

STATE OF IDAHO  
DEPARTMENT OF WATER RESOURCES  
**BENEFICIAL USE FIELD REPORT**

**A. GENERAL INFORMATION**

Permit No: 63-31889

Exam Date:  
6/5/2012

1. Current Owner: VALLIVUE SCHOOL DISTRICT NO 139  
5207 S MONTANA  
CALDWELL ID 83607  
(208)454-0445
2. Accompanied by: **DAVID HAYES**  
Phone No: **SAME AS OWNER**  
Address: **SAME AS OWNER**  
Relationship to Permit Holder: **MAINTENANCE MANAGER**

3. **SOURCE** **TRIBUTARY**  
GROUND WATER

**B. OVERLAP REVIEW**

1. Other water rights with the same place of use: **63-10182 FOR DOMESTIC & IRRIGATION;  
62-2058 FOR DOMESTIC**
2. Other water rights with the same point of diversion: **NONE**

**C. DIVERSION AND DELIVERY SYSTEM****1. LOCATION OF POINT(S) OF DIVERSION:**

GROUND WATER NW1/4SW1/4 Sec. 10, Twp 03N, Rge 03W, B.M.  
CANYON County

Method of Determination: **GPS 43.61, -116.69****2. PLACE OF USE: FIRE PROTECTION**

| TwpRgeSec | NE |    |    |    | NW |    |    |    | SW |    |    |    | SE |    |    |    |        |
|-----------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|--------|
|           | NE | NW | SW | SE | NE | NW | SW | SE | NE | NW | SW | SE | NE | NW | SW | SE | Totals |
| 03N03W10  |    |    |    |    |    |    |    |    |    | X  |    |    |    |    |    |    |        |

Method of Determination:

3. see aerial Delivery System Diagram Attached (required). Indicate all major components and distances between components. Indicate weir size/pipe as applicable. **NOT ALL INFORMATION IS KNOWN**

SEE AERIAL 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>Motor Make</u>  | <u>Hp</u>  | <u>Motor Serial No.</u> | <u>Pump Make</u>        | <u>Pump Serial No. or Discharge Size</u> |
|--------------------------|--------------------|------------|-------------------------|-------------------------|------------------------------------------|
| <u>WELL</u>              | <u>US ELECTRIC</u> | <u>200</u> | <u>K02-200377</u>       | <u>MODEL # 141KM-FP</u> | <u>1000 GPM@ 225 PSI</u>                 |

\*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> |
|------------------------------|-------------|-------------|------------------|-------------------|-------------|--------------------|
|------------------------------|-------------|-------------|------------------|-------------------|-------------|--------------------|

2. Measurements: **NONE TAKEN**

**E. FLOW CALCULATIONS**            Additional Computation Sheets Attached

Measured Method:

[1] USING PUMP RATING OF 1000 GPM.  $1000 \text{ gpm} / 448.8 \text{ gpm per cfs} = 2.23 \text{ cfs}$

[2] USING WELL LOG WITH RECORDED FLOW OF 975 GPM.  $975 \text{ gpm} / 448.8 \text{ gpm per cfs} = 2.17 \text{ cfs}$

[3] USING THEORETICAL FLOW CALCULATION, Z is 222', the pumping level provided on the well log. Z calculated from well log is static water level of 136' + 79' drawdown = 215 ' so there is some discrepancy, 200 hp, 125 psi noted during field exam. 70% efficiency:

$$\frac{[8.8] [200] [0.7]}{222 + [125 \text{ psi}] [2.31]} = \frac{1232}{510.75} = 2.41 \text{ cfs}$$

**F. VOLUME CALCULATIONS**

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

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

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

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

2. Volume Calculations for Other Uses: **NOT APPLICABLE FOR FIRE PROTECTION**

**G. NARRATIVE/REMARKS/COMMENTS**

This permit was issued for a fire protection well at the Vallivue Middle School located at 16412 S. 10th Ave in Caldwell, Idaho. The correct fee was paid.

David Hayes the school district 139 Director of Maintenance accompanied me during the exam. In the Department database, 2 PODs are listed. I specifically asked Mr. Hayes if more than one well was used for the fire protection system and he said that no, that the other wells on the school site were plumbed separately.

