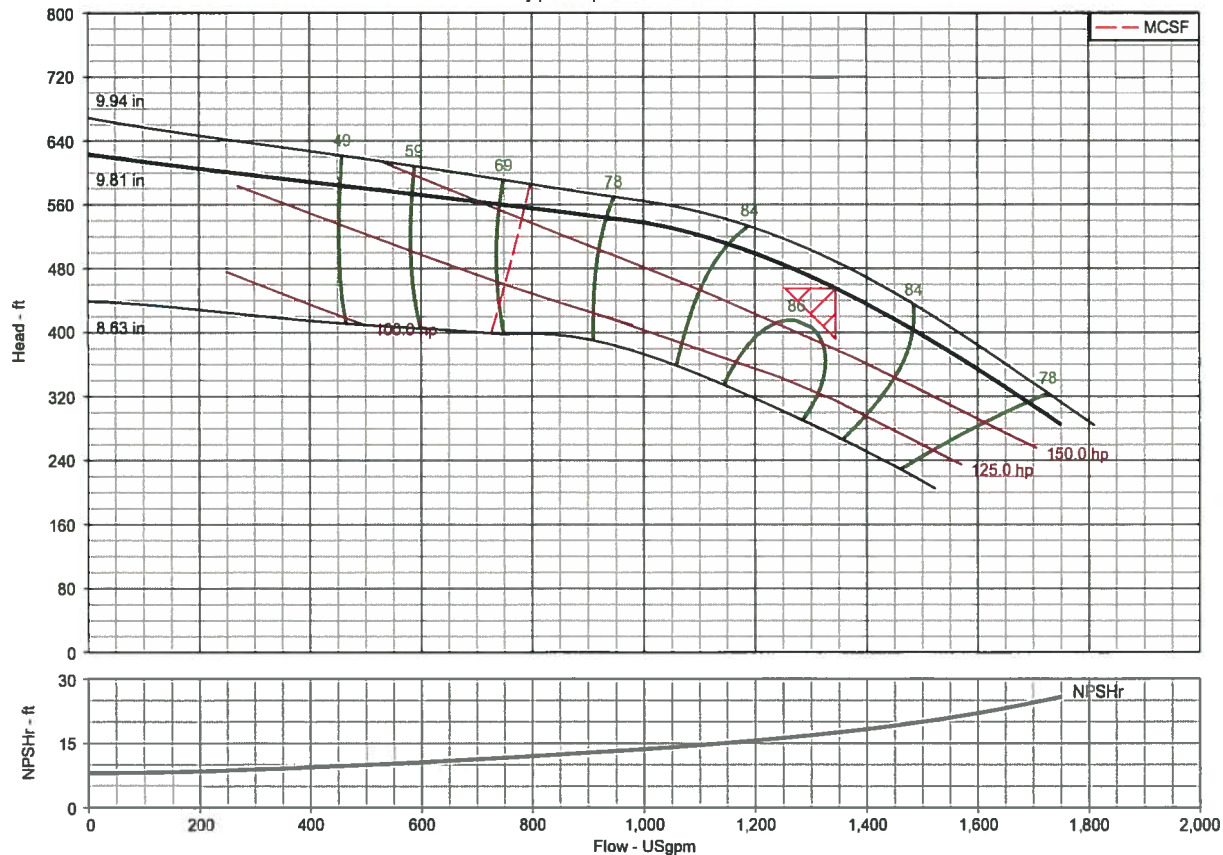
Pressure Data

Maximum working pressure	: See the Additional Data page
Maximum allowable working pressure	: See the Additional Data page
Maximum allowable suction pressure	: N/A
Hydrostatic test pressure	: See the Additional Data page

Driver & Power Data

Driver sizing specification	: Maximum power
Margin over specification	: 0.00 %
Service factor	: 1.15
Power, hydraulic	: 154 hp
Power (bowl / pump)	: 181 / - hp
Power, maximum, rated diameter	: 181 hp
Minimum recommended motor rating	: 200 hp / 149 kW

Bowl performance. Adjusted for construction and viscosity.
The duty point represents the head at the bowl.



