

## MEMORANDUM

**DATE:** January 5, 2004

**TO:** Water Right File 63-31660

**FROM:** Shelley W. Keen <sup>SWK</sup>

**RE:** Request to Change the Water Bearing Zone

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Permit 63-31660 authorizes the diversion of 0.04 cfs from ground water for domestic purposes and 0.33 cfs for fire protection purposes at a church located in the NE $\frac{1}{4}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$  of Section 33, Township 4 North, Range 2 West, B. M. The permit limits the water-bearing zone from which water can be taken to "50 to 150 feet" below ground surface.

This permit bears one atypical condition of approval. IDWR usually limits the diversion of water for fire protection purposes to those times when there is an existing fire. However, because the right holder intends to maintain an 180,000-gallon storage tank to hold water above ground for fire protection purposes, approval condition no. 3 on this permit says:

Water shall not be diverted for fire protection use under this right except to fight or repel an existing fire, except that the right holder may drain the storage tank for maintenance purposes and may refill it within a 24-hour period once each year. Water released from the storage tank for maintenance purposes shall not be used for non-authorized uses.

Last month the permit holder's representative asked IDWR to change the water-bearing zone to 150 to 250 feet below ground surface. The main concern associated with this kind of request is a potential well interference problem. If this permit were for domestic use only, the small flow rate would result in little chance of well interference with nearby wells. Because the fire protection use authorizes one day during the year that substantially larger diversions may occur, however, there could be well interference problems of short duration.

To investigate the potential for well interference, I looked at well logs to determine what wells exist nearby. Within a quarter of a mile from the point of diversion proposed for this permit there are three wells that could potentially suffer well interference from a sudden large diversion under this permit. The well logs show alternating layers of sand and clay throughout the 150 to 250 ft. range of depth. Two of the wells are strictly irrigation wells. See rights 63-11504 and 63-11663.

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Limiting the annual refilling of the storage tank to the non-irrigation season would prevent interference with diversions under these rights. The third well provides domestic water for East Canyon Elementary School, which is just across the street from the church property. The school well is 200 feet deep, with a production zone of 177 to 196 feet below ground surface. Under the water right for the school, 63-10161, water use is probably at its lowest in the summer, which corresponds to the irrigation season, or possibly during vacation periods.

Because of the potential for well interference, I recommend approving the request with the following modification to approval condition no. 3:

Water shall not be diverted for fire protection use under this right except to fight or repel an existing fire, except that the right holder may drain the storage tank for maintenance purposes and may refill it within a 24-hour period once each year during the period from November 16 to February 29. Prior to draining and refilling the storage tank, the right holder shall notify the holder of Right 63-10161 and shall ensure that the diversion and use of water under Right 63-10161 is not impaired by the diversion of water to fill the storage tank. Water released from the storage tank for maintenance purposes shall not be used for non-authorized uses.

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USE TYPEWRITER OR  
BALL POINT PEN

State of Idaho  
Department of Reclamation

# WELL DRILLER'S REPORT

State law requires that this report be filed with the State Reclamation Engineer  
within 30 days after completion or abandonment of the well.

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**1. WELL OWNER**  
Name School Dist 139  
Address Caldwell, Idaho  
Owner's Permit No. \_\_\_\_\_

**7. WATER LEVEL**  
Department of Water Administration  
Static water level 17 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

**2. NATURE OF WORK**  
☒ New well ☐ Deepened ☐ Replacement  
☐ Abandoned (describe method of abandoning) \_\_\_\_\_

**8. WELL TEST DATA**  
☐ Pump ☐ Bailor ☐ Other  
Discharge G.P.M. \_\_\_\_\_ Draw Down \_\_\_\_\_ Hours Pumped \_\_\_\_\_

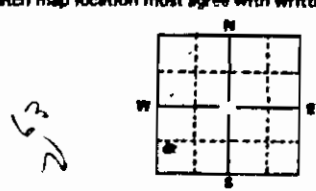
**3. PROPOSED USE**  
☐ Domestic ☐ Irrigation ☐ Test  
☒ Municipal ☐ Industrial ☐ Stock

