

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 63-33030

Exam Date: 10/2/2012

1. Current Owner: GOODELL FARMS LLC
14899 SAND HOLLOW RD
CALDWELL ID 83607
(208)899-1417
2. Accompanied by: Mike Goodell
Phone No: 899-1417
Address: 14899 Sand Hollow Rd. Caldwell, ID 83607
Relationship to Permit Holder: Owner

3. SOURCE TRIBUTARY
GROUND WATER

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:**

GROUND WATER NE1/4SE1/4 Sec. 33, Twp 06N, Rge 03W, B.M.

CANYON County

Method of Determination: Field verification with handheld Garmin GPS unit

2.

PLACE OF USE: IRRIGATION

Twp	Rge	Sec	NE				NW				SW				SE				Totals
06N	03W	33	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	48.0
															17.0	31.0			

Total Acres: 48

Method of Determination: Field verification and review of aerial photographs.

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</u> <u>Size</u>
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Well #1		50			
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Note-- Well is equipped with a submersible pump and therefore was unavailable to be inspected during the field exam. Information regarding any pump characteristics were obtained through an interview with the owner.

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

D. FLOW MEASUREMENTS

1.

<u>Measurement</u> <u>Equipment</u>	<u>Type</u>	<u>Make</u>	<u>Model No.</u>	<u>Serial No.</u>	<u>Size</u>	<u>Calib. Date</u>
Tyme Flight	Mag Meter					

2. Measurements: 387 gpm

A 10-minute average flow rate was measured once the system was fully pressurized and operating.

E. FLOW CALCULATIONS

☒ Additional Computation Sheets Attached

Measured Method:

Theoretical Horsepower Calculator to verify field measurements were reasonable.

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 48 \times 4.5 = 216 \text{ AF}$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = 0.86 \times 260 \times 1.9835 = 444 \text{ AF}$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = 216 \text{ AF}$$

2. Volume Calculations for Other Uses: None

G. NARRATIVE/REMARKS/COMMENTS

The field exam for permit 63-33030 was conducted on 10/2/2012 by myself (Dennis Owsley) and Craig Tesch. Mike Goodell, the permit holder and land owner, accompanied us on the exam. The permit authorized the diversion of 1.16 cubic feet per second (cfs) of groundwater for irrigation purposes. The source of water for this permit is groundwater, diverted from a single well located on the property.

The point of diversion for this permit is a 409 foot deep well. The rate of diversion was determined by measuring the capacity of the well discharge using a Tyme Flight magnetic flow meter. During the field examination the flow from the well was measured at 387 gallons per minute (0.86 cfs).

Water is pumped from the well into the distribution lines feed two pivots that irrigate the place of use. The place of use is an agricultural field that based on aerial photography, has had approximately 48 acres irrigated. During the field exam, the owner indicated that he intends to irrigate the corners and edges of the field in the future. However, observations made during the exam and reviewing of the aerial photographs indicate that these portions of the field have not been historically irrigated. Using the aerial photographs the place of use was reduced from the 58 acres permitted to 48 acres that have been shown to be irrigated.

The volume of water diverted on an annual was estimated based on the standard methods used during the field exam process. The calculated annual volume limit using 48 acres irrigated resulted in a volume limit of 216 acre-feet. This volume was based on the irrigation requirement of 4.5 feet to the acre.

Based on the field exam, a review of aerial photographs and the interview with the current owner, it appears the water authorized through this permit is being put to beneficial use. I recommend a maximum diversion rate of 0.86 cfs and an annual volume of 216 AF be licensed for irrigation uses.

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>
IRRIGATION	03/01 to 11/15	0.86 CFS	216.00 AF
	<u>Totals:</u>	0.86 CFS	216.00 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: Dennis Owsley

Date

11/30/13

Reviewer

Date

THEORETICAL HORSEPOWER EQUATION WORKSHEET (cjh 1/92)

Water Right No.: 63-33030
 Examiner: Dennis
 Date of Field Exam: 10/2/2012

P/D No.:	Option 1	OPTION 2	OPTION 3	
PUMP HORSEPOWER	50	50	50	
BOOSTER HORSEPOWER	0	0	0	
PUMPING LEVEL	180	180	180	
DISCHARGE PRESSURE	50	68	80	
FRICTION	0	0	0	
RATE OF FLOW (cfs)	1.04	0.91	0.84	AVE
(gpm)	467.8	410.1	378.9	0.93

The above calculates the formula =

$$Q = \frac{8.8 * (\text{Efficiency}) * \text{hp}}{\text{depth to water} + 2.31 * (\text{psi}) + \text{friction}}$$

Assumptions: %70 efficiency.