Over time there have been 5 wells on the middle school site which has in the past been the junior high school and the senior high school. One of the old wells has been dry for a while and was abandoned last year. It was located by what is referred the 900 building. There is another old domestic well very close to the site of the abandoned well. Internal water use per water right no. 63-2858 is currently provided by a well located by the vo-tech and maintenance shop. Irrigation and domestic water is provided by a well north of the fire protection well in the paved area and is licensed as water right no. 63-10182.

The well has a 16 inch diameter and is 460 feet deep. There are no POD overlaps. During the field exam, faceplates on the well indicated that the pump is a Floway submersible rated at 1000 gpm at 225 psi. There was a pressure gauge on the well that read 125 psi while the pump was idle. The pump is fitted with a US Electric motor rated at 200 hp. Simplex Grinnell tests the system annually.

The well is located in a pump house. Water is pumped from the well via an 8 inch steel pipe. There is a 6 inch steel pipe to the outside of the pump house that is a fire hose hook up. There is another 4 inch port from the well that appears to be a discharge to the outside of the building.

There are two other pipes; an 8" diameter steel pipe plumbed to underground pipe to the riser room in the gym/band building and 6" diameter steel pipe to underground pipe to the riser room in the 8th grade building. Mr. Hayes was unsure of the location of the underground pipe. From the riser rooms, the water is plumbed to sprinkler systems in the main building, the 8th grade building and the gym/ band building. There is a vo-tech/ maintenance shop building and an arts building referred to as the 900 building. Fire protection water is not plumbed to these two buildings.

I told Mr. Hayes that I needed additional information such as pump specs, and results from the last annual fire protection test conducted by Simplex Grinnell. I sent a letter to the school district office at the address of record requesting same by 7/13/12 with a statement that if IDWR did not receive the requested information, the right could be licensed for less than the permitted diversion rate. I did not receive a response and the mail was not returned.

The diversion rate was calculated using the information on the pump faceplate and the theoretical flow equations. I recommend that 2.41 cfs be the licensed quantity which is the result of the theoretical

calculation.

No volume is required for a fire protection use.

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

#### H. RECOMMENDATIONS

- 1) Permit amount 3.34 cfs
- 2) Beneficial use limit n/a cfs
- 3) System measurement 2.41 cfs
- 4) Proof fee amount 4 cfs

##### 1. Recommended Amounts

| <u>BENEFICIAL USE</u> | <u>PERIOD OF USE</u> | <u>DIVERSION RATE</u> | <u>ANNUAL VOLUME</u> |
|-----------------------|----------------------|-----------------------|----------------------|
| FIRE PROTECTION       | 01/01 to 12/31       | 2.410 CFS             |                      |
| <u>Totals:</u>        |                      | 2.410 CFS             |                      |

