

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 95-17348
Exam Date: 7/17/2018

1. Current Owner:
HAUSER MMM LLC PO BOX 24331 OAKLAND CA 94623 (510) 893-6476
2. Accompanied by: Mill employee
3. **SOURCE:**
GROUND WATER

TRIBUTARY:**B. OVERLAP REVIEW**

1. Other water rights with the same place of use: 95-14211 (Domestic)
2. Other water rights with the same point-of-diversion: 95-14211

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

GROUND WATER SW¼SE¼ Sec. 19, Twp 51N, Rge 05W, B.M. KOOTENAI County

Method of Determination: Maps and GPS. POD located at -117 00° 545, 47° 44.840 given IDWR tag A0020197

2.

PLACE OF USE: FIRE PROTECTION STORAGE

Twp	Rge	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
51N	05W	19															X		

PLACE OF USE: FIRE PROTECTION

Twp	Rge	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
51N	05W	19												X			X		

DIVERSION TO STORAGE same as FIRE PROTECTION

Method of Determination: Google Earth 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.

Well or Diversion ID No.*	Motor Make	Hp	Motor Serial No.	Pump Make	Pump Serial No. or Discharge Size
95-92-N-37	GRUNFOS	3			

*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
5 GALLON BUCKET						

2. Measurements: 5 gallon bucket performed in average of 8.3 seconds (8.3, 8.3, 8.4)

5 gal / 8.3 sec x 60 sec = 36.1 gpm or 0.08 cfs

E. FLOW CALCULATIONS

Measured Method: A theoretical pumping equation was ☒ Additional Computation Sheets Attached
 performed as verification of the 5 gallon bucket test and was estimated at 36.6 gpm or 0.08 cfs.

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

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

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

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

2. Volume Calculations for Other Uses: See attached pond analysis sheet.

G. NARRATIVE/REMARKS/COMMENTS

Field exam with employee showed a well being used for fire protection and storage. The applicant had stated on the application that there was unknown well serving water for fire protection purposes. Through verification with DEQ and United Crown Pump, a well log was found for the well that was drilled in 1992. The well was drilled for Hauser Lake Lumber under drilling permit 95-92-N-37. There was a 3 hp pump installed in the well with multiple pressure tanks in the well house. A 5 gallon bucket test was taken after the pressure tanks had emptied and filled in an average of 8.3 seconds. A theoretical pumping equation was also performed to verify the bucket test. The two were very similar and equaled 0.08 cfs.

Water was diverted from the well into multiple pressure tanks. From the tanks, water diverted for domestic purposes on the mill (covered under Recommendation 95-14211). Water was also used to fill a fire protection pond that was equal to 1.2 acre-feet (0.2 acres x (15ft x 0.4 = 6ft)). The pond was lined so there was no seepage but there was 0.3 acre-feet of evaporation. From the pond, there was large pump that would be used in case of fire to divert from the pond. There were numerous fire hydrants around the property and fire sprinkler systems inside of the buildings.

The license will be issued for 0.08 cfs with no overall annual volume. There will be an annual volume on the fire protection storage of 1.5 acre-feet. All conditions will remain on license from the permit and condition F06 will be added to clarify that Recommendation 95-14211 and this right are diverted from the same POD. There are no overlap concerns because 95-14211 is for domestic and this right covers the fire protection needs of the property.

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>
DIVERSION TO STORAGE	01/01 to 12/31	0.08 CFS	
FIRE PROTECTION STORAGE	01/01 to 12/31		1.5 AF
FIRE PROTECTION	01/01 to 12/31	0.08 CFS	
<u>Totals:</u>		0.080 CFS	

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

Field Examiner's Name Adam Fink Date 12/21/2018

Reviewer Douglas Jones P.E. Date 1/23/2019

Total Storage Calculations

FILE NUMBER	95-17348
REVIEWER	Adam Frederick
DATE	12/3/2018

This spreadsheet has been designed by Idaho Department of Water Resources to estimate the total seepage, evaporation and fill capacity required for a pond.

