

File No.

T. 14 N. R. 20 W.

DUPLICATE

County Missoula

STATE OF MONTANA
ADMINISTRATOR OF GROUNDWATER CODE
OFFICE OF STATE ENGINEER

RECORDED
JAN 23 1964

STATE ENGINEER

**Notice of Completion of Groundwater Appropriation
Without Well**

(Under Chapter 237 Montana Session Laws, 1961)

Date of Appropriation of Groundwater December 28, 1963

Owner Howard Raser Address Missoula, Montana

Contractor (if any) Does not apply.

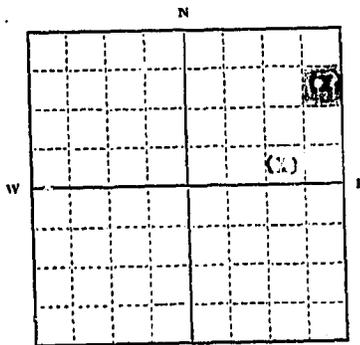
Address of Contractor Does not apply.

Date Started Does not apply Date Completed Does not apply.

Describe means of obtaining groundwater without a well "as by sub-irrigation and other natural processes". Include depth to water when applicable. Water rises naturally to surface.

out of this Spring the entire year around.

(owner calls this Spring Number Two (2)-)



NE 1/4 Sec. 26 T. 14 R. 20

Indicate point of appropriation and place of use, if possible.

Quantity of water developed and used with explanation of method used to measure or estimate such amount. If use is intermittent

estimate approximate lengths of periods of use Water from this

Spring is used for Livestock Water purposes and flows

the year around. At least 2500 gallons per day comes

from this Spring. Owner has used this water since 1958

and the prior owners have used this water since 1910.

Signature of Owner Howard Raser

Date January 17, 1964

This form to be prepared by contractor (if any), otherwise by the owner.

Three copies of this notice are to be filed with the County Clerk and Recorder of the county in which the works are located.

Please answer all questions. If not applicable, so state, otherwise the form will be returned.

Original to the County Clerk and Recorder; duplicate to the State Engineer; Triplicate to the Montana Bureau of Mines and Geology and Quadruplicate for the Appropriator.

MISSOURI HIS ONLY BY AND
JANUARY 22 1900

1369

216598

Copy

I received and filed this instrument for
record on the 21 day of *Jan* 19*00*
at 12 o'clock *P*.M., permanent files
of Missoula County, State of Montana
Witness my hand:
MARTIN S. BEHNER, County Recorder
By *Ethel Lane* Deputy
Fee \$2.⁰⁰ Paid

(2)

File No.

T. 14 N. R. 20 W.

DUPLICATE

County Missoula

STATE OF MONTANA
ADMINISTRATOR OF GROUNDWATER CODE
OFFICE OF STATE ENGINEER

DEC 28
R
JAN 23 1964

STATE ENGINEER

**Notice of Completion of Groundwater Appropriation
Without Well**

(Under Chapter 237 Montana Session Laws, 1961)

Date of Appropriation of Groundwater December 28, 1963

Owner Howard Raser Address Missoula, Montana

Contractor (if any) Does not apply.

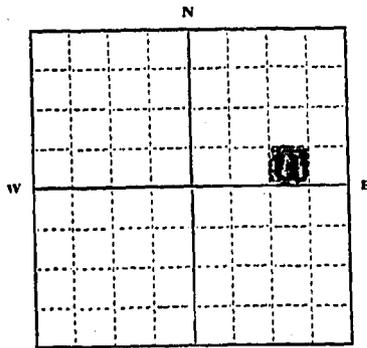
Address of Contractor Does not apply.

Date Started Does not apply Date Completed Does not apply.

Describe means of obtaining groundwater without a well "as by sub-irrigation and other natural processes". Include depth to water when applicable. Water rises naturally to surface.

out of this Spring the entire year around.

(Owner calls this Spring Number One (1)-)



NE 1/4 Sec. 26 T. 14 R. 20

Indicate point of appropriation and place of use, if possible.

Quantity of water developed and used with explanation of method used to measure or estimate such amount. If use is intermittent

estimate approximate lengths of periods of use. Water from this

Spring is used for Livestock Water purposes and flows

the year around. At least 2500 gallons per day comes

from this spring. Owner has used this water since

1958 and the prior owners have used the water since 1910.

Signature of Owner Howard Raser

Date January 17, 1964

This form to be prepared by contractor (if any), otherwise by the owner.

Three copies of this notice are to be filed with the County Clerk and Recorder of the county in which the works are located.

Please answer all questions. If not applicable, so state, otherwise the form will be returned.

Original to the County Clerk and Recorder; duplicate to the State Engineer; Triplicate to the Montana Bureau of Mines and Geology and Quadruplicate for the Appropriator.

1370

216599

Copy

I received and filed this instrument for record on the 22 day of Jan, 1964 at 1:32 o'clock P.M., permanent files of Missoula County, State of Montana
Witness my hand:
MARTIN S. BURNER, County Recorder
By Et. de Lamo, Deputy
Fee \$ 2.00 Paid

RECEIVED

144-200
County... MISSOULA 26

STATE OF MONTANA
ADMINISTRATOR OF GROUNDWATER CODE
MONTANA WATER RESOURCES BOARD
MONTANA DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION

NOV 29 1972

DRILLER'S LOG

Indicate the character, color, thickness of strata such as soil, clay, sand, gravel, shale, sandstone, etc. Show depth at which water is found and height to which water rises in well.

NOTICE OF COMPLETION OF GROUNDWATER APPROPRIATION BY MEANS OF WELL
Developed after January 1, 1962

(Under Chapter 237 Montana Session Laws, 1961, as amended)

This form to be prepared by driller, and three copies to be filed by the owner with the County Clerk and Recorder in the county in which the well is located, last copy to be retained by driller. Please answer all questions. If not applicable, so state, otherwise the form may be returned.

Owner MONTANA POWER CO.
Address Missoula, Montana 59801
Date well started Sept. 6, 1972
completed Sept. 21, 1972

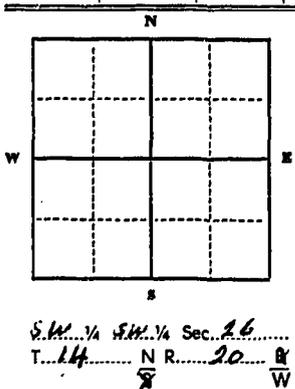
For Administrator's Use
File # 2377, 325135
Nov. 28, 1972 9:30 am
GW 1

Type of well Drilled
(Dug, driven, bored or drilled)
Equipment used Churn Drill
(Churn drill, rotary or other)
Water Use: Domestic Municipal Stock Irrigation
Industrial Drainage Other * Garden/Lawn

*Describe _____
USE: If used for irrigation, industrial, drainage or other. Explain, state number of acres and location or other data (i.e. Lot, Block and Addition). _____

ESTIMATED ANNUAL WITHDRAWAL

Size of Drilled Hole	Size and Weight of Casing	From (Foot)	To (Foot)	PERFORATIONS		
				Kind Size	From (Foot)	To (Foot)
6" ID	17 lb above per ft. g.l.	2'	365'	Mills Knife 3/8" x 3"	138	141
				6 holes to rd. 6" apart		
				Total 42 holes		



Static water level 78' ft.*
Pumping water level 116' ft.*
at 32 gallons per minute,
measured 10 minutes after pumping began.
*Measured from ground level.
Well developed by fast pump
for 20 hours.
Power Elec Pump 5 HP
Remarks: (Gravel packing, cementing, packers, type of shutoff) _____

Top of Ground (Elev. above sea level)		
From (Feet)	To (Feet)	
0	5	Cobbles, Gravel & tan clay
5	31	Tan clay
31	39	Tan clay & gravel
39	68	Brown clay & gravel
68	84	lt. brown clay & gravel
84	85	clay gravel & water (1 gpm)
85	98	Yellow clay & gravel
98	110	tan clay
110	122	tan clay & gravel
122	123	Gravel, clay & water 3 gpm
123	132	yellow clay
132	138	tan clay some gravel
138	141	gravel sand & water
141	150	yellow clay & gravel
150	151	sand gravel, water 1.1 gpm
151	162	sand clay & gravel
162	171	sand some gravel & water
171	187	Sandy yellow clay
187	246	brown clay
246	257	blue & tan clay, some gravel
257	172	blue clay
172	165	green clay
165	305	blue clay
305	350	gray clay & gravel
350	375	gray clay

Appropriator: THE MONTANA POWER COMPANY
By W.H. Jallott
Vice President

INDICATE LOCATION OF WELL AND PLACE OF USE, IF POSSIBLE. EACH SMALL SQUARE REPRESENTS 40 ACRES.
Driller's Signature Phil Bakke
CAMP WELL DRILLING & PUMP SUPPLY
Driller's Address 1522 S. 14th W., Missoula, Montana 59801

LICENSE NO. 7

375' Show exact depth of bottom

5/921

RECEIVED
County Blaine
NOV 29 1972

STATE OF MONTANA
ADMINISTRATOR OF GROUNDWATER CODE
MONTANA WATER RESOURCES BOARD
NOTICE OF APPROPRIATION OF GROUNDWATER
(Under Chapter 237, Montana Session Laws, 1961, as amended)

MONTANA DEPARTMENT OF NATURAL
RESOURCES AND CONSERVATION

After filing a notice of appropriation, in order to acquire a right based thereon, the person must, within ninety (90) days, commence actual excavation and diligently prosecute construction of a well and, upon its completion, file a notice of completion with the County Clerk of the county in which the appropriation is located.

Three copies of this notice are to be filed with the County Clerk and Recorder of the county in which the well is located.

Please answer all questions. If not applicable, so state, otherwise the form may be returned.

1. The Montana Power Company, of 40 East Broadway Butte
(Name of Appropriator) (Address) (Town)

County of Silver Bow, State of Montana, intend to appropriate groundwater in accordance with Chapter 237, Montana Session Laws of 1961.

2. The beneficial use to which water is to be applied is Municipal water supply
(describe lands to be benefited, if for irrigation)

3. The rate of use in gallons per minute or miner's inches of groundwater claimed 33 g.p.m.

The estimated amount of groundwater to be used annually 53 A.F.

4. The annual period (inclusive dates) of intended use Jan 1 - Dec. 31

5. The probable or intended date of first beneficial use September 21, 1972

6. The probable or intended date of commencement and completion of the well* or wells* September 6, 1972 - September 21, 1972

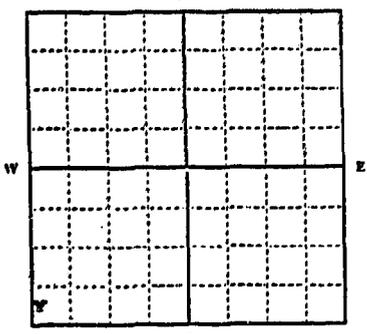
7. The location, type, size and depth of well or wells contemplated SW 1/4 SW 1/4 Section 26, T. 14 N., R. 20 W. 6" churn drilled well 375' deep

8. The probable or estimated depth of the water-table or artesian aquifer 128' - 141'

9. The name, address, and license number of the driller engaged Camp Well Drilling & Pump Supply, Missoula, Montana, License No. 7

10. Give such other similar information as may be useful in carrying out the policy of this act

For Administrator's Use
File # 23.28, 32.51.36
Nov. 28, 1972 9:35 a.m.



SW 1/4 SW 1/4 Sec 26
T. 14 N. R. 20 W.
X⁶

LOCATE WELL OR OTHER MEANS OF DEVELOPMENT AS ACCURATELY AS POSSIBLE ON THE PLAT.

Appropriator:
THE MONTANA POWER COMPANY
By W. J. Talbot
Vice President

Signature of Appropriator _____ Date _____

*As defined in the Code Sec. 1 (c) "Well" means any artificial opening or excavation in the ground, however made, by which groundwater can be obtained or through which it flows under natural pressures or is artificially withdrawn.

