

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 65-23054

Exam Date: 8/3/2012

1. Current Owner: CRUSHER LLC
1110 ELO RD
MCCALL ID 83638
(208)634-8127
2. Accompanied by: John Borkoski
Phone No: Same
Address: Same
Relationship to Permit Holder: Developer

3. SOURCE

GROUND WATER

TRIBUTARY

NORTH FORK PAYETTE RIVER

B. OVERLAP REVIEW

1. Other water rights with the same place of use: None
2. Other water rights with the same point of diversion: None

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

GROUND WATER

NW1/4SE1/4

Sec. 3, Twp 18N, Rge 03E, B.M.

VALLEY County

Method of Determination: Arc Map(Aerial Photo); GPS Latitude N.44°55.493', Longitude W.116°04.219'; Datum – NAD83.

2.

PLACE OF USE: DOMESTIC

Twp	Rge	Sec	NE				NW				SW				SE				Totals
18N	03E	3	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
																X			

PLACE OF USE: IRRIGATION

Twp	Rge	Sec	NE				NW				SW				SE				Totals
18N	03E	3	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
																1.0			1.0

Total Acres: 1

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Method of Determination:

3. ☒ 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.

<u>Well or Diversion</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>
<u>ID No.*</u>					
D0047462	Unknown	N/A		Gould	(2")

*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>
N/A						

2. Measurements: No field measurement. Pitot tube would not fit sprinkler nozzles.

E. FLOW CALCULATIONS

Additional Computation Sheets Attached

Measured Method: (IDWR Sprinkler Discharge for Nozzle Size & Pressure)

$$Q = N \times Q = 6 \times 2.5 \text{ gpm} = 15 \text{ gpm} \sim 0.04 \text{ cfs}$$

N = Number of Sprinkler Heads (6)

$$Q(\text{capacity of 2" pipe}) = 0.11 \text{ cfs (IDWR Table for Expected Flows For Pipe Diameter)}$$

Q = Nozzle Discharge = 2.5 gpm (per right holder)

$$Q = VA = 5 \times 0.022 \text{ ft}^2 \times 2 = 0.22 \text{ cfs} > 0.16 \text{ cfs (permit)}$$

A(pipe) = 0.022 ft²

V = 5 ft/sec (assumed)

Based on the sprinkler discharge data provided by the right holder's sprinkler installer, and the capacity of the two 2" discharge pipes (domestic and irrigation), it appears that the existing pumping system can attain the total permit diversion rate of 0.16 cfs.

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F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 1.0 \times 3.0 = 3.0 \text{ AFA}$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = 0.03 \times 200 \times 1.9835 = 15.9 \text{ AFA}$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = 3.0 \text{ AFA}$$

2. Volume Calculations for Other Uses: Domestic Volume (Internal) – 8 condominiums

$$V = 8 \times 0.6 \text{ AF} = 4.8 \text{ AFA}$$

$$V(\text{domestic}) = 0.6 \text{ AFA/condominium}$$

G. NARRATIVE/REMARKS/COMMENTS**WATER SUPPLY SYSTEM:**

A ground water well located in the northeast corner of the Nordic Village development, supplies water for domestic use and irrigation of lawn and landscaping around the condominiums. At the time of submittal of the Application for Permit, it was the right holders intention to have an integrated water delivery system between the new well(s) and the existing well. However, the existing old well was never developed.

DOMESTIC/IRRIGATION SYSTEMS:

A pump house, which is located in the northeast corner of the Nordic Village development, houses the pressure tanks, chlorine dosing tanks, and controls for the domestic system, and the controls for the pressurized irrigation system. The irrigation system is comprised of 31 zones with six pop-up sprinkler heads per zone. Each zone operates at 15 minute intervals.

SYSTEM CAPACITY:

As stated on the permit, the right holder is requesting a beneficial use appropriation of 0.16 cfs, which is composed of 0.10 cfs for domestic use to 8 condominiums, and 0.06 cfs for irrigation of 2.0 acres of lawn and landscaping. According to the right holder, the pump installer has gone out of business, and they were not able to locate any pump information for the well pump. Since no pump information was available for using the theoretical pump calculation formula, I used the table for the expected flow capacity for a 2" pipe (0.11 cfs). Since there exist two 2" discharge lines, one for domestic use and one for irrigation, it was determined that the water supply system has a total system capacity of 0.22 cfs.

