

File No.

T. 13 N. R. 19 W

DUPLICATE

County Missoula

STATE OF MONTANA
ADMINISTRATOR OF GROUNDWATER CODE
OFFICE OF STATE ENGINEER

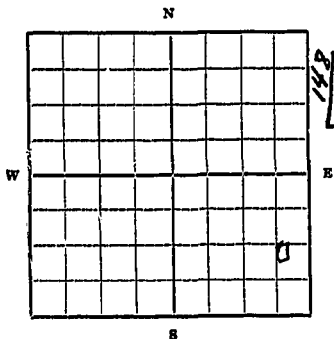
RECEIVED
JUN 21 1963

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

STATE ENGINEER

1. William F. or Bernice K. Ellinghouse of 1614-39th 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:



SE 1/4 Sec. 32 T13N R. 19W

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 and irrigation.
- 3. Date or approximate date of earliest beneficial use; and how continuous the use has been 1957; continuously.
- 4. The amount of groundwater claimed (in miner's inches or 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 A plot 118' X 148'. The owner is William F. and Bernice K. Ellinghouse.
- 6. The means of withdrawing such water from the ground and the location of each well or other means of withdrawal Deep well pump, at center of plot.

- 7. The date of commencement and completion of the construction of the well, wells, or other works for withdrawal of groundwater Construction started and ended in 1957.
- 8. The depth of 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 Deep well pump, 4" casing; depth 81'.
- 10. The estimated amount of groundwater withdrawn each year ?
- 11. The log of formations encountered in the drilling of each well if available ?
- 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. ?

Signature of Owner Wm. Ellinghouse

Date June 19, 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.

#194

copy 207467

I received and filed this instrument for
 record on the...19... day of June 1968
 at 3:00 o'clock... P.M. permanent files
 of Missoula County, State of Montana
 Witness my hand:
 MARTIN S. BEHNER, County Recorder
 By... *Charles Kapp* ... Deputy
 Fee \$... 2.00 ... Paid

118
 119

MISSOULA COUNTY RECORDER
 MISSOULA, MONTANA
 I HEREBY CERTIFY THAT THIS INSTRUMENT WAS RECORDED IN BOOK 118 PAGE 119
 ON JUNE 19, 1968

Handwritten notes and signatures on the left side of the page, including the name "MARTIN S. BEHNER" and other illegible scribbles.

File No.

T. 13 N. R. 19 W. 32

DUPLICATE

County *Missoula*

STATE OF MONTANA
ADMINISTRATOR OF GROUNDWATER CODE
OFFICE OF STATE ENGINEER

DECEIVED

SEP 18 1964

Notice of Completion of Groundwater Appropriation by Means of Well

(Under Chapter 237, Montana Session Laws, 1961)

Well on Highway 93

Owner *William Coles* Address *444 Benton, Missoula*

Driller *Glenn Camp* 705 Alder Address *Missoula, Montana*

Date of Notice of Appropriation of Groundwater.....

Date well started *7/29/64* Date Completed *7/29/64*

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

Water Use: Domestic Municipal Other Irrigation
Industrial Drainage Stock
Drive-in Sale

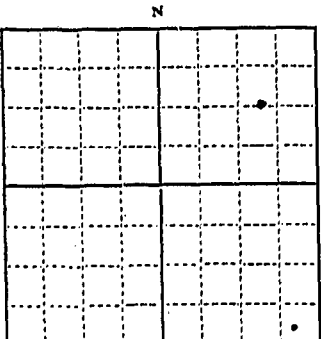
Indicate on the diagram the character and thickness of the different strata met with in drilling, such as soil, clay, shale, gravel, rock or sand, etc. Show depth at which water is encountered, thickness and character of water-bearing strata and height to which water rises in the well.



Top of Ground
(Elev. above sea level.....)

0 to 22' Gravel, clay & boulders
22' to 42' Gravel & clay
42' to 57' Gravel, sand & water
57' to 63'-5" Gravel & water

Size of Drilled Hole	Size and Weight of Casing	From (Feet)	To (Feet)	PERFORATIONS		
				Kind Size	From (Feet)	To (Feet)
5"	5" I.D. 14 lbs to feet	1'-6" above G.L.	to 6'-11"	None		



N.E. 1/4 NE 1/4 Sec 32 T. 3 R. 19
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 *40* feet.

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

Pumping Water Level *40* feet at *21* gal. per minute.

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

How Tested *Compressor* Length of Test *1/2* 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).....

License # *7*
Driller's License Number

Glenn Camp
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.

38471

382

File No.

T. 13^N R. 19^W

DUPLICATE

County MISSOULA

STATE OF MONTANA
ADMINISTRATOR OF GROUNDWATER CODE
OFFICE OF STATE ENGINEER

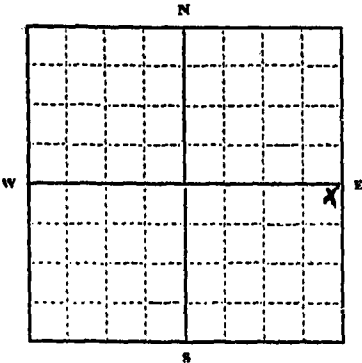
RECEIVED
DEC 30 1963

Declaration of Vested Groundwater Rights

(Under Chapter 237, Montana Session Laws, 1961)

1. JULIA O HANSON, of 3309 RUSSELL ST. MISSOULA
(Name of Appropriator) (Address) (Town)

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



NE 1/4 SE Sec. 32 T. 13 R. 19

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

3. Date or approximate date of earliest beneficial use; and how continuous the use has been
1954 - CONTINUOUS SINCE

4. The amount of groundwater claimed (in miner's inches or gallons per minute)
55 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 - 2 hole motor 2 1/2" intake

7. The date of commencement and completion of the construction of the well, wells, or other works for withdrawal of groundwater
1954

8. The depth of 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
6" casing - drilled well 97 feet deep

10. The estimated amount of groundwater withdrawn each year
unknown

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

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

Signature of Owner Julia O. Hanson

Date 12-27-63

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.

15252

649

215028

I received and filed this instrument for
record on the 7th day of Dec 1923
at 10:00 o'clock P.M. pursuant to the
of Missoula County, State of Montana
Witness my hand:
WILLIAM S. BEYNER, County Recorder
By *William S. Beyner* Deputy
Fee \$ 2.00 Paid

32

File No. _____

T. 13 N R. 19

DUPLICATE

County Missoula

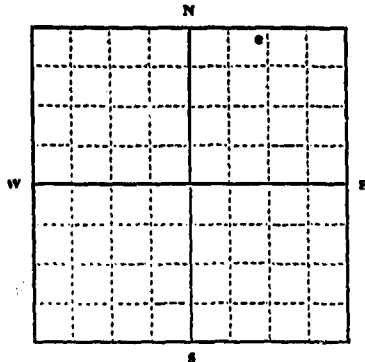
STATE OF MONTANA
ADMINISTRATOR OF GROUNDWATER CODE
OFFICE OF STATE ENGINEER

JAN 3 1964
STATE ENGINEER

Declaration of Vested Groundwater Rights

(Under Chapter 237, Montana Session Laws, 1961)

I, Erma K. Hutchins, of 2411 South Avenue W 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, 1963, as follows:



NE 1/4 NW Sec 32 T 13 R 19

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 and Irrigation

3. Date or approximate date of earliest beneficial use; and how continuous the use has been 1943 - use has been continuous

4. The amount of groundwater claimed (in miner's inches or gallons per minute) 300 gallons per hour
5 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
Lots 8 thru 11, Carline Edition Block 32
NE 1/4 NW Sec. 32 T 13 R 19
Erma K. Hutchins

6. The means of withdrawing such water from the ground and the location of each well or other means of withdrawal Electric Pump
Location - Center of lots in back

7. The date of commencement and completion of the construction of the well, wells, or other works for withdrawal of groundwater 1943 - do not know day or month

8. The depth of water table 67'

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 drilled well, 100' depth, 4" casing

10. The estimated amount of groundwater withdrawn each year Approximately 700,000 Gallons

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 None

Signature of Owner Erma K. Hutchins
Date 12/31/63

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.