42378

325136

I received and filed this instrument for
 record on the 18th day of May 1936
 at 2:35 o'clock P.M. permanent files
 of Missoula County State of Montana
 Witness my hand
 Veranda R. Cross, County Recorder
 By Veranda R. Cross County Recorder
 Fee \$ 0.00 Paid



RECEIVED
 11-11-1972
 COUNTY: MISSOULA

STATE OF MONTANA
 ADMINISTRATOR OF GROUNDWATER CODE
 MONTANA WATER RESOURCES BOARD

NOTICE OF COMPLETION OF GROUNDWATER
 APPROPRIATION BY MEANS OF WELL
 Developed after January 1, 1962

(Under Chapter 237 Montana Session Laws, 1961, as amended)

This form to be prepared by driller, and three copies to be filed by the owner with the County Clerk and Recorder in the county in which the well is located, last copy to be retained by driller. Please answer all questions. If not applicable, so state, otherwise this form may be returned.

Owner: **Robert B & Carol H. Ammons**

Address: **Eby 10 West**
Missoula, Montana

Date well started: **11/14/72**
 completed: **12/1/72**

Type of well: **Drilled**
 (Dig, driven, bored or drilled)

Equipment used: **Cable Tools**
 (Cable drill, rotary or other)

Water Use: Domestic Municipal Stock Irrigation
 Industrial Drainage Other Garden/Lawn

For Administrator's Use

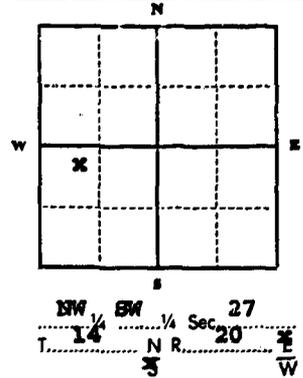
File: **354225, 2560**
6-29-73

GW 1: **11-34-1211**

*Describe _____
 USE: If used for irrigation, industrial, drainage or other. Explain, state number of acres and location or other data (i.e. Lot, Block and Addition). **Approx. 43 Acres**

ESTIMATED ANNUAL WITHDRAWAL **26,280,000 gallons**

Size of Drilled Hole	Size and Weight of Casing	From (Foot)	To (Foot)	PERFORATIONS		
				Kind Size	From (Foot)	To (Foot)
8"	8 5/8" OD x 1/2"	+1'10"	161 1/2	Johnson Wire Wound		
				Water Well Screen		
				with continuous slot opening 125/1000 with lead packer top swaged out to form tight seal inside eight inch casing	161 1/2	167 1/2
				Blank tailpipe with one inch plate solidly welded in bottom extends	167 1/2	182



Static water level **73** ft.
 Pumping water level **126** ft.
 at **50** gallons per minute,
 measured **330** minutes after pumping
 began.
 *Measured from ground level.
 Well developed by **Air Lift Pump**
 for **3 1/2** hours.
 Power **Diesel** Pump **150** HP
 Remarks: (Gravel packing, cementing, packers, type of shutoff) **All water entering well through slot opening in water well screen. Wells in this area can be de-**
 cont'd

DRILLER'S LOG
 Indicate the character, color, thickness of strata such as soil, clay, sand, gravel, shale, sandstone, etc. Show depth at which water is found and height to which water rises in well.

Top of Ground Approx. (Elev. above sea level) **3190'**

From (Foot)	To (Foot)	Description
0	13	Pink clay
13	32	Gravel embedded in tan clay
32	33	Tan clay
33	39	Gravel embedded in tan clay
39	40	Gravel & cobbles in light brown clay
40	47	Boulders in light brown clay
47	61	Gravel embedded in cream colored clay
61	69	Gray sandy clay
69	77	White sandy clay
77	86	Silty light gray sand and gravels
86	94	Silty light gray sand, gravels and cobbles
94	100	Fine light tan silty clay and sand
100	104	Gray sand and clay
104	105	Silty gray sand with large gravels mixed in.
105	109	Gravel with stringers of clay. Seeps
109	127	Gravel mixed in silty sand and gray clay. Seeps
127	145	Small gravels mixed in silty gray sand
145	152	Scattered gravels mixed in gray silty sand. Seeps
152	155	Gravel mixed in silty gray clay
155	157	Clean gray sand and gravel. 3 GPM
157	159	Fine brown silty sand and gravel
159	161	Fine brown silty sand
161	167	Coarse gravel mixed in gray sand. 20 GPM
167	170	Gray sand and gravel
170	172	Sand, some gravel and stringers of gray clay
172	173	Sand and gravel with stringers of gray clay
173	180	Fine silty gray clay
180	182	Sand and gravel with stringers of clay.

INDICATE LOCATION OF WELL AND PLACE OF USE, IF POSSIBLE. EACH SMALL SQUARE REPRESENTS 40 ACRES.

Driller's Signature: **Liberty Drilling Company**
 Driller's Address: **2500 Reserve Street**
Missoula, Montana 59801 LICENSE NO. **52**

182' Show exact depth of bottom water rises in well 73 feet from surface.
 5542

2560

334275

I received and filed this instrument for record on the 29th day of June 1923 at 11:34 o'clock A.M. permanent files of Missoula County, State of Montana

Witness my hand:
 Percy L. Head, County Recorder
 By M. M. Conroy Deputy
 Fee \$ 2.00 Paid cl

pending upon to produce clear sand free water year after year as long as they are not overpumped, i.e., they should be pumped at rates not in excess of 50 to 10 percent of the tested capacity of the aquifer.

MISSOULA COUNTY RECORDS
 RECEIVED
 JUN 29 1923
 11:34 A.M.
 PERCY L. HEAD, COUNTY RECORDER
 BY M. M. CONROY, DEPUTY
 FEE \$2.00 PAID

GW:

Approved Stock Form—State Publishing Co., Helena, Montana—4

File No. _____

T. 14N R 20W

DUPLICATE

County Missoula

LOG MONTANA WATER RESOURCES BOARD

STATE OF MONTANA

RECEIVED

ADMINISTRATOR OF GROUNDWATER CODE
OFFICE OF STATE ENGINEER

Top of Ground

(Elev. above sea level 3111.50) 1969

Notice of Completion of Groundwater

Appropriation by Means of Well

DEVELOPED AFTER JANUARY 1, 1962

(Under Chapter 237, Montana Session Laws, 1961)

0-2 TOP SOIL
 2-10 GRAVEL
 10-80 CLAY
 80-85 GRAVEL
 85-109 CLAY
 109-135 SAND
 135-165 CLAY
 165-190 GRAVEL
 190-215 CLAY
 215-220 SAND
 220-227 GRAVEL

Owner Peter O. Aune Address 119 E. Kent Missoula, Mont.

Driller Kenneth Williams Address 2558 S. 55th Missoula, Mont.

Date of Notice of appropriation of groundwater _____

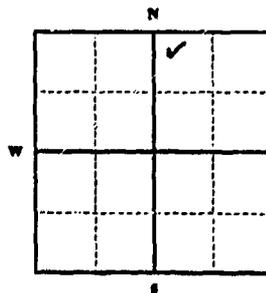
Date well started 6-1-69 Date completed 7-12-69

Type of well Drill Equipment used Churn
(Dug, Driven, bored or drilled) (Churn drill, rotary or other)

Water use: Domestic Municipal Stock Irrigation
Industrial Drainage Other

Indicate on the diagram the character and thickness of the different strata met with in drilling, such as soil, clay, shale, gravel, rock or sand, etc. Show depth at which water is encountered, thickness and character of water-bearing strata and height to which the water rises in the well.

Size of Drilled Hole	Size and Weight of Casing	From (Feet)	To (Feet)	PERFORATIONS		
				Kind Size	From (Feet)	To (Feet)
6.10.	650.0 17LB 4 SIDE WALL	GROUND LEVEL	227			



Static Water Level for non-flowing well _____ feet.

Shut-in Pressure for Flowing Well _____

Pumping Water Level 75 feet
at 14 gal. per minute.

Discharge in gal. per min. of flowing well _____

How Tested TEST PUMP

Length of Test 6 HOURS

Remarks: (Gravel packing, cementing, pack-
hrs, type of shutoff) _____

W 1/2 NE 1/4 Sec 28 T. 14N R. 20W

Indicate location of well and place of use, if possible. Each small square represents 40 acres.

(Continue on reverse side)

USE—If used for irrigation, industrial, drainage or other. Explain, state number of acres and location or other data (i.e.: Lot, Block and Addition).

Show exact depth of bottom.

Bottom of Hole 227

This form to be prepared by driller and three copies to be filed by the owner with the County Clerk and Recorder in the county in which the well is located, tissue copy to be retained by driller.

Please answer all questions. If not applicable, so state, otherwise the form will be returned.

151
Driller's License Number

Kenneth Williams
Driller's Signature

45488

1821 283374

I received and filed this instrument for record on the 28th day of July 1967 at 10:30 o'clock A.M. permanent files of Missoula County, State of Montana
Witness my hand.
Vernice R. Crouse, County Recorder
By *[Signature]* Deputy
Fee \$2.00 *[Signature]*

MISSOULA COUNTY CLERK
RECORDED
INDEXED
JUL 28 1967
MISSOULA, MONTANA

328

File No. _____

T. 14 N R 20 W

DUPLICATE

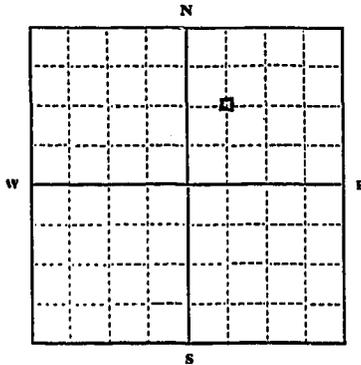
County _____

STATE OF MONTANA
ADMINISTRATOR OF GROUNDWATER CODE
OFFICE OF STATE ENGINEER

RECEIVED
JAN 3 1968
STATE ENGINEER

Declaration of Vested Groundwater Rights
(Under Chapter 237, Montana Session Laws, 1961)

1. PETER C. AUNE of 119 East Kent Missoula
(Name of Appropriator) (Address) (Town)
County of Missoula State of Montana
have appropriated groundwater according to the Montana laws in effect prior to January 1, 1962, as follows:



W 1/2 NE 1/4 Sec. 28 T. 14 R. 20

Indicate point of appropriation and place of use, if possible. Each small square represents 10 acres.

- 2. The beneficial use on which the claim is based Domestic
- 3. Date or approximate date of earliest beneficial use; and how continuous the use has been 1941
- 4. The amount of groundwater claimed (in miner's inches or gallons per minute) 25 gallons per minute
- 5. If used for irrigation, give the acreage and description of the lands to which water has been applied and name of the owner thereof Not applicable
- 6. The means of withdrawing such water from the ground and the location of each well or other means of withdrawal electric pump
W 1/2 NE 1/4 of Section 28, Township 14, Range 20

- 7. The date of commencement and completion of the construction of the well, wells, or other works for withdrawal of groundwater April 1, 1941 to April 7, 1941
- 8. The depth of water table 170 feet
- 9. So far as it may be available, the type, size and depth of each well or the general specifications of any other works for the withdrawal of groundwater 3 inch casing drilled 275 feet
- 10. The estimated amount of groundwater withdrawn each year 72,000 gallons
- 11. The log of formations encountered in the drilling of each well if available Gravel
- 12. Such other information of a similar nature as may be useful in carrying out the policy of this act, including reference to book and page of any county record Unknown

Signature of Owner Peter C. Aune

Date December 31, 1963

Three copies to be filed by the owner with the County Clerk and Recorder of the county in which the well is located.

Please answer all questions. If not applicable, so state, otherwise the form will be returned.

Original to the County Clerk and Recorder; Duplicate to the State Engineer; Triplicate to the Montana Bureau of Mines and Geology, and Quadruplicate for the Appropriator.

20257

1637

I received and filed this instrument for
record on the 7th day of July 1963
at 5:24⁶ clock P.M., permanent files
of Missoula County, State of Montana
Witness my hand
By Marta S. Cougle Recorder
Fee \$ 1.00 Paid

MISSOULA COUNTY RECORDS DEPARTMENT
MISSOULA, MONTANA

RECORDED

STATE OF MONTANA
ADMINISTRATOR OF GROUNDWATER CODE
MONTANA WATER RESOURCES BOARD

MONTANA WATER RESOURCES BOARD
RECEIVED

DRILLER'S LOG

Indicate the character, color, thickness of strata such as soil, clay, sand, gravel, shale, sandstone, etc. Show depth at which water is found and height to which water rises in well.

