

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 65-23115
Exam Date: 10/3/2011

1. Current Owner: CAROL LYNN MAC GREGOR
1109 WARM SPRINGS AVE
BOISE ID 83712
(208) 386-9494

2. Accompanied by: NONE

3. SOURCETRIBUTARY

SPRING - aka Reservoir Spring SINKS (verified using quad map and visual inspection)

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:

SPRING NE1/4NE1/4NW1/4 Sec. 26, Twp 07N, Rge 01W, B.M. GEM County

Method of Determination: GPS waypoint (2305328m 1416270)

2.

PLACE OF USE: STOCKWATER

TR	Sec	NE				NW				SW				SE				
		NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	Totals
07N01W26						X												

Method of Determination: GPS waypoint (2305363m 1416289m)

3. x Delivery System Diagram Attached (required). Indicate all major components and distances between components. Indicate weir size/pipe as applicable. *See page 6*

 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. *See page 4*

~~x Aerial Photo Attached (required for irrigation of 10+ acres).~~

 x Photo of Diversion and System Attached *See pages 5 & 6*

4.

Well or Diversion

<u>ID No.*</u>	<u>Motor Make</u>	<u>Hp</u>	<u>Motor Serial No.</u>	<u>Pump Make</u>	<u>Size</u>
A0016949	NA—no pump, the water is gravity fed to stock tank.				

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

D. FLOW MEASUREMENTS

1.

Measurement

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

2. Measurements: The system consists of ~110' of buried PVC to an 8 x 2' round stockwater tank. There is a 2" inlet and a 2" outlet that discharges any overflow.

E. FLOW CALCULATIONS

The system was physically measured with a tape. Since no water was running during the field exam here are some theoretical estimates:

Pipe conversion: $Q = 5 \times 3.1416 \times 0.833^2 = 0.11$ cfs
 $r = 2 \text{ inches} = 0.167 \text{ feet} / 2 = 0.0833$

Manning's Eqn Calc = 0.21 cfs (see below)

Manning's Equation Calculator for Flow Rate in a Circular Conduit Flowing Full	
S =	0.2455 ft/ft
n =	0.009 manning's coefficient
d =	2.0 pipe diameter (inches)
D =	0.17 pipe diameter (feet)
r =	0.08 pipe radius (feet)
A =	0.02 area (ft ²)
WP =	0.52 wetted perimeter (ft)
R =	0.04 hydraulic radius (ft)
Q = 0.21 flow rate (CFS)	

Channel Slope	
Slope Options	
☐ Manual Entry ☒ Slope Calculator	
Slope Calculator Rise = 27 feet Run = 110 feet Slope, S = 0.2455 ft/ft	
Pipe Material, (n):	plastic (pvc, abs)
Pipe Diameter (inches)	2.0 inches

Stockwater Requirements:

150cattle

30 horses

180 stock—Exhibit 15, Water for Livestock-Out of Stream Diversion, estimates 0.04 cfs

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation: NA
2. Volume Calculations for Other Uses: 180 stock x 12 gpd x 365 days = 2.4 af

G. NARRATIVE/REMARKS/COMMENTS

The stockwater tank was dry at the time of the field exam but there was evidence that stock had been in the area; hoof prints and manure were present around the tank. While the system may be able to accommodate up to 0.11 cfs possibly, the license is limited by the permitted diversion rate of 0.02 cfs.

