

#1396 188145

COUNTY OF CARRON } SS.  
 Office of the County Clerk & Recorder

I hereby certify that the within  
Appropriation was filed  
 for record in my office this 18 day  
 of April A. D. 19 13  
 at 4:15 o'clock P. M.

Attest my hand and the seal of  
 said County  
Frank Strickland  
 Clerk and Recorder

By \_\_\_\_\_ Deputy  
 Fee \$ 2.00

RECEIVED IN OFFICE OF CLERK AND RECORDER  
 APR 18 1913  
 OFFICE OF CLERK AND RECORDER  
 CARRON COUNTY, MISSOURI

After reading and being duly sworn to which the undersigned Clerk and Recorder of the County of Carron, Missouri, do hereby certify that the within appropriation was filed for record in my office on the 18th day of April, A. D. 1913, at 4:15 o'clock P. M.

| Page | Book | Page | Page | Page |
|------|------|------|------|------|
| 1    | 1    | 20   | 15   | 1    |
| 2    | 1    | 21   | 16   | 1    |
| 3    | 1    | 22   | 17   | 1    |
| 4    | 1    | 23   | 18   | 1    |
| 5    | 1    | 24   | 19   | 1    |
| 6    | 1    | 25   | 20   | 1    |
| 7    | 1    | 26   | 21   | 1    |
| 8    | 1    | 27   | 22   | 1    |
| 9    | 1    | 28   | 23   | 1    |
| 10   | 1    | 29   | 24   | 1    |
| 11   | 1    | 30   | 25   | 1    |
| 12   | 1    | 31   | 26   | 1    |
| 13   | 1    | 32   | 27   | 1    |
| 14   | 1    | 33   | 28   | 1    |
| 15   | 1    | 34   | 29   | 1    |
| 16   | 1    | 35   | 30   | 1    |
| 17   | 1    | 36   | 31   | 1    |
| 18   | 1    | 37   | 32   | 1    |
| 19   | 1    | 38   | 33   | 1    |
| 20   | 1    | 39   | 34   | 1    |
| 21   | 1    | 40   | 35   | 1    |
| 22   | 1    | 41   | 36   | 1    |
| 23   | 1    | 42   | 37   | 1    |
| 24   | 1    | 43   | 38   | 1    |
| 25   | 1    | 44   | 39   | 1    |
| 26   | 1    | 45   | 40   | 1    |
| 27   | 1    | 46   | 41   | 1    |
| 28   | 1    | 47   | 42   | 1    |
| 29   | 1    | 48   | 43   | 1    |
| 30   | 1    | 49   | 44   | 1    |
| 31   | 1    | 50   | 45   | 1    |
| 32   | 1    | 51   | 46   | 1    |
| 33   | 1    | 52   | 47   | 1    |
| 34   | 1    | 53   | 48   | 1    |
| 35   | 1    | 54   | 49   | 1    |
| 36   | 1    | 55   | 50   | 1    |
| 37   | 1    | 56   | 51   | 1    |
| 38   | 1    | 57   | 52   | 1    |
| 39   | 1    | 58   | 53   | 1    |
| 40   | 1    | 59   | 54   | 1    |
| 41   | 1    | 60   | 55   | 1    |
| 42   | 1    | 61   | 56   | 1    |
| 43   | 1    | 62   | 57   | 1    |
| 44   | 1    | 63   | 58   | 1    |
| 45   | 1    | 64   | 59   | 1    |
| 46   | 1    | 65   | 60   | 1    |
| 47   | 1    | 66   | 61   | 1    |
| 48   | 1    | 67   | 62   | 1    |
| 49   | 1    | 68   | 63   | 1    |
| 50   | 1    | 69   | 64   | 1    |
| 51   | 1    | 70   | 65   | 1    |
| 52   | 1    | 71   | 66   | 1    |
| 53   | 1    | 72   | 67   | 1    |
| 54   | 1    | 73   | 68   | 1    |
| 55   | 1    | 74   | 69   | 1    |
| 56   | 1    | 75   | 70   | 1    |
| 57   | 1    | 76   | 71   | 1    |
| 58   | 1    | 77   | 72   | 1    |
| 59   | 1    | 78   | 73   | 1    |
| 60   | 1    | 79   | 74   | 1    |
| 61   | 1    | 80   | 75   | 1    |
| 62   | 1    | 81   | 76   | 1    |
| 63   | 1    | 82   | 77   | 1    |
| 64   | 1    | 83   | 78   | 1    |
| 65   | 1    | 84   | 79   | 1    |
| 66   | 1    | 85   | 80   | 1    |
| 67   | 1    | 86   | 81   | 1    |
| 68   | 1    | 87   | 82   | 1    |
| 69   | 1    | 88   | 83   | 1    |
| 70   | 1    | 89   | 84   | 1    |
| 71   | 1    | 90   | 85   | 1    |
| 72   | 1    | 91   | 86   | 1    |
| 73   | 1    | 92   | 87   | 1    |
| 74   | 1    | 93   | 88   | 1    |
| 75   | 1    | 94   | 89   | 1    |
| 76   | 1    | 95   | 90   | 1    |
| 77   | 1    | 96   | 91   | 1    |
| 78   | 1    | 97   | 92   | 1    |
| 79   | 1    | 98   | 93   | 1    |
| 80   | 1    | 99   | 94   | 1    |
| 81   | 1    | 100  | 95   | 1    |
| 82   | 1    | 101  | 96   | 1    |
| 83   | 1    | 102  | 97   | 1    |
| 84   | 1    | 103  | 98   | 1    |
| 85   | 1    | 104  | 99   | 1    |
| 86   | 1    | 105  | 100  | 1    |
| 87   | 1    | 106  | 30   | 1    |

File No.

DUPLICATE

RECEIVED

JUL 24 1972

MONTANA DEPARTMENT OF NATURAL  
RESOURCES AND CONSERVATION

T.

County

STATE OF MONTANA

ADMINISTRATOR OF GROUNDWATER CODE  
OFFICE OF STATE ENGINEER

Top of Ground

(Elev. above sea level)

Top Soil

Notice of Completion of Groundwater  
Appropriation by Means of Well

(Under Chapter 237, Montana Session Laws, 1961)

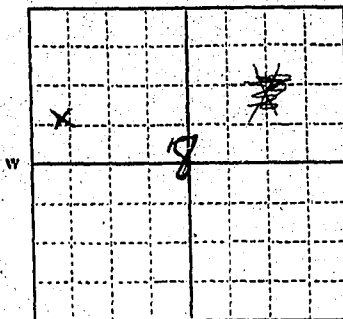
Owner J. Robert McLean Address Helena, Montana  
AND/OR IRVING McLEAN 1036 WIDEWATER LANE  
Driller A. D. DRILLING Address Billings, Montana

Date of Notice of Appropriation of Groundwater

Date well started 5/26/72 Date Completed 5/27/72Type of well DRILLED Equipment Used CABLE  
(dug, driven, bored or (Churn, drill, rotary or  
drilled) 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) |
| 7"                   | 6 5/8"<br>17-81#          | 0           | 22        | CUT<br>8     | 20          | 21        |

Lot # 19, Second Amended  
Certificate of Survey #497SW 1/4 NW Sec. 8 T. 4 R. 23  
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 12 feet.

Shut-in Pressure for Flowing Well

Pumping Water Level 12 feet at 30 gal. per minute.

Discharge in gal. per min. of flowing well

How Tested BAILER PUMP Length of Test 4 H.R.

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)

PIPE EXT. 1" ABOVE  
GROUNDDoc. No. #1358, 185213  
Filed for record  
this 21 day of July  
A. D. 19 72, at 9:55  
o'clock A.M.

MONT 188

Driller's License Number

Roy R. Senger  
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.

50,989

185213

Office of the County Clerk & Recorder

I hereby certify that the within  
Appropriation was filed  
for record in my office this 21 day  
of July A. D. 1922  
at 9:58 o'clock A. M.

Attest my hand and the seal of  
 said County  
 Frank Danilek  
 Clerk and Recorder

Deputy

Page 6

OFFICE OF STATE ENGINEERING  
 AND MINERAL RESOURCES  
 1000 UNIVERSITY AVENUE  
 ALBANY, NEW YORK 12208

201  
10-1-66  
24-1-66

In witness whereof, I have hereunto set my hand and the seal of the said Court, at the City of New York, this 14th day of June, 1964.

personnel staffs and people in other areas who are responsible for the day-to-day operation of the program. Such people at which water is concentrated, shipped and stored in some areas may also in smaller such as well as the amount of water used. The importance of the operation the operation and importance of the operation.

[illegible]

Doc. No. 1887  
Filed for record  
this 14 day of June  
A. D. 19 71, at 4:55 P.M.  
DUPLICATE

STATE OF MONTANA  
ADMINISTRATOR OF GROUNDWATER CODE  
OFFICE OF STATE ENGINEER

Notice of Completion of Groundwater  
Appropriation by Means of Well

(Under Chapter 237, Montana Session Laws, 1961)

Owner LaVisa Golden Address Rt. 1 - Joliet  
1035 WINE MILLER LANE  
Driller L. D. DRILLING Address BILLINGS MONT.

Date of Notice of Appropriation of Groundwater

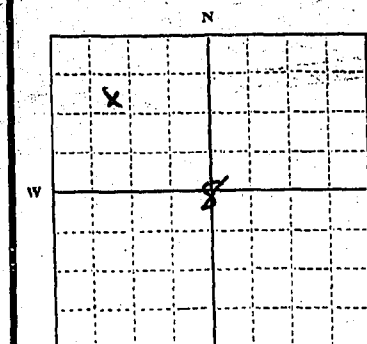
Date well started 10/1/71 Date Completed 10/26/70

Type of well DRIVEN Equipment Used CABLE  
(dug, driven, bored or (Churn, drill, rotary or  
drilled) 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) |
| 7"                   | 18-37"<br>6 3/4"          | 0           | 30        | CUT<br>1/8   | 22          | 28        |



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 12 feet at 30 gal. per minute.

