

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

RECEIVED

AUG 16 2011

RECEIVED

AUG 12 2011

WATER RESOURCES
WESTERN REGION

A. GENERAL INFORMATION

Permit No. 63-31262

1. Owner Boise Valley Feeders LLC Phone No. 208-722-8090

Current address 2201 Ridgeway Rd, Parma, ID 83660

2. Examiner's name Terry Scanlan, P.E. (Examiner No. 11-129) EXAM DATE 6/27/11 and 8/10/11

3. Accompanied by Bill Nice Email bill.nice@agrib Beef.com

Address 2201 Ridgeway Rd, Parma, ID 83660

Relationship to permit holder Operations Manager Phone No. 208-629-6912(cell)

4. Source Ground Water tributary to _____

B. OVERLAP REVIEW

1. Other water rights with the same place of use 63-3359, 63-7874

2. Other water rights with the same point of diversion 63-3359, 63-7874

C. DIVERSION AND DELIVERY SYSTEM

1. Point(s) of Diversion:

Ident. No.	Gov't Lot	¼	¼	¼	Sec	Twp	Rge	County	Method of Determination/Remarks
1			NW	SW	13	6N	5W	Canyon	Exam, 2009 Photo
2			NW	SE	14	6N	5W	Canyon	Exam, 2009 Photo

2. Place(s) of Use: Method of determination GIS

Twp	Rge	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
6N	5W	11															23		23.0
		13										8.6							8.6
		14	4.3	17	7.5						15				3.3	2.3			49.4

3. **Delivery System Diagram:** Indicate all major components and distances between components. Indicate weir size/ditch size/pipe diameter (inside), as applicable. Use the space provided or ☒ see attached.

Scale: 1" = _____

- ☒ Copy of USGS Quadrangle attached showing location(s) of point(s) of diversion and place(s) of use (required)
☒ Aerial photo attached (required for irrigation of 10+ acres)
☒ Photo of diversion and system attached

4.

Well or Diversion Identification No.*	Motor Make	Hp	Motor Serial No.	Pump Make	Pump Serial No. or Discharge Size
Well 1 (14 inch)	General Electric	125	DKJ4101111	Unknown	8-inch
Well 2 (16 inch)	Newman	300	D5057PY	Unknown	10-inch

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

D. FLOW MEASUREMENTS

1.

Measurement Equipment	Type	Make	Model No.	Serial No.	Size	Calib. Date
Flow Meter - Well 1	propeller	McCrometer	ML100	01-08300-8	8-inch	2000 (estimated)
Flow Meter - Well 2	propeller	McCrometer	ML100	01-09531-10	10-inch	2005 (estimated)

2. Measurements:

Well 1 - 950 gpm (2.12 cfs) @ 48 psi, 1100 gpm (2.45 cfs) @ 18 psi

Well 2 - 1600 gpm (3.56 cfs) @ 50 psi (pump was not at full speed), 2100 gpm (4.68 cfs) at 30 psi

E. NARRATIVE/REMARKS/COMMENTS

Two wells supply water to a pressurized sprinkler system for irrigation of 220 acres; 139 acres authorized under decrees 63-3359 and 63-7874 and 81 acres developed under this permit. Well 1, drilled in 1965, is constructed with a 14-inch casing to 507 feet and is currently equipped with a 125-hp pump. Well 2, drilled in 2005 as a replacement well, is constructed with a 16-inch casing to 398 feet, 10-inch casing from 399 to 426 feet, 10-inch screen from 426 to 531 feet and is currently equipped with a 300-hp pump. The wells are located at high points within the farm, and have a normal discharge pressure for irrigation of 50 psi. Both well pumps are variable speed, with speed modulated to maintain a set point pressure.

Theoretical capacity for both wells, when combined, is estimated at 6.47 cfs at 50 psi; 1.98 cfs for Well 1 and 4.49 cfs for Well 2. Measured diversion rate from Wells 1 and 2 of 5.68 cfs at 48-50 psi was less than theoretical because Well 2 was operating at less than full speed. Measured diversion rate with Well 2 operating at 30 psi and Well 1 operating at 48 psi was 7.13 cfs. Full permit diversion rate for this right (63-31262), combined with decreed rates for 63-3359 and 63-7874, is 5.60 cfs. Therefore, the two wells have excess capacity to supply the two decreed rights and this permit.

