

This log reports the activities of a licensed Montana well driller and serves as the official record of work done within the borehole and casing and describes the amount of water encountered. **This form is to be completed by the driller and filed with MBMG within 60 days of completion of the work. Acquiring Water Rights is the well owner's responsibility and is not accomplished by the filing of this report.**

Well log information is stored in the Groundwater Information Center at the Montana Bureau of Mines and Geology (Butte) and water right information is stored in the Water Rights Bureau records (Helena).

For fields that are not applicable, enter NA. Record additional information in the REMARKS section.

1. WELL OWNER:Name Ty McNEALMailing address PO Box 58Barpwin MT 59031**2. WELL LOCATION:** List ¼ from smallest to largestNW ¼ NE ¼ NW ¼ Section 11Township 4 N/S Range 35E/W County Big Horn

Lot _____, Tract/Blk _____ Subdivision Name _____

Certificate of Survey _____

Well Address 1893 Reno Creek Rd.GPS ☐ Yes ☐ NoLatitude 45.50119 Longitude -107.35620

Error as reported by GPS locator (± feet) _____

Horizontal datum ☐ NAD27 ☐ WGS84**3. PROPOSED USE:** ☐ Domestic ☒ Stock ☐ Irrigation☐ Public water supply ☐ Monitoring Well☐ Geothermal ☐ Closed System ☐ Open System ☐ Reinjection☐ Extraction H₂O Temp _____ Number of Wells in System _____☐ Other: _____**4. TYPE OF WORK:**☒ New well ☐ Deepen existing well ☐ Abandon existing wellMethod: ☐ Cable ☒ Rotary ☐ Other: _____**5. WELL CONSTRUCTION DETAILS:****Borehole:**Dia. 5 1/8 in. from 0 ft. to 620 ft.Dia. 8 3/4 in. from 0 ft. to 559 ft.

Dia. _____ in. from _____ ft. to _____ ft.

Casing:Steel: Wall thickness 1.375 ☒ Threaded ☐ WeldedDia. 5 in. from 11.5 ft. to 24.5 ft.

Dia. _____ in. from _____ ft. to _____ ft.

Casing Shoe: ☐ Yes ☒ NoPlastic: Pressure Rating 2000PSI lbs. ☐ Threaded ☒ WeldedDia. 5 in. from 24.5 ft. to _____ ft.**Perforations/Slotted Pipe:**Type of perforator used N/A

Size of perforations/slots _____ in. by _____ in.

_____ no. of perforations/slots from _____ ft. to _____ ft.

_____ no. of perforations/slots from _____ ft. to _____ ft.

Screens: ☒ Yes ☐ NoMaterial Stainless SteelDia. 5 Slot size 0.020 from 544 ft. to 554 ft.

Dia. _____ Slot size _____ from _____ ft. to _____ ft.

Gravel Packed: ☒ Yes ☐ NoSize of gravel 10-20 Silica SandGravel placed from 490 ft. to 559 ft.**Packer:** ☐ Yes ☒ No

Type _____ Depth(s) _____

Grout: Material used Peabrite ChipsDepth from 0 ft. to 490 ft. OR ☐ Continuous feed**6. WELL TEST DATA:**

A well test is required for all wells. (See details on well log report cover.)

☐ Static water level 10 ft. below top of casing or☐ Closed-in artesian pressure _____ psi.

How was test flow measured:

bucket/stopwatch, weir, flume, flowmeter, etc

Yellowstone Controlled Groundwater Area - Water Temperature _____ °F

☐ AQUIFER TEST DATA FORM ATTACHED**Test - 1 hour minimum**

Drawdown is the amount water level is lowered below static level.

All depth measurements shall be from the top of the well casing.

Time of recovery is hours/minutes since pumping stopped.

Air test*

_____ gpm with drill stem set at _____ ft. for _____ hours

Time of recovery _____ hrs/min. Recovery water level _____ ft.

OR Bailer test*

_____ gpm with _____ ft. of drawdown after _____ hours

Time of recovery _____ hrs/min. Recovery water level _____ ft.

OR Pump test*Depth pump set for test 390' ft.10 gpm pump rate with 287 ft. of drawdown after 5 hrs pumpingTime of recovery 2.50 hrs/min. Recovery water level 6 ft.**OR Flowing Artesian***

_____ gpm for _____ hours

Flow controlled by _____

*During the well test the discharge rate shall be as uniform as possible. This rate may or may not be the sustainable yield of the well. Sustainable yield does not include the reservoir of the well casing.

7. WELL LOG: Record depth(s) that water is encountered.

Depth, Feet		Material:
From	To	color/rock and type/descriptor (example: blue/shale/hard, or brown/gravel/water, or brown/sand/heaving)
0	1	topsoil
1	54	clay gravel & SCORIT
54	254	clay shale
254	260	consolidated sand stone
260	298	gray clay shale
298	300	consolidated sand stone
300	327	clay shale
327	331	consolidated sand stone
331	385	clay shale HARD drilling
385	389	consolidated sand stone
389	491	clay shale grey HARD
491	494	consolidated sand stone
494	497	clay shale grey
497	515	sandy clay shale
515	519	consolidated sand stone
519	555	gray sand stone
555	620	clay shale
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☐ ADDITIONAL SHEETS ATTACHED**M.B.M.G.****8. DATE WELL COMPLETED:** 12-10-18**9. REMARKS:** _____**10. DRILLER/CONTRACTOR'S CERTIFICATION:**

All work performed and reported in this well log is in compliance with the Montana well construction standards. This report is true to the best of my knowledge.

Name, firm, or corporation (print) AGRI IndustriesAddress 3502 2nd St West Williston ND 58601Signature Chad SmithDate 12-12-18 License no. 130114License type: ☐ MWC ☐ WWC ☒ WWD**Montana Bureau of Mines & Geology**

The University of Montana

1300 West Park Street

Butte, MT 59701

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