According to the right holder, only the lawn and landscaping surrounding the condominiums are currently irrigated by the irrigation system. It was determined by an aerial photo that only 1.0 acre of lawn and landscaping is currently being irrigated.

The maximum appropriation allowed is 0.13 cfs since only 1.0 acre of lawn and landscaping is irrigated. Recommended appropriation shall be 0.10 cfs for domestic use, and 0.03 cfs for irrigation.

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

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RATE &/OR STORAGE RECOMMENDED FOR LICENSING

Description	Rate of Flow (cfs)		Storage (af)
Permit Amount	0.16	&/or	N/A
Beneficial Use Limit	0.16	&/or	N/A
System Measurement	0.22(Pipe Capacity)	&/or	N/A
Proof Fee Amount	0.20	&/or	N/A
Recommended Amount	0.13	&/or	N/A

H. RECOMMENDATIONS

1. Recommended Amounts

<u>BENEFICIAL USE</u>	<u>PERIOD OF USE</u>	<u>DIVERSION RATE</u>	<u>ANNUAL VOLUME</u>
DOMESTIC	01/01 to 12/31	0.100 CFS	
IRRIGATION	04/15 to 10/31	0.030 CFS	3.0 AFA
<u>Totals:</u>		0.130 CFS	3.0 AFA

