



State of Idaho

DEPARTMENT OF WATER RESOURCES

322 East Front Street • P.O. Box 83720 • Boise, Idaho 83720-0098

Phone: (208) 287-4800 • Fax: (208) 287-6700 • Website: www.idwr.idaho.gov

C.L. "BUTCH" OTTER
Governor

GARY SPACKMAN
Director

August 10, 2016

DERUYTER DAIRY LLC
NICK J AND SUZANNE DERUYTER
PO BOX 580
MARSING ID 83639

RE: Follow-up to Field Exam conducted on June 21, 2016 for 63-12594

Mr. and Mrs. Deruyter:

Thank you for coming in on August 2, 2016 to meet with us in regards to the licensing of Permit 63-12594. This letter is a follow-up to document what was discussed. During the field examination and water right review, there were some discrepancies found on the water rights/permits pertaining to this dairy. The water for the entire dairy operation was being diverted from one well. That well is not identified as an authorized point of diversion for water right 63-31100. The stockwater is being used at the new dairy location. The legal description for 63-31100 does not identify use in this area. The place of use for 63-31100 shows the place of use at the old dairy location south of the new dairy. This will have to be corrected to avoid a violation upon licensing of 63-12594.

The following items will need to be addressed with your water rights before we can move forward with the licensing of permit 63-12594.

- File a Notice of Change of Water Right Ownership for water right 63-31100 and permit 63-12594 with a copy of your conveyance document (property deed) containing a legal description.
- File an Application for Transfer of water right 63-31100 to change the point of diversion to SE $\frac{1}{4}$ NW $\frac{1}{4}$ Sec. 31, Twp 03N, Rge 01W and Stockwater place of use to SE $\frac{1}{4}$ NW $\frac{1}{4}$ Sec. 31, Twp 03N, Rge 01W and NE $\frac{1}{4}$ SW $\frac{1}{4}$ Sec. 31, Twp 03N, Rge 01.

Please note that according to the provisions of Idaho Code §42-248 (1), Water right owners shall provide notice to the department of water resources of any change in ownership within one hundred twenty (120) days of any change using forms acceptable to the director.

Respectfully,


Clay A. Webster
Water Resource Agent

MEMORANDUM

DATE: August 2, 2016

TO: Water Right files 63-31100 and 63-12594

FROM:  Clay Webster

RE: Follow-up to Beneficial Use Field Exam for 63-12594

Mr. Nick and Mrs. Suzanne Deruyter came in to the office today and met with myself and Chad Hersley from the Groundwater Protection Section to discuss some of the things that I found during the field exam performed on June 21, 2016. We discussed the uncontrolled artesian wells located at T03N01W Section 31 NESW and T03N01W Section 31 SWSE. We discussed the requirement in the statutes to have control devices on them.

We also discussed their need to file a transfer on 63-31100. During the field exam I found that the entire dairy operation is currently being diverted out of the POD located at T03N01W Section 31 SENW. This POD is not an authorized POD for 63-31100. Their legal description for the Stockwater Place of Use for this right is T03N01W Section 31 NESW and SESW. The operation is actually being used at T03N01W Section 31 SENW. The legal description for the Irrigation Place of Use under this right is located at T03N01W Section 31 SESW. Currently, there is no irrigation being applied in that $\frac{1}{4}$ $\frac{1}{4}$.

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 63-12594
Exam Date: 6/21/2016

1. Current Owner:
SCHULERLANE FARMS INC 3997 BELL CT NAMPA ID 83686-1411 (208)465-0477
2. Accompanied by: Suzanne Deruyter
Phone No: 697-4626
Address: PO Box 580 Marsing Id 83639
Relationship to Permit Holder: Property Owner

3. **SOURCE:**
GROUND WATER

B. OVERLAP REVIEW

1. Other water rights with the same place of use: This permit falls within the service areas of the City of Nampa and the Nampa Meridian Irrigation District. 63-31100 commercial POU overlaps completely with this permit. However, the stockwater portion of this right only partially overlaps with this permit. They will need to file a transfer for the stockwater portion's POU and the entire right for the POD on 63-31100 in order to make their operation reflect what is actually being done at the dairy.
2. Other water rights with the same point-of-diversion: None

C. DIVERSION AND DELIVERY SYSTEM1. **LOCATION OF POINT(S) OF DIVERSION:**

GROUND WATER SE¼NW¼ Sec. 31, Twp 03N, Rge 01W, B.M. CANYON County

Method of Determination: Well GPS'd at field exam and Verified through ArcMap

2.

PLACE OF USE: COMMERCIAL

Twp	Rge	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
02N	01W	6	X L1	X L2		X													
03N	01W	31			X		X	X L1	X L2	X	X	X L3	X L4	X		X			

PLACE OF USE: STOCKWATER

Twp	Rge	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
03N	01W	31								X	X								

Method of Determination: ArcMap verified at Field exam

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.

Well or Diversion ID No.*	Motor Make	Hp	Motor Serial No.	Pump Make	Pump Serial No. or Discharge Size
A0019163	Unknown	7.5	Unknown	Unknown	Unknown

*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
Pressure gage	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown

2. Measurements:

E. FLOW CALCULATIONS

x Additional Computation Sheets Attached

Measured Method: There was not a way to obtain a measurement on this system without shutting down the Dairy Operation I completed a Permit Dairy Worksheet for the 480 Dairy and 480 Dry cows (Permit Worksheet) and a Dairy Worksheet on the current operation 1350 Dairy cows with no dry cows or heifers (Current Worksheet). Dry cows and heifers are taken to another dairy by Homedale.

Entire operation; they had 1,350 milking cows and no dry cows and no heifers per the owner. Owner also stated that they required 30 gpd per head.