User Input
Calculated value
Formula Explanations

Surface Area (AC.)	0.2	"Surface Area" is automatically carried over from the "Seepage Loss" sheet.
Average Pond Depth (FT.)	6	"Average Pond Depth" depicts the actual depth of the pond either measured or estimated. Note: If you know the maximum depth and not the average depth, the Field Examiner's Handbook suggests multiplying the maximum depth by 0.4 to get the average depth, or you can use any method that seems reasonable to attain average depth.
Pond Capacity (AF)	1.2	Pond Capacity is calculated by multiplying the Pond Surface Area by the Average Pond Depth. If you know the capacity, divide the capacity by surface area and enter the average pond depth in the space above. Note: If pond capacity is determined using a method shown on the "Pond Capacity" sheet, the user may need to modify the value of "Pond Capacity" (cell B9) manually. Note that if the value is modified manually, the formula will be altered for future use.
Multiple Fill Volume Above Initial Fill to Fulfill From Storage Needs- "Multiple Fills" (AF)	0	The "Multiple Fill Volume Above Initial Fill" is the acre-feet of water required to meet a <i>from storage</i> component if the <i>from storage</i> component exceeds a one time fill. This section should not include the amount of water needed to fill the pond initially or the amount of water needed to maintain the pond level due to evaporation or seepage. For example: if a pond has a capacity of 5 acre feet and 2.5 acre feet of seepage and evaporation, but the pond is used for irrigation that requires 10 acre feet of from storage for the irrigation use, then you would insert 5 acre feet into this location (10 acre feet needed - 5 acre feet from the initial fill = 5 acre feet of additional storage needed). Note: You must have a "From Storage" component exceeding the initial fill on the permit to include a volume in this space.
Estimated Seepage Loss (AF)	0.0	The "Estimated Seepage Loss" is automatically carried over from the "Seepage Loss" sheet.
Estimated Evaporation Loss (AF)	0.3	The "Estimated Evaporation Loss" is automatically carried over from the "Evaporation Loss" sheet.
Total Volume Required (AF)	1.5	The "Total Volume Required" is calculated by adding the Pond Capacity, Multiple Fills, Seepage Loss, and Evaporation Loss amounts to determine the total amount of storage required.

THEORETICAL PUMPING EQUATION FOR 95-17348

A 5 gallon bucket test was taken when it was believed pressure tanks were empty. 5 gallons filled in 8.3 seconds which is equal to 36.1 gpm or 0.08 cfs. Theoretical pumping equation estimates flow rate at 36.6 gpm or 0.08 cfs.

PUMP EQUATIONS WATER RIGHT No. 95- 17348						
		HP	H in feet	Efficiency as a decimal	Pumping lift in feet	System pressure in PSI
Q =	HP*8.8*Eff/H	3	259.517	0.8	167	40
Q = 0.082 cfs		36.6 gpm				

