

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 36-16364

Exam Date: 12/20/11

1. Current Owner: MINIDOKA COUNTY FIRE PROTECTION DISTRICT
PO BOX 166
HEYBURN ID 83336
(208)679-8250
2. Accompanied by: Mike Brown
Phone No: 208-679-8250
Relationship to Permit Holder: Fire Chief

3. **SOURCE**

GROUND WATER

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

NW1/4NW1/4

Sec. 31, Twp 07S, Rge 25E, B.M.

MINIDOKA County

Method of Determination: GPS point was collected on 12/20/2011.

2.

PLACE OF USE: DOMESTIC

Twp	Rge	Sec	NE				NW				SW				SE				Totals
			<u>NE</u>	<u>NW</u>	<u>SW</u>	<u>SE</u>	<u>NE</u>	<u>NW</u>	<u>SW</u>	<u>SE</u>	<u>NE</u>	<u>NW</u>	<u>SW</u>	<u>SE</u>	<u>NE</u>	<u>NW</u>	<u>SW</u>	<u>SE</u>	
07S	25E	31						X											

PLACE OF USE: FIRE PROTECTION

Twp	Rge	Sec	NE				NW				SW				SE				Totals
			<u>NE</u>	<u>NW</u>	<u>SW</u>	<u>SE</u>	<u>NE</u>	<u>NW</u>	<u>SW</u>	<u>SE</u>	<u>NE</u>	<u>NW</u>	<u>SW</u>	<u>SE</u>	<u>NE</u>	<u>NW</u>	<u>SW</u>	<u>SE</u>	
07S	25E	31						X											

Method of Determination: 2006 Aerial Photography. GCDB is off and places POD and POU in the NWSW of Section 31. Measurement in ArcMap places physical/real location of the fire station in the NWNW of Section 31 as permitted.

3. X Delivery System Diagram Attached (required). Indicate all major components and distances between components. Indicate weir size/pipe as applicable.
- X Map Attached Showing Location(s) of point(s) of diversion and place(s) of use (required). Scale must be 1:24,000 or greater.
- X Aerial Photo Attached (required for irrigation of 10+ acres).
- X Photo of Diversion and System Attached

4.

<u>Well or Diversion</u> <u>ID No.*</u>	<u>Motor Make</u>	<u>Hp</u>	<u>Motor Serial No.</u>	<u>Pump Make</u>	<u>Pump Serial No. or Discharge</u> <u>Size</u>
<u>D0036968</u>	<u>WEG</u>	<u>5 HP</u>			<u>2 inch</u>

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

D. FLOW MEASUREMENTS

1.

<u>Measurement</u> <u>Equipment</u>	<u>Type</u>	<u>Make</u>	<u>Model No.</u>	<u>Serial No.</u>	<u>Size</u>	<u>Calib. Date</u>
_____	_____	_____	_____	_____	_____	_____

2. Measurements: **None.****E. FLOW CALCULATIONS**

_____ Additional Computation Sheets Attached

Measured Method:

HP Equation:

$$\frac{5 \times 0.7 \times 8.8}{263 + (45 \times 2.31)} = 0.08 \text{ CFS or } 35.9 \text{ GPM}$$

Theoretical yield (0.08 CFS) exceeds the limits of the permit (0.04 CFS). **Recommended 0.04 CFS for this license.****F. VOLUME CALCULATIONS**

- Volume Calculations for Irrigation: **N/A**
- Volume Calculations for Other Uses:

Fire Protection- NONE**Domestic**

3 fire trucks washed once a month for one hour each @ 18 gpm.

$$3 \text{ trucks} \times 12 \text{ months} \times 60 \text{ min.} \times 18 \text{ gpm} = 38,880 \text{ gal.}$$

Two meetings a month with eight members. Used the IDWR standard for picnic with facility 10gpd/per person.

$$2 \text{ meetings} \times 12 \text{ months} \times 8 \text{ members} = 1920 \text{ gal.}$$

Fire trucks go out on average 4 X per month with 6 firemen. Used IDWR standards for workers 50 gpd/per worker.

$$6 \text{ fire men} \times 4 \text{ times/ mth.} \times 12 \text{ mths.} \times 50 \text{ gpd} = 14,400 \text{ gal.}$$

Fill three fire trucks 4 times/mth on average. Tanks are 2250 gal., 750 gal., and 250 gal.

$$(2250 \text{ gal.} + 750 \text{ gal.} + 250 \text{ gal.})(4 \text{ fills} \times 12 \text{ mth.}) = 156,000$$

$$1920 \text{ gal.} + 14,400 \text{ gal.} + 38,880 \text{ gal.} + 156,000 = 0.7 \text{ AF}$$

$$325,850$$

Domestic volume recommended 0.7 AF.

G. NARRATIVE/REMARKS/COMMENTS

Permit 36-16346 is for fire protection and domestic use associated with a fire station. The fire station is located on the north east corner of the intersection of Highway 24 and 400 East.

