

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 65-23316
Exam Date: 7/23/2019

1. Current Owner:
CHERRY GULCH INC
C/O ANDREW SAPP
PO BOX 678
EMMETT ID 83617
2. Accompanied by: Luke Sewall
Phone No: (208) 369-6665
Address:
Relationship to permit Holder: facility grounds manager

3. SOURCE:
GROUND WATER

Method of Determination: Permit application, ArcMap, aerial imagery, USGS topography, and field examination.

B. OVERLAP REVIEW

1. Other water rights with the same place of use: NO Overlap

Water Right No.	Source	Purpose of Use	Basis

Comments: _____

2. Other water rights with the same point-of-diversion: NO Overlap

Water Right No.	Source	Purpose of Use	Basis

Comments: _____

C. DIVERSION AND DELIVERY SYSTEM

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

GROUND WATER NE¼ NW¼, Sec. 22, Twp 07N, Rge 01W, B.M. GEM County

Method of Determination: Field examination, Garmin Handheld GPS, and ArcMap tools with aerial imagery.

PLACE OF USE: DOMESTIC

Twp	Rng	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
07N	01W	15												X					
07N	01W	22					X												

PLACE OF USE: IRRIGATION

Twp	Rng	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
07N	01W	15												0.10					0.10
07N	01W	22					1.3												1.3

Total Acres: 1.4

PLACE OF USE: STOCKWATER

Twp	Rng	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
07N	01W	15												X					
07N	01W	22					X												

Method of Determination: Aerial Imagery, ArcMap Tools, and observation during field exam.

3.

Delivery System Diagram Attached (required). Indicate all major components and distances between components.
 Y 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
 Y 1:24,000 or greater.

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

Y Photo of Diversion and System Attached

4.

Well or Diversion ID No.	Motor Make	Hp	Motor Serial No.	Pump Make	Pump Serial No. or Discharge Size
D0046946	3-Ph 230V Franklin Subm.	5		5 hp Franklin Subm.	4-inch 45 gpm

D. FLOW MEASUREMENTS

1.

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

2. Measurements:

Cherry Gulch Flow Meter Readings (Total gallons from 1/4/2018 to 10/18/2019)

Meter Location	Meter Type	Total Gal.	AVG. GPD	gpm	cfs	AFA*
Pump House**	Hersey	1,488,000	3,133	2.18	0.00485	3.45
Farmhouse	Xylem Sensus Iperl	184,960	315	0.22	0.00049	0.35
Lodge	Hersey	53,920	81	0.06	0.00012	0.09
Bunk House	Hersey	21,584	34	0.02	0.00005	0.04
School House	Hersey	8,410	15	0.01	0.00002	0.02

Calculation	Water Use	Total Gal.	AVG. GPD	gpm	cfs	AFA*
Total of Buildings	Domestic	268,874	444	0.31	0.001	0.5
Pumphouse - Buildings	Irrigation & Stockwater	1,219,126	2,689	1.87	0.004	3.0
Totals		1,488,000	3,133	2.18	0.005	3.50

*Acre-feet per annum calculated from average gallons/day times 0.0011 acre feet/year.

**All water flows through the Pump House, which represents total water consumption.

See attached table for monthly meter readings.

E. FLOW CALCULATIONS

Additional Computation Sheets Attached

Measured Method:

Beneficial Use Standard for irrigation = (1.4 acres) x (0.03 cfs/acre) = 0.04 cfs

Theoretical calculation:

Closed system from well into well house manifold for distribution with 5 hp pump set at 338 feet bgs. A pressure gauge was not located on the system

$$(8.8) \times (5 \text{ hp}) \times 0.70 / 338 = 0.09 \text{ cfs or } 40.9 \text{ gpm}$$

F. VOLUME CALCULATIONS

1. Volume Calculations for irrigation:

$$V_{IR} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = (1.4 \text{ acres}) \times (4.5 \text{ af}) = 6.3 \text{ af}$$

$$V_{DR} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = (0.04 \text{ cfs}) \times (260 \text{ days}) \times 1.9835 = 20.6 \text{ af}$$

$$V = \text{Smaller of } V_{IR} \text{ and } V_{DR} = 6.3 \text{ af}$$

2. Volume Calculations for Other Uses:

Volume calculation for stockwater use:

