

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 13-7192

Exam Date: 6/24/2014

1. Current Owner: DENNIE J BARSON
340 N 1100 E
HYDE PARK UT 84318
(435)563-5697
2. Accompanied by: None
Phone No:
Address:
Relationship to Permit Holder:

3. SOURCE TRIBUTARY
GROUND WATER

B. OVERLAP REVIEW

1. Other water rights with the same place of use: none recorded
2. Other water rights with the same point of diversion: none recorded

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

GROUND WATER NW1/4NW1/4 Sec. 25, Twp 16S, Rge 37E, B.M.
FRANKLIN County

Method of Determination: GPS and site visit.

2.

PLACE OF USE: IRRIGATION

Twp Rge Sec	NE				NW				SW				SE				Totals
	<u>NE</u>	<u>NW</u>	<u>SW</u>	<u>SE</u>	<u>NE</u>	<u>NW</u>	<u>SW</u>	<u>SE</u>	<u>NE</u>	<u>NW</u>	<u>SW</u>	<u>SE</u>	<u>NE</u>	<u>NW</u>	<u>SW</u>	<u>SE</u>	
15N 02W 33							15.0	1.5	5.6	37.0	7.2	3.7					70.0
							L 4	L 3									
16S 37E 25					29.0	35.0			27.0	14.0							105.0
											L 4						
16S 37E 26				5.0									29.0			10.0	44.0
																L 1	

Total Acres: 219

Method of Determination: Aerial photography and site visit.

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 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>
A0010619	Diesel Engine (Minneapolis-Moline)			HolloShaft (110 HP)	1175777

D. FLOW MEASUREMENTS

No measurement taken during the field exam. Land is currently enrolled in CRP.

E. FLOW CALCULATIONS

☐ Additional Computation Sheets Attached

Measured Method:

Theoretical calculation. See attachment. $Q = 3.65$ cfs. Proof of beneficial use report indicates maximum diversion rate diverted out of the well is 2.0 cfs. In a phone conversation with Dennie Barson, he indicated that the maximum diverted out of the well is 2.0 cfs.

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 219.0 \text{ acres} \times 3.5 \text{ acre-feet/acre} = 766.5 \text{ acre-feet}$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = 2.0 \text{ cfs} \times 214 \text{ days} \times 1.9835 = 848.9 \text{ acre-feet}$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = 766.5 \text{ acre-feet}$$

2. Volume Calculations for Other Uses: N/A

G. NARRATIVE/REMARKS/COMMENTS

The point of diversion consists of a Diesel Engine motor to a gear driven pump. Horse power of the pump is 110. Delivery system consists of an eight inch main line to wheel lines and hand lines. Pump was not running during field exam. Several sections of wheel lines were found on the property during the field exam. Per phone conversation with Dennie Barson (9/22/2014), the land developed under permit 13-7192 is currently in CRP. According to Mr. Barson the irrigation system consisted of six wheel lines and some hand lines. Mr. Barson indicated the maximum amount of water diverted out of the well is 2.0 cfs. The attached theoretical calculation indicates that the well could divert up to 3.65 cfs. The place of use and total number of acres irrigated (219.0 acres) under the permit was determined by the site visit, aerial photography and phone conversation with Mr. Barson. 70.0 acres under the place of use is located in the State of Utah. The permit indicates that Dennie Barson and Rudger Barson are the current owners. Rudger Barson is deceased.

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	04/01 to 10/31	2.000 CFS	766.50 AF
<u>Totals:</u>		2.000 CFS	766.50 AF

2. Recommended Amendments

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

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

I. AUTHENTICATION

Field Examiner's Name Blake Jordan Date 9/29/2014

Reviewer _____ Date _____

THEORETICAL HORSEPOWER EQUATION WORKSHEET (cjh 1/92)

Water Right No.: 13-7192

Reviewer:

Date of Review:

