

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 65-23168
Exam Date: 06/15/2018

1. Current Owner:
SEVERANCE SAND & GRAVEL INC PO BOX 644 GARDEN VALLEY ID 83622
2. Accompanied by: Cari and Lyn Severance
Phone No: (208) 462-3005
Address: PO Box 644, Garden Valley, ID 83622
Relationship to permit Holder: Secretary and Owner Operator

3. **SOURCE:**
GROUND WATER

Tributary
SOUTH FORK PAYETTE RIVER

Method of Determination: Visual Inspection and GIS

B. OVERLAP REVIEW

1. Other water rights with the same place of use: YES Overlap

Water Right No.	Source	Purpose of Use	Basis
63-13037	Ground Water	Stockwater	Decree

Comments: Water right 63-13037 is a stockwater right that was decreed on the same pond prior to Severance purchasing the property. No stock has been on the property since the Severance purchased the property.

2. Other water rights with the same point-of-diversion: YES Overlap

Water Right No.	Source	Purpose of Use	Basis
63-13037	Ground Water	Stockwater	Decree

Comments: Water right 63-13037 is a stockwater right that was decreed on the same pond prior to Severance purchasing the property. No stock has been on the property since the Severance purchased the property.

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

GROUND WATER NE¼ SE¼, Sec. 27, Twp 09N, Rge 04E, B.M. BOISE County
GROUND WATER NE¼ SE¼, Sec. 27, Twp 09N, Rge 04E, B.M. BOISE County

Method of Determination: Visual inspection and GIS.

PLACE OF USE: INDUSTRIAL

Twp	Rng	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
09N	04E	27				X									X				0.0

Method of Determination: Visual inspection and GIS.

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
Pond Pump	Baldor	Unknown (Possibly 45Hp)	Unknown	Unknown	B3ZPLM186 7.25 inch impeller
Saddle Tank Pump	Wayne	1.5	1125	Wayne	1 inch discharge pipe
Truck Pump	Emerson	2	XP63GAA	Goulds	GT203

D. FLOW MEASUREMENTS

1.

Measurement Equipment	Type	Make	Model No.	Serial No.	Size	Calib. Date
Panametrics	Polysonic	GE				April 2018

2. Measurements: A flow measurement was made on the Pond Pump with the Panametric Flow meter. The Saddle Pump and Truck Pump could not be included in the measurements. Theoretical calculations were used to ensure the two new pumps would not exceed the diversion rate allowed.

E. FLOW CALCULATIONS☒ YES Additional Computation Sheets Attached

Measured Method:

This permit only authorized a diversion rate of 0.67 cfs for industrial uses. The measurement made on the pump showed it could produce 341 gpm or 0.76 cfs ($341 \text{ gpm} / 448.8 = 0.7598 \text{ cfs}$). This permit should be limited to the permitted rate of 0.67 cfs (see attached sheet for measurement). The Saddle Pump and Truck Pump were installed after proof of beneficial use were filed, and the diversion rate from these pumps should not be authorized by this permit.

I recommend that this permit be limited to 0.67 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:

Please see the attached sheet for the calculation of the volume. I recommend that this permit be licensed for an industrial volume of 13.1 af.

G. NARRATIVE/REMARKS/COMMENTS

This permit was filed for a single pump to divert water to a gravel washing machine, cement mixing machine, and a spigot to wash trucks. The original system did this all through the pond pump. However, the permit holder at a later time buried a large tank to collect shallow ground water for two new pumps that were installed. The buried tank has holes drilled into it to allow shallow ground water to fill the tank. **In order to account for this new point of diversion for these two new pumps, an amendment will be needed to include the two new points of diversions.**

The two new pumps are known as the Saddle Pump and the Truck Pump. The Saddle Pump diverts shallow ground water collected in the perforated buried tank to a Saddle Tank used to mix cement and load the cement into the cement trucks. It takes 500 gallons of water per load to attain the proper mixture of water and cement. They mix approximately 5 loads per day 6 days a week from approximately April 1, to November 30 depending on the weather. They operate approximately 35 weeks a year, but it varies dependent on the season. They can work through the winter if weather is good for a few weeks off and on, so it is best to leave the year round season of use to avoid any issues if they can work for a few weeks earlier in the spring, later in the fall, or for a few weeks in the middle of the winter during a mild winter.

The Truck Pump diverts water from the shallow collection tank to a spigot used to wash out the cement trucks when they return from a job. It takes approximately 800 gallons of water to clean out the cement truck. The number of trucks cleaned is the same as number of loads of cement or approximately 30 trucks a week for 35 weeks for a total of 1,050 washings per year.

The Pond Pump now just diverts water to the gravel washing plant. The water sprays the gravel to clean it, and then the wastewater goes into two settling ponds where the water seeps back into the ground. They generally only wash gravel for 20 – 8 hour days during the season. They can clean a significant amount of gravel for the cement in a short period of time, and they also clean large rocks for septic drain fields when necessary. During the development period, the entire operation was fed by the Pond Pump.