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>
STOCKWATER	01/01 to 12/31	0.020 CFS	2.40 AF
<u>Totals:</u>		0.020 CFS	2.40 AF

2. Recommended Amendments

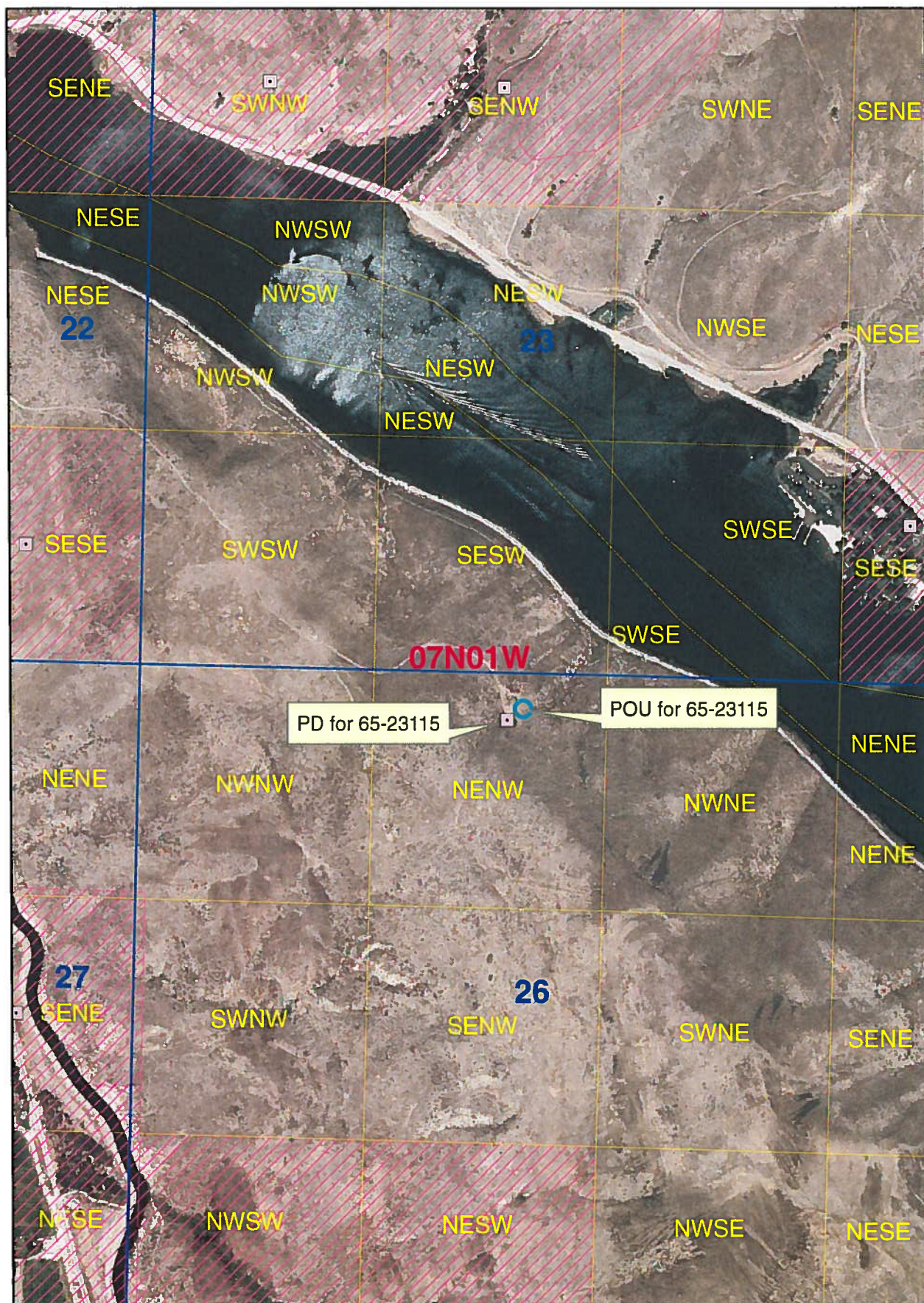
☐ Change P.D. as reflected above ☐ Add P.D. as reflected above ☒ None

