

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 63-11725

Exam Date: 6/6/2012

1. Current Owner: ALICE MARIE ELLIOTT
2364 SOUTH SIDE BLVD
MELBA ID 83641
(208)495-2557

Or

RICHARD E ELLIOTT
2364 SOUTH SIDE BLVD
MELBA ID 83641
(208)495-2557

2. Accompanied by: Kelly Kramer
Phone No: (208) 495-2635
Address: 1288C Southside Blvd Melba ID 83641
Relationship to Permit Holder: Current owner

3. SOURCE TRIBUTARY
GROUND WATER

B. OVERLAP REVIEW

1. Other water rights with the same place of use: Canal shares
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. 24, Twp 01N, Rge 02W, B.M.
CANYON County

Method of Determination: GPS and ArcMap

2. PLACE OF USE: IRRIGATION

Twp	Rge	Sec	NE				NW				SW				SE				Totals
01N	02W	24	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
					39.0					39.0	25.0	23.0					22.0		148.0

Total Acres: 148

Method of Determination: Field exam and ArcMap

3. ☒ Delivery System Diagram Attached (required). Indicate all major components and distances between components. Indicate weir size/pipe as applicable.
☒ 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

4. <u>Well or Diversion</u> <u>ID No.*</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>
	US Electric	75Hp	6326-50-V02U308R073M	Wel Line	8 inch discharge

D. FLOW MEASUREMENTS1. 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>
	Theoretical only					

2. Measurements:

$$\frac{(75 \text{ Hp}) * 8.8 * 0.}{(10 \text{ PSI}) * 2.31 + 147 \text{ ft}} = 2.72 \text{ cfs}$$

E. FLOW CALCULATIONS

Measured Method:

EXPECTED FLOWS FOR PIPE DIAMETERS

08 in Dia = 1.74 cfs

(see narrative for analysis)

Permit Rate (irr)

$$= 3.00 \text{ cfs}$$

$$\text{Proof Pd (\$150.00) (max cfs)} = 3.00 \text{ cfs}$$

$$\text{Found POU acres } 148 * 0.02 \text{ cfs/ac} = 2.96 \text{ cfs}$$

Recommend**F. VOLUME CALCULATIONS**

1. Volume Calculations for Irrigation:

$$\begin{aligned} V_{I.R.} &= (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 148 \text{ ac} * 4.5 \text{ af} = 666 \text{ afa} \text{ Recommendation} \\ V_{D.R.} &= [\text{Div Rate (cfs)}] \times (\text{Days in Irr season}) \times 1.9835 = 2.96 \text{ cfs} * 260 \text{ days} * 1.9835 = 1526.5 \text{ afa} \end{aligned}$$

2. Volume Calculations for Other Uses:

G. NARRATIVE/REMARKS/COMMENTS

The system is the well with an 8 inch discharge flared to 12 inches that runs approximately 45 ft total. That line can be diverted three different directions. One leg goes east into a buried mainline, one leg goes west in a different mainline and a third leg is an open discharge 6 inch pipe into an open ditch for the irrigation of the central portion of the POU. Both the east and west sides of the POU are irrigated via a combination of open ditches initially fed by the buried mainlines. Most POU field segments irrigate from south to north but a few segments irrigate east to west. A majority of the POU is normally various seed crops such as onions, carrots, or small grain. Some fields are rotated with alfalfa for livestock feed.

The well log indicates a static water level of 145 ft and at completion a pump test was made with the pump set at 150 ft. The well was pumped for 2 hrs at 3.34 cfs. Well information written on the inside of the power panel does not match the well log information. A theoretical calculation based upon the well log information and a dynamic pumping level of 147 ft gives 2.72 cfs. This is within 8% of one inch per acre for the found 148 acres. Flow through an eight inch pipe at 5 second feet (chart data) indicates a flow rate of 1.74 cfs. That is an approximate 40% difference. I reviewed 8+ well logs in the surrounding area for both domestic and irrigation uses and found that the well depths and static water levels were similar. It appears that the theoretical calculation would better represent the system capacity. Therefore I am recommending that the permit be licensed for 2.96 cfs (one inch per acre).

No measurement device was available and after discussion with Steve I am recommending that the measurement and reporting conditions be modified to 01M. Water bearing zone on permit was identified as 0 to 300 ft. The well log identifies water being found in 6 levels between 145 ft and 290 ft which falls within the permitted range.