Theoretical Spreadsheet = 0.29 cfs (capacity)
Permit Worksheet Stockwater = 0.37 cfs and
Commercial = 0.10 cfs
total = 0.47cfs
Permit Stockwater = 0.06 cfs
Permit Commercial = 0.10 cfs
total = 0.16 cfs

Normally, I would recommend that the stockwater be limited to 0.06 cfs and commercial to 0.10 cfs for a total of 0.16 cfs.

However, this permit was filed with a water right transfer for the same property, but the legal descriptions on the transfer appear to be incorrect. A new transfer will need to be done to correct the legal descriptions for license 63-31100. If we include the water uses from license

Current Worksheet Stockwater = 0.75 cfs
Licensed Stockwater - 0.23 cfs
0.52 cfs

Recommendation for permit 0.06 cfs stockwater (this with the licensed right will reach the system capacity 0.06 + 0.23 = 0.29 cfs). They currently re-use commercial water for stockwater purposes which reduces the amount needed from that calculated on the current worksheet.

Current Worksheet Commercial = 0.10 cfs
Licensed Commercial - 0.02 cfs
0.08 cfs

Recommendation for permit 0.08 cfs commercial

F. VOLUME CALCULATIONS

Entire operation; they had 1,350 milking cows and no dry cows and no heifers per the owner. Owner also stated that they required 30 gpd per head.

Permit Worksheet Stockwater = 22.6 af
Commercial + 6.2 af
total = 28.8 af

Current Worksheet Stockwater = 45.4 af
 Licensed Stockwater - 32.3 af
 13.1 af

Needed for permit 13.1 af stockwater

Current Worksheet Commercial = 6.2 af
 Licensed Commercial - 3.4 af
 2.8 af

Needed for permit 2.8 af commercial

G. NARRATIVE/REMARKS/COMMENTS:

The well (A0019163) uses a 7 ½ hp pump from a depth of 123-135 ft per well log provided by the land owner. It pumps to a 2 inch galvanized pipe to a large pressure tank measured at 42" X 143" (21 X 21 X 3.14 X 143 = 198017.82/231 = 857.22 gallons). The pressure gage read 52 PSI. It is piped from there through the bulk tank lines for cooling. From there it is piped through 1 ½" PVC pipe through a backflow assembly to the reuse tank outer measurements were (10.83') (17) (10)= 1841.1 cu ft. X 7.48 = 13,771. Probably a 13,500 gallon tank. It had a 35 gal pressure tank. It was pumped from there to the stock tanks and to the milking/staging area using two 2hp pumps with a pressure reading of 15 PSI. Mrs. Deruyter informed us that they had 1350 head of Holstein milking cows that required 30 GPD each for stockwater. They currently had no heifers and no dry cows at this location. Since there had been no field exam performed since the transfer of WR 63-31100, we located all of the PODs for this right also. We found that they had a well located in the SWNENW of 03N 01W that was not hooked up to power and had no flow which is not associated with any WR or permit (tagged with A0019165). The three PODs for 63-31100 were reflected accurately on the water right file. They were tagged for easy identification. One well located in the NESW of Sec 31 in 03N01W (legal description incorrect of SESW of Sec 31 in 03N01W) is the well that provides water to the house just North of the well and was tagged with A0019169. This well had a 1 ½ hp pump and the flow was controlled. The next well was located in the NESW of Sec 31 in 03N01W (tagged with A0019167). This well was piped through a 10 HP pump that was not connected to electricity. It had a flowing discharge valve going into a concrete irrigation box. It also had a 10" pipe running SE from this pump toward Indian Creek. There was no valve to control the flow diverted down this pipe. The owner was informed of the requirement to control the flow of any artesian flowing well. Upon further investigation, I found that there was no irrigation component of this right associated with the area that was being irrigated from this box. The acres irrigated from this box are from surface water shares through the Nampa Meridian Irrigation District. The last well was located in the SWSE of Sec 31 in 03N01W (tagged with A009168). This well had no sanitary seal nor control valve of any kind. The owner was informed of these requirements as well.

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>
STOCKWATER	01/01 to 12/31	0.06 CFS	15.9 AF
COMMERCIAL	01/01 to 12/31	0.08 CFS	15.9 AF
	<u>Totals:</u>	0.14 CFS	15.9 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 x None

I. AUTHENTICATION: Clay Webster Water Resource Agent

Field Examiner's Name Clay Webster Date Aug 2, 2016

Reviewer _____ Date _____

State of Idaho
Department of Water Resources
Attachment to Field Exam
63-12594

This map depicts the COMMERCIAL place of use boundary for this water right at the time of this exam



● Point of Diversion

Place Of Use Boundary

Townships

PLS Sections

0 0.2 0.4 0.8 Miles



State of Idaho
Department of Water Resources
Attachment to Field Exam
63-12594

This map depicts the STOCKWATER place of use boundary for this water right at the time of this exam.