Examiners Notes:

Lift was taken from well log. Hp was found during site visit. A standard psi for irrigation use ranges from approxiamtely 50 to 80 psi was used to estimate the pressure against the pump. The measurent was taken at a pressure of 68 psi with a flow rate of 387 gpm compared to the theoretical calculation of 410 gpm.

Field exam photos for 84-12242. Photos taken by D. Owsley and C. Tesch on 10/2/2012



Photo 1. View of POD.



Photo 2. View of POD with pressure gauge.



Photo 3. Pivot in operation.



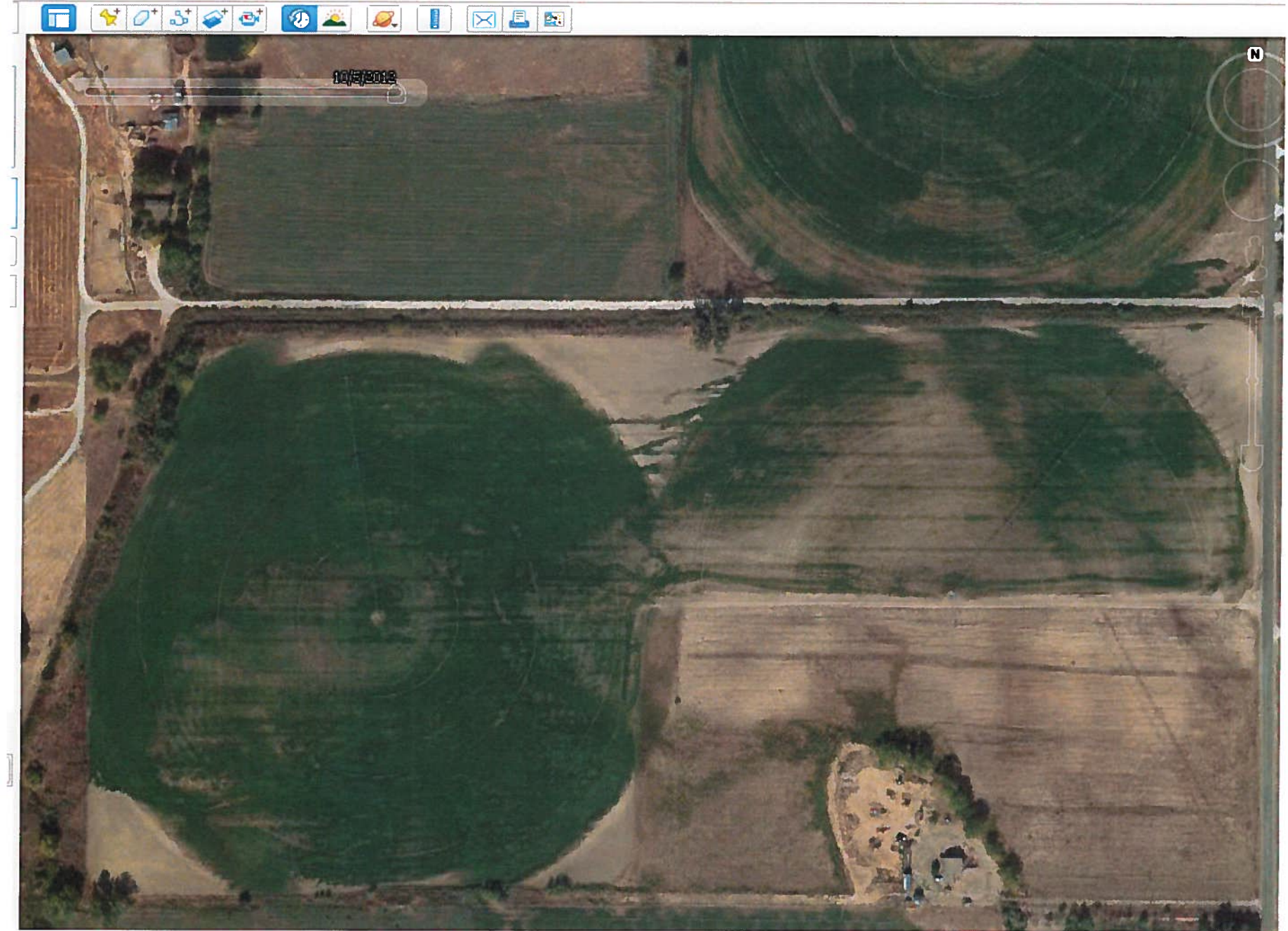
Photo 4. 2nd pivot in operation.



