

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 34-7572

Exam Date: 2008

1. Current Owner: CITY OF MACKAY
PO BOX 509
MACKAY ID 83251
(208)588-2274
2. Accompanied by: Ken Day (city foreman)
Phone No: (208) 589-4804

3. **SOURCE**

TRIBUTARY

GROUND WATER

B. OVERLAP REVIEW

1. Other water rights with the same place of use: 34-780C, 34-960, 34-7073, 34-7505, 34-7532
2. Other water rights with the same point of diversion: None

C. DIVERSION AND DELIVERY SYSTEM

1. **LOCATION OF POINT(S) OF DIVERSION:**

GROUND WATER SW1/4SE1/4SW1/4 Sec. 21, Twp 07N, Rge 24E, B.M. CUSTER County

Method of Determination: GPS and site visit

2. PLACE OF USE = Municipal service boundary

3. Well Information: IDWR Tag No. E0007609
Drilled by Bishop Drilling in 1995. 14" casing, 150 ft deep.
Pump test at completion of well showed dynamic pumping level of 140 feet.

D. FLOW MEASUREMENTS

Because system is different today than existed in 1997 (60 hp pump rather than 30 hp pump) no measurement was conducted. Flow rate for licensing will be based on reported maximum diversion rate from city.

E. FLOW CALCULATIONS

 X Additional Computation Sheets Attached

Assuming 30 hp pump, 0 psi delivery, and 140 ft dynamic pumping level, theoretical capacity of system is 1.32 cfs (590 gpm). Open discharge delivery or very low pressure is an appropriate assumption because the well was used to fill water tanker trucks. August 23, 2005 letter from city states that work was done in 1997 and 1997 to increase the capacity of the well.

F. VOLUME CALCULATIONS

No volume required for municipal water rights.

G. NARRATIVE/REMARKS/COMMENTS

Late proof of beneficial use filed in 2005. Proof was due in June 1997. Letter from the City of Mackay accompanied the proof, describing the extent of beneficial use completed prior to June 1997. 30 hp pump was used to supply water to city maintenance vehicles. Well was not tied into main delivery system. Maximum rate of diversion was 420 gpm.

Field exam completed in 2008. Examiner found a 60 hp pump in the well and found that the well was now tied into the main city delivery system. License will be issued consistent with the Aug 23, 2005 letter from City of Mackay.

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

H. RECOMMENDATIONS**1. Recommended Amounts**

<u>BENEFICIAL USE</u>	<u>PERIOD OF USE</u>	<u>DIVERSION RATE</u>	<u>ANNUAL VOLUME</u>
MUNICIPAL	01/01 to 12/31	0.940 CFS	
<u>Totals:</u>		0.940 CFS	

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 ☐ Other

I. AUTHENTICATION

Field Examiner's Name JOE LARSEN Date 2008
Reviewer DAVE CARLSON Date 10/2013



CITY OF MACKAY

203 SOUTH MAIN
P.O. BOX 509
MACKAY, ID 83251
208-588-2274 Phone & Fax

RECEIVED

AUG 29 2005

Department of Water Resources

August 23, 2005

Idaho Department of Water Resources

To Whom it May Concern,

This letter is to affirm the use of the City of Mackay's beneficial use of water from the new well drilled in 1995 (aka: Well #3).

The 30 Hp submersible pump was installed October 31, 1995. In attempting to further develop the production of Well # 3, we began using this well to fill Fire Department tanker trucks. We used approximately 80,000 gallons in January and February 1996. During these months the City of Mackay pumped this well to get water for a community ice skating rink as well as some additional water for street maintenance.

From October 1995 to July 1996, the City was also consulting with a number of knowledgeable organizations and individuals in attempting to increase the well discharge above 260 gpm. These consultations resulted in air development in the well and replacement of the pump bowls in July 1996.

From September 1996 through September 1997, the Fire Department use averaged 20,000 gallons per month from Well # 3. This work and pumping increased well pumping capabilities to 420 gpm.

The water from this well has never been added into the Mackay City water system although all required US EPA and Idaho DEQ standards and testing have been completed.