Discharge in gal. per min. of flowing well

How Tested BAKER 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)

DRIVE SHOE USED

MONT-188  
Driller's License Number

Boyle  
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.

48609

STATE OF MICHIGAN,  
COUNTY OF CASS. ss.

Whereby certify that she within

Whereby certify that the within  
Appropriation was filed  
for record in my office this 24 day  
of June A. D. 19 21  
at 4:15 o'clock P M.

Attest my hand and the seal of  
said County  
Frank Stwick  
Clerk and Recorder

2v \_\_\_\_\_ Deputy

Page 3

CONFIDENTIAL

[illegible][illegible]

1990

1990

100-443887-100

... ..

1. *Phragmites australis* (Cav.) Trin. ex Steud.

100

Figure 1. The structure of the proposed system.

100

100

10

100

1

1990

1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2159, 2160, 2161, 2162, 2163, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2176, 2177, 2178, 2179, 2180, 2181, 2182, 2183, 2184, 2185, 2186, 2187, 2188, 2189, 2190, 2191, 2192, 2193, 2194, 2195, 2196, 2197, 2198, 2199, 2200, 2201, 2202, 2203, 2204, 2205, 2206, 2207, 2208, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2221, 2222, 2223, 2224, 2225, 2226, 2227, 2228, 2229, 2230, 2231, 2232, 2233, 2234, 2235, 2236, 2237, 2238, 2239, 2240, 2241, 2242, 2243, 2244, 2245, 2246, 2247, 2248, 2249, 2250, 2251, 2252, 2253, 2254, 2255, 2256, 2257, 2258, 2259, 2260, 2261, 2262, 2263, 2264, 2265, 2266, 2267, 2268, 2269, 2270, 2271, 2272, 2273, 2274, 2275, 2276, 2277, 2278, 2279, 2280, 2281, 2282, 2283, 2284, 2285, 2286, 2287, 2288, 2289, 2290, 2291, 2292, 2293, 2294, 2295, 2296, 2297, 2298, 2299, 2300, 2301, 2302, 2303, 2304, 2305, 2306, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317, 2318, 2319, 2320, 2321, 2322, 2323, 2324, 2325, 2326, 2327, 2328, 2329, 2330, 2331, 2332, 2333, 2334, 2335, 2336, 2337, 2338, 2339, 2340, 2341, 2342, 2343, 2344, 2345, 2346, 2347, 2348, 2349, 2350, 2351, 2352, 2353, 2354, 2355, 2356, 2357, 2358, 2359, 2360, 2361, 2362, 2363, 2364, 2365, 2366, 2367, 2368, 2369, 2370, 2371, 2372, 2373, 2374, 2375, 2376, 2377, 2378, 2379, 2380, 2381, 2382, 2383, 2384, 2385, 2386, 2387, 2388, 2389, 2390, 2391, 2392, 2393, 2394, 2395, 2396, 2397, 2398, 2399, 2400, 2401, 2402, 2403, 2404, 2405, 2406, 2407, 2408, 2409, 2410, 2411, 2412, 2413, 2414, 2415, 2416, 2417, 2418, 2419, 2420, 2421, 2422, 2423, 2424, 2425, 2426, 2427, 2428, 2429, 2430, 2431, 2432, 2433, 2434, 2435, 2436, 2437, 2438, 2439, 2440, 2441, 2442, 2443, 2444, 2445, 2446, 2447, 2448, 2449, 2450, 2451, 2452, 2453, 2454, 2455, 2456, 2457, 2458, 2459, 2460, 2461, 2462, 2463, 2464, 2465, 2466, 2467, 2468, 2469, 2470, 2471, 2472, 2473, 2474, 2475, 2476, 2477, 2478, 2479, 2480, 2481, 2482, 2483, 2484, 2485, 2486, 2487, 2488, 2489, 2490, 2491, 2492, 2493, 2494, 2495, 2496, 2497, 2498, 2499, 2500, 2501, 2502, 2503, 2504, 2505, 2506, 2507, 2508, 2509, 2510, 2511, 2512, 2513, 2514, 2515, 2516, 2517, 2518, 2519, 2520, 2521, 2522, 2523, 2524, 2525, 2526, 2527, 2528, 2529, 2530, 2531, 2532, 2533, 2534, 2535, 2536, 2537, 2538, 2539, 2540, 2541, 2542, 2543, 2544, 2545, 2546, 2547, 2548, 2549, 2550, 2551, 2552, 2553, 2554, 2555, 2556, 2557, 2558, 2559, 2560, 2561, 2562, 2563, 2564, 2565, 2566, 2567, 2568, 2569, 2570, 2571, 2572, 2573, 2574, 2575, 2576, 2577, 2578, 2579, 2580, 2581, 2582, 2583, 2584, 2585, 2586, 2587, 2588, 2589, 2590, 2591, 2592, 2593, 2594, 2595, 2596, 2597, 2598, 2599, 2600, 2601, 2602, 2603, 2604, 2605, 2606, 2607, 2608, 2609, 2610, 2611, 2612, 2613, 2614, 2615, 2616, 2617, 2618, 2619, 2620, 2621, 2622, 2623, 2624, 2625, 2626, 2627, 2628, 2629, 2630, 2631, 2632, 2633, 2634, 2635, 2636, 2637, 2638, 2639, 2640, 2641, 2642, 2643, 2644, 2645, 2646, 2647, 2648, 2649, 2650, 2651, 2652, 2653, 2654, 2655, 2656, 2657, 2658, 2659, 2660, 2661, 2662, 2663, 2664, 2665, 2666, 2667, 2668, 2669, 2670, 2671, 2672, 2673, 2674, 2675, 2676, 2677, 2678, 2679, 26

Figure 1. The effect of the concentration of the *Agrobacterium* suspension on the transformation efficiency of *Agrobacterium* strains. The *Agrobacterium* strains were grown in YEA medium for 24 h at 28 °C. The cell concentration of the strains was adjusted to 10<sup>8</sup> cells/ml. The cell suspension was then diluted with distilled water to the concentration of 10<sup>6</sup> cells/ml. The cell suspension was then mixed with the plant tissue and the transformation efficiency was determined. The results are shown in Table 1.

5.0

100

15

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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 Harry B. Greenleaf

Address Box 792

Red Lodge, MONT

Date well started 5/31/73

completed 6/11/73

Type of well DRILLED

Equipment used CABLE

Water Use: Domestic ☒ Municipal ☐ Stock ☐ Irrigation ☐

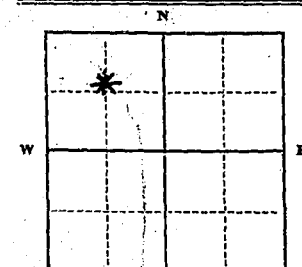
Industrial ☐ Drainage ☐ Other ☐ Garden/Lawn ☒

\*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                    |
|----------------------|---------------------------|-------------|-----------|---------------------------------|
| 6 5/8"               | 6 5/8" 18-97              | 0           | 18        | Kind Size From (Feet) To (Feet) |
|                      |                           |             |           | CUT 22 27                       |
|                      |                           |             |           | 1/4"                            |



Static water level 9 ft.\*  
Pumping water level 12 ft.\*  
at 20 gallons per minute,  
measured 120 minutes after pumping  
began.

\*Measured from ground level.  
Well developed by PUMP  
for 4 hours.

Power 3 HP  
Remarks: (Gravel packing, cementing,  
packers, type of shutoff)

GRAVEL PACKED  
CLAY PACKED  
PIPE EXTEND  
1' ABOVE GROUND

NW 1/4 NW 1/4 Sec. 8  
T. 4 N. 23 E.  
S. W

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

Driller's Signature H. D. DRILLER

Driller's Address 135 WINKMILLER LN

KLINGSS MOUNT LICENSE NO. 128

7 R SIGN

RECEIVED  
JUN 21 1973

County Carbon

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           | 2         | TOP SOIL       |
| 2           | 20        | SAND CLAY      |
| 20          | 22        | ROCK           |
| 22          | 28        | SANDSTONE      |
| 28          |           | SHALE          |
|             |           | WATER AT 20    |
|             |           | 20 GAL PER MIN |

28 Show exact depth of bottom

53,676

#1408

188707

I, FRANK DANICHEK, SS.  
Clerk of said County (Clerk & Recorder)

I hereby certify that the within  
Appropriation was filed  
& recorded in my office this 20th day  
of June A. D. 1973  
at 1:30 o'clock P. M.

Attest my hand and the seal of  
said County.

FRANK DANICHEK, COUNTY CLERK

Clerk and Recorder  
By Alvin E. Bunnell Deputy

Fees \$ 2.00



STATE OF MONTANA  
ADMINISTRATOR OF GROUNDWATER CODE  
MONTANA WATER RESOURCES BOARD

DEC 7 1970

**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 Edna E. Hagan

Address 601-2nd Ave

Date well started 9/13/70

completed 9/14/70

Type of well DRILLED

Equipment used CABLE

Water Use: Domestic ☒ Municipal ☐ Stock ☐ Irrigation ☐

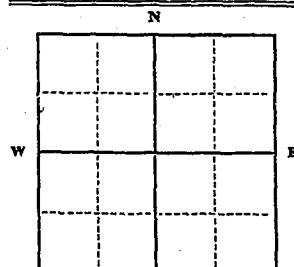
Industrial ☐ Drainage ☐ Other ☒ Garden/Lawn ☒

\*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                  |
|----------------------|---------------------------|-------------|-----------|-------------------------------|
| 7"                   | 17.3#<br>6#               | 0           | 25        | Kind Size<br>CUT 20 29<br>1/4 |



Static water level .....ft.\*  
Pumping water level 12 ft.\*  
at 20 gallons per minute,  
measured 30 minutes after pumping began.

\*Measured from ground level.