20416

1297

I received and filed this instrument for
record on the 11th day of Dec. 1922
at Yellow O'Clock 7 P.M. permanent files
of Missoula County, State of Montana
Witness my hand
County Recorder
By [Signature] Paid
Fee 0.40

11

2

File No. _____

T. 13^N R. 19^W

DUPLICATE

County Missoula

STATE OF MONTANA
ADMINISTRATOR OF GROUNDWATER CODE
OFFICE OF STATE ENGINEER

RECEIVED
JAN 3 1963
STATE ENGINEER

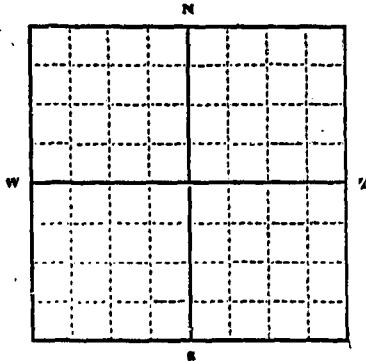
Declaration of Vested Groundwater Rights

(Under Chapter 237, Montana Session Laws, 1961)

1. Erma E. Hutchins, of 2141 South Avenue W. 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. 32 T. 13 R. 19

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 and irrigation

3. Date or approximate date of earliest beneficial use; and how continuous the use has been 1943. use has been continuous

4. The amount of groundwater claimed (in miner's inches or gallons per minute) 300 gallons per minute
50 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
Lots 8 thru 11, Carline Edition Block 32
NE 1/4 NW Sec. 32 T 13 R 19
Erma E. Hutchins

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

7. The date of commencement and completion of the construction of the well, wells, or other works for withdrawal of groundwater 1943 - do not know month and day

8. The depth of water table 67'

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 drilled well, depth 100', 4" casing

10. The estimated amount of groundwater withdrawn each year A. approximately 700,000 gallons

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 None

Signature of Owner Erma E. Hutchins

Date 12/31/63

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.

20415

1296

I received and filed in the instrument for
recd. Copy of the Dec 1867
at 317 of the Permanent files
of Missouri County, State of Missouri
Witness my hand:
By [Signature] County Recorder
Fee \$ 2.00 Paid

32

File No. _____

T. 13N R. 19W

TRIPLICATE

County Missoula

STATE OF MONTANA
ADMINISTRATOR OF GROUNDWATER CODE
OFFICE OF STATE ENGINEER

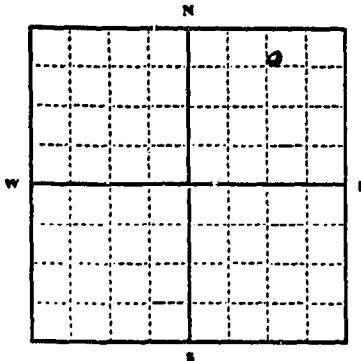
RECEIVED
DEC 13 1963

Declaration of Vested Groundwater Rights

(Under Chapter 237, Montana Session Laws, 1961)

STATE ENGINEER

1. Industrial Repair Shop of Box 1301 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:



NE 1/4 NE Sec. 32 T. 13 R. 19

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 Industrial
3. Date or approximate date of earliest beneficial use; and how continuous the use has been July 1959
6 Days per week
4. The amount of groundwater claimed (in miner's inches or gallons per minute) 150 gallons
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 Two State Jet Pumps

7. The date of commencement and completion of the construction of the well, wells, or other works for withdrawal of groundwater July 15 to July 27, 1959

8. The depth of water table 65

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 6" casing
130'
Driven Well

10. The estimated amount of groundwater withdrawn each year 500,000

11. The log of formations encountered in the drilling of each well if available Sand & 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 None

Signature of Owner [Signature]

Date December 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.

8993

409

214 215

I received and read this instrument to
record on the 12 day of Dec 1973
at 11h o'clock P.M. pursuant to the
of Missoula County, State of Montana
Witness my hand:
MARTIN S. BEKNER, County Recorder
By [Signature]
Per J. S. [Signature] Clerk

30

File No.

NOV 4 1970

T 13N R 19W

DUPLICATE

County Missoula

LOG

STATE OF MONTANA
ADMINISTRATOR OF GROUNDWATER CODE
STATE WATER CONSERVATION BOARD

Top of Ground Approx.
(Elev. above sea level 3200')

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

Formations Log:

- 0 - 12 Sand, gravel and cobblestones.
- 12 - 66 Sand, gravel and thin seams of clay.
- 66 - 77 Silty sand and gravel.
- 77 - 82 Tan clay and gravel mixed.
- 82 - 94 Clean coarse gravel and cobblestones. Water.

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

Richard T. and

Owner Laurel A. Karr Address Missoula, Montana

Driller Liberty Drilling Co Address Missoula, Montana

Date of Notice of appropriation of groundwater None filed.

Date well started 9/16/70 Date completed 9/19/70

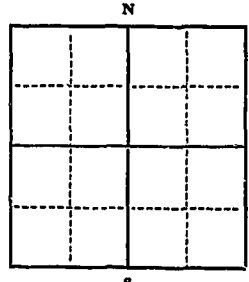
Type of well Drilled Equipment used Cable tools
(Dug, driven, bored or drilled) (Churn drill, rotary or other)

Water use: Domestic Municipal Stock Irrigation
Industrial Drainage Other Air Conditioning

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"	6 5/8" OD x 1/4"	+2	80	5 9/16 inch OD Shop made	82	94

Doc. No. 296457
Filed for record this 30 day of October A. D. 19 70, at 4:20 o'clock P. M.



Water rises in well 41 feet to surface.

Static Water Level for non-flowing well 41 feet.

Shut-in Pressure for Flowing Well Non-f

Pumping Water Level 65 feet at 300 gal. per minute.

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

How Tested Air Lift Pump

Length of Test 9 hours

Remarks: (Gravel packing, cementing, packers, type of shutoff). All water entering well through slot openings in screen. Wells in this area can be depended upon to

NE 1/4 NE Sec. 32, T. 13N R. 19W
Indicate location of well and place of use, if possible. Each small square represents 40 acres.

produce clear sand free water year after year as long as they are not overpumped. (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 1 Block 2 Central Addition of Missoula

Show exact depth of bottom.
Bottom of well 94 ft.

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. Adams
Driller's Signature
47718

2057 296457

I received and filed this instrument for record on the 30th day of Oct. 1920 at 11:30 o'clock P.M. permanent file of Missoula County State of Montana Witness my hand. Verance R. Crouse, County Recorder By M. M. Cavanaugh, Deputy Fee \$2.00 Paid

1.0. they should be pumped at rates not in excess of 50 to 60 percent of the tested capacity of the aquifer.

RECEIVED AND FILED FOR RECORD IN THE OFFICE OF THE COUNTY RECORDER MISSOULA COUNTY MONTANA

RECEIVED AND FILED FOR RECORD IN THE OFFICE OF THE COUNTY RECORDER MISSOULA COUNTY MONTANA

0

File No.

T. 13^N R. 19^W 32
County Missoula

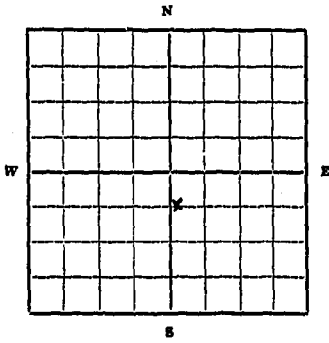
DUPLICATE

STATE OF MONTANA
ADMINISTRATOR OF GROUNDWATER CODE
OFFICE OF STATE ENGINEER

RECEIVED
JAN 3 1963
STATE ENGINEER

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

1. Francis E. & Leo E. LaFriniere, of 1928 McDonald Ave. 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. 32, T. 13, R. 19
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 irrigating
- 3. Date or approximate date of earliest beneficial use, and how continuous the use has been yearly since 1945
- 4. The amount of groundwater claimed (in miner's inches or gallons per minute) well - Amount unknown
- 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 Carline Addition # 2, 62 (Block) McDonald Ave. Lots 21 through 30. The well is on 17 ft. of lot # 33.
- 6. The means of withdrawing such water from the ground and the location of each well or other means of withdrawal drawn with electric pump

- 7. The date of commencement and completion of the construction of the well, wells, or other works for withdrawal of groundwater date unknown
- 8. The depth of water table approximately 90 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 unknown
- 10. The estimated amount of groundwater withdrawn each year unknown
- 11. The log of formations encountered in the drilling of each well if available unknown
- 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

Francis E. LaFriniere
Signature of Owner Leo E. LaFriniere
Date December 30, 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.