Whereas the Saddle Pump and the Truck Pump were installed after the date proof was submitted in 2009, we can only consider the diversion rate measured in the Pond Pump. This will work, since the diversion rate measured was 341 gpm or 0.75 cfs. The industrial uses in the permit was limited to 0.67 cfs, so the pond pump supplies more water than the permit allowed for industrial uses. The permit did allow additional diversion rate for irrigation, but no irrigation was developed from the pond. The permit also authorizes stockwater, but there has been no stock since the Severance's purchased the property. Water right 65-13037B also appears to authorize stockwater from the pond, so it is unlikely we would be able to authorize any additional stockwater.

The pond where water is diverted in this permit shows up in the 1980 aerial photography and on the topographical maps. The pond is actually bigger in the 1980 to 2006 aerial photos than it currently is, so it has shrunk from its original size. The pond was in place well before the Severance's ever started their gravel extraction operation. Permit 65-13037B authorized stockwater use from this pond with a priority date of 8/3/1992, but it is clear this pond was in place well before that time. The field exam for 65-13037 states that the pond is 26 feet deep, but after visiting the site and speaking to the permit holder, that doesn't seem reasonable. The maximum pond depth is actually 15 feet, and the average depth is 6 feet (15 feet X 2/5 = 6 feet). From the aerial photos and the other information available, this appears to be a natural pond. The permit review states that the pond is the result of gravel extraction and does not need a storage component as long as it doesn't exceed 30 af. Administrative Application Processing Memorandum 67 states that you do not need a permit for gravel extraction from a pond or gravel pit, so storage is not needed on this permit unless the pond is used for some other beneficial use. If livestock use the pond for stockwater in the future or if it is used as an aesthetic feature, then maybe a storage component will be needed to cover the storage of water in the pond if it is enlarged. The pond has actually shrunk through the gravel extraction operation, so the actual size of the pond is less now than it was in the past. The Permit Holder stated during the field exam that they have the authority from the Idaho Department of Lands to excavate the entire area for gravel extraction.

Conditions:

There is a condition that prohibits the drilling of a new well for this permit. The perforated tank really doesn't meet the definition of a new well. There is no casing and the tank isn't buried deeper than 18 feet. The tank is similar to a French Drain or the digging of a new pond. It appears as though the tank is buried to a depth of approximately 15 feet (same as the pond), so I cannot call the tank an actual well. Therefore, the points of diversion can be added to this permit without be in violation of the prohibition of drilling a new well.

All of these diversions are of a size that they will be all on or all off. They can also use the different pumps to adjust the flow rate of each pump. All the pumps can be locked off, so they do comply with the lockable controllable head gate requirement. All of the diversions also have flow measurement devices on them, so that should not be an issue for the watermaster. Please see attached emails for photos of the flow measurement devices install on each pump.

Conditions 004 and 082 will be removed at licensing, since they are no longer necessary. Conditions R63 and X02 will be removed at licensing, since no irrigation or stockwater is recommended under this right. Condition 121 will be changed to condition 103 as is standard. The remaining conditions will be carried forward to licensing.

Have conditions of permit approval been met? ☒ Yes ☐ No

H. RECOMMENDATIONS

1. Recommended Amounts

<u>Beneficial Use</u>	<u>Period of Use</u>	<u>Rate of Diversion</u>	<u>Annual Volume</u>
INDUSTRIAL	01/01 to 12/31	0.67 CFS	13.1 AF
<u>Totals:</u>		0.67 CFS	13.1 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 ☐ None