Thank you for your consideration of our use of Well #3. I am available to answer any questions you may have or to discuss any aspects of this well. Again thank you for your consideration.

Sincerely,

Kenneth M. Day
Mackay City Water System Operator
Mackay Fire Department, Assistant Chief

ENJOY LOST RIVER'S FAMOUS FISHING

Use Typewriter
or
Ball Point Pen

63819

1. DRILLING PERMIT NO. 34-95-C-0012-000

Other IDWR No. 34-07572

2. OWNER:

Name Mackay City of

Address PO Box 509

City Mackay State IN Zip 46325

3. LOCATION OF WELL by legal description:

Sketch map location must agree with written location.

Twp. 07 North ☒ or South ☐
 Rge. 24 East ☒ or West ☐
 Sec. 27 1/4 SE 1/4 SW 1/4
 Gov't Lot _____ County Cass 10 acres 40 acres 160 acres

Address of Well Site 13000 North of Lumber yard City Madison
(Give at least name of road + Distance to Road or Landmark)

Lt. _____ Blk. _____ Sub. Name _____

4. PROPOSED USE:

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

5. TYPE OF WORK

☒ New Well ☐ Modify or Repair ☐ Replacement ☐ Abandonment

6. DRILL METHOD

☐ Mud Rotary ☐ Air Rotary ☒ Cable ☐ Other_____

7. SEALING PROCEDURES

SEAL/FILTER PACK		AMOUNT		METHOD
Material	From	To	Sacks or Pounds	
Bentonite	6	18	5 sacks	mix + pour

Was drive shoe used? ☒ Y ☐ N Shoe Depth(s) 150

Was drive shoe seal tested? Y ☐ N ☒ How? _____

8. CASING/LINER:

Diameter	From	To	Gauge	Material	Casing	Liner	Welded	Threaded
14"	+2	150	35	Steel	☒	☐	☒	☐
					☐	☐	☐	☐
					☐	☐	☐	☐

Length of Headpipe _____ Length of Tailpipe _____

9. PERFORATIONS/SCREENS

☒ Perforations Method Mechanical Perforations
☐ Screens Screen Type _____

From	To	Slot Size	Number	Diameter	Material	Casing	Liner
50	137					☒	☐
						☐	☐
						☐	☐

10. STATIC WATER LEVEL OR ARTESIAN PRESSURE:

16 ft. below ground Artesian pressure _____ lb.

Depth flow encountered _____ ft. Describe access port or control devices: Well Cap

11. WELL TESTS:

☒ Pump ☐ Bailer ☐ Air ☐ Flowing Artesian

Yield gal./min.	Drawdown	Pumping Level	Time
260	137'	140'	12 hrs.

Water Temp. -85° Bottom hole temp. _____

Water Quality test or comments: *Clear & no odor*

12. LITHOLOGIC LOG: (Describe repairs or abandonment) Water

Bore Dia.	From	To	Remarks: Lithology, Water Quality & Temperature	Y	N
20"	0	7	Large Gravel		
	7	10	Small Gravel		
	10	12	Clay		
	12	18	Small Gravel		
14"	18	30	Small Gravel	X	
	30	86	Clean Gravel	X	
	86	115	Clay & Gravel	X	
	115	137	Clean Gravel	X	
	137	150	Clay		

RECEIVED

DEC 07 1995

Department of Water Resources
Eastern District Office

RECEIVED

MAR 07 1996

Department of Water Resources

Completed Depth - 150'

(Measurable)

Date: Started 2/24/95

Completed 11/7/95

13. DRILLER'S CERTIFICATION

I/We certify that all minimum well construction standards were complied with at the time the rig was removed.