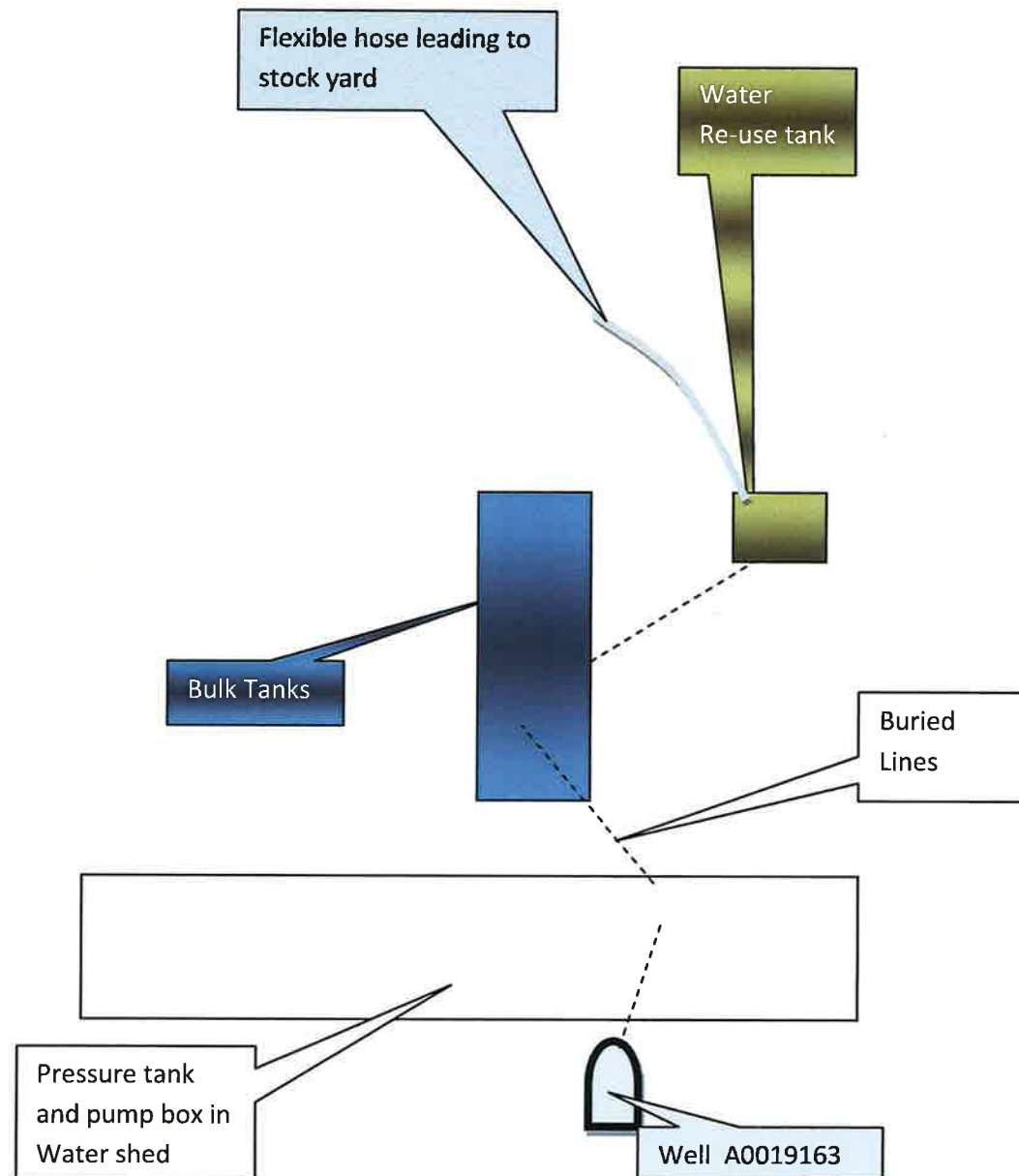


-  Point of Diversion
-  Place Of Use Boundary
-  Townships
-  PLS Sections

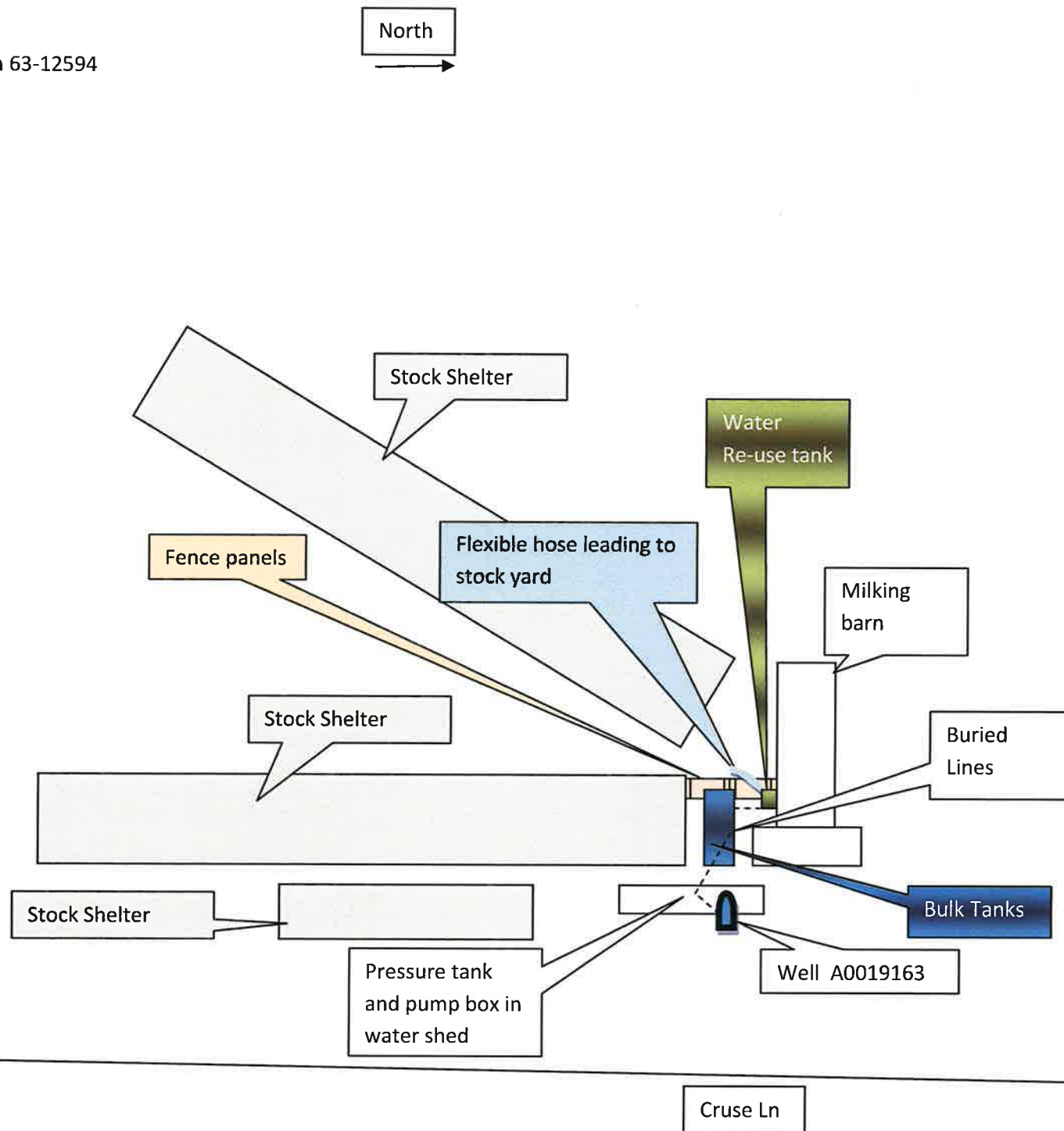
0 0.05 0.1 0.2 Miles



System Diagram 63-12594



System Diagram 63-12594



THEORETICAL HORSEPOWER EQUATION WORKSHEET (cjh 1/92)

Water Right No.: 63-12594
Reviewer: Clay Webster
Date of Review: 7/26/2016

P/D No.: Senerio 1

PUMP HORSEPOWER	7.5
BOOSTER HORSEPOWER	0
PUMPING LEVEL	40
DISCHARGE PRESSURE	52
RATE OF FLOW (cfs)	0.29
(gpm)	129.5

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:

According to the well log provided by the land owner, the static water level was 20 ft (plausible since there are three artesian wells on the property) There was a 20 ft drawdown during a pump test o the well-drillers report. 20 + 20 = 40 ft pumping level

WELL DRILLER'S REPORT

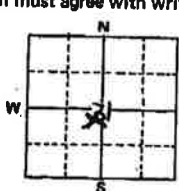
State law requires that this report be filed with the State Reclamation Engineer JUL 6 1970
within 30 days after completion or abandonment of the well.

RECEIVED

RECEIVED

JUN 21 2016

DEPARTMENT OF
WATER RESOURCES

1. WELL OWNER Name <u>Carl Schuler</u> Address <u>Pt 6thampa Idaho</u> Owner's Permit No. _____		7. WATER LEVEL Department of Water Administration Static water level <u>20</u> feet below land surface Flowing? ☐ Yes ☒ No G.P.M. flow _____ Temperature _____ ° F. Quality _____ Artesian closed-in pressure _____ p.s.i. Controlled by ☐ Valve ☐ Cap ☐ Plug																																															
2. NATURE OF WORK ☒ New well ☐ Deepened ☐ Replacement ☐ Abandoned (describe method of abandoning) _____		8. WELL TEST DATA ☐ Pump ☐ Bailor ☒ Other <u>aircomp.</u> Discharge G.P.M. <u>200</u> Draw Down <u>20 ft</u> Hours Pumped <u>2 hrs</u>																																															
3. PROPOSED USE ☐ Domestic ☐ Irrigation ☐ Test ☐ Municipal ☐ Industrial ☒ Stock		9. LITHOLOGIC LOG 033917 <table border="1"><thead><tr><th rowspan="2">Hole Diam.</th><th colspan="2">Depth</th><th rowspan="2">Material</th><th colspan="2">Water</th></tr><tr><th>From</th><th>To</th><th>Yes</th><th>No</th></tr></thead><tbody><tr><td>8</td><td>0</td><td>3</td><td>soil</td><td></td><td>X</td></tr><tr><td>11</td><td>3</td><td>38</td><td>hard clay</td><td></td><td>X</td></tr><tr><td></td><td>38</td><td>105</td><td>Basalt & Rock</td><td></td><td>X</td></tr><tr><td></td><td>105</td><td>104</td><td>red clay</td><td></td><td>X</td></tr><tr><td></td><td>104</td><td>125</td><td>cemented gravel</td><td></td><td>X</td></tr><tr><td></td><td>125</td><td>135</td><td>gravel</td><td>X</td><td></td></tr></tbody></table>		Hole Diam.	Depth		Material	Water		From	To	Yes	No	8	0	3	soil		X	11	3	38	hard clay		X		38	105	Basalt & Rock		X		105	104	red clay		X		104	125	cemented gravel		X		125	135	gravel	X	