The permit was based on 25 head of domestic stock.. The volume recommended by Administrator's Memorandum #3 is:

$$V = 0.4 \text{ AF/yr or } Q = 0.02 \text{ cfs for 11-25 head of range cattle, roughly based on 12 gpd per head.}$$

Volume calculation for domestic use:

The calculations in the table below represents meter readings collected between 1/4/2018 and 10/18/2019. Usage data was collected from each buildings flow meter and converted to average gallons per day over the collection period. Since the facility is a boarding school usage at each building varies significantly from month to month. The majority of culinary usage takes place in the Lodge, while the other buildings such as the bunkhouse are largely used for sleeping, bathroom and shower facilities, while the school house mainly has day use for bathroom facilities. All water flows through the pumphouse and is measured at that water meter. Thus it is reasonable to assume that all domestic use takes place in the buildings and that subtracting the average gallons per day of all the buildings from the pumphouse would result in the average gallons per day utilized for domestic purposes. The remaining uses would be accounted for mainly by irrigation and some stockwater use. Therefore, an average of 444 GPD was calculated and converted to 0.5 AFA.

Calculation	Water Use	Total Gal.	AVG. GPD	gpm	cfs	AFA*
Total of Buildings	Domestic	268,874	444	0.31	0.001	0.5
Pumphouse - Buildings	Irrigation & Stockwater	1,219,126	2,689	1.87	0.004	3.0
Totals		1,488,000	3,133	2.18	0.005	3.50

*Acre-feet per annum calculated from average gallons/day times 0.0011 acre feet/year.

**All water flows through the Pump House, which represents total water consumption.

G. NARRATIVE/REMARKS/COMMENTS

A field exam was conducted by WRA Allen Bradbury and accompanied by Luke Sewall, Cherry Gulch manager, on July 23, 2019. Current Gem County taxlot data represents that the permit holder owns the land pertinent to the Place of Use (POU) and Point of Diversion (POD).

The well was drilled on September 27, 2006 under drilling permit 895684-841072 and tagged with #D0046946 on the 8-inch

casing. However, the well was modified on March 23, 2007 and tagged a second time on the 6-inch casing with #D0047675. The well was completed to a depth of 357 feet with the pump set at 338 feet according to information provided by the property manager.

The system consists of a 5 hp 230V 3-phase Franklin motor and a 5 hp 45 gpm 4" Franklin submersible pump. The submersible pump diverts water from the well to a well house where the water is distributed to the various uses. Cherry Gulch is a boarding school, so water is supplied for domestic use to four buildings. Each of the four buildings and the pump house are supplied with water meters. The lodge, the bunkhouse, the schoolhouse, and the pump house are equipped with Hersey brand meters and the farmhouse is equipped with a Xylem Brand Sensus Iperl water meter. The meters are approximately read on a monthly basis, but in any case the total gallons are recorded and divided by the number of days between readings to get an average number of gallons per day of usage for each building and overall usage from the pumphouse meter. Cherry Gulch supplied the last couple of years of records for the buildings and overall usage from the pumphouse, however for the purposes of the field exam only total production from the pumphouse is included in this report.

Overlap analysis found no overlap for POU or POD. The POU was determined using aerial photography, GIS, and field exam observation to determine irrigation within the beneficial use period. Cherry Gulch irrigates several common area lawns interspersed between walk ways and buildings, a soccer field as well as irrigation drip lines which are plumbed to several different tree rows and shrub areas. Aerial imagery before April 2016 do not show the farmhouse or soccer field however imagery dated June 2017 show both. The proof of beneficial use was submitted on October 14, 2014 for 0.20 cfs and 5 acres. The original permit limited irrigation to 5 acres within a 40 acre PPU. I am recommending a POU based on the apparent acres irrigated as calculated from GIS of 1.4 acres.