I. AUTHENTICATION

Dan Nelson - Analyst 3

Field Examiner's Name  Date 6-21-19

Reviewer _____ Date _____

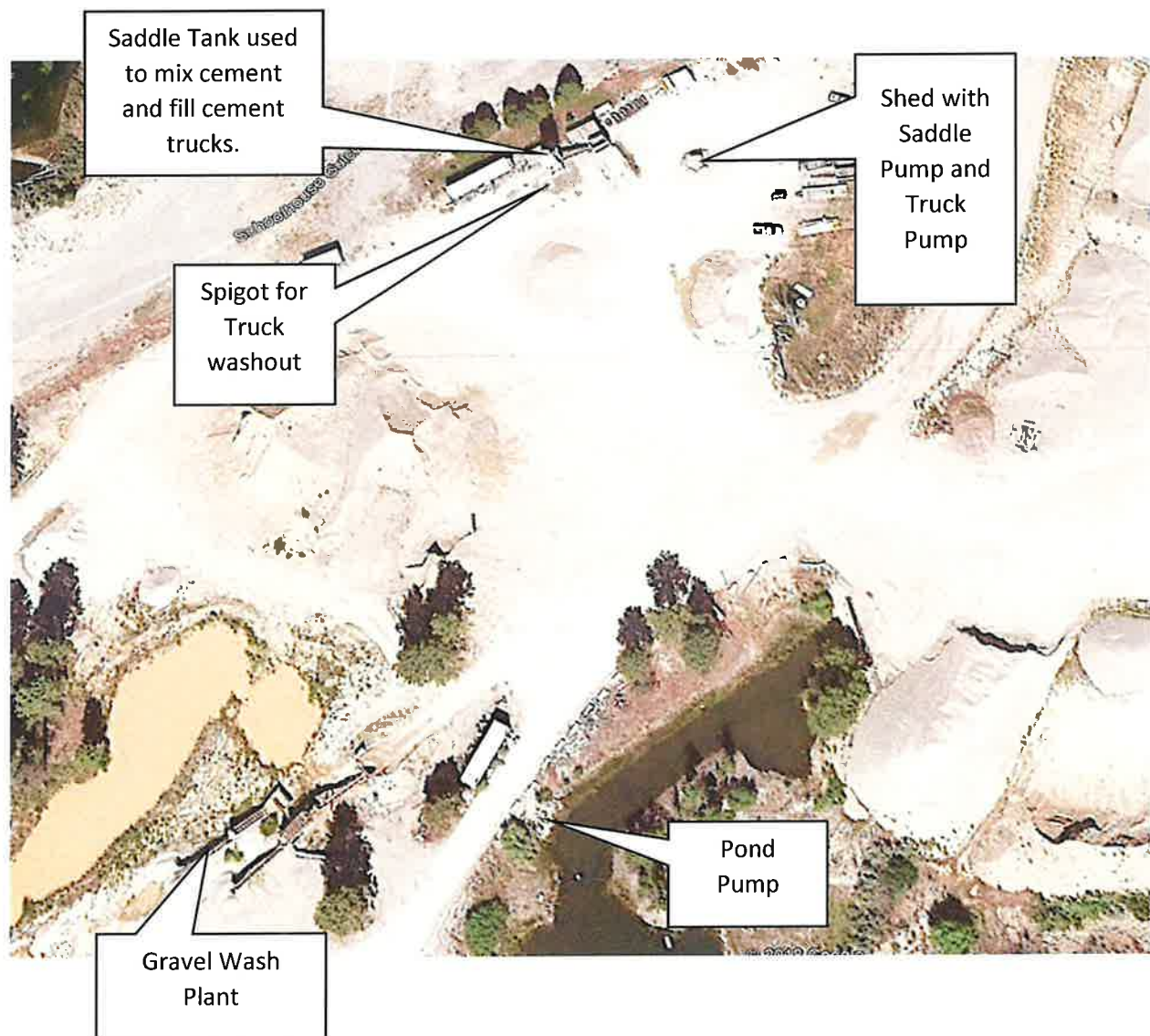
Permit 65-23168 – Field Exam Map

The following 2013 aerial imagery shows the Place of Use in the yellow border. The two points of diversion are shown in yellow. Please see the attached system diagram maps for labeling of the points of diversion.



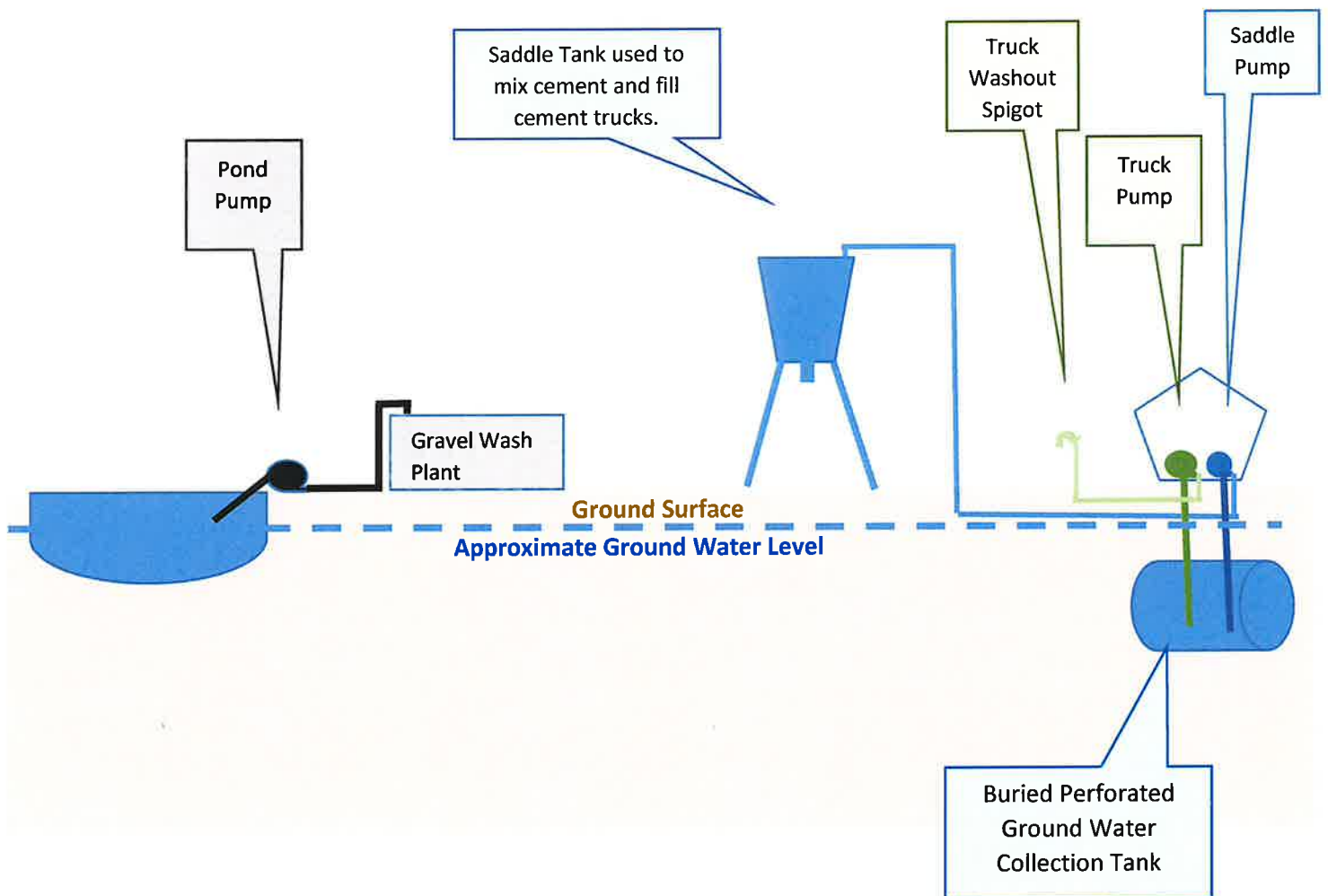
Permit 65-23168 -- System Diagram (Aerial Photo)