2054

861 215 3 34

57-19 12

I received and filed this instrument for
 record on the 27th day of July 1963
 at 9:31 o'clock A.M., permanent files
 of Missoula County, State of Montana
 Witness my hand:
 MARTIN S. BEHRENS Deputy Recorder
 By Martin S. Behrens Deputy
 Fee \$..... Paid

MISSOULA COUNTY, MONTANA
 DEPUTY RECORDER
 MARTIN S. BEHRENS
 100 NORTH 1ST STREET
 MISSOULA, MONTANA 59801

File No.

T.13N R.19W

DUPLICATE

County... MISSOULA

STATE OF MONTANA
ADMINISTRATOR OF GROUNDWATER
OFFICE OF STATE ENGINEER

RECEIVED
JAN 4 1963

Notice of Completion of Groundwater Appropriation by Means of Well

(Under Chapter 237, Montana Session Laws, 1961)



Top of Ground (Elev. above sea level... 3250)

0-24 TAN CLAY with GRAVEL, CORALSTONES AND SAND MIXED IN.

24-41 SAND AND FINE GRAVEL MIXED IN TAN CLAY

41-52 SAND AND FINE GRAVEL - SOME SILT AND CLAY

52-56 GRAVEL imbedded in TAN CLAY

WATER ← 56-68 SILTY SAND

68-70 TAN CLAY MIXED IN SAND AND GRAVEL

WATER ← 70-84 SILTY SAND - FEW SCATTERED GRAVEL

WATER ← 84-98 CLEAN COARSE SAND AND GRAVEL

96 - BOTTOM OF WELL

STATIC WATER LEVEL 29 1/2'

Owner... HARRY G. MACLAY Address... 2415 CLARK ST. MISSOULA, MONTANA

Driller... LIBERTY DRILLING Co. Address... BOX 230 MISSOULA

Date of Notice of Appropriation of Groundwater.....

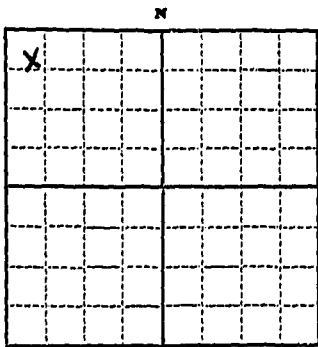
Date well started... Aug. 8, 1962 Date Completed... Aug. 13, 1962

Type of well... DRILLED Equipment Used... CABLE TOOLS
(dug, driven, bored or drilled) (Churn, 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)
8"	8 5/8" x 24"	+1'3"	96'	NONE		



Indicate location of well and place of use, if possible. Each small square represents 10 acres.
LOT 8 BLOCK 44 CARLINE ADDITION
MISSOULA, MONTANA
Show exact depth of bottom.

- 96' BOTTOM -

Static Water Level for non-flowing Well... 29 1/2 feet.

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

Pumping Water Level... 4.5 feet at 240 gal. per minute.

Discharge in gal. per min. of flowing well... NON-FLOWING

How Tested... AIR LIFT PUMP Length of Test... 3 1/2 hrs

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).....

IRRIGATING 5 ACRES

Driller's License Number 52

Driller's Signature William F. Osborne

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.

RECORDED

I received and filed this instrument for record on the 21st day of Dec, 1962 at 11 o'clock A.M., permanent files of Missoula County, State of Montana

Witness my hand:
MARTIN S. BEHNER County Recorder
 By James Crane Deputy
 Fee \$ 0.00 Paid

281260

172

0-34

HERMAN B. WARD
MAY 14 1963

21 8 1962

77

15M 14M

MISSOURI

22

540

1963

MISSOURI COUNTY RECORDS

2000

File No. _____

JUL 11 1966

T. 13N R. 19W 32

DUPLICATE

Bill _____ McDermott _____ County Missoula
 Butler _____ Murray _____
 Carr _____ Morton _____
 Darr _____ Sullivan _____
 STATE OF MONTANA
 ADMINISTRATOR OF GROUNDWATER CODE
 OFFICE OF STATE ENGINEER

LOG

Top of Ground _____
 (Elev. above sea level 3227')

**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 - 2 Fill.
- 2 - 3 Black dirt.
- 3 - 17 Cobblestones & dirt.
- 17 - 52 Sand & gravel mixed in clay.
- 52 - 56 Fine sand & gravel. Some water.
- 56 - 67 Very fine sand & gravel. Water fully develop well.
- 67 - 70 Clean coarse sand & gravel. Good water.

Owner Margie A. MacLay Address Missoula, Montana

Driller Liberty Drilling Co. Address Missoula, Montana

Date of Notice of appropriation of groundwater None filed

Date well started 6/14/66 Date completed 6/16/66

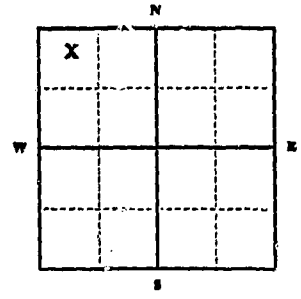
Type of well Drilled Equipment used Cable Tools
 (Dug, Driven, bored or drilled) (Churn drill, rotary or other)

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 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 5/8 OD x 1/4"	+1'4"	70'	N	O	N

Water rises in the well 32 feet from surface.



Static Water Level for non-flowing well 32 feet.

Shut-in Pressure for Flowing Well None

Pumping Water Level 50 feet at 60 gal. per minute.

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

How Tested Air Lift Pump

Length of Test One hour

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

NW 1/4 Sec. 32 T. 13N R. 19W
 Indicate location of well and place of use, if possible. Each small square represents 40 acres.

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

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 70'

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 J. Wilson
Driller's Signature

41216

162- 251872

I received and filed this instrument for record on the 7th day of July, 1966 at 1:00 o'clock P.M. permanent files of Missoula County, State of Montana
Witness my hand:
Verance R. Crause, County Recorder
By *M. M. Conroy* Deputy
Fee \$2.00

STATE WATER CONSERVATION BOARD

JUL 11 1966

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

STATE WATER CONSERVATION BOARD
MISSOULA, MONTANA
JUL 11 1966

225

192066 Copy

I received and filed this instrument for
 record on the 16 day of April, 1962
 at 8:40 o'clock A.M., permanent files
 of Missoula County, State of Montana
 Witness my hand:
MARTIN S. BEHNER, County Recorder
 By Charles J. Mann Deputy
 Fee \$ 2.00 Paid

RECORDED & INDEXED

101

MISSOULA COUNTY RECORDER - 1962

26

Copy

192067

I received and filed this instrument for
 record on the 16 day of April 1920
 at 8:57 o'clock A.M. in record files
 of Missoula County, State of Montana
 Witness my hand:
MARTIN S. BEHNER, County Recorder
 By John J. Meier, Deputy
 Fee \$ 2.00 Paid

RECORDED

INDEXED

RECEIVED
JUN 10 1976

Pre 73

attach to
MPC

32

WELL LOG REPORT

State law requires that this form be filed by the water well driller within 60 days after completion of the well, and Form 602, Notice of Completion of Groundwater Development, be filed with the well owner within 60 days after the water has been put to beneficial use.