The diversion rate for decrees 63-3359 and 63-7874 is 3.98 cfs total for irrigation and stockwater, not to exceed 2.78 cfs and 625.5 afa for irrigation use. This right, when combined with 63-3359 and 63-7874, should be limited to diversion of 4.4 cfs and 990 afa for irrigation use.

Water-bearing zone permitted was 300 to 500 feet. Water bearing zone developed in Well 2 (replacement) is approximately 420 to 520 feet. Well 1 has a water-bearing zone of approximately 350 to 507 feet, and was developed prior to the permit and not subject to a restricted water-bearing zone.

Attachment A is a copy of the permit and proof of beneficial use

Attachment B is the well driller's reports

Attachment C is the theoretical flow calculations for the wells

Attachment D is a topographical map and aerial photo

Attachment E is photos of the place of use and wells.

Has the permit holder met all conditions of permit approval, including any mitigation requirements and/or measuring device installation requirements? ☐ Yes ☒ No If no, what must be done to meet the permit requirements?

The permit holder met all conditions of permit approval, except that the water-bearing zone appropriated is slightly deeper than the permitted water-bearing zone. The permit/license should be modified to show a water-bearing zone of 350 to 535 feet rather than 300 to 500 feet.

F. FLOW CALCULATIONS

Additional computation sheets attached

Measured Method:

6.47 cfs theoretical system capacity at 50 psi (See Attachment C)

7.13 cfs measured capacity

G. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 81 \times 4.5 = 364.5$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation Season}) \times 1.9835 = 1.62 \times 260 \times 1.9835 = 835.5$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = 364.5$$

2. Volume Calculations for Other Uses:

H. RECOMMENDATIONS

1. Recommended Amounts

Beneficial Use	Period of Use From	To	Rate of Diversion Q (cfs)	Annual Volume V (afa)
Irrigation	3/1	11/15	1.62	364.5
Totals:			1.62	364.5

2. Recommended Amendments

☐ Change P.D. as reflected on page 1 ☐ Add P.D. as reflected on page 1 ☐ None

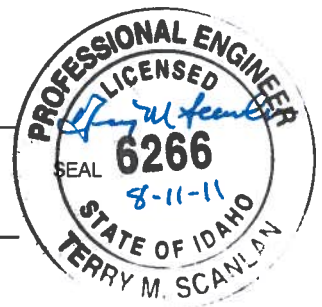
☐ Change P.U. as reflected on page 1 ☐ Add P.U. as reflected on page 1 ☒ Other

Change water-bearing zone to 350 to 535 feet.

I. AUTHENTICATION

Field Examiner's Signature Terry M. Scanlan Date August 11 2011

Reviewer _____ Date _____



ATTACHMENT A

PERMIT RECORD AND PROOF OF BENEFICIAL USE

RECEIVED

AUG 16 2011

DEPARTMENT OF WATER RESOURCES

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
STATEMENT OF COMPLETION
FOR SUBMITTING PROOF OF BENEFICIAL USE

FOR OFFICE USE ONLY

Amt. of Fee \$: _____
Receipt No. _____
Receipt By: _____
Date Received: _____

The Idaho Department of Water Resources considers this form a statement by the permit holder(s) that development of a water right has been **completed** and that water has been applied to beneficial use to the extent described below. **This form must be accompanied by an examination fee, when necessary, or by a completed Beneficial Use Field Report prepared by a certified water right examiner.** Please refer to the instructions and fee schedule for this form. If ownership of the permit has changed, please contact any Department office or visit the Department's website at: www.idwr.idaho.gov for an *Assignment of Permit* form. If you wish to relinquish your permit because you have not established the authorized use of the water and are not applying for an extension, please notify the Department in writing.

1. Permit No.: 63-31262 Telephone No.: 208-722-8090

2. Name of Permit Holder(s): Boise Valley Feeders LLC

3. Mailing Address: 2201 Ridgeway Rd City: Parma

State: ID Zip: 83660 Email: _____

4. Source of Water: Ground Water If **GROUND WATER** (well), Date Drilled: mo. Jan / yr. 2005
2005: Riverside Inc.

Well Driller: 1965: R & M Equip. Co. Drilling Permit Number: 1965: #853146; 2005: #838583

5. Extent of use(s) completed (as authorized by the water right permit):

Domestic (No. of households): _____ Stockwater (No. and type of stock): _____

Irrigation (No. of acres): 81 Other: _____

6. Total rate of diversion or storage volume for which proof is submitted: 1.62 cfs OR _____ acre-feet.

7. Compliance with a measuring device requirement, lockable controlling device requirement, and/or other conditions of permit: **Refer to the approval conditions on your permit and respond accordingly. The Department will not issue a license if permit conditions are not met.**

Measuring Device: Is a measuring device required?