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

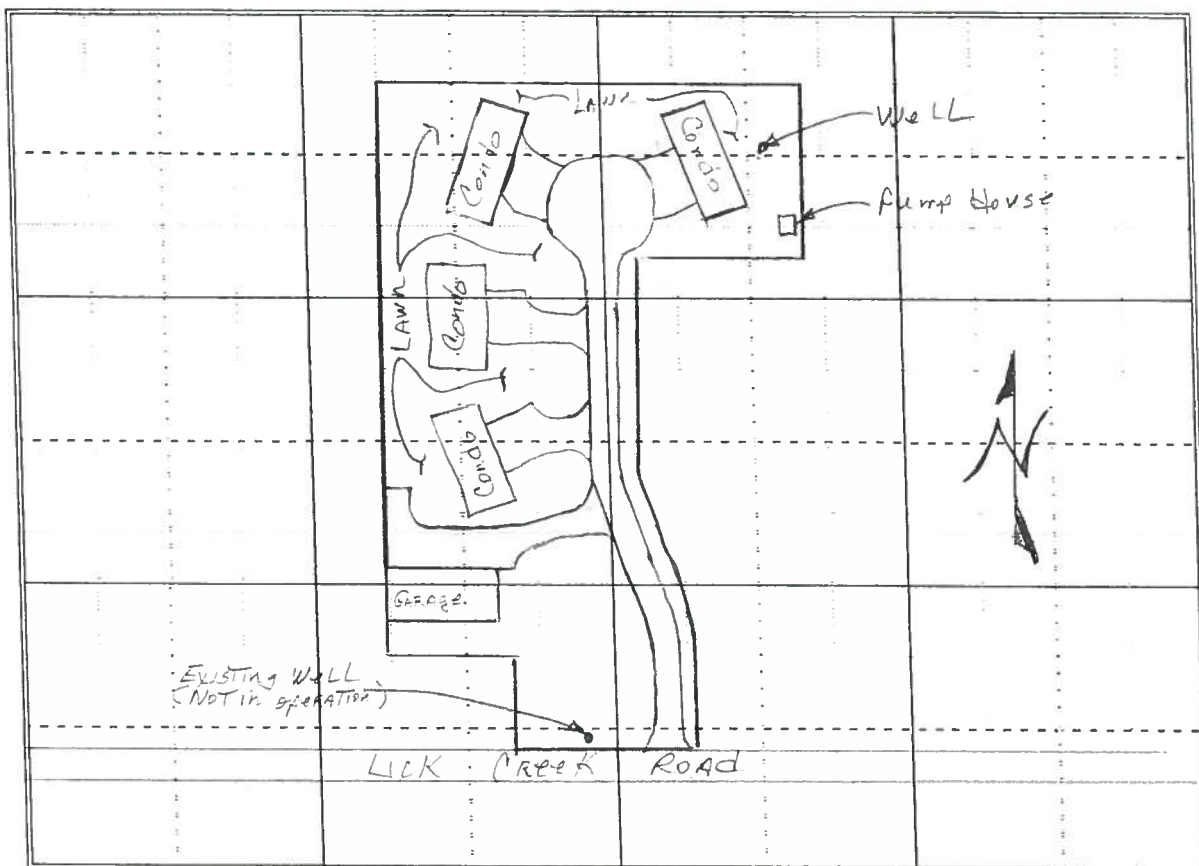
I. AUTHENTICATION

Field Examiner's Name *Rick Collingwood* Date 10/31/12

Reviewer _____ Date _____

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



Scale: 1" = _____

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

65-23054



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IDAHO DEPARTMENT OF WATER RESOURCES
WELL DRILLER'S REPORT

843011

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

1. WELL TAG NO. D 0047462

DRILLING PERMIT NO. **896981-843011**

Other IDWR No. **65-23054**

2. OWNER:

Name **Crusher, LLC**

Address **1110 Elo Rd.**

City **McCall** State **ID** Zip **83638**

3. LOCATION OF WELL by legal description:

Sketch map location must agree with written location.

N
W E S
Twp. **18** North ☒ or South ☐
Rge. **3** East ☒ or West ☐
Sec. **3** SE 1/4 NW 1/4 SE 1/4
Gov't Lot _____ County **Valley**
Lat: _____ Long: _____
Address of Well Site **1928 Nordic Circle**
City **McCall**

(Give at least name of road + Distance to Road or Landmark)
Lt. _____ Blk. _____ Sub. Name **Nodic Village**

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	
B. Grout 30%	250' 143' 36 Sacks	Poured
3/4" Hole Plug	143' 85' 53 Sacks	Poured
10-20 Sand	85' 58' .75 yd	Poured
B. Grout 30%	58' 9' 2.5 yds	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
6"	+2'	62'	.280	Steel	☒	☐	☒	☐

Length of Headpipe _____ Length of Tailpipe _____

9. PERFORATIONS/SCREENS:

☐ Perforations Method _____
☒ Screens Screen Type **Johnson**

From	To	Slot Size	Number	Diameter	Material	Casing	Liner
82'	62'	.020		6"	SS	☐	☒

10. STATIC WATER LEVEL OR ARTESIAN PRESSURE:

8' ft. below ground Artesian pressure _____ lb.
Depth flow encountered _____ ft. Describe access port or control devices: **Cap**

11. WELL TESTS:

Yield gal./min.	Drawdown	Pumping Level	Time
60 gpm	80'	80'	12 Hrs.

Water Temp. **56** Bottom hole temp. **56**

Water Quality test or comments: _____

Depth first Water Encounter _____

12. LITHOLOGIC LOG: (Describe repairs or abandonment)

Bore Dia	From	To	Remarks Lithology, Water Quality & Temperature	Y	N
12"	0	1'	Top Soil		
12"	1'	8'	Sand & Gravel	X	
12"	8'	10'	Brown Clay/Sand/Gravel		
12"	10'	31'	Coarse Sand & Pea Gravel		
12"	31'	68'	Sand & Gravel w/Clay Seams	X	
12"	68'	73'	Black Sand & Cobbles	X	
12"	73'	78'	Fine Black Silt		
12"	78'	95'	Black Sandstone	X	
12"	95'	116'	Blue Clay		
12"	116'	123'	Fine Blue Silt		
12"	123'	132'	Blue Clay		
12"	132'	143'	Fine Blue Silt		
12"	143'	144'	Blue Clay		
12"	144'	152'	Blue Silt		
12"	152'	171'	Blue Clay		
12"	171'	179'	Sandy Blue Clay		
12"	179'	184'	Sticky Blue Clay		
12"	184'	191'	Brown Sandstone	X	
12"	191'	194'	Coarse Sand	X	
12"	194'	202'	Sticky Blue Clay		
12"	202'	204'	Blue Sandstone	X	
12"	204'	208'	Blue Clay		
12"	208'	217'	Blue Sandstone	X	
12"	217'	223'	Blue Clay		
12"	223'	227'	Blue Sandstone	X	
12"	227'	230'	Sandy Blue Clay		
12"	230'	250'	Blue Sandstone	X	