WELL DRILLER'S REPORT

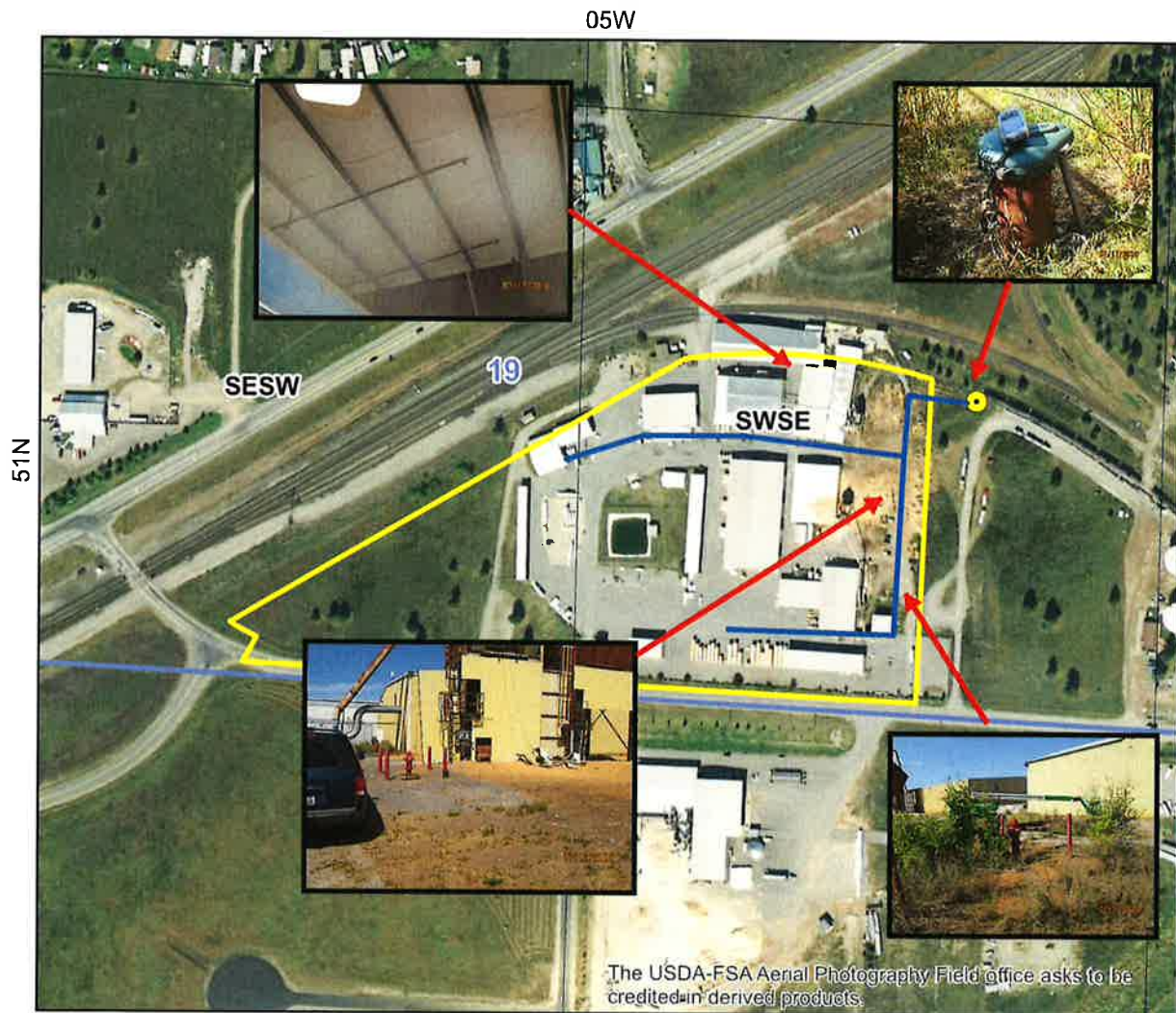
State law requires that this report be filed with the Director, Department of Water Resources within 30 days after the completion or abandonment of the well.

[illegible]