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4. METHOD DRILLED ☒ Cable ☐ Rotary ☐ Dug ☐ Other																																																	
5. WELL CONSTRUCTION Diameter of hole <u>6</u> inches Total depth <u>135</u> feet Casing schedule: ☒ Steel ☐ Concrete <table border="1"><thead><tr><th>Thickness</th><th>Diameter</th><th>From</th><th>To</th></tr></thead><tbody><tr><td><u>.250</u> inches</td><td><u>8</u> inches</td><td><u>1+</u> feet</td><td><u>34</u> feet</td></tr><tr><td><u>.250</u> inches</td><td><u>6</u> inches</td><td><u>1+</u> feet</td><td><u>135</u> feet</td></tr><tr><td>_____ inches</td><td>_____ inches</td><td>_____ feet</td><td>_____ feet</td></tr><tr><td>_____ inches</td><td>_____ inches</td><td>_____ feet</td><td>_____ feet</td></tr><tr><td>_____ inches</td><td>_____ inches</td><td>_____ feet</td><td>_____ feet</td></tr></tbody></table> Was a packer or seal used? ☐ Yes ☒ No Perforated? ☒ Yes ☐ No How perforated? ☒ Factory ☐ Knife ☐ Torch Size of perforation <u>3/16</u> inches by <u>3</u> inches <table border="1"><thead><tr><th>Number</th><th>From</th><th>To</th></tr></thead><tbody><tr><td><u>78</u> perforations</td><td><u>123</u> feet</td><td><u>133</u> feet</td></tr><tr><td>_____ perforations</td><td>_____ feet</td><td>_____ feet</td></tr><tr><td>_____ perforations</td><td>_____ feet</td><td>_____ feet</td></tr></tbody></table> Well screen installed? ☐ Yes ☒ No Manufacturer's name _____ Type _____ Model No. _____ Diameter _____ Slot size _____ Set from _____ feet to _____ feet Diameter _____ Slot size _____ Set from _____ feet to _____ feet Gravel packed? ☐ Yes ☒ No Size of gravel _____ Placed from _____ feet to _____ feet Surface seal? ☒ Yes ☐ No To what depth <u>28</u> feet Material used in seal ☐ Cement grout ☒ Puddling clay		Thickness	Diameter	From	To	<u>.250</u> inches	<u>8</u> inches	<u>1+</u> feet	<u>34</u> feet	<u>.250</u> inches	<u>6</u> inches	<u>1+</u> feet	<u>135</u> feet	_____ inches	_____ inches	_____ feet	_____ feet	_____ inches	_____ inches	_____ feet	_____ feet	_____ inches	_____ inches	_____ feet	_____ feet	Number	From	To	<u>78</u> perforations	<u>123</u> feet	<u>133</u> feet	_____ perforations	_____ feet	_____ feet	_____ perforations	_____ feet	_____ feet												
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6. LOCATION OF WELL Sketch map location must agree with written location.  County <u>Canyon</u> NE 1/4 SW 1/4 Sec. 31 T. 2 N. R. 1 E/W		10. Work started <u>Nov 20-69</u> finished <u>Dec 11-69</u>																																															
		11. DRILLER'S CERTIFICATION This well was drilled under my supervision and this report is true to the best of my knowledge. <u>Jesse Doty Well Drilling 40th</u> Driller's or Firm's Name <u>Pt 3rdampa Idaho</u> Number _____ Address _____ Signed By <u>Jesse Doty</u> Date <u>Jan 10-70</u>																																															

