



State of Idaho

DEPARTMENT OF WATER RESOURCES

322 East Front Street • P.O. Box 83720 • Boise, Idaho 83720-0098

Phone: (208) 287-4800 • Fax: (208) 287-6700 • Web Site: [www.idwr.idaho.gov](http://www.idwr.idaho.gov)

C. L. "BUTCH" OTTER  
Governor

GARY SPACKMAN  
Interim Director

10/20/2009

Len Riddle  
2421 Ritchie Road  
Hagerman, ID 83332

*Re: Permit for the Operation of Injection Well # 37W-077-001*

Dear Mr. Riddle,

Enclosed is a copy of the approved permit for your injection well. The Conditions of Approval are specific to the operation of your well. Attachment I details the standard conditions pertaining to the construction and operation of all injection wells in the State of Idaho. Attachment II is a copy of your original Permit Application.

**The permit to operate this well shall expire on 10/1/2010.** If use of the well is desired beyond this date, a new application must be filed.

If you have any questions, please call me at (208) 287-4934

Sincerely,

Brian Ragan, P.G.  
UIC Hydrogeologist

cc: File

*Please Note: Injection wells represent potential hazards to groundwater resources through intentional or unintentional injection of contaminating substances. The well owner and/or operator may incur considerable costs for mitigation, cleanup, and legal fees in the event that contamination is caused through an injection well. An injection well permit does not release the well owner and/or operator from such potential liability.*

*Well closure is encouraged wherever practical, and requires prior approval. Please contact IDWR for further information.*



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Injection Well Permit No. 37-W-077-001

Permit Holder: Len Riddle  
2421 Ritchie Road  
Hagerman, ID 83332

Facility: Len Riddle  
1176 E 2350 S  
Hagerman, ID 83332

Expiration Date: 10/1/2010

Injection Well Classification: 5X25

Injection Well Location:

<u>PLSS</u>	<u>Latitude/Longitude</u>	<u>County</u>
T6S, R13E, S36, SE, SW, NE	42.85848383 N 114.85603358 W	Gooding

Well Construction Information:

<u>Well Casing Diameter</u>	<u>Well Depth</u>
6 inch	212 ft

Injectate: Potable water mixed with Fluorescein dye / liquid Rhodamine WT dye

Pretreatment Method: n/a

Injection Activity:

<u>Frequency</u>	<u>Maximum Average Weekly Injection Rate</u>
instantaneous dosing	0.0

Land Use in Drainage Area: n/a

Conditions of Approval:

1. This use of this injection well is administered under IDAPA 37.03.03, Rules and Regulations for the Construction and Use of Injection Wells, and IDAPA 37.03.09, Well Construction Standards & Rules.
2. For the term of this permit, injection of substances other than those listed above requires prior approval from the IDWR UIC Program.



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3. Twenty-two monitoring locations will be sampled for dye after the fluorescein has been injected. 19 locations are in the gorge, 1 location is the Malad Gorge State Park well, and 2 locations are the nearest domestic wells to the east and west of the injection well. These domestic wells are the Farnsworth and Riddle wells respectively. (see Figure 1).
4. During Phase One of the tracer test in which fluorescein will be injected the Malad Gorge State Park well, and the Farnsworth and Riddle domestic wells shall be fitted with a charcoal packet to determine if excursion of tracer occurred. The charcoal packet in the Malad Gorge State Park well will be replaced weekly and the charcoal packets in the Farnsworth and Riddle wells will be replaced every two weeks until the tracer has passed through the system. If tracer from Phase One is detected in any of these three wells, that well or wells will be monitored during Phase Two of the tracer test with charcoal packets.
5. ? Upon completion of Phase Two the Malad Gorge State Park Well shall be tested for bacteria and disinfected if necessary.
6. If use of this injection well is desired after the expiration date of this permit, a new permit is required.
7. This permit includes Attachment I – Standard Conditions and Requirements Pertaining to Constructing, Modifying, Operating and/or Abandoning an Injection Well; Attachment II – Permit Application.

This permit shall be administered in accordance with Idaho law and applicable rules of the Idaho Department of Water Resources.