**9. LITHOLOGIC LOG**

| Hole<br>Diam. | Depth |     | Material                       | Water |    |
|---------------|-------|-----|--------------------------------|-------|----|
|               | From  | To  |                                | Yes   | No |
| 14"           | 0     | 2.8 | Top of soil                    |       |    |
| 14"           | 2     | 10  | Hard Pan                       |       |    |
| 14"           | 10    | 15  | Clay                           |       |    |
| 14"           | 15    | 20  | Gravel                         |       |    |
| 14"           | 20    | 29  | Gravel                         |       |    |
| 14"           | 29    | 40  | Clay                           |       |    |
| 14"           | 40    | 50  | Clay                           |       |    |
| 14"           | 50    | 65  | Sandy clay                     |       |    |
| 14"           | 65    | 73  | fine white sand                |       |    |
| 14"           | 73    | 82  | medium sand                    |       |    |
| 14"           | 82    | 91  | clay                           |       |    |
| 14"           | 91    | 93  | fine gray sand                 |       |    |
| 14"           | 93    | 96  | loose clay                     |       |    |
| 14"           | 96    | 110 | medium sand                    |       |    |
| 14"           | 110   | 130 | clay and sandstone             |       |    |
| 14"           | 130   | 133 | fine white sand                |       |    |
| 14"           | 133   | 143 | Sandy mud                      |       |    |
| 14"           | 143   | 150 | clay                           |       |    |
| 14"           | 150   | 157 | fine yellow sand               |       |    |
| 14"           | 157   | 163 | clay and sandstone             |       |    |
| 14"           | 163   | 173 | Hard light sand                |       |    |
| 14"           | 173   | 184 | Hard coarse sand               |       |    |
| 14"           | 184   | 187 | fine coarse sand (some gravel) |       |    |
| 14"           | 187   | 193 | fine white sand                |       |    |
| 14"           | 193   | 200 | red clay                       |       |    |

**4. METHOD DRILLED**  
☒ Cable ☐ Rotary ☐ Dug ☐ Other

**5. WELL CONSTRUCTION**  
Diameter of hole 1 inches Total depth 200 feet  
Casing schedule: ☐ Steel ☐ Concrete  
Thickness \_\_\_\_\_ Diameter \_\_\_\_\_ From \_\_\_\_\_ To \_\_\_\_\_  
95.0 inches 1 inches 1 feet 177 feet  
\_\_\_\_\_ inches \_\_\_\_\_ inches \_\_\_\_\_ feet \_\_\_\_\_ feet  
\_\_\_\_\_ inches \_\_\_\_\_ inches \_\_\_\_\_ feet \_\_\_\_\_ feet  
\_\_\_\_\_ inches \_\_\_\_\_ inches \_\_\_\_\_ feet \_\_\_\_\_ feet  
\_\_\_\_\_ inches \_\_\_\_\_ inches \_\_\_\_\_ feet \_\_\_\_\_ feet  
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 Tolson  
Type Telescope Model No. \_\_\_\_\_  
Diameter 1 Slot size 16 Set from 177 feet to 196 feet  
Diameter \_\_\_\_\_ Slot size \_\_\_\_\_ Set from \_\_\_\_\_ feet to \_\_\_\_\_ feet  
Gravel packed? ☐ Yes ☐ No Size of gravel \_\_\_\_\_  
Placed from \_\_\_\_\_ feet to \_\_\_\_\_ feet  
Surface seal? ☒ Yes ☐ No To what depth 20 feet  
Material used in seal ☐ Cement grout ☐ Puddling clay

**6. LOCATION OF WELL**  
Sketch map location must agree with written location.  
  
County CANYON  
SW 1/4 Sec 34 T. 4 N. 2 R. 2 W

**10.** Work started 9-1-71 (JUN 1 1971)

**11. DRILLER'S CERTIFICATION**  
This well was drilled under my supervision and this report is true to the best of my knowledge.  
Kenneth Smith 55  
Driller's or Firm's Name \_\_\_\_\_ Number \_\_\_\_\_  
RT#4, Caldwell, Idaho  
Address \_\_\_\_\_  
Kenneth Smith 2/28/71  
Signed By \_\_\_\_\_ Date \_\_\_\_\_

STATE OF IDAHO  
DEPARTMENT OF WATER RESOURCES  
**WELL DRILLER'S REPORT**USE TYPEWRITER OR  
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  
Name HOYER BROTHERS  
Address 9040 LINDEN Nampa 83687  
Drilling Permit No. 63-12-W-173  
Water Right Permit No. 35-11664

2. NATURE OF WORK  
☐ 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.)

3. PROPOSED USE IRRIGATION  
☐ Domestic ☐ Irrigation ☐ Monitor  
☐ Industrial ☐ Stock ☐ Waste Disposal or Injection  
☐ Other \_\_\_\_\_ (specify type)