##### 2. Recommended Amendments

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

#### I. AUTHENTICATION

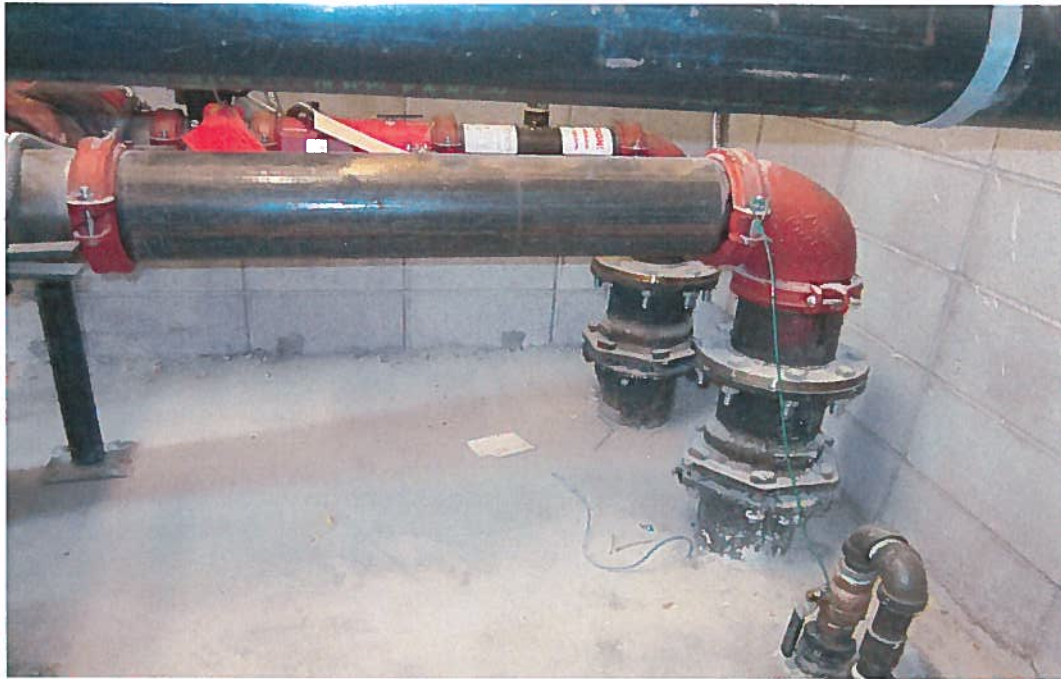
Field Examiner's Name Wing Chiu Date 1-25-12  
Reviewer \_\_\_\_\_ Date \_\_\_\_\_



63-31889-- Vallivue Middle School. 2011 aerial photo. POU - outlined in yellow. Water for fire protection used in the gym/band, main and 8 th grade buildings.



Both photos are of the fire protection well and motor in riser room on north side of 8<sup>th</sup> grade building.



Well riser room: piping from the well. The 6" pipe in background delivers water to the 8<sup>th</sup> grade building sprinkler system. The 8" pipe in middle delivers water to the riser room on the north side of the gym. Black pipe top of photo carries water to fire hose outlet.



Riser room on north end of gym building. Water pipe to main building – middle left of photo.

4/2011

IDAHO DEPARTMENT OF WATER RESOURCES  
FIELD EXAMINERS  
WELL INSPECTION FORM

1. IDENTIFICATION # 0 no 416 (Tag #, etc.)

OTHER APPLICABLE # 03-31889 (Water right #, etc.)

2. OWNER Vallivue School District #139 Phone (209) 454-0445

Address 5207 S. Montana City Caldwell

State ID Zip 83607 Email n/a

3. WELL LOCATION (GPS required in Degrees Decimal Minutes – use PLS if GPS not available)

Lat. 43.61 Long. -116.69

Twp \_\_\_\_\_ Rge \_\_\_\_\_ Sec \_\_\_\_\_ 1/4 \_\_\_\_\_ 1/4 \_\_\_\_\_

4. WELL CONSTRUCTION ☒ Well log attached ☐ Well log not found

Any obvious construction problems that may be a source for contamination or waste? ☐ Yes ☒ No

If yes, describe below &/or see attached (list any that apply): ☐ Photos ☐ Diagram ☐ Other

5. HYDROLOGIC INFORMATION

Static water if measured \_\_\_\_\_ ft. Water temperature if measured \_\_\_\_\_ °F

Flowing artesian ☐ Yes ☐ No Pressure if measured \_\_\_\_\_ psi

NOTES no measurements taken

INSPECTED BY Wendy L. Miller DATE 6-5-12

IDAHO DEPARTMENT OF WATER RESOURCES  
WELL DRILLER'S REPORT

823805  
Office Use Only  
Well ID No. 394454  
Inspected by JNR  
Twp 3N Rge 3W Sec 10  
NW 1/4 SW 1/4 1/4  
Lat: : : Long: : :

1. WELL TAG NO. D 0031998  
DRILLING PERMIT NO. 884482-823805  
Water Right or Injection Well No. 63-31889

2. OWNER:  
Name Vallivue Middle School District #121  
Address 16412 South 10th Av  
City Caldwell State ID Zip 83607

## 3. LOCATION OF WELL by legal description:

You must provide address or Lot, Blk, Sub. or Directions to well.