DAILY FRESH WATER REQUIREMENT FOR DAIRY FACILITY

Date: July 26, 2016
 Water Right Number: 63-12594
 Water Right Holder: Deruyter Dairy
 Prepared By: Clay Webster

STOCKWATER REQUIREMENTS

Animal Type	Number of Animals	GPD/head (per Owner or From IDWR Standards)	Total GPD (Number of Animals X GPD/Head)	Total AFA (Total GPD X 365 Days / 325850)	GPM if Diverted in 2 Hrs. (GPD / 120 Min.)	CFS if Diverted in 2 Hrs. (GPM / 448.8)
MILKING/LACTATING COWS	480	30	14,400	16.1	120	0.27
DRY COWS		12	0	0.0	0	0.00
HEIFERS/REPLACEMENT	480	12	5,760	6.5	48	0.11
TOTAL =			20,160	22.6	168	0.37

Stockwater Annual Volume Needed in AF = 22.6 AF

Stockwater Diversion Rate Needed in CFS = 0.37 CFS

COMMERCIAL RATE & VOLUME REQUIREMENT

Wash Pen Requirements

GPM Per Nozzle (Per Owner or IDWR Standards)	Number of Nozzels	Total Gpm (GPM/Nozzel X Number of Nozzels)	Minutes per Day Wash Pen Used	Total GPD (Total GPM X Minutes Used)	Total AFA (Total GPD X 365 days / 325850)
7.80	0	0	96	0	0.0

Milking Parlor Requirements

Item	Gals/ Operation	Operations/Day (Per Owner or IDWR Standards)	Total GPD (Gals/ Operation X Operations / Day)	Total AFA (Total GPD X 365 Days / 325850)	GPM if Diverted in 2 Hrs. (GPD / 120 Min.)	CFS if Diverted in 2 Hrs. (GPM / 448.8)
BULK TANK	800	1	800	0.9	7	0.01
COW PREP	720	1	720	0.8	6	0.01
PIPELINES	0	0	0	0.0	0	0.00
PARLOR CLEANUP	2,000	1	2,000	2.2	17	0.04
WASHPEN CLEANUP	1,000	1	1,000	1.1	8	0.02
<other>	0		0	0.0	0	0.00
<other>			0	0.0	0	0.00
Total Milking Parlor Use	4,520.00			5.1	38	0.08

HOSPITAL BARN USE

Item	Gals/ Operation	Operations/Day (Per Owner or IDWR Standards)	Total GPD (Gals/ Operation X Operations / Day)	Total AFA (Total GPD X 365 Days / 325850)	GPM if Diverted in 2 Hrs. (GPD / 120 Min.)	CFS if Diverted in 2 Hrs. (GPM / 448.8)
BULK TANK	0.0	0	0	0.0	0	0.00
COW PREP	0.0	0	0	0.0	0	0.00
PIPELINES	0.0	0	0	0.0	0	0.00
PARLOR CLEANUP	0.0	2	0	0.0	0	0.00
WASHPEN CLEANUP	0.0	2	0	0.0	0	0.00
<other>			0	0.0	0	0.00
<other>			0	0.0	0	0.00
Total Milking Parlor Use	0.00			0.0	0	0.00