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 ☒ No  
Was a packer or seal used? ☐ Yes ☒ No  
Perforated? ☐ Yes ☒ No  
How 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 ☐ No  
Manufacturer 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 3/8  
Placed from 330 feet to 98 feet  
Surface seal depth 98 Material used in seal: ☐ Cement grout  
☒ Bentonite ☒ Pudding clay ☐ \_\_\_\_\_  
Sealing procedure used: ☐ Slurry pit  
☐ Temp. surface casing ☒ Overbore to seal depth  
Method of joining casing: ☐ Threaded ☒ Welded  
☐ Solvent Weld ☐ Cemented between strata  
Describe access port 2" PIPE

6. LOCATION OF WELL  
Sketch, map location must agree with written location.  
Subdivision Name \_\_\_\_\_  
Lot No. \_\_\_\_\_ Block No. \_\_\_\_\_  
County CANYON  
Address of Well Site SOUTHSIDE RD  
(give at least name of road)  
T. 4N N ☐ or S ☐  
SW ☐ NE ☐ SE ☐ NW ☐ R. 2W E ☐ or W ☐

7. WATER LEVEL 22  
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 ☐ Plug  
Temperature \_\_\_\_\_ °F. Quality \_\_\_\_\_  
Describe artesian or temperature zones below:

8. WELL TEST DATA  
☐ Pump ☐ Baller ☐ Air ☐ Other \_\_\_\_\_  
Discharge G.P.M. \_\_\_\_\_ Pumping Level \_\_\_\_\_ Hours Pumped \_\_\_\_\_

9. LITHOLOGIC LOG

| Bore<br>Diam. | Depth<br>From To | Material               | Water<br>Yes No |
|---------------|------------------|------------------------|-----------------|
| 8             | 0                | 9 TOPSOIL              | X               |
|               | 9                | 16 COARSE SAND         | X               |
|               | 16               | 41 RIVER ROCK          | X               |
|               | 41               | 45 BRN CLAY            | X               |
|               | 45               | 50 MED BRN SAND        | X               |
|               | 50               | 54 BRN CLAY            | X               |
|               | 54               | 79 FINE TO MED SAND    | X               |
|               | 79               | 83 SANDY BRN CLAY      | X               |
|               | 83               | 87 FINE TO MED SAND    | X               |
|               | 87               | 98 SANDY BRN CLAY      | X               |
|               | 98               | 107 FINE TO MED SAND   | X               |
|               | 107              | 111 SANDY BRN CLAY     | X               |
|               | 111              | 119 FINE TO CRSE SAND  | X               |
|               | 119              | 147 SANDY BRN CLAY     | X               |
|               | 147              | 175 MED SAND           | X               |
|               | 175              | 182 SANDY BRN CLAY     | X               |
|               | 182              | 204 FINE TO MED SAND   | X               |
|               | 204              | 208 BRN CLAY           | X               |
|               | 208              | 226 MED TO CRSE SAND   | X               |
|               | 226              | 240 SANDY BRN CLAY     | X               |
|               | 240              | 261 FINE TO MED SAND   | X               |
|               | 261              | 264 SANDY BRN CLAY     | X               |
|               | 264              | 282 FINE TO MED SAND   | X               |
|               | 282              | 300 CRSE SAND & GRAVEL | X               |
|               | 300              | 323 BRN CLAY           | X               |
|               | 323              | 327 FINE SAND          | X               |
|               | 327              | 330 BLUE CLAY          | X               |

10. Department of Water Resources  
Western Regional Office 7/20/92  
Work started \_\_\_\_\_ finished \_\_\_\_\_

11. 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 Firm No. 213  
Address 6505 W CHINDEN Date 7/29/92  
Signed by Drilling Supervisor [Signature]  
and [Signature]  
(Operator) [Signature]  
(if different than the Drilling Supervisor)

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HUTER BROS. INC  
15451 MIDWAY RD  
NAMPD ID 03687  
Permit# 63-92-W-173

"16" casing record .250 wall welded

|     |   |     |     |
|-----|---|-----|-----|
| 1   | - | 147 | 148 |
| 177 | - | 182 | 3   |
| 202 | - | 208 | 6   |
| 228 | - | 240 | 12  |
| 300 | - | 310 | 10  |

-----  
181 total casing

16" Screen record .40 slot Roscoe Moss Continuous wire.

|     |   |     |    |
|-----|---|-----|----|
| 147 | - | 177 | 30 |
| 182 | - | 202 | 20 |
| 208 | - | 228 | 20 |
| 240 | - | 300 | 60 |

-----  
130 total screen

311 total screen+casing

4N 2W Sec 34

C<sub>KC</sub>

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 JOHN KINGHORN  
Address 4359 USTICK RD. NAMPA, ID 83687  
Drilling Permit No. 63-91-7-039  
Water Right Permit No. 63-11504

**2. NATURE OF WORK**  
☒ 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.)

**3. PROPOSED USE**  
☐ Domestic    ☒ Irrigation    ☐ Monitor  
☐ Industrial    ☐ Stock    ☐ Waste Disposal or Injection  
☐ Other \_\_\_\_\_ (specify type)

**4. METHOD DRILLED**  
☒ Rotary    ☐ Air    ☐ Auger    ☐ Reverse rotary  
☒ Cable    ☐ Mud    ☐ Other \_\_\_\_\_  
(backhoe, hydraulic, etc.)