There are actually 3 pumps and 2 points of diversion for this system. The 45 Hp Pond Pump diverts water from a pond to the Gravel Wash Plant. The second pump is the 1.5 Hp Saddle Tank Pump. This pumps is used to mix the concrete and fill the trucks with concrete. The third pump is the 2 Hp Truck Pump. The Truck Pump is connected to a spigot that washes out the cement trucks. The Saddle Tank Pump and the Truck Pump divert water from a buried tank in the ground. The tank in the ground is perforated so shallow ground water can enter the tank. After speaking with staff, we determined that the perforated collection tank was a single point of diversion for the Saddle Pump and the Truck Pump. Therefore, there are only two points of diversion.



Permit 65-23168 – System Diagram

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Permit 65-23168 - Industrial Use Volume Calculations

Use	Gallons Per Use	Times Per Day	Days Per Week	Weeks Per Year.	Total Gallons
Cement Mixing	500	5	6	35	525000
Truck Washing	800	5	6	35	840000

Use	Gpm	Hours Per Day	Days Per Year	Total Gallons
Gravel Washing	301	8	20	2889600

Total Gallons	Total Acre Feet
4254600	13.1

File Title: C:\Users\dnelson\Desktop\Copy 1 of LOG01.LOG
 File Name: C:\Users\dnelson\Desktop\Copy 1 of LOG01.LOG
 Start Time: 7/17/2018 12:20
 End Time: 7/17/2018 12:31
 Interval: 60
 Records: 11
 Cyclic Flags: 2
 Error Flags: 8208

Date/Time	Velocity (ft/s)	Volume (gal/m)	(+)Total (gal)	Error #
7/17/2018 12:20	14.59976522	343.4627673	181004.8931	0
7/17/2018 12:21	14.54796513	342.2441585	181335.6475	0
7/17/2018 12:22	14.50305123	341.187549	181684.4406	0
7/17/2018 12:23	14.65626892	344.7920296	182036.151	0
7/17/2018 12:25	14.48193226	340.6907204	182381.0798	0
7/17/2018 12:25	14.43787819	339.6543386	182712.6059	0
7/17/2018 12:26	14.51453105	341.4576144	183047.24	0
7/17/2018 12:27	14.65288013	344.7123077	183398.1425	0
7/17/2018 12:28	13.97440878	328.7511162	183735.7547	0
7/17/2018 12:29	14.13101453	332.4353017	184084.532	0
7/17/2018 12:30	14.68254227	345.410116	184415.9748	0
14.47		340.44	341.11	

THEORETICAL HORSEPOWER EQUATION WORKSHEET (cjh 1/92)

Water Right No.: 65-23168
 Reviewer: Mary Condon and Dan Nelson
 Date of Review: 6/15/2018

P/D No.:

PUMP HORSEPOWER
 BOOSTER HORSEPOWER

PUMPING LEVEL

DISCHARGE PRESSURE

RATE OF FLOW (cfs)

Saddle Pump
1.5
0
15
50
0.07
32

Truck Pump
2
0
15
50
0.09
42

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:

These two pumps replaced a majority of the use for the Pond Pump. They pump water from a perforated tank buried below the ground water level at approximately 15 below the ground surface. The water is then sent under pressure to the cement mixer known as the Saddle Tank, and a Truck Washing system. I used a standard of 50 psi, but I think the pressure on the Truck pump is much higher to provide the needed pressure to wash out inside the cement trucks. Any increase in pressure to these systems would lower the diversion rate, so the combined diversion rate of 0.16 cfs is much less than the original diversion rate supplied by the pond pump of 0.67 cfs.