Yes ☐ No ☒

If yes, has the measuring device been installed?

Yes ☐ No ☐

Lockable Controlling Device: Is a lockable device required to control the diversion?

Yes ☐ No ☒

If yes, has the lockable device been installed?

Yes ☐ No ☐

Other Conditions of Permit: Do the approval conditions on your permit require you to submit additional information in connection with your proof of beneficial use? If yes, list the conditions below and attach documents with the required information.

Completed? Yes ☐ No ☐

8. Fee Enclosed: \$ _____ See fee schedule on back of the instructions for filing proof of beneficial use. Proofs filed without an appropriate fee, will be considered incomplete.

9. Person to contact to accompany the Department representative during field examination of the water system.

Name: _____ Telephone Number: _____

Mailing Address: _____ City: _____

State: _____ Zip: _____ Email: _____

The information given on this form is my true statement of the extent to which the above numbered permit has been developed and water has been diverted and applied to a beneficial use. I understand that any undeveloped portion of the permit is relinquished to the State of Idaho.

Signature of permit holder: William E. Lin - operations manager
(Include your title, if on behalf of company or organization)

Date: 8-10-2011

Mail to: Idaho Department of Water Resources, PO Box 83720, Boise, ID 83720-0098

State of Idaho
Department of Water Resources
Permit to Appropriate Water

NO. 63-31262

Priority: 06/06/2001

Maximum Diversion Rate: 1.62 CFS

This is to certify, that **BOISE VALLEY FEEDERS LLC**
2201 RIDGEWAY RD
PARMA ID 83660

has applied for a permit to appropriate water from:

Source: GROUND WATER

and a permit is APPROVED for development of water as follows:

<u>BENEFICIAL USE</u>	<u>PERIOD OF USE</u>	<u>RATE OF DIVERSION</u>
IRRIGATION	03/01 to 11/15	1.62 CFS

LOCATION OF POINT(S) OF DIVERSION:

GROUND WATER	NW 1/4 Sec. 13, Twp 06N, Rge 05W, B.M.	PAYETTE County
GROUND WATER	NW 1/4 Sec. 14, Twp 06N, Rge 05W, B.M.	PAYETTE County

PLACE OF USE: IRRIGATION

Twp Rge Sec	NE				NW				SW				SE				Totals
	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
06N 05W 11															6.0	6.0	12.0
06N 05W 13									6.0								6.0
06N 05W 14	5.0	20.0	10.0				20.0						3.0	5.0			63.0

Total Acres: 81

CONDITIONS OF APPROVAL

1. Proof of application of water to beneficial use shall be submitted on or before October 1, 2006.
2. Subject to all prior water rights.
3. Project construction shall commence within one year from the date of permit issuance and shall proceed diligently to completion unless it can be shown to the satisfaction of the Director of the Department of Water Resources that delays were due to circumstances over which permit holder had no control.
4. Right holder shall comply with the drilling permit requirements of Section 42-235, Idaho Code.
5. After specific notification by the Department, the right holder shall install a suitable measuring device or shall enter into an agreement with the Department to determine the amount of water diverted from power records and shall annually report the information to the Department.
6. The Director retains jurisdiction to require the right holder to provide purchased or leased natural flow or stored water to offset depletion of Lower Snake River flows if needed for salmon migration purposes. The amount of water required to be released into the Snake River or a tributary, if needed for this purpose, will be determined by the Director based upon the reduction in flow caused by the use of water pursuant to this permit.

MICROFILMED

SEP 11 2001

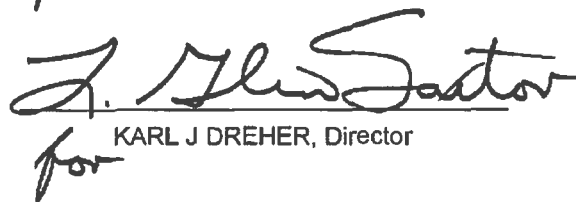
State of Idaho
Department of Water Resources
Permit to Appropriate Water

NO. 63-31262

CONDITIONS OF APPROVAL

7. This right when combined with all other rights shall provide no more than 0.02 cfs per acre nor more than 4.5 afa per acre at the field headgate for irrigation of the lands above.
8. Water bearing zone to be appropriated is 300 to 500 feet.