JUN 1 1971

NOTICE OF COMPLETION OF GROUNDWATER APPROPRIATION BY MEANS OF WELL

Developed after January 1, 1962

(Under Chapter 237 Montana Session Laws, 1961, as amended)

This form to be prepared by driller, and three copies to be filed by the owner with the County Clerk and Recorder in the county in which the well is located, last copy to be retained by driller.

Please answer all questions. If not applicable, so state, otherwise the form may be returned.

Owner Estate of Peter O. Aune

Address 119 East Kent
Missoula, Montana 59801

Date well started MAY 3, 1971
completed MAY 13, 1971

Type of well DRILLED
(Dug, driven, bored or drilled)

Equipment used CHURN
(Churn drill, rotary or other)

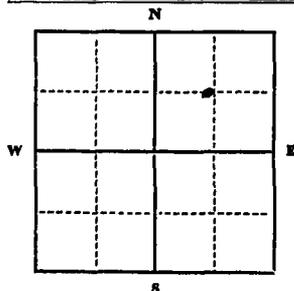
Water Use: Domestic Municipal Stock Irrigation
Industrial Drainage Other * Garden/lawn

*Describe _____

USE: If used for irrigation, industrial, drainage or other. Explain, state number of acres and location or other data (i.e. Lot, Block and Addition). _____

ESTIMATED ANNUAL WITHDRAWAL

Size of Drilled Hole	Size and Weight of Casing	From (Feet)	To (Feet)	PERFORATIONS		
				Kind Size	From (Feet)	To (Feet)
6" I.D.	6-5/8" OD GL 17 lbs. 1/4" side-wall		286'			



Static water level 155 ft.*
Pumping water level ... 276 ft.*
at ... 25 gallons per minute,
measured ... 180 minutes after pumping
began.

*Measured from ground level.
Well developed by ball & pump
for ... 7 hours.

Power..... Pump..... HP
Remarks: (Gravel packing, cementing,
packers, type of shutoff) _____

WINE 1/4 xxx Sec. 28
T. 14 N. R. 20 XX
W

INDICATE LOCATION OF WELL AND PLACE OF USE, IF POSSIBLE. EACH SMALL SQUARE REPRESENTS 40 ACRES.

Driller's Signature Kenneth L. Williams

Driller's Address 1553 So. 5th W. MISSOULA, MONTANA

LICENSE NO. 151

Top of Ground (Elev. above sea level) _____

From (Feet)	To (Feet)	
GL	8'	tan clay, sand, gravel, & cobble stones
8'	100'	tan clay, sand & gravel
100'	100'	sand, gravel & water approx: 2 gal per min.
100'	174'	tan sandy clay with gravel imbedded
174'	189'	heaving sand & silt
189'	214'	tan sandy clay, silt and gravel
214'	251'	heaving sand & silt & scattered gravels
251'	263'	tan clay, sand & gravel
263'	283'	heaving sand, silt & small gravels
283'	286'	sand, gravel & water

286' Show exact depth of bottom

2139

303103

I received and filed this Instrument for
record on the 27th day of May 1871
at 2.0 o'clock P.M. permanent file
of Missoula County State of Montana
Witness my hand.
Vernice R. Crouse, County Recorder
By *Carroll* Deputy
Fee \$ 0.00 Paid

File No. STATE WATER CONSERVATION BOARD

T. 14N R. 20W

DUPLICATE

JUL 18 1966

County Missoula

LOG Billie McDermott STATE OF MONTANA
Butterlin McNulty ADMINISTRATOR OF GROUNDWATER CODE
Coffey Norton OFFICE OF STATE ENGINEER
Rappaport Sullivan

Top of Ground

(Elev. above sea level 5286)

Notice of Completion of Groundwater Appropriation by Means of Well

DEVELOPED AFTER JANUARY 1, 1962

(Under Chapter 237, Montana Session Laws, 1961)

Formations Log:

- 0 - 1 Black dirt.
- 1 - 42 Red to tan clay.
- 42 - 60 Tan clay, gravel & cobblestones.
- 60 - 76 Gravel imbedded in tan clay.
- 76 - 90 Tan to gray sandy clay, some gravel.
- 90 - 98 Green to gray sandy clay.
- 98 - 106 Tan yellow sand. Some silty water.
- 106 - 130 Sand and gravel imbedded in tan clay.
- 130 - 148 Tan to brown sandy clay, some gravel imbedded.
- 148 - 150 Red sandy clay, some gravel & silt. Seeps of water.
- 150 - 161 Red and tan clay, some gravel imbedded.
- 161 - 178 Gray & brown clay.
- 178 - 192 Tan & brown w clay with some gravel imbedded.
- 192 - 193 Red sand & gravel imbedded in silt.
- 193 - 231 Tan & brown clay, some medium gravel imbedded.
- 231 - 238 Red sand & gravel, some tan clay. Seeps of water.
- 238 - 253 Red clay & gravel mixed.
- 253 - 269 Tan & gray sandy clay

R-Lite Concrete Missoula Industrial
Owner Products, Inc. Address Park, Msl., Mont.

Driller Liberty Drilling Co. Address Missoula, Montana

Date of Notice of appropriation of groundwater None filed

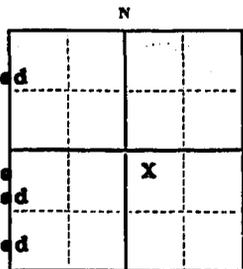
Date well started 4/12/66 Date completed 6/28/66

Type of well Drilled Equipment used Cable Tools
(Dug, Driven, bored or drilled) (Churn drill, rotary or other)

Water use: Domestic Municipal Stock Irrigation
Industrial Drainage Other

Indicate on the diagram the character and thickness of the different strata met with in drilling, such as soil, clay, shale, gravel, rock or sand, etc. Show Static level depth at which water is encountered, thickness and character of water-bearing strata and height to which the water rises in the well.

Size of Drilled Hole	Size and Weight of Casing	From (Feet)	To (Feet)	PERFORATIONS		
				Kind Size	From (Feet)	To (Feet)
6"	6 5/8 OD x 1/4 inch	+1	491	Shop made Screen 4 9/16 OD	486	632



Static Water Level for non-flowing well 71 to 78 feet.

Shut-in Pressure for Flowing Well Non-f. Pumping Water Level 216 feet

at 18 gal. per minute.

Discharge in gal. per min. of flowing well Non-flowing

How Tested Pump test

Length of Test Forty-Eight Hours

Remarks: (Gravel packing, cementing, packers, type of shutoff) Well produced in excess of 18 gallons per minute of clear sand free water on a 48 hour pump test.

Indicate location of well and place of use, if possible. Each small square represents 40 acres.

with a maximum drawdown to 172 feet from surface. Although recovery was rather (Continue on reverse side)

USE—If used for irrigation, industrial, drainage or other. Explain, state number of acres and location or other data (i.e.: Lot, Block and Addition).

Eight Acres Lot 6 Block 5 and Easterly 50' Lot 7, Industrial Park & Platted Sub-Division of Missoula, County

Bottom of hole 632'

This form to be prepared by driller, and three copies to be filed by the owner with the County Clerk and Recorder in the county in which the well is located, tissue copy to be retained by driller.

Please answer all questions. If not applicable, so state, otherwise the form will be returned.

Formations Log & remarks continued

52
Driller's License Number
William F. Osborne
Driller's Signature

41231

with few
gravels imbedded

269 - 273 Red sand & gravel
with some red clay
Water. Developed
& bailed 6 GPM.

273 - 293 Sand & gravel
mixed in tan clay.
Seeps of water.

293 - 305 Gravel imbedded
in red sandy clay.

305 - 320 Sand, gravel &
tan clay. Seeps of
water.

320 - 348 Gravel imbedded in
tan clay.

348 - 364 Tan clay with some
scattered gravels
imbedded.

364 - 380 Gravel imbedded in
tan clay.

380 - 399 Gravel imbedded in
tan & yellow clay.

399 - 418 Brown cemented sand
& gravel.

418 - 436 Gravel imbedded in
brown clay.

436 - 446 Red sand & gravel
and clay, some
silty water. Static
water level 71'

446 - 473 Cemented sand with
seeps of water.

473 - 481 Sand & gravel
imbedded in gray
clay.

481 - 492 Blue & gray clay.

492 - 495 Fine to coarse
gray sand. Some
water. Static
water level 71'

495 - 501 Sand & gravel
imbedded in gray
brown clay.

501 - 506 Blue to gray clay.

506 - 508 Gray sand & gravel.
Water. Developed

slow and not complete, with twelve
hours rest well recovered to 92 feet
from surface. Static level before 48
hour test was 78 feet from surface.
We believe this well will perform
satisfactorily providing the test rate
of pumping is not exceeded. If the
well is surged either by allowing too
large a pump to start at open dis-
charge or by any other means it will
probably damage the sand pack around
the screen. Static level of all waters
encountered in well was 71 feet to 78
feet from surface.

Screening & Perforating Log:

A 4 9/16 OD Black Steel Shop Made
Screen is set from 486 feet to 632 feet.
The screen is perforated with sixteen
3/16 inch by 2 1/2 inch horizontal torch
cuts per foot from 490 feet to 609 feet.
Screen is blank from 486 feet to 490
feet and 609 feet to 632 feet. A five
inch collar belled out to 5 7/8 inches
is welded to the top of the shop made
screen to prevent sand from coming up
through the top of the screen. Bottom of screen
was slightly nosed off to facilitate
installation.

Eighteen 2 1/2 inch by 1/4 inch vertical
slots per foot were cut in the six inch
casing from 269 feet to 272 feet with
a Mills Knife.

The screen was set, developed and
capacity tested before the six inch
casing was perforated. From the data
gathered from this and the final test
it was determined that 75 to 80 percent
of the water entering well is coming
through the slots in the shop made screen
and 20 to 25 percent of the water enter-
ing the well is coming through the
perforations in the six inch casing.

R-Lite Concrete Products, Inc.

- and pumped with Air Lift, had excessive drawdown and slow recovery.
- 508 - 509 Gravel imbedded in blue clay.
 - 509 - 525 Gray cemented sand and gravel.
 - 525 - 538 Fine gray and tan sand. Some water.
 - 538 - 539 Fine tan sand and gravel. Some water.
 - 539 - 553 Fine tan sand and gravel and green clay in thin alternate layers. Seeps of water.
 - 553 - 555 Medium sized brown silty sand. Some water.
 - 555 - 561 Sand, cobblestones and boulders mixed with tan silt. Seeps of water.
 - 561 - 566 Fine brown silty sand and gravel. Seeps of water.
 - 566 - 578 Red sand with few gravels mixed in. Some water.
 - 578 - 585 Fine brown silty sand and gravel. Seeps of water.
 - 585 - 589 Fine tan sand. Some water.
 - 589 - 601 Tan sand and yellow clay and silt in thin alternate layers. Seeps of water.
 - 601 - 607 Fine tan sand and gravel. Some water.
 - 607 - 609 Boulder.
 - 609 - 632 Blue clay.