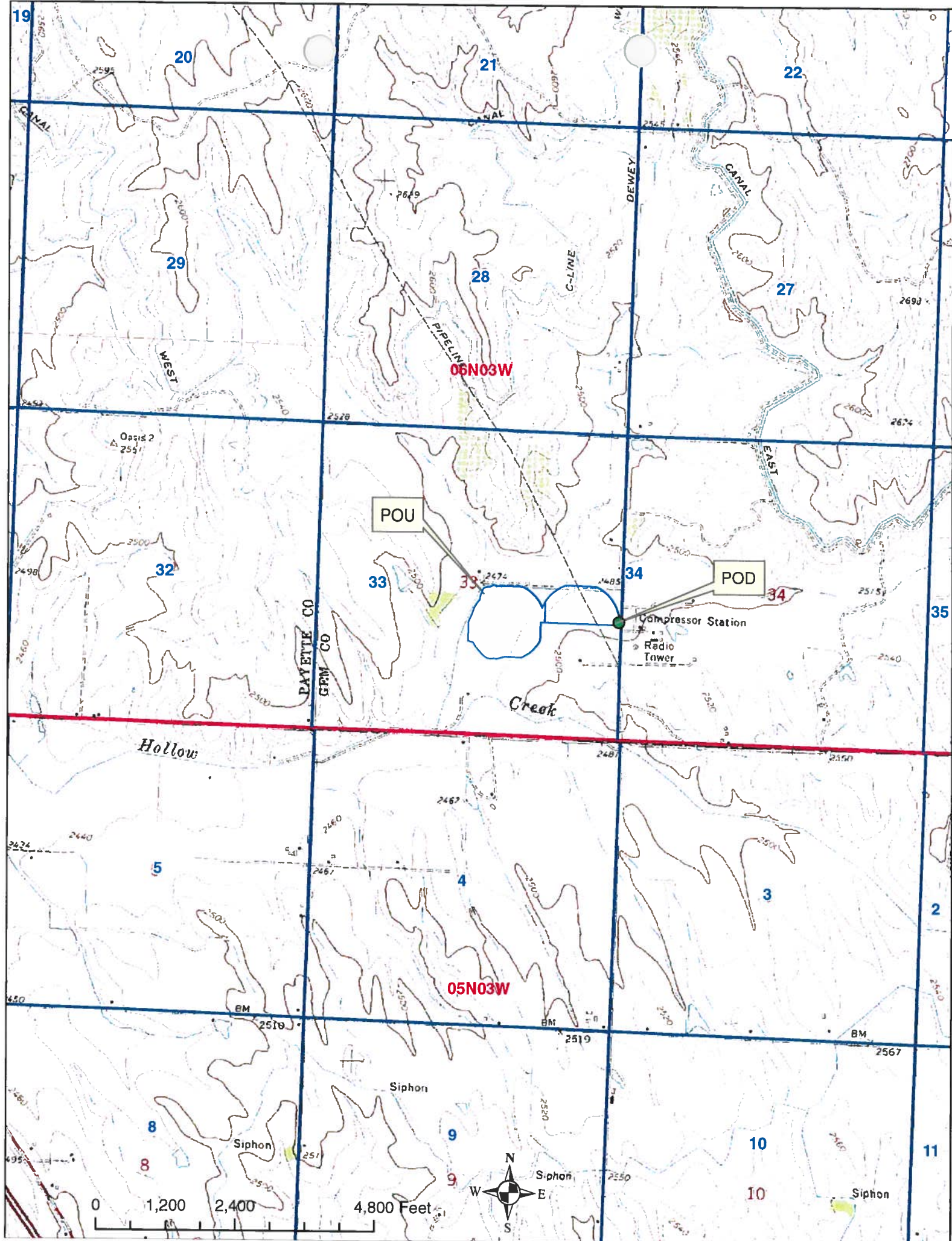
Photo #5. Place of use (currently growing alfalfa).

10/5/2012 Aerial Photography: Source of Photo is Google Earth

63- 33030









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IDAHO DEPARTMENT OF WATER RESOURCES WELL DRILLER'S REPORT

913524-862150

1. WELL TAG NO. D 0060205

Drilling Permit No 913524-862150

Water right or Injection well # 63-33030

2. OWNER:

Name Goodell Farms LLC

Address 14899 Sandhollow Rd.