<p>1. WELL OWNER Name: <u>THE MONTANA POWER CO.</u> Current address: <u>Russell St., Missoula, Mt. 59801</u></p>																																											
<p>2. WELL LOCATION Lot _____, Block _____, Subdivision _____ County _____, or <u>SE 1/4 SE 1/4</u> Sec. <u>32</u>, T. <u>13</u> N-8, R. <u>19</u> E-W</p>																																											
<p>3. PROPOSED USE _____ domestic (includes lawn and garden); _____ stock; <input checked="" type="checkbox"/> municipal; _____ industrial; _____ irrigation; _____ other (specify) _____</p>																																											
<p>4. METHOD DRILLED <input checked="" type="checkbox"/> cable, _____ bored, _____ forward rotary, _____ reverse rotary, _____ jetted, _____ other (specify) _____</p>	<p>8. WELL LOG Depth (ft) From _____ To _____ Formation _____ <u>Drilled 5/17-6/1/76</u></p> <table border="1"> <tr><td>0</td><td>2</td><td>Top soil & Gravel</td></tr> <tr><td>2</td><td>31</td><td>Clay, Gravel & Tight Boulders</td></tr> <tr><td>31</td><td>37</td><td>Silty Sand & Gravel</td></tr> <tr><td>37</td><td>46</td><td>Clay and Soft Gravel</td></tr> <tr><td>46</td><td>59</td><td>Clay, Gravel & tight boulder</td></tr> <tr><td>59</td><td>68</td><td>Gravel & Water</td></tr> <tr><td>68</td><td>80</td><td>Clay and Gravel</td></tr> <tr><td>80</td><td>100</td><td>Sand, Gravel & Water</td></tr> <tr><td>100</td><td>101</td><td>Clay and Gravel</td></tr> <tr><td colspan="3">Deepened April 5- May 13, 1976</td></tr> <tr><td>101</td><td>107</td><td>Sand, Gravel & Water</td></tr> <tr><td>107</td><td>109</td><td>Sand & Water</td></tr> <tr><td colspan="3">Well Cased in Bottom to 109'</td></tr> <tr><td colspan="3">(use separate sheet if necessary)</td></tr> </table>	0	2	Top soil & Gravel	2	31	Clay, Gravel & Tight Boulders	31	37	Silty Sand & Gravel	37	46	Clay and Soft Gravel	46	59	Clay, Gravel & tight boulder	59	68	Gravel & Water	68	80	Clay and Gravel	80	100	Sand, Gravel & Water	100	101	Clay and Gravel	Deepened April 5- May 13, 1976			101	107	Sand, Gravel & Water	107	109	Sand & Water	Well Cased in Bottom to 109'			(use separate sheet if necessary)		
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68	80	Clay and Gravel																																									
80	100	Sand, Gravel & Water																																									
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Deepened April 5- May 13, 1976																																											
101	107	Sand, Gravel & Water																																									
107	109	Sand & Water																																									
Well Cased in Bottom to 109'																																											
(use separate sheet if necessary)																																											
<p>5. WELL CONSTRUCTION Diameter of hole <u>12</u> in.; depth <u>109</u> ft. Casing: <input checked="" type="checkbox"/> steel, _____ plastic, _____ concrete, _____ threaded, <input checked="" type="checkbox"/> welded, _____ other (specify) _____ Pipe weight: Dia. From To <u>49.5</u> lb/ft <u>12</u> in. <u>+ 1</u> ft. <u>1</u> ft. _____ lb/ft _____ in. _____ ft. _____ ft. Was casing left open end? _____ Yes <input checked="" type="checkbox"/> No Was a well screen installed? _____ Yes <input checked="" type="checkbox"/> No Material _____, dia. _____ in. (stainless steel, bronze, etc.) Was perforated pipe used? <input checked="" type="checkbox"/> Yes _____ No Perforation type: <input checked="" type="checkbox"/> slots _____ holes Size <u>3/8x3</u> set from <u>91</u> ft. to <u>107</u> ft. Size _____ set from _____ ft. to _____ ft. Was a packer or seal used? _____ Yes <input checked="" type="checkbox"/> No If so, what material _____ Well type: _____ Straight screen <input checked="" type="checkbox"/> Graveled Was the well grouted: _____ Yes <input checked="" type="checkbox"/> No To what depth: _____ ft. Material used in grouting _____ Well head completion: Pitless adapter <u>12</u> in. above grade <input checked="" type="checkbox"/>, other _____ (if other, specify) _____ Was well disinfected? <input checked="" type="checkbox"/> Yes _____ No</p>																																											
<p>6. WATER LEVEL Static water level <u>38</u> ft. below land surface If flowing: closed-in pressure _____ psi gpm flow _____ through _____ inch pipe Controlled by: _____ valve _____ reducers _____ other (specify) _____</p>																																											
<p>7. WELL TEST DATA <input checked="" type="checkbox"/> Pump _____ Bailer _____ Other _____ (if other, specify) _____ Pumping level below land surface: <u>38</u> ft. after _____ hrs. pumping <u>100</u> gpm _____ ft. after _____ hrs. pumping _____ gpm</p>																																											
<p>9. DATE STARTED <u>April 5, 1976</u> DATE COMPLETED <u>May 13, 1976</u></p>																																											
<p>10. WAS WELL PLUGGED OR ABANDONED? _____ Yes <input checked="" type="checkbox"/> No If so, how? _____</p>																																											
<p>11. DRILLER'S CERTIFICATION This well was drilled under my jurisdiction and this report is true to the best of my knowledge. <u>CAMP WELL DRILLING & PUMP SUPPLY 239</u> Driller's or firm name License No. <u>1522 S. 14th W., Missoula, Mt. 59801</u> Address <u>Phil Balke</u> Signed by date <u>June 8, 1976</u></p>																																											

322617
I received and filed this instrument for
record on the 27 day of Sept 1932
at 11:40 o'clock A.M. permanent files
of Missoula County State of Montana
Witness my hand.
Varance R. Crouse, County Recorder
By D. J. [Signature] Deputy
Fee \$ 2.00 Paid

200
100
50
25
10
5
2
1
100
50
25
10
5
2
1
100
50
25
10
5
2
1

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)

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. I, THE MONTANA POWER COMPANY, of 40 E. 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 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 1275 GPM

The estimated amount of groundwater to be used annually 2,056 acre feet

4. The annual period (inclusive dates) of intended use January 1 through December 1

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

6. The probable or intended date of commencement and completion of the well* or wells*
June 18, 1972 July 2, 1972

7. The location, type, size and depth of well or wells contemplated Benton Avenue,
Missoula, 125 ft. - churn drill

8. The probable or estimated depth of the water-table or artesian aquifer 125 ft.

9. The name, address, and license number of the driller engaged Camp Well Drilling and
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

			X	

NE ^S NE 32
1/4 1/4 Sec.
T. 13 N. R. 19 xx
S E W

For Administrator's Use
File # 2339 322616
Sept. 27, 1972 - 11:05 a.m.

Approved Date
FORM
V. Carl
VICOM
DESCR
JUL 13

THE MONTANA POWER COMPANY

Signature of Appropriator J. M. Currier Vice President Date September, 1972

*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.

0.32

File No. _____

T. 13N R. 19W

TRIPPLICATE

County Missoula

STATE OF MONTANA
ADMINISTRATOR OF GROUNDWATER CODE
OFFICE OF STATE ENGINEER

RECEIVED
DEC 13 1963

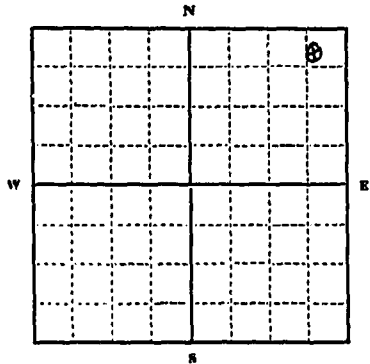
Declaration of Vested Groundwater Rights

(Under Chapter 237, Montana Session Laws, 1961)

STATE ENGINEER

1. M & S Landy, Inc. of Box 761 Missoula
(Name of Appropriator) (Address) (Town)

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



NE 1/4 NE Sec. 32 T. 13 R. 19

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.....

Industrial

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

April 1, 1955

Continuous

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

150 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.....

Two Stage Jet Pump

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

March 24, to April 1, 1955

8. The depth of water table.....

65'

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.....

6" Drilled 95'

10. The estimated amount of groundwater withdrawn each year.....

825,000

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

Sand & Gravel Max. 6"

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.....

Date December 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.

8992

214 214

Copy
I received and filed this instrument for
record on the *12* day of *Dec*, 19*09*
at *1:08* o'clock *P*.M., permanent files
of Missoula County, State of Montana
Witness my hand:
MARTIN S. BEHNKE, County Recorder
By *Martin S. Behnke* Deputy
Fee \$ *2.00* Paid

File No. MONTANA WATER RESOURCES BOARD

T. 13 N. R. 19 W 32

DUPLICATE

RECEIVED

County M.S.L.A.