1625

252042

I received and filed this Instrument for
record on the 12 day of July, 1966
at 8:40 o'clock P.M. permanent files
of Missoula County, State of Montana
Witness my hand:
Veranus R. Crouse, County Recorder
By M. C. Cunningham, Deputy
Fee \$ 2.00 Paid Cash

File No. _____

MONTANA WATER RESOURCES BOARD

T. 14 R 20 29

DUPLICATE

RECEIVED

County Missoula

JAN 12 1968

STATE OF MONTANA
ADMINISTRATOR OF GROUNDWATER CODE
OFFICE OF STATE ENGINEER

Notice of Completion of Groundwater
Appropriation by Means of Well
DEVELOPED AFTER JANUARY 1, 1962

(Under Chapter 237, Montana Session Laws, 1961)

Owner: SCHAFFER'S MOBIL SER. HELA, MONT.
Address: _____

Driller: BEISE DRILLING FOLSON, MONT.
Address: _____

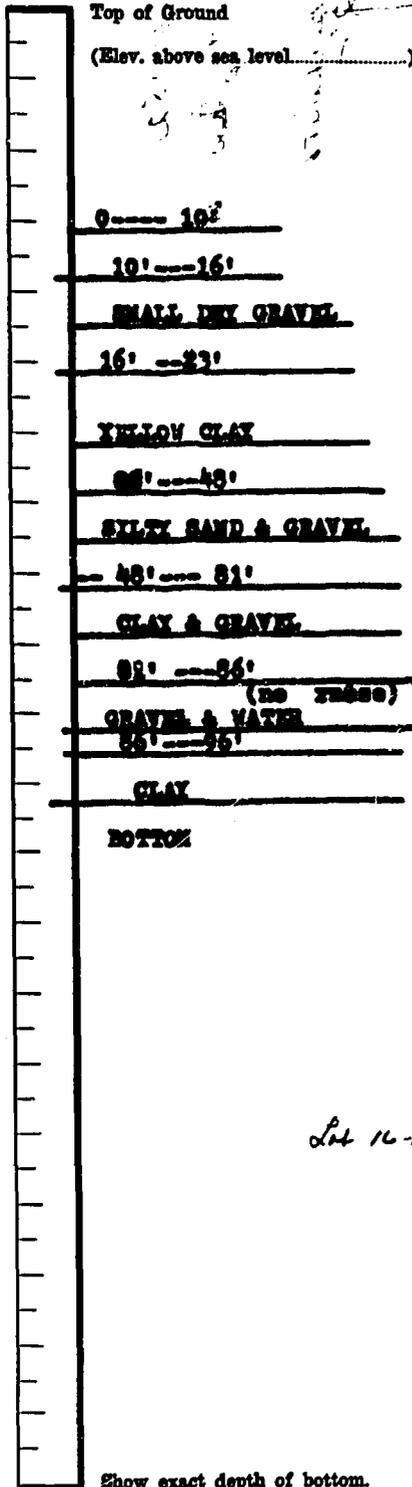
Date of Notice of appropriation of groundwater: _____

Date well started: 10/3/67 Date completed: 10/8/67

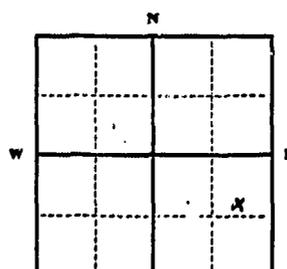
Types of well: DRILLED Equipment used: CHURN DRILL
(Dug, driven, bored or drilled) (Churn drill, rotary or other)

Water use: Domestic Municipal Stock Irrigation
Industrial Drainage Other

Indicate on the diagram the character and thickness of the different strata met with in drilling, such as soil, clay, shale, gravel, rock or sand, etc. Show depth at which water is encountered, thickness and character of water-bearing strata and height to which the water rises in the well.



Size of Drilled Hole	Size and Weight of Casing	From (Foot)	To (Foot)	PERFORATIONS		
				Kind Size	From (Foot)	To (Foot)
6"	6 I.D.	0	96'	NONE	NONE	NONE



Static Water Level for non-flowing well 80' feet.

Shut-in Pressure for Flowing Well _____

Pumping Water Level 84' feet
at 8 gal. per minute.

Discharge in gal. per min. of flowing well _____

How Tested: BALED

Length of Test: 2 hrs.

Remarks: (Gravel packing, cementing, packers, type of shutoff) _____

Lot 16 - Blk 4 - Main Industrial Pl

46.1/4 Sec. 28. T. 14. R. 20.
Indicate location of well and place of use, if possible. Each small square represents 40 acres.

(Continue on reverse side)

USE—If used for irrigation, industrial, drainage or other. Explain, state number of acres and location or other data (i.e.: Lot, Block and Addition).

DOMESTIC

Show exact depth of bottom.

This form to be prepared by driller, and three copies to be filed by the owner with the County Clerk and Recorder in the county in which the well is located, tissue copy to be retained by driller.

Please answer all questions. If not applicable, so state, otherwise the form will be returned.

#163

Driller's License Number

Donald R. Beebe
Driller's Signature.

42,754

#1770

267182

I received and filed the instrument for
 record on the 7 day Jan 1960
 at 2 o'clock P.M. permanent file
 of Missoula County, State of Montana
 Witness my hand:
 Clarence R. Cross, County Recorder
 By John Beckwith, Deputy
 Fee \$ 2.00 Paid.



MISSOULA COUNTY RECORDER
 CLARENCE R. CROSS
 JOHN BECKWITH, DEPUTY
 1960

30

File No. _____

STATE WATER CONSERVATION BOARD

T. 14N R. 20W

DUPLICATE

NOV 30 1966

County Missoula

Billie _____ McDermott _____
Butzrein _____ McNulty _____
Coyke _____ Morison _____
Darinton _____ Sullivan _____
Dickert _____

STATE OF MONTANA
ADMINISTRATOR OF GROUNDWATER CODE
OFFICE OF STATE ENGINEER



Top of Ground
(Elev. above sea level _____)

18" tile pipe

Silt Sand & Water
Pea Gravel

Notice of Completion of Groundwater
Appropriation by Means of Well

(Under Chapter 237, Montana Session Laws, 1961)

Owner Eugene Jatta Address Mullan Road

Driller John Farrell Address Artes

Date of Notice of Appropriation of Groundwater _____

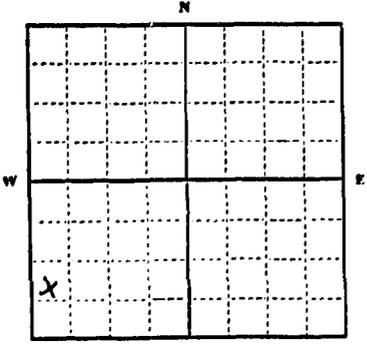
Date well started Nov. 21 1966 Date Completed Nov. 21 1966

Type of well Drilled Equipment Used Chain Drill
(dug, driven, bored or drilled) (Chain, drill, rotary or other)

Water Use: Domestic Municipal Other Irrigation
Industrial Drainage Stock

Indicate on the diagram the character and thickness of the different strata met with in drilling, such as soil, clay, shale, gravel, rock or sand, etc. Show depth at which water is encountered, thickness and character of water-bearing strata and height to which water rises in the well.

Size of Drilled Hole	Size and Weight of Casing	From (Feet)	To (Feet)	PERFORATIONS		
				Kind Size	From (Feet)	To (Feet)
5"	(5") (14.62#)	5'	99'			



SW 1/4 Sec. 30, T. 14, R. 20.
Indicate location of well and place of use, if possible. Each small square represents 10 acres.

Show exact depth of bottom.

Static Water Level for non-flowing Well 20 feet.

Shut-in Pressure for Flowing Well _____

Pumping Water Level 25 feet at 15 gal. per minute.

Discharge in gal. per min. of flowing well _____

How Tested Pump Length of Test 1 Hour

Remarks: (Gravel packing, cementing, packers, type of shutoff, location of place of use of groundwater if not at well, and any other similar pertinent information, including number of acres irrigated, if used for irrigation) _____

Driller's License Number 14

John Farrell
Driller's Signature

This form to be prepared by driller, and three copies to be filed by the owner with the County Clerk and Recorder in the county in which the well is located.

Please answer all questions. If not applicable, so state, otherwise the form will be returned.

Original to the County Clerk and Recorder; duplicate to the State Engineer; Triplicate to the Montana Bureau of Mines and Geology and Quadruplicate for the Appropriator.

41,370

1665 255702

received and filed this instrument for
record on the 28 day of Dec. 19 66
at 10:20 o'clock P.M., permanent file
of Missoula County, State of Montana.
Witness my hand:
Verance R. Crouse, County Recorder
By *Dr. J. S. Conroy* Deputy
Fee \$ 2.00 paid *cl*

File No.

T. 14 N 20 W

DUPLICATE

County Missoula

STATE OF MONTANA
ADMINISTRATOR OF GROUNDWATER CODE
OFFICE OF STATE ENGINEER

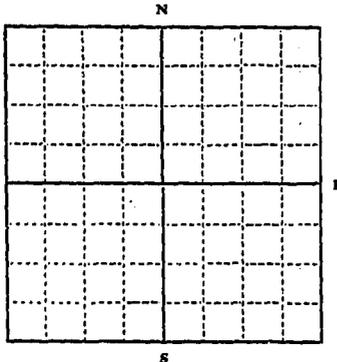
RECEIVED
DEC 30 1963
STATE ENGINEER

Declaration of Vested Groundwater Rights

(Under Chapter 237, Montana Session Laws, 1961)

1. A. D. Neilson, of Route 2, Missoula
(Name of Appropriator) (Address) (Town)

County of Missoula State of Montana
have appropriated groundwater according to the Montana laws in effect prior to January 1, 1962, as follows:



1/4 Sec. 30 T. 14 R. 20

Indicate point of appropriation and place of use, if possible. Each small square represents 10 acres.

2. The beneficial use on which the claim is based. Household use, stock water, yard irrigation

3. Date or approximate date of earliest beneficial use; and how continuous the use has been. Been used continuously since 1900.

4. The amount of groundwater claimed (in miner's inches or gallons per minute). not known

5. If used for irrigation, give the acreage and description of the lands to which water has been applied and name of the owner thereof. not known

6. The means of withdrawing such water from the ground and the location of each well or other means of withdrawal. Electric pump

7. The date of commencement and completion of the construction of the well, wells, or other works for withdrawal of groundwater. not known

8. The depth of water table. 30 feet

9. So far as it may be available, the type, size and depth of each well or the general specifications of any other works for the withdrawal of groundwater. Depth - 120 feet; Casing - 6 inches

10. The estimated amount of groundwater withdrawn each year. not known

11. The log of formations encountered in the drilling of each well if available. not known

12. Such other information of a similar nature as may be useful in carrying out the policy of this act, including reference to book and page of any county record. not known

Signature of Owner A. D. Neilson

Date December 26, 1963

Three copies to be filed by the owner with the County Clerk and Recorder of the county in which the well is located.

Please answer all questions. If not applicable, so state, otherwise the form will be returned.

Original to the County Clerk and Recorder; Duplicate to the State Engineer; Triplicate to the Montana Bureau of Mines and Geology, and Quadruplicate for the Appropriator.

568

214870

Copy

I received and filed this instrument for
 record on the 26 day of Dec, 1963
 at 10:46 o'clock A. M., permanent files
 of Missoula County, State of Montana
 Witness my hand:
 MARTIN S. BEHNER, County Recorder
 By Martin S. Behner Deputy
 Fee \$ 2.00 Paid

MISSOULA COUNTY

RECORDED

20 1 64

101 15000

MISSOULA COUNTY
 RECORDED
 20 1 64
 101 15000

File No.

DUPLICATE

T. 14N R. 20W 70
County Missoula

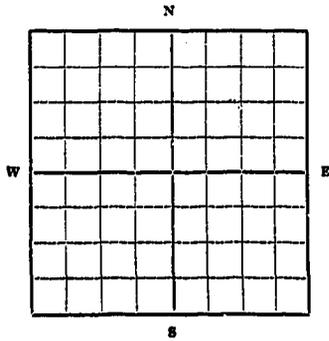
STATE OF MONTANA
ADMINISTRATOR OF GROUNDWATER CODE
OFFICE OF STATE ENGINEER

RECEIVED
DEC 3 1963

STATE ENGINEER

Declaration of Vested Groundwater Rights
(Under Chapter 237, Montana Session Laws, 1961)

Richard E. Wathen of Route 2 Missoula
(Name of Appropriator) (Address) (Town)
County of Missoula State of Montana
have appropriated groundwater according to the Montana laws in effect prior to January 1, 1962, as follows:



..... 1/4 Sec. T. R.

Indicate point of appropriation and place of use, if possible. Each small square represents 10 acres.

2. The beneficial use on which the claim is based domestic

3. Date or approximate date of earliest beneficial use; and how continuous the use has been 1952 continuous

4. The amount of groundwater claimed (in miner's inches or gallons per minute) 70 g.p.m.

5. If used for irrigation, give the acreage and description of the lands to which water has been applied and name of the owner thereof not known

6. The means of withdrawing such water from the ground and the location of each well or other means of withdrawal deep well, piston pump

7. The date of commencement and completion of the construction of the well, wells, or other works for withdrawal of groundwater 1952 18 feet to water

8. The depth of water table 18 feet to water

9. So far as it may be available, the type, size and depth of each well or the general specifications of any other works for the withdrawal of groundwater 5 1/2 inch 55' deep

10. The estimated amount of groundwater withdrawn each year 2 acre feet

11. The log of formations encountered in the drilling of each well if available clay and shale 5 feet gravel

12. Such other information of a similar nature as may be useful in carrying out the policy of this act, including reference to book and page of any county record. not known

Signature of Owner Richard E. Wathen
Date Nov 13 1963

Three copies to be filed by the owner with the County Clerk and Recorder of the county in which the well is located.

