CANYON COUNTY SOLID WASTE

15500 MISSOURI AVENUE
NAMPA, IDAHO 83686

April 5, 2020

State of Idaho
Department of Water Resources
Western Regional Office
2735 Airport Way
Boise, ID 83705-5082

RE: Application for Permit 63-34858

Dear Mr. Nick Miller:

Canyon County has applied for a new water right (application 63-34858) for commercial purposes, which includes dust control and emergency fire suppression for Pickles Butte Sanitary Landfill (PBSL). The proposed point of discharge (Well ID #298341, water right ID 63-21870) was recently acquired by Canyon County, as part of a land purchase agreement. The water rights associated with the land transfer is for domestic use, which has been transferred to Canyon County. After submitting the application for commercial use, Canyon County received a letter from IDWR dated February 21, 2020 requesting clarification. The letter provided a list of criteria used by IDWR for the evaluation of new water rights based on Idaho Code Section 42-203A. The criteria listed include:

1. Will the new appropriation injure existing water rights?
2. Is the water supply sufficient for the purpose for which it is sought?
3. Is the application made in good faith or for delay or for speculation?
4. Does the applicant have sufficient financial resources to complete the project?
5. Will the proposed use conflict with the local public interest, where local public interest is defined as interest that the people in the area directly affected by the proposed water us have in the effects of such use on the public water resource?
6. Will the proposed use be contrary to the conservation of water resources within the State of Idaho?

Please find the below information that addresses items 4, 5, and 6 of the criteria listed above to support the water rights application. Items 1, 2, and 3 will be addressed by Maureen McGraw, Ph.D.PE, Senior Hydrologist/Civil Engineer with Tetra Tech, which is the Pickles Butte Sanitary Landfill (PBSL) contract third party engineer (Attachment 1).

PICKLES BUTTE SANITARY LANDFILL
Tele 208-466-7288 Fax 208-466-7296 email dloper@canyonco.org

Criteria #4. Does the applicant have sufficient financial resources to complete the project?

The Pickles Butte Sanitary Landfills projected revenue for FY20 is approximately 5.9 million dollars with projected total FY20 expenses of 5.5 million dollars. The landfill budget is an Enterprise fund managed by Canyon County. There is no general fund or tax dollars budgeted for landfill operations. The landfill is a fee for service structure and rates can be adjusted upward or downward to meet revenue and expense needs. The landfill also has about 18 million dollars in a reserve account for final closure and other operational needs, future expansion and infrastructure needs such as this water permit application. Please find the Financial Assurance letter and Statement of Net Position (Attachment 2).

Criteria #5. Will the proposed use conflict with the local public interest, where local public interest is defined as interest that the people in the area directly affected by the proposed water use have in the effects of such use on the public water resource?

Canyon County operates the Pickles Butte Sanitary Landfill. The landfill is an important resource that provides sanitary garbage disposal and helps drive economic activity in the region. Without this resource, sanitary garbage disposal, economic activity would be adversely affected, and jobs lost. In order to operate, the landfill must comply with an air quality permit issued by the Idaho Department of Environmental Quality (IDEQ). One of the requirements of that permit is that dust levels be controlled through water application. In the past, access to surface water (available during the driest and hottest part of the year) has been sufficient to control dust. However, with increased use of the landfill and dryer weather patterns, supplemental water is needed to properly control dust when surface water is not available. The amount of supplemental water required is insignificant and will not affect senior water users due to low amount needed and the fact that the supplemental water will be used almost exclusively during times of the year when water is not used or needed for irrigation purposes. Even if this use of water had an insignificant effect on senior rights, those small effects could be easily mitigated. In short, this proposed water use benefits the public at large without affecting senior water rights. Additionally, the proposed water right would have no adverse impacts on recreation, fish or wildlife resources.

Criteria #6. Will the proposed use be contrary to the conservation of water resources within the State of Idaho?

To meet the criteria for beneficial use, PBSL will schedule a field verification visit with IDWR to document the beneficial use in a field report as specified under IDAPA 37.03.02. This will be conducted after administrative approval and completion of the development phase of the project.

With the information provided above, the letter addressing Criteria, 1, 2, and 3 dated, March 30, 2020 from Tetra Tech and the February 21, 2020, letter addressing financial assurance/statement of net position, Canyon County believes the new water right application #63-34858 should be approved.

If you have questions, or would like more information, please reach me via email: dloper@canyonco.org

Sincerely,

David M. Loper, REHS/RS
Director, Canyon County Solid Waste

Attachment 1: March 30, 2020 letter from Tetra Tech addressing criteria 1, 2, and 3.

Attachment 2: Financial Assurance letter and Statement of Net Position

Attachment 1.

TETRA TECH

April 3, 2020

Mr. David Loper
Canyon County Solid Waste Director
15500 Missouri Avenue
Nampa, Idaho 83686

RE: Water Rights Application for Permit 63-34858

Dear Mr. Loper:

Tetra Tech has reviewed the letter Canyon County received from the Idaho Department of Water Resources (IDWR) dated February 21, 2020 that requested clarification for the water rights application for Well ID #298341 (water right ID 63-21870). The letter provided a list of criteria used by IDWR for the evaluation of new water rights based on Idaho Code Section 42-203A. The criteria listed include:

1. Will the new appropriation injure existing water rights?
2. Is the water supply sufficient for the purpose for which it is sought?
3. Is the application made in good faith or for delay or for speculation?
4. Does the applicant have sufficient financial resources to complete the project?
5. Will the proposed use conflict with the local public interest, where local public interest is defined as interest that the people in the area directly affected by the proposed water us have in the effects of such use on the public water resource?
6. Will the proposed use be contrary to the conservation of water resources within the State of Idaho?

This letter addresses items 1, 2, and 3 of the criteria listed above to support the water rights application. This letter also includes background information on the geology in the area of interest near PBSL to help facilitate the evaluation.

Background Geology

PBSL is located in the western portion of the Snake River Plain. The Snake River Plain is a broad structural depression that extends across southern Idaho in a northwesterly/southeasterly direction. The center of the plain dropped several thousand feet relative to the margins due to faults (Swirydczuk et. al., 1982). The basin created by the faulting has been filled over the past several million years by igneous rocks, lacustrine (lake deposited) and fluvial (river deposited) sediments to depth potentially greater than 20,000 feet (Mabey 1982).

A relatively thin layer of basalt belonging to the Bruneau Formation is present on the top of Pickles Butte and on parts of the upper rim of Deadhorse Canyon north of the Landfill. The basalt overlies the Tuana Gravel formation consisting of sand and gravel. The Tuana Gravel is present at PBSL area only on the upper part of Pickles Butte and in the northeastern rim of Deadhorse Canyon and near the southern edge of the active landfill area.

The majority of the geologic materials exposed at PBSL is the Upper Glenns Ferry Formation, a primarily sand and silt unit that generally becomes finer-grained and more consolidated or indurated with increasing depth. The formation ranges from poorly to well sorted, from very fine grained to coarse grained, and having little or no consolidated structure to a well-lithified sandstone. The lower depth of the formation consists primarily of siltstone or claystone (Tetra Tech, 2015).

A laterally extensive confining layer in the Glenns Ferry Formation is present beneath PBSL and surrounding area. Depths of the confining layer range from 150 to 500 feet bgs, is hundreds of feet thick, and extends across

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the entire landfill and surrounding area. The transition between the confining layer and the sediments above it has been described as "abrupt." Its presence across the area is well-defined and generally described as a siltstone or claystone on lithologic logs. Contained within the layer is a boundary at which sediments below were deposited in an anoxic state and characterized by blue green or blue grey coloring.

Groundwater conditions across the area near PBSL are somewhat variable. There are three water bearing zones that have been identified in multiple reports. They are referred to as Upper Aquifer (UA), Middle Aquifer (MA), and Bottom Aquifer (BA) by Holladay (1994) and by DBS&A (2014) as uppermost-unconfined aquifer or unconfined aquifer, middle confined aquifer or confined aquifer, and bottom aquifer. Based on a review of available well logs, the approximate elevation of the water bearing zones of interest for adverse impacts and the names used to reference them in this letter are:

- An upper-unconfined aquifer: elevation range of 2,745 to 2,560 feet msl,
- A middle-confined aquifer: elevation range of 2,312 to 2,079 feet msl, and
- A bottom-confined aquifer: elevation range of 2,067 to 1,635 feet msl.