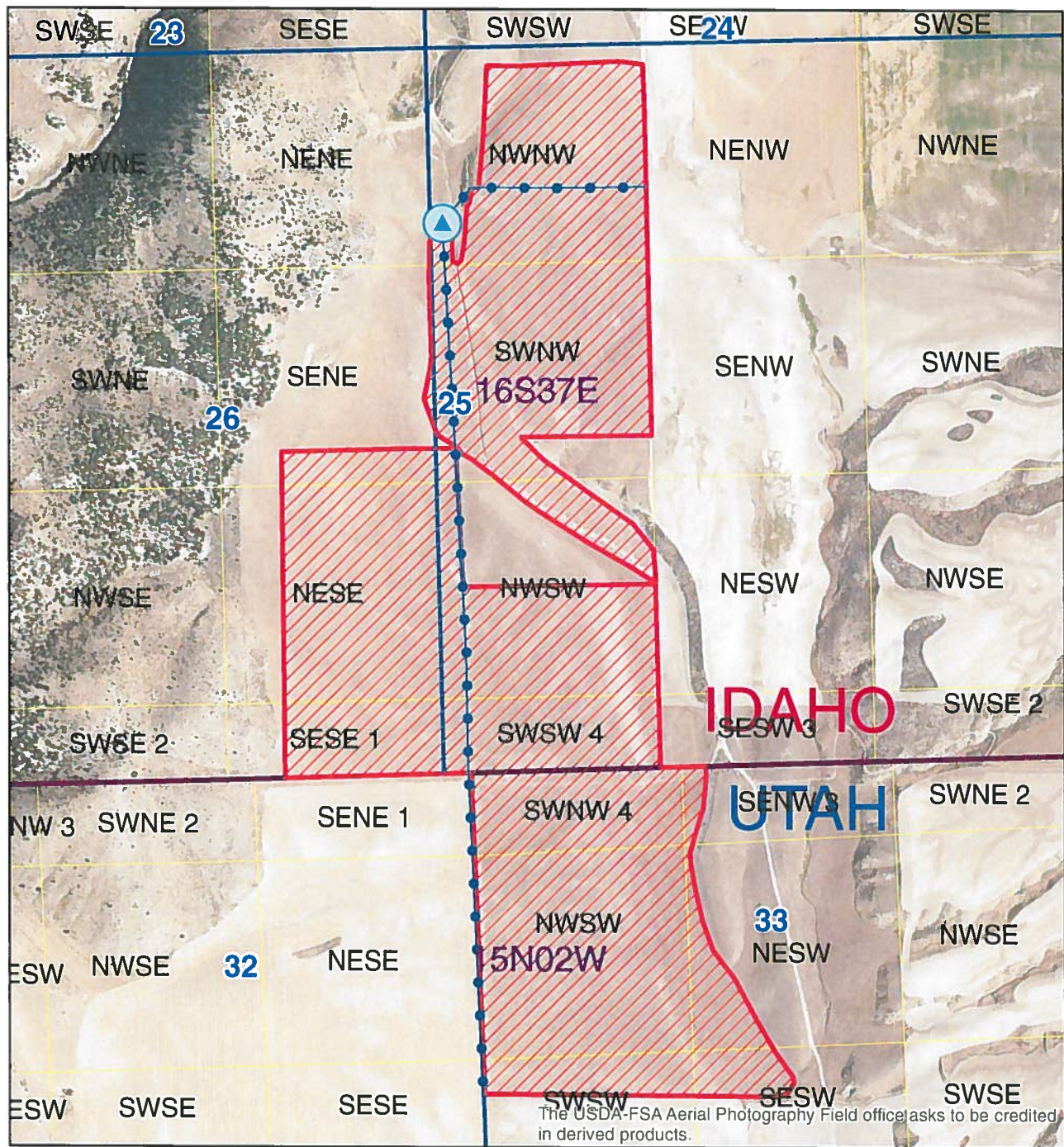
P/D No.:	Senerio 1	Senerio 2	Senerio 3
PUMP HORSEPOWER	110	0	0
BOOSTER HORSEPOWER	0	0	0
PUMPING LEVEL	70	0	0
DISCHARGE PRESSURE	50	0	0
RATE OF FLOW (cfs)	3.65	#DIV/0!	#DIV/0!