This permit is issued pursuant to the provisions of Section 42-204, Idaho Code. Witness the signature of the Director, affixed at Boise, this 18th day of September, 2001.


for **KARL J DREHER, Director**

MICROFILMED

ATTACHMENT B
WELL DRILLERS' REPORTS

RECEIVED
OCT 25 1965

WELL LOG AND REPORT TO THE
STATE RECLAMATION ENGINEER OF IDAHO

SUBMIT WITHIN 30 DAYS AFTER COMPLETION OF WELL. SEE IDAHO STATUTES 42-236

Permit No. 23-221 Well No. 180 County Fayette

Owner CLARK YOUNG

Address BOX 201, PARMA, IDAHO

Driller B. & M. EQUIPMENT CO., INC.

Address P.O. BOX 973, CALDWELL, IDAHO

Well location NW 1/4 Sec 23, T. 6 N., R. 5 E., S. 1

Size of drilled hole 22"

Total depth of well 507'

Give depth to standing water from the ground 280' Water seep None

Test delivery was 10 g.p.m. for 10 min. Drawdown was feet Pump? Ball?

Size of pump and motor used for test

Length of time of test 10 minutes

If flowing well, give flow 10 g.p.m. and of shut off pressure

If flowing well, describe control works

(TYPE AND SIZE OF VALVE, ETC.)

Water will be used for Irrigation Weight of casing per lineal foot 30.93 lb.

Thickness of casing 2 1/2" Casing material Steel

(STEEL, CONCRETE, WOOD, ETC.)

Diameter, length and location of casing 4 1/2" x 507' from ground level

(CASING 12" IN DIAMETER OR LESS, GIVE INSIDE DIAMETER; CASING OVER 12" IN DIAMETER, GIVE OUTSIDE DIAMETER)

CASING RECORD

Diam. Casing	From Feet	To Feet	Length	Remarks—logs, grouting, etc.
4 1/2"	0	507	507	Gravel packed from ground level to 507'

Number and size of perforations 6200 1/8" x 3" located 352 feet to 507 feet from ground

Date of commencement of well Sept. 16, 1965 Date of completion of well Oct. 7, 1965

NW 5W S. 13 6 N 5W

Wells

IDAHO DEPARTMENT OF WATER RESOURCES
WELL DRILLER'S REPORT

Office Use Only			
Well ID No.	828583		
Inspected by			
Twp	Rge	Sec	
1/4	1/4	1/4	
Lat.	Long.		

1. WELL TAG NO. 0 0038714
 DRILLING PERMIT NO. 884818-828583
 Water Right or Injection Well No. _____

2. OWNER:

Name: BOISE VALLEY FEEDERS
 Address: 2201 RIDGEWAY ROAD
 City: PARMA State: ID Zip: 83660

3. LOCATION OF WELL by legal description:

You must provide address or Lot, Blk. Sub. or Direction to well.

Twp. 6 North ☒ or South ☐
 Rge. 5 East ☐ or West ☒
 Sec. 14 NW 1/4 SE 1/4
 Gov't Lot _____
 County: PAULLETTE
 Lat: _____ Long: _____
 Address of Well Site: 2201 RIDGEWAY ROAD
 City: PARMA
 Sub. Name: _____

4. USE:

☐ Domestic ☐ Municipal ☐ Monitor ☒ Irrigation
☐ Thermal ☐ Injection ☒ Other: LIVESTOCK

5. TYPE OF WORK check all that apply

(Replacement or)

☐ New Well ☐ Modify ☐ Abandonment ☒ Other: REPLACEMENT

6. DRILL METHOD:

☐ Air Rotary ☐ Cable ☐ Mud Rotary ☒ Other: REVERSE

7. SEALING PROCEDURES

Seal Material	From	To	Weight/Volume	Seal Placement Method
<u>5% BENTONITE</u>	<u>0</u>	<u>400</u>	<u>35,000#</u>	<u>DRY POUR</u>

Was drive shoe used? ☐ Y ☒ N

Shoe Depth(s): _____

Was drive shoe non-magnetic? ☐ Y ☐ N

How? _____

8. CASING/LINER:

16"x10" REVERSE @ 398'