DAILY FRESH WATER REQUIREMENT FOR DAIRY FACILITY

MISCELLANEOUS USES

Item	Gal/ Operation	Operations/Day (Per Owner or IDWR Standards)	Total GPD (Gals/ Operation X Operations / Day)	Total AFA (Total GPD X 365 Days / 325850)	GPM if Diverted in 2 Hrs. (GPD / 120 Min.)	CFS if Diverted in 2 Hrs. (GPM / 448.8)
TOWEL WASHING	0	0.00	0.00	0.00	0	0.00
# of EMPLOYEES			0.00	0.00	0	0.00
SHOWERS & RESTROOMS (Fixtures)	0	0.00	0.00	0.00	0	0.00
MAINTENANCE SHOP	1,000	1.00	1,000.00	1.12	8	0.02
<other>			0.00	0.00	0	0.00
<other>			0.00	0.00	0	0.00
TOTAL MISCELLANEOUS USES	1,000.00		1,000.00	1.12	8	0.02

Commercial Diversion Rate Required if Diverted in 2 Hrs. in CFS = **0.10 CFS**

Commercial Annual Volume Required in AF = **6.2 AF**

SUMMARY OF WATER USE

Stockwater Volume Requirement in AF =	22.6
Commercial Annual Volume Requirement in AF =	6.2
TOTAL VOLUME REQUIRED =	28.8

Stockwater Diversion Rate Requirement in CFS =	0.37
Commercial Diversion Rate Requirement in CFS =	0.10
TOTAL DIVERSION RATE REQUIRED =	0.48

Please Note: The diversion rate calculated in this spreadsheet is based on diverting all of the water needed in a 2-hour period Per Processing Administrative Memo #3. The actual diversion rate should be determined by performing an actual measurement on the system and/or a theoretical calculation. The diversion rate shown above is only included to show the maximum diversion rate that would be required for this size of dairy operation.

RECEIVED**JUN 21 2016****Comments on Bionutrients**

No Comments

DEPARTMENT OF
WATER RESOURCES**Dairy Water Values**

Dairy Water Values			
Dairy Process Water:	800	Milk Parlor Cleaning Water:	2000
Dairy Parlor Water:	600	Hose Volume:	0
Bulk Tank Water:	200	Flush Volume:	0
Cow Prep Water:	720	Deck Flush Volume:	2000
Automatic Backflush:	0	Other Volume:	0
Sprinkler Volume:	0	Holding Pen Cleaning Water:	1000
Manual Cow Prep:	720	Hose Volume:	0
Dairy Equipment Water:	0	Flush Volume:	1000
Compressor Water:	0	Other Volume:	0
Vacuum Pump Water:	0	Freestall/Alley Flush:	0
Pre-Cooler Water:	0	Excess Water	
Glycol Chiller Water:	0	Cow Water:	0
Miscellaneous Equipment Water:	1000	Group 1:	0
Washing Machine Water:	0	Group 2:	3000
Miscellaneous Water:	0		
Milkhouse Water	1000	Total Dairy Water:	5520

Bulk Tank(s)		
Bulk Tank ID	Size	Volume
1	6000	100
2	6000	100

Comments

No Comments

MANURE STORAGE SUMMARY

Total Liquid Capacity Required		
Bio-Nutrient Group	Cubic Feet	% Contained
Waste Storage Pond(s)	318,864	100%

DAILY FRESH WATER REQUIREMENT FOR DAIRY FACILITY

Date: July 26, 2016
 Water Right Number: 63-12594 entire operation
 Water Right Holder: Deruyter Dairy
 Prepared By: Clay Webster

STOCKWATER REQUIREMENTS

Animal Type	Number of Animals	GPD/head (per Owner or From IDWR Standards)	Total GPD (Number of Animals X GPD/Head)	Total AFA (Total GPD X 365 Days / 325850)	GPM if Diverted in 2 Hrs. (GPD / 120 Min.)	CFS if Diverted in 2 Hrs. (GPM / 448.8)
MILKING/LACTATING COWS	1,350	30	40,500	45.4	338	0.75
DRY COWS	0	12	0	0.0	0	0.00
HEIFERS/REPLACEMENT	0	12	0	0.0	0	0.00
TOTAL =			40,500	45.4	338	0.75

Stockwater Annual Volume Needed in AF = 45.4 AF

Stockwater Diversion Rate Needed in CFS = 0.75 CFS

COMMERCIAL RATE & VOLUME REQUIREMENT

Wash Pen Requirements

GPM Per Nozzle (Per Owner or IDWR Standards)	Number of Nozzels	Total Gpm (GPM/Nozzel X Number of Nozzels)	Minutes per Day Wash Pen Used	Total GPD (Total GPM X Minutes Used)	Total AFA (Total GPD X 365 days / 325850)
7.80	0	0	96	0	0.0

Milking Parlor Requirements

Item	Gals/ Operation	Operations/Day (Per Owner or IDWR Standards)	Total GPD (Gals/ Operation X Operations / Day)	Total AFA (Total GPD X 365 Days / 325850)	GPM if Diverted in 2 Hrs. (GPD / 120 Min.)	CFS if Diverted in 2 Hrs. (GPM / 448.8)
BULK TANK	800	1	800	0.9	7	0.01
COW PREP	720	1	720	0.8	6	0.01
PIPELINES	0	0	0	0.0	0	0.00
PARLOR CLEANUP	2,000	1	2,000	2.2	17	0.04
WASHPEN CLEANUP	1,000	1	1,000	1.1	8	0.02
<other>	0		0	0.0	0	0.00
<other>	4,520		0	0.0	0	0.00
Total Milking Parlor Use				5.1	38	0.08

HOSPITAL BARN USE

Item	Gals/ Operation	Operations/Day (Per Owner or IDWR Standards)	Total GPD (Gals/ Operation X Operations / Day)	Total AFA (Total GPD X 365 Days / 325850)	GPM if Diverted in 2 Hrs. (GPD / 120 Min.)	CFS if Diverted in 2 Hrs. (GPM / 448.8)
BULK TANK	0.0	0	0	0.0	0	0.00
COW PREP	0.0	0	0	0.0	0	0.00
PIPELINES	0.0	0	0	0.0	0	0.00
PARLOR CLEANUP	0.0	2	0	0.0	0	0.00
WASHPEN CLEANUP	0.0	2	0	0.0	0	0.00
<other>			0	0.0	0	0.00
<other>			0	0.0	0	0.00
Total Milking Parlor Use				0.0	0	0.00