These elevations will be used to evaluate whether the proposed point of discharge is located within the same water bearing zone as existing water rights. Elevations for ground surface to determine the elevation of the wells were taken from Google Earth with an approximate accuracy of 30 feet. This potential error in the elevation did not affect the review.

Criteria 1: Will the new appropriation injure existing water rights?

David Loper, the director of PBSL and Maureen McGraw from Tetra Tech met with IDWR staff on March 6, 2020 to determine the best approach for evaluating the impact of the new water rights request on the existing water rights. It was determined that a review of wells within a mile should be conducted, and that the impact (e.g. drawdown) of pumping on existing water rights with a radial distance of ½-mile should be conducted using an analytical solution. Therefore, Tetra Tech used Aqtesolv V4 Pro software and the Theis analytical solution (Theis 1935) for a confined aquifer to project the radial drawdown and well interference from the requested point of diversion on existing water rights. Adverse effects were evaluated by comparing the operational drawdown available for adjacent wells (i.e. existing water rights) and the well interference from the requested point of diversion (well ID #298341).

The well yield listed for the Stewart well (i.e. former owner of Well ID #298341, and proposed point of diversion) based on the well log is 50 to 60 gallons per minute (gpm). The new water rights application requests to utilize the additional water available above what has been approved for domestic use (0.04 cubic feet per second (cfs); 18 gpm) for commercial purposes (e.g. dust suppression and emergency fire suppression). The potentiometric surface in the area reflects pumping for currently approved water allocations. Therefore, based on an average well yield of 55 gpm, this adverse impact analysis evaluates the impact from pumping an additional 37 gpm, which was calculated by taking the well yield (55 gpm) minus the amount approved domestic use (18 gpm).

Tetra Tech inventoried all available well logs and water rights within a 1-mile radius of the well location based on information available on the IDWR website. **Figure 1** shows the wells identified and associated water rights. Not all wells identified in the search had corresponding water rights. The IDWR well database places wells within the quarter section. In the IDWR water rights database, the water rights were not linked to the well numbers. Therefore, the owners name and location were used to corelate the wells and water rights. In general, the locations specified for the water rights were more accurate. Therefore, the location of the water rights was used as the point of diversion and the well locations in **Figure 1** were corrected where needed. As a result, the location of wells as shown in **Figure 1** may differ from what is shown in the IDWR well database. In addition, Google Earth was used to provide verification of wells that were adjusted (i.e. associated with houses for domestic supplies) when possible. A list of all the wells inventoried is provided in **Table 1**, and a copy of the corresponding well log downloaded from the database is included in **Attachment A**. The water rights associated

with these wells are listed in **Table 2.** In some instances, a single point of groundwater diversion (well identification) is associated with multiple water rights.

Inventoried wells within approximately ½-mile (**highlighted with shading in Table 1**) were assessed for potential adverse effects if the well in question is completed in the same water bearing zone as the permit well. Aquifer test data or operational use data is not available for the well of interest (Well ID #298341). The drilling log for a proximal domestic supply well (Helfrich Well ID #297925) was available and contained the necessary information to use as a surrogate. Both wells are completed in the same water bearing zone within the Glenns Ferry Formation and have similar well yield. On the Helfrich Well log it is noted that the well was pumped at 20 gpm with 60 feet of drawdown after 1 hour of pumping (step 1) and pumped at 30 gpm with 95 feet of drawdown after another ½ hour of pumping (step 2). This well yield versus drawdown data is known as specific yield and can be used to estimate aquifer transmissivity using the Theis equation for confined flow. The estimated transmissivity of the aquifer determined from this method is 70 square feet per day (ft^2/day). The corresponding hydraulic conductivity was determined by dividing the transmissivity value by the aquifer thickness of the test well (approximately 48 feet). The hydraulic conductivity from the Helfrich domestic supply well transmissivity is estimated to be 1.46 ft/day (5.15E-04 cm/sec) which seems reasonable for a water bearing zone described as alternating sequences of blue clay and gray sandstone and matches the upper range of values from the Pickles Butter Hydrogeologic Characterization Report (DBS&A, 2014). This transmissivity value is conservative (i.e. will result in the maximum drawdown in adjacent wells) relative to the estimated transmissivity of the other wells in the area that were as high as 2,750 ft^2/day (**Attachment B**).

Determination of the potential adverse effect was evaluated based on the operating head in the well relative to the total well completion depth or base of the aquifer. The projected well interference induced by pumping from the proposed point of discharge (Well ID #298341) at a continuous rate of 37 gpm over a period of one year was calculated using Aqtesolv V4 Pro software and the Theis analytical solution (Theis 1935). Conducting the analysis at a continuous pumping rate over a year provides a conservative estimate of withdrawal rate and volume because it is unlikely that well will be operated in a continuous manner. The transmissivity value (70 ft^2/day) and estimated aquifer thickness (48 feet) at the proposed point of discharge was used to estimate drawdown at radial distances around the pumping well. Aqtesolv cannot represent the heterogeneity of the Glenns Ferry formation, so the low estimate of transmissivity (70 ft^2/day) was used for all wells in the forward projection analysis. This projected drawdown amounts to well interference from the proposed point of withdraw on the subject well (i.e. neighboring wells). Results from the potential adverse effects determination are summarized below on a well by well basis for the wells that are located within approximately ½-mile of the proposed point of diversion.

Well ID #297925

Well ID #297925, which is listed as owned by E. Helfrich, is 6-inch diameter domestic supply well with 695 feet of available drawdown determined by taking the well depth (900 feet) minus the static water level (205 feet). This well is located approximately 3,170 feet from the proposed point of discharge (Well ID #298341), and is completed in the Glenns Ferry formation from a water bearing zone with similar elevation depths (1,696 to 1,648 feet amsl) to the permit well (1,640 to 1,635 feet amsl). It has similar lithology to other deep wells in the area.

Based on the forward analysis, the projected well interference from an increased withdrawal rate at the proposed point of discharge (Well ID #298341) after 1 year of continuous pumping would be approximately 17 feet. Well interference of this magnitude should not adversely impact the well owner's ability to withdraw groundwater for their water right. The amount of available drawdown in Well #297925 was determined by taking the available head (695 ft available head) minus the drawdown produced (90 feet) by pumping the subject well at a production rate of 30 gpm. This results in an available drawdown of 605 feet in the well. Therefore, an additional drawdown of 17 feet caused by the proposed point of diversion will not adversely impact the water withdraw for the subject well.

Well ID #299305

Well ID #299305, which is listed as owned by J. Hoffman, is a 5-inch diameter domestic supply well with 120 feet of available drawdown. This well is located approximately 1,220 feet from the proposed point of discharge (Well ID #298341). It is completed at a significantly shallower depth than the proposed point of discharge even though the lithology is similar to other wells in the Glenns Ferry formation.

The water bearing "aquifer" zone in the Hoffman well ranges from ~2,569 ft to 2,557 ft amsl. The proposed point of discharge withdrawals water from a bedrock fracture zone from ~1,640 to 1,635 ft amsl. For this reason, well interference to the Hoffman well from the proposed permit well was not calculated and no adverse effects are expected.

Well ID #300419

Well ID #300419, which is listed as owned by D. Snell, is 6-inch diameter domestic supply well with 280 feet of available drawdown. It is located approximately 910 feet away from the proposed point of discharge (Well ID #298341). This property and well are owned by Canyon County. The well is completed in the Glenns Ferry formation, and has similar lithology to other deep wells in the area.

Based on the forward analysis, the projected well interference from an increased withdrawal rate at the proposed point of discharge (Well ID #298341) after 1 year of continuous pumping would be approximately 32 feet on the Snell well.

Well interference of this magnitude should not adversely impact the well owner's ability to withdrawal groundwater for their water right. The available drawdown in Well ID #300419 is 280 feet. After taking into consideration the drawdown produced (75 feet) by the subject well at a production rate of 25 gpm. This results in an available drawdown of 205 feet in the well. Therefore, an additional drawdown of 32 feet caused by the proposed point of diversion will not adversely impact the water withdraw for the subject well.