City Caldwell State ID Zip 83607

3. WELL LOCATION:

Twp. 6 North ☒ or South ☐ Rge. 3 East ☐ or West ☒

Sec. 33 1/4 NE 1/4 SE 1/4

Gov't Lot _____ County Gern

Lat. 43 48.804 (Deg and Decimal minutes)

Long 116 41.582 (Deg and Decimal minutes)

Address of Well Site 1/2 mile North of Oasis Rd. on the W. side of

El Paso City Caldwell

(Give at least name of road + Distance to Road or Landmark)

Lot. _____ Blk. _____ Sub. Name _____

4. USE:

☐ Domestic ☐ Municipal ☐ Monitor ☒ Irrigation ☐ Thermal ☐ Injection
☐ Other _____

5. TYPE OF WORK:

☒ New well ☐ Replacement well ☐ Modify existing well
☐ Abandonment ☐ Other _____

6. DRILL METHOD:

☐ Air Rotary ☒ Mud Rotary ☐ Cable ☐ Other _____

7. SEALING PROCEDURES:

Seal material	From (ft)	To (ft)	Quantity (lbs or ft ³)	Placement method/procedure
cement bentonite	0	250	158.4 cu ft	tremie

8. CASING/LINER:

Diameter (nominal)	From (ft)	To (ft)	Gauge/Schedule	Material	Casing Liner	Threaded	Welded
12	+2	290	.250	steel	☒	☐	☒
12	300	358	.250	steel	☒	☐	☒

Was drive shoe used? ☐ Y ☒ N Shoe Depth(s) _____

9. PERFORATIONS/SCREENS:

Perforations ☐ Y ☒ N Method _____

Manufactured screen ☒ Y ☐ N Type alloy machine works

Method of installation placed

From (ft)	To (ft)	Slot size	Number/ft	Diameter (nominal)	Material	Gauge or Schedule
290	300	.025	---	12	stainless	
358	408	.025	---	12	stainless	

Length of Headpipe _____ Length of Tailpipe _____

Packer ☐ Y ☒ N Type _____

10. FILTER PACK:

Filter Material	From (ft)	To (ft)	Quantity (lbs or ft ³)	Placement method
8-12	250	410	76cuft	poured

11. FLOWING ARTESIAN:

Flowing Artesian? ☐ Y ☒ N Artesian Pressure (PSIG) _____

Describe control device _____

12. STATIC WATER LEVEL and WELL TESTS:

Depth first water encountered (ft) 102 Static water level (ft) 84

Water temp. (°F) 61degf Bottom hole temp. (°F) _____

Describe access port plate welded to top

Well test:

Drawdown (feet)	Discharge or yield (gpm)	Test duration (minutes)	Test method:	Pump	Bailer	Air	Flowing artesian
325ft	400-500			☐	☐	☒	☐

Water quality test or comments: _____

13. LITHOLOGIC LOG and/or repairs or abandonment:

Bore Dia. (in)	From (ft)	To (ft)	Remarks, lithology or description of repairs or abandonment, water temp.	Water	
				Y	N
16"	0	2	sandy top soil		
"	2	10	brown sandy clay		
"	10	27	coarse sand		
"	27	36	sandy tan clay		
"	36	50	sand		
"	50	64	tan clay		
"	64	80	sand		
"	80	107	sandy clay		
"	107	114	sand		
"	114	120	tan clay		
"	120	128	sand		
"	128	137	sand		
"	137	147	tan clay		
"	147	151	sand		
"	151	154	tan clay		
"	154	163	sand		
"	163	169	tan clay		
"	169	177	sand		
"	177	183	sand and clay strips		
"	183	194	tan clay		
"	194	197	sand		
"	197	217	sand		
"	217	228	tan clay		
"	228	234	sand		
"	234	251	blue clay		
"	251	254	gray sand		
"	254	285	blue clay		
"	285	307	coarse sand		
"	307	316	blue clay		
"	316	330	sand and clay strips		
"	330	350	blue clay		
"	350	409	coarse sand		

Completed Depth (Measurable) 404ft

Date Started Oct 3, 2011

Date Completed Nov 11, 2011

14. DRILLER'S CERTIFICATION:

I/We certify that all minimum well construction standards were complied with at the time the rig was removed.

Company Name Coorse Well Drilling

Co. No. 409

*Principal Driller [Signature] Date Nov 11, 2011

*Driller [Signature] Date Nov 11, 2011

*Operator II _____ Date _____

Operator I _____ Date _____

* Signature of Principal Driller and rig operator are required.

RECEIVED

DEC 13 2011

WATER RESOURCES
WESTERN REGION