Please answer all questions. If not applicable, so state, otherwise the form will be returned.

Original to the County Clerk and Recorder; duplicate to the State Engineer; Triplicate to the Montana Bureau of Mines and Geology and Quadruplicate for the Appropriator.

340

213495

copy

I received and filed this instrument for record on the 27 day of 2021 1963 at 8:42 o'clock P.M., permanent files of Missoula County, State of Montana.
 Witness my hand:
 MARTIN S. BEHNER, County Recorder
 By Ethel Lane Deputy
 Fee \$ 2.00 Paid

11/11/2015

John A. Johnson

John A. Johnson

11/11/2015

10/8/11/11

John A. Johnson

File No. _____

DUPLICATE

T. 14N R. 20W

County Missoula

30

STATE OF MONTANA
ADMINISTRATOR OF GROUNDWATER CODE
OFFICE OF STATE ENGINEER

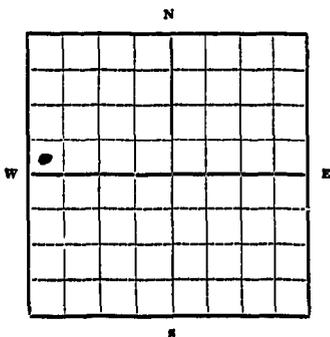
RECEIVED
DEC 3 1963

Declaration of Vested Groundwater Rights
(Under Chapter 237, Montana Session Laws, 1961)

STATE ENGINEER

1. Richard E Watkins, of Route 2 Missoula
(Name of Appropriator) (Address) (Town)

County of Missoula State of Montana
have appropriated groundwater according to the Montana laws in effect prior to January 1, 1962, as follows:



14N 20W Sec 30 T. 14N R. 20W

Indicate point of appropriation and place of use, if possible. Each small square represents 10 acres.

2. The beneficial use on which the claim is based domestic use

3. Date or approximate date of earliest beneficial use; and how continuous the use has been 1950

4. The amount of groundwater claimed (in miner's inches or gallons per minute) 30 gpm

5. If used for irrigation, give the acreage and description of the lands to which water has been applied and name of the owner thereof Not used for irrigation

6. The means of withdrawing such water from the ground and the location of each well or other means of withdrawal Deep well pump

7. The date of commencement and completion of the construction of the well, wells, or other works for withdrawal of groundwater 1950

8. The depth of water table Approximately 15' to water table

9. So far as it may be available, the type, size and depth of each well or the general specifications of any other works for the withdrawal of groundwater 120' 6" casing

10. The estimated amount of groundwater withdrawn each year 1 acre foot

11. The log of formations encountered in the drilling of each well if available Not known

12. Such other information of a similar nature as may be useful in carrying out the policy of this act, including reference to book and page of any county record Not known

Signature of Owner Richard E Watkins

Date Nov 13 1963

Three copies to be filed by the owner with the County Clerk and Recorder of the county in which the well is located.

Please answer all questions. If not applicable, so state, otherwise the form will be returned.

Original to the County Clerk and Recorder; duplicate to the State Engineer; Triplicate to the Montana Bureau of Mines and Geology and Quadruplicate for the Appropriator.

7722

41

213496

copy

I received and filed this instrument for record on the 7 day of Nov, 1962 at 8:20 o'clock A.M., permanent files of Missoula County, State of Montana
Witness my hand:
MARTIN S. BEHNER, County Recorder
By Steve Lamm Deputy
Fee \$ 2.00 Paid

MISSOULA COUNTY RECORDS DEPARTMENT
MISSOULA, MONTANA

File No.....

T. 11N R. 20W

DUPLICATE

County.....Missoula

STATE OF MONTANA
ADMINISTRATOR OF GROUNDWATER CODE
OFFICE OF STATE ENGINEER

Notice of Completion of Groundwater Appropriation
Without Well

MONTANA WATER RESOURCES BOARD
RECEIVED

Developed After January 1, 1962

APR 28 1969

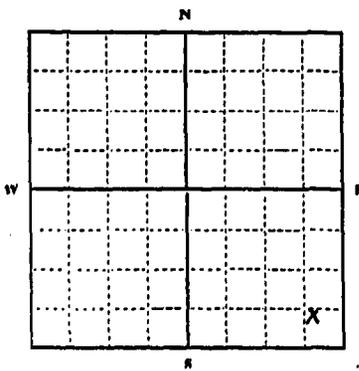
(Under Chapter 237 Montana Session Laws, 1961)

Date of Appropriation of Groundwater...August 15, 1967
Owner...Charles C. and/or Verance R. Crouse Address...Rt. #2, Missoula, Mont.

Contractor (if any)...None

Address of Contractor

Date Started Date Completed.....



1) Describe means of obtaining groundwater (as by sub-irrigation, developed spring, drafts, etc.)...Portion of undeveloped slough lying on Lot 6, Primrose Acres, which fills by sub-irrigation, from Frenchtown Irrigation Ditch during summer months.

2) Means of withdrawing water (gravity, pump, canal, etc.).....

Gas operated pump

3) Depth of water table.....3 ft. at high water

4) Use of the water...To irrigate land

5) Amount of groundwater claimed (in miner's inches, or gallons per minute).....2 inches

6) If used for irrigation, give number of acres and description of land...5 acres, designated as Lot 6, Primrose Acres, located in SW of Sec. 31, T11N, R20W

7) Estimate amount of water used each year.....2 inches

Signature of Owner.....

Date...April 24, 1969

.....1/8 Sec. 31 T. 11N R. 20W

Indicate point of appropriation and place of use, if possible.

This form to be prepared by contractor (if any), otherwise by the owner.

Three copies of this notice are to be filed with the County Clerk and Recorder of the county in which the works are located.

Please answer all questions. If not applicable, so state, otherwise the form will be returned.

#1875

280646

I received and filed this instrument for
record on the 24 day of April, 1969
at 8:30 A.M. permanent files
of Musselshell County, State of Montana
Witness my hand
Vernon H. Brown, County Recorder
By Dorothy L. Head, Deputy
Fee \$ 2.00 Paid Cash

APR 24 1969

File No. _____

MONTANA WATER RESOURCES BOARD

T. 14N R. 20W

DUPLICATE

RECEIVED

County Missoula

LOG

JUN 11 1968

STATE OF MONTANA
ADMINISTRATOR OF GROUNDWATER CODE
OFFICE OF STATE ENGINEER

Top of Ground Approx.
(Elev. above sea level 3327')

Notice of Completion of Groundwater Appropriation by Means of Well DEVELOPED AFTER JANUARY 1, 1962

(Under Chapter 237, Montana Session Laws, 1961)

Charles C. &/or

Owner Veramae R. Creuse Address Missoula, Montana

Driller Liberty Drilling Co. Address Missoula, Montana

Date of Notice of appropriation of groundwater None filed

Date well started 5/18/68 Date completed 5/20/68

Type of well Driven Equipment used Well driving rig
(Dug, driven, bored or drilled) (Churn drill, rotary or other)

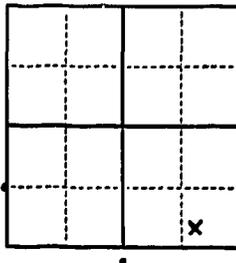
Water use: Domestic Municipal Stock Irrigation
Industrial Drainage Other

Indicate on the diagram the character and thickness of the different strata met with in drilling, such as soil, clay, shale, gravel, rock or sand, etc. Show depth at which water is encountered, thickness and character of water-bearing strata and height to which the water rises in the well.

Formations Log:

- 0 - 4 Black dirt.
- 4 - 14 Loose sand & gravel.
- 14 - 31 Tan silty sand. Water. Material too fine to successfully develop.
- 31 - 39 Light brown sand. Few scattered gravels. Water. Material too fine to successfully screen.
- 39 - 47 Fine brown silty sand with stringers of tan clay & silt.
- 47 - 56 Brown silty sand.
- 56 - 66 Silty fine brown sand with stringers of pink clay.
- 66 - 87 Light brown silty sand.
- 87 - 96 Pink colored clay.
- 96 - 109 Fine gray sand & gravel. Water Materials too fine.
- 109 - 114 Clean coarse sand and gravel. Water.

Size of Drilled Hole	Size and Weight of Casing	From (Feet)	To (Feet)	PERFORATIONS		
				Kind Size	From (Feet)	To (Feet)
6"	6 5/8" x 1/4"	+1'4"	114'10"	SLOTS 1/4" x 3"	109'10"	114'10"



Static Water Level for non-flowing well 6 feet.

Shut-in Pressure for Flowing Well None

Pumping Water Level 42 feet at 100 gal. per minute.

Discharge in gal. per min. of flowing well None flowing

How Tested Air Lift Pump

Length of Test Eight hours

Remarks: (Gravel packing, cementing, packers, type of shutoff) The bottom five feet of casing is perforated and all water entering well is coming through these perforations. Wells in this area can be depended upon to produce clear sand free water year after year as long as they are not overpumped, i.e., they should. (Continue on reverse side)

5/4 Sec 31 T 14N R 20W

Indicate location of well and place of use, if possible. Each small square represents 40 acres.

USE—If used for irrigation, industrial, drainage or other. Explain, state number of acres and location or other data (i.e.: Lot, Block and Addition).

Lot 6 Primrose Acres

Show exact depth of bottom.

Bottom of hole 114'10"

This form to be prepared by driller, and three copies to be filed by the owner with the County Clerk and Recorder in the county in which the well is located, tissue copy to be retained by driller.

Please answer all questions. If not applicable, so state, otherwise the form will be returned.

52

Driller's License Number

William F. Edlome
Driller's Signature.

44218

1796

271680

I received and filed this instrument for
 record on the 27 day of Dec, 1962
 at 8:22 o'clock P.M., permanent files
 of Missoula County, State of Montana
 Witness my hand:
 Vermon R. Crouse, County Recorder
 By M. M. Crouse Deputy
 Fee 2.00

271680

be pumped at rates not in excess of 30 to 40 percent of the tested capacity of the aquifer.

File No. _____

T. 14 R. 20 31

DUPLICATE

County Missoula

LOG

STATE OF MONTANA
ADMINISTRATOR OF GROUNDWATER CODE
OFFICE OF STATE ENGINEER

Notice of Completion of Groundwater
Appropriation by Means of Well
DEVELOPED AFTER JANUARY 1, 1962

(Under Chapter 237, Montana Session Laws, 1961)

Owner Harold M. Gabrielson Address 22 Miller Rd.

Driller Harold M. Gabrielson Address 22 Miller Rd.

Date of Notice of appropriation of groundwater Sept. 1969

Date well started Sept. 1969 Date completed Sept. 1969

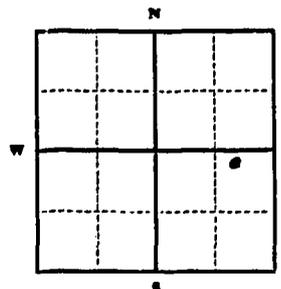
Type of well Electric Equipment used Electric
(Dug, Driven, bored or drilled) (Churn drill, rotary or other)

Water use: Domestic Municipal Stock Irrigation
Industrial Drainage Other

Indicate on the diagram the character and thickness of the different strata met with in drilling, such as soil, clay, shale, gravel, rock or sand, etc. Show depth at which water is encountered, thickness and character of water-bearing strata and height to which the water rises in the well.

Doc. No. 290413
Filed for record
this 20 day of April
A. D. 19 70, at 10:00
o'clock a.m.

Size of Drilled Hole	Size and Weight of Casing	From (Feet)	To (Feet)	PERFORATIONS		
				Kind Size	From (Feet)	To (Feet)
4"	4"		22 ft.			



Static Water Level for non-flowing well 12 ft. feet.

Shut-in Pressure for Flowing Well 9 1/2 psi

Pumping Water Level 15 ft. feet
at 20 gal. per minute.

Discharge in gal. per min. of flowing well 20 gpm

How Tested _____

Length of Test _____

Remarks: (Gravel packing, cementing, packers, type of shutoff) 9 1/2 psi at 20 gpm

S 1/2 Sec. 3 T. 14 R. 20
Indicate location of well and place of use, if possible. Each small square represents 40 acres.

(Continue on reverse side)

USE—If used for irrigation, industrial, drainage or other. Explain, state number of acres and location or other data (i.e.: Lot, Block and Addition).