LOG FEB 8 1968

STATE OF MONTANA ADMINISTRATOR OF GROUNDWATER CODE OFFICE OF STATE ENGINEER

Top of Ground _____
 (Elev. above sea level _____)

31' sand
 41' tan clay, sand & gravel
 36' surface water, sand & gravel
 49' tan clay, sand & gravel
 33' water, sand & silt
 61' water, sand, & gravel
 66' 6"

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

(Under Chapter 237, Montana Session Laws, 1961)

Owner: VERNOLD OCHSNER Address: PITTMAN DR.

Driller: KEN WILLIAMS Address: 1558 So. 5th W. MISSOULA, MONT.

Date of Notice of appropriation of groundwater: _____

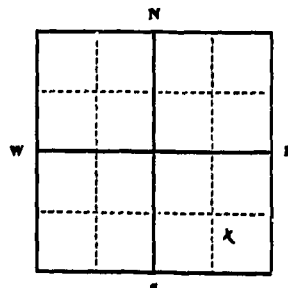
Date well started NOV. 28, 67 Date completed DEC. 1, 67

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

Water use: Domestic [x] 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" I.D.	6-5/8" O.D. 17 lbs. 4" side wall	ground level	66' 6"			



Static Water Level for non-flowing well 39 feet.

Shut-in Pressure for Flowing Well _____

Pumping Water Level 60 feet at 80 gal. per minute.

Discharge in gal. per min. of flowing well _____

How Tested: compressor

Length of Test: 2 hours

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

SE 1/4 Sec. 32 T. 13 N. R. 19 W. 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 151

Driller's Signature Ken Williams

42,997

267999

I received and filed this instrument for
record on the 5 day of Feb. 1965
at 9:50 o'clock A.M., permanent files
of Missoula County, State of Montana
Witness my hand:
Vernon R. Crouse, County Recorder
By Sharon A. Kelly, Deputy
Fee \$ 4.00 cash Paid

MISSOULA COUNTY RECORDS
MISSOULA, MONTANA

32

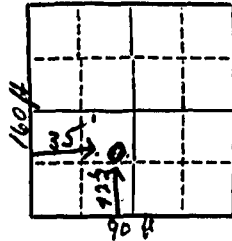
T. _____ R. _____
County Missoula

MONTANA BUREAU OF MINES AND GEOLOGY
Butte, Montana

RECEIVED
MAY 3 1961

WATER WELL LOG

STATE ENGINEER



Owner Vern Coeffer Address 1616 S. 39th St
 Driller Glenn Camp 705 Alder Address Missoula, Montana
 Date Started March 20, 1961 Date Completed Mar 24, 1961
 Location: Sec. 32 T. 13N R. 19W ¼ sec. SE

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

Water use: Domestic Municipal Stock Irrigation

Industrial Drainage Other: _____

Casing: 1'-10" above pit level to 79'-7" ft. to _____ ft. Type Seamless 14lbs to foot 5" I.D. Size _____

Casing: _____ ft. to _____ ft. Type _____ Size _____

Casing: _____ ft. to _____ ft. Type _____ Size _____

Perforated or Screened: Ft. _____ to ft. _____ Ft. _____ to ft. _____

Type of screen or perforations _____

Static Water level, for non-flowing well: 40' from ground level feet.

Shut-in pressure, for flowing well: _____ lb./sq. in. on: _____ (date)

Pumping water level _____ feet at _____ feet _____ gal. per min.

How tested: Railer

Length of test: 2 hours

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

Put in exact location and file all 3 copies with the County Clerk and Recorder

(over)

File No. _____

T. 13N R 19W 32

DUPLICATE

County _____

STATE OF MONTANA
ADMINISTRATOR OF GROUNDWATER CODE
OFFICE OF STATE ENGINEER

RECEIVED
DEC 30 1963

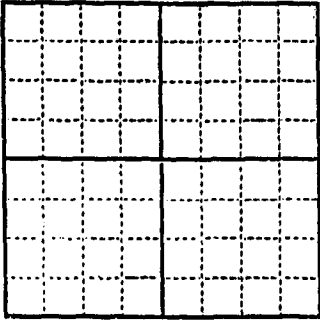
Declaration of Vested Groundwater Rights

(Under Chapter 237, Montana Session Laws, 1961)

STATE ENGINEER

Katherine Saltz (Name of Appropriator) of 1722 McDonald Ave Missoula (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:



$\frac{1}{4}$ Sec. 32 T. 13N R. 19W
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 irrigating
- 3. Date or approximate date of earliest beneficial use; and how continuous the use has been yearly since 1943
- 4. The amount of groundwater claimed (in miner's inches or gallons per minute) Well - amt. 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
Carlson addition #62 The Donaldson
lots 2 thru 40
The well is on 17 ft. of lot #33
- 6. The means of withdrawing such water from the ground and the location of each well or other means of withdrawal
Drawn with electric pump

- 7. The date of commencement and completion of the construction of the well, wells, or other works for withdrawal of groundwater don't know
- 8. The depth of water table approximately 48 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 don't know
- 10. The estimated amount of groundwater withdrawn each year don't know
- 11. The log of formations encountered in the drilling of each well if available don't know
- 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 don't know

Signature of Owner Katherine Saltz
Date Dec 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. 15196

594

214898

Copy

I received and filed this instrument for
record on the 26 day of Nov, 1968
at 11:30 o'clock A.. M., permanent files
of Missoula County, State of Montana
Witness my hand:
MARTIN S. BISHOP, County Recorder
By Martin S. Bishop Deputy
Fee \$ 2.00 Paid

Continued from page 1 (Indicate page number)
I hereby certify that the foregoing is a true and correct copy of the original as the same appears of record in the office of the County Recorder of Missoula County, Montana.

RECEIVED

County... Missoula

32

STATE OF MONTANA
ADMINISTRATOR OF GROUNDWATER CODE
MONTANA WATER RESOURCES BOARD

SEP 5 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 Mary Jean Stephenson

Address 2115 38th. Street
Missoula, Montana

Date well started 7/27/72
completed 7/29/72

Type of well Drilled

Equipment used Cable Tool Rig

Water Use: Domestic Municipal Stock Irrigation

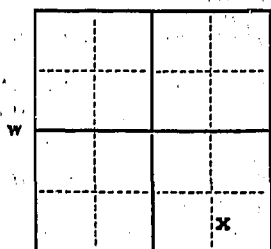
Industrial Drainage Other * Garden/Lawn

*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). Lot 7 in Block 2 of County Home Addition No. 2

ESTIMATED ANNUAL WITHDRAWAL 52,560,000 gallons

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	84'	Shop made Torch Cut	81	83
Blank tailpipe w/solidly closed bottom extends					83	84



SE 1/4 SW 1/4 Sec 32
T. 13 N. R. 19 W.

Static water level 30 ft.*
Pumping water level .. 47 ft.*
at 100 gallons per minute,
measured 360 minutes after pumping began.
*Measured from ground level.
Well developed by Air Lift Pump
for Six hours.
Power Gas Pump 30 HP
Remarks: (Gravel packing, cementing, packers, type of shutoff) All water entering well through slot openings in water well screen. Wells in this area can be de-
cont'd

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

Driller's Signature W. J. Malone
Driller's Address 2500 Reserve Street

Missoula, Montana. LICENSE NO. 52

Top of Ground Approx (Elev. above sea level) 3160'

From (Feet)	To (Feet)	
0	3	Tan topsoil
3	41	Tan sand & gravel
41	59	Silty sand, clay with gravel mixed in
59	72	Silty sand & gravel
72	78	Silty sand cemented in clay
78	81	Silty sand & gravel
81	83	Clean coarse sand and gravel. Water
83	84	Cemented sand with few gravels mixed in.

84 ft. Show exact depth of bottom
Water rises in the well 30 feet from surface.

51,303

2325

321501

I received and filed this instrument for record on the 30 day of Aug, 1922 at 3:25 o'clock P.M., permanent files of Missoula County, State of Montana

Witness my hand.
 Valance R. Cronse, County Recorder
 By W. Stone, Deputy
 Fee \$ 2.25 Paid cash

Cont'd
 pended 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.