DAILY FRESH WATER REQUIREMENT FOR DAIRY FACILITY

MISCELLANEOUS USES

Item	Gal/ Operation	Operations/Day (Per Owner or IDWR Standards)	Total GPD (Gals/ Operation X Operations / Day)	Total AFA (Total GPD X 365 Days / 325850)	GPM if Diverted in 2 Hrs. (GPD / 120 Min.)	CFS if Diverted in 2 Hrs. (GPM / 448.8)
TOWEL WASHING	0	0.00	0.00	0.00	0	0.00
# of EMPLOYEES			0.00	0.00	0	0.00
SHOWERS & RESTROOMS (Fixtures)	0	0.00	0.00	0.00	0	0.00
MAINTENANCE SHOP	1,000	1.00	1,000.00	1.12	8	0.02
<other>			0.00	0.00	0	0.00
<other>			0.00	0.00	0	0.00
TOTAL MISCELLANEOUS USES			1,000.00	1.12	8	0.02

Commercial Diversion Rate Required if Diverted in 2 Hrs. in CFS =	0.10 CFS
Commercial Annual Volume Required in AF =	6.2 AF

SUMMARY OF WATER USE

Stockwater Volume Requirement in AF =	45.4
Commercial Annual Volume Requirement in AF =	6.2
TOTAL VOLUME REQUIRED =	51.5

Stockwater Diversion Rate Requirement in CFS =	0.75
Commercial Diversion Rate Requirement in CFS =	0.10
TOTAL DIVERSION RATE REQUIRED =	0.85

Please Note: The diversion rate calculated in this spreadsheet is based on diverting all of the water needed in a 2-hour period Per Processing Administrative Memo #3. The actual diversion rate should be determined by performing an actual measurement on the system and/or a theoretical calculation. The diversion rate shown above is only included to show the maximum diversion rate that would be required for this size of dairy operation.



Well head A0019163 WR 63-12594



Pump power box



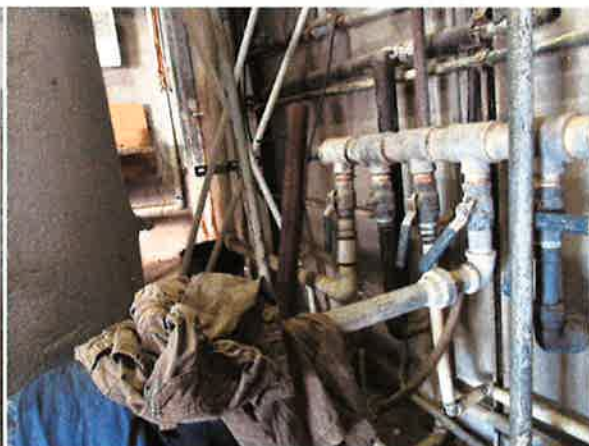
Inside pump power box for Well 7 1/2 HP



Pressure tank 42 inch X 143 inch



System Pressure 51 PSI



Lines from pressure tank to milking barn and bulk storage tanks



Bulk milk tanks



Pressure from pumps to stock yard



2 ea 2 hp pumps from re-use tank to stock-yard and barn



Inside of room next to re-use stock tank (130"X 204" X 120")



Backflow preventer inside re-use pump room



35 gal pressure tank in reuse tank pump room



Stock yard



This well was not connected to power located at T03NR01WS31 NENW (possibly from Water Right 63-8719 disallowed) tagged with A0019165



Artesian well for WR 63-31100 1 1/2 hp Grundfos pump located at T03NR01WS31 NESW



Grundfos pump not running maintaining 71 PSI



25 gal pressure tank



Control valve for this well



Artesian well for WR 63-31100 (no power hooked) up discharging into irrigation box Control valve between well and irrigation box 10" pipe running southerly discharging to Indian Creek located in T03NR01WS31 NESW



10 HP Pump



Inside irrigation box



This well was tagged with A0019167



Irrigation box from well



Webster, Clay

From: Suzanne DeRuyter [nsderuyter@gmail.com]
Sent: Friday, July 29, 2016 12:19 PM
To: Webster, Clay
Subject: Re: Permit 63-12594 and WR 63-31100

Okay, great. Thank you!

Suzanne

> On 29 Jul 2016, at 9:36 AM, Webster, Clay <Clay.Webster@idwr.idaho.gov> wrote:
>
> Suzanne,
>
> I will set up the meeting. Dan will not be able to attend. If you can bring in your conveyance document (property deed with the legal description), Notice of Change of Ownership form and Assignment of Permit form, we will be able to start the process on the ownership change for water right 63-31100 and the assignment of permit for 63-12594. Thanks.
>
>
> Sincerely,
> Clay Webster
> Water Resource Agent
> clay.webster@idwr.idaho.gov
> 208-287-4910
> Idaho Department of Water Resources (IDWR)
>
>
>
> -----Original Message-----
> From: Suzanne DeRuyter [<mailto:nsderuyter@gmail.com>]
> Sent: Friday, July 29, 2016 8:38 AM
> To: Webster, Clay
> Subject:
>
> Can we try for Tuesday morning at 10?
>
> Have a great weekend!
>
> Suzanne.
>
>

Webster, Clay

From: Suzanne DeRuyter [deruyterdairyid@gmail.com]
Sent: Thursday, July 28, 2016 8:58 AM
To: Webster, Clay
Subject: Re: Meeting about Permit 63-12594

I will let you know by tomorrow what day and time. I am out of town and will check with my husband in the meantime. Thank you and have a good day!