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.
No Friction

Examiners Notes:

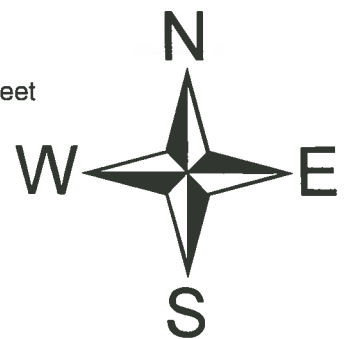
13-7192



- Point of Diversion
- main Line
- Place of use
- Township/Range
- Sections
- QQ

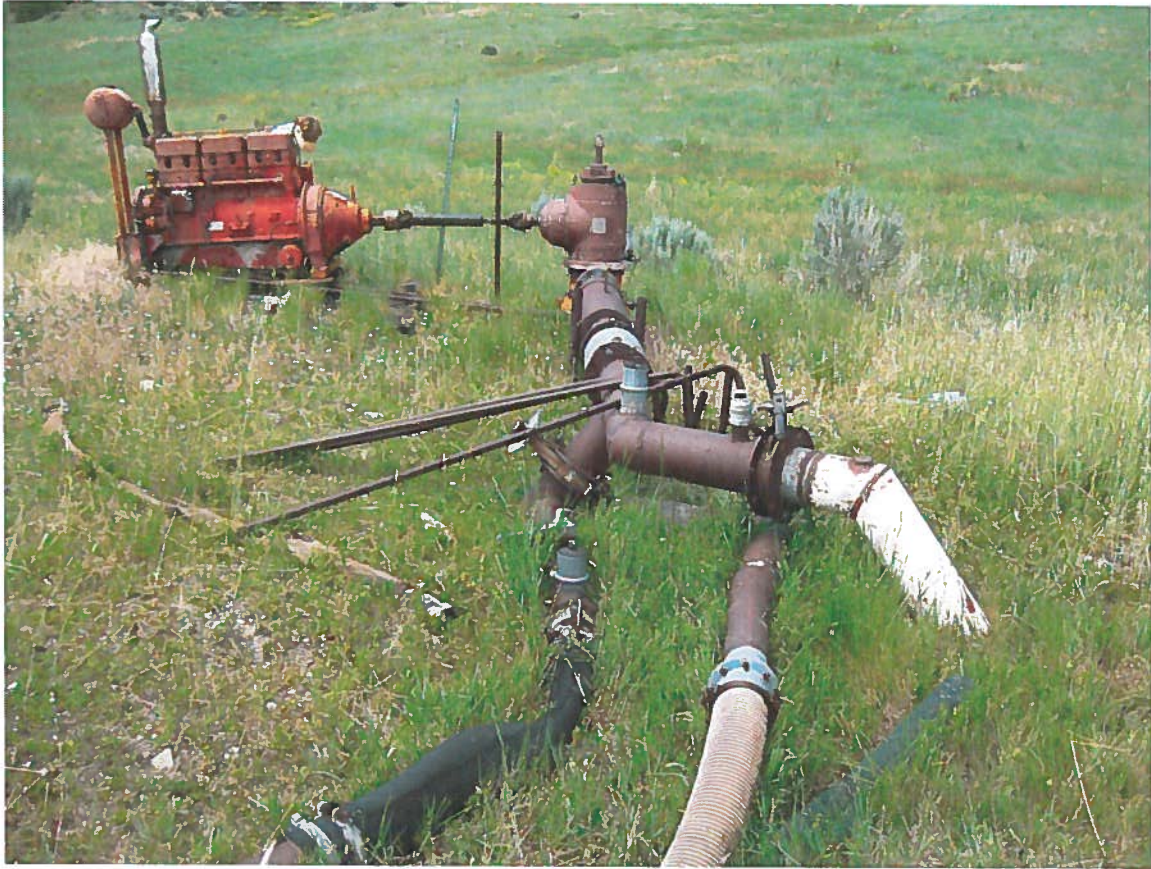
0 550 1,100 2,200 Feet

1 inch = 966 feet



30 - June - 1981











State of Idaho

DEPARTMENT OF WATER RESOURCES

Eastern Region • 900 North Skyline Drive, Suite A • Idaho Falls, ID 83402-1718
Phone: (208) 525-7161 • Fax: (208) 525-7177 • Website: www.idwr.idaho.gov

C.L. "BUTCH" OTTER
Governor

GARY SPACKMAN
Director

Dennie Barson
340 N 1100 E
HYDE PARK, UT 84318

RECEIVED

SEP 29 2014

Department of Water Resources
Eastern Region

Re: Beneficial Use Field Exam; Permit 13-7192

Dear Mr. Barson,

Per our phone conversation on September 22, 2014 I have attached two maps of your property described under water permit 13-7192. On the maps please outline the land that you irrigated with the groundwater well. Also on the map please identify the locations of the mainline and wheel lines on your property. Once completed please mail the maps back to me.