Show exact depth of bottom.

This form to be prepared by driller, and three copies to be filed by the owner with the County Clerk and Recorder in the county in which the well is located, tissue copy to be retained by driller.

Please answer all questions. If not applicable, so state, otherwise the form will be returned.

Driller's License Number

Harold M. Gabrielson
Driller's Signature

46374

1970

290413

I received and filed this instrument for record on the 20 day of April 1970 at 10:00 o'clock P. M. before me this of Missoula County, State of Montana

Witness my hand

Veranda R. Grouse, County Recorder

By *[Signature]* Deputy

Fee \$2.00 *[Signature]*

MISSOURI WATER RESOURCES BOARD
RECEIVED
 APR 23 1970

Q.

STATE OF MONTANA
ADMINISTRATOR OF GROUNDWATER CODE
MONTANA WATER RESOURCES BOARD

NOTICE OF COMPLETION OF GROUNDWATER
APPROPRIATION BY MEANS OF WELL

Developed after January 1, 1962

(Under Chapter 237 Montana Session Laws, 1931, as amended)

This form to be prepared by driller, and three copies to be filed by the owner with the County Clerk and Recorder in the county in which the well is located, last copy to be retained by driller.

Please answer all questions. If not applicable, so state, otherwise the form may be returned.

Owner Roy A. and Carol I. Jones

Address San Jose, Calif.

Date well started 5/19/70

completed 5/20/70

Type of well Driven

Equipment used Well driving rig

Water Use: Domestic Municipal Stock Irrigation

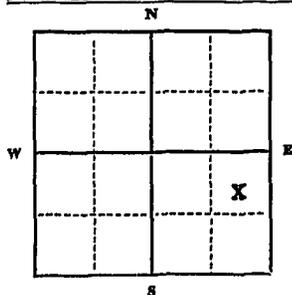
Industrial Drainage Other Garden/Lawn

*Describe

USE: If used for irrigation, industrial, drainage or other. Explain, state number of acres and location or other data (i.e. Lot, Block and Addition).

ESTIMATED ANNUAL WITHDRAWAL Unknown

Size of Drilled Hole	Size and Weight of Casing	From (Feet)	To (Feet)	PERFORATIONS		
				Kind Size	From (Feet)	To (Feet)
6"	6 5/8" OD x 1/4"	+2'10"	97'	Torch cut	91'	94'



NE 1/4 SE 1/4 Sec. 31
T. 14 N. R. 20 E. W.

INDICATE LOCATION OF WELL AND PLACE OF USE, IF POSSIBLE. EACH SMALL SQUARE REPRESENTS 40 ACRES.

Driller's Signature William J. Calme
LIBERTY DRILLING COMPANY

Driller's Address 2500 Reserve Street

Missoula, Montana LICENSE NO. 52

DRILLER'S LOG

Indicate the character, color, thickness of strata such as soil, clay, sand, gravel, shale, sandstone, etc. Show depth at which water is found and height to which water rises in well.

Top of Ground		Approx. (Elev. above sea level) 3327'
From (Feet)	To (Feet)	
0	3	Dirt.
3	14	Gravel.
14	18	Sand and gravel mixed in tan clay.
18	24	Light tan clay.
24	28	Tan sand mixed in tan silt.
28	31	Tan sandy silt.
31	44	Brown sand, some gravel. Water. Materials too fine to successfully develop well.
44	48	Fine brown sand.
48	56	Sand and gravel mixed in pink clay.
56	59	Fine brown sand.
59	64	Tan silty clay.
64	65	Fine brown sand.
65	79	Brown sand mixed in tan silt.
79	82	Fine brown sand.
82	90	Brown sand mixed in tan silt.
90	91	Fine brown sand.
91	97	Clean coarse sand and fine gravel. Water.

Static water level 10'6" ft.*
Pumping water level 30 ft.*
at 50 gallons per minute,
measured 14 hours after pumping
began.
*Measured from ground level.
Well developed by Air Lift
for 14 hours. Pump
Power 230 V. Pump 1/3 HP
Remarks: (Gravel packing, cementing,
packers, type of shutoff) All
water entering well is
coming through perfor-
ations in six inch
casing. Wells in this
cont.

97 ft. Show exact depth of bottom
Water rises in well 10'6" to
surface.

46706

area can be depended upon to produce clear sand free water year after year as long as they are not overpumped, i.e., they should be pumped at rates not in excess of 50 to 60 percent of the tested capacity of the aquifer.

II 2017

293097

I received and filed this instrument for record on the 17th day of July, 1970 at 2:05 o'clock P.M. Recorder files of Missoula County, State of Montana Without my hand.
Vernon R. Ochs, County Recorder
By Michael Decker, Deputy
FWS & R

File No. _____

DUPLICATE

T. 14ⁿ R. 20^w 31
County MISSOULA

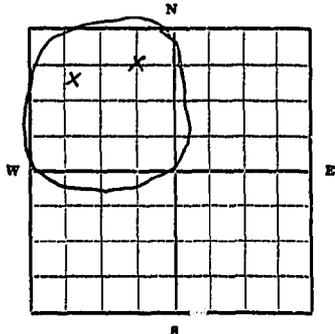
STATE OF MONTANA
ADMINISTRATOR OF GROUNDWATER CODE
OFFICE OF STATE ENGINEER

RECEIVED
DEC 13 1963

Declaration of Vested Groundwater Rights
(Under Chapter 237, Montana Session Laws, 1961)

STATE ENGINEER

William L. Kinney of Route #2 Missoula
(Name of Appropriator) (Address) (Town)
County of MISSOULA State of MONTANA
have appropriated groundwater according to the Montana laws in effect prior to January 1, 1962, as follows:



..... 1/4 Sec..... T..... R.....

Indicate point of appropriation and place of use, if possible. Each small square represents 10 acres.

2. The beneficial use on which the claim is based Irrigation - Stock Water
3. Date or approximate date of earliest beneficial use; and how continuous the use has been 1949 Seasonal
4. The amount of groundwater claimed (in miner's inches or gallons per minute) 100 miner's inches
5. If used for irrigation, give the acreage and description of the lands to which water has been applied and name of the owner thereof 40 Acres NE 1/4 SW 1/4 Section 31 Township 14 North Range 20 West William L. Kinney
6. The means of withdrawing such water from the ground and the location of each well or other means of withdrawal 4 inch centrifugal pump - sprinkler system sump in bottom of slough
7. The date of commencement and completion of the construction of the well, wells, or other works for withdrawal of groundwater 1949 - March - April
8. The depth of water table 2 to 4 ft.
9. So far as it may be available, the type, size and depth of each well or the general specifications of any other works for the withdrawal of groundwater 2 Bull Dozed Sump type wells
10. The estimated amount of groundwater withdrawn each year 100 inches for 120 days
11. The log of formations encountered in the drilling of each well if available MLP
12. Such other information of a similar nature as may be useful in carrying out the policy of this act, including reference to book and page of any county record none

Signature of Owner William L. Kinney
Date Dec 11, 1963

Three copies to be filed by the owner with the County Clerk and Recorder of the county in which the well is located.

Please answer all questions. If not applicable, so state, otherwise the form will be returned.

Original to the County Clerk and Recorder; duplicate to the State Engineer; Triplicate to the Montana Bureau of Mines and Geology and Quadruplicate for the Appropriator.

396

214161

Copy

I received and filed this instrument for record on the 11 day of Dec 1963 at 4:21 o'clock P.M., permanent files of Missoula County, State of Montana

Witness my hand:
MARTIN S. BEHNER, County Recorder
 By Martin S. Behner, Deputy
 Fee \$ 2.00 Paid

RECORDED
 MISSOULA COUNTY, MONTANA
 DECEMBER 11 1963

RECORDED
 MISSOULA COUNTY, MONTANA
 DECEMBER 11 1963

File No.

DUPLICATE

T. 14^N R. 20^W 31^E
County. Missoula

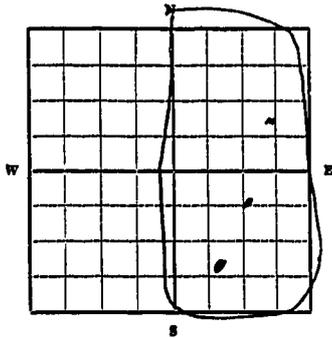
STATE OF MONTANA
ADMINISTRATOR OF GROUNDWATER CODE
OFFICE OF STATE ENGINEER

RECEIVED
DEC 13 1963

Declaration of Vested Groundwater Rights
(Under Chapter 237, Montana Session Laws, 1961)

STATE ENGINEER

1. William L. Kinney of Route #2 Missoula
(Name of Appropriator) (Address) (Town)
County of MISSOULA State of MONTANA
have appropriated groundwater according to the Montana laws in effect prior to January 1, 1962, as follows:



..... 1/4 Sec. T. R.

Indicate point of appropriation and place of use, if possible. Each small square represents 10 acres.

- 2. The beneficial use on which the claim is based IRRIGATION
+ STOCK WATER
- 3. Date or approximate date of earliest beneficial use; and how continuous the use has been 23rd MAY 1955
SEASONAL
- 4. The amount of groundwater claimed (in miner's inches or gallons per minute) 100 INCH
- 5. If used for irrigation, give the acreage and description of the lands to which water has been applied and name of the owner thereof 80 ACRES WEST & SE 1/4
SECTION 31 TOWN 31 NORTH
RANGE 20 WEST WILLIAM L. KINNEY
- 6. The means of withdrawing such water from the ground and the location of each well or other means of withdrawal
4 INCH CENTRIFUGAL PUMP

7. The date of commencement and completion of the construction of the well, wells, or other works for withdrawal of groundwater MAY 1955

8. The depth of water table VARIABLE 2 TO 8 FT

9. So far as it may be available, the type, size and depth of each well or the general specifications of any other works for the withdrawal of groundwater THREE BULL DOZED
SUMPS TYPE WELL

10. The estimated amount of groundwater withdrawn each year 100 MINER INCHES
120 DAYS

11. The log of formations encountered in the drilling of each well if available MUD

12. Such other information of a similar nature as may be useful in carrying out the policy of this act, including reference to book and page of any county record BOOK K PAGE 109
MISSOULA COUNTY COURT HOUSE

Signature of Owner William L. Kinney
Date Dec 11, 1963

Three copies to be filed by the owner with the County Clerk and Recorder of the county in which the well is located.

Please answer all questions. If not applicable, so state, otherwise the form will be returned.

Original to the County Clerk and Recorder; duplicate to the State Engineer; Triplicate to the Montana Bureau of Mines and Geology and Quadruplicate for the Appropriator.

397

214162

Copy
I received and filed this instrument for
record on the *11* day of *Dec*, 19*63*
at *10:25* o'clock *P.*M., permanent files
of Missoula County, State of Montana
Witness my hand:
MARTIN S. BENNER, County Recorder
By *Martin S. Benner* Deputy
Fee \$ *2.00* Paid

File No.

RECEIVED

T. 14N R. 20W

DUPLICATE

NOV 14 1967

County Missoula 31

LOG

STATE OF MONTANA ADMINISTRATOR OF GROUNDWATER CODE OFFICE OF STATE ENGINEER

Top of Ground Approx. (Elev. above sea level) 3327'

Notice of Completion of Groundwater Appropriation by Means of Well

DEVELOPED AFTER JANUARY 1, 1962

(Under Chapter 237, Montana Session Laws, 1961)

Owner: Gaynell & Gordon A. Koenig Plains, Montana

Driller: Liberty Drilling Co. Address: Missoula, Montana

Date of Notice of appropriation of groundwater: None filed

Date well started: 5/9/67 Date completed: 5/16/67

Type of well: Drilled Equipment used: Cable Tools

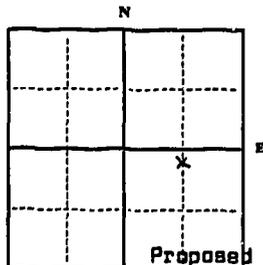
Water use: Domestic [X] Municipal [] Stock [X] Irrigation [X]

Indicate on the diagram the character and thickness of the different strata with in drilling, such as soil, clay, shale, gravel, rock or sand, etc. Show depth at which water is encountered, thickness and character of water-bearing strata and height to which the water rises in the well.