Well developed by R

for 4 hours.

Power..... Pump 3 HP

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

1st 26 27 Cont. of Survey of NR 497

Map 1/4 Sec. P

T 4 S 23 E

MPH Carbon County

INDICATE LOCATION OF WELL AND PLACE OF USE, IF POSSIBLE.

EACH SMALL SQUARE REPRESENTS 40 ACRES

Driller's Signature Roy R. Lenger

Driller's Address 1035 WINEVILLER LANE

L & D - DRILLING

LICENSE NO. 188

516 SOUTH LANE

BILLINGS MONT

| Top of Ground (Elev. above sea level) |           |               |
|---------------------------------------|-----------|---------------|
| From (Feet)                           | To (Feet) |               |
| 0                                     | 2         | TOP SOIL      |
| 2                                     | 12        | SANDY CLAY    |
| 12                                    | 21        | WATER AT 7'   |
| 21                                    | 23        | SAND & GRAVEL |
|                                       |           | ROCK          |
|                                       |           | WATER AT 31'  |
|                                       |           | 25 PER MIN    |
| 23                                    | 25        | SAND          |
| 25                                    |           | CLAY DARK     |

25' Show exact depth of bottom

47852



186005

STATE OF MONTANA }  
COUNTY OF CARMAN } SS.  
Office of the County Clerk & Recorder

I hereby certify that the within  
Appropriation was filed  
for record in my office this 4 day  
of Dec A. D. 1970  
at 10:10 o'clock P. M.

Attest my hand and the seal of  
said County  
*Frank M. Muehle*  
Clerk and Recorder

**Fees \$**

5

GW 3  
File No. 724

MONTANA WATER RESOURCES BOARD

RECEIVED

T 4 R 23  
County of Carbon

JAN 26 1968

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, 1962)

Date of Appropriation of Groundwater 1898

Owner

Jane S. McIntyre

Address

10 Locust St Billings

Contractor (if any)

None

Address of Contractor

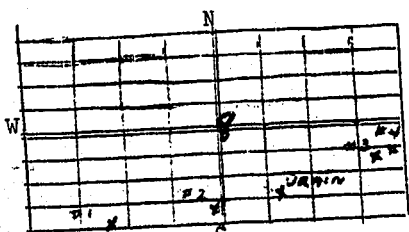
None

Date Started

1898

Date Completed

1898



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

DRAIN - SW SE

#3 + #4 - NESE

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

Natural free flowing springs except for drain.

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

70 MINERS INCHES  
IN SPRINGS + 50 MINERS INCHES EXTRA WITH DRAIN  
#2 + 3 - ALSO DOMESTIC  
ALL USED YEAR ROUND - IRRIGATION + STOCK

Signature of Owner

Jane S. McIntyre

Date

12/31/63

STATE OF MONTANA )  
County of Carbon ) ss.

Having first been duly sworn, depose and say that he of lawful age and the appropriator and claimant of the order and water right mentioned in the foregoing notice of completion of groundwater appropriation without well and the person whose name subscribed thereto, as the appropriator and claimant, that he know the contents of said foregoing notice and that the matters and things therein stated are true.

Subscribed and sworn to before me, this \_\_\_\_\_ day of \_\_\_\_\_, 19\_\_\_\_

Notary Public for the State of Montana

Residing at \_\_\_\_\_

My Commission expires \_\_\_\_\_ 19\_\_\_\_

43,481

#1724

159417

STATE OF MONTANA, }  
COUNTY OF CARBON } SS.

Office of the County Clerk & Recorder

I hereby certify that the within

Appropriation was filed  
for record in my office this 31 day  
of Dec A. D. 19 63  
at 12:22 o'clock P. M.

Attest my hand and the seal of  
said County

FRANK DANICHEK, COUNTY CLERK

Clerk and Recorder

By Alvin E. Groves Deput

Fees \$ 2.00

RECEIVED

JUL 24 1972

County Carbon

Montana Department of Natural Resources and Conservation  
191-1500-10/69

STATE OF MONTANA  
ADMINISTRATOR OF GROUNDWATER CODE  
MONTANA WATER RESOURCES BOARD

NOTICE OF COMPLETION OF GROUNDWATER APPROPRIATION WITHOUT WELL

Developed After January 1, 1962

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

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 may be returned.

For Administrator's Use

File # 1357, 185212

July 21, 1972 9:50 a.m.

GW 1

Owner J. Robert & Irene McLean

Address Rt 1 Joliet, Mont

Contractor (if any)

Address of Contractor

Date Started Unknown Date Completed

1. Describe means of obtaining groundwater (as by sub-irrigation, developed spring, drains, etc.)

free flowing

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

free flowing

3. Depth of water table 6-10 feet

4. Use of the water

irrigation

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

10 gallons

6. If used for irrigation, give number of acres and description of land

4 acres

7. Estimate amount of water used each year

No way to know

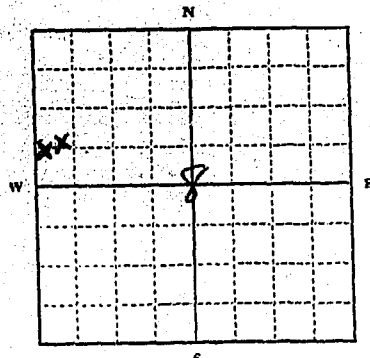
8. Months of year spring flows

year round

Signature of Owner

J. Robert McLean

Date 7-21-72



SW 1/4 NW 1/4 Sec 8

T 4 R 23

INDICATE POINT OF APPROPRIATION AND PLACE OF USE, IF POSSIBLE. Elevation of spring, if known or estimated

mated

#1357

185212

COUNTY OF CROW  
Office of the County Clerk & Recorder  
I hereby certify that the within  
Appropriation was filed  
for record in my office this 21st day  
of July A.D. 1972  
at 9:50 hours P.M.  
Witness my hand and the seal of  
said County  
Mark A. Duvick  
County Clerk & Recorder  
By Mark A. Duvick  
Date 7-21-72

Owner J. Robert H. Jolley, Jr.  
Address Rt. 1, Box 238 Sec. 8  
Location #1357, 185212  
Doc. No. \_\_\_\_\_

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

note of the  
water right.

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

Special Instructions:

Please provide, as indicated in red on the attached form, the type of groundwater being appropriated (springs, drain, sub-irrigation, etc.); dates the development was started and completed; and the means used to make the development. Springs are usually considered to be surface water and are therefore differently different manner.

JUL 24 1972

County Carbon

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

NOTICE OF COMPLETION OF GROUNDWATER APPROPRIATION WITHOUT WELL

Developed After January 1, 1962

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

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 may be returned.

For Administrator's Use

File # 1352 135212

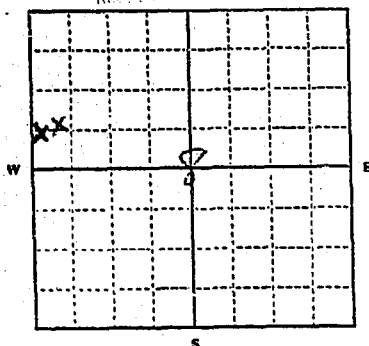
July 31 1972 9:50 am

GW 1

RECEIVED

OCT 3 1972

MONTANA DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION



SW 1/4 NW 1/4 Sec. 8

T. 4 S. R. 23 E.

INDICATE POINT OF APPROPRIATION AND PLACE OF USE, IF POSSIBLE.

Elevation of spring, if known or estimated \_\_\_\_\_

Owner J. Robert & Irene McLean

Address Rt. 1 Juliet Mont

Contractor (if any) \_\_\_\_\_

Address of Contractor \_\_\_\_\_

Date Started 7-15-72 Date Completed 8-15-72

1. Describe means of obtaining groundwater (as by sub-irrigation, developed spring, drains, etc.)

free flowing what?  
How developed?

this spring is cased in with 15" casing used by means of electric pump & meter.

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

free flowing

3. Depth of water table 6-10 feet

4. Use of the water

irrigation

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

10 gallons

6. If used for irrigation, give number of acres and description of land

4 acres

7. Estimate amount of water used each year

No way to know

8. Months of year spring flows

year 'round

Signature of Owner J. Robert McLean

Date 7-21-72

50,990



## 9

Twp 48, Rge 23 E  
RESOURCES BOARD

# SECRET

JAN 26 1968

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

water.

Wm Meyer Jarvis

Date **December 31, 1963**

43, 196



#928

159636

STATE OF MONTANA }  
COUNTY OF CARBON } SS.

Office of the County Clerk & Recorder

I hereby certify that the within  
water filing was filed  
for record in my office this 31 day  
of Dec A. D. 1963  
at 8:58 o'clock P. M.

Attest my hand and the seal of  
said County

FRANK DANICHER, COUNTY CLERK

Clerk and Recorder

Fees \$ 2.00

RECEIVED  
MAY 8 1959

STATE ENGINEER

WATER WELL LOG

Butte, Montana

Address: Laurel, Mont.

Address: Fishbelle, Mont.

Date Completed: 5/2/59

Equipment used: Churn Drill

(Churn drill, rotary, other)

Irrigation

Owner: B. Meyer Barria

Driller: B. and H. Drilling

5/1/59

R. 23 1/4 sec. SE

18. O.D. 6 I.D.

County: Carbon

#928

159636

RECEIVED  
MAY 8 1959

STATE ENGINEER

MONTANA BUREAU OF MINES AND GEOLOGY  
Butte, Montana

WATER WELL LOG

T. 4 N. 1 E. R. 23  
County Carbon

Address Laurel, Mont.  
Address Fishtail, Mont.  
Date Completed 5/2/59

Drill 5/1/59

Owner B. Meyer Barria  
Driller B. and R. Drilling  
5/1/59

Equipment used Churn Drill  
(Churn drill, rotary, other)

Irrigation ☐

STATE OF MONTANA  
COUNTY OF CARBON

Office of the County Clerk & Recorder

I hereby certify that the within  
water filing was filed  
for record in my office this 31 day  
of Dec. A. D. 1963  
at 8:58 o'clock P. M.