Well #7

63-12559

THEORETICAL HORSEPOWER EQUATION WORKSHEET

Water Right No.: 63-12559
 Reviewer: Ashley Newbry
 Date of Review: 8/5/2016

P/D No.:	Scenario 1	Scenario 2	Scenario 3
PUMP HORSEPOWER (HP)	200	200	200
BOOSTER HORSEPOWER (HP)	0	0	0
PUMPING LEVEL (FT)	190	195	200
DISCHARGE PRESSURE (PSI)	109	99	89
RATE OF FLOW (CFS)	2.789	2.908	3.038
RATE OF FLOW (GPM)	1251.6	1305.1	1363.3
TOTAL DYNAMIC HEAD (FT)	441.79	423.69	405.59

AVG
 2.91
 1306.69

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:

Eagle Water Co Municipal Well 7
 * Pump curve not available.

Well #7

63-12559

W14#8

Form 238-7
6/02IDAHO DEPARTMENT OF WATER RESOURCES
WELL DRILLER'S REPORT

Office Use Only			
Well ID No. _____			
Inspected by _____			
Twp _____	Rge _____	Sec _____	
1/4 _____		1/4 _____	
Lat: _____		Long: _____	

1. WELL TAG NO. D 0053205
 DRILLING PERMIT NO. 005961-953209
 Water Right or Injection Well No. 63-9245

2. OWNER:
 Name Eagle Water Company
 Address PO Box 455 State ID Zip 83616
 City Eagle

3. LOCATION OF WELL by legal description:

You must provide address or Lot, Blk, Sub. or Directions to well.
 Twp. 4 North/South or East/West ☐
 Rge. 1 East/West or North/South ☐
 Sec. 15 North/South or East/West ☐
 Gov't Lot 15 County N/4 Ad. S/4
 Lat: 43:41:041 Long: 116:19:724
 Address of Well Site 600' S Ardena Sub. City Eagle

(Give at least name of road or direction to road or landmark)

Li. _____ Blk. _____ Sub. Name _____

4. USE:

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

5. TYPE OF WORK check all that apply

☒ New Well ☐ Modify ☐ Abandonment ☐ Other _____ (Replacement etc.)

6. DRILL METHOD:

☐ Air Rotary ☐ Cable ☐ Mud Rotary ☒ Other reverse

7. SEALING PROCEDURES

Seal Material	From	To	Weight / Volume	Seal Placement Method
Cement	0	6	700#	poured
Bentonite chips	6	95	115 sk	poured
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
16"	0	325	375	steel	☒	☐	☒	☐
10"	288	328	365	steel	☐	☒	☐	☐
10"	373	401	365	steel	☐	☒	☐	☐

Length of Headpipe _____ Length of Tailpipe _____

Packer ☒ Y ☐ N Type 16" x 10" swedge, 4'6" pipe(12")

9. PERFORATIONS/SCREENS PACKER TYPE

Perforation Method _____

Screen Type & Method 304 stainless wire (Johnson)

From	To	Size	Material	Casing	Liner
320	373	35	stnls	☐	☐
373	401	35	stnls	☐	☐
401	433	35	stnls	☐	☐

TO FILTER PACK 440'-455' stnls liner

Flow Material _____ From _____ To _____

Flow Material _____ From _____ To _____

Flow Material _____ From _____ To _____

Flow Material _____ From _____ To _____

Flow Material _____ From _____ To _____

Flow Material _____ From _____ To _____

Flow Material _____ From _____ To _____

Flow Material _____ From _____ To _____

Flow Material _____ From _____ To _____

Flow Material _____ From _____ To _____

Flow Material _____ From _____ To _____

Flow Material _____ From _____ To _____

Flow Material _____ From _____ To _____

Flow Material _____ From _____ To _____

Flow Material _____ From _____ To _____

Flow Material _____ From _____ To _____

Flow Material _____ From _____ To _____

Flow Material _____ From _____ To _____

Flow Material _____ From _____ To _____

Flow Material _____ From _____ To _____

Flow Material _____ From _____ To _____

Flow Material _____ From _____ To _____

12. WELL TESTS:

Yield gal/min.	Drawdown	Pumping Level	Time
1220	51	53	1 hr
1800	81	83	3 hrs
2718	153	155	20 hrs