Total Storage Calculations

FILE NUMBER	65-23168
REVIEWER	Mary Condon and D
DATE	8/17/2018

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.)	0.4	"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)	2.4	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 " <u>From Storage</u> " 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)	0.8	The "Estimated Evaporation Loss" is automatically carried over from the "Evaporation Loss" sheet.
Total Volume Required (AF)	3.2	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.

Flow Rate into Pond (CFS)	1.00	The "Flow Rate into Pond" depicts the actual flow, either measured or estimated, into the pond. For offstream facilities, this will be equivalent to "diversion to storage" rate.
Highest Daily Evaporation Rate From Evaporation Tab. (mm/Day)	5.18	This number is carried over from the "Evaporation Loss" sheet. It is the highest recorded number in the "Precipitation Deficit Table".
Required Daily Maintenance Volume (AF/Day)	0.01	"Required Daily Maintenance Volume" is the maximum volume of water needed on any given day during the year to maintain pond volume. It is calculated by adding the highest daily evaporation loss to the average daily seepage loss in acre feet. The average daily seepage loss is calculated by dividing the "Estimated Seepage Loss" by 365 days. This is acceptable, since the seepage rate shouldn't vary throughout the season unless the pond completely freezes over during the winter months. The highest daily evaporation loss is calculated by dividing the Highest Daily Evaporation Rate by the 304.8 conversion factor and multiplying this number by the pond surface area to attain a combined daily acre feet requirement.
Minimum Maintenance Flow (CFS)	0.00	The "Minimum Maintenance Flow" is the minimum amount of flow required to maintain the level of the pond. This number is determined by dividing the "Maximum Required Daily Maintenance Volume" by 1.9835. This flow can be used to determine if the flow rate into the pond is adequate to maintain the pond level.
Days Required to Fill the Pond	1	The "Days Required to Fill the Pond" is calculated by dividing the "Pond Capacity" by the "Flow Rate" minus "Minimum Maintenance Flow" multiplied by 1.9835. This section will assist you in determining if the flow rate being diverted to the pond is adequate to fill the pond while maintaining the pond level. The length of time to fill the pond will help determine if the flow rate is adequate for the size of pond being proposed. <i>If this number is approximately 6 months (180 days) or more, the reviewer should have a discussion with the applicant to make sure he/she understands that it will take a significant length of time to fill the pond.</i>
Days Required to Fill the Pond at 13,000 Gallons per Day	73	Some water users may want to fill a pond under the 13,000 gallons per day domestic exemption. The "Days Required to Fill the Pond at 13,000 Gallons per Day" is calculated by converting the "Pond Capacity" and the "Required Daily Maintenance Volume" to gallons. The "Pond Capacity" is then divided by 13,000 gallons minus the "Required Daily Maintenance Volume" in gallons to determine the number of days to fill pond. <i>If this number is approximately 6 months (180 days) or more, the reviewer should have a discussion with the applicant to make sure he/she understands that it will take a significant length of time to fill the pond.</i> Negative values indicate that the supply of 13,000 gallons per day is not enough volume to overcome the required daily maintenance volume; the pond will never fill.

Evaporation Loss Calculations

This spreadsheet has been designed by Idaho Department of Water Resources to estimate the annual evaporation losses from a pond.

FILE NUMBER	65-23168
REVIEWER	Mary Condon a
DATE	8/17/2018

User Input
Calculated value
Formula Explanations

The acronyms used on the Kimberly Research Center website are defined below:

P = Precipitation
ET= Evapotranspiration
P _d = Precipitation deficit
P _d =ET-P

USING THIS SPREADSHEET

Use the link below to access the Kimberly Research Center website. This website provides the Precipitation Deficit for a station most representative of the pond under examination. The Precipitation Deficit is the total amount of free water surface evaporation minus the precipitation for a given area, which gives the total amount of evaporative losses incurred by the pond. There are several weather sites that are used throughout the state. IDWR staff can find the nearest site using Arc Map. The shape file containing the sites can be found at X:/Spatial/Climate/ETIdahostations.shp.

Instructions:

1. Use the link below to navigate to ET Idaho 2012.
2. Select the station which is most representative to your pond location.
3. Click Submit Query.
4. Under "Land Covers with Evapotranspiration Estimates," select "Open Water - Shallow Systems (ponds, streams)" or "Open Water - small stock ponds" depending on the pond size.
5. Click the link to "Precipitation Deficit."
6. Reference and copy (ctrl + C) the first subheading "Mean" values.
7. Click the "Paste Values from ET Idaho" button. The table will automatically enter a zero (0) for any negative precipitation deficit values.