Attest my hand and the seal of  
said County

FRANK DANICHEK, COUNTY CLERK  
Clerk and Recorder  
Oliver E. Givens Dep.

Fees \$ 2.00 per

STATE OF MONTANA  
MONTANA BUREAU OF MINES AND GEOLOGY  
Butte, Montana

WATER WELL LOG

|  |  |  |
|--|--|--|
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

Owner B. Meyer Harris Address Laurel, Mont.

Driller B and H Drilling Address Fishtail, Mont.

Date Started 5/1/59 Date Completed 5/2/59

Location: Sec. 9 T. 4 R. 23  $\frac{1}{4}$  sec. SE

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

Water use: Domestic ☐ Municipal ☐ Stock ☒ Irrigation ☐  
Industrial ☐ Drainage ☐ Other: \_\_\_\_\_

Casing: 0 ft. to 26 ft. Type Black ???? Size 6 5/8 O.D. 6 I.D.

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: 13 feet.

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

Pumping water level 18 feet at 25 gal. per min.

How tested: Ball

Length of test One Hr.

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

Gravel packed end of casing

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

(over)

Note: Would have to check means  
of diversion to determine ground or surface water.

COPIED

### Log of Well

[illegible]

Rock Co.  
Clark Fork 9

WATER APPROPRIATION, CARBON COUNTY, MONTANA, JANUARY 1, 1950  
TO DATE.

Appropriated by: Logan I. Kingston & Edna B.  
Address: Joliet Rte 1  
Date: September 25, 1951  
Quantity: 15 Miners inches  
Name of stream: Waste waters from the Mont-Aqua Well  
Purpose: Irrigation  
Place of use: Pt. NW $\frac{1}{4}$  Section 9, Twp 4 S. Range 23, East, MPM  
Means of diversion: 31.3 acres.  
Ditch-36" X 24"  
Measuring device: Not shown  
Recorded: September 25, 1951 3:45 P.M.  
Book 4 Water Rights Page 182

Note: Would have to check means  
of diversion to determine ground or surface water. correct ✓

0 19/3

County..... **Sebert**

3 GW 2 Revised 1969  
STATE PUBLISHING COMPANY

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

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 E.H. Wilcox

Address Jaffet, NT

For Administrator's Use

File 1403; 188552

JUNE 5, 1973

Date well started **4-2-73**

completed 4-9-73

Type of well drilled

(Dug, driven, bored or drilled)

Equipment used chain drill

-----  
(Church 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 Casting | From (Feet) | To (Feet) | PERFORATIONS              |             |           |
|----------------------|----------------------------|-------------|-----------|---------------------------|-------------|-----------|
|                      |                            |             |           | Kind Size                 | From (Feet) | To (Feet) |
| 6"                   | 6 3/8<br>17.02             | +1'         | 35        | none                      |             |           |
| 6"                   | 4%<br>160 psi<br>plastic   | -6'         | 56        | 3/16"<br>drilled<br>holes | 36'         | 51'       |

Static water level 16 ft.\*  
Pumping water level 50 ft.\*  
at 7 gallons per minute,  
measured 30 minutes after pumping  
began.

\*Measured from ground level.

Well developed by Sattler

for 1 1/2 hours.

Power..... Pump..... HF.....

Remarks: (Gravel packing, cementing,

packers, type of shutoff) .....

NW ¼ SW ¼ Sec 9  
T. 23 N. R. 23 E.

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

Driller's Signature \_\_\_\_\_

Driller's Address

Box 32, Pishtail, Mt. 59028

LICENSE NO. 27

## 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

(Height above sea level)

[illegible]

56 Show exact depth of bottom

52,375

#1403 188552

STATE OF MONTANA,  
COUNTY OF CARBON } SS.

Office of the County Clerk & Recorder.

I hereby certify that the within  
appropriation was filed  
for record in my office this 5 day

of June A. D. 1913  
at 10:15 o'clock A. M.

Attest my hand and the seal of  
said County

Frank Mueckel  
Clerk and Recorder

By \_\_\_\_\_ Deputy

Fees \$ 2.00



Helena Independent Record  
File No. 49  
DUPLICATE

STATE OF MONTANA  
ADMINISTRATOR OF GROUNDWATER CODE  
OFFICE OF STATE ENGINEER

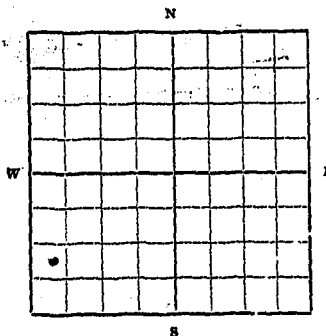
S.N. 4 Section 10 10  
T 45 R 23 E  
County Carbon

RECEIVED  
MAY 24 1963

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

STATE ENGINEER

Judith M. Cole of Polio Montana  
(Name of Appropriator) (Address) (Town)  
County of Carbon State of Montana  
have appropriated groundwater according to the Montana laws in effect prior to January 1, 1962, as follows:



Sec. 10 T. 45 R. 23E

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 stock
3. Date or approximate date of earliest beneficial use; and how continuous the use has been 1892
4. The amount of groundwater claimed (in miner's inches or gallons per minute) 500 gallon 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
6. The means of withdrawing such water from the ground and the location of each well or other means of withdrawal Elect Cent Pump
7. The date of commencement and completion of the construction of the well, wells, or other works for withdrawal of groundwater 1892
8. The depth of water table 12 to 14 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. The estimated amount of groundwater withdrawn each year 150,000 to 200,000
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 Judith M. Cole  
Date DEC 5 - 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.

4482

#49

155669

STATE OF MONTANA  
COUNTY OF CARBON, SS.

Office of the County Clerk & Recorder

I hereby certify that the within

Water Appropg was filed  
for record in my office this 14<sup>TH</sup> day  
of December A. D. 1962  
at 1:05 o'clock P. M.

Attest my hand and the seal of  
said County

FRANK DANICHEK, COUNTY CLERK

Clerk and Recorder

Jonas B. Zupen 11-11

Fees \$ 2.00 pd.

File No. 56

DUPLICATE

T. 45 R. 23 E

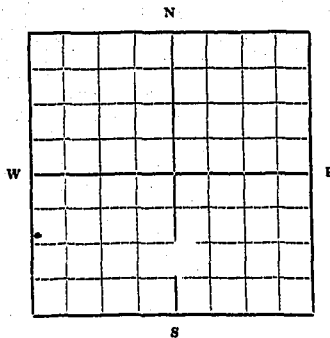
County Carbon

STATE OF MONTANA  
ADMINISTRATOR OF GROUNDWATER CODE  
OFFICE OF STATE ENGINEER

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

RECEIVED  
MAY 24 1963  
STATE ENGINEER

Phillip H. & Alice M. Frank, of Joliet  
(Name of Appropriator) (Address) (Town)  
County of Carbon State of Montana  
I have appropriated groundwater according to the Montana laws in effect prior to January 1, 1962, as follows:



Sec. 1/4 ..... T. 23 R. 23 E  
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 house hold and livestock
3. Date or approximate date of earliest beneficial use; and how continuous the use has been 10 years  
not in year
4. The amount of groundwater claimed (in miner's inches or gallons per minute) not applicable
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 no
6. The means of withdrawing such water from the ground and the location of each well or other means of withdrawal pump

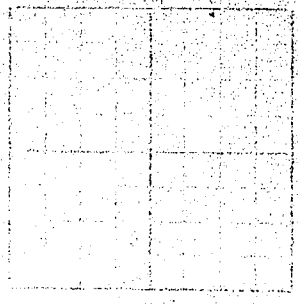
7. The date of commencement and completion of the construction of the well, wells, or other works for withdrawal of groundwater .....
8. The depth of water table 25 feet
9. So far as it may be available, the type, size and depth of each well or the general specifications of any other works for the withdrawal of groundwater none
10. The estimated amount of groundwater withdrawn each year not in use at present time
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 none

Signature of Owner Phillip H. Frank  
Alice M. Frank  
Date 5-3-62

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 School of Mines and Quaduplicate for the Appropriator.

# 6

156146



STATE OF MONTANA, }  
COUNTY OF CARBON } SS.

Office of the County Clerk & Recorder

I hereby certify that the within  
Water Approp. was filed  
for record in my office this 4<sup>th</sup> day  
of Feb. A. D. 19 63  
at 10:15 o'clock A. M.

Attest my hand and the seal of  
said County

FRANK DANICHEK, COUNTY CLERK

Clerk and Recorder

By Tommy A. Zupan Deputy

Fees \$ 2.00 pd.

File No. 57

DUPLICATE

T 45 R 23E

County Carbon

STATE OF MONTANA  
ADMINISTRATOR OF GROUNDWATER CODE  
OFFICE OF STATE ENGINEER

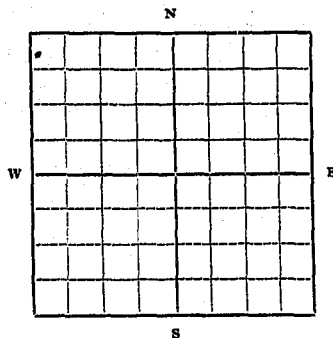
**Declaration of Vested Groundwater Rights**

(Under Chapter 237, Montana Session Laws, 1961)

RECEIVED  
MAY 24 1963  
STATE ENGINEER

1. Phillip H. & Alice M. Frank, of Jolie T.  
(Name of Appropriator) (Address) (Town)

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



7. 1/4 Sec. 10, T. 4, R. 23

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 House  
hold and livestock

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

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

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 NO

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

7. The date of commencement and completion of the construction of the well, wells, or other works for withdrawal of groundwater 1935

8. The depth of water table 25 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 None

10. The estimated amount of groundwater withdrawn each year 80,000 GALLONS

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 NONE

Signature of Owner Phillip H. Frank  
Alice M. Frank  
Date 5-3-62

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 School of Mines and Quadruplicate for the Appropriator.