Water Temp. _____

Water Quality test or comments: _____

Depth first Water Encounter _____

13. LITHOLOGIC LOG: (Describe repairs or abandonment)

From	To	Remarks: Lithology, Water Quality & Temperature	Y	N
24"	0	silty clay		X
	5	sand & gravel/cemented sand & gravel	X	
	39	white sand w/ gravel streaks	X	
	60	brown clay & cemented sand	X	
	90	reddish sand	X	
	135	blue clay & wood	X	
	155	blue sand	X	
	185	blue clay	X	
	195	blue sand	X	
	217	cemented blue sand	X	
	235	blue clay	X	
	270	blue sand	X	
	288	blue clay	X	
	327	brown sand	X	
	375	brown clay	X	
	398	sand	X	
	406	brown clay	X	
	413	brown sand	X	
	433	brown clay	X	
	440	sand	X	
	455	clay	X	

7 bentonite around 95'-290' 120 sks pumped
 cement 290'-325' 18 sks pumped

8 10" 406'-417' .365 liner
 10" 433'-440' .365 liner

14. STATIC WATER LEVEL OR ARTESIAN PRESSURE:

ft. below ground _____ Artesian pressure _____ ft.
 Depth flow encountered _____ ft. Describe access port or control devices: _____

Principal Driller and Rig Operator Required
 Operator I _____
 Operator II _____

Date _____

FORWARD WHITE COPY TO WATER RESOURCES

Well #8

Principal Driller and Rig Operator Required
 Operator I must have signature of Driller/Operator II 63-12559



Customer :
Reference :

Pump Performance Datasheet

American-Marsh Pumps Quotation System 16.3.1.0

well no. 8

Item number	: 004	Size	: 14LC
Service	:	Stages	: 6
Quantity	: 1	Based on curve number	: 14LC
Quote number	: 523093	Date last saved	: 09 Aug 2016 3:48 PM

Operating Conditions

Flow, rated	: 1,800.0 USgpm
Differential head / pressure, rated (requested)	: 436.0 ft
Differential head / pressure, rated (actual)	: 440.8 ft
Suction pressure, rated / max	: 0.00 / 0.00 psi.g
NPSH available, rated	: Ample
Frequency	: 60 Hz

Performance

Speed, rated	: 1770 rpm
Impeller diameter, rated	: 10.94 in
Impeller diameter, maximum	: 11.31 in
Impeller diameter, minimum	: 10.31 in
Efficiency (bowl / pump)	: 82.69 / - %
NPSH required / margin required	: 20.96 / 0.50 ft
Ns (total flow) / Nss (imp. eye flow)	: 2,595 / 7,730 US Units
MCSF	: 997.4 USgpm
Head, maximum, rated diameter	: 701.0 ft
Head rise to shutoff (bowl / pump)	: 60.78 / - %
Flow, best eff. point (bowl / pump)	: 1,687.8 / - USgpm
Flow ratio, rated / BEP (bowl / pump)	: 106.65 / - %
Diameter ratio (rated / max)	: 96.68 %
Head ratio (rated dia / max dia)	: 83.87 %
Cq/Ch/Ce/Cn [ANSI/HI 9.6.7-2010]	: 1.00 / 1.00 / 1.00 / 1.00
Selection status	: Acceptable

Liquid

Liquid type	: Water
Additional liquid description	:
Solids diameter, max	: 0.00 in
Solids concentration, by volume	: 0.00 %
Temperature, max	: 68.00 deg F
Fluid density, rated / max	: 1.000 / 1.000 SG
Viscosity, rated	: 1.00 cP
Vapor pressure, rated	: 0.34 psi.a

Material

Material selected	: Cast iron - Standard
-------------------	------------------------