- Formations Log: 0 - 4 Dug pit. 4 - 16 Loose sand & gravel. 16 - 37 Light tan silty sand. Some water. 37 - 40 Light brown sand, some gravel. Water. 40 - 39 Fine brown sand. 59 - 60 Fine brown sand & stringers of pink clay. 60 - 79 Light brown silty sand. 79 - 92 Fine brown silty sand. 92 - 93 Pink clay & sand. 93 - 99 Sand & gravel. Some silt & stringers of clay. 99 - 102 Silty sand & fine gravel. Water. 102 - 104 Clean coarse sand & gravel. Water.

Table with columns: Size of Drilled Hole, Size and Weight of Casing, From (Feet), To (Feet), PERFORATIONS (Kind Size, From (Feet), To (Feet)).

Water rises in the well 8 feet from surface.



Lots 7 & 8 of Primrose Acres

S 1/4 Sec. 31 T. 14N R. 20W

Indicate location of well and place of use, if possible. Each small square represents 40 acres.

dependent upon to produce clear sand free water year after year as long as they are not overpumped, i.e., they should be pumped.

USE—If used for irrigation, industrial, drainage or other. Explain, state number of acres and location or other data (i.e.: Lot, Block and addition).

Approx. 10 acres

Show exact depth of bottom.

Bottom of hole 104'

Static Water Level for non-flowing well 8 feet.

Shut-in Pressure for Flowing Well Non-flowing

Pumping Water Level 20 feet at 100 gal. per minute.

Discharge in gal. per min. of flowing well Non-flowing

How Tested: Air Lift Pump

Length of Test: 6 hours

Remarks: (Gravel packing, cementing, packers, type of shutoff) All water entering well is coming through the open bottom of six inch casing. Wells with open bottom completions can be

This form to be prepared by driller, and three copies to be filed by the owner with the County Clerk and Recorder in the county in which the well is located, tissue copy to be retained by driller.

Please answer all questions. If not applicable, so state, otherwise the form will be returned.

52 Driller's License Number

W. Kevin S. Adams Driller's Signature

42,528

at rates less than 25 to 50 percent of the tested capacity of the aquifer.

1787

265674

I received and filed this instrument for record on the 10th day of March, 1967, at 10:20 a.m. Book A. N. Instrument File of Missoula County, State of Montana

Witness my hand.

Veronica R. Clegg, County Recorder

Fee: \$1.00 Paid Cash

31

File No. _____

T. 141^N R. 20^W

DUPLICATE

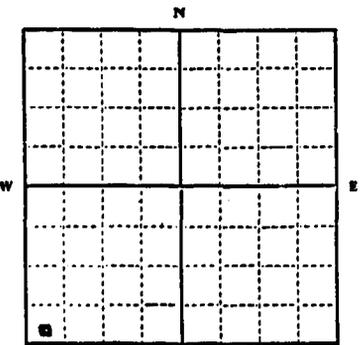
County _____

STATE OF MONTANA
ADMINISTRATOR OF GROUNDWATER CODE
OFFICE OF STATE ENGINEER

RECEIVED
JAN 3 1963

Declaration of Vested Groundwater Rights ENGINEER
(Under Chapter 237, Montana Session Laws, 1961)

1. GEORGE J. Lavoie of Route #2, Missoula
(Name of Appropriator) (Address) (Town)
County of Missoula State of MONTANA
have appropriated groundwater according to the Montana laws in effect prior to January 1, 1962, as follows:



SW 1/4 Sec. 31 T. 14. R. 20
Indicate point of appropriation and place of use, if possible. Each small square represents 10 acres.

- 2. The beneficial use on which the claim is based Domestic
- 3. Date or approximate date of earliest beneficial use; and how continuous the use has been August 10, 1960
Continual
- 4. The amount of groundwater claimed (in miner's inches or gallons per minute) Twenty (20) gallons per minute
- 5. If used for irrigation, give the acreage and description of the lands to which water has been applied and name of the owner thereof
not applicable
- 6. The means of withdrawing such water from the ground and the location of each well or other means of withdrawal
Pump
SW 1/2 Section 31, Township 14, Range 20

- 7. The date of commencement and completion of the construction of the well, wells, or other works for withdrawal of groundwater August 1, 1960 to August 10, 1960
- 8. The depth of water table Seven feet
- 9. So far as it may be available, the type, size and depth of each well or the general specifications of any other works for the withdrawal of groundwater Driven 3 inch casing 27 feet
- 10. The estimated amount of groundwater withdrawn each year 21,600
- 11. The log of formations encountered in the drilling of each well if available
Gravel for 12 feet Clay hard pan 12 inches
rest is gravel
- 12. Such other information of a similar nature as may be useful in carrying out the policy of this act, including reference to book and page of any county record Unknown

Signature of Owner George J. Lavoie
Date December 31, 1963

Three copies to be filed by the owner with the County Clerk and Recorder of the county in which the well is located.

Please answer all questions. If not applicable, so state, otherwise the form will be returned.

Original to the County Clerk and Recorder; Duplicate to the State Engineer; Triplicate to the Montana Bureau of Mines and Geology, and Quadruplicate for the Appropriator.

20176

10526

215531

I received and filed this instrument for
record on the 31 day of Dec. 1963
at 4:11 o'clock P. M., permanent files
of Missoula County, State of Montana
Witness my hand.
MARTIN S. BURNER, County Recorder
By Ethel Rome Deputy
Fee \$ 2.00 Paid

14N-20W - 31
County Missoula

STATE OF MONTANA
ADMINISTRATOR OF GROUNDWATER CODE
MONTANA WATER RESOURCES BOARD

NOTICE OF COMPLETION OF GROUNDWATER
APPROPRIATION BY MEANS OF WELL

Developed after January 1, 1962

(Under Chapter 237 Montana Session Laws, 1961, as amended)

This form to be prepared by driller, and three copies to be filed by the owner with the County Clerk and Recorder in the county in which the well is located, last copy to be retained by driller.

Please answer all questions. If not applicable, so state, otherwise the form may be returned.

Owner Armond Amier
Address Route 2 Mulholland
Missoula Mont
Date well started 5/2/73
completed 5/5/73

For Administrator's Use
File <u>334US22535</u>
<u>June 28, 1973</u>
GW 1 <u>8.08 a.m.</u>

Type of well Driven
(Dug, driven, bored or drilled)

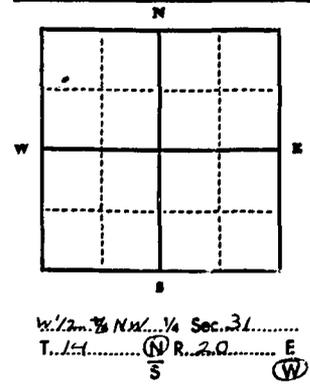
Equipment used Driller
(Chain drill, rotary or other)

Water Use: Domestic Municipal Stock Irrigation
Industrial Drainage Other Garden/Lawn

*Describe
USE: If used for irrigation, industrial, drainage or other. Explain, state number of acres and location or other data (i.e. Lot, Block and Addition).

ESTIMATED ANNUAL WITHDRAWAL

Size of Drilled Hole	Size and Weight of Casing	From (Feet)	To (Feet)	PERFORATIONS		
				Kind Size	From (Feet)	To (Feet)
<u>5"</u>	<u>5" 40</u>	<u>+1</u>	<u>102'</u>	<u>3/16" 4"</u>	<u>96'</u>	<u>102'</u>



Static water level 17 ft.*
Pumping water level 16 ft.*
at _____ gallons per minute,
measured _____ minutes after pumping
began.
*Measured from ground level.
Well developed by Compucon
for 2 hours.
Power 12.5 Pump 4.5 HP
Remarks: (Gravel packing, cementing,
packers, type of shutoff)

INDICATE LOCATION OF WELL AND PLACE OF USE, IF POSSIBLE. EACH SMALL SQUARE REPRESENTS 40 ACRES.

Driller's Signature George Stimpfle
Driller's Address Route 1 Big Flat
Missoula Mont
Water Drilling & Operating LICENSE NO. 238

DRILLER'S LOG

Indicate the character, color, thickness of strata such as soil, clay, sand, gravel, shale, sandstone, etc. Show depth at which water is found and height to which water rises in well.

Top of Ground (Elev. above sea level)	
From (Feet)	To (Feet)
0	3
3	16
16	17
17	17
17	32
32	38
38	45
45	52
52	56
56	67
67	67
67	85
85	96
96	102

102' Show exact depth of bottom

2538 334082

I received and filed this instrument for
record on the 28th day of June 1973
at 8:01 o'clock A.M. permanent files
of Missoula County, State of Montana
Witness my hand:
Dorothy L. Head, County Recorder
By _____, Deputy
Fee \$ _____ Paid

2252

217277

I received and filed this instrument for
 record on the 23 day of Apr, 1977
 at 10:00 o'clock A.M. permanent files
 of Missoula County State of Montana
 Witness my hand
 Varcoe R. Cream, County Recorder
 By Sharon J. Minkelle Deputy
 Fee 2.00 Paid

31

File No.

T. 14N R. 20W

DUPLICATE

County Missoula

LOG

STATE OF MONTANA
ADMINISTRATOR OF GROUNDWATER CODE
STATE WATER CONSERVATION BOARD

Notice of Completion of Groundwater
Appropriation by Means of Well
DEVELOPED AFTER JANUARY 1, 1962

(Under Chapter 237 Montana Session Laws, 1961, as amended)

Owner Dalbert M. McDonald Address Rt. #2, Mullan Rd., Mullan

Driller Dalbert M. McDonald Address Same

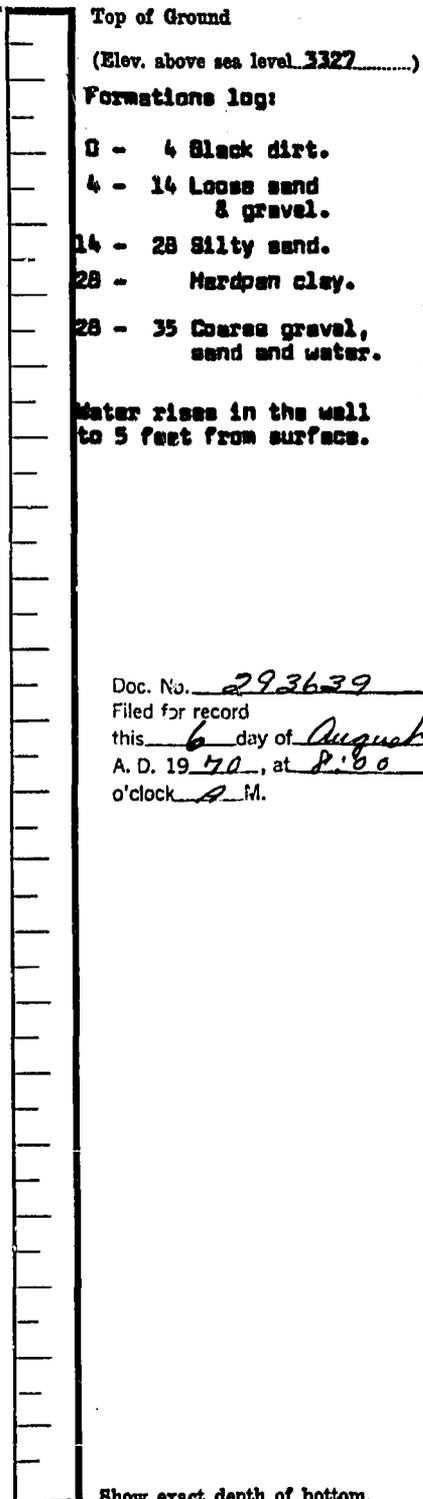
Date of Notice of appropriation of groundwater None filed

Date well started Apr. 16, 1970 Date completed Apr. 20, 1970

Type of well Driven Equipment used Well driving rig
(Dug, driven, bored or drilled) (Churn drill, rotary or other)

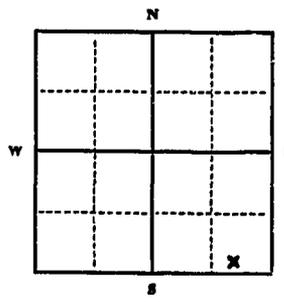
Water use: Domestic Municipal Stock Irrigation
Industrial Drainage Other

Indicate on the diagram the character and thickness of the different strata met with in drilling, such as soil, clay, shale, gravel, rock or sand, etc. Show depth at which water is encountered, thickness and character of water-bearing strata and height to which the water rises in the well.