Casing	From	To	Gauge	Material	Casing	From	To	Weight/Volume
<u>16"</u>	<u>+2</u>	<u>398</u>	<u>.375</u>	<u>STEEL</u>	☒	☐	☒	☐
<u>10"</u>	<u>399</u>	<u>426</u>	<u>.375</u>	<u>STEEL</u>	☒	☐	☒	☐

Length of Haulpipe _____ Length of Tailpipe _____

Packer ☐ Y ☐ N

9. PERFORATIONS/SCREENS PACKER TYPE

Perforation Method _____

Screen Type & Method of Installation Johnson

From	To	Bit Size	Number	Material	Casing	From	To	Weight/Volume
<u>426</u>	<u>531</u>	<u>.030</u>	<u>10"</u>	<u>S.S.</u>	☒	☐	☐	☐

10. FILTER PACK

Filter Material	From	To	Weight/Volume	Placement Method
<u>6-9 SAND</u>	<u>400</u>	<u>535</u>	<u>19,500#</u>	<u>DRY POUR</u>
<u>8-12</u>				

11. STATIC WATER LEVEL OR ARTESIAN PRESSURE:

243 ft. below ground Artesian pressure _____ ft.
 Depth flow encountered _____ ft. Describe access port or control device: _____
1 1/2" PIPE ON SIDE

12. WELL TESTS:

Well Pump	Baker	Alt	Flowing Artesian
Flow (gpm)	Drawdown	Pumping Level	Time
<u>1700 gpm</u>	<u>60'</u>	<u>303'</u>	<u>8 hrs</u>

Water Temp. _____ Bottom hole temp. _____

Water Quality test or comments: _____

13. LITHOLOGIC LOG: (Describe repairs or abandonment)

Depth	Remarks: Lithology, Water Quality & Temperature	Water
ft.		Y N
<u>0</u>	<u>1 TOP SOIL</u>	
<u>1</u>	<u>19 CLEACHY, HARD CLAY</u>	
<u>19</u>	<u>27 FINE BRN SAND</u>	
<u>27</u>	<u>77 SAND, GRAVEL, RIVER COBBLES</u>	
<u>77</u>	<u>81 BRN CLAY</u>	
<u>81</u>	<u>122 BRN SAND, SM GRAVEL, SANDSTONE LAYERS</u>	
<u>122</u>	<u>132 SAND, GRAVEL</u>	
<u>132</u>	<u>142 BRN CLAY</u>	
<u>142</u>	<u>238 FINE SAND, SOME CLAY</u>	
<u>238</u>	<u>245 BRN CLAY</u>	
<u>245</u>	<u>325 FINE SAND, LAYERS FEA GRAVEL</u>	
<u>325</u>	<u>335 FINE-COARSE SAND, SOME PERGRAVEL</u>	
<u>335</u>	<u>368 FINE-COARSE SAND</u>	
<u>368</u>	<u>385 BLUE CLAY</u>	
<u>385</u>	<u>393 FINE SAND, BLUE CLAY MIX</u>	
<u>393</u>	<u>421 BLUE CLAY</u>	
<u>421</u>	<u>486 FINE-COARSE SAND, FEA GRAVEL</u>	
<u>486</u>	<u>489 BLUE CLAY</u>	
<u>489</u>	<u>517 FINE-COARSE SAND</u>	
<u>517</u>	<u>535 BLUE CLAY</u>	

RECEIVED

MAR 02 2005

WATER RESOURCES
WESTERN REGIONCompleted Depth: 531' (Measured)Date Started: 1-24-05 Completed: 1-31-05

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: RIVERSIDE INC Firm No: 333Principal Driller: [Signature] Date: 2-22-05Driller/Operator: [Signature] Date: _____Operator: Kevin Chestin Date: 2-22-05Principal Driller and Rig Operator Required
Operator must have signature of Driller/Operator II.