The permit season of use is 3-15 thru 11-15. The current season of use in this area is 3-1 thru 11-15 which I am recommending.

Have conditions of permit approval been met? X Yes _____ No

H. RECOMMENDATIONS**1. Recommended Amounts**

<u>BENEFICIAL USE</u>	<u>PERIOD OF USE</u>	<u>DIVERSION RATE</u>	<u>ANNUAL VOLUME</u>
IRRIGATION	03/01 to 11/15	2.960 CFS	666.00 AF
	<u>Totals:</u>	2.960 CFS	666.00 AF

2. Recommended Amendments

___ Change P.D. as reflected above ___ Add P.D. as reflected above X None

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

I. AUTHENTICATION

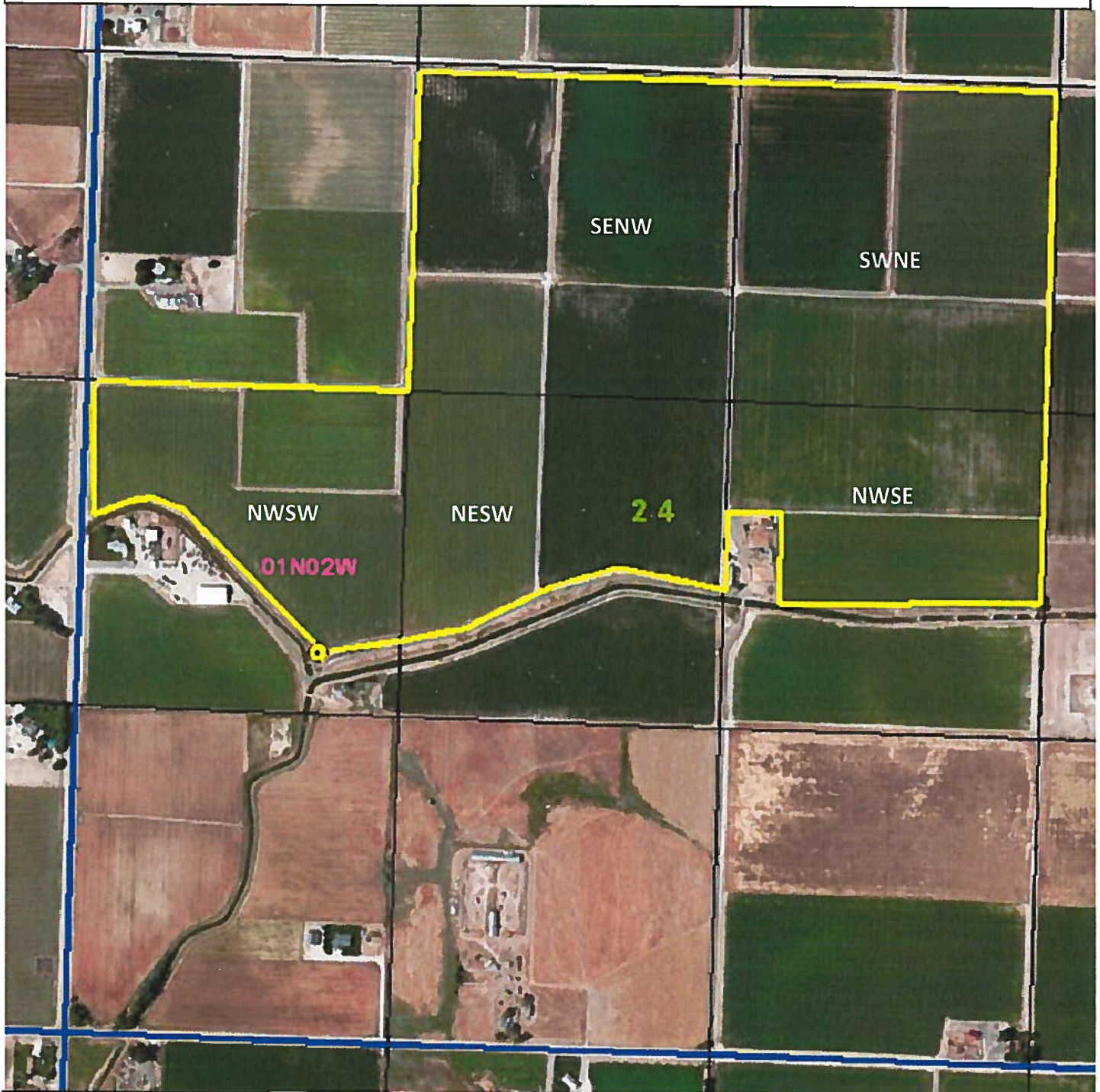
Field Examiner's Name Kelly K. Christensen Date 6-11-2012