Date this 19<sup>th</sup> day of October, 2009

  
Chief, Resource Protection Bureau



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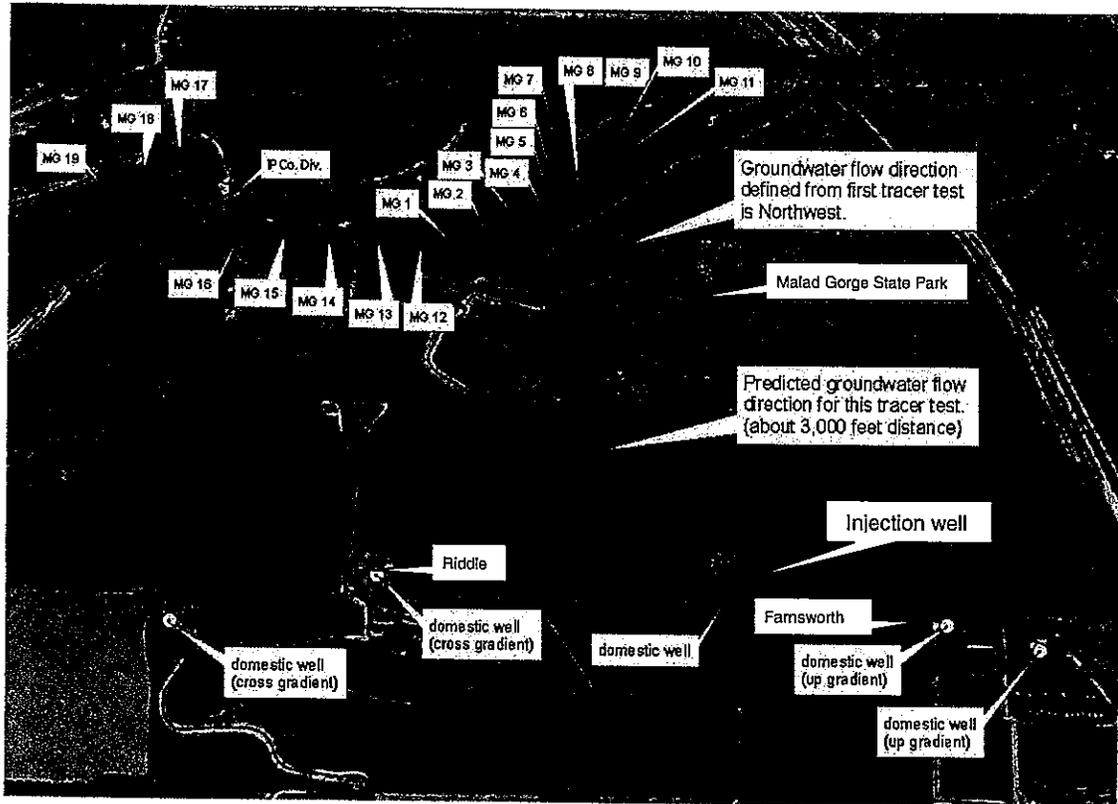


Figure 1. Location map showing the injection well, the monitoring locations in the gorge, the Malad Gorge State Park well, and the Farnsworth and Riddle domestic wells.

### ATTACHMENT I

#### STANDARD CONDITIONS AND REQUIREMENTS PERTAINING TO CONSTRUCTING, MODIFYING, OPERATING AND/OR ABANDONING AN INJECTION WELL

##### A. CONSTRUCTION REQUIREMENTS

1. Injection wells shall be constructed by an Idaho licensed driller and shall conform with the current Minimum Well Construction Standards of the State and the Conditions of this Permit, except that a licensed driller is not required for the construction of a mine shaft, a hole without mechanically-powered equipment, or a shallow injection well.



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2. Injection wells shall be constructed to prevent the entrance of any fluids other than that specified in the permit.
3. Injection wells shall be constructed to prevent waste of artesian fluids and/or pressure, or movement of fluids from one aquifer to another.
4. When construction or modification of an injection well has been completed, the owner shall inform the Director of completion on a form provided by the Department.
5. A sampling port shall be provided at the wellhead if the injection well system is enclosed. If an injection well is located within a pond or similar basin, an elevated walkway to the wellhead for sampling access must be constructed and maintained in safe operating condition by the operator of the injection well.

**B. OPERATIONAL CONDITIONS**

1. Injection wells shall not be used until the construction, operation, and maintenance requirements of the permit are met and provisions are made for any required inspection, monitoring, and record keeping.
2. Injected fluids shall meet Ground Water Quality Standards for physical, chemical and radiological contaminants. Fluids containing biological contaminants shall meet Ground Water Quality Standards at existing points of diversion or any Point of Beneficial Use developed in the future.
3. Best Management Practices, as described in the Idaho Department of Environmental Quality 2005 Catalog of Stormwater Best Management Practices for Idaho Cities and Counties, shall be maintained to minimize the concentration of coliform bacteria in the injected fluid to protect the quality of groundwater. Well screens shall be maintained in good condition on all injection wells. Settlement ponds, if present, shall be maintained in good condition.
4. Injection of any contaminant as defined in IDAPA 37.03.010.010 into the subsurface that may cause a health hazard or adversely affect a designated and protected use is prohibited.
5. The injection well owner or operator shall develop approved procedures to detect failure of the well in a timely fashion and shall have contingency plans to cope with the failure of the well.
6. Authorized officials of the Department shall be allowed to enter, inspect, and/or sample:
  - a. The injection well(s) and related facilities;
  - b. The owner or operator's records of the injection operation;
  - c. Monitoring instrumentation associated with the injection operation; and