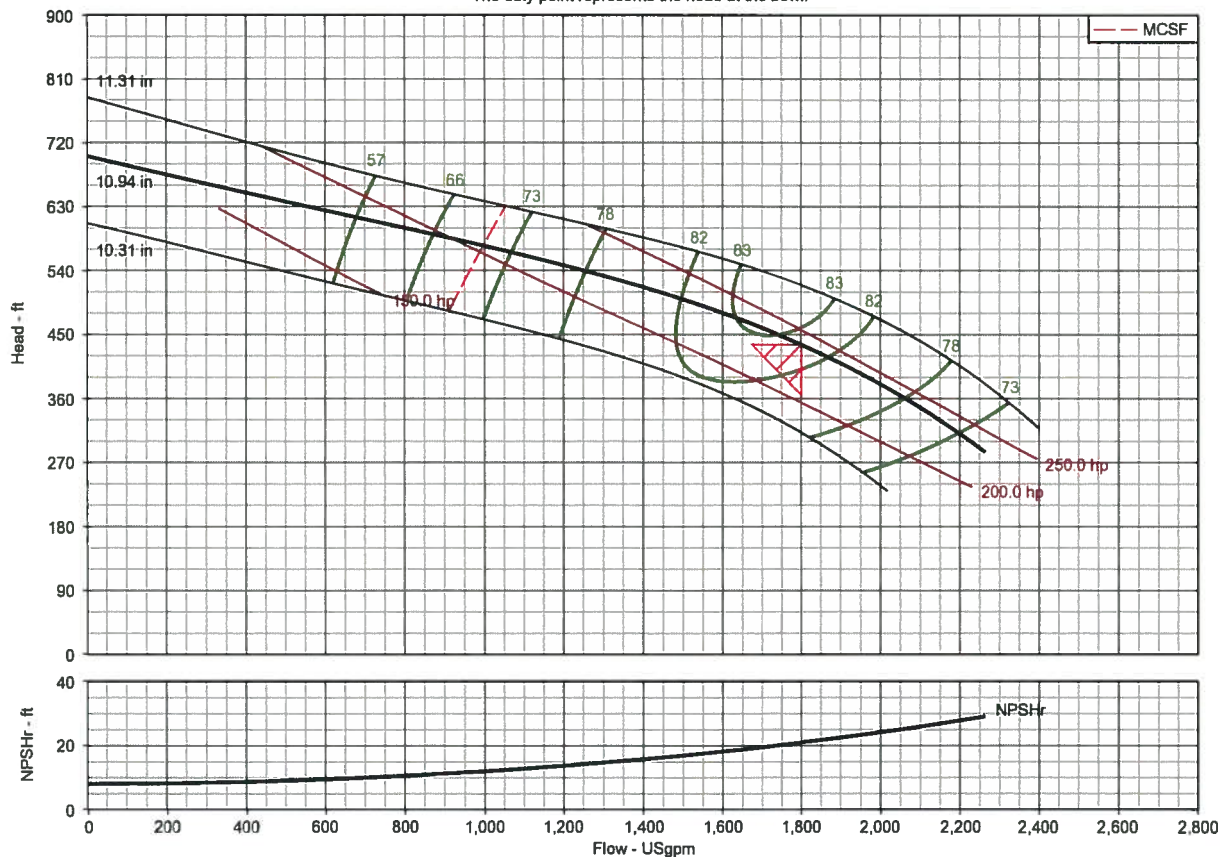
Pressure Data

Maximum working pressure	: See the Additional Data page
Maximum allowable working pressure	: See the Additional Data page
Maximum allowable suction pressure	: N/A
Hydrostatic test pressure	: See the Additional Data page

Driver & Power Data

Driver sizing specification	: Maximum power
Margin over specification	: 0.00 %
Service factor	: 1.15
Power, hydraulic	: 198 hp
Power (bowl / pump)	: 240 / - hp
Power, maximum, rated diameter	: 241 hp
Minimum recommended motor rating	: 250 hp / 186 kW

Bowl performance. Adjusted for construction and viscosity.
The duty point represents the head at the bowl.