4490

#57

156147

STATE OF MONTANA,  
COUNTY OF CARBON } SS.

Office of the County Clerk & Recorder

I hereby certify that the within

Water Approp. was filed  
for record in my office this 4TH day  
of Feb. A. D. 1963  
at 10:20 o'clock A. M.

Attest my hand and the seal of  
said County  
FRANK DANICHEK, COUNTY CLERK

Clerk and Recorder

By Lonny A. Zupar Deputy  
Fees \$ 2.00 pd.

RECEIVED  
FEB 13 1963  
COUNTY CLERK  
CARBON COUNTY

File No. 319

DUPLICATE

T. 18 R. 23

County Carbon

JAN 26 1968 STATE OF MONTANA  
ADMINISTRATOR OF GROUNDWATER CODE  
OFFICE OF STATE ENGINEER

MONTANA WATER RESOURCES BOARD

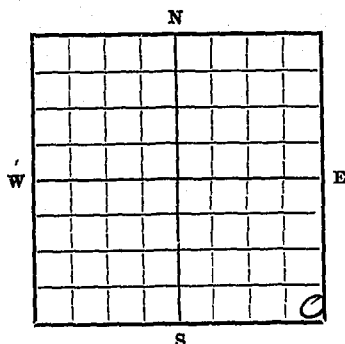
RECEIVED

JAN 26 1968

# Declaration of Vested Groundwater Rights

(Under Chapter 237, Montana Session Laws, 1961)

1. Orlynn Oswald, of Box 100 John  
(Name of Appropriator) (Address) (Town)  
County of Carbon State of Montana  
have appropriated groundwater according to the Montana laws in effect prior to January 1, 1962, as follows:



NE 1/4 Sec. 10 T. 4 R. 23

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

- The beneficial use on which the claim is based Irrigation
- Date or approximate date of earliest beneficial use; and how continuous the use has been May 1960, used during irrigation season since
- The amount of groundwater claimed (in miner's inches or gallons per minute) 1000 gals per minute
- If used for irrigation, give the acreage and description of the lands to which water has been applied and name of the owner thereof NE 1/4 Sec 10 T4 R23 + NW 1/4 Sec 11 T4 R23 Orlynn Oswald
- The means of withdrawing such water from the ground and the location of each well or other means of withdrawal Centrifugal pump 1/4 corner of NE 1/4 Sec 10 T4 R23
- The date of commencement and completion of the construction of the well, wells, or other works for withdrawal of groundwater May 1, 1960 completed May 10, 1960
- The depth of water table 4' to 22'
- 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 a pit dug by dragline with 100' top, tapered to 20' bottom 22' depth
- The estimated amount of groundwater withdrawn each year 1000 minis inches
- The log of formations encountered in the drilling of each well if available just 4' sandy loam next 18' sand and coarse gravel
- 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

Date Dec 7, 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 School of Mines and Quadruplicate for the Appropriator.

43.537



#319 158927

STATE OF MONTANA, }  
COUNTY OF CARBON } SS.

Office of the County Clerk & Recorder

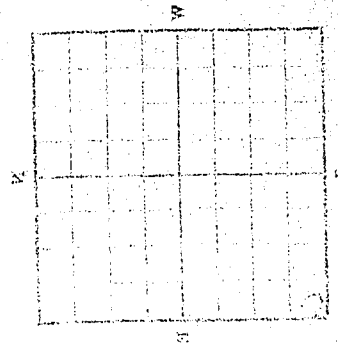
I hereby certify that the within  
Appropriation was filed  
for record in my office this 18 day  
of December A. D. 1963  
at 3:40 o'clock P. M.

Attest my hand and the seal of  
said County

Frank Daniluk  
Clerk and Recorder

By \_\_\_\_\_ Deputy

Fees \$ 2.00



NOTED  
This entry of appropriation is  
being made of record in the  
office of the County Clerk and  
Recorder of Carbon County, Montana.

The amount of money appropriated to the  
purpose of this appropriation is  
being paid by the County of Carbon,  
Montana, to the County of Carbon,  
Montana, for the purpose of this  
appropriation.

GW 4

File No. 312

DUPLICATE

T.        R.         
County       

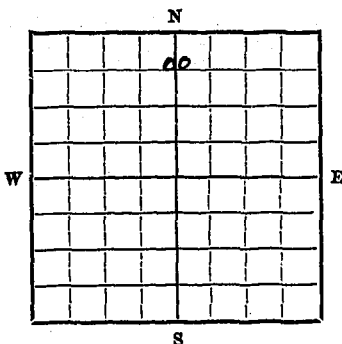
JAN 26 1968

STATE OF MONTANA  
ADMINISTRATOR OF GROUNDWATER CODE  
OFFICE OF STATE ENGINEER

**Declaration of Vested Groundwater Rights**

(Under Chapter 237, Montana Session Laws, 1961)

1. Orlynn Donald of Box 100 Juliet  
(Name of Appropriator) (Address) (Town)  
County of Carbon State of Montana  
have appropriated groundwater according to the Montana laws in effect prior to January 1, 1962, as follows:



NE 1/4 Sec 10 T. 4 R. 23

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 Home and stock water for farm use
3. Date or approximate date of earliest beneficial use; and how continuous the use has been 1892 Continuous
4. The amount of groundwater claimed (in miner's inches or gallons per minute) 10 gals per min.
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 Lawn use only
6. The means of withdrawing such water from the ground and the location of each well or other means of withdrawal Electric pressure pump N 1/2 of NE 1/4 Sec. 10 T. 4 - R. 23 E

7. The date of commencement and completion of the construction of the well, wells, or other works for withdrawal of groundwater May 1, 1892 Completed May 30, 1892
8. The depth of water table from 4' to 20'
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 to 30' depth
10. The estimated amount of groundwater withdrawn each year 750,000 gals
11. The log of formations encountered in the drilling of each well if available none 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 Orlynn Donald  
Date Dec 7, 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 School of Mines and Quadruplicate for the Appropriator.

43,536

#318

158926

STATE OF MONTANA  
COUNTY OF CARBON SS.  
Office of the County Clerk & Recorder

I hereby certify that the within  
Appropriation was filed  
for record in my office this 18 day  
of December A. D. 19 63  
at 3:35 o'clock P. M.

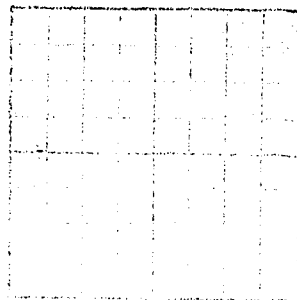
Attest my hand and the seal of  
said County

Frank Samalik

Clerk and Recorder

By \_\_\_\_\_ Deputy

Fees \$ 2.50



NOTARY PUBLIC  
My commission expires on \_\_\_\_\_  
and I am not a Notary Public in the State of Montana.  
My office is located at \_\_\_\_\_  
City of \_\_\_\_\_ State of \_\_\_\_\_

NOTARY PUBLIC  
My commission expires on \_\_\_\_\_  
and I am not a Notary Public in the State of Montana.  
My office is located at \_\_\_\_\_  
City of \_\_\_\_\_ State of \_\_\_\_\_

43,682

#799

159507

STATE OF MONTANA }  
COUNTY OF CARBON } SS.  
Office of the County Clerk & Recorder

I hereby certify that the within  
Appropriation was filed  
for record in my office this 31 day  
of Dec A. D. 1963  
at 4:40 o'clock P. M.

Attest my hand and the seal of  
said County

FRANK DANICHEK, COUNTY CLERK

Clerk and Recorder

By Oliver E. Granger Deputy

Fees \$ 2.00

File No. 708

RECEIVED

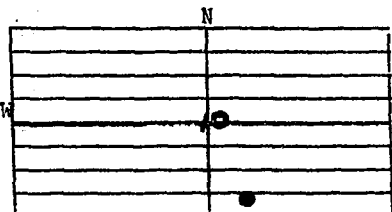
I 4 R 23  
County CARBON 10

JAN 26 1968

STATE OF MONTANA  
ADMINISTRATOR OF GROUNDWATER CODE  
OFFICE OF STATE ENGINEER

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

1. LELAND SERIGHT Aliet County of CARBON  
State of MONTANA have appropriated groundwater according to the Montana laws in effect prior to January 1, 1962, as follows:



SW 1/4 SE Sec. 10 T. 4 R. E

2. The beneficial use on which the claim is based

STOCK

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

1900

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

25 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

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

PUMP

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

1900

8. The depth of water table

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

10 FT DEEP

4 1/2 WIDE

10. The estimated amount of groundwater withdrawn each year

40,000 gpm

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

Date 12-31-63

Signature of Owner

Leland Seright

STATE OF MONTANA, ) County of Carbon ss.

Having first been duly sworn, depose and say that he of lawful age and the appropriator and claimant of the order and water right mentioned in the foregoing declaration of vested groundwater rights and the person whose name subscribed thereto, as the appropriator and claimant, that he know the contents of said foregoing notice and that the matters and things therein stated are true.

Subscribed and sworn to before me, this day of , 19

Notary Public for the State of Montana.  
Residing at  
My Commission expires

43,681

#798

159506

FILE OF MOUNTAIN  
COUNTY OF CARBON SS.

Office of the County Clerk & Recorder

I hereby certify that the within

Appropriation was filed  
for record in my office this 31 day  
of Dec A. D. 19 63  
at 4:38 o'clock P. M.

Attest my hand and the seal of  
said County

FRANK DANICHEK, COUNTY CLERK

Alvin E. Gower  
County Clerk Recorder  
for 2<sup>nd</sup>



GWL  
File No.