Found at: <http://data.kimberly.uidaho.edu/ETIdaho/>

Precipitation Deficit

Station: Twin Falls 2 NNE (NWS -- 109294)

Month	mm/day ¹	Days per month	mm/Month
Jan	-2.78	31	0.00
Feb	-1.31	28	0.00
March	-0.44	31	0.00
April	1.22	30	36.60
May	2.28	31	70.68
June	3.59	30	107.70
July	5.18	31	160.58
August	4.55	31	141.05
September	2.81	30	84.30
October	0.67	31	20.77
November	-2.22	30	0.00
December	-3.42	31	0.00

PLEASE NOTE: The seasonal average for precipitation deficit should not be used for calculations because precipitation often exceeds evaporation during wetter months of the year. If the pond is kept full, excess precipitation during wetter months does not serve to refill the pond during drier months.

For example, see Sandpoint KSPT (NWS -- 108137), the annual precipitation deficit is -106 mm. However, April through September have positive precipitation deficit values. To properly estimate the annual volume of water necessary to refill a pond due to evaporation losses, the table will automatically enter a zero (0) for each month that the precipitation value is reported as a negative value.

As described above, precipitation offsets evaporation in winter months, so the net effect is that wintertime precipitation deficit is usually zero.

Total mm/year = 621.68

$$((621.68 \div 304.8) \times 0.40) = 0.8 \text{ AFA}$$

Seepage Loss Calculations

This spreadsheet has been designed by Idaho Department of Water Resources to estimate the total annual seepage losses from a pond.

FILE NUMBER	65-23168
REVIEWER	Mary Condon and Dan Nelson
DATE	8/17/2018

User Input
Calculated value
Formula Explanations

INPUTS

Pond Surface Area (AC.)	0.4	AC.
-------------------------	-----	-----

Pond Surface Area (SQ. FT.)	17424	SQ. FT.
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I used the following method to obtain my Soil Classification information:	NRCS Web Soil Survey	
My Soil Classification is	GrndWtr	
Suggested Seepage Rate (FT./DAY)	0.0000	FT./DAY

Formula: (Surface Area X Seepage Rate) X 7.48 = Gallons Per Day Loss
--

Convert to GPD	0	GPD
----------------	---	-----

Total Seepage Loss (AFA)	0.0	AFA
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Though sand and gravel seepage rates may actually be higher, the maximum allowable rate is 0.2 ft/day, pursuant to Administrative Memo "Seepage Loss Standards for Ponds and Reservoirs."

Suggested Seepage Rates for Different Soil Types:
GW, GP, GM, GC, SW, SP and SM (silty sand, sand silt mixtures and gravel mixtures) = 0.2 ft per day
OL and ML (inorganic silts - very fine sands, silty, or clayey fine sands) = 0.02 ft per day
SC (clayey sands, sand clay mixtures) = 0.007 ft per day
CL (Low to medium plasticity clays) = 0.003 ft per day
MH, OH, PT and CH (high plasticity clays) = 0.0003 ft per day
LINED PONDS (liners can be chemical, fabric, or bentonite) = 0 ft per day
Ponds Intercepting Groundwater (excavated ponds filled by ground water) = 0 ft per day

PLEASE NOTE: The initial basis for the Suggested Seepage Rates in the table above is found on Page 16 of Seepage from Fish Ponds, Bulletin 599, August 1989 Alabama Agricultural experiment Station, Auburn University, Auburn University Alabama. If you don't know the soil type, please refer to the map provided at the NRCS Web Soil Survey (Tab #1), an ArcMap Soil Classification Map (Tab #1.1), or published NRCS Soil Survey (Tab #1.2). Use "0" if the pond fill relies on the water table.



University of Idaho

Kimberly Research
and Extension Center

[Water Resources Program](#)

ETIdaho 2017

[Evapotranspiration and Consumptive
Irrigation Water Requirements
for Idaho](#)

Please send suggestions for
improving this site to robison at
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2019-05-22 08:19

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[Garden Valley RS \(NWS -- USC00103448\)](#)

Statistics based on thirty year normal spans 1978 to 2013 years

For a different land cover or crop click on the above link.

You can highlight this table and copy via the clipboard to a Microsoft Excel or OpenOffice spreadsheet to plot or otherwise work with this data.

