

STATE OF IDAHO  
DEPARTMENT OF WATER RESOURCES  
BENEFICIAL USE FIELD REPORT

**A. GENERAL INFORMATION**

Permit No: 37-8931

Exam Date: 12/24/2011

1. Current Owner: US DEPT OF INTERIOR  
BUREAU OF LAND MANAGEMENT  
400 WEST F ST  
SHOSHONE ID 83352  
(208)732-7200

2. SOURCE TRIBUTARY  
UNNAMED STREAM SINKS

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

UNNAMED STREAM NE1/4NW1/4SE1/4 Sec. 31, Twp 02S, Rge 18E, B.M.  
BLAINE County

Method of Determination: Waypoints were collected with a Garmin GPS map 76S receiver and downloaded into an ArcMap shapefile that corresponds with 2009 aerial photography and verified the point of diversion to be in Twp 02S Rge 18E S 31 NENWSE¼. See attached map.

2.

**PLACE OF USE:** STOCKWATER STORAGE

| Twp | Rge | Sec | NE |    |    |    | NW |    |    |    | SW |    |    |    | SE |    |    |    |        |
|-----|-----|-----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|--------|
|     |     |     | NE | NW | SW | SE | NE | NW | SW | SE | NE | NW | SW | SE | NE | NW | SW | SE | Totals |
| 02S | 18E | 31  |    |    |    |    |    |    |    |    |    |    |    |    |    | X  |    |    |        |

**PLACE OF USE:** WILDLIFE STORAGE

| Twp | Rge | Sec | NE |    |    |    | NW |    |    |    | SW |    |    |    | SE |    |    |    |        |
|-----|-----|-----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|--------|
|     |     |     | NE | NW | SW | SE | NE | NW | SW | SE | NE | NW | SW | SE | NE | NW | SW | SE | Totals |
| 02S | 18E | 31  |    |    |    |    |    |    |    |    |    |    |    |    |    | X  |    |    |        |

Method of Determination: Tracks were collected with a Garmin GPS map 76S receiver and downloaded into an ArcMap shapefile that corresponds with 2009 aerial photography and verified the place of use to be in Twp 02S Rge 18E S 31 NWSE¼. See attached map.

3. ☒ 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

**D. FLOW MEASUREMENTS N/A**

**E. FLOW CALCULATIONS N/A**

**F. VOLUME CALCULATIONS**

1. Volume Calculations for Other Uses: Stockwater Storage and Wildlife Storage:

Surface area of reservoir = 0.1 acres

Determined using 2009 aerial photography and 2010 satellite imagery in Arcmap, and dimensions provided by the BLM in permit application.

Reservoir Capacity = 0.3 AF

Determined using flat bottom reservoir equation from IDWR Field Examiners Handbook and information provided in permit application.  
(Capacity = Surface area x Maximum Depth)  
0.1 acres x 3 feet = 0.3 AF

Potential Stock and Wildlife Use:

(350 cattle x 12 gpd) x 275 days/ 325850 = 4.7 AF (Based on a potential 9 month grazing season)

30 wild ungulates x 12 gpd x 365 days/ 325850 = 0.40 AF

Total: 4.7 AF + 0.40 AF = 5.1 AF

**G. NARRATIVE/REMARKS/COMMENTS**

Permit 37-8931 is for stockwater storage and wildlife storage. Source is an unnamed stream and storage reservoir is referred to as Two Pit Reservoir.

Application for permit 37-8931 submitted by the US Dept of Interior, Bureau of Land Management was received on March 23, 2000 and proof of Beneficial Use was submitted on September 20, 2000.

Two Pit Reservoir is located approximately 5.1 miles south and 1.5 miles east of the West Shore Subdivision at Magic Reservoir. Ephemeral runoff flows/seeps from what was described by the BLM as "a poorly defined, unmapped ephemeral drainage" and collects in a small pit constructed around 1983 by the BLM and the Shoshone Cattleman's Association. The reservoir has a 0.1 acre surface area and an average depth of 3 feet, giving it a storage capacity of 0.3 acre feet. There is also a second reservoir at the site of similar size and capacity. Correspondence will be drafted and sent to the BLM regarding this second reservoir.

The application for permit indicates up to 3100 range cattle and 1000 sheep may be present on this range. According to Clare Josaitis, BLM Rangeland Management Specialist, up to 300 - 400 cattle and varying numbers of wildlife use the water source in this particular range unit. As this is a small desert reservoir that captures ephemeral flows from spring snow melt and runoff from storms, water is likely to be present in reservoir from spring into midsummer and after major rain events. Precipitation deficit data from the University of Idaho ET website indicates a mean of 695 mm (2.28 AF) per acre for small stockwater ponds in the Magic Dam area. Based on the calculated surface area of 0.1 acres, this indicates that approximately 0.23 AF could potentially evaporate from the reservoir each year. Where the permit for this reservoir is for wildlife and stockwater storage with no measurable flow rate, it should

suffice to indicate that beneficial use is established by livestock and wildlife use, regardless of numbers and potential consumption rates. However, I did calculate numbers using those provided by the BLM and an assumed average of 30 ungulates for wildlife. Based on those numbers, the potential for water consumption by livestock and wildlife was estimated to be 5.1 AF, which exceeds the reservoirs capacity. There was evidence of use by range cattle, deer and sage grouse at the reservoir on the date of the field exam.