SCANNED RECEIVED

JAN 31 2008

MAR 26 2007

WATER RESOURCES
WESTERN REGION

Completed Depth **250'** (Measurable)
Date: Started **10/19/2006** Completed **10/27/2006**

13. DRILLER'S CERTIFICATION:

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

Company Name **Treasure Valley Drilling** Firm No. **560**

Firm Official **[Signature]** Date **11/6/2006**

and Driller or Operator **[Signature]** Date **11/6/2006**

(Sign once if Firm Official & Operator)

FIELD EXAM PHOTOS

Water Right Permit: 65-23054

Field Exam Date: 8-3-12

PLS: NW1/4, SE1/4 Section 3, T.18N, R.03E.

Field Examiner: RC



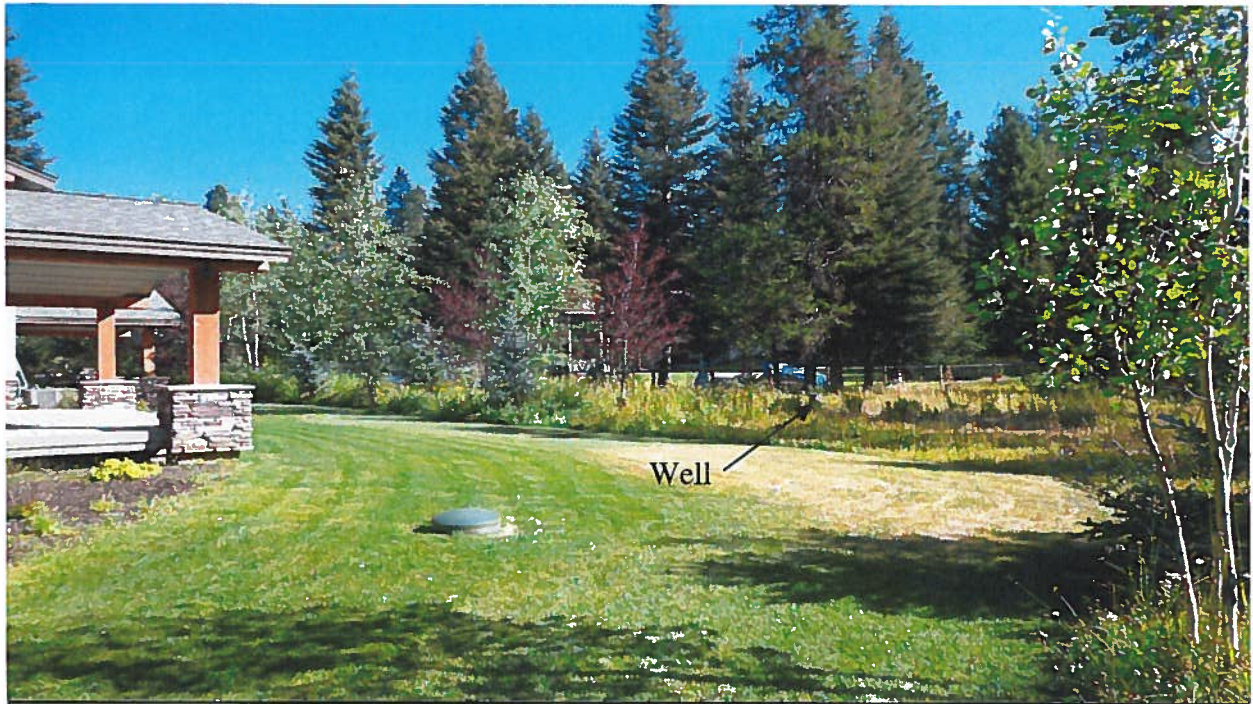
Point of Diversion (New Well): View northerly of domestic and irrigation ground water well.



Point of Diversion (Old Undeveloped Well): View southeasterly of existing undeveloped well.

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Place of Use: View northwesterly of typical lawn and landscaping. Well is located behind condominium units 8 and 9 in the undeveloped portion of the Nordic Village development.



Place of Use: View northerly behind condominium units 2 & 3 of typical lawn and landscaping within the Nordic Village development.