FORWARD WHITE COPY TO WATER RESOURCES

ATTACHMENT C
FLOW CALCULATIONS

Field Report, Item F: Theoretical Flow Calculations

Well 1 (per well log)
 depth: 507 ft
 static: 280 ft
 assume pump set at 320 ft
 assume dynamic pumping level at 300 ft

$$\frac{(8.8)(125 \text{ hp})(0.75)}{300' + (50 \times 2.31)} = \frac{825}{415.5} = 1.98 \text{ cfs (891 gpm)}$$

Well 2 (per well log)
 depth: 535 ft
 static: 243 ft
 assume pump set at 250 ft
 assume dynamic pumping level at 325 ft

$$\frac{(8.8)(300 \text{ hp})(0.75)}{325' + (50 \times 2.31)} = \frac{1980}{440.5} = 4.49 \text{ cfs (2,017 gpm)}$$

4.49 cfs + 1.98 cfs = 6.47 cfs estimated system capacity at 50 psi discharge pressure

ATTACHMENT D

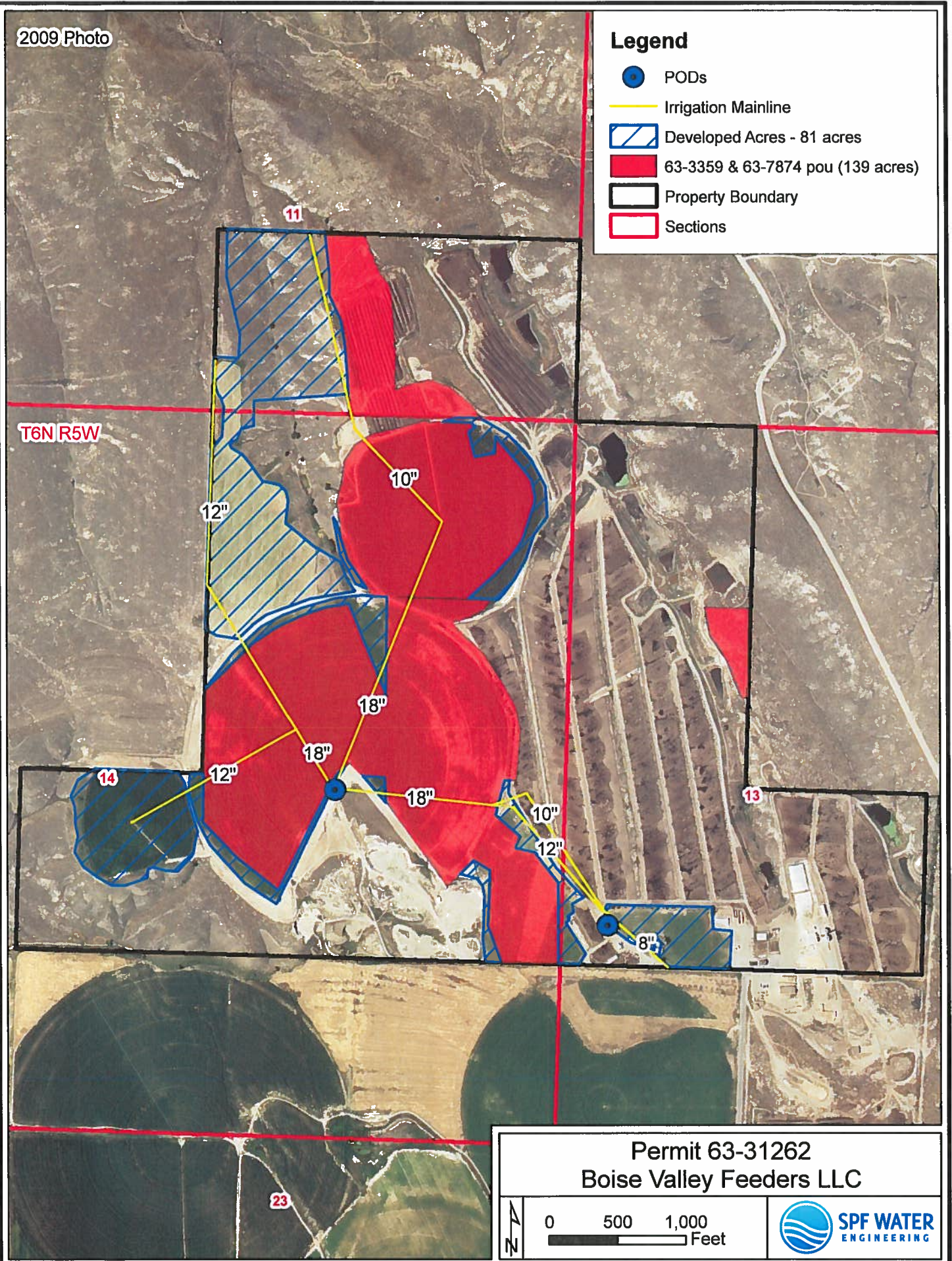
TOPOGRAPHICAL MAP AND AERIAL PHOTO

2009 Photo

Legend

- PODs
- Irrigation Mainline
- Developed Acres - 81 acres
- 63-3359 & 63-7874 pou (139 acres)
- Property Boundary
- Sections