THEORETICAL HORSEPOWER EQUATION WORKSHEET

Water Right No.: 63-12559
 Reviewer: Ashley Newbry
 Date of Review: 8/5/2016

P/D No.:	Scenario 1	Scenario 2	Scenario 3	
PUMP HORSEPOWER (HP)	250	250	250	
BOOSTER HORSEPOWER (HP)	0	0	0	
PUMPING LEVEL (FT)	205	217	228	
DISCHARGE PRESSURE (PSI)	100	95	90	
RATE OF FLOW (CFS)	3.532	3.528	3.533	AVG 3.53
RATE OF FLOW (GPM)	1585.3	1583.7	1585.7	1584.89
TOTAL DYNAMIC HEAD (FT)	436	436.45	435.9	436.1167

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:

Eagle Water Co Municipal Well 8
 * Pump curve not available

63-12559

PHOTOGRAPHER AND DATE: ASHLEY NEWBRY • August 5, 2016 • WR FILE: 63-12559



Well No. 1: (SW corner of an empty dirt lot at corner of N. Ash Street and Spring Hill Drive). The well was equipped with a 50 hP pump but it had been offline for about 1 year (August 2015). Subsequent electrical inspections have led EWC to believe that the well house was struck by lightning.



Well No. 2: Well house pictured at upper left (E. Ranch Drive near Eagle Hills Golf Course). A 90,000 gallon square concrete tank (lower right) is discreetly situated back-to-back with the No. 2 well house. Well No. 2 (lower left) is functional, but it only runs to refill the 90,000 gallon reservoir. It is equipped with what appeared to be three booster pumps—two 25 hP and one 15 hP (upper right).



Well No. 3: The well house (upper left) is located separate parcel inside the Eagle Hills Golf Course storage yard. Jeff explained that this well (upper right) was taken offline in 1995 due to iron and bacterial contamination. A 4000 gallon storage tank (lower left) is also housed in the well house; it appears to have been connected to the system when the well was operational. The well house was dusty and cobwebbed, clearly indicating non-use. The separator/filtration system controller is pictured (lower right).



Well No. 4: It is located at the northeast corner of the Eagle Industrial Center campus at approximately 1800 E. State Street. Well No. 4 (300 hP) was on and pumping at the time of the exam; Layne brand pump was diverting approximately 1250 gpm (2.79 cfs).

Well No. 5: This well does not exist. At one time it was planned, but never drilled.



Well No. 6: This well (250 hP) is located at the SE corner of W. State Street and S. Payette Way, near the entrance to Pine Ridge subdivision. The US Electric motor was running at the time of the exam, and the Layne brand pump was producing 1000 gpm (2.23 cfs).



Well No. 7: Well No. 7 is only about 1,500 feet southeast of Well No. 8; it is very close to the Boise River. At the time of the exam, the 200 hP American Marsh pump was on and delivering water to the distribution system.



Well No. 8: Well No. 8 (250 hP) is located on S. Anaconda Avenue, only 1,200 feet from the Boise River. The well house looked new and appeared to be designed to blend well with its future residential neighbors. The flow measurement of the American Marsh pump was only diverting about 300 gpm (0.67 cfs).



State of Idaho

DEPARTMENT OF WATER RESOURCES

322 East Front Street • P.O. Box 83720 • Boise, Idaho 83720-0098

Phone: (208) 287-4800 • Fax: (208) 287-6700 • Website: www.idwr.idaho.gov

C.L. "BUTCH" OTTER
Governor

GARY SPACKMAN
Director

July 12, 2016

EAGLE WATER COMPANY INC
PO BOX 455
EAGLE ID 83616

RE: Water Right No. 63-12559

Request to Schedule Water Right Field Examination

Dear Permit Holder:

On January 7, 2008, the Department of Water Resources (IDWR) received the Proof of Beneficial Use statement submitted by Robert DeShazo for Permit 63-12559, which authorized the diversion of ground water municipal purposes in the service area of Eagle Water Company.

In June 2016, I sent a letter requesting well diversion records in connection with the abovementioned permit. Your July 5, 2016 request for additional time to seek out these records was granted (30 days). This data collection step is a part of the field examination process, and it will be necessary for me to review the data before a Water Right License can be issued.

The second half of your field examination process is the field exam itself. By issuing a license, IDWR recognizes that all the requirements for establishing a water right were met. No water right license can be issued if IDWR is unable to confirm that the development authorized by the permit. For that reason, IDWR must conduct an examination to verify the development. I am contacting you now in an effort to schedule a time to conduct the required field examination.

Please contact me by July 25, 2016 to make arrangements for a field examination to be conducted on your diversion system. IDWR may void your permit if no response is received.

Please contact me by telephone at 208-287-4846 or by email at ashley.newbry@idwr.idaho.gov.

Respectfully,

Ashley Newbry
Staff Engineer

Newbry, Ashley

From: Newbry, Ashley
Sent: Wednesday, July 06, 2016 7:48 AM
To: 'Jeff Cornell'
Subject: RE: Jeff Cornell- Eagle Water Co.

Jeff,

Your request for an additional 30 days is granted; please be sure to follow up with me by August 5, 2016. In the interim time, I would like to take this opportunity to schedule the field examination. I will need to view the operation and capacity of all of the active EWC wells and any storage reservoirs. Are you or one of your operators available on July 22 to allow me access to your facilities?

Thank you,
Ashley

Ashley Newbry, PE | Staff Engineer

Idaho Department of Water Resources
State Office | 322 E. Front Street | PO Box 83720
Boise, ID 83720-0098
208.287.4800

From: Jeff Cornell [<mailto:dan13man@msn.com>]
Sent: Tuesday, July 05, 2016 11:43 AM
To: Newbry, Ashley
Subject: Jeff Cornell- Eagle Water Co.

Hello Ashley,

As per your request we have been looking into digging up the data you have requested regarding system volumes and so far we have been unable to find anything from that far back. We are attempting to contact the P.U.C. and track down our annual records that we submit annually to them to see if they would contain the information you're requesting. While we go through the proper steps of obtaining this information we would like to request additional time to complete this.

Thank you for your time
Jeff Cornell
Eagle Water Co.



State of Idaho

DEPARTMENT OF WATER RESOURCES

322 East Front Street • P.O. Box 83720 • Boise, Idaho 83720-0098

Phone: (208) 287-4800 • Fax: (208) 287-6700 • Website: www.idwr.idaho.gov

C.L. "BUTCH" OTTER
Governor

GARY SPACKMAN
Director

June 6, 2016

EAGLE WATER COMPANY INC
PO BOX 455
EAGLE ID 83616

****Time Sensitive Response Required****

RE: Water Right Permit 63-12559

Dear Permit Holder:

I am currently working toward issuing a license for your Water Permit 63-12559. When licensing a permit for municipal use for an entity serving an incorporated City, the extent of beneficial use established should be determined based on installed capacity developed and operational during the development period of the permit and cannot exceed the amount permitted. The determination of beneficial use should be further limited if the intended increment of beneficial use described in the permit was not accomplished.

In order to determine the additional increment of beneficial use attributable to Water Permit 63-12559, I must request diversion records from your company. I will need well pumping volumes and/or rates to the greatest frequency (monthly, weekly, daily, etc.) that you measured on each well from March 1, 2000 to January 2, 2008. This span of time represents the development period of Water Permit 63-12559.

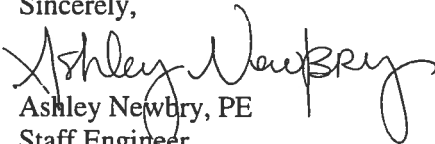
The more precise the data submitted, the greater the ability for me to tailor the license to fit your system needs. If you have maintained a SCADA system throughout the development period, you *may* also wish to provide the following for each year during the permit development period:

- total annual volume
- the maximum day volume
- maximum instantaneous rate of flow diverted *from the point of diversion authorized for this permit (Township 04N, Range 01E, Section 15, NESW, Lot 3, Ada County)*
- maximum instantaneous rate of diversion across the system

Please submit the information required to IDWR within 30 days. IDWR may void your permit if the additional information requested is not submitted. If you need additional time to submit the required information, please submit a written request. IDWR can grant additional time upon a showing of good cause for the delay.

Please contact me at IDWR State office by phone at (208) 287-4846 or by email at ashley.newbry@idwr.idaho.gov if you have any questions.

Sincerely,


Ashley Newbry, PE
Staff Engineer