The system consists of one well (D0036968), 5 HP pump and a 4000 gallon storage tank. A two inch line fills the storage tank which is regulated with a float system. I was unable to take flow measurement at the time of exam because of insufficient space to place meter on pipe. The fire chief stated the well pumps about 20 gpm which is close to the permitted rate (0.04 cfs). The theoretical yield was calculated at 0.08 cfs but exceeds the limits of the permit. Recommended rate for domestic and fire protection 0.04 cfs.

The Fire Station houses three fire engines, a 2250 gallon tank truck, 750 gallon tank truck and a 250 gallon tank truck. The facility has a bathroom, kitchen, wash machine and no accommodations for residency. Meetings are held two times a month with 8 members attending. There are six firemen that maintain the engines. Each engine is washed monthly. The trucks are taken out on calls about 4 times a month on average and tanks are refilled upon return. IDWR standards were used to calculate domestic volume. (see above calculations.) Recommended domestic use volume of 0.7 AF.

No volume necessary for fire protection.

Note, discussion with the Water Master of Water District 130 on 1/24/2012, recommended to drop the 130 flag and water district conditions. Exempted uses are not under the jurisdiction of the water districts.

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>
DOMESTIC	01/01 to 12/31	0.040 CFS	0.7 AF
FIRE PROTECTION	01/01 to 12/31	0.040 CFS	
	<u>Totals:</u>	0.040 CFS	0.7 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 ☐ Other

I. AUTHENTICATION

Field Examiner's Name Sara Reeder Date 1/26/12
Reviewer [Signature] Date 1/20/12

Mike Brown
679-8250

36-16364

11/10/11

Proof filed 12/16/05

Field exam 12/20/11

5 HP WEG - JM005402W

45 Psi

263' depth to water (well log)

D0036968

$$\frac{5 \times .7 \times 8.8}{263 + \frac{(45 \times 2.31)}{103.95}} = \frac{30.8}{366.95} = .08 \text{ cfs or } 35.9 \text{ gpm}$$

* exceeds limits of permit .04 cfs or 18 gpm.

3 trucks 1 x mth 1 hr^{each} @ ~~18~~ gpm

meetings 2 x mth (8 people).

Trucks out on ave. 4 x mth. (6 people)

Bathroom + sink

Kitchen sink

Washer + sink in Bay

truck tanks - 2250 gal, 750 + 250 4 x mth.

IDWR Standards

Workers

50 gpd/per person/shift

Picnic/restaurants

10 gpd/per person.

with facilities

$$3 \times 48 \times 60 \times 12 = 38880$$

$$6 \times 50 \times 4 \times 12 = 14400$$

$$8 \times 2 \times 10 \times 12 = 1920$$

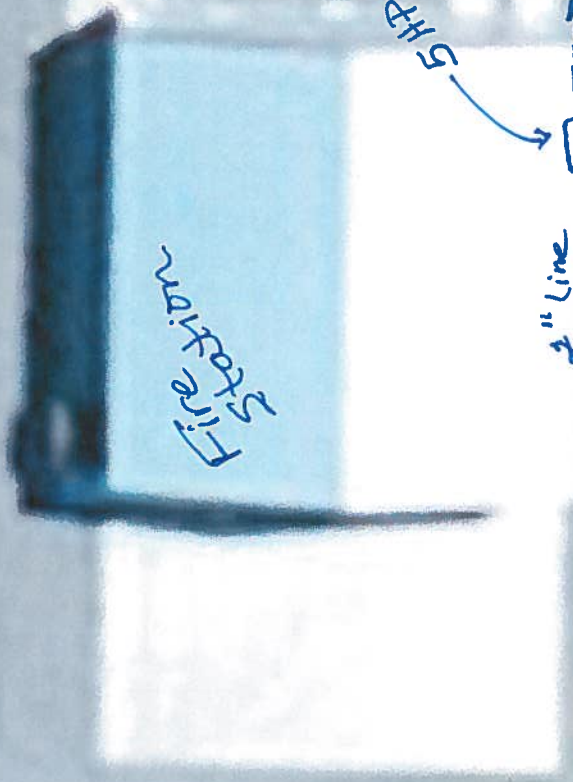
$$(2250 + 750 + 250) \times (4 \times 12)$$