USE ADDITIONAL SHEETS IF NECESSARY — FORWARD THE WHITE COPY TO THE DEPARTMENT

State of Idaho
Department of Water Resources
Attachment to Field Exam
95-17348

FIRE PROTECTION / SYSTEM DIAGRAM



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

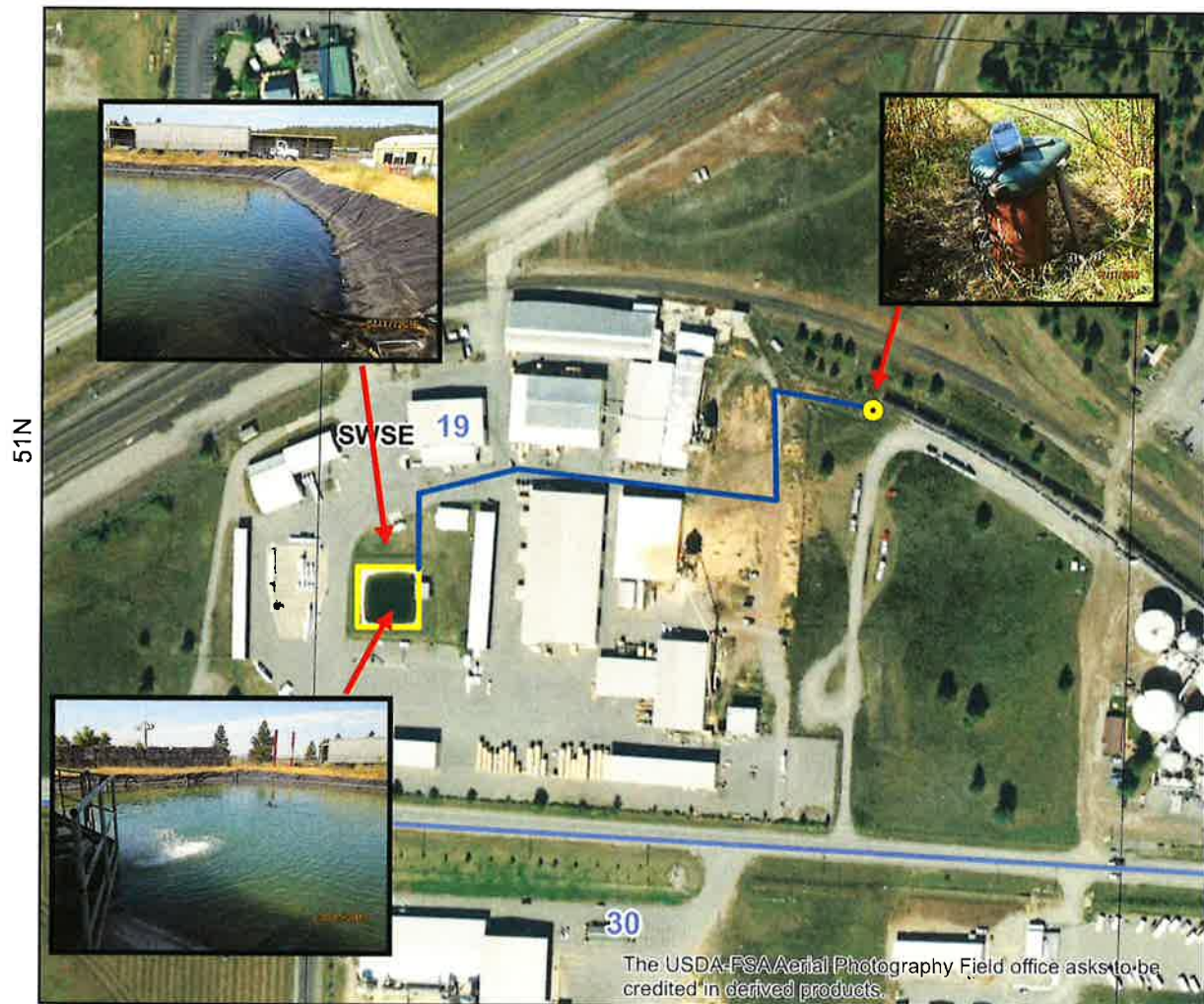
0 0.05 0.1 0.2 Miles



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Department of Water Resources
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FIRE PROTECTION STORAGE / SYSTEM DIAGRAM