Suzanne

> On 27 Jul 2016, at 7:47 AM, Webster, Clay <Clay.Webster@idwr.idaho.gov> wrote:
>
> Suzanne,
>
> Next week will be fine. Tuesday and Wednesday afternoon will not work for us. Pick any other time and let me know and I will set up a room for the meeting. Thanks
>
> Clay
>
> -----Original Message-----
> From: Suzanne DeRuyter [<mailto:deruyterdairyid@gmail.com>]
> Sent: Tuesday, July 26, 2016 4:39 PM
> To: Webster, Clay
> Subject: Re: Meeting about Permit 63-12594
>
> I give up!! I am gone all day tomorrow through Friday now. How about the following week. I think it is all open.
>
> Thank you,
>
> Suzanne
>
>
>> On 25 Jul 2016, at 3:19 PM, Webster, Clay <Clay.Webster@idwr.idaho.gov> wrote:
>>
>> Suzanne,
>>
>> We are available tomorrow from 10:00 AM through 4:00 PM. Wednesday we will have the day open.
>>
>> Clay
>>
>> -----Original Message-----
>> From: Suzanne DeRuyter [<mailto:deruyterdairyid@gmail.com>]
>> Sent: Wednesday, July 20, 2016 11:44 AM
>> To: Webster, Clay
>> Subject: Re: Meeting about Permit 63-12594
>>
>> Hi Clay:
>>
>> It appears that Nick will be gone Thursday and I hate to set up any time for Friday to avoid any inconveniences with your schedule. Would it be okay with you if we tried for the

first of next week. Let me know some days and times (Mon-Tues d, mornings or afternoon is a good start). Thanks for your PATIENCE!

>>

>> Have a fantastic day!

>>

>> Suzanne DeRuyter

>>

>> Sent from my iPad

>>

>>> On Jul 19, 2016, at 1:20 PM, Webster, Clay <Clay.Webster@idwr.idaho.gov> wrote:

>>>

>>> Suzanne,

>>>

>>> Sorry about the delay, I was out of the office yesterday. I have Thursday morning or Friday between 12 and 3 pm available this week. Let me know what works for you. Thanks.

>>>

>>> Sincerely,

>>> Clay Webster

>>> Water Resource Agent

>>> clay.webster@idwr.idaho.gov

>>> 208-287-4910

>>> Idaho Department of Water Resources (IDWR)

>>>

>>>

>>>

>>> -----Original Message-----

>>> From: Suzanne DeRuyter [<mailto:deruyterdairyid@gmail.com>]

>>> Sent: Monday, July 18, 2016 10:40 AM

>>> To: Webster, Clay

>>> Subject:

>>>

>>> Good morning, Clay!

>>>

>>> What does this week look like for you to meet? We shouldn't have any conflicts except tomorrow morning. I apologize for all the inconveniences on meeting. You can give me some days and times and we will just make it work. Thank you!

>>>

>>> Suzanne DeRuyter

Webster, Clay

From: Webster, Clay
Sent: Monday, July 11, 2016 7:49 AM
To: 'Suzanne DeRuyter'
Subject: RE: Happy Valley Dairy

Suzanne,

We do not have an opening on Wednesday. Would you be available for Friday morning at 9:00 AM?

Clay

From: Suzanne DeRuyter [<mailto:deruyterdairyid@gmail.com>]
Sent: Friday, July 08, 2016 5:00 PM
To: Webster, Clay
Subject: Re: Happy Valley Dairy

Hello Clay,

I just realized that on Tuesday we have another appointment at that time. Can we make it for Wednesday morning instead?

Thank you and have a good weekend!

Suzanne

Sent from my iPad

On Jul 6, 2016, at 8:49 AM, Webster, Clay <Clay.Webster@idwr.idaho.gov> wrote:

Suzanne,

That sounds good I'll get it set up at this end. We are located at the corner of Broadway and Front Street. The address is 322 E Front Street. If you go to the 6th floor and let the receptionist know that you are here to see me. I'll come and bring you to our conference room.

Clay

From: Suzanne DeRuyter [<mailto:deruyterdairyid@gmail.com>]
Sent: Wednesday, July 06, 2016 8:47 AM
To: Webster, Clay
Subject: Re: Happy Valley Dairy

Morning is good. 10 ??

Sent from my iPad

On Jul 6, 2016, at 8:26 AM, Webster, Clay <Clay.Webster@idwr.idaho.gov> wrote:

Good morning, Suzanne.

We can set it up for Tuesday the 12th if you would like. What time would work the best for you?

Clay

From: Suzanne DeRuyter [<mailto:deruyterdairyid@gmail.com>]
Sent: Wednesday, July 06, 2016 8:19 AM
To: Webster, Clay
Subject: Re: Happy Valley Dairy

Good morning, Clay.

Just following up to see if we could set up a time next week to meet in your office. Thank you.

Suzanne DeRuyter

Sent from my iPad

On Jun 27, 2016, at 11:44 AM, Webster, Clay <Clay.Webster@idwr.idaho.gov> wrote:

Mrs. DeRuyter,

I attempted to call you back, however your mail box for your phone is full. Please give me a call when you get a chance. Thanks

Sincerely,
Clay Webster
Water Resource Agent
clay.webster@idwr.idaho.gov
208-287-4910
Idaho Department of Water Resources (IDWR)

From: DeRuyter Dairy, LLC [<mailto:deruyterdairyid@gmail.com>]
Sent: Wednesday, June 22, 2016 1:56 PM
To: Webster, Clay; Nelson, Dan
Subject: Happy Valley Dairy

Hi Clay and Dan:

I just reviewed with my husband, Nick, our visit from yesterday. I would like to see if we could do a quick review with him on the wells at the dairy again. He has some more information to give you on the water/wells. Thank you.

Suzanne DeRuyter
Happy Valley Dairy
697-4626