Doc. No. 293639
Filed for record
this 6 day of August
A. D. 19 70, at 8:00
o'clock P.M.

Size of Drilled Hole	Size and Weight of Casing	From (Feet)	To (Feet)	PERFORATIONS		
				Kind Size	From (Feet)	To (Feet)
4"	4-5/8 x 1/4"	1'	35'	Slots 1 in.	Di.	32'-35'



Static Water Level for non-flowing well 5 feet.

Shut-in Pressure for Flowing Well.....

Pumping Water Level..... 18 feet
at..... 85 gal. per minute.

Discharge in gal. per min. of flowing well
Non-flowing

How Tested... Air lift pump

Length of Test... Four Hours

Remarks: (Gravel packing, cementing, packers, type of shutoff)..... The bottom 3 feet of casing is perforated and all water entering well is coming through these perforations.

(Continue on reverse side)

USE—If used for irrigation, industrial, drainage or other. Explain, state number of acres and location or other data (i.e.: Lot, Block and Addition).

Lot 9 Primrose Acres

Show exact depth of bottom.

Bottom of hole 35 feet

This form to be prepared by driller, and three copies to be filed by the owner with the County Clerk and Recorder in the county in which the well is located, tissue copy to be retained by driller.

Please answer all questions. If not applicable, so state, otherwise the form will be returned.

Driller's License Number

Dalbert M. McDonald
Driller's Signature.

47331

2022 293639

I received and filed this instrument for
record on the 6th day of Aug, 1970
at 9:00 o'clock A.M., pursuant to
of Missoula County, State of Montana
Witness my hand.
Veranus R. Couse, County Recorder
By W. J. C. Couse, Deputy
Fee 2.00 Paid cash

1970
AUG 6 1970
MISSOULA COUNTY REC'D

File No. _____

MONTANA WATER RESOURCES BOARD
RECEIVED

T. 14N R. 20W 31

DUPLICATE

County Missoula

LOG

OCT 15 1970

STATE OF MONTANA
ADMINISTRATOR OF GROUNDWATER CODE
STATE WATER CONSERVATION BOARD

Top of Ground

(Elev. above sea level _____)

Notice of Completion of Groundwater Appropriation by Means of Well DEVELOPED AFTER JANUARY 1, 1962

(Under Chapter 237 Montana Session Laws, 1961, as amended)

Owner Chester L. & Ann M. Profka Address Rt. #2, Millan Rd. Missoula

Driller Self Address Same

Date of Notice of appropriation of groundwater October 7, 1970

Date well started September 26, 1970 completed Oct. 3, 1970

Type of well Driven Equipment used Rotary
(Dug, driven, bored or drilled) (Churn drill, rotary or other)

Water use: Domestic Municipal Stock Irrigation
Industrial Drainage Other

Indicate on the diagram the character and thickness of the different strata met with in drilling, such as soil, clay, shale, gravel, rock or sand, etc. Show depth at which water is encountered, thickness and character of water-bearing strata and height to which the water rises in the well.

Doc. No. 295647
Filed for record
this 8 day of October
A. D. 19 70, at 11:00
o'clock A. M.

Size of Drilled Hole	Size and Weight of Casing	From (Feet)	To (Feet)	PERFORATIONS		
				Kind Size	From (Feet)	To (Feet)
6"	1200#	6'	46'	Steel Torch cut	6'	16'

Static Water Level for non-flowing well 5 feet.

Shut-in Pressure for Flowing Well.....

Pumping Water Level..... 5 feet

at..... 20 gal. per minute.

Discharge in gal. per min. of flowing well

How Tested By pumping.....

Length of Test..... 4 hours

Remarks: (Gravel packing, cementing, packers, type of shut-off) Gravel packing by packers.....

.....

.....

(Continue on reverse side)

USE—If used for irrigation, industrial, drainage or other. Explain, state number of acres and location or other data (i.e.: Lot, Block and Addition).

Show exact depth of bottom.

This form to be prepared by driller, and three copies to be filed by the owner with the County Clerk and Recorder in the county in which the well is located, tissue copy to be retained by driller.

Please answer all questions. If not applicable, so state, otherwise the form will be returned.

Driller's License Number _____

Driller's Signature _____

47632

RECEIVED

144-200
County Missoula 31

STATE OF MONTANA
ADMINISTRATOR OF GROUNDWATER CODE
MONTANA WATER RESOURCES BOARD

FEB 1 1973

DRILLER'S LOG

Indicate the character, color, thickness of strata such as soil, clay, sand, gravel, shale, sandstone, etc. Show depth at which water is found and height to which water rises in well.

NOTICE OF COMPLETION OF GROUNDWATER APPROPRIATION BY MEANS OF WELL

Developed after January 1, 1962

(Under Chapter 237 Montana Session Laws, 1961, as amended)

This form to be prepared by driller, and three copies to be filed by the owner with the County Clerk and Recorder in the county in which the well is located, last copy to be retained by driller.

Please answer all questions. If not applicable, so state, otherwise the form may be returned.

Owner Chet Prosser
Address Route 2
Muller Road
Date well started 1/25/73
completed 1/26/73

For Administrator's Use	
File	<u>2410, 377427</u>
Date	<u>Jan 30, 1973</u>
GW 1	<u>1:00 p.m.</u>

Type of well Driven
(Dug, driven, bored or drilled)

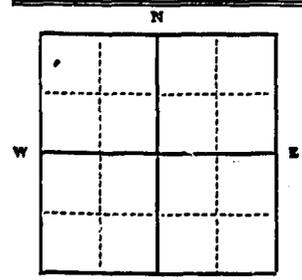
Equipment used Driven
(Cable drill, rotary or other)

Water Use: Domestic Municipal Stock Irrigation
Industrial Drainage Other Garden/Lawn

*Describe Home
USE: If used for Irrigation, Industrial, drainage or other. Explain, state number of acres and location or other data (i.e. Lot, Block and Addition).

ESTIMATED ANNUAL WITHDRAWAL

Size of Drilled Hole	Size and Weight of Casing	From (Foot)	To (Foot)	PERFORATIONS		
				Kind Size	From (Foot)	To (Foot)
<u>5"</u>	<u>5" Sch 40</u>	<u>-5'</u>	<u>77'</u>	<u>3/16" SCOTS</u>	<u>71</u>	<u>77 1/2</u>



Static water level 16' ft.*
Pumping water level 12' ft.*
at 120 gallons per minute,
measured 3 minutes after pumping began.
*Measured from ground level.
Well developed by Compressor
for 2 hours.
Power Gasoline Pump 125 HP
Remarks: (Gravel packing, cementing, packers, type of shutoff) NA

Lot 1
1/4 Sec. 31
T. 17 N. R. 20 E.

INDICATE LOCATION OF WELL AND PLACE OF USE, IF POSSIBLE. EACH SMALL SQUARE REPRESENTS 40 ACRES.

Driller's Signature George Stimpke
Driller's Address Route 1 Big Lost
Missoula Mont. LICENSE NO. 238

Western Drilling & Georating

Top of Ground (Elev. above sea level)		
From (Foot)	To (Foot)	
<u>5</u>	<u>23</u>	<u>SAND/CLAY DIET</u>
<u>16</u>	<u>16</u>	<u>STATIC WATER LEVEL</u>
<u>33</u>	<u>35</u>	<u>CLAY</u>
<u>35</u>	<u>38</u>	<u>SAND</u>
<u>38</u>	<u>40</u>	<u>CLAY</u>
<u>41</u>	<u>53</u>	<u>SAND & CLAY</u>
<u>53</u>	<u>57</u>	<u>SAND</u>
<u>57</u>	<u>60</u>	<u>SAND & CLAY</u>
<u>60</u>	<u>69</u>	<u>CLAY</u>
<u>69</u>	<u>77 1/2</u>	<u>GRAVEL</u>

77 1/2 Show exact depth of bottom

2410

327427

I received and filed this instrument for
 record on the 30 day of Jan 1913
 at 1:00 o'clock P. M., permanent files
 of Missoula County, State of Montana
 Witness my hand:
 Dorothy L. Head, County Recorder
 By [Signature] Deputy
 Fee \$ 2.00 Paid

MISSOULA COUNTY
 CLERK
 MISSOULA, MONTANA
 JAN 30 1913
 RECEIVED

File No. Filed for record this 13th day of August 1971
DUPLICATE AD 190 71, at 1:45
clock P.M. AUG 19 1971

T 14N R 20W
County Missoula

STATE OF MONTANA
ADMINISTRATOR OF GROUNDWATER CODE
OFFICE OF STATE ENGINEER

Notice of Completion of Groundwater
Appropriation by Means of Well

DEVELOPED AFTER JANUARY 1, 1962

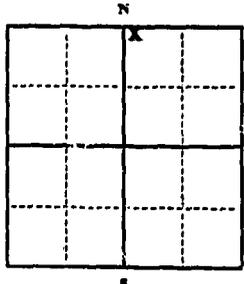
(Under Chapter 237, Montana Session Laws, 1961)

Top of Ground Approx. (Elev. above sea level) 3203'

Formations Log:

- 0 - 5 1/2 Cobbles & boulders mixed in dirt. Jane & Nelson A. Baird Owner. Address Missoula, Montana
- 5 1/2 - 52 Green & gray argillite. Fairly solid, but badly broken. Driller Liberty Drilling Co. Address Missoula, Montana
- 52 - 59 Red rock. Soft & hard. Some real soft. Date well started 7/11/67 Date completed 7/19/67
- 59 - 67 Tan & brown rock. Type of well Drilled Equipment used Air Rotary (Dug, driven, bored or drilled) (Churn drill, rotary or other)
- 67 - 76 Light gray to white rock. Some talc or clay. Water use: Domestic Municipal Stock Irrigation Industrial Drainage Other
- 76 - 97 Tan to pink quartzite. Indicate on the diagram the character and thickness of the different strata met with in drilling, such as soil, clay, shale, gravel, rock or sand, etc. Show depth at which water is encountered, thickness and character of water-bearing strata and height to which the water rises in the well.
- 97 - 107 Red rock.
- 107 - 109 Red mud seam.
- 109 - 136 Red rock.
- 136 - 149 Red rock & light gray rock in thin alternate layers.
- 149 - 151 Red rock.
- 151 - 168 Red rock & light gray rock in thin alternate layers.
- 168 - 171 Brown rock & light gray rock in alternate layers.
- 171 - 194 Red rock some gray green rock.
- 194 - 203 Red, gray, green & brown rock in thin alternate layers.
- 203 - 312 Red, gray & green rock.

Size of Drilled Hole	Size and Weight of Casing	From (Feet)	To (Feet)	PERFORATIONS		
				Kind and Size	From (Feet)	To (Feet)
5"	5 7/8 OD	+1 1/2	228	Torch Cut 1/4 x 3"	284	300
	4 9/16 OD	228	312			



Static Water Level for non-flowing well 108 feet.

Shut-in Pressure for Flowing Well Non-f

Pumping Water Level 200 feet at Four gal. per minute.

Discharge in gal. per min. of flowing well Non-flowing

How Tested Pump Test 70 hrs

Length of Test Two hours Air Lift

Remarks: (Gravel packing, cementing, packers, type of shutoff) All water entering well is coming through PERFORATIONS IN CASING. Five-inch casing is cemented in place from surface to 116'

Water rises in the well 108 feet from surface.

USE—If used for irrigation, industrial, drainage or other. Explain, state number of acres and location or other data (i.e.: Lot, Block and Addition).

Approx. 5.8 Acres
Domestic use & garden, livestock, 6 acre ft. for irrigation

Show exact depth of bottom.
Bottom of hole 312'

This form to be prepared by driller, and three copies to be filed by the owner with the County Clerk and Recorder in the county in which the well is located, tissue copy to be retained by driller.

Please answer all questions. If not applicable, so state, otherwise the form will be returned.

52
Driller's License Number
William F. Calome
Driller's Signature.

48898

2164

306426

I received of the [unclear] for
 recorded on 13 [unclear] of Aug 1971
 of 145 [unclear] of [unclear] [unclear]
 of [unclear] County State of Michigan
 Without [unclear]
 [unclear] County Recorder
 At [unclear] Deputy
 For \$ 2.00 cash [unclear]

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Group With Paid to the Recorder