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- d. The injected fluids.
7. The injection facilities shall be operated and maintained to achieve compliance with all terms and conditions of this permit:
  - a. Proper operation and maintenance includes effective performance, adequate funding, operator staffing and training, and access to adequate laboratory and process control, including appropriate quality assurance procedures; and
  - b. If compliance with any provision of this permit cannot be met, the owner shall take corrective action or terminate injection.
8. Should use of the well(s) lead to degradation of the groundwater or harm beneficial uses, the permit may be cancelled. The permittee may be required to mitigate for harm or degradation resulting from use of the injection well(s) or noncompliance with any terms and conditions of the permit. If contamination is found in nearby producing well(s), the owner/operator of surrounding injection well(s) may be responsible for monitoring.
9. If an injection well was constructed prior to issuance of this permit, it shall be brought into compliance with the terms and conditions of this permit in accordance with the schedule of compliance issued by the Director.
10. The owner/operator of the injection well(s) shall notify an IDWR official with the UIC Program of any changes in surface activities within the drainage area that significantly impact injectate water quality or quantity. Such changes may require a new application.

**C. REQUIREMENTS FOR ABANDONMENT**

1. Notice of abandonment shall be submitted on a form provided by the Director.
2. Plans for the abandonment of injection wells shall be approved prior to commencement of the activity.
3. Notice of completion of abandonment shall be submitted to the Director within 30 days of completion.
4. All injection wells shall be plugged with cement grout or other impervious material in such a manner as to prevent movement of fluids into or between drinking water sources. Where an injection well is not completed as planned, the Director shall be notified. Abandonment or other action, as prescribed by the Director, may be required.
5. The injection well owner or operator shall maintain the financial responsibility to insure that the injection operation is abandoned as prescribed.
6. Temporary abandonment, including use of a welded steel plate to cover the well opening, or a packer to occlude the well bore does not exempt the owner or operator from the



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requirement to obtain a permit. A well that is permitted as temporarily abandoned must receive a new permit in order to inject fluids.

**D. MONITORING, RECORD KEEPING, AND REPORTING REQUIREMENTS**

1. Monitoring

- a. All monitoring tests and analyses are to be performed by a state-certified laboratory or other laboratory, as approved by the Director, using recommended methods as defined in Idaho's Injection Well Rules and Regulations.
- b. All required field instruments should be tested and maintained to ensure accuracy of results.
- c. All samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity and fluids injected.

2. Record Keeping

- a. The permittee shall maintain records of all monitoring activities, to include:
  - 1) Date, time, and exact place of sampling;
  - 2) Person or firm performing the analysis;
  - 3) Date of analysis, analytical methods used, and results of analysis;
  - 4) Calibration and maintenance of all monitoring instruments; and
  - 5) All original tapes, strip charts, or other data from continuous or automated monitoring instruments.
- b. The permittee shall retain for a period of five (5) years all records of construction, baseline monitoring, injection, monitoring at injection sites and at monitoring sites, and application information.
  - 1) The period of retention for records shall be extended during the course of any litigation regarding the discharge of contaminants by the permittee or when requested by the Director.
  - 2) This requirement shall continue in effect during the five (5) year period following abandonment of the injection well.

3. Reporting

- a. All monitoring, results shall be reported to the Director as prescribed by the permit.
- b. The Director shall be notified in writing by the permittee within five (5) days after the discovery of a violation of the terms and conditions of the permit. If an injection activity endangers human health or the environment, use of the injection well shall be immediately discontinued and the owner or operator shall



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immediately notify the Director. The notification shall contain the following information:

- 1) A description of the violation and its cause;
  - 2) The duration of the violation, including dates and times; if not corrected or use of the well discontinued, the anticipated time of correction;
  - 3) Steps being taken to reduce, eliminate, and prevent recurrence of the discharge.
- c. Where the permittee becomes aware that it failed to submit any relevant facts in any permit application or reports to the Director, that person shall promptly submit such facts or information.
- d. The permittee shall furnish the Director, within a reasonable time, any information that the Director may request to determine compliance with this permit.
- e. All permits, notices and reports submitted to the Director shall be dated, signed and certified.
- f. The Director shall be notified in writing of planned physical alterations or additions to any facility related to the permitted injection well operation for prior approval.
- g. Additional information to be reported to the Director in writing:
- 1) Transfers of ownership
  - 2) Any change in operational status not previously reported
  - 3) Any anticipated noncompliance
  - 4) Reports of progress toward meeting the requirements of any schedule attached or assigned to this permit.