Project No.	321501
Date	Aug 30 1922
Time	3:25 P.M.
Place	Missoula, Mont.
Recorder	Valance R. Cronse
Deputy	W. Stone
Fee	2.25
Paid	Cash

File No. _____

T. 13 N. R. 19 W

DUPLICATE

County _____

STATE OF MONTANA
 ADMINISTRATOR OF GROUNDWATER CODE
 OFFICE OF STATE ENGINEER

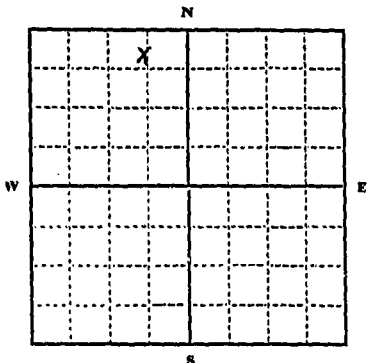
RECEIVED
 JAN 3 1963
 STATE ENGINEER

Declaration of Vested Groundwater Rights

(Under Chapter 237, Montana Session Laws, 1961)

1. Richard + Joann Stewart, of 2144 Dorothy ave. 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:



NE 1/4 NW Sec 32 T. 13 R. 19

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 and Irrigation

3. Date or approximate date of earliest beneficial use; and how continuous the use has been. Since 1948 and been used continuously

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
Lots 20-21-22-23
NE 1/4 NW Sec 32 T 13 R 19
Richard + Joann Stewart

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. 1948

8. The depth of water table. 38 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. Electric Pump 60 ft. Deep 6" casing

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 Joann Stewart

Date 12/30/63

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.

746

215154

copy
I received and filed this instrument for
record on the 7th day of *Dec* 1967
at 1:28 o'clock *P*. M., permanent files
of Missoula County, State of Montana
Witness my hand:
MARTIN S. BEHNER, County Recorder
By *[Signature]* Deputy
Fee \$ *2.00* Paid

32

File No. _____

Jan 31 T 13 N R 1962

DUPLICATE

County _____

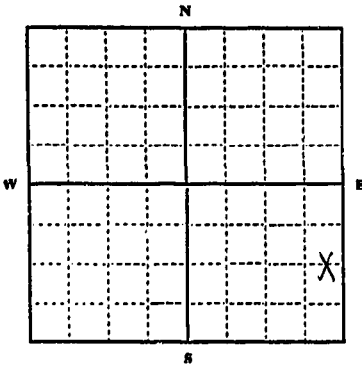
STATE OF MONTANA
ADMINISTRATOR OF GROUNDWATER CODE
OFFICE OF STATE ENGINEER

JAN 3 1962
STATE ENGINEER

Declaration of Vested Groundwater Rights

(Under Chapter 237, Montana Session Laws, 1961)

1. Marlyn J. Thompson, of 1710 34th 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 Household
irrigation

3. Date or approximate date of earliest beneficial use; and how continuous the use has been 1946

4. The amount of groundwater claimed (in miner's inches or gallons per minute) 20 gallons a 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
It is used for single purpose on corner lot of 160 ft. frontage

6. The means of withdrawing such water from the ground and the location of each well or other means of withdrawal low pressure
on shallow well pump

7. The date of commencement and completion of the construction of the well, wells, or other works for withdrawal of groundwater 1946

8. The depth of water table Not known

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 8 1/2 foot deep

10. The estimated amount of groundwater withdrawn each year Some family use

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

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
Advisory report for appropriation
on subject matter year 1961 No. 10 in volume
is January 1962

Signature of Owner Marlyn J. Thompson
Date December 31, 1962

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.

2016

996 215420

I received and filed this document by
record on 2/10/20 at 10:20 o'clock A.M., permanent file
of Missoula County, State of Montana
Witness my hand
By Christy J. Baker County Recorder
Fee \$ 2.00 Paid

File No.

TRIPPLICATE

T. 13 R. 33

County Missoula

STATE OF MONTANA
ADMINISTRATOR OF GROUNDWATER CODE
OFFICE OF STATE ENGINEER

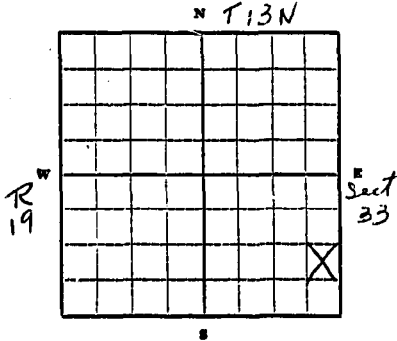
RECEIVED
DEC 19 1963

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

STATE ENGINEER

1. Farrions Development Company of 340 West Main, 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:



NE 1/4 Sec 19 T13 R33

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 provide household water for over 200 homes, & Golf Course Recreational area with room for 250 more homes.

3. Date or approximate date of earliest beneficial use; and how continuous the use has been July, 1948 and continuous thereafter

4. The amount of groundwater claimed (in miner's inches or gallons per minute) Well #1 - 300 gpm; Well #2 - 450 gpm; Total 750 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 residential irrigation

6. The means of withdrawing such water from the ground and the location of each well or other means of withdrawal 2 wells, both located Lot 22, El. 1 Willows Add'n of Missoula County, Montana

7. The date of commencement and completion of the construction of the well, wells, or other works for withdrawal of groundwater Well #1 - Sept. 24, 1945; Well #2 - June 1955 (approx)

8. The depth of water table Well #1 - 113 ft.; Well #2 - 72 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 Well #1: 8 in. D.S. casing 25.55 lbs. per sq. ft., 116 ft. deep, perforated casing from 105 ft. to 113 ft., Worthington deep well turbine pump powered by 25 HP D.E. pump motor; Well #2: 120 ft. deep perforated casing from 95 ft. to 120 ft. deep well pump powered 50 HP electric motor

10. The estimated amount of groundwater withdrawn each year Wells #1 and #2 Total 25,000,000 gals.

11. The log of formations encountered in the drilling of each well if available Well #1: 0' - 4' - Topsoil; 4' - 20' Gravel & soil; 20' - 96' Clay, sand, gravel; 96' - 99' light gravel; 100' - 116' Sand, gravel, water; Well #2: 0' - 72' Clay, gravel; 72' - 97' Gravel, sand, water; 97' - 101' clay and water; 101' - 120' Gravel, water.

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. re: Montana State Board of Health

Signature of Owner Farrions Development Co. Inc.
by A. J. Swaby Pres.
Date Dec 18 - 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.

10431

433

214453

copy

I received and filed this instrument for
record on the 18 day of Dec, 1963
at 2:04 o'clock P.M., permanent files
of Missoula County, State of Montana
Witness my hand:
MARTIN S. BEHNER, County Recorder
By Arthur Lane Deputy
Fee 32 Paid

33

0573

JUL 1 1972

Approved Stock Form—State Publishing Co., Helena, Montana—42262

File No.

STATE ENGINEER'S OFFICE
HELENA, MONTANA

T. 13 N. R. 19 W

DUPLICATE

County Missoula

STATE OF MONTANA
ADMINISTRATOR OF GROUNDWATER CODE
OFFICE OF STATE ENGINEER

Notice of Completion of Groundwater Appropriation
Without Well

(Under Chapter 237 Montana Session Laws, 1961)

Doc. No. #2290 - 317991
Filed for record
this 13th day of June
A. D. 19 72, at 3:55
o'clock P. M.

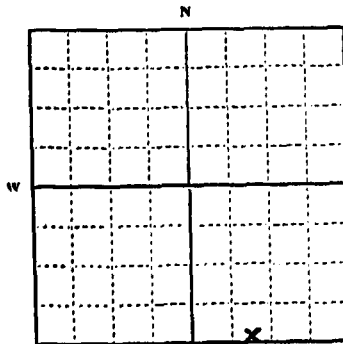
Date of Appropriation of Groundwater April 14, 1972

Owner Robert W Greene address 108 39th St.
MISSOULA, MONT

Contractor (if any) Self

Address of Contractor Same

Date Started April 14, 1972 Date Completed April 14, 1972



Describe means of obtaining groundwater without a well "as by sub-irrigation and other natural processes". Include depth to water when applicable. Natural Springs were captured and diverted into concrete P.P.C. and run to open ditch in street where it is appropriated and brought underground. Depth at this point about 3 feet below grade.