**5. WELL CONSTRUCTION**  
Casing schedule: ☐ Steel    ☐ Concrete    ☐ Other \_\_\_\_\_  
Thickness Diameter From To  
.250 inches 12 inches ± 2 feet 128 feet  
.250 inches 8 inches ± 2 feet 130 feet  
.250 inches 8 inches 170 feet 180 feet  
Was casing drive shoe used? ☒ Yes    ☐ No  
Was a packer or seal used? ☐ Yes    ☒ No  
Perforated? ☐ Yes    ☒ No  
How 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    ☐ No  
Manufacturer JOHNSON Type 304SSPS  
Top Packer or Headpipe D SURFACE  
Bottom of Tailpipe 180'  
Diameter # \_\_\_\_\_ Slot size .20 Set from 130 feet to 170 feet  
Diameter \_\_\_\_\_ Slot size \_\_\_\_\_ Set from \_\_\_\_\_ feet to \_\_\_\_\_ feet  
Gravel packed? ☒ Yes    ☐ No    ☐ Size of gravel \_\_\_\_\_  
Placed from 0 feet to 180' feet  
Surface soil depth 25 Material used in soil: ☐ Cement grout  
☒ Bentonite    ☐ Puddling clay    ☐  
Sealing procedure used: ☐ Slurry pit  
☐ Temp. surface casing    ☒ Overbore seal depth  
Method of joining casing: ☐ Threaded    ☒ Welded  
☐ Solvent Weld    ☐ Cemented between struts  
Describe access port \_\_\_\_\_

**6. LOCATION OF WELL**  
Sketch map location must agree with written location.  
Subdivision Name \_\_\_\_\_  
Lot No. \_\_\_\_\_ Block No. \_\_\_\_\_  
County CANYON  
NE SE SW NW T. 4 N S. R. 2 W W X

**7. WATER LEVEL**  
Static water level 20 feet below land surface.  
Flowing? ☐ Yes    ☒ No G.P.M. flow \_\_\_\_\_  
Artesian closed-in pressure \_\_\_\_\_ p.s.i.  
Controlled by: ☐ Valve    ☐ Cap    ☐ Plug  
Temperature \_\_\_\_\_ °F. Quality \_\_\_\_\_  
Describe artesian or temperature zones below.

**8. WELL TEST DATA**  
☒ Pump    ☐ Bailor    ☐ Air    ☐ Other \_\_\_\_\_  
Discharge at P.S.I. Pumping Level Hours Pumped  
600 80' 1

**9. LITHOLOGIC LOG**

| Bore Diam. | Depth From To | Material             | Water |    |
|------------|---------------|----------------------|-------|----|
|            |               |                      | Yes   | No |
| 4.75       | 0             | TOP SOIL             |       | X  |
| 4.75       | 1             | CLAY                 |       | X  |
| 4.75       | 4             | SAND                 |       | X  |
| 4.75       | 9             | SAND & CLAY          |       | X  |
| 4.75       | 16            | CEMENTED GRAVEL      |       | X  |
| 12         | 25            | GRAVEL WITH SAND     | X     |    |
| 12         | 42            | CLAY                 |       | X  |
| 12         | 48            | SAND                 | X     |    |
| 12         | 54            | CLAY WITH SAND       | X     |    |
| 12         | 67            | SAND                 | X     |    |
| 12         | 86            | CLAY                 |       | X  |
| 12         | 95            | SANDY CLAY WITH SAND | X     |    |
| 12         | 100           | SAND                 | X     |    |
| 12         | 115           | CLAY                 |       | X  |
| 12         | 120           | SAND                 | X     |    |

**10.**  
Work started 4-28-92 finished 7-13-92

**11. DRILLER'S CERTIFICATION**  
I/We certify that all minimum well construction standards were complied with at the time the rig was removed.  
BILL DOTY DRILLING  
Firm Name CO., INC. Firm No. 42  
Address 106 CALLOWAY Date 8-12-92  
Signed by Bill Doty Supervisor  
and \_\_\_\_\_  
(Operator) \_\_\_\_\_  
(If different than the Drilling Supervisor)

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