T6N R5W



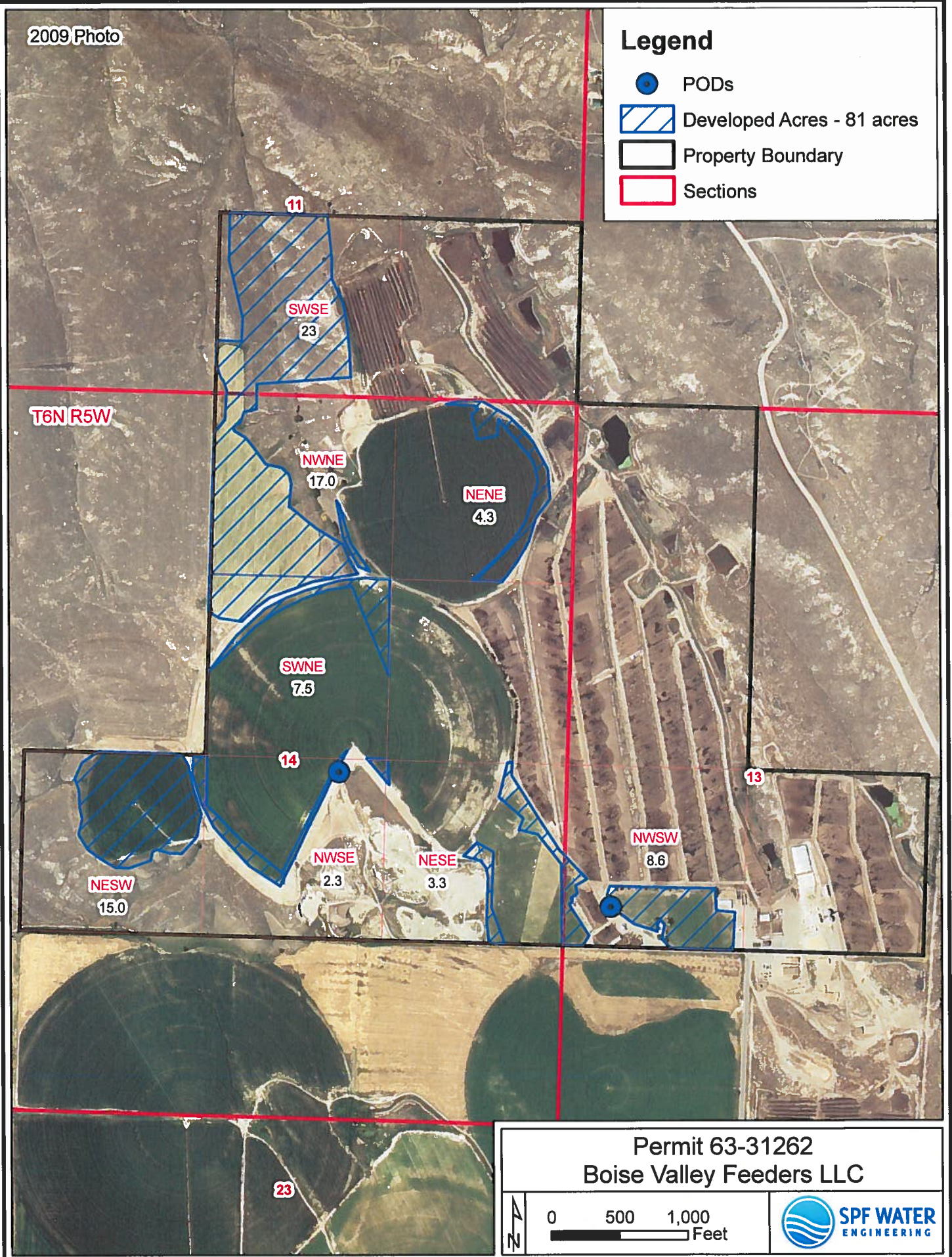
Permit 63-31262
Boise Valley Feeders LLC