The proposed rate of diversion was 0.20 cfs on the original application, permit, and proof of beneficial use. The overall system was equipped with a Hersey water meter in the pumphouse. Meter readings for the pumphouse provided by Luke Sewall showed a range from 1,204.5 gpd to 9,915.8 gpd with an average of 3,140.9 gpd between January 4, 2018 and October 18, 2019. A theoretical calculation, based on a reported pump set of 338 feet, yielded a theoretical flow of 0.09 cfs or 40.9 gpm. Manufacturer pump curves indicate that the pump can perform at rates ranging from 40 to 45 gpm or 0.09 to 0.10 cfs. The beneficial use standard for 1.4 acres using the rate of 0.03 cfs/acre (as per Application Process Memo 17) yields a rate of 0.04 cfs. For licensing I am recommending the beneficial use calculated rate of 0.08 cfs total. I am recommending 0.04 cfs for irrigation and 0.02 cfs for stockwater, and 0.02 for domestic.

Conditions 046 and 26A were removed as per department licensing standards. Condition 121 was updated to 103. Condition X27 the PPU limit was removed. Condition X02 was removed as per department licensing standards.

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

H. RECOMMENDATIONS

1. Recommended Amounts

<u>Beneficial Use</u>	<u>Period of Use</u>	<u>Rate of Diversion</u>	<u>Volume</u>
IRRIGATION	03/01 to 11/15	0.04 CFS	6.3 AF
STOCKWATER	01/01 to 12/31	0.02 CFS	0.4 AF
DOMESTIC	01/01 to 12/31	0.02 CFS	0.5 AF

Totals: 0.08 CFS 7.2 AF

2. Recommended Amendments

☐ Change P.D. as reflected above ☐ Add P.D. as reflected above ☒ None

☐ Change P.U. as reflected above ☐ Add P.U. as reflected above ☒ None

I. AUTHENTICATION Allen Bradbury - Water Resource Agent, Senior

Field Examiner's Name Allen Bradbury Date 11/14/19

Reviewer Patricia Willy Date 11-15-2019

BENEFICIAL USE FIELD REPORT CALCULATIONS

Permit #: 65-23316
Owner: Cherry Gulch

Proof Due: 10/1/2014
Priority Date 10/14/2008

Proof Subm: 10/14/2014
Exam Date: 7/22/2019

Flow Rate 0.00 to 0.20
Fee Rate 0.20
Exam Fee \$50.00

0.00 to 0.20	\$50.00	2.01 to 3.00	\$150.00
0.21 to 1.00	\$100.00	3.01 to 4.00	\$175.00
1.01 to 2.00	\$125.00	4.01 to 5.00	\$200.00

Proposed Well Use: Domestic
Permit Uses: Irrigation

Drill Date 9/27/2006
Stockwater Domestic

Depth: 357 ft

Pump Set: 338 ft

	cfs	gpm
Application Rate	0.20	89.77
Permit Rate	0.20	89.77
Proof Report	0.20	89.77
Irrig. Only	0.15	67.32
Stockwater	0.02	8.98
Domestic	0.11	49.37

Acres Proposed:	5.0
Acres Permitted:	5.0
Acres Developed:	1.4

FLOW CALCULATIONS

Meter Type:
Meter Reading 49.50 gpm
0.110 cfs

Nozzle Size	
Input # heads:	
Input gpm/head	
gpm/line	0.0
cfs/line	0.00

Theoretical Method

$$Q = \frac{(8.8) \times (HP) \times E}{TDH}$$

HP =	E =	H =	PSI =	Q =	Q =
5.0	70.0%	338	0	0.09	40.90
				cfs	gpm

$$TDH = [(LIFT) + (PSI \times 2.31)]$$

TDH =	Lift =	PSI =	2.31
338.0	338		2.31

HP = Total Brake Horsepower of pumping plant (including booster)

Eff. = Pumping plant efficiency (assume 70% or 0.70)

TDH = Total dynamic head = [(LIFT) + (PSI X 2.31)]