Well ID #306253

Well ID #306253, which is listed as owned by Pickles Butte Farms, is a 10-inch diameter irrigation well with 310 feet of available drawdown. It is located approximately 2,840 feet from the proposed point of discharge (Well ID #298341). It is completed at a significantly shallower depth than the proposed point of diversion even though the lithology is similar to other wells in the Glenns Ferry formation.

The water bearing "aquifer" zone in the Pickles Butte Farm irrigation well ranges from ~2,312 ft to 2,132 ft amsl. The proposed point of diversion withdrawals water from a fracture zone from ~1,640 to 1,635 ft amsl. For this reason, well interference on the irrigation well from the proposed permit well was not calculated and no adverse effects are expected.

Well ID #369317

Well ID #369317, which is listed as owned by J. Johnson, is a 6-inch diameter domestic supply well with 285 feet of available drawdown. It is located approximately 740 feet from the proposed point of discharge (Well ID #298341). It is completed at a significantly shallower depth than the proposed point of diversion even though the lithology is similar to other wells in the Glenns Ferry formation.

The water bearing "aquifer" zone in the Johnson well is from ~2,330 ft to 2,255 ft amsl. The proposed point of diversion withdrawals water from a water bearing fracture zone from ~1,640 to 1,635 ft amsl. For this reason, well interference on the Johnson domestic supply well from the proposed permit well was not calculated and no adverse effects are expected.

Well ID #388159

Well ID #388159, which is listed as owned by L. Penrod, is a 6-inch diameter domestic supply well with 215 feet of available drawdown. It is located approximately 1,790 feet from the proposed point of discharge (Well ID

#298341). It is completed at a significantly shallower depth than the proposed point of diversion even though the lithology is similar to other wells in the Glenns Ferry formation.

The water bearing "aquifer" zone in the Penrod well is from ~2,302 ft amsl to 2,197 ft amsl. The proposed point of diversion withdraws water from a water bearing fracture zone from ~1,640 to 1,635 ft amsl. For this reason, well interference on the Penrod domestic supply well from the proposed permit well was not calculated and no adverse effects are expected.

Well ID #399786

Well ID #399786, which is listed as owned by J. Fink, is a 6-inch diameter domestic supply well with 69 feet of available drawdown. The Fink Well is located approximately 2,215 feet from the proposed point of discharge (Well ID #298341). It is completed at a significantly shallower depth than the proposed point of diversion even though the lithology is similar to other wells in the Glenns Ferry formation.

The water bearing "aquifer" zone in the Fink well is from ~2,745 ft amsl to 2,685 ft amsl. The proposed point of diversion withdrawals water from a water bearing fracture zone from ~1,640 to 1,635 ft amsl. For this reason, well interference on the Fink domestic supply well from the proposed permit well was not calculated and no adverse effects are expected.

Well ID #417825

Well ID #417825, which is listed as owned by B. Teunissen, is a 16-inch diameter commercial supply well for the Beranna Dairy. The well is located approximately 2,590 feet from the proposed point of discharge (Well ID #298341) with 238 feet of available drawdown. It is completed at a significantly shallower depth than the proposed point of diversion even though the lithology is similar to other wells in the Glenns Ferry formation.

The water bearing "aquifer" zone in the Teunissen supply well is from ~2,263 ft to 2,101 ft amsl. The proposed point of diversion withdrawals water from a water bearing fracture zone from ~1,640 to 1,635 ft amsl. For this reason, well interference on the Teunissen supply well from the proposed permit well was not calculated and no adverse effects are expected.

Well ID #430692

Well ID #430692, which is listed as owned by B. Teunissen, is a 12-inch diameter commercial and stockwater supply well for the Beranna Dairy. The well is located approximately 2,710 feet from the proposed point of discharge (Well ID #298341) with 250 feet of available drawdown. It is completed at a significantly shallower depth than the proposed point of diversion even though the lithology is similar to other wells in the Glenns Ferry formation.

The water bearing "aquifer" zone in the Teunissen commercial/stock well is from ~2,288 ft to 2,079 ft amsl. The proposed point of diversion withdrawals water from a water bearing fracture zone from ~1,640 to 1,635 ft amsl. For this reason, well interference on the Teunissen commercial supply well from the proposed permit well was not calculated and no adverse effects are expected.

Criteria 2: Is the water supply sufficient for the purpose for which it is sought?

The water rights requested will be used for dust suppression and emergency fire suppression. The PBSL Tier I air permit requires control of dust emissions from operations (e.g. fugitive dust from driving on roads). Currently the landfill is only able to control fugitive dust during irrigation season when water from the Boise River Rental Pool is available (April 15 to October 15). The irrigation water withdraw location is 3.5 miles from the PBSL which requires additional time to complete the trip. During dry periods between October 16 and April 14, there is no water available on site for dust suppression. Water is also needed to suppress fugitive dust from grinding operations of clean wood conducted by a third-party subcontractor. Since water is not available on site, the third-party subcontractor must purchase water from the Nampa Highway District (4507 12th Ave Rd, Nampa, ID 83686) which requires a 20-mile round trip to secure water for grinding operations.

Water truck logs for the 2019 irrigation season, and the water truck logs for February 2020 from the third-party subcontractor were reviewed to determine the water usage. The trucks used on site by PBSL and the subcontractor can carry a maximum of 3,000 gallons of water. During the 2019 irrigation season, an average of five truck loads (15,000 gallons) was used at the site on a daily basis. The maximum number of truck loads during the hottest and driest days was thirteen (39,000 gallons). Data from the third-party subcontractor was limited, but indicated that for the month of February the average number of truck loads was two (6,000 gallons) and the maximum was three (9,000 gallons). The amount used by the subcontractor is anticipated to be higher during the summer months, and was assumed to be five truck loads a day (15,000 gallons). This results in an average daily usage of 21,000 gallons, and a maximum during the summer month of 54,000 gallons. If the proposed point of discharge was pumped at a rate of 37 gpm on a continuous basis, the volume available over a 24-hour period is 53,280 gallons. Therefore, on a average day the proposed point of discharge (Well ID #298341) will produce a sufficient amount of water required for dust suppression. On high demand days, it will be possible to meet the demand by using a combination of the well and irrigation water for dust suppression and grinding operations.

The water used for dust suppression is applied during normal business operations of the landfill, which is a 10-hour day. Therefore, it will be necessary to design and install a water holding tank that will also provide an emergency supply of water available for fire suppression. This system has not yet been designed, but will be following approval of the new water rights.

Criteria 3: Is the application made in good faith or for delay or for speculation?

The application for the water right is based on actual need at the PBSL in order to meet the requirement of their Tier I operation air permit for fugitive dust. The water rights requested would be needed to be supplemented with irrigation water during the summer month to meet peak demands, but would meet the needs of the landfill between Oct 16 and April 14 when irrigation water is unavailable.

Based on the information provided above, it is our professional opinion that:

1) The new appropriation will not injure existing water rights;
2) The water supply is sufficient for the purpose for which it is sought; and
3) The application for the water right is made in good faith and is required for the successful operation of the PBSL.

Therefore, we believe this information supports IDWR granting the new water right (application 63-34858) for commercial purposes at the PBSL. Should you have any questions regarding the information presented in this letter, please feel free to contact me at your earliest convenience.

Sincerely,

Maureen McGraw, Ph.D. PE
Project Manager
Senior Hydrologist/Civil Engineer

Attachment A: Wells Inventoried

Attachment B: Theis calculation of transmissivity for analysis

Attachment C: Aqtesolv V4 Pro Results

REFERENCES

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Holladay (Holladay Engineering Company), 1994. Hydrogeologic Characterization, Groundwater Monitoring Plan, & Facility Design, Pickles Butte Sanitary Landfill, Canyon County Idaho, July 1994.

Swirydczuk, K., Larson G.P., and Smith, G.R., 1982. Volcanic Ash Beds as Stratigraphic Markers in the Glenns Ferry and Chalk Hills Formations from Adrian, Oregon to Bruneau, Idaho. Cenozoic Geology of Idaho: Idaho Bureau of Mines and Geology Bulletin 26. Bill Bonnichsen and R.M. Breckenridge, editors. P. 543-558.

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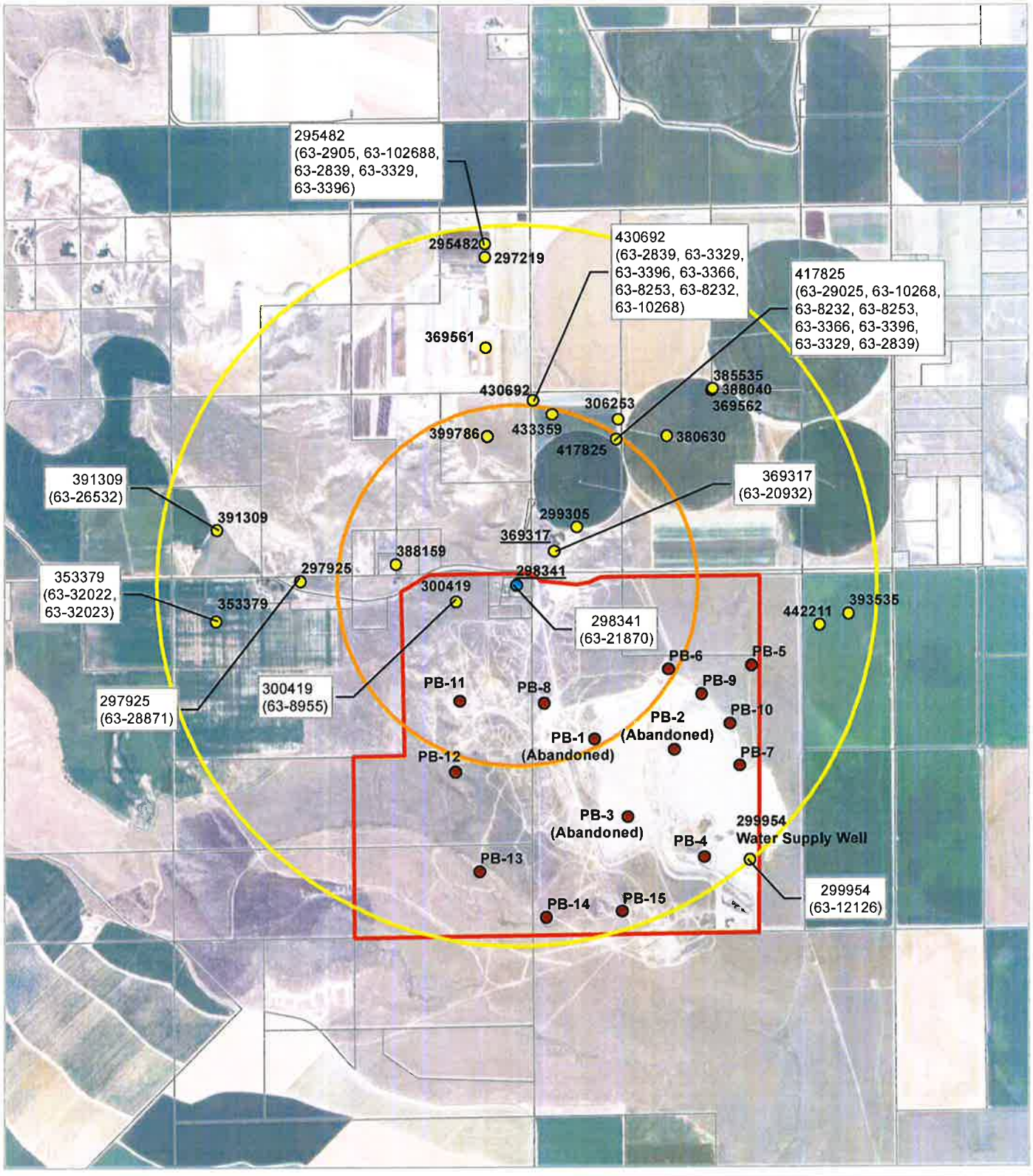
Theis, C.V., 1935. The relation between the lowering of the piezometric surface and the rate and duration of discharge of a well using groundwater storage, Am. Geophys. Union Trans., vol. 16, pp. 519-524.

FIGURES



*Accessed IDWR well logs 3/9/2020.

Figure 1
Adjacent Groundwater Water Rights
Pickles Butte Sanitary Landfill
Canyon County, ID

TABLES

TABLE 1 INVENTORY OF WELLS WITHIN 1-MILE RADIUS OF PERMIT WELL 298341

WellID	Northing	Easting	PermitID	Owner	WellAddress	BasinNumb	CountyName	Township	Range	Section	QQQ	QQ	Quarter	WellUse	Production	StaticWater	Static Water Level (amsl)	CasingDept	Ground Surface (approx. feet amsl**)	TotalDepth	TopWtrBearing (ft)	BtmWtrBear (ft)	TopWtrBear Elev (feet amsl)	BottmWtrBearElev (ft amsl)	Constructed	DataSource	CasingDiam	Latitude	Longitude	within1Mi	Specific Yield
295482	2368930.8	675294.9	732421	TEUNISSEN BERANNA DAIRY & TRANSMUTAION		63	CANYON	02N	03W	17		NE	NE		150	272		506							1998-08-09T	QQ	8	43.5151	-116.7154	Yes	
297219	2368587.9	675101.6	731072	JOHNSON LAND CO	CLOSEST ADDRESS TO WELL IS 9168 PERCH LANE	63	CANYON	02N	03W	17		NE	NE		0	270		650							1999-11-29T	QQ	16	43.5151	-116.7154	Yes	
297925	2365799.8	670398	730236	ESTHER E HELFRICH	16574 & 16666 DEERFLAT ROAD	63	CANYON	02N	03W	20		NE	NW		30	205	2,343	199	2,548	900	852	900	1,696	1,648	1996-07-20T	Digitized	8	43.5021	-116.7257	Yes	0.333/0.316
298341	2368069.2	670297	729913	DONALD L STUART	16241 DEER FLAT RD	63	CANYON	02N	03W	20		NW	NW		60	330	2,425	0	2,755	1120	1115	1120	1,640	1,635	1995-12-22T	QQ	6	43.5005	-116.7303	Yes	?
299306	2369862.9	671127.7	729327	JIM HOFFMAN	31 ORD BLVD	63	CANYON	02N	03W	16		SW	SW		20	150	2,679	264	2,829	270	260	272	2,569	2,557	1995-05-11T	QQ	6	43.50427	-116.7104	Yes	?
300419	2368087.1	670063.1	728158	DAVID SNELL	16141 DEER FLAT RD	63	CANYON	02N	03W	20		NE	NE		25	370	2,205	463	2,575	900	508	700	2,067	1,875	1994-05-27T	QQ	6	43.50126	-116.7171	Yes	?
306253	2370493.8	672693.8	847850	BERNARD "BERNIE" TEUNISSEN	9168 PERCH; E OF DAIRY	63	CANYON	02N	03W	16		NW	SW	Irrigation	300	300	2,442	618	2,742	618	430	618	2,312	2,124	10/23/1990	GPS - Manually Entered	16	43.50855	-116.7081	Yes	2.4
306253	2370433.8	672693.0	847850	BERNARD "BERNIE" TEUNISSEN	9168 PERCH; E OF DAIRY	63	CANYON	02N	03W	16		NW	SW		0	300		0		610						GPS - Manually Entered	16	43.50855	-116.7081	Yes	
353379	2364568.8	669829.4	782307	JAMES KRAFT		63	CANYON	02N	03W	20		NE	NE		5	200		0		324					1978-05-09T	QQ	0	43.50193	-116.7137	Yes	
369217	2369528.7	670781.1	798370	JOHN R JOHNSON		63	CANYON	02N	03W	16		SW	SW		0	290	2,540	0	2,830	375	500	575	2,330	2,255	1970-12-28T	Digitized	0	43.50465	-116.7085	Yes	?
369561	2368572.5	673779.9	798612			63	CANYON	02N	03W	17		SE	NE		0	161		0		600					1975-11-06T	QQ	0	43.51147	-116.7154	Yes	
369562	2371671.4	675100.2	798613	JOHN JOHNSON		63	CANYON	02N	03W	16			SE		0	231		0		590					1972-11-30T	Section	0	43.50971	-116.7029	Yes	
380630	2371201.1	672444.5	809901	BERANNA DAIRY	9166 PERCH AVE	63	CANYON	02N	03W	16		NE	SW	Irrigation	0	0		0		388					2003-12-24T	QQ	16	43.50789	-116.7054	Yes	
385535	2371886.5	673125.6	814850	JOHN JOHNSON		63	CANYON	02N	03W	16			SW		0	250		0		375					9999-12-31T	QQ	0	43.50978	-116.7029	Yes	
388040	2371886.5	673125.6	817372	GEORGE JOHNSON		63	CANYON	02N	03W	16			NW		910	112		0		345					9999-12-31T	QQ	0	43.50978	-116.7029	Yes	
388159	2367206.7	670624.3	817491	LA MAR PENROD		63	CANYON	02N	03W	17		SW	SE		15	290	2,413	0	2,602	405	300	405	2,303	2,197	1975-10-02T	Digitized	0	43.50277	-116.7204	Yes	?
391309	2364600.5	671158.8	820644	EDWIN S SHELDON		63	CANYON	02N	03W	17		SW	SW		240	0		0		215					1961-11-17T	QQ	0	43.50415	-116.7302	Yes	
393535	2373832.2	669805.9	822882	REESE MICHAELSON		63	CANYON	02N	03W	21		NE	NE		0	45		0		100					1996-09-18T	QQ	0	43.50073	-116.6954	Yes	
399786	2368574	672475.1	829181	JOHN PAUL FINCK		63	CANYON	02N	03W	17		NE	SE		0	31	2,754	0	2,785	100	40	100	2,745	2,685	1965-06-18T	QQ	0	43.50789	-116.7153	Yes	?
417825	2370464	672408.4	647849	BERNARD "BERNIE" TEUNISSEN	9166 PERCH AVE; E SIDE ACROSS FROM DAIRY	63	CANYON	02N	03W	16	SE	NW	SW	Irrigation	700	398	2,353	520	2,751	680	405	659	2,346	2,092	2007-09-20T	GPS - Manually Entered	16	43.50777	-116.7082	Yes	9.459459459
430692	2369259.1	672999.4	861400	BERANNA DAIRY	9168 PERCH RD	63	CANYON	02N	03W	16	NW	NW	SW	Irrigation	550	424	2,329	659	2,753	740	467	673	2,286	2,080	2011-08-26T	GPS - Manually Entered	12	43.50933	-116.7128	Yes	7.638888889
433359*	2369529.6	672783.1	864302	BERANNA DAIRY	9168 PERCH RD	63	CANYON	02N	03W	16	NW	NW	SW	Irrigation	0	0		0		510					2012-05-11T	QQQ	16	43.50877	-116.7117	Yes	
442211	2373399.8	669646.8	876425	JUAN HULTRON	205 E USTICK RD	63	CANYON	02N	03W	21		NE	NE	Domestic-I	60	6		0		108					2015-08-28T	GPS - Manually Entered	6	43.50028	-116.697	Yes	

Irrigation or Commerical Supply Well
Domestic Supply Well
* no information available on IDWR webpage

WellID	Northing	Easting	WaterRight	PriorityDate	Source	Owner	Status	Basis	OverallMax (cfs)	DataSource
391309	4816729	521701.6	63-26532	1961-11-17	GROUND WATER	RALPH W SEVY	Active	Decreed	0.04	QQQ
297925	4816544	522305	63-28871	1981-10-15	GROUND WATER	GAYLE ORCUTT	Active	Decreed	0.04	QQQ
298341	4816445	523008.9	63-21870	1980-04-01	GROUND WATER	CANYON COUNTY	Active	Decreed	0.04	QQ
369317	4816745	523309.9	63-20932	1971-10-01	GROUND WATER	JOHN R JOHNSON	Active	Decreed	0.11	QQQ
300419	4816046	523412.5	63-8955	1977-06-14	GROUND WATER	COUNTY OF CANYON	Active	Decreed	0.02	QQ
430692	4817409	523264.3	63-2839	1955-09-14	GROUND WATER	BERANNA DAIRY	Active	Decreed	1.35	Digitized
430692	4817409	523264.3	63-3329	1963-02-16	GROUND WATER	BERANNA DAIRY	Active	Decreed	2.06	Digitized
430692	4817409	523264.3	63-3396	1963-12-13	GROUND WATER	BERANNA DAIRY	Active	Decreed	1.2	Digitized
430692	4817409	523264.3	63-3366	1963-08-26	GROUND WATER	BERANNA DAIRY	Active	Decreed	2.09	Digitized
430692	4817409	523264.3	63-8253	1976-01-16	GROUND WATER	BERANNA DAIRY	Active	Decreed	1.16	Digitized
430692	4817409	523264.3	63-8232	1975-10-28	GROUND WATER	BERANNA DAIRY	Active	Decreed	2.73	Digitized
430692	4817409	523264.3	63-10268	1984-10-03	GROUND WATER	BERANNA DAIRY	Active	License	1.54	Digitized
430692	4817409	523264.3	63-29025	1960-08-15	GROUND WATER	BERANNA DAIRY	Active	Decreed	0.64	Digitized
417825	4817266	523586	63-29025	1960-08-15	GROUND WATER	BERANNA DAIRY	Active	Decreed	0.64	Digitized
417825	4817266	523586	63-10268	1984-10-03	GROUND WATER	BERANNA DAIRY	Active	License	1.54	Digitized
417825	4817266	523586	63-8232	1975-10-28	GROUND WATER	BERANNA DAIRY	Active	Decreed	2.73	Digitized
417825	4817266	523586	63-8253	1976-01-16	GROUND WATER	BERANNA DAIRY	Active	Decreed	1.16	Digitized
417825	4817266	523586	63-3366	1963-08-26	GROUND WATER	BERANNA DAIRY	Active	Decreed	2.09	Digitized
417825	4817266	523586	63-3396	1963-12-13	GROUND WATER	BERANNA DAIRY	Active	Decreed	1.2	Digitized
417825	4817266	523586	63-3329	1963-02-16	GROUND WATER	BERANNA DAIRY	Active	Decreed	2.06	Digitized
417825	4817266	523586	63-2839	1955-09-14	GROUND WATER	BERANNA DAIRY	Active	Decreed	1.35	Digitized
295482	4818149	523176.6	63-29025	1960-08-15	GROUND WATER	BERANNA DAIRY	Active	Decreed	0.64	Digitized
295482	4818149	523176.6	63-10268	1984-10-03	GROUND WATER	BERANNA DAIRY	Active	License	1.54	Digitized
295482	4818149	523176.6	63-2839	1955-09-14	GROUND WATER	BERANNA DAIRY	Active	Decreed	1.35	Digitized
295482	4818149	523176.6	63-3329	1963-02-16	GROUND WATER	BERANNA DAIRY	Active	Decreed	2.06	Digitized
295482	4818149	523176.6	63-3396	1963-12-13	GROUND WATER	BERANNA DAIRY	Active	Decreed	1.2	Digitized
295482	4818149	523176.6	63-3366	1963-08-26	GROUND WATER	BERANNA DAIRY	Active	Decreed	2.09	Digitized
295482	4818149	523176.6	63-8232	1975-10-28	GROUND WATER	BERANNA DAIRY	Active	Decreed	2.73	Digitized
295482	4818149	523176.6	63-8253	1976-01-16	GROUND WATER	BERANNA DAIRY	Active	Decreed	1.16	Digitized
353379	4816405	521583.1	63-32022	1977-03-01	GROUND WATER	REALLEN LLC	Active	Decreed	0.4	Digitized
353379	4816405	521583.1	63-32023	1959-03-01	GROUND WATER	REALLEN LLC	Active	Decreed	0.92	Digitized

Attachment A: Wells Inventoried

Wells identified within ½- mile analyzed for adverse effects

Well ID #298341: Proposed point of diversion (Stewart)

Well ID #297925: E. Helfrich

Well ID #299305: J. Hoffman

Well ID #300419: D. Snell

Well ID #306253: Pickles Butte Farms

Well ID #369317: J. Johnson

Well ID #388159: L. Penrod

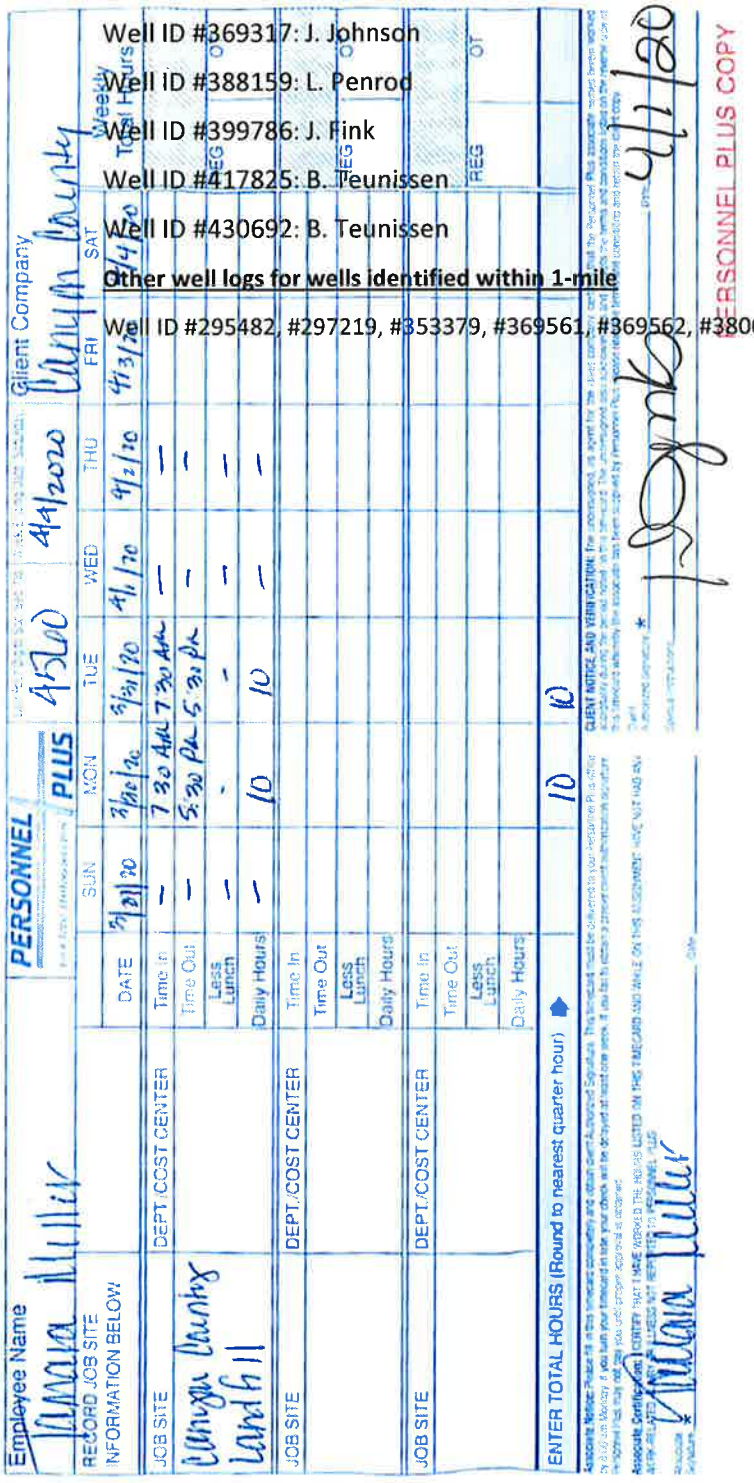
Well ID #399786: J. Fink

Well ID #417825: B. Teunissen

Well ID #430692: B. Teunissen

Other well logs for wells identified within 1-mile

Well ID #295482, #297219, #353379, #369561, #369562, #380630, #385535, #388040, #391309, #393535, #442211



Form 238-7
3/95

IDAHO DEPARTMENT OF WATER RESOURCES
WELL DRILLER'S REPORT

Use Typewriter or Ballpoint Pen

061342

Office Use Only
Inspected by _____
Twp____ Rge____ Sec____
____1/4 ____1/4 ____1/4
Lat: : : Long: : :

1. DRILLING PERMIT NO. 63-95-W-0962-100
Other IDWR No. _____

2. OWNER:
Name DON & SHELLEY STUART
Address 16241 DEERFLAT RD
City CALDWELL State ID Zip 83605

3. LOCATION OF WELL by legal description:
Sketch map location must agree with written location.

N / W / E / S

Twp. 2N North ☒ or South ☐
Rge. 3W East ☐ or West ☒
Sec. 20, NW 1/4 NW 1/4 ____ 1/4
(10 acres / 40 acres / 160 acres)
Gov't Lot ____ County CANYON
Lat: : : Long: : :
Address of Well Site 16241 DEERFLAT
City CALDWELL
(Give at least name of road + Distance to Road or Landmark)

Lt. _____ Blk. _____ Sub. Name _____

4. USE:
☒ Domestic ☐ Municipal ☐ Monitor ☐ Irrigation
☐ Thermal ☐ Injection ☐ Other _____

5. TYPE OF WORK check all that apply (Replacement etc.)
☐ New Well ☒ Modify (Deepen) ☐ Abandonment ☐ Other _____

6. DRILL METHOD
☒ Air Rotary ☐ Cable ☐ Mud Rotary ☐ Other _____

7. SEALING PROCEDURES

SEAL/FILTER PACK Material	From	To	AMOUNT Sacks or Pounds	METHOD
N/A				

Was drive shoe used? ☐ Y ☒ N Shoe Depth(s) _____
Was drive shoe seal tested? ☐ Y ☐ N How? _____

8. CASING/LINER: not known by driller

Diameter	From	To	Gauge	Material	Casing	Liner	Welded	Threaded
					☐	☐	☐	☐
					☐	☐	☐	☐
					☐	☐	☐	☐

Length of Headpipe _____ Length of Tailpipe _____

9. PERFORATIONS/SCREENS none
☐ Perforations Method _____
☐ Screens Screen Type _____

From	To	Slot Size	Number	Diameter	Material	Casing	Liner
						☐	☐
						☐	☐
						☐	☐

10. STATIC WATER LEVEL OR ARTESIAN PRESSURE:
330 ft. below ground Artesian pressure _____ lb.
Depth flow encountered _____ ft. Describe access port or control devices: _____

11. WELL TESTS:
☐ Pump ☐ Bailer ☒ Air ☐ Flowing Artesian

Yield gal./min.	Drawdown	Pumping Level	Time
50-60			1 HR

Water Temp. 82° Bottom hole temp. _____
Water Quality test or comments: _____
Depth first Water Encountered _____

12. LITHOLOGIC LOG: (Describe repairs or abandonment)

Bore Dia.	From	To	Remarks: Lithology, Water Quality & Temperature	Water Y	Water N
6	485	700	BLUE CLAY W/HARD & SOFT SPOTS		☒
	700	900	" " " "		☒
	900	1000	" " EXPECTING TO HIT WATER OR SAND ANYTIME		☒
	1000	1115	BLUE CLAY - VERY HARD		☒
	1115	1120	HARD BLUE CLAY FRACTURED	☒	

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Department of Water Resources

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JAN 0 2 1996
WATER RESOURCES
WESTERN REGION

MICROFILMED
MAY 0 6 1998

Completed Depth 1120 (Measurable)
Date: Started 12-19-95 Completed 12-22-95

13. DRILLER'S CERTIFICATION
I/We certify that all minimum well construction standards were complied with at the time the rig was removed.

Firm Name ADAMSON PUMP & DRILLING Firm No. 0457
Firm Official Dave Adamson Date 12-26-95
and
Supervisor or Operator DAVE ADAMSON Date 12-26-95
(Sign once if Firm Official & Operator)

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0914100 1-2

Form 238-7 3/95

RECEIVED AUG 0 8 1996 WATER RESOURCES WESTERN REGION

IDAHO DEPARTMENT OF WATER RESOURCES
WELL DRILLER'S REPORT

permit # Rec. Mar 28 + 8" request

Use Typewriter or Ballpoint Pen

Location Corrected by IDWR To:
T02N R03W Sec. 20 NENW
By: segbert 2010-10-14

1. DRILLING PERMIT NO. 63-96-W-0147-000
Other IDWR No.

2. OWNER:
Name Esther E. Helfrich
Address 5200 Midway Rd. Box 36
City Caldwell State ID Zip 83605

3. LOCATION OF WELL by legal description:
Sketch map location must agree with written location.

Twp. 2 North [X] or South [ ]
Rge. 3 East [ ] or West [X]
Sec. 20, 1/4 NW 1/4 NE 1/4 (10 acres, 40 acres, 160 acres)
Gov't Lot ___ County Canyon
Lat: : : Long: : :
Address of Well Site 16574 + 16666 Deer Flat Rd. City Caldwell
(Give at least name of road + Distance to Road or Landmark)
Lt. ___ Blk. ___ Sub. Name ___

4. USE:
[X] Domestic [ ] Municipal [ ] Monitor [ ] Irrigation
[ ] Thermal [ ] Injection [ ] Other

5. TYPE OF WORK check all that apply (Replacement etc.)
[X] New Well [ ] Modify [ ] Abandonment [ ] Other

6. DRILL METHOD
[ ] Air Rotary [X] Cable [ ] Mud Rotary [ ] Other

7. SEALING PROCEDURES

SEAL/FILTER PACK Material	From	To	AMOUNT Sacks or Pounds	METHOD
Bentonite	0	199	2500	Down annular

Was drive shoe used? [X] Y [ ] N Shoe Depth(s) 199'
Was drive shoe seal tested? [X] Y [ ] N How? Water Pressure

8. CASING/LINER:

Diameter	From	To	Gauge	Material	Casing	Liner	Welded	Threaded
8"	+2'	199'	.250	Steel	[X]	[ ]	[X]	[ ]
6"	158'	708'	.250	Steel	[ ]	[X]	[X]	[ ]
					[ ]	[ ]	[ ]	[ ]

NA Length of Headpipe ___ Length of Tailpipe ___

NA **9. PERFORATIONS/SCREENS**
[ ] Perforations Method
[ ] Screens Screen Type

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From	To	Slot Size	Number	Diameter	Material	Casing	Liner
						[ ]	[ ]
						[ ]	[ ]
						[ ]	[ ]

10. STATIC WATER LEVEL OR ARTESIAN PRESSURE:
205 ft. below ground Artesian pressure NA lb.
Depth flow encountered 852 ft. Describe access port or control devices: Unbolt Well Cap

11. WELL TESTS:
Lat: : : Long: : :
[ ] Pump [X] Bailer [ ] Air [ ] Flowing Artesian

Yield gal./min.	Drawdown	Pumping Level	Time
20	60'	265'	1 hr.
30	95'	300'	1/2 hr.

Water Temp. 68° Bottom hole temp. 68°
Water Quality test or comments: GOOD on test results
Depth first Water Encountered 852

12. LITHOLOGIC LOG: (Describe repairs or abandonment)

Bore Dia.	From	To	Remarks: Lithology, Water Quality & Temperature	Water Y	Water N
16	0	1	TOP SOIL		✓
16	1	15	SANDY WHITE CLAY		↑
16	15	17	GREY SAND STONE		
16	17	20	SANDY WHITE CLAY		
16	20	23	BLOW SAND		
16	23	32	WHITE CLAY		
16	32	33	BLOW SAND		
16	33	63	WHITE CLAY, WITH SAND STREAKS		
10	63	152	WHITE CLAY WITH SOME SAND		
10	152	153	BROWN SAND STONE		
10	153	173	WHITE CLAY		
8 7/8	173	194	BLUE CLAY		
8	194	199	BLUE CLAY		
8	199	202	BLUE CLAY		
8	202	203	BLUE CLAY, WITH SAND STREAKS		
8	203	225	BLUE CLAY		
8	225	226	GREY SAND STONE		
8	226	345	BLUE CLAY		
8	345	347	FRACTURED CAVING BLUE CLAY		
8	347	381	BLUE CLAY		
8	381	382	SAND STONE		
8	382	388	BLUE CLAY		
8	388	390	FRACTURED BLUE CLAY		
8	390	495	BLUE CLAY		
8	495	496	GREY SAND STONE		
8	496	506	BLUE CLAY		
8	507	507	SAND STONE		
8	507	580	BLUE CLAY		
8	580	581	GREY SAND STONE		
8	581	589	BLUE CLAY		
8	589	590	GREY SAND STONE		
8	590	607	BLUE CLAY		↓
8	607	611	BLUE CLAY W/ CAVED chunks + ABRASIVE SAND		✓

MICROFILMED OCT 0 9 1996

Completed Depth 900' (Measurable)
Date: Started 4-1-96 Completed 7-20-96

13. DRILLER'S CERTIFICATION
I/We certify that all minimum well construction standards were complied with at the time the rig was removed.

Firm Name A-Line Firm No. 566
Firm Official Russell A. Johnston Date 7-29-96
and
Supervisor or Operator ___ Date ___
(Sign once if Firm Official & Operator)

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Form 238-7
7/94

C

IDAHO DEPARTMENT OF WATER RESOURCES
WELL DRILLER'S REPORT

057955

Use Typewriter or Ball Point Pen

1. DRILLING PERMIT NO. 63-95-W-0317-000
Other IDWR No.

2. OWNER:
Name Jim Hoffman
Address 31 Old Blvd.
City Nampa State I Zip 83651

3. LOCATION OF WELL by legal description:
Sketch map location must agree with written location.

N / W / E / S

Twp. 3 North ☒ or South ☐
Rge. 3 East ☐ or West ☒
Sec. 16, 1/4 SW (10 acres) 1/4 SE (40 acres) 1/4 (160 acres)
Gov't Lot ____ County Canyon

Address of Well Site Same.
City Nampa
(Give at least name of road + Distance to Road or Landmark)

Lt. ____ Blk. ____ Sub. Name ____

4. PROPOSED USE:
☒ Domestic ☐ Municipal ☐ Monitor ☐ Irrigation
☐ Thermal ☐ Injection ☐ Other ____

5. TYPE OF WORK
☒ New Well ☐ Modify or Repair ☐ Replacement ☐ Abandonment

6. DRILL METHOD
☐ Mud Rotary ☒ Air Rotary ☒ Cable ☐ Other ____

7. SEALING PROCEDURES

SEAL/FILTER PACK Material	From	To	AMOUNT ~~Sacks or~~ Pounds	METHOD
Bentonite	0	20	150	Pour

Was drive shoe used? ☒ Y ☐ N Shoe Depth(s) ____
Was drive shoe seal tested? Y ☐ N ☐ How? ____

8. CASING/LINER:

Diameter	From	To	Gauge	Material	Casing	Liner	Welded	Threaded
6	+1	266	.250	Steel	☐	☐	☒	☐
5	259	266	.250	Steel	☐	☐	☒	☐
					☐	☐	☐	☐

Length of Headpipe 6' Length of Tailpipe 0

9. PERFORATIONS/SCREENS
☐ Perforations Method ____
☒ Screens Screen Type .304 Stainless

From	To	Slot Size	Number	Diameter	Material	Casing	Liner
265	270	.025		5		☐	☐
						☐	☐
						☐	☐

10. STATIC WATER LEVEL OR ARTESIAN PRESSURE:
150 ft. below ground Artesian pressure ____ lb.
Depth flow encountered ____ ft. Describe access port or control devices: Well Seal

11. WELL TESTS:
☒ Pump ☐ Baller ☐ Air ☐ Flowing Artesian

Yield gal./min.	Drawdown	Pumping Level	Time
20			12

Water Temp. ____ Bottom hole temp. ____
Water Quality test or comments: ____

12. LITHOLOGIC LOG: (Describe repairs or abandonment)

Bore Dia.	From	To	Remarks: Lithology, Water Quality & Temperature	Water Y	Water N
6	0	3	Top Soil		
	3	15	Gravel		
	15	115	S. Clay		
	115	120	Sandy clay / Sand		
	120	123	Blue Sand		
	123	245	Blue Clay / Sand Streaks		
	245	247	Fine Blue Sand		
	247	260	Blue clay		
	260	272	Fine Blue Sand.		

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Department of Water Resources

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OCT 21 1996
WATER RESOURCES
WESTERN REGION

MICROFILMED
FEB 05 1997

Completed Depth 270 (Measurable)
Date: Started 5-5-95 Completed 5-11-95

13. DRILLER'S CERTIFICATION
I/We certify that all minimum well construction standards were complied with at the time the rig was removed.

Firm Name Dennis Phipps Firm No. 332
Firm Official Dennis Phipps Date 5-28-95
and
Supervisor or Operator ____ Date ____
(Sign once if Firm Official & Operator)

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Form 238-7
6/93

IDAHO DEPARTMENT OF WATER RESOURCES
WELL DRILLER'S REPORT

Use Typewriter or Ball Point Pen

55509

1. DRILLING PERMIT NO. 63-94-W-0268-001
Other IDWR No. _____

2. OWNER:
Name DAVID SNELL
Address 16141 DEER FLAT ROAD
City CALDWELL State ID Zip 83605

3. LOCATION OF WELL by legal description:
Sketch map location must agree with written location.

N / W / E / S — X

T. 2 North ☒ or South ☐
R. 3 East ☐ or West ☒
Sec. 20, 10 acres 1/4 NE 40 acres 1/4 NE 160 acres 1/4
Gov't Lot _____ County CANYON

Address of Well Site 16141 DEER FLAT RD. CALDWELL
(Give at least Direction + Distance to Road or Landmark)

Lot No. _____ Block No. _____ Subd. Name _____

4. PROPOSED USE:
☒ Domestic ☐ Municipal ☐ Monitor ☐ Irrigation
☐ Thermal ☐ Injection ☐ Other _____

5. TYPE OF WORK
☐ New Well ☒ Modify or Repair ☐ Replacement ☐ Abandonment

6. DRILL METHOD
☐ Mud Rotary ☒ Air Rotary ☐ Cable ☐ Other _____

7. SEALING PROCEDURES

SEAL/FILTER PACK Material	From	To	AMOUNT Sacks or Pounds	METHOD
BENTONITE (GRANULAR)	0	30	100	DUMP & DRIVE

Was drive shoe seal tested? Y☐ N☐ How? _____

8. CASING/LINER:

Diameter	From	To	Guage	Casting	Liner	Steel	Plastic	Welded	Threaded
6"	+2	463	.25	X		☒	☐	☒	☐
						☐	☐	☐	☐
						☐	☐	☐	☐
						☐	☐	☐	☐

Final location of shoes 463
Top Packer or Headpipe _____ Bottom Tailpipe _____

9. PERFORATIONS/SCREENS - NONE

☐ Perforations Method _____
☐ Screens Type _____ Material _____

From	To	Slot Size	Number	Diameter	Tele/Pipe Size	Casting	Liner
						☐	☐
						☐	☐
						☐	☐
						☐	☐

10. WELL TESTS:
☐ Pump ☐ Bailer ☒ Air ☐ Flowing Artesian

Yield gal./min.	Drawdown	Pumping Depth	Time
25 gal			1 hr.

Temperature of water _____ Was a water analysis done? Yes ☐ No ☒
By whom? _____
Water Quality (odor, etc.) _____
Bottom Hole Temperature _____

11. STATIC WATER LEVEL:
370 ft. below surface Depth artesian flow found _____
Artesian pressure _____ lb. Describe access port _____
Describe Controlling Devices: _____

12. LITHOLOGIC LOG: (Describe repairs or abandonment)

Bore Dia.	From	To	Remarks: Lithology, Water Quality & Temperature	GPM	SWL
6"	700	870	Blue Clay		
	870	890	Fractured Blue Clay	X	
	890	900	Blue Clay		

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JUL 18 1994
WATER RESOURCES
WESTERN REGION

RECEIVED
OCT 17 1994
Department of Water Resources

MAY 08 1995

Date: Started 5/26/94 Completed 5/27/94

13. DRILLER'S CERTIFICATION
I/We certify that all minimum well construction standards were complied with at the time the rig was removed.

Firm Name Adamson Pump & Drill Firm No. 457
Firm Official Dave Adamson Date 5/27/94
and
Supervisor or Operator Dave Adamson Date 5/27/94
(Sign once if Firm Official & Operator)

FORWARD WHITE COPY TO WATER RESOURCES

Form 238-7
6/93

C

IDAHO DEPARTMENT OF WATER RESOURCES
WELL DRILLER'S REPORT

RECEIVED
JUN 17 1994
Department of Water Resources

Typewriter or Ball Point Pen

092619

1. DRILLING PERMIT NO. 63-94-W-0268-000
Other IDWR No.

2. OWNER:
Name David Swell
Address 215 Owyhee Ave
City Nampa State ID Zip 83686

3. LOCATION OF WELL by legal description:
Sketch map location must agree with written location.

N / W / E / S — X

T. 2 North ☒ or South ☐
R. 3 East ☐ or West ☒
Sec. 20, 10 acres 1/4 NE 40 acres 1/4 NE 160 acres 1/4
Gov't Lot ____ County Canyon

Address of Well Site 16141 Deer Flat Road, Caldwell
(Give at least Direction + Distance to Road or Landmark)

Lot No. ____ Block No. ____ Subd. Name ____

4. PROPOSED USE:
☒ Domestic ☐ Municipal ☐ Monitor ☐ Irrigation
☐ Thermal ☐ Injection ☐ Other ____

5. TYPE OF WORK
☒ New Well ☐ Modify or Repair ☐ Replacement ☐ Abandonment

6. DRILL METHOD
☐ Mud Rotary ☒ Air Rotary ☐ Cable ☐ Other ____

7. SEALING PROCEDURES

SEAL/FILTER PACK Material	From	To	AMOUNT Sacks or Pounds	METHOD
Bentonite	0	30	100#	Dump & Drive

Was drive shoe seal tested? YES NO How? ____

8. CASING/LINER:

Diameter	From	To	Guage	Casting	Liner	Steel	Plastic	Welded	Threaded
6"	+2	463	.25	X		☒	☐	☒	☐
						☐	☐	☐	☐
						☐	☐	☐	☐
						☐	☐	☐	☐

Final location of shoes 463
Top Packer or Headpipe ____ Bottom Tailpipe ____

9. PERFORATIONS/SCREENS - None
☐ Perforations Method ____
☐ Screens Type ____ Material ____

From	To	Slot Size	Number	Diameter	Tele/Pipe Size	Casting	Liner
						☐	☐
						☐	☐
						☐	☐
						☐	☐

10. WELL TESTS:
☐ Pump ☐ Bailer ☒ Air ☐ Flowing Artesian

Yield gal./min.	Drawdown	Pumping Depth	Time

Temperature of water ____ Was a water analysis done? Yes ☐ No ☒
By whom? ____
Water Quality (odor, etc.) ____
Bottom Hole Temperature ____

11. STATIC WATER LEVEL:
420 ft. below surface Depth artesian flow found ____
Artesian pressure ____ lb. Describe access port ____
Describe Controlling Devices: ____

12. LITHOLOGIC LOG: (Describe repairs or abandonment)

Bore Dia.	From	To	Remarks: Lithology, Water Quality & Temperature	GPM	SWL
8"	0	10	Sandy Top Soil		
	10	150	Clay & Sandy Clay		
	150	151	Sandstone		
	151	160	Clay		
	160	161	Sandstone		
	161	310	Clay & Sandy Clay		
	310	311	Sandstone		
	311	320	Clay		
	320	342	Blue Clay		
	342	343	Sandstone		
	343	465	Blue Clay		
	465	490	Blue Clay, v. hard		
	490	491	Soft, fractured Clay		
	491	495	Hard Clay		
	495	497	Soft, fractured Clay		
	497	501	Clay		
	501	506	Soft, fractured Clay		
	506	508	Soft, fractured Clay		
	508	700	Clay, blue v. little	X	

RECEIVED
FEB 08 1995
RECEIVED
MAY 04 1994
WATER RESOURCES
WESTERN REGION

Date: Started 4/13/94 Completed 4/20/94

13. DRILLER'S CERTIFICATION
I/We certify that all minimum well construction standards were complied with at the time the rig was removed.

Firm Name Adamson Pump & Drilling Firm No. 457
Firm Official Dave Adamson Date 4/20/94
and
Supervisor or Operator Dave Adamson Date 4/20/94
(Sign once if Firm Official & Operator)

FORWARD WHITE COPY TO WATER RESOURCES

Form 238-7
6/89

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES

USE TYPEWRITER OR BALLPOINT PEN

WELL DRILLER