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. Quantity of water estimated at .0450 CFS. Measured Cross Sectional area of flowing stream and

SW ⁴/₄ SE ⁵/₄ Sec 35 T13 R19W

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

Springs Located \rightarrow X X

NE ¹/₄ NE ¹/₄ Sec 5 T12 R19W

The formula

measured the velocity by floating a stick and have determined the quantity by

Signature of Owner Robert W Greene

Date June 13, 1972

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.

2290

317971

I received and filed this instrument for
 record on the 13 day of February 19
 at 3:55 o'clock P.M. permanent file
 of Missoula County State of Montana
 Witness my hand
 Varmae R. Crease, County Recorder
 By Debra D. Johnson Deputy
 Fee \$... Paid

Department of Natural Resources and Conservation
Resources Division
Engineering Bureau
Groundwater Section
Sam W. Mitchell Building
Helena, Montana 59601

Owner Robert W. Greene 5920
Address 108 39th St - Missoula, MT
Location T. 13N. R. 19W. Sec. 33
Doc. No. #2290 - 31299

As the Administrator of the Groundwater Code for the State of Montana, please take note of the following special instructions, in order to properly protect your groundwater right.

Special Instructions:

Please indicate on the attached form the use to which you are beneficially applying the water.

NOTE: Spring water that is not developed at its source of extrusion from the ground, and which flows for a distance in a channel before being used, is considered surface water, and therefore an entirely different appropriation procedure should be followed. Sent on 9/7/72 50,616
Thank you.

RECEIVED
JAN 23 1963

33

File No.

DUPLICATE

STATE ENGINEER

T-13N R-19W

County MISSOULA

STATE OF MONTANA
ADMINISTRATOR OF GROUNDWATER
OFFICE OF STATE ENGINEER

RECEIVED
JAN 31 1963

Static Water Level 45'

Top of Ground
(Elev. above sea level 3210')

Notice of Completion of Groundwater
Appropriation by Means of a Well

(Under Chapter 237, Montana Session Laws, 1961)

0-44 GRAVEL + COBBLESTONES
IMBEDDED IN TAN CLAY
Owner CITY OF MISSOULA Address MISSOULA, MONT.

44-66 SILTY SAND + GRAVEL
SOME WATER
Driller LIBERTY DRILLING CO. Address MISSOULA, MONT.

66-69 TAN CLAY - SOME GRAVEL
IMBEDDED
Date of Notice of Appropriation of Groundwater 9-62
Date well started 11-26-62 Date Completed 12-4-62

69-87 SAND AND GRAVEL
MIXED IN TAN CLAY
SOME WATER
Type of well DRILLED Equipment Used CABLE TOOLS
(dug, driven, bored or drilled) (Churn, drill, rotary or other)

87-89 TAN CLAY - SOME GRAVEL IMBEDDED
Water Use: Domestic Municipal Other Irrigation
Industrial Drainage Stock

89-94 TAN SANDY SILTY CLAY
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.

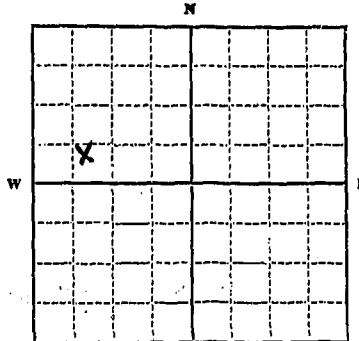
94-98 TIGHT SAND + GRAVEL
SOME WATER

Size of Drilled Hole	Size and Weight of Casing	From (Feet)	To (Feet)	PERFORATIONS		
				Kind Size	From (Feet)	To (Feet)
10"	10 3/4 OD	+1	116	MILLS KNIFE 3/8" x 2 1/2"	104'	115'

98-104 SAND + GRAVEL WATER

104-116 CLEAN COARSE SAND + GRAVEL WATER

116 - BOTTOM



NW 1/4 SE 1/4
SW 1/4 Sec. 33 T. 13N R. 19W
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 45 feet.

Shut-in Pressure for Flowing Well Non Flowing

Pumping Water Level 62 feet at 400 gal. per minute.

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

How Tested Air Lift Pump Length of Test 4 hrs

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) CEMENT SLAB

AROUND WELL CASING, VALUE SHUTOFF, 41.36

ACRES TO BE IRRIGATED

52
Driller's License Number

William F Osborne
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.

File No. _____

T. 13ⁿ R. 19^w

DUPLICATE

County Missoula

STATE OF MONTANA
ADMINISTRATOR OF GROUNDWATER CODE
OFFICE OF STATE ENGINEER

RECEIVED
JAN 13 1964

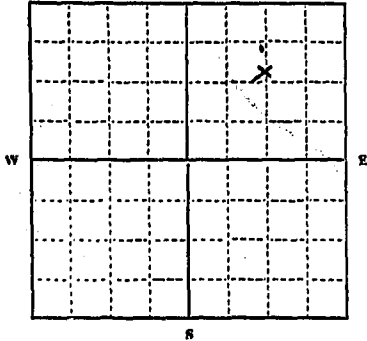
Declaration of Vested Groundwater Rights

(Under Chapter 237, Montana Session Laws, 1961)

STATE ENGINEER

1. Missoula County High School of Missoula (Town)
(Name of Appropriator) (Address)

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



NE 1/4 Sec. 33 T. 13 R. 19

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 For irrigation of Missoula County School grounds and football field

3. Date or approximate date of earliest beneficial use; and how continuous the use has been 1955

4. The amount of groundwater claimed (in miner's inches or gallons per minute) 600 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 52 acres in plot plus about ten acres in football field at fairgrounds

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

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

8. The depth of water table Estimate about 50 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 10" case 80 feet drilled

10. The estimated amount of groundwater withdrawn each year 27,216,000 gallons for present irrigation purposes

11. The log of formations encountered in the drilling of each well if available Ordovician, Silurian, Cambrian, Devonian, Missoula, and Lewis and Clark

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.

Signature of Owner Missoula County Area High School by J. J. [Signature]
Date Dec. 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.

31422

1357

216139

Copy
 I received and filed this instrument for
 record on the *9* day of *January*, 19*64*
 at *10:12* o'clock *A.* M., permanent files
 of Missoula County, State of Montana
 Witness my hand:
 MARTIN S. BEHNER County Recorder
 By *Walter S. Colburn* Deputy
 Fee \$ *None* Paid

33

File No. _____

T. 13N R. 19W

DUPLICATE

County Missoula

STATE OF MONTANA
ADMINISTRATOR OF GROUNDWATER CODE
OFFICE OF STATE ENGINEER

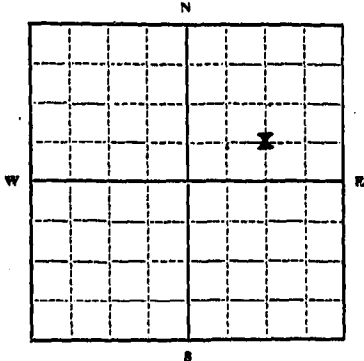
RECEIVED
STATE ENGINEER

Declaration of Vested Groundwater Rights

(Under Chapter 237, Montana Session Laws, 1961)

1. The Montana Power Company of 40 East Broadway Butte
(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:



SE 1/4 NE 1/4 Sec. 33 T. 13N R. 19W

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. Municipal supply

3. Date or approximate date of earliest beneficial use; and how continuous the use has been. July 1957, 24 hrs. per day for each year since 1935

4. The amount of groundwater claimed (in miner's inches or gallons per minute). 1,200 gallons per minute - 24 hours per day

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

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

7. The date of commencement and completion of the construction of the well, wells, or other works for withdrawal of groundwater. Started drilling June 21, 1957, well completed July 4, 1957

8. The depth of water table. 56'

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. Well 12" I.D. steel casing - 118' deep

10. The estimated amount of groundwater withdrawn each year. 95,000,000 gallons

11. The log of formations encountered in the drilling of each well if available. 0' to 86' clay, sand and small gravel, 86' to 118' some sand and large 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.

(CORPORATE SEAL)

ATTEST:

[Signature]

Its Secretary

THE MONTANA POWER COMPANY

Signature of Owner By *[Signature]*

Vice President

Date February 1, 1962

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.