Recommend permitting an annual volume of 0.3 AF.

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

#### H. RECOMMENDATIONS

##### 1. Recommended Amounts

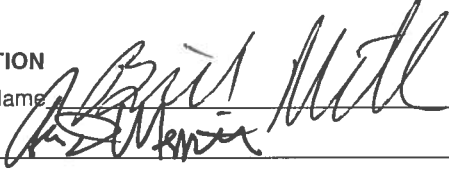
| <u>BENEFICIAL USE</u> | <u>PERIOD OF USE</u> | <u>ANNUAL VOLUME</u> |
|-----------------------|----------------------|----------------------|
| STOCKWATER STORAGE    | 01/01 to 12/31       | 0.30 AF              |
| WILDLIFE STORAGE      | 01/01 to 12/31       | 0.30 AF              |
| <u>Totals:</u>        |                      | 0.30 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  Date 1/16/2012

Reviewer  Date 1/17/2012

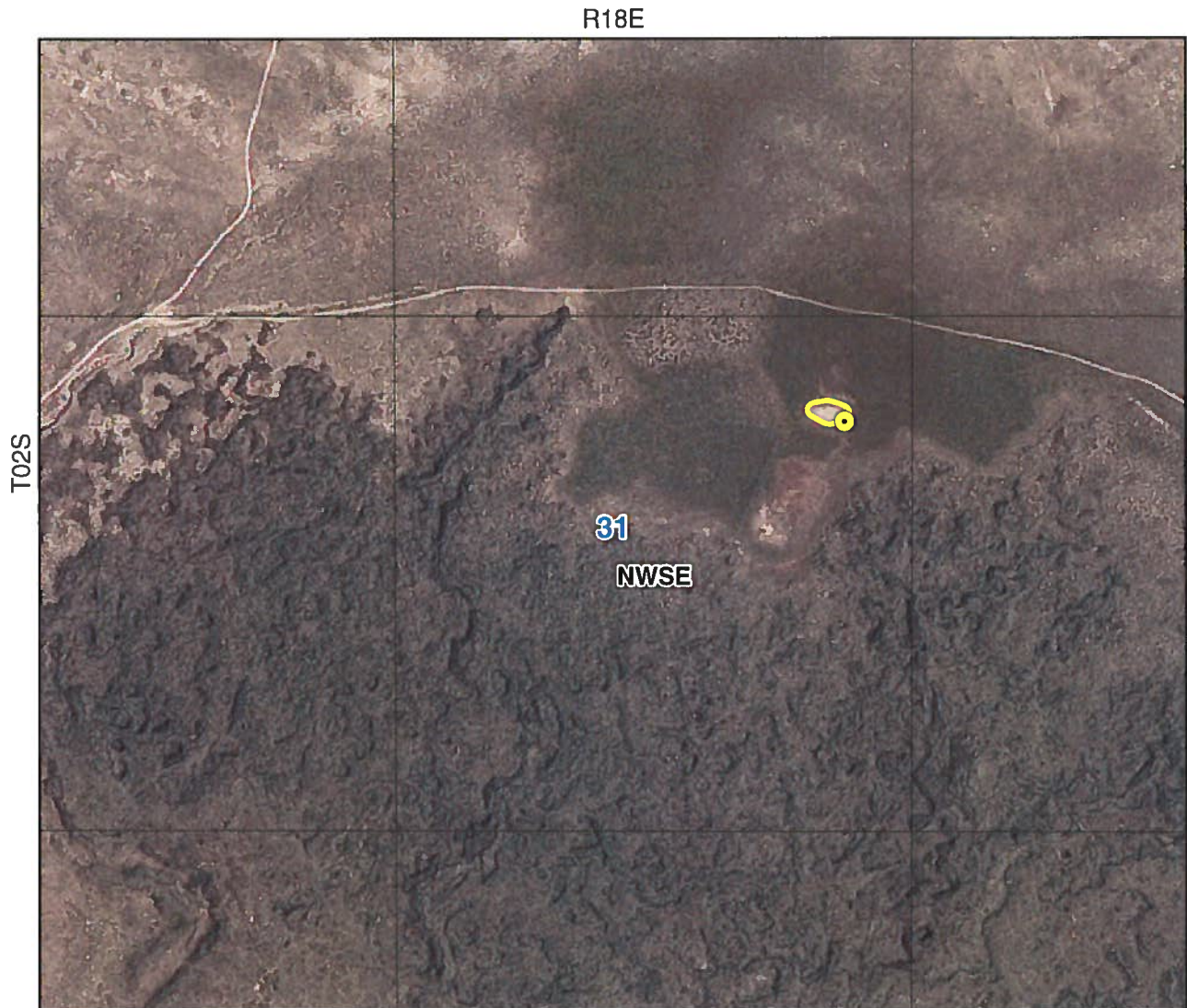


Figure 1: Two Pit Reservoir.

State of Idaho  
Department of Water Resources  
**Water Right License**

37-8931

Water Service Area Boundary for Us Dept Of Interior



0 0.05 0.1 0.2 Miles

-  Point of Diversion
-  Place Of Use Boundary
-  Townships
-  PLS Sections
-  Quarter Quarters





Two Pits Reservoir  
QUAD. Shoshone Ice Caves  
CLAIM # \_\_\_\_\_  
ROLL 8 FRAME 22  
DATE 05/01/97 TIME 1438

MICROFILMED  
APR 11 2001