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**ATTACHMENT II  
PERMIT APPLICATION**

Permit No. 37-W-077-001



**APPLICATION FOR PERMIT TO CONSTRUCT, MODIFY  
OR MAINTAIN AN INJECTION WELL**

**IDAHO DEPARTMENT OF WATER RESOURCES**  
322 East Front St., PO Box 83720, Boise, ID 83720-0098  
Under the Provisions of Title 42, Chapter 39 of the Idaho Code

**I. INFORMATION REQUIRED FOR ALL INJECTION WELLS**

**A. Application Type:**

- New Injection Well Operating Permit (A Drilling Permit is also required prior to construction)
- Permit to Modify an Existing Injection Well
- Renew Operating Permit of an Existing Injection Well

**B. Legal Owner:**

Name Len Riddle  
 Organization Name \_\_\_\_\_  
 Mailing Address 2421 Ritchie Road  
 City Hagerman State ID. Zip Code 83332  
 Phone No. 1837-4712 Phone No. 2 280-2725

\*\*If the property will change ownership soon, provide contact information for future owner:

**C. Well Location:**

Facility Name Len Riddle  
 Address 1176 E 2350 S  
 City Hagerman State Idaho Zip Code 83332  
 County Gooding Facility Phone No. 837-4762

Provide one of the following two options:

- 1) GPS Location (Datum = WGS84):  
 Latitude 42° 51' 30.651" N Longitude 114° 51' 21.868" W

(You can check the accuracy of your GPS data with the "Well Diller's Locator Tool" here: [www.idwr.idaho.gov/gisdata/mapserver.htm](http://www.idwr.idaho.gov/gisdata/mapserver.htm))

- 2) A USGS Topographic Map or aerial photo with the well location marked and Township, Range, Section information.

Township 6S Range 13E Section 36 (1/4, 1/4, 1/4) \_\_\_\_\_ (1/4, 1/4) SW (1/4 Section) NE

(Get free maps using this tool: <http://maps.idwr.idaho.gov/IrrigationRightsFinder>)

**D. Well Operation:**

Frequency of Injection:  Continuous  Seasonal  Intermittent

Maximum Average Weekly Rate \_\_\_\_\_  cfs  gpm  
(Guidance on page 5)

*Instantaneous release of dye.*

**E. Injection Well Classification:** (Circle the proper code.)

Code:	Injection Activity Associated With:	Code:	Injection Activity Associated With:
5A5	Electric Power Generation	5W10	Cesspools
5A6	Geothermal Heat (H <sub>2</sub> O Temp > 85° F)	5W11	Septic Systems (General)
5A7	Closed-Loop Heat Pump Return (H <sub>2</sub> O Temp < 85° F)	5W12	Water Treatment Plant Effluent
5A8	Aquaculture Return Flow	5W20	Industrial Process Water
5A19	Cooling Water Return (Industrial Cooling)	5W31	Septic Systems (Well Disposal)
5B22	Saline Water Intrusion Barrier	5W32	Septic Systems (w/ Drainfield)
5D2	Storm Water Runoff (Roadway/Pavement Drainage)	5X13	Mine Tailing Backfill
5D3	Improved Sinkholes	5X14	Solution Mining
5D4	Industrial Storm Runoff (Building/Pavement Drainage)	5X15	In-Situ Fossil Fuel Recovery
5F1	Agricultural Runoff Waste (Agricultural Drainage)	5X16	Spent Brine Return Flow
5G30	Special Drainage Water (Rarely Used)	5X25	Experimental Technology
5N24	Low-Level Radioactive Waste	5X26	Aquifer Remediation
5R21	Aquifer Storage & Recharge	5X27	Other Wells (Rarely Used)
5S23	Subsidence Control	5X28	Service Station Wells (Motor Vehicle Waste Disposal)
5W9	Untreated Sewage	5X29	Abandoned Drinking Wells (Converted from Domestic)

**F. Well Construction Information:** (Attach well log, if available) *see attached Proposal*

As Built       Expected Construction       Well Modification

IDWR Drilling Permit No. 836259      Well Tag No. 0036881

Total Well Depth: 230 (ft)