PSI = Pumping pressure measured in PSI near pump (if open discharge assume [0])

Q = rate of flow in cubic feet per second,

Consumptive Use	4.5	Headgate Requirement	4.5	
Season of Use	3/1	11/15	=	260 days
Volume (VIR)	1.4	X	4.5	= 6.3 af
Volume (DR)	0.040	x	260	x 1.9835 = 20.63 af
BU Standard Rate	1.4	X	0.03	= 0.04 cfs
Rate/acre	0.091	/	1.4	= 0.065 cfs/ac

V I.R. = (Acres Irrigated) x (Irrigation Requirement)

V D.R. = [Diversion Rate (cfs)] x (Days in Irrigation season) x 1.9835

V = Smaller of V I.R. and V D.R

Recommendation Standards for diversion rate (choose most restrictive)

0.20 Permit Rate – the rate applied for

0.20 Fee Rate – the maximum rated paid for on the fee schedule.

0.04 Beneficial Use (BU) standard = x.x ac * 0.030 cfs/acre

0.110 Measured Value – the value measured in the field

0.091 Theoretical Rate - the rate calculated

Bradbury, Allen

From: Luke Sewall <LukeS@cherrygulch.org>
Sent: Friday, October 18, 2019 1:32 PM
To: Bradbury, Allen
Subject: Fw: Message from KM_C558
Attachments: SKM_C55819101813300.pdf

Up to date logs over the summer

From: Scanner@cherrygulch.org <Scanner@cherrygulch.org>
Sent: Friday, October 18, 2019 1:30 PM
To: Luke Sewall
Subject: Message from KM_C558

Cherry Gulch Flow Meter Readings

Lodge	gallons	sub total	# days	GPD
4-Jan-18	27,610	1,710	22	77.7
5-Feb-18	30,600	2,990	32	93.4
7-Mar-18	33,570	2,970	30	99.0
9-Apr-18	36,300	2,730	33	82.7
8-Oct-18	50,830	14,530	183	79.4
16-Nov-18	53,020	2,190	40	54.8
18-Dec-18	56,970	3,950	33	119.7
16-Jan-19	58,420	1,450	29	50.0
11-Mar-19	62,210	3,790	54	70.2
20-May-19	67,920	5,710	70	81.6
15-Jul-19	72,370	4,450	55	80.9
9-Sep-19	76,450	4,080	56	72.9
18-Oct-19	79,820	3,370	40	84.3
	53,920			80.5

Bunk House	gallons	sub total	# days	GPD
4-Jan-18	9,440		22	0.0
5-Feb-18	11,353	1,913	32	59.8
7-Mar-18	12,434	1,081	30	36.0
9-Apr-18	13,403	969	33	29.4
8-Oct-18	18,357	4,954	183	27.1
16-Nov-18	19,270	913	40	22.8
18-Dec-18	22,375	3,105	33	94.1
16-Jan-19	23,153	778	29	26.8
11-Mar-19	25,514	2,361	54	43.7
20-May-19	27,624	2,110	70	30.1
15-Jul-19	28,912	1,288	55	23.4
9-Sep-19	30,057	1,145	56	20.4
18-Oct-19	31,024	967	40	24.2
	21,584			33.7

School House	gallons	sub total	# days	GPD
4-Jan-18	3,719	170	22	7.7
5-Feb-18	4,051	332	32	10.4
7-Mar-18	4,485	434	30	14.5
9-Apr-18	4,857	372	33	11.3
8-Oct-18			183	0.0
16-Nov-18	11,501	438	40	11.0
18-Dec-18	12,277	776	33	23.5
16-Jan-19	12,552	275	29	9.5
11-Mar-19	13,627	1,075	54	19.9
20-May-19	14,340	713	70	10.2
15-Jul-19	14,825	485	55	8.8
9-Sep-19	17,756	2,931	56	52.3
18-Oct-19	18,165	409	40	10.2
	8,410			14.6