Twp. 3 North ☒ or South ☐  
Rge. 3 East ☐ or West ☒  
Sec. 10 NW 1/4 SW 1/4 SE 1/4 NE 1/4  
Gov't Lot 10  
County Canyon

Lat. 43: 36: 38.2 Long: 116: 41: 21.7

Address of Well Site 16412 S 10th Av  
City Caldwell  
(Give at least name of road - Distance to Road or Landmark)  
Lt. Blk. Sub. Name

## 4. USE:

☐ Domestic ☐ Municipal ☐ Monitor ☐ Irrigation  
☐ Thermal ☐ Injection ☐ Other fire protection

## 5. TYPE OF WORK check all that apply

(Replacement etc.)

☐ New Well ☐ Modify ☐ Abandonment ☐ Other  
XX

## 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    | 50 | 3000#           | 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   | 275 | 375   | steel    | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 10"      | 260  | 275 | 365   | steel    | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|          | 308  | 362 | 365   | steel    | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Length of Headpipe Length of Tailpipe  
Packer ☐ Y ☐ N Type 0

XX figure K swedged on 5' long 12" pipe

## 9. PERFORATIONS/SCREENS PACKER TYPE

Perforation Method

Screen Type &amp; Method of Installation Johnson V wire

| From | To  | Slot Size | Number | Diameter | Material  | Casing                   | Liner                               |
|------|-----|-----------|--------|----------|-----------|--------------------------|-------------------------------------|
| 275  | 308 | 30        |        | 10       | 304 stnls | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 362  | 377 | 30        |        | 10       | 304 stnls | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

## 10. FILTER PACK

| Filter Material | From | To  | Weight / Volume | Placement Method |
|-----------------|------|-----|-----------------|------------------|
| #8-12 sand      | 260  | 377 | 3000#           | poured           |

## 11. STATIC WATER LEVEL OR ARTESIAN PRESSURE:

136 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  |
|-----------------|----------|---------------|-------|
| 975             | 79       | 222           | 5 hrs |

Water Temp. Bottom hole temp.

Water Quality test or comments:

Depth first Water Encounter

## 13. LITHOLOGIC LOG: (Describe repairs or abandonment)

| Bore Dia. | From | To  | Remarks: Lithology, Water Quality & Temperature | Y | N |
|-----------|------|-----|-------------------------------------------------|---|---|
| 22        | 0    | 2   | topsoil                                         |   | X |
|           | 2    | 6   | hardpan                                         |   | X |
|           | 6    | 20  | gravel                                          |   | X |
|           | 20   | 50  | cemented gravel                                 |   | X |
| 16        | 50   | 55  | clay                                            |   | X |
|           | 55   | 70  | clay & gravel                                   |   | X |
|           | 70   | 123 | clay                                            |   | X |
|           | 123  | 168 | sandy clay (water at 150)                       | X |   |
|           | 168  | 172 | void                                            |   |   |
|           | 172  | 175 | fine sand                                       | X |   |
|           | 175  | 200 | clay                                            |   | X |
|           | 200  | 205 | fine sand                                       | X |   |
|           | 205  | 260 | clay                                            |   | X |
|           | 260  | 275 | sand, cemented                                  |   |   |
|           | 275  | 308 | sand                                            | X |   |
|           | 308  | 328 | tan clay                                        |   | X |
|           | 328  | 355 | silty blue clay                                 |   | X |
|           | 355  | 362 | blue clay                                       |   | X |
|           | 362  | 368 | light blue sand                                 | X |   |
|           | 368  | 377 | lightly cemented blue sand                      | X |   |
|           | 377  | 460 | blue clay                                       |   | X |

well is backfilled with 1/2" minus gravel 460 to 377

RECEIVED

AUG 03 2005

WATER RESOURCES  
WESTERN REGION

Completed Depth (Measurable)

Date: Started 6/7/05 Completed 7/9/05

## 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 &amp; Sons Drilling Firm No. 153

Principal Driller Date 7/25/05

and Driller or Operator II Date

Operator I Date

Principal Driller and Rig Operator Required.

Operator I must have signature of Driller/Operator II.

FORWARD WHITE COPY TO WATER RESOURCES