Feel free to contact me with any questions at (208) 525-7161.

Thanks,

Blake Jordan
Sr. Water Resource Agent
Idaho Department of Water Resources

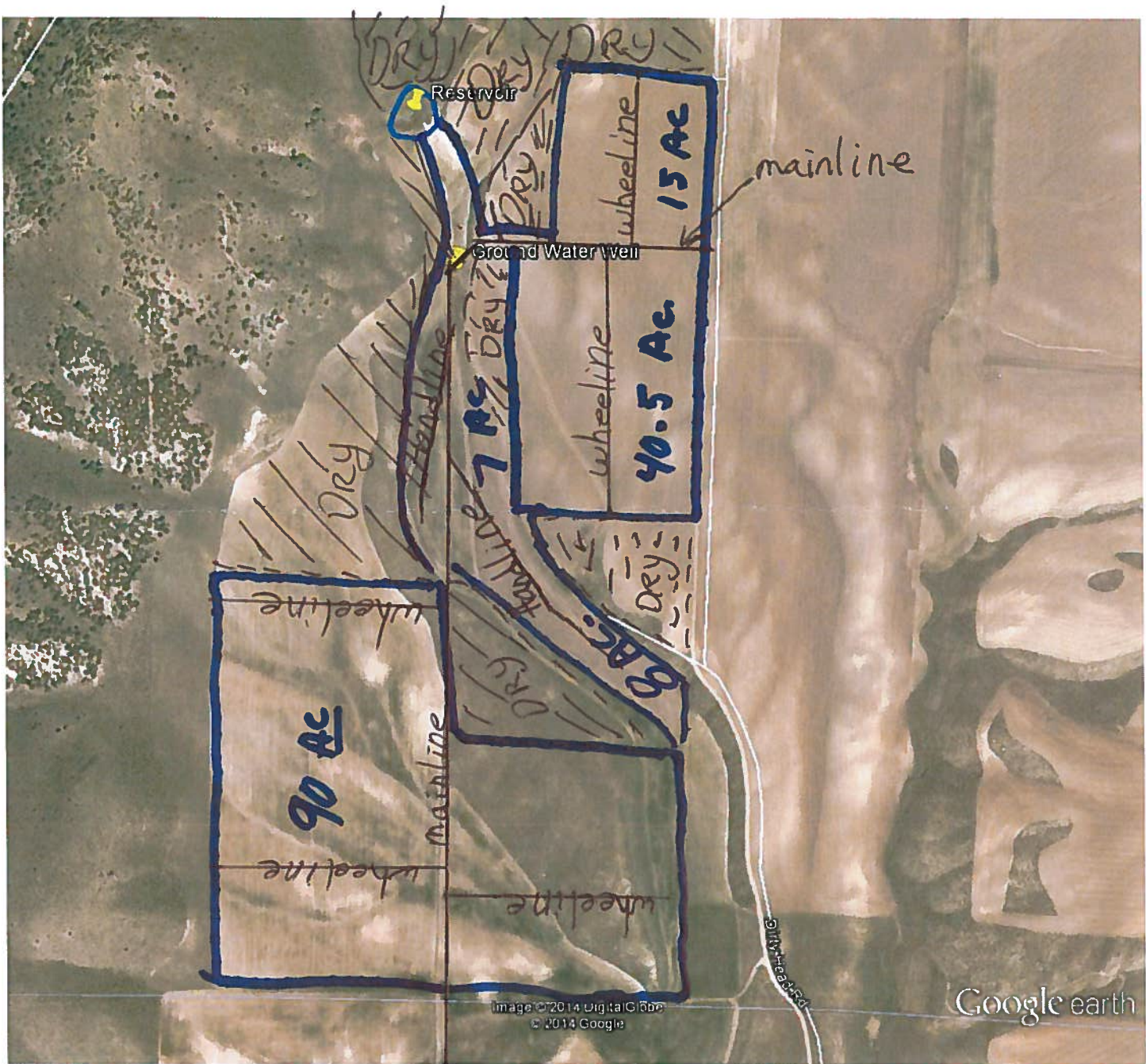
Dear Mr. Jordan

Here is the information you requested. I used my FSA maps to find field borders and acreages. I have drawn main lines, wheelines, and where we used handlines.