797 RECEIVED

JAN 26 1968

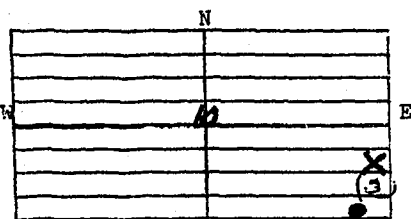
STATE OF MONTANA  
ADMINISTRATOR OF GROUNDWATER CODE  
OFFICE OF STATE ENGINEER

4-23 ?  
County CARBON

10

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

1. LELAND SERIGHT Jr MONT County of CARBON  
State of MT have appropriated groundwater according to the Montana laws in  
effect prior to January 1, 1962, as follows:



NE 1/4 SE Sec. 10 T. 16 N. R. 23 E

2. The beneficial use on which the claim is based

HOUSE & STOCK

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

1910 CONTINUOUS

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

20 GAL

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

PUMP

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

8. The depth of water table 10 FT 1910

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

DUG 4 FT WIDE

16 FT

10. The estimated amount of groundwater withdrawn each year

150000 GAL

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

Date 12-31-63

Signature of Owner

Leland Seright Jr

STATE OF MONTANA, ) County of Carbon) ss.

Having first been duly sworn, depose and say that  
he of lawful age and the appropriator and claimant of the  
order and water right mentioned in the foregoing declaration of vested groundwater rights  
and the person whose name subscribed thereto, as the appropriator  
and claimant, that he know the contents of said foregoing notice and that the  
matters and things therein stated are true.

Subscribed and sworn to before me, this day of , 19

Notary Public for the State of Montana.

Residing at

My Commission expires

43,680

#797

159505

STATE OF MONTANA }  
COUNTY OF CARBON } SS.

Office of the County Clerk & Recorder

I hereby certify that the within

Appropriation was filed  
for record in my office this 31 day  
of Dec A. D. 1963  
at 4:36 o'clock P. M.

Attest my hand and the seal of

said County  
FRANK DANICHEK, COUNTY CLERK

Alvin E. Graves  
County Clerk and Recorder

Fee \$2.00

6w.4

CARBON  
SOUTH WATER COUNTY  
STATE OF MONTANA

File No. 927 MONTANA WATER RESOURCES BOARD  
ADMINISTRATOR OF GROUNDWATER CODE  
OFFICE OF STATE ENGINEER

Twp 4S, Rge 23 E

JAN 26 1963  
DECLARATION OF VESTED GROUNDWATER RIGHTS  
(Under Chapter 237, Montana Session Laws, 1961)

1. Roy M. Crismas and B. Meyer Harris, of Laurel and Helena, Montana

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

|   | Sec.11                          | Sec.11                       | Sec.11                           | Sec.11                         | Sec.11                          | Sec.  |
|---|---------------------------------|------------------------------|----------------------------------|--------------------------------|---------------------------------|-------|
|   |                                 |                              |                                  |                                |                                 |       |
|   |                                 |                              |                                  |                                |                                 |       |
| W E L L S   | No. 1                           | No. 2                        | No. 3                            | No. 4                          | No. 5                           | No. 6 |
| 2. Basis of Beneficial Use                              | Household garden lawn           | Livestock garden lawn        | Livestock garden                 | Livestock garden               | Household livestock garden-lawn |       |
| 3. Approx date of Use                                   | 1905                            | 1896                         | 3-25-49                          | 11-1-52                        | 1896                            |       |
| How continuous?   | continuous                      | continuous                   | continuous                       | continuous                     | continuous                      |       |
| 4. Amount claimed in miner's inches or gallons per min. | 25 gal. per min.                | 25 gal. per min.             | 25 gal. per min.                 | 25 gal. per min.               | 25 gal. per min.                |       |
| 5. Acres irrigated                                      | 2 acres                         | 2 acres                      | 2 acres                          | 2 acres                        | 2 acres                         |       |
| Description   | above                           | above                        | above                            | above                          | above                           |       |
| Name of Owner   | above                           | above                        | above                            | above                          | above                           |       |
| 6. Location of Well                                     | under dwelling                  | drive in yard                | upper feed yard                  | lower feed yard                | yard                            |       |
| Means of With-drawal                                    | electric pump                   | electric pump                | electric pump                    | electric pump                  | electric pump                   |       |
| 7. Date-Commencement                                    | not known                       | Not known                    | Spring '49                       | spring '52                     | not known                       |       |
| Date-Completion   | not known                       | not known                    | spring '49                       | spring '52                     | not known                       |       |
| 8. Depth of water table                                 | 4 ft to 8 ft                    | 4ft to 8ft                   | 4ft to 10ft                      | 4ft to 10ft                    | ft to 10ft                      |       |
| 9. Type, size, depth or specifications of works         | drilled, 6" dia., 13' deep pipe | dug, 3' dia., 10' deep rocks | dug, 3 1/2' dia., 11 1/2' cement | dug, 3 1/2' dia., 13dp. cement | dug, 3' dia., 12' deep rock     |       |
| 10. Estimated amount withdrawn annually                 | 500,000 gal                     | 500,000gal.                  | 500,000gal.                      | 500,000gal.                    | 500,000gal.                     |       |
| 11. Log, if available                                   | none                            | none                         | none                             | none                           | none                            |       |
| 12. Other information                                   | none                            | none                         | none                             | none                           | none                            |       |

Roy M. Crismas and B. Meyer Harris

Signature of owner by B. Meyer Harris

Date December 31, 1963

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

43,196

#927

159635

STATE OF MONTANA  
COUNTY OF CARBON } SS.

Office of the County Clerk & Recorder

I hereby certify that the within  
water filing was filed  
for record in my office this 31 day  
of Dec. A. D. 1963  
at 8:56 o'clock P.M.

Attest my hand and the seal of  
said County  
FRANK DANICHEK, COUNTY CLERK

Clerk and Recorder  
By Alvin E. Givens  
Fees \$ 2.00 pd

File No. 929

T. \_\_\_\_\_ R. \_\_\_\_\_

DUPLICATE

County \_\_\_\_\_

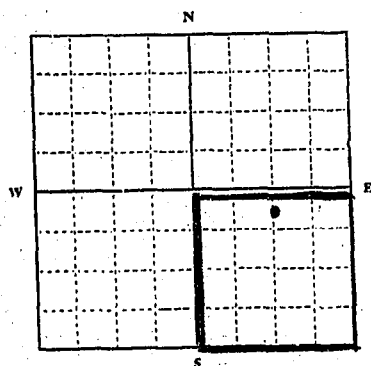
**STATE OF MONTANA  
ADMINISTRATOR OF GROUNDWATER CODE  
OFFICE OF STATE ENGINEER**

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

MONTEANA WATER RESOURCES (Under Chapter 237 Montana Session Laws, 1961)  
**RECEIVED**  
**JAN 26 1968**

Date of Appropriation of Groundwater December 31, 1904Owner B. Meyer Harris Address Laurel, Montana  
Roy M. Crissas Helena, MontanaContractor (if any) none

Address of Contractor \_\_\_\_\_

Date Started undevaloped Date Completed \_\_\_\_\_Describe means of obtaining groundwater without a well "as by sub-irrigation and other natural processes". Include depth to water when applicable. natural flowing springSE  $\frac{1}{4}$  Sec. 11 T.4S. R.23E

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 estimatedconstant flow year around is 250 gallon per hourRoy M. Crissas By B. Meyer HarrisSignature of Owner B. Meyer HarrisDate December 31, 1963

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.

1929

159637

STATE OF MONTANA }  
COUNTY OF CARBON } SS.

Office of the County Clerk & Recorder

I hereby certify that the within  
water filing was filed  
for record in my office this 31 day  
of Dec. A. D. 1929  
at 9.00 o'clock P. M.

Attest my hand and the seal of

said County  
FRANK DANICHEK, COUNTY CLERK

Clerk and Recorder  
by Alvin E. Sawyer Deputy

Fee \$ 2.00

GW 2

MONTANA WATER RESOURCES BOARD

Approved Stock Form—State Publishing Co., Helena, Montana—48557

File No.

RECEIVED

T. 45 R. 23 E

DUPLICATE

DEC 10 1970

County Carbon

LOG

STATE OF MONTANA  
ADMINISTRATOR OF GROUNDWATER CODE  
STATE WATER CONSERVATION BOARD

Top of Ground 0-5 TOP Soil

(Elev. above sea level)

Notice of Completion of Groundwater  
Appropriation by Means of Well

DEVELOPED AFTER JANUARY 1, 1982

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

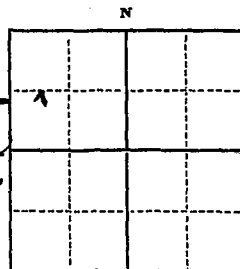
Owner B. Meyer Harris Address Farm, Mont.Driller B. H. Drelling Address Farm, Mont.

Date of Notice of appropriation of groundwater

Date well started 11-2-70 Date completed 11-3-70Type 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 ☒ Feed lot

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) |
| 8 inch               | 8 5/8<br>24#              | 1+          | 37        | Tank<br>Cuts<br>1/8 X 8 | 29          | 36        |

Doc. No. 180070  
Filed for record  
this 9 day of December  
A. D. 19 70, at 11:15  
o'clock A. M.Static Water Level for non-flowing well  
9 feet.

Shut-in Pressure for Flowing Well

Pumping Water Level 20 feetat 60 gal. per minute.

Discharge in gal. per min. of flowing well

How Tested BailerLength of Test 2 hrs

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

SW 1/4 Sec. 11 T. 45 R. 23 E

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).

This well is for but 2500 head  
will take about 30000 gals a day  
108,300,000 annual withdrawal

Show exact depth of bottom.

37 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.

No 27  
Driller's License NumberPaul L. Hanger  
Driller's Signature.

47872

#1300 180070

STATE OF MONTANA  
COUNTY OF CARMAN

Office of the County Clerk & Recorder

I hereby certify that the within  
appropriation was filed  
in my office this 9 day  
of Dec A. D. 1970  
at 11:15 o'clock A. M.