2009 Photo

Legend

- PODs
- Developed Acres - 81 acres
- Property Boundary
- Sections

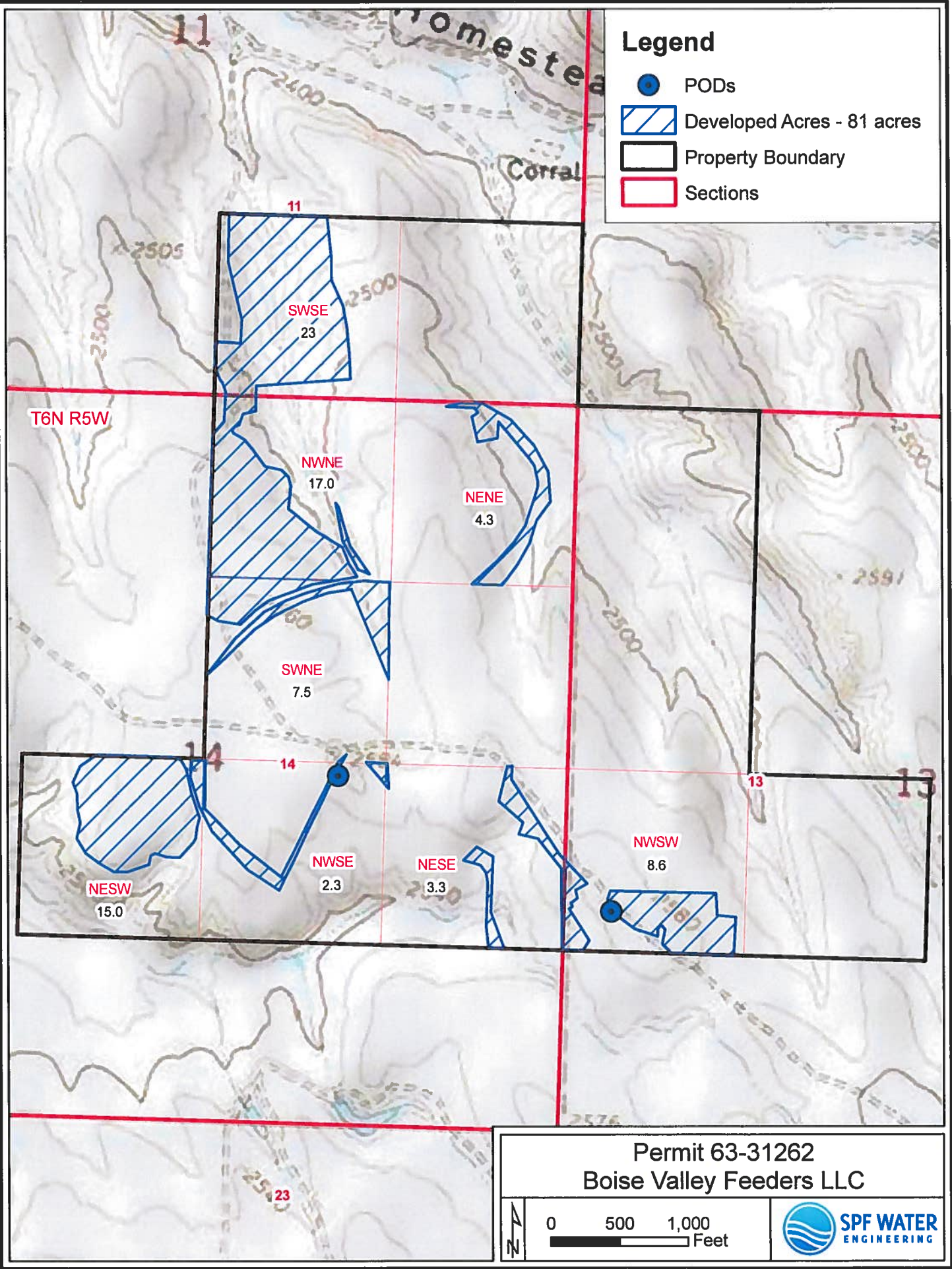


Permit 63-31262
Boise Valley Feeders LLC



Legend

- PODs
- Developed Acres - 81 acres
- Property Boundary
- Sections



Permit 63-31262
Boise Valley Feeders LLC



ATTACHMENT E
PHOTOS



Well 1 (Feedlot Well) – 125 hp pump





Well 2 (Farm Well) – 300 hp pump





Irrigation in SWSE Section 11 (above) and NWNE Section 14 (below)





Irrigation in SESW Section 14 (above) and SWSW Section 13 (below)