Well Casing:      Diameter 6 (in)      Depth 197 (ft)

Ht. above Ground Surface 1 (ft)      Casing Type Steel

Perforation:      From N.A. (ft) To \_\_\_\_\_ (ft)

Surface Seal:      Depth 18 (ft)      Seal Type Bentonite

Construction Date (Indicate Actual, Approximate or Anticipated): 9-23-05

Driller's Name: AK Drilling

For well modifications describe purpose and intended changes:

- no well modifications

**G. Adjacent Features:**

Depth to Groundwater 178 (ft)       Estimate       Measured      Date Measured 4-11-08

Distance to Nearest Domestic Well 1,500 (ft)      Direction up gradient to East

Distance to Nearest Drain Field \_\_\_\_\_ (ft)      Direction \_\_\_\_\_

## II. INFORMATION REQUIRED ONLY FOR HEAT EXCHANGE (CLASS 5A7) INJECTION WELLS

Do you have a water right for the heat pump? N.A.

No       Yes      Water Right # \_\_\_\_\_

Have you applied for a water right for the heat pump?

No       Yes      Water Right Application # \_\_\_\_\_

Please check all of your domestic uses:

Household       Irrigation ( $\leq \frac{1}{2}$  acre)       Livestock  
 Heat Pump       Other \_\_\_\_\_

\* Attach documentation from your heat pump manufacturer that indicates how many gallons per day your heat pump will use during peak heating and cooling days.

\*\* Applicants seeking permits for a Heat Exchange Injection Well can skip Section III.

## III. INFORMATION REQUIRED FOR ALL INJECTION WELLS, EXCEPT HEAT EXCHANGE (CLASS 5A7) INJECTION WELLS

### A. Alternative Methods to Injection Well Use:

Describe alternatives to the use of an injection well for waste disposal N.A.  
\_\_\_\_\_  
\_\_\_\_\_

Why were the above alternative methods rejected? \_\_\_\_\_  
\_\_\_\_\_

### B. Water Treatment Prior to Injection:

Filtration       Chemical Treatment       Ultra-Violet Treatment  
 Settling Pond Length \_\_\_\_\_ (ft) Width \_\_\_\_\_ (ft) Depth \_\_\_\_\_ (ft)  
 Other Dye - release

C. Is this injection well part of a contamination remediation system?  Yes  No  
If yes, please attach a copy of the signed regulatory approval for the remediation action, description of the remediation system, and intended use of the injection well.

### D. Constituents in Waste Stream:

Hazardous wastes       Automotive fluids       Herbicides  
 Pesticides       Other additives or chemicals Fluorescein and Rhodamine WT DYE

**E. Attach a topographic map or aerial photo showing a one-mile radius of the injection well. Identify the following on the map/photo:**

*see attached proposal*

1. Location of the injection well.
2. Location of domestic wells.
3. Outline of area draining to the injection well.
4. Land uses occurring in drainage area.
5. Location of wastewater land application operations.
6. Location of confined animal feeding operations.
7. Location of dairy operations.
8. Location of hazardous waste facilities.

**IV. APPLICANT SIGNATURE**

Be it known that the undersigned hereby makes Application for Permit to Construct or Maintain an Injection Well. The above information is true and correct to the best of my knowledge.

6-19-09  
Date

*C. Gombhauer*  
Signature

Spec. Proj. Coord. - IDWR  
Title

Charles Neal Farmer  
Print Name

**V. PROCESSING FEE**

A \$100.00 processing fee must be submitted for each permit application. A separate permit application and processing fee must be submitted for each injection well. Make checks payable to: Idaho Department of Water Resources.

Applications and fees can be submitted your nearest IDWR office:

IDWR Northern Region  
7600 N Mineral Dr., Suite 100  
Coeur d'Alene, ID 83815  
Ph: (208) 762-2800

IDWR Southern Region  
1341 Fillmore St., Suite 200  
Twin Falls, ID 83301  
Ph: (208) 736-3033

IDWR Eastern Region  
900 North Skyline  
Idaho Falls, ID 83402  
Ph: (208) 525-7161

IDWR Western Region  
2735 Airport Way  
Boise, ID 83705  
Ph: (208) 334-2190

IDWR State Office  
322 East Front St., PO Box 83720  
Boise, ID 83720-0098  
Ph: (208) 287-4800.

**For Department Use Only**

I have examined Application No. \_\_\_\_\_ and said application is hereby \_\_\_\_\_ subject to the attached conditions.

Witnessed by my hand this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_

\_\_\_\_\_  
Official, Idaho Department of Water Resources

\_\_\_\_\_  
Title