Farmhouse	gallons	sub total	# days	GPD
4-Jan-18	109,559.3	8,403.24	22	382.0
5-Feb-18	127,124.8	17,555.48	32	548.6
7-Mar-18	141,204.0	14,079.26	30	469.3
9-Apr-18	154,577.8	13,373.83	33	405.3
8-Oct-18	216,611.5	62,033.62	183	339.0
16-Nov-18	218,186.0	1,574.47	40	39.4
18-Dec-18	229,465.0	11,279.77	33	341.8
16-Jan-19	237,849.3	8,384.24	29	289.1
11-Mar-19	242,642.9	4,793.66	54	88.8
May-19			70	
15-Jul-19	257,141.4	11,150.22	55	202.7
9-Sep-19	275,588.0	18,446.62	56	329.4
18-Oct-19	289,473.8	13,885.74	40	347.1
	184,960			315.2

Pump House	gallons	sub total	# days	GPD
4-Jan-18	8,760,730	31,310	22	1,423.2
5-Feb-18	8,819,410	58,680	32	1,833.8
7-Mar-18	8,879,360	59,950	30	1,998.3
9-Apr-18	8,931,070	51,710	34	1,520.9
8-Oct-18				
16-Nov-18				
18-Dec-18				
16-Jan-19	874,390	34930	29	1,204.5
11-Mar-19	952,890	78,500	54	1,453.7
20-May-19	1,097,710	144,820	70	2,068.9
15-Jul-19	1,377,710	280,000	55	5,090.9
9-Sep-19	1,933,050	555,340	56	9,916.8
18-Oct-19	2,125,810	192,760	40	4,819.0
	1,488,000			3,133.0

Meter Location	Total Gal.	AVG. GPD	gpm	cfs	AFA
Pump House	1,488,000	3,133	2.18	0.00485	3.45
Farmhouse	184,960	315	0.22	0.00049	0.35
Lodge	53,920	81	0.06	0.00012	0.09
Bunk House	21,584	34	0.02	0.00005	0.04
School House	8,410	15	0.01	0.00002	0.02

Water Use	Total Gal.	AVG. GPD	gpm	cfs	AFA
Domestic Use	268,874	444	0.31	0.001	0.5
Irrig./Stock Use	1,219,126	2,689	1.87	0.004	3.0
Total	1,488,000	3,133	2.18	0.005	3.50

Acre-feet per annum calculated from
average gallons/day times 0.0011 acre feet/year.
Highlighted numbers represent highest recorded gallons/day.

Valley Pump and Equipment Co. Inc.
Box 548
Emmett, ID 83617
208-365-2972

Invoice

Date	Invoice #
11/16/2018	9035

Bill To:

Cherry Gulch Boys Ranch
P.O. Box 678
Emmett, ID 83617

PAID
12/03/2018

Job Site:

Terms	P.O. No.	Rep
Net 10th		PLF

Qty	Description	Rate	Amount
1	(45FA5S4-PE) 5HP 45GPM 4" Franklin Stainless pump end 18H22 02 00037H	2,016.00	2,016.00T
1	5HP 230V 3ph Franklin Sub. motor 18G14-20-02306C	1,655.10	1,655.10T
4	2" Brass check valve 80E	120.00	480.00T
8	Feet of 1" sch 80 pvc drop pipe	1.00	8.00T
10	# 52 hose clamps	1.31	13.10T
4	blue wire nuts (large)	0.68	2.72T
5	roll of green tape 2" x 100'	7.13	35.65T
	Labor MIKE & TRESTON	1,250.00	1,250.00

Please pay amount due, in full, by the 10th of the month, unless prior arrangements have been made. A 1.5% service charge per month, a minimum of .50, will be assessed on all accounts over 30 days past due.

Subtotal \$5,460.57

Sales Tax (6.0%) \$252.63

Total \$5,713.20

Payments/Credits -\$5,713.20

Balance Due \$0.00

SUBMERSIBLE PUMPS

4" HIGH CAPACITY

FPS

PERFORMANCE

45 GPM

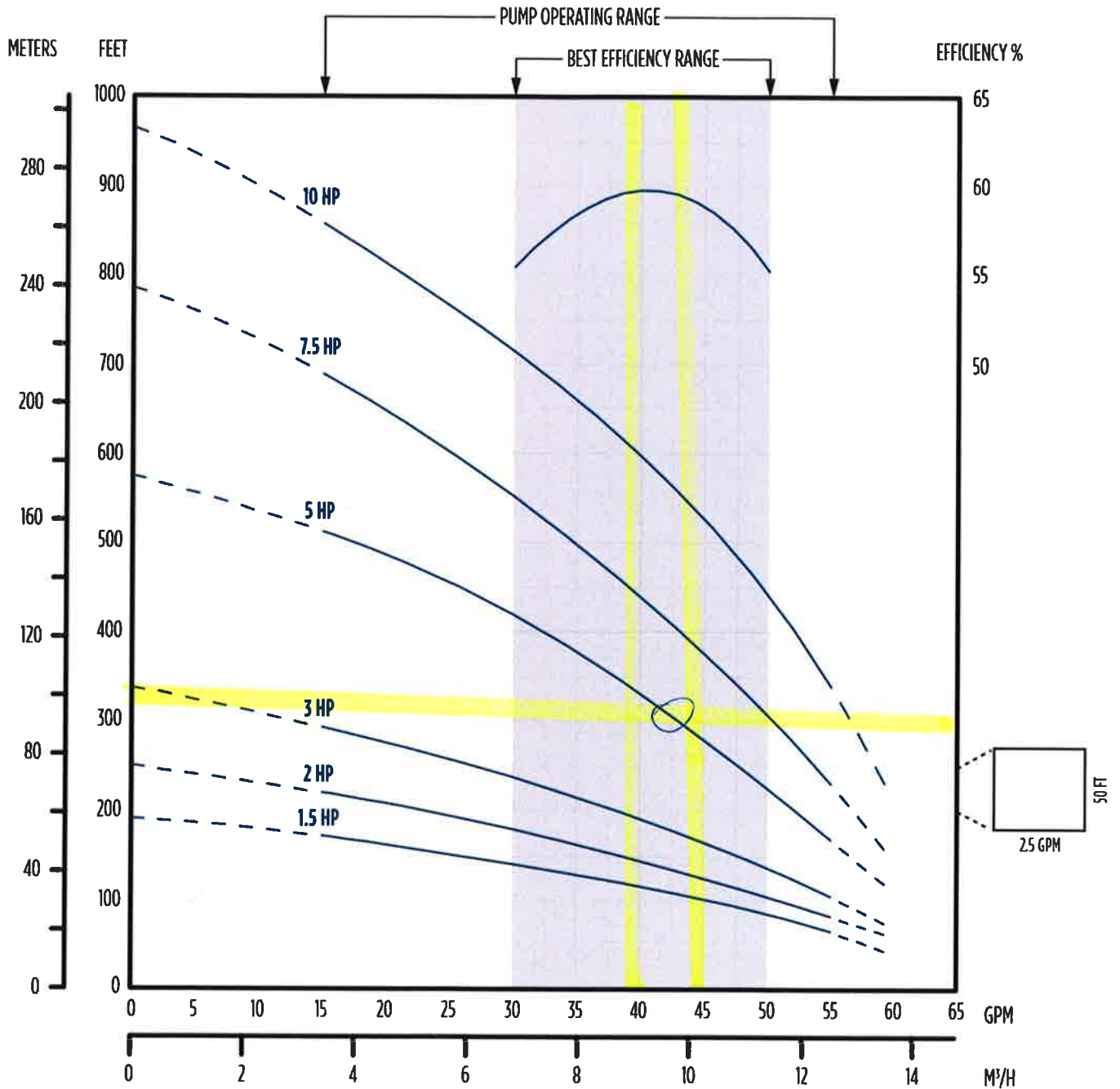




Figure 1. Well tag on bottom casing, #D0046946.



Figure 2. Well tag on top casing, #D0047675.



Figure 3. Well location.



Figure 4. Law area uphill from well location.



Figure 5. Inside the pumphouse.



Figure 6. Pump house flow meter.



Figure 7. Cherry Gulch buildings, lawn and landscaping.



Figure 8. Sprinklers operating.



Figure 9. Rainbird 5000.



Figure 10. Drip lines to trees.



Figure 11. Soccer field irrigation.



Figure 12. Lawn near entry.



Figure 13. Spigot with hoses.



Figure 14. Stockwater trough.



Figure 15. Lodge kitchen meter.



Figure 16. Farmhouse basement meter.



Figure 17.
Bunkhouse meter.



Figure 18. School
house meter.

IDAHO DEPARTMENT OF WATER RESOURCES WELL DRILLER'S REPORT

Drill Permit #
845503

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

1. DRILLING PERMIT NO. - - 46-946

Other IDWR No. D0047675 (MODIFIED)

2. OWNER:

Name CHERRY GULCH BOYS RANCH

Address PO BOX 678

City EMMETT State ID Zip 83617

3. LOCATION OF WELL by legal description:

Sketch map location must agree with written location

W  Twp. 7 North ☒ or South ☐
Rge. 1 East ☐ or West ☒
Sec. 22 1/4 NE 1/4 NW 1/4
10 acres 40 acres 160 acres
S Gov't lot _____ County GEM

Lat: _____ Long: _____

Address of Well Site BLACK CANYON HWY 52 1/2 MI

SW OF 3800 HWY 52 City EMMETT

(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	
GROUT	200	320	350 GAL	PUMP
CEMENT	0	200	400 GAL	PUMP

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
6"	+2	320	280	ST	☒	☐	☒	☐
5"	317	327	250	ST	☒	☐	☒	☐

Length of Headpipe 10' Length of Tailpipe _____

9. PERFORATIONS/SCREENS

☐ Perforations Method _____
☒ Screens Screen Type ss, 2 k-packers

From	To	Slot Size	Number	Diameter	Material	Casing	Liner
327	357	.020		5"	SS	☐	☐

10. STATIC WATER LEVEL OR ARTESIAN PRESSURE:

178 ft. below ground

Depth flow encountered 335 ft.

devices: WELL CAP

Artesian Pressure _____ lb

Describe access port or control

11. WELL TESTS:

☐ Pump ☐ Bailor ☒ Air ☐ Flowing Artesian

Yield gal/min	Drawdown	Pumping Level	Time
100		140	3 HRS

Water Temp. _____ Bottom hole temp. _____

Water Quality test or comments: _____

Depth first Water Encountered 140

12. LITHOLOGIC LOG: (Describe repairs or abandonment)

Water			Remarks: Lithology, Water Quality & Temp.	Y	N
Bore Dia	From	To			
12"	0	2	TOP SOIL		
12"	2	6	RED CLAY		
12"	6	10	TAN CLAY		
12"	10	25	PURPLE CLAY		
12"	25	40	GRAVEL		
12"	40	45	BASALT		
12"	45	60	RED BASALT		
12"	60	70	RED & BLACK BASALT		
8"	70	85	RED & BLACK BASALT		
8"	85	93	BLACK BASALT		
8"	93	115	RED & BLACK BASALT		
8"	115	140	RED CINDER W/STRIPS OF BAKED CLAY		
8"	140	160	RED CINDER 5-10 GPM		
8"	160	170	BASALT		
8"	170	180	BASALT W/CRACKS		
8"	180	205	RED & BLACK CINDER		
8"	205	280	BLUE GREEN SANDY CLAY		
8"	280	290	BASALT		
8"	290	320	BAKED CLAY		
8"	320	335	RED & BLACK BASALT		
8"	335	357	BASALT W/CRACKS 90 GPM		

RECEIVED

MAR 23 2007

ORIGINAL

WATER RESOURCES
WESTERN REGION

Completed Depth: 357 (Measurable)