$$156,000$$

$$\text{total} = \frac{215520}{325850} = .7$$

$$211200 .7$$

Highway 24



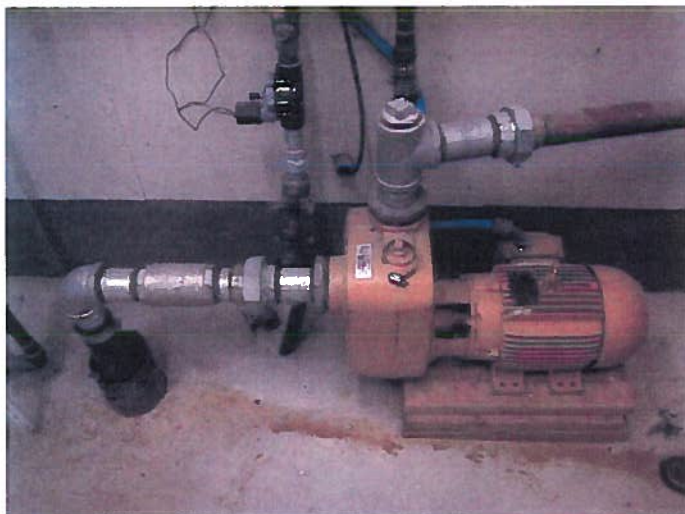
Fire Station 5

5 HP pump
out to 4000 gal.
storage tank

3" line

wellhead

400 E



5 HP WEG Pump
2" line to storage
(4000 gal)

pump is here (inside)



air vents to
storage tank

well
head

IDAHO DEPARTMENT OF WATER RESOURCES
WELL DRILLER'S REPORT

CORRECTION RECEIVED
JAN 26 2006

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

1. WELL TAG NO. D 0034278
DRILLING PERMIT NO. 337154 Well ID 4407422
Water Right or Injection Well No. _____

2. OWNER: 770 MICH BROWN
Name MINIDOKA COUNTY FIRE DISTRICT
Address P O BOX 166
City FRYBURN IDAHO State _____ Zip 83335

3. LOCATION OF WELL by legal description:
You must provide address or Lot, Blk, Sub. or Directions to well.
Twp. 7 North ☐ or South ☒ S.C.
Rge. 20 East ☒ or West ☐
Sec. 31 1/4 1/4 1/4 NW
Gov't Lot _____ County minidoka
Lat: _____ Long: _____
Address of Well Site 1070 N 400 E
City rupert
(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 Material	From	To	Weight / Volume	Seal Placement Method
bentonite	0	18	50 5	overbore

Was drive shoe used? ☒ Y ☐ N Shoe Depth(s) 238
Was drive shoe seal tested? ☒ Y ☐ N How? air

8. CASING/LINER:

Diameter	From	To	Gauge	Material	Casing	Liner	Welded	Threaded
5/8 + 2	18	250	250	steel	☒	☐	☒	☐
5/8 + 1 1/2	238	250	250	steel	☐	☒	☒	☐

Length of Headpipe _____ Length of Tailpipe _____
Packer ☐ Y ☒ N Type _____

9. PERFORATIONS/SCREENS PACKER TYPE

Perforation Method no
Screen Type & Method of Installation no

From	To	Slot Size	Number	Diameter	Material	Casing	Liner
						☐	☐
						☐	☐
						☐	☐

10. FILTER PACK

Filter Material	From	To	Weight / Volume	Placement Method

11. STATIC WATER LEVEL OR ARTESIAN PRESSURE:
238 ft. below ground Artesian pressure _____ lb.
Depth flow encountered _____ ft. Describe access port or control devices: _____

12. WELL TESTS:
☐ Pump ☐ Bailor ☒ Air ☐ Flowing Artesian

Yield gal./min.	Drawdown	Pumping Level	Time
30-40	15	263	70 min

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

13. LITHOLOGIC LOG: (Describe repairs or abandonment) Depth first Water Encounter _____

Bore Dia.	From	To	Remarks: Lithology, Water Quality & Temperature	Y	N
10	0	4	topsoil		
	4	16	brown clay & chert		
	16	24	solid gray lava		
3	24	54	hard gray lava		
	54	56	broken gray lava		
	56	74	hard gray lava		
	74	92	solid gray lava		
	92	111	hard gray lava		
	111	117	broken gray lava		
	117	121	hard gray lava		
	121	124	broken lava		
	124	137	hard gray lava		
	137	143	solid brown lava		
	143	145	broken & loose lava		
	146	158	hard gray lava		
	158	163	fractured gray lava		
	163	201	hard gray lava		
	201	212	broken & loose lava		
	212	229	hard gray lava		
	229	238	cinders		
6	238	247	solid gray lava		
	247	251	broken lava (some)	X	
	251	260	hard gray lava		
	260	262	broken lava	X	
	262	267	solid gray lava		
	267	269	broken lava	X	
	269	274	solid gray lava		
	274	299	hard gray lava		
	299	300	broken gray lava	X	
	300	306	hard gray lava		

Completed Depth 306 (Measurable)
Date: Started 10-8-2005 Completed 10-8-2005

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 WINDY HOLE DRILLING CO. INC. Firm No. 151
Principal Driller [Signature] Date 10-8-2005
and
Driller or Operator II [Signature] Date 10-8-2005
Operator I _____ Date _____
Principal Driller and Rig Operator Required.
Operator I must have signature of Driller/Operator II.