Open water - small stock ponds Precipitation Deficit (Click here for a graph)															
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Growing Season ^a	Non Growing Season ^b	Annual
Mean ^j	mm/day												mm		
Monthly ^c	-2.78	-1.31	-0.44	1.22	2.28	3.59	5.18	4.55	2.81	0.67	-2.22	-3.42	312	0	312
15-Day Moving Average ^d	-2.74	-1.59	-0.59	1.24	2.26	3.65	5.27	4.55	2.77	0.65	-2.20	-3.10			
7-Day Moving Average ^e	-2.73	-1.51	-0.47	1.21	2.25	3.64	5.25	4.55	2.77	0.69	-2.20	-3.22			
3-Day Moving Average ^f	-2.77	-1.37	-0.47	1.22	2.28	3.61	5.19	4.55	2.81	0.67	-2.16	-3.38			
Standard Deviation ^k	mm/day												mm		
Monthly ^c	2.22	1.50	2.40	1.13	2.01	1.11	0.86	1.12	1.04	1.76	1.51	3.27	186	0	186

PHOTOGRAPHER AND DATE OF PHOTOS Mary Condon and Dan Nelson 6/15/2018

FILE NUMBER 65-23168

The Photo on the right shows the pond pump and the photo on the left shows the Saddle Pump and the Truck Pump. The black pump on the right is the Saddle Pump and the blue pump on the left is the Truck Pump.



The photos below show the pond. You can see the Pond Pump in the foreground in the picture on the right.



PHOTOGRAPHER AND DATE OF PHOTOS Mary Condon and Dan Nelson 6/15/2018

FILE NUMBER 65-23168



These photos show the gravel washing plant. The gravel goes through the spray gavel washing table (bottom Right) and then I rewashed in the soaker table) bottom left. The clean gravel goes out through the conveyor belt to a truck. The dirty water is sent out to settling ponds where the gentleman in the gray shirt is standing in the bottom left picture.

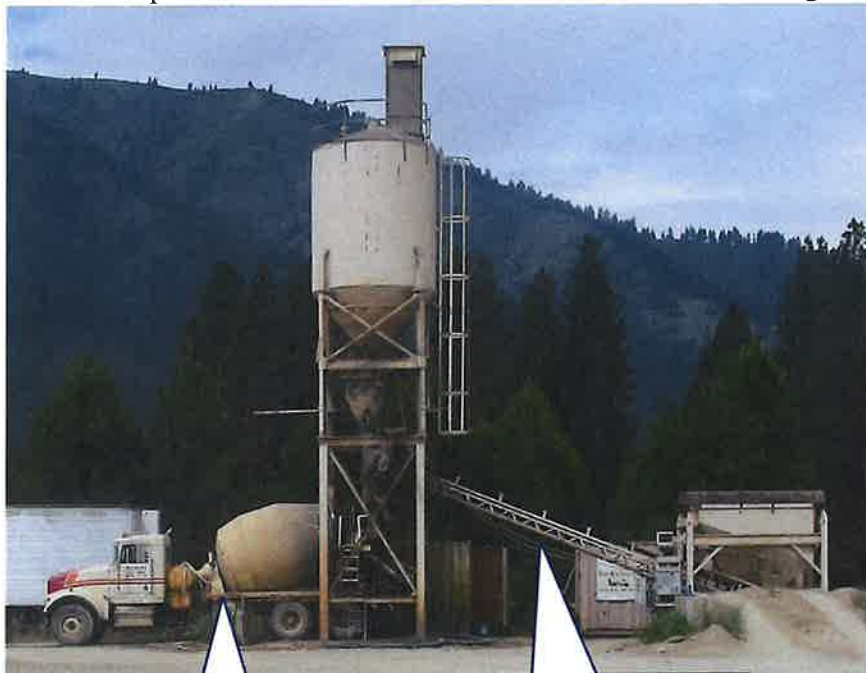


PHOTOGRAPHER AND DATE OF PHOTOS Mary Condon and Dan Nelson 6/15/2018

FILE NUMBER 65-23168



These photos show the Saddle Plant used for mixing cement. The water hoses to the saddle tank are under the conveyor belt to on the left in the picture below. The cement is mixed and put into the trucks. The trucks are washed out using the spigot marked below.



Spigot and
hose

Waterlines to
Saddle Tank

Nelson, Dan

From: lynnsbackhoe <lynnsbackhoe@aol.com>
Sent: Monday, May 20, 2019 12:11 PM
To: Nelson, Dan
Subject: Wash plant 3"
Attachments: 20190513_133039.jpg; 20190513_133055.jpg