Firm Name Bishop Drilling Firm No. 540

Firm Official [Signature] Date 12-3-95

and 121

Supervisor or Operator [Signature] Date 12/3/95

(Sign once if Firm Official & Operator)

FORWARD WHITE COPY TO WATER RESOURCES

THEORETICAL HORSEPOWER EQUATION WORKSHEET (cjh 1/92)

Water Right No.: 34-7572

Reviewer:

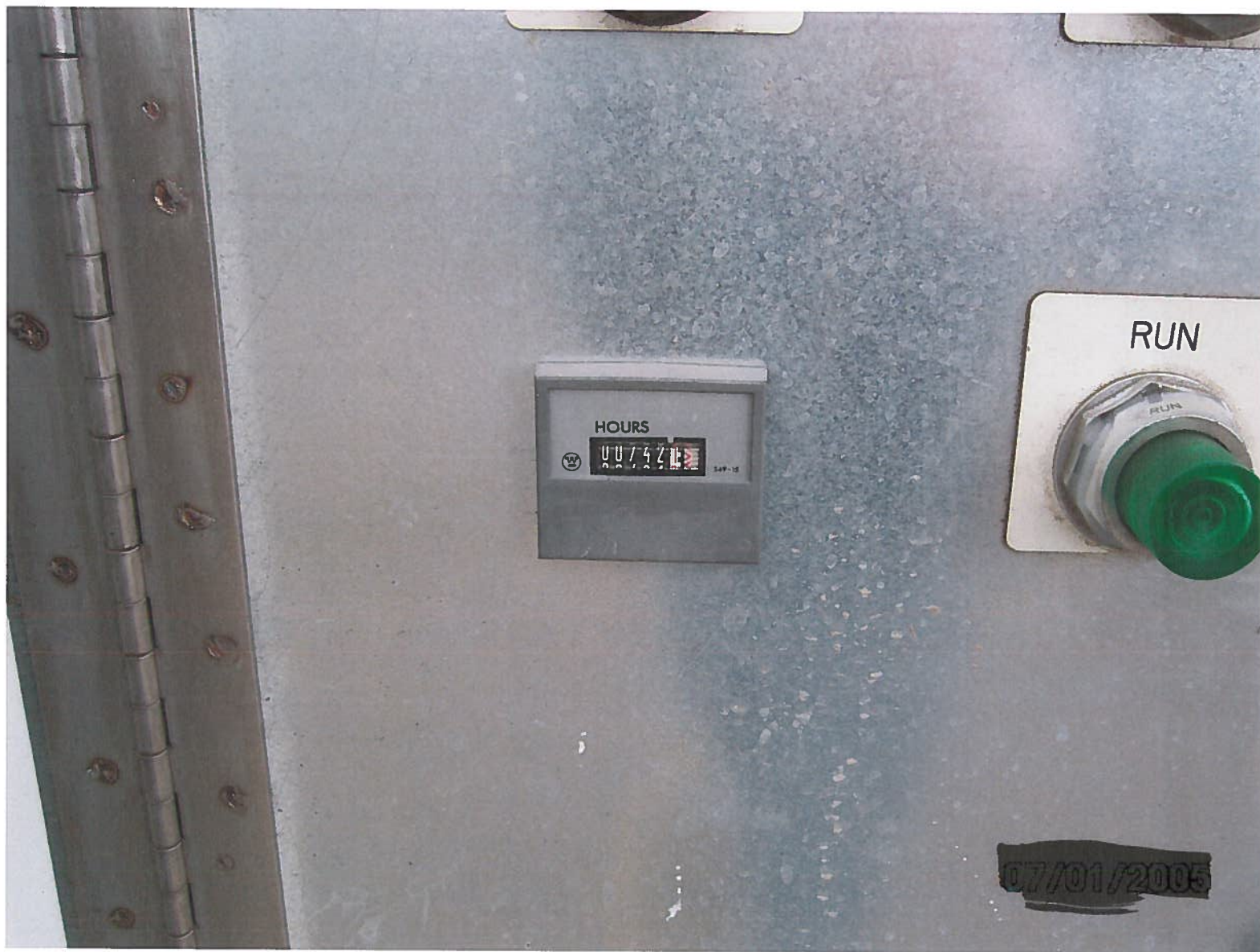
Date of Review:

P/D No.:	Senerio 1	Senerio 2	Senerio 3
PUMP HORSEPOWER	30	0	0
BOOSTER HORSEPOWER	0	0	0
PUMPING LEVEL	140	0	0
DISCHARGE PRESSURE	0	0	0
RATE OF FLOW (cfs)	1.32	#DIV/0!	#DIV/0!