Date: Started 03/06/2007

Completed 03/16/2007

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 GEORGE POST WELL DRILLING

Firm No. 563

Firm Official George Post

Date 03/20/2007

Supervisor or Operator _____

(Sign once if Firm Official & Operator)

Date _____

Date: 3/20/2007 Time: 11:17:08 AM

Form 238-7
3/95-C96

IDAHO DEPARTMENT OF WATER RESOURCES
WELL DRILLER'S REPORT

841072

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

1. DRILLING PERMIT NO. _____
Other IDWR No. D0046946

2. OWNER:
Name CHERRY GULCH BOYS RANCH
Address P.O. BOX 678
City EMMETT State ID Zip 83617

3. LOCATION OF WELL by legal description:
Sketch map location must agree with written location
N

W

 E
Twp. 7 North ☒ or South ☐
Rge. 1 East ☐ or West ☒
Sec. 22 1/4 NE 1/4 NW 1/4
10 acres 40 acres 160 acres
Gov't lot _____ County GEM

Lat: _____ Long: _____
Address of Well Site BLACK CANYON HWY 52 1/2 MI
SW OF 3800 HWY 52 City EMMETT
(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	
BENTONITE	0	70	1050	POUR

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

8. CASING/LINER:

Diameter	From To	Length	Material	Casing	Liner	Welded	Threaded
8"	+2 68	250	STEEL	☒	☐	☒	☐
4.5"	17 297		PVC	☐	☒	☐	☐
				☐	☐	☐	☐

Length of Headpipe _____ Length of Tailpipe _____

9. PERFORATIONS/SCREENS
☐ Perforations Method _____
☒ Screens Screen Type pvc

From	To	Slot Size	Number	Diameter	Material	Casing	Liner
297	357	020		4.5	PVC	☐	☒
						☐	☐
						☐	☐

10. STATIC WATER LEVEL OR ARTESIAN PRESSURE:
180ft. below ground Artesian Pressure _____ lb
Depth flow encountered 335 ft. Describe access port or control devices: WELL CAP

11. WELL TESTS:

☐ Pump ☐ Bailor ☒ Air ☐ Flowing Artesian

Yield gal/min	Drawdown	Pumping Level	Time
100		340	3 HR

Water Temp. _____ Bottom hole temp. _____
Water Quality test or comments: _____
Depth first Water Encountered 140

12. LITHOLOGIC LOG: (Describe repairs or abandonment)

Water

Bore Dia	From	To	Remarks: Lithology, Water Quality & Temp.	Y	N
12"	0	2	TOP SOIL		☒
12"	2	6	RED CLAY		☒
12"	6	10	TAN CLAY		☒
12"	10	25	PURPLE CLAY		☒
12"	25	40	GRAVEL		☒
12"	40	45	BASALT		☒
12"	45	60	RED BASALT		☒
12"	60	70	RED & BLACK BASALT		☒
8"	70	85	RED & BLACK BASALT		☒
8"	85	93	BLACK BASALT		☒
8"	93	115	RED & BLACK BASALT		☒
8"	115	140	RED CINDER W/STRIPS OF BAKED CLAY		☒
8"	140	160	RED CINDER 5-10 GPM		☒
8"	160	170	BASALT		☒
8"	170	180	BASALT W/CRACKS		☒
8"	180	205	RED & BLACK CINDER		☒
8"	205	280	BLUE GREEN SANDY CLAY		☒
8"	280	290	BASALT		☒
8"	290	320	BAKED CLAY		☒
8"	320	335	RED & BLACK BASALT		☒
8"	335	357	BASALT W/CRACKS 90 GPM		☒

RECEIVED ORIGINAL

OCT 2 2006

WATER RESOURCES
WESTERN REGION

Completed Depth: 357 (Measurable)
Date: Started 09/20/2006 Completed 09/27/2006

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 GEORGE POST WELL DRILLING Firm No. 563

Firm Official [Signature] Date 09/28/2006

Supervisor or Operator [Signature] Date 09/28/2006
(Sign once if Firm Official & Operator)

Date: 9/28/2006 Time: 10:19:26 AM