Thank you

Dennie Barson

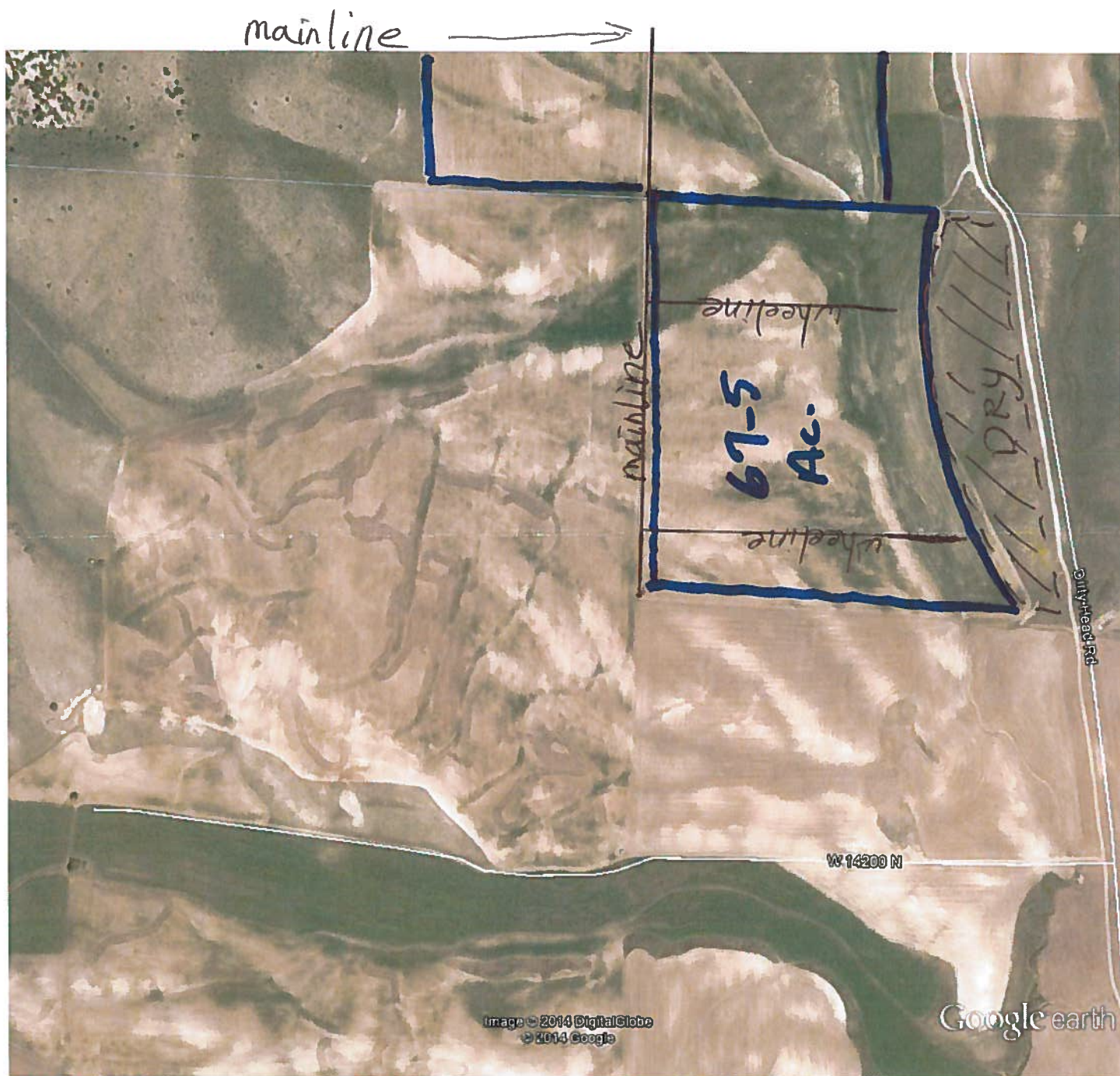
9-26-14



Google earth



main line →



Total irrigated
228 acres.
These are acres off of FSA Map: