

WELL LOG AND REPORT TO THE STATE ENGINEER OF NEVADA

X
 Log No. 30
 Rec. July 1944
 Well No. _____
 Permit No. _____
Do not fill in

Owner Edward Barrington Driller J. J. Harrison
 Address Carson City Address Carson City Lic. No. 6
 Location of well: N.W. 1/4, N.W. 1/4 Sec. 8, T. 15. N/8, R. 2. E, in _____ County
 or 1/4 mile N. of Carson on Reno Highway
 Water will be used for dom. Total depth of well 63'
 Size of drilled hole 24" Weight of casing per linear foot 10.188
 Thickness of casing 2.37 Temp. of water _____
 Diameter and length of casing 43' of 5" - 20' of 4" on top of 5" - 63' total
 (Casing 12" in diameter and under give inside diameter; casing 12" in diameter give outside diameter.)
 If flowing well give flow in c.f.s. or g.p.m. and pressure _____
 If nonflowing well give depth of standing water from surface 12"
 If flowing well describe control works _____
 (Type and size of valve, etc.) _____
 Date of commencement of well Oct. 4-46 Date of completion of well Feb. 7-47
 Type of well rig Hydraulic Rotary

LOG OF FORMATIONS

From feet	To feet	Thickness feet	Type of material
0	2	2	Sand loam top soil
2	5	3	hard pan
5	9	4	sand some water
9	19	10	hard pan
19	23	4	sand some water
23	30	7	hard pan
30	34	4	sand water (small artesian)
34	38	4'	hard pan
38	43	5'	grain sand water <small>to much fine sand.</small>
43	52	9	hard pan
52	55	3	quick sand water
55	64	9	sand coarser with depth below the hard pan.

Water-bearing Formation, Casing Perforations, Etc.

Chief aquifer (water-bearing formation)
 from 5-2 to 64 ft.
 Other aquifers 38-43'

First water at _____ feet.

Casing perforated
 from 57 to 62 1/2 ft.

Size of perforations
3/16 x 12



30

WELL LOG AND REPORT TO THE STATE ENGINEER OF NEVADA

(Statutes 1939, chapter 178, section 7. See page 2 of this form)

PERMIT TO APPROPRIATE WATER, SERIAL NUMBER

Permittee: Edward Barrington Driller: J. J. Harrison
 Address: Carson City Address: Carson City
 Location of well: at Res. 1/4 mile N. of Carson on Reno Highway S. E. cor. of lot
(Describe in legal subdivisions.)
 Water will be used for: Domestic purposes Total depth of well: 63'
 Size of drilled hole: 24" Thickness of casing: 4" .237
 Weight of casing per linear foot: 4" 10.188 Quality of casing: 1st blk Iron
 Diameter and length of casing: 43' 15" 20' 4 1/4" on top of 5" = 63 ft total
(Casing 12" in diameter and under give inside diameter; casing over 12" in diameter give outside diameter.)
 If flowing well give flow in c.f.s. and pressure: _____
 If nonflowing well give depth of standing water from surface: 12"
 If flowing well describe control works: _____
(Type and size of valve, etc.)
 Date of commencement of well: Oct 4th 1946 Date of completion of well: Feb 7th 1947
 Type of well rig: Hydraulic Rotary

Screens, seals, plugs, grouts, etc.	Well diagram	Formations. State if dry or water bearing	Kind of casing, liner, shoe, etc.
casing Perforated 5' 6" from bottom Well gravelled around casing	DIAMETER OF PIPE AND WELL IN INCHES 8' 6' 4' 2' 0' 2' 4' 6' 8'	2' sand loam top soil 3' Hard pan 4' sand some water 10' Hard pan 4' sand some water 7' Hard pan 4' sand water (small artesian) 4' Hard pan 5' granite sand water (too much fine sand) 9' Hard pan 3' quick sand (water) 9' sand coarser with depth - below this Hard pan Jet type pumps installed foot valve at 44' from surface Pumped 2 1/2 hrs per day for 4 days as test could only lower water 14 ft from top of casing. Pumped no sand so far.	43' of 5" 1st quality blk Iron screw joint 20' 4 1/4" same listed @ 1200 lbs per sq in
		Chief aquifer (water-bearing formation) from <u>52</u> to <u>64</u> ft. Other aquifers <u>38' to 43'</u>	Casing perforated from <u>57</u> to <u>62 1/2</u> ft. Size of perforations <u>3/16 x 1/2"</u>
	DEPTH OF PIPE AND WELL IN FEET 50' 100' 150' 200' 250' 300' 350' 400' 450' 500' 550' 600' 650' 700' 750' 800' 850' 900' 950' 1000' 1050' 1100' 1150'	Jet type pumps installed foot valve at 44' from surface Pumped 2 1/2 hrs per day for 4 days as test could only lower water 14 ft from top of casing. Pumped no sand so far.	{ This well might flow later } the pump in this well only pumps 600 gals. per hr.

INSTRUCTIONS TO PERMITTEES

Statutes 1939, chapter 178 of an Act relating to the conservation and control of underground water, any person desiring to appropriate water from a proven artesian water basin in Nevada must first make application and receive a permit from the State Engineer to appropriate the water.

The procedure in making application to the State Engineer for permission to appropriate water and the subsequent steps leading up to the granting of a permit or the denial of said application is set forth in section 59 to 65, inclusive, of the Water Law of Nevada, as amended.

Following the granting of a permit to appropriate water in a proven artesian basin and within thirty days following the completion of the well, whether a flowing or nonflowing well, the permittee is required by law to submit to the State Engineer the answers to the questions set forth in this form and same must be verified under oath.

The cross-sectional diagram in the second column is for the convenience of the permittee or his agent in showing in a diagrammatical form the diameter and depth of the drilled well, size of casing and manner in which it is placed in said well. Each space in a horizontal direction on the diagram represents one inch and each space in a vertical direction represents ten feet. For example, a twelve-inch diameter well three hundred feet deep would be indicated on the diagram by inking in the vertical lines six spaces each side of the center line for a distance of thirty spaces in a vertical direction.

Most of the information required in this form is obtained by the well driller who drills the well, and said driller should be given a copy of this form and requested to place the required data thereon.

NEVADA UNDERGROUND WATER LAW

(Approved March 25, 1939)

An Act to provide for the conservation and distribution of underground waters, providing for the designation of artesian well basins and providing the method of appropriating the waters thereof; defining the powers and duties of the state engineer in the administration hereof; providing for the casing and capping of artesian wells and for the prevention of waste of water therefrom; prescribing penalties for the violation of the provisions of this act, and repealing certain acts and parts of acts in conflict herewith.

SECTION 1. All underground waters within the boundaries of the state belong to the public, and subject to all existing rights to the use thereof, are subject to appropriation for beneficial use only under the laws of the state relating to the appropriation and use of water and not otherwise, therefore it is the intention of the legislature, by this act, to prevent the waste of underground waters and pollution and contamination thereof and provide for the administration of the provisions hereof by the state engineer, who is hereby empowered to make such rules and regulations within the terms of this act as may be necessary for the proper execution of the provisions of this act.

SEC. 2. The word "person" as used herein shall be interpreted to mean any firm, partnership, association, company, or corporation, municipal corporation, power district, political subdivision of this or any state or government agency. The word "aquifer" as used herein means a geological formation or structure that transmits water. The words "artesian well" as used herein mean a well tapping an aquifer underlying an impervious material in which the static water level in said well stands above where it is first encountered in said aquifer. The word "waste" as used herein is defined as causing, suffering or permitting any artesian water to reach any previous stratum above the confining strata before coming to the surface of the ground, or suffering or permitting any artesian well to discharge water unnecessarily upon the surface of the ground so that the waters thereof are lost for beneficial use or in any canal or ditch conveying water from a well where the loss of water in transit is more than 20% of the amount of water discharged from said well, or in any event where over 20% of the water discharging from a well is lost from beneficial use.

SEC. 3. This act shall not apply to the developing and use of underground water for domestic purposes where the draught does not exceed two gallons per minute and where the water developed is not from an artesian well.

SEC. 4. Upon receipt by the state engineer of a petition requesting him to administer the provisions of this act, signed by not less than ten percent of the owners of wells, in any particular basin, having a legal right to appropriate underground water therefrom, as evidenced by the records in the state engineer's office, he shall designate such area by basin, or by sub-basin, or by townships, and proceed with the administration of this act on all wells that were drilled subsequent to March 22, 1913, save and excepting those wells coming under the provisions of section 2 of this act. On wells drilled prior to March 22, 1913, no supervision over the distribution of waters therefrom as against rights acquired subsequent to March 22, 1913, can be maintained by the state engineer until the existing rights thereof are determined by a court decree in appropriate adjudication proceedings, save and except where water therefrom is being flagrantly wasted.

SEC. 5. Upon the initiation of the administration of this act in any particular artesian basin, and where the investigations of the state engineer have shown the necessity for the supervision over the waters in such basin, and upon recommendation of the state engineer, the county commissioners of the county within which such artesian basin is situated may employ, with the consent and approval of the state engineer, an artesian well supervisor and whatever other assistants deemed necessary, who shall execute the duties as provided in this act under the direction of the state engineer. The salary of such artesian well supervisor and his assistants shall be fixed by the board of county commissioners, who shall levy a special tax upon all taxable property situated within the confines of the area designated by the state engineer to come under the provisions of this act; provided, however, that at no time shall such tax levy produce a revenue in any one year of more than two thousand dollars (\$2,000). It shall be the duty of the proper officers of the county to levy and collect such special tax as other special taxes are levied and collected, and such tax shall be a lien upon the said property. The tax herein provided for, when collected, shall be deposited with the state treasurer of Nevada in a fund in the state treasury which shall be designated as the _____ basin _____ county artesian well fund. All claims against said fund in the state treasury shall be certified by the state engineer and approved by the state board of examiners; the state controller is authorized to draw his warrant therefor against such artesian well fund and the state treasurer shall pay the same.

SEC. 6. Every person desiring to sink or bore a well in any proven artesian basin, or any basin or sub-basin in the state designated by the state engineer, shall first make application to the state engineer in accordance with the provisions of the general water law of this state for a permit to appropriate such water before performing any work in connection with the boring or sinking of said well. In other basins or sub-basins which have not been designated by the state engineer as aforesaid where the water sought to be appropriated is underground water existing in unconfined aquifers and not being under any hydrostatic (artesian) pressure, no application or permit to appropriate such water is necessary until after the well is sunk or bored and water developed. Before any legal diversion of water can be made from said well the appropriator must make application to the state engineer in accordance with the provisions of the general water law of this state for a permit to appropriate such water.

SEC. 7. During the sinking or boring of a well in any proven artesian basin the permittee shall cause to be placed in such well a proper and sufficient casing, approved by the state engineer, so arranged as to prevent the caving in of such well and to prevent the escape of water therefrom through any intervening sand or gravel stratum, and must be of sufficient length to reach the deepest aquifer encountered during the sinking or boring of said well. The number, size, type, and distribution of perforations is optional with the permittee, excepting that no perforations must be made in a pipe tapping confined (artesian) water above the confining impervious materials. The permittee shall provide the necessary valves, plugs or other appliances to prevent or control the flow of water from such well and prevent the loss of underground water above or below the ground surface. Said permittee shall cause to be kept a log of the depth, thickness and character of the different strata penetrated, together with the data pertaining to the work, when begun, when finished, the length, size and weight of casing, and how placed, size of drilled hole, where sealed and the type of seal, the name of the well driller and the type of machine used, the number of cubic feet per second or gallons per minute of flow from such well when finished and the pressure in pounds per square inch if same be a flowing well, and if nonflowing, the static water level. If the well is tested by pumping immediately following the completion thereof, the report must include the drawdown in respect to the amount of water pumped and such other information required by the state engineer, all of which shall be verified under oath on forms prescribed by the state engineer, and must be furnished to the state engineer within thirty days following the completion of said well; such record and data shall be filed in and become a permanent record in the state engineer's office.

SEC. 8. No person controlling an artesian well shall suffer the waters therefrom to flow to waste, unless, and as far as reasonably necessary in the judgment of the state engineer, to prevent the obstruction thereof; or to flow or be taken therefrom any water except for beneficial purposes. The owner of any artesian well from which water is being unnecessarily wasted shall be deemed guilty of a misdemeanor, and, if upon fifteen days written notice by registered mail, return receipt requested, the owner fails to abate or refuses to abate such waste, the state engineer or his assistants or authorized agents, may, without further notice, take such steps as may be necessary to abate such waste, such as fitting the well with the proper valves or other necessary devices to the end that such waste is prevented. The cost thereof, including labor and material, shall be a lien on the land on which said well is located and also any other land owned by him to which the water from said well is appurtenant; provided, that the state engineer, his assistants or authorized agents, as the case may be, shall file an itemized and sworn statement, setting forth the date when such work was done and the nature of the labor so performed, with the county recorder of the county wherein said well is situated, within thirty days from the time of completion of such work, and when so filed it shall constitute a valid lien against the interest of such owner or owners in default, and which said lien may be enforced in the same manner as provided by law for the enforcement of mechanics' liens. The county recorder shall make no charge for filing the claim of lien, and no costs shall be taxed against the state engineer, his assistants or authorized agents, in any suit or proceeding on account of such lien.

SEC. 9. A legal right to appropriate underground water for beneficial use by means of a well, tunnel or otherwise that was drilled, bored or otherwise constructed subsequent to March 22, 1913, can only be acquired by complying with the provisions of the general water law of this state pertaining to the appropriation of water. In an area within which the state engineer is supervising distribution of waters from an underground source as in this act provided, the state engineer may, upon written notice sent by registered mail, return receipt requested, advise the owner of a well who is using water therefrom without a lawful permit to cease using such water until he has complied with the laws pertaining to the appropriation of water. If said owner fails to initiate proceedings to secure such permit within thirty days from the date of such notice he shall be deemed guilty of a misdemeanor. The date of priority of all appropriations of water from an underground source, mentioned in this section, is the date when application is made in proper form and filed in the office of the state engineer pursuant to the general water laws of this state.

SEC. 10. The state engineer shall administer this act and shall prescribe all necessary rules and regulations within the terms of this act for such administration. The state engineer may require periodical statements of water elevations, water used and acreage on which water was used from all holders of permits and claimants of vested rights; may upon his own initiation conduct pumping tests to determine if over-pumping is indicated, to determine the specific capacity of the aquifers and to determine permeability characteristics; he shall determine if there is unappropriated water in the area affected and shall issue permits only if such determination