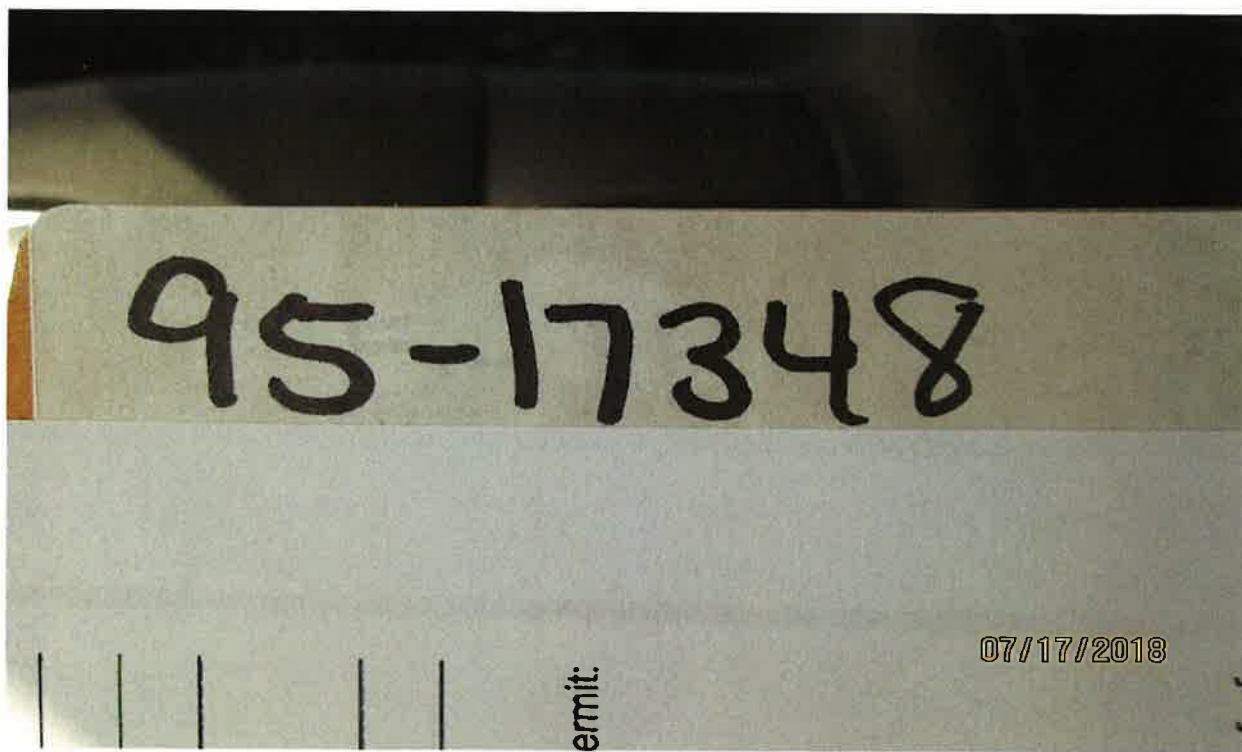
05W



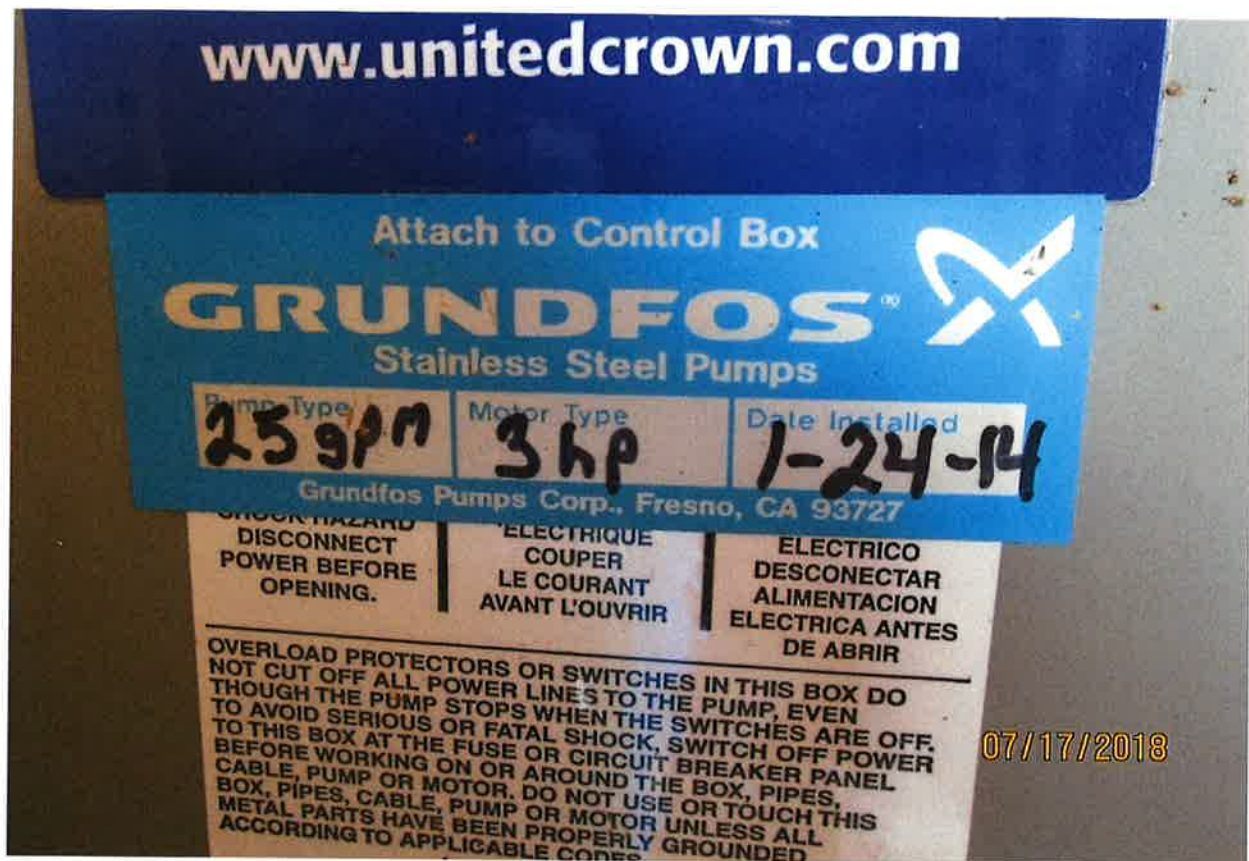
-  Point of Diversion
-  Place Of Use Boundary
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0 0.035 0.07 0.14 Miles





Well for Hauser Lake Lumber 95-92-N-37 given IDWR tag A0020197.



3HP Grundfos pump installed.



Inside of pump room. Unfortunately meter on system was from pressure tanks.



Fire protection.





Fire protection.



Fire protection storage.



Fire protection storage.



Water filling storage from well.