The above calculates the formula =
$$Q = \frac{8.8 * (\text{Efficiency}) * \text{hp}}{\text{depth to water} + 2.31 * (\text{psi}) + \text{friction}}$$

Assumptions: %70 efficiency.
No Friction

Examiners Notes:



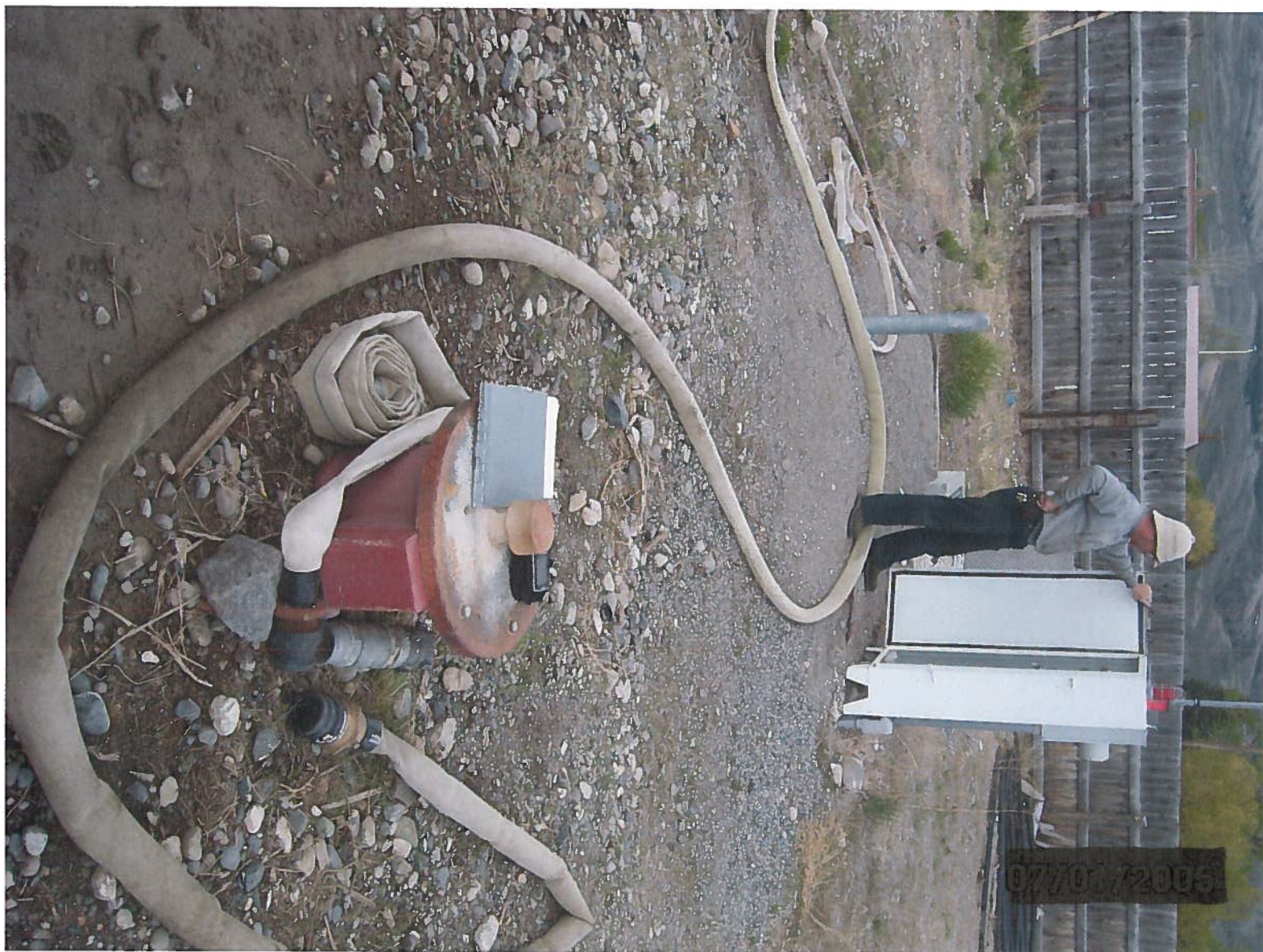
34-7572



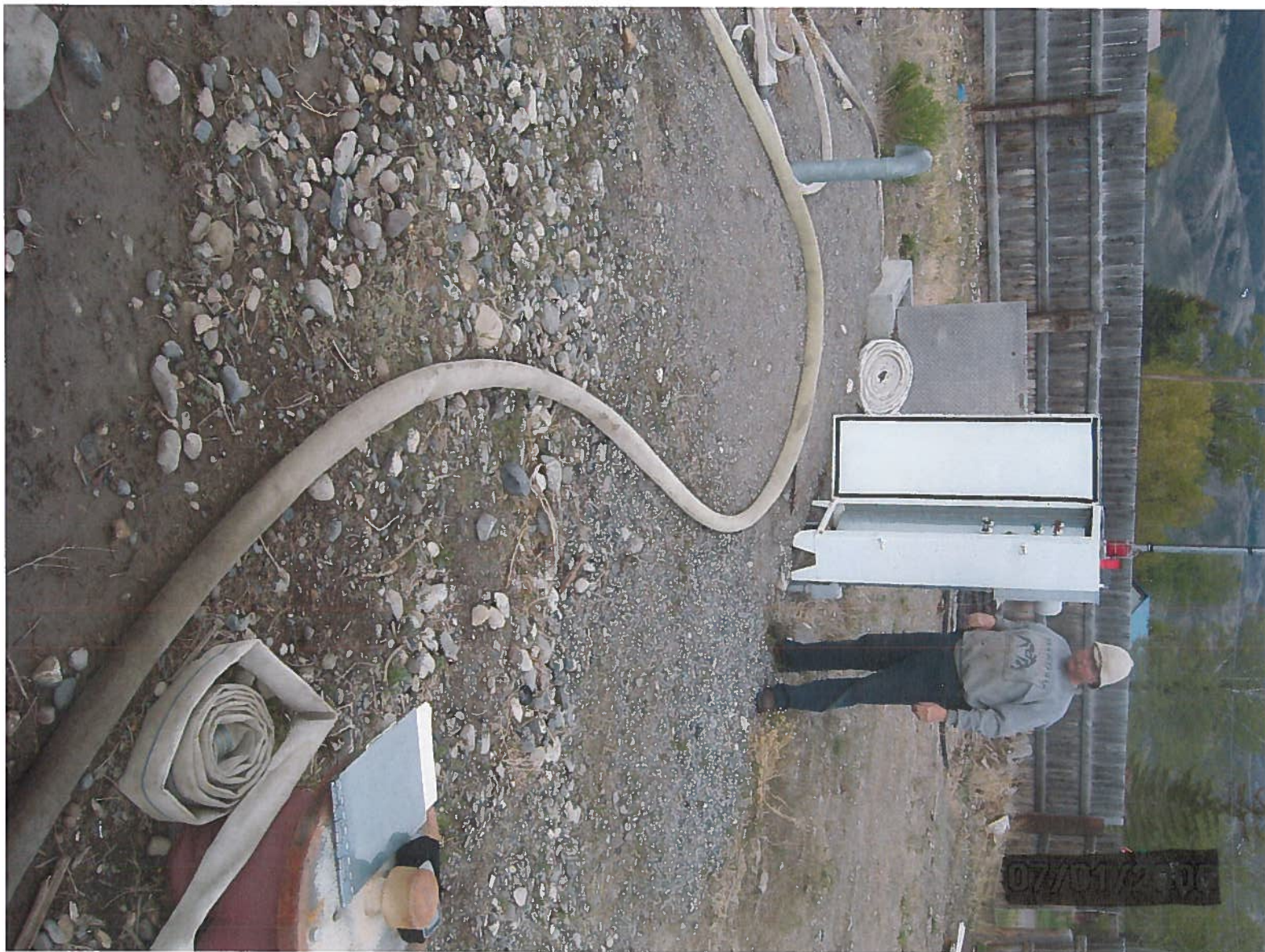
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07/01/2016

84-7572





34 - 7572