☐ Change P.U. as reflected above ☐ Add P.U. as reflected above ☐ Other

I. AUTHENTICATION

Field Examiner's Name: Cherie Palmer

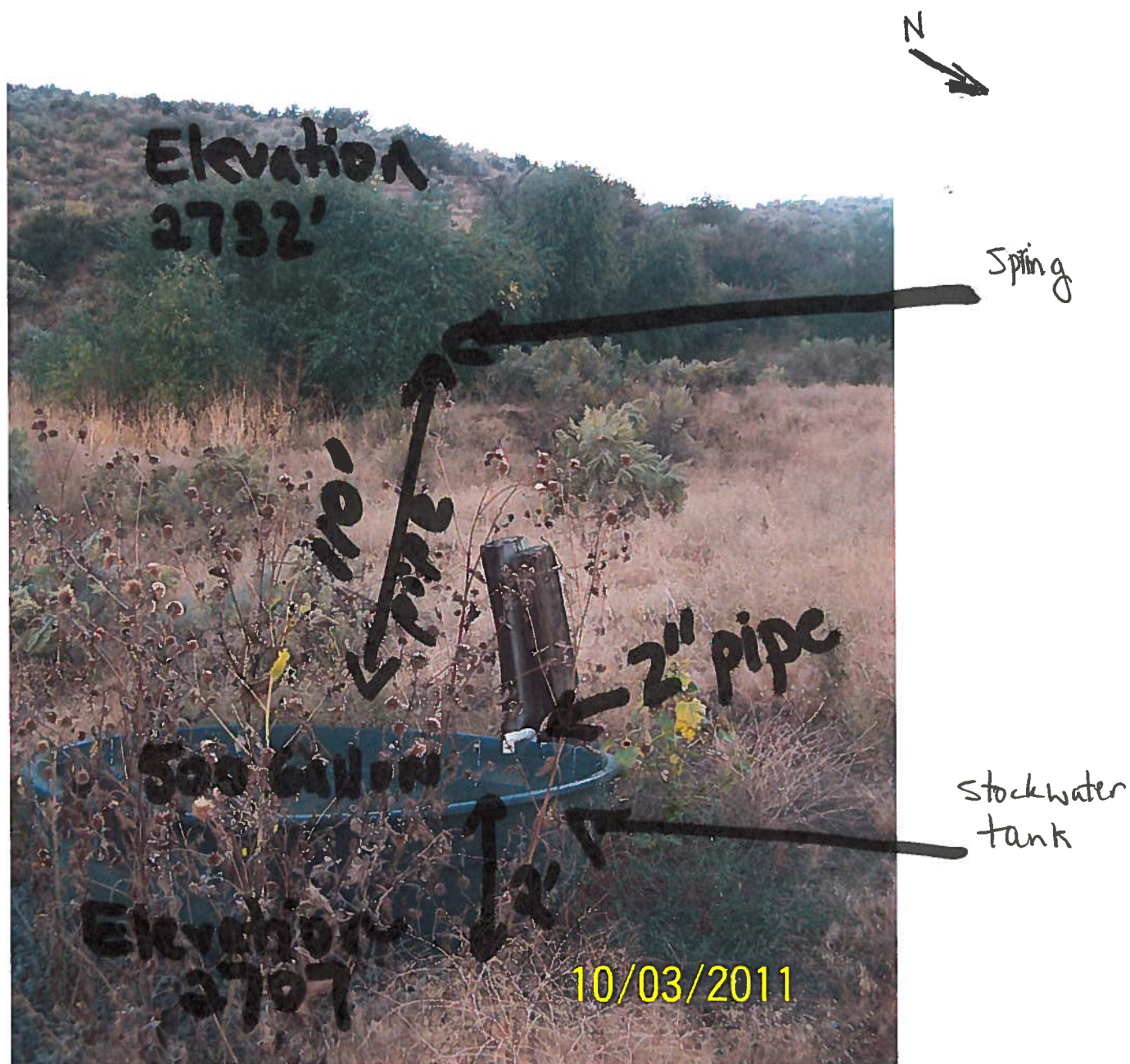
Field Examination Map





Tag # A0016949
affixed here

2" pipe



Elevation determined using Google Earth