Witness my hand and the seal of  
said County  
Frank Danilek  
County Clerk and Recorder

Fee \$ 2.00

RECEIVED  
COUNTY CLERK & RECORDER  
CARMAN, MONTANA  
DEC 10 1970

11-5-50

11-5-50

11-5-50

11-5-50



GW-1

MONTANA WATER RESOURCES BOARD

Approved Block Form—State Publishing Co., Helena, Montana—48557

File No.

RECEIVED

T 45 R 23 E

DUPLICATE

DEC 19 1971

County Carbon

LOG

STATE OF MONTANA  
ADMINISTRATOR OF GROUNDWATER CODE  
STATE WATER CONSERVATION BOARD

Top of Ground 0-2 Top Soil

(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)

2-16 Gravelly Sand & water

16-20 Brown Clay

20-35 Grey S-shales

Owner B. Meyer Haine Address Harney, Mont.

Driller B & H Drilling Address Flathead, Mont.

Date of Notice of appropriation of groundwater.....

Date well started 3-29-66 Date completed 3-30-66

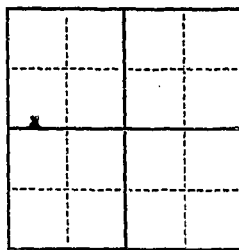
Type of well drilled Equipment used Churn drill  
(Dug, driven, bored or drilled) (Churn drill, rotary or other)

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 (Feet) | To (Feet) | PERFORATIONS         |             |           |
|----------------------|---------------------------|-------------|-----------|----------------------|-------------|-----------|
|                      |                           |             |           | Kind Size            | From (Feet) | To (Feet) |
| 6 inch               | 65/8<br>17 #              | 14          | 21 1/2    | Tough<br>Cute<br>4x6 | 15          | 20        |

Doc. No. 180069  
Filed for record  
this 9 day of December  
A. D. 19 70, at 11:10 o'clock A M.



Static Water Level for non-flowing well 11 feet.

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

Pumping Water Level 17 feet  
at 8 gal. per minute.

Discharge in gal. per min. of flowing well

How Tested Bailer  
Length of Test 7 hrs

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

SW 1/4 Sec 11 T45 R23E  
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.

35 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.

No. 27  
Driller's License Number

Brad L. Haysen  
Driller's Signature.

47873

#1299 180069

STATE OF MONTANA }  
COUNTY OF CARBON } SS.  
Office of the County Clerk & Recorder

I hereby certify that the within  
Appropriation was filed  
for record in my office this 9 day  
of Dec A. D. 1970  
at 11:10 o'clock A.M.

Attest my hand and the seal of  
said County  
Frank M. Muehlke  
County Clerk and Recorder

By \_\_\_\_\_ Deputy  
Fees \$ 2.00

RECORDED

RECORDED

15 #  
14 #  
20 #

RECEIVED

Approved Back Form—State Publishing Co., Helena, Montana—4833

File No.

FEB 5 1972

T. 6 S. R. 27 E.

DUPLICATE

LOG

MONTANA DEPT. OF NATURAL RESOURCES AND CONSERVATION

STATE OF MONTANA  
ADMINISTRATOR OF GROUNDWATER CODE  
STATE WATER CONSERVATION BOARD

County Carbon

Top of Ground

(Elev. above sea level)

0-3 top soil

3-18 Gravel & Rocks

18-42 Gravel & Sand (Water)

42-43 Gray Shale

# Notice of Completion of Groundwater Appropriation by Means of Well

DEVELOPED AFTER JANUARY 1, 1963

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

HARRIS CATTLE

Owner H. H. Haugan

Address Leadville, Mont.

Driller E. H. Drilling

Address Leadville, Mont.

Date of Notice of appropriation of groundwater

Doc. No. #1337, 183872

Date well started 1/20/72

Date completed 1/22/72

Filed for record

this 24<sup>th</sup> day of February

Type of well Drilled

Equipment used Churn Drill

(Dug, driven, bored or drilled)

(Churn drill, rotary or other)

A. D. 19 72, at 10:45

Water use:

Domestic ☐

Municipal ☐

Stock ☒

Irrigation ☐

Industrial ☐

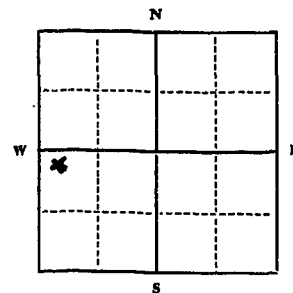
Drainage ☐

Other ☐

at clock A. M.

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) |
| 8 inch               | 8 5/8<br>24.00 lb         | 14          | 43        | torch<br>cuts<br>1/8 x 6 | 33          | 42        |



Static Water Level for non-flowing well 10 feet.

Shut-in Pressure for Flowing Well

Pumping Water Level 30 feet

at 60 gal. per minute.

Discharge in gal. per min. of flowing well

How Tested Bailer

Length of Test 2 Hrs

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

Water was taken out of gravel bailed until had gravel pack.

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).

Well is for Cattle.

Show exact depth of bottom.

43 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.

No. 27

Driller's License Number

Red L. Haugan  
Driller's Signature.

49,920

183872 #1337

COUNTY OF TULSA SS.  
Office of the County Clerk & Recorder

I hereby certify that the within  
Appropriation was filed  
for record in my office this 24 day  
of Feb A. D. 1972  
at 10:45 o'clock A. M.

Attest my hand and the seal of  
said County  
Frank Stuchlik  
Clerk and Recorder

By \_\_\_\_\_ Deputy  
Fees \$ \_\_\_\_\_

Form No. 18  
8-60

T. 4S R. 22 E.

County Carbon

MONTANA BUREAU OF MINES AND GEOLOGY  
Butte, Montana

RECEIVED  
MAR 2 1962

Water Well Log

STATE ENGINEER

|  |  |  |
|--|--|--|
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

Owner Billings & Sons, Inc. Address 212 Wyoming Ave., Billings

Driller Western Drilling & Exploration Address Billings, Montana

Date Started November 28, 1961 Date Completed December 30, 1961

Location: Sec. 11 T. 4S R. 22E  $\frac{1}{4}$  sec. NE 1

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

Water use: Domestic ☒ Municipal ☐ Stock ☒ Irrigation ☐  
Industrial ☐ Drainage ☐ Other ☐

Casing: 0 ft. to 40 ft. Type Galvanized Size 6"

Casing: 40 ft. to 61 ft. Type Perforated Size 6"

Casing:          ft. to          ft. Type          Size         

Perforated or screened: Ft. 40 to ft. 61 . Ft.          to ft.         

Type of screen or perforations Pressed slots

Static water level, for non-flowing well: 41 feet.

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

Pumping water level 43 feet at 175 gal. per min.

How tested: By driller - Baler test

Length of test 2 hours

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

(over)

| Drilling                         | Cost   |
|----------------------------------|--------|
| 40 feet casing @ 97¢             | 38.80  |
| 21 feet perforated casing @ 1.06 | 22.26  |
| drilling first 50 feet           | 150.00 |
| drilling 11 feet @ \$2.50        | 27.50  |
| total charges                    |        |

J. Carter Johnson,  
212 Wyoming Avenue,  
Billings, Montana.

WESTERN DRILLING & EXPLORATION COMPANY  
BILLINGS, MONTANA.

## Log of Well

[illegible]

WESTERN DRILLING & EXPLORATION COMPANY  
BILLINGS, MONTANA.

J. Carter Johnson,  
212 Wyoming Avenue,  
Billings, Montana.

|                                  |        |
|----------------------------------|--------|
| 40 feet casing @ 97¢             | 38.80  |
| 21 feet perforated casing @ 1.06 | 22.26  |
| drilling first 50 feet           | 150.00 |
| Drilling 11 feet @ \$2.50        | 27.50  |
| Total charges                    | 238.56 |

Log:

0--4 feet Sandy soil  
4--39 feet boulders and gravel  
39--58 feet sand with thin layers of gravel  
58--61 feet blue shale

Static Level ---41

Yield ---32+ G.P.M.

Pump Level ---43

Location:

N $\frac{1}{2}$  of NE  $\frac{1}{4}$  and the SW $\frac{1}{4}$  of the NE $\frac{1}{4}$ ,  
lot 1, all in Section 11, Tshp 4S,  
R 23 East of MPM.

GW-4

File No. 320

DUPLICATE

T 4 R 23County Carbon

STATE OF MONTANA  
ADMINISTRATOR OF GROUNDWATER CODE  
OFFICE OF STATE ENGINEER

MONTANA WATER RESOURCES BOARD

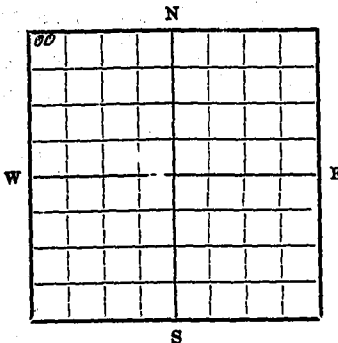
RECEIVED

JAN 26 1968

## Declaration of Vested Groundwater Rights

(Under Chapter 237, Montana Session Laws, 1961)

1. Orlynn Oswald (Name of Appropriator), of Boz (Address), Joliet (Town),  
County of Carbon State of Montana  
have appropriated groundwater according to the Montana laws in effect prior to January 1, 1962, as follows:



NW 1/4 Sec. 11 T. 4 R. 23

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 Home  
and stock water
3. Date or approximate date of earliest beneficial use; and how continuous the use has been May 1883 Continuous  
use since
4. The amount of groundwater claimed (in miner's inches or gallons per minute) 10 gals 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 Lawn use only
6. The means of withdrawing such water from the ground and the location of each well or other means of withdrawal Electric  
lift pump
7. The date of commencement and completion of the construction of the well, wells, or other works for withdrawal of groundwater May 1, to May 30, 1883
8. The depth of water table May 4' to 35'
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 4" in diameter 22' deep  
6" diameter 35' deep
10. The estimated amount of groundwater withdrawn each year 350,000 gals
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

Date

Orlynn Oswald  
Dec 7, 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 School of Mines and Quadruplicate for the Appropriator.