128

Copy

192069

I received and filed this instrument for record on the 16 day of April 1920 at 8:52 o'clock A.M. permanent files of Missoula County, State of Montana.

Witness my hand:
MARTIN S. BEHNER, County Recorder
 By Edna J. Mason, Deputy
 Fee \$ 2.00 Paid

MISSOULA COUNTY, MONTANA

RECORDED IN BOOK 100 PAGE 100

APR 16 1920

File No. _____

NOV 28 1970

T. 13N R. 19W Sec. 33

DUPLICATE

County Missoula

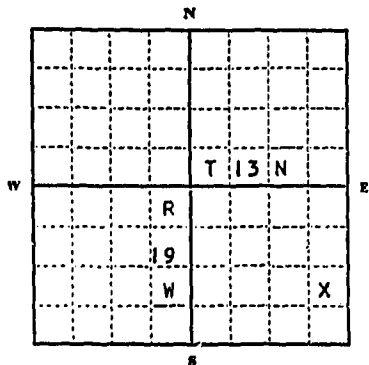
STATE OF MONTANA
ADMINISTRATOR OF GROUNDWATER CODE
OFFICE OF STATE ENGINEER

Declaration of Vested Groundwater Rights

(Under Chapter 237, Montana Session Laws, 1961)

1. The Montana Power Company of 132 E. Broadway Missoula
(Name of Appropriator) (Address) (Town)

County of Missoula State of Montana 59801
have appropriated groundwater according to the Montana laws in effect prior to January 1, 1962, as follows:



NE 1/4 SE Sec. 33 T13N R. 19W

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. Provide household water for over 200 homes, & Golf Course Recreational area with room for 250 more homes.
- 3. Date or approximate date of earliest beneficial use; and how continuous the use has been. July, 1948 and continuous thereafter
- 4. The amount of groundwater claimed (in miner's inches or gallons per minute). Well #1 - 300 gpm; Well #2 - 450 gpm; Total 750 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 residential irrigation
- 6. The means of withdrawing such water from the ground and the location of each well or other means of withdrawal. 2 wells; Both located Lot 22, Bl. 1 Willows Add'n of Missoula County, Montana

7. The date of commencement and completion of the construction of the well, wells, or other works for withdrawal of groundwater. Well #1 - Sept 24, 1945; Well #2 - June 1955 (Approx)

8. The depth of water table. Well #1 - 113ft.; Well #2 - 72 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. Well #1: 8 in. O.S. Casing 29.55 lbs. per sq.ft., 116 ft. deep, perforated casing from 105 ft. to 113 ft., Worthington deep well turbine pump powered by 25 HP GE pump motor; Well #2: 120 ft. deep perforated casing from 95 ft. to 120 ft. deep well pump powered 50 HP electric motor.

10. The estimated amount of groundwater withdrawn each year. Wells #1 and #2 Total 25,000,000 Gals.

11. The log of formations encountered in the drilling of each well if available. Well #1: 0' - 4' Topsoil; 4' - 20' Gravel & soil; 20' - 96' Clay, sand, gravel; 96' - 98' light gravel; 100' - 116' Sand, gravel, water. Well #2: 0' - 72' Clay, gravel; 72' - 97' Gravel sand, water, 97' - 101' clay and water; 101' - 120' Gravel, water.

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. re: Montana State Board of Health

Doc. No. 296999

Filed for record

this 18 day of November

A. D. 1970, at 2:25

o'clock P.M.

Signature of Owner

Date

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.

417795

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.

#433

296999

I received and filed this instrument for
 record on the 18 day of August 70
 at 3:25 o'clock P.M. in the office
 of Missoula County State of Montana
 Witness my hand.
 Clarence R. Gause, County Recorder
 By June Beckwith Deputy
 Fee \$ 2.00 Paid

Official record.
 This instrument was filed for record on August 18, 1970 at 3:25 P.M. in the office of the County Recorder, Missoula County, Montana. The fee of \$2.00 was paid by the depositor.

File No. _____

RECEIVED

T 13N R 19W

NOV 29 1970

County Missoula

DUPLICATE

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)

Top of Ground _____
Approx. (Elev. above sea level 3210')

Formations Log:

- 0 - 6 Sandy soil.
- 6 - 13 Sand and gravel mixed in brown clay.
- 13 - 15 Clean gravel.
- 15 - 55 Gravel imbedded in tan clay.
- 55 - 78 Fine gray sand and gravel. Some water. Static level 48' from surface.
- 78 - 86 Red to tan clay.
- 86 - 90 Gravel imbedded in tan clay.
- 90 - 99 Coarse sand and gravel. Water.
- 99 - 101 Boulder.
- 101 - 127 Fine to coarse sand and gravel. Water.
- 127 - 137 Fine to coarse sand and gravel. Some tan clay. Water.
- 137 - 146 Sand and gravel mixed in gray clay.

Owner The Montana Power Co Address Missoula, Montana

Driller Liberty Drilling Co. Address Missoula, Montana

Date of Notice of appropriation of groundwater None filed.

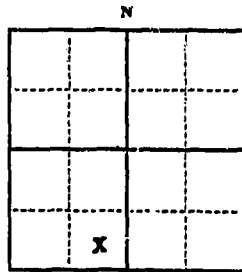
Date well started 7/26/66 Date completed 8/27/66

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 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)
14"	14" OD x .312	+2	146	617 1/4 inch & 1/2 inch perforated with Mills Knife	96'	127'



Static Water Level for non-flowing well 45'3" feet.

Shut-in Pressure for Flowing Well None

Pumping Water Level 73 feet at 1000 gal. per minute.

Discharge in gal. per min. of flowing well None

How Tested Art. Lift Pump
Length of Test 48 1/2 hours

Remarks: (Gravel packing, cementing, packers, type of shutoff) All water entering well is coming through perforations in the casing. Wells with perforated com-

SE 1/4 Sec. 33, T.13N R.19W
Indicate location of well and place of use, if possible. Each small square represents 40 acres.

Doc. No. 296998
Filed for record this 19 day of November A. D. 19 70, at 3:20 o'clock P M.

positions in this area can be depended upon to produce clear sand free water. (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).

15 acres

Show exact depth of bottom.
Bottom of well 146'

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 D. Cabme
Driller's Signature.

47796

1645

296988

I received and filed this instrument for record on the 18th day of Nov. 1920, at 2:20 o'clock P.M., pursuant to the of Minnola County, State of Missouri

Witness my hand:

Vernon A. Cross, County Recorder
By M. M. Conroy, Deputy
For 22.00 Gold

year after year as long as they are not overpumped, i.e., they should be pumped at rates less than 25 to 50 percent of the tested capacity of the aquifer.

RECORDED IN BOOK NO. 100

INDEXED IN BOOK NO. 100

RECEIVED
OCT 15 1957

Park and Agnes Streets

T. 13N. R. 19W.

33

County Missoula

STATE ENGINEER MONTANA BUREAU OF MINES AND GEOLOGY
Butte, Montana

WATER WELL LOG

Owner THE MONTANA POWER COMPANY Address Missoula, Montana
 Driller Glenn Camp Address 705 Alder - Missoula
 Date Started June 21, 1957 Date Completed July 4, 1957
 Location: Sec. 33 T. 13N. R. 19W. 1/4 sec. NE 1/4

Type of well Drilled Equipment used
(Dug, driven, bored, or drilled) (Crown drill, rotary, other)

Water use: Domestic Municipal Stock Irrigation

Industrial Drainage Other: _____

Casing: 0 ft. to 118'6" ft. Type Seamless Size 12" I.D.

Casing: _____ ft. to _____ ft. Type _____ Size _____

Casing: _____ ft. to _____ ft. Type _____ Size _____

Perforated or Screened: Ft. 90' to ft. 115' Ft. _____ to ft. _____

Type of screen or perforations Mill Knife 3/8" x 3" 6 Holes per Foot.

Static Water level, for non-flowing well: _____ feet.

Shut-in pressure, for flowing well: _____ lb./sq. in. on: _____ (date)

Pumping water level 90' feet at 1200 gal. per min.

How tested: _____

Length of test: _____

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

(over)