Sent from my Verizon, Samsung Galaxy smartphone

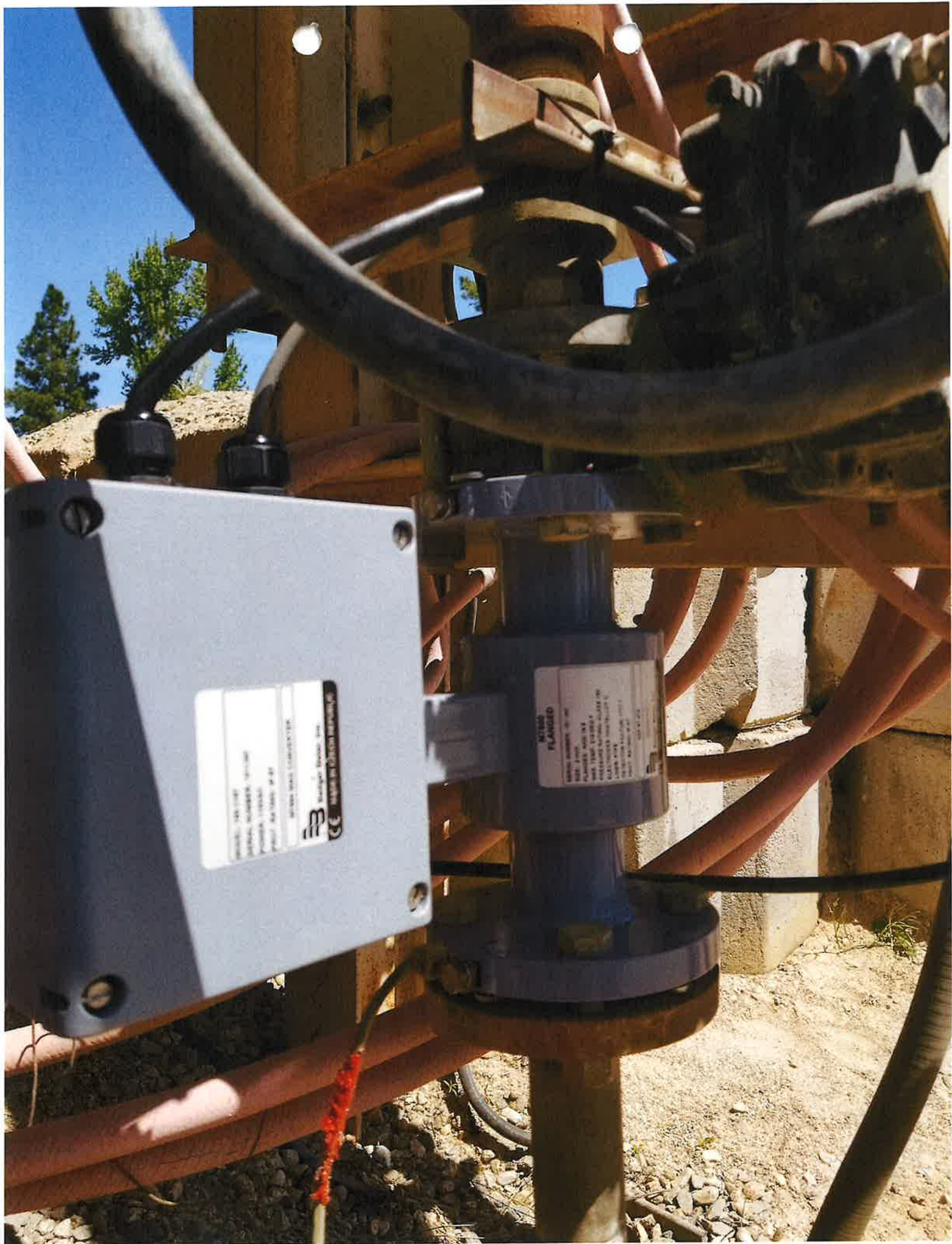




Nelson, Dan

From: lynnsbackhoe <lynnsbackhoe@aol.com>
Sent: Monday, May 20, 2019 12:10 PM
To: Nelson, Dan
Subject: Saddle tanks meter 1 1/2
Attachments: 20190513_131247.jpg

Sent from my Verizon, Samsung Galaxy smartphone





POWER

 Badger Meter

10.1

1 2 3 4 5 $\div$ $\times$ 6 RATE 7 TOTAL 8 COUNT 9 0 PRINT $\leftarrow$ $\rightarrow$ START HOLD PROG/ENTER RESET

 Badger Meter, Inc.
Concrete Products

Nelson, Dan

From: lynnsbackhoe <lynnsbackhoe@aol.com>
Sent: Monday, May 20, 2019 11:41 AM
To: Nelson, Dan
Subject: File is to big. Splitting it up.
Attachments: 20190513_131223.jpg; 20190513_131232.jpg

Batch plant

Sent from my Verizon, Samsung Galaxy smartphone



May 10, 2015 3:20 PM

Nelson, Dan

Details

 5 items (20.7 MB)



Pictures 1 and 2 batch plant. Picture 3 saddle tanks water, 4 and 5 wash plant.

Let me know if you have questions. Glad to be done installing those.

Cari

[208 462 3005](tel:2084623005)

Sent from my Verizon, Samsung Galaxy smartphone

----- Original message -----

From: "Nelson, Dan"

<Dan.Nelson@idwr.idaho.gov>

Nelson, Dan

From: Nelson, Dan
Sent: Monday, May 20, 2019 11:17 AM
To: 'lynnsbackhoe@aol.com'
Subject: Permit 65-23168 additional information.

Hello Ms. Severance,

I have not received the pictures that confirm that you have installed the measurement devices on your diversions. The deadline for supplying those photos was May 17, 2019. I also haven't received any requests for additional time. I do understand that sometimes photos don't email well, so I wanted to check with you before I move forward with processing this permit.

Thank you.

Dan Nelson