Reviewer _____ Date _____

Permit # 63-11725
Exam date 6-6-2012
Agent KKC

RECOMMENDATION MAP

Aerial photo date 2011
Twp Rng Sec QQ
1N 02W 24



-  Recommended POD
-  Recommended POU
-  Section line
-  Quarter/quarter line
-  Township line

**IDAHO DEPARTMENT OF WATER RESOURCES
FIELD EXAMINERS
WELL INSPECTION FORM**

1. IDENTIFICATION # _____ (Tag #, etc.)

OTHER APPLICABLE # 63-11725 (Water right #, etc.)

2. OWNER Kelly Kramer Phone _____

Address 12880 Southside Blvd City Melba

State Id Zip 83641 Email _____

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

Lat. 44 Long. 86

Twp 1N Rge 2W Sec 24 $\frac{1}{4}$ NW $\frac{1}{4}$ SW

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 _____

INSPECTED BY Kelly K. Christensen DATE 6-6-12

Permit # 63-11725
Exam date 6-6-2012

FIELD EXAM Photos

Agent KKC

Photo 1

You are looking north at the well and a portion of the POU. The GPS reading was taken outside of the A frame approximately 5 feet south of the well. GPS



Photo 2

You are looking east at the POU. Note the rise in the ground around the farmstead (in the NWSE of sec 24). That ground and further east is delivered water through the buried pipeline. Photo location is east of the well.



Photo set 3

You are looking southwest at the delivery system. The well is just out of picture range to the right.

Open discharge 6" line To Buried line running to the eastern portion of the POU Buried line for west side of POU



Photo 4

This shows the electrical control panel with some well information indicating water level at 77' on 3-98 and at 58' date unknown. It also identifies the pump at 98' and the well depth at 130' but deepened to 160 ft.



63-11725

75 HP turbine

theoretical calcs appear to be reasonable.

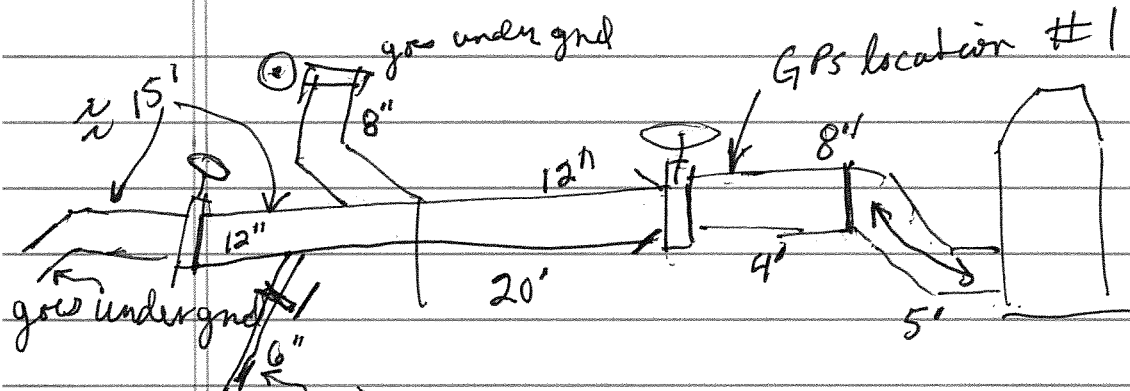
Well Line

US Elect Motors

75 HP

ID 6326-50-V024308R073M

1 pic look N @ well GPS Location GPS



open discharge

into ditch running east

2 pics looking SW @ pipe system

1 pic look east

Permit # 63-11725
Exam date _____
Agent KKC

Aerial photo date 2011
Twp Rng Sec QQ
1N 02W 24

No Gvt lots