43,538



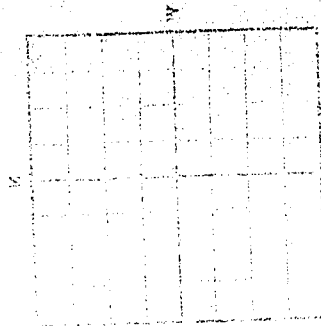
#320 158928

STATE OF MONTANA, }  
COUNTY OF CARBON } SS.  
Office of the County Clerk & Recorder

I hereby certify that the within  
Appropriation was filed  
for record in my office this 18 day  
of December A. D. 19 63  
at 3:45 o'clock P. M.

Attest my hand and the seal of  
said County  
Frank Danichik  
Clerk and Recorder

by \_\_\_\_\_ Deputy  
Fees \$ 2.00



Additional copies to be filed at the  
office of the County Clerk and Recorder  
of the County of Carbon, Montana.

Witness my hand and the seal of the  
County of Carbon, Montana, this 18th day of  
December, 1963.

File No. 21213

DUPLICATE

MONTANA WATER RESOURCES BOARD  
**RECEIVED**  
MAY 10 1968

T. 4 R. 23  
County Carbon 13

STATE OF MONTANA  
ADMINISTRATOR OF GROUNDWATER CODE  
OFFICE OF STATE ENGINEER

Top of Ground  
(Elev. above sea level)  
100 Gravel - 12"  
110 Gravel Sand  
120 Sand Fine  
130 Pea Gravel

### Notice of Completion of Groundwater Appropriation by Means of Well

(Under Chapter 237, Montana Session Laws, 1961)

Owner: Emmett Andersen Address: Edgar, Montana  
Driller: Ray D. Pierce Address: Billings, Montana

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

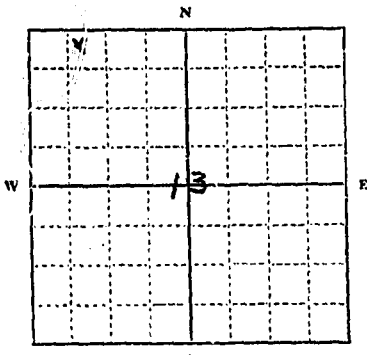
Date well started 2/4/68 Date Completed 2/7/68

Type of well Dr. 19 Equipment Used Churn  
(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 |             |           |
|----------------------|---------------------------|-------------|-----------|--------------|-------------|-----------|
| 10 3/4               | 10 3/4 54 #               | 0'          | 27'       | Well Size    | From (Feet) | To (Feet) |
|                      |                           |             |           | None         | None        |           |



N. 1/4 Sec. 13, T. 4, R. 23  
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 9' feet.

Shut-in Pressure for Flowing Well

Pumping Water Level 11' feet at 50' gal. per minute.

Discharge in gal. per min. of flowing well

How Tested Bailor Length of Test 1 hr

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)

Went - No - 170  
Driller's License Number

Ray D. Pierce  
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.

44,122

174683

CLERK OF THE COUNTY OF ALBANY, N.Y.

of the County Clerk & Recorder

herewith certify that the within  
Notice of Appropriation was filed

record in my office this 24th day  
February A. D. 1968  
10:40 o'clock A. M.

Attest my hand and seal of  
office this 24th day of

FRANK DANICHEK, COUNTY CLERK

Alice E. Kline Deputy

24

File No. 232

T. 4 R. 23

DUPLICATE WATER RESOURCES BOARD

County Carbon

RECEIVED

JAN 26 1968

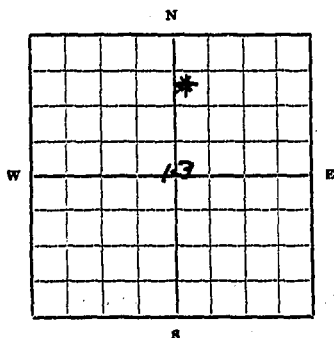
STATE OF MONTANA  
ADMINISTRATOR OF GROUNDWATER CODE  
OFFICE OF STATE ENGINEER

Declaration of Vested Groundwater Rights

(Under Chapter 237, Montana Session Laws, 1961)

James and N. Elva Ricketts of Edgar  
(Name of Appropriator) (Address)  
County of Carbon State of Montana (Town)

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



1/4 NE Sec 13 T.4 R.23

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 Stock Water
3. Date or approximate date of earliest beneficial use; and how continuous the use has been Dec 12, 1957
4. The amount of groundwater claimed (in miner's inches or gallons per minute) 60 gal
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 none
6. The means of withdrawing such water from the ground and the location of each well or other means of withdrawal Pump Jack. Has motor
7. The date of commencement and completion of the construction of the well, wells, or other works for withdrawal of groundwater Dec 12, 1957
8. The depth of water table 26 1/2 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 30 feet deep 6" casing
10. The estimated amount of groundwater withdrawn each year 2,000,000 gallon
11. The log of formations encountered in the drilling of each well if available none
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 James Ricketts

Date Dec 2, 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.

43,626

#232

158629

STATE OF MONTANA,  
COUNTY OF CARBON } SS.  
Office of the County Clerk & Recorder.

I hereby certify that the within  
Water Approp. was filed  
for record in my office this 2<sup>ND</sup> day  
of Dec. A. D. 1963  
at 2:40 o'clock P. M.

Attest my hand and the seal of  
said County  
FRANK DANICHEK, COUNTY CLERK

Clerk and Recorder  
By Jonny A. Zuppan Deputy  
Exam & 200 pd.

File No. 231T. 4 R. 23

13

DUPLICATE  
MONTANA WATER RESOURCES BOARD

RECEIVED

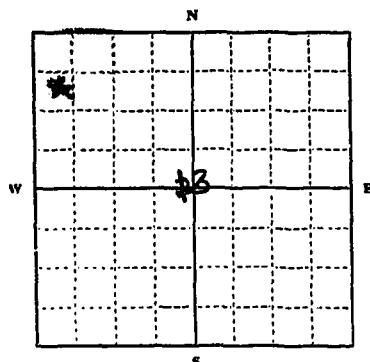
JAN 26 1968

STATE OF MONTANA  
ADMINISTRATOR OF GROUNDWATER CODE  
OFFICE OF STATE ENGINEERCounty Carbon

## Declaration of Vested Groundwater Rights

(Under Chapter 237, Montana Session Laws, 1961)

James and Elsie Ricketts, of Edgemoor Mont  
 (Name of Appropriator) (Address) (Town)  
 County of Carbon State of Montana  
 have appropriated groundwater according to the Montana laws in effect prior to January 1, 1962, as follows:

U.W.M. Sec. 3 T. 4 R. 23

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 Stock, Lawn & garden
3. Date or approximate date of earliest beneficial use; and how continuous the use has been. Oct 29, 1957
4. The amount of groundwater claimed (in miner's inches or gallons per minute). 2 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. Lawn & garden
6. The means of withdrawing ~~with water~~ from the ground and the location of each well or other means of withdrawal. Shallow well
7. The date of commencement and completion of the construction of the well, wells, or other works for withdrawal of groundwater. Oct 29, 1957
8. The depth of water table. 2.6 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. The estimated amount of groundwater withdrawn each year. 600,000 gallons
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

Date Dec 2, 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.

43,628

231

158628

STATE OF MONTANA }  
COUNTY OF CARBON } SS.

I, Frank Canichek, Clerk & Recorder

I hereby certify that the within

Water Approp. was filed  
for record in my office this 2nd day  
of Dec. A. D. 1963  
at 2:35 o'clock P. M.

Attest my hand and the seal of  
said County

FRANK CANICHEK COUNTY CLERK  
Clerk and Recorder

by Louise J. Zuppan Deputy  
Fees \$ 2.00 pd.

RECEIVED

Approved Stock Form--State Publishing Co., Helena, Montana--46805

File No.

JUL 6 1972

T45 R22E 14

DUPLICATE

County Carbon

MONTANA DEPARTMENT OF NATURAL  
RESOURCES AND CONSERVATION

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)

0-16 Sandy Topsoil

16-24 Hard Rock

24-36 Sand & Gravel

36-48 Heavy Silt

Owner Yes Freeman

Address Salisbury, Montana

Driller B+H Drilling

Address Salisbury, Montana

Date of Notice of appropriation of groundwater

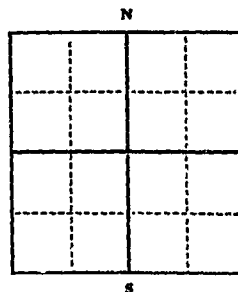
Date well started 5/7/69 Date completed 5/7/69

Type 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 (Feet) | To (Feet) | PERFORATIONS             |             |           |
|----------------------|---------------------------|-------------|-----------|--------------------------|-------------|-----------|
|                      |                           |             |           | Kind Size                | From (Feet) | To (Feet) |
| 6 inch               | 6 5/8<br>18.97            | 2+          | 30 1/2    | 1/4 x 6<br>Touch<br>Cuts | 27          | 30        |



Static Water Level for non-flowing well 18 feet.

Shut-in Pressure for Flowing Well

Pumping Water Level 27 feet  
at 20 gpm or minute.

Discharge in gal. per min. of flowing well

How Tested Body

Length of Test 2 hrs

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

1/4 Sec 14 T45 R22E  
Indicate location of well and place of use, if possible. Each small square represents 40 acres.

Doc. No. #1350, 185091

Filed for record

this 5th day of July

A. D. 19 72, at 2:30

o'clock P. M.

(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.

36 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.

Driller's License Number

14027  
Paul L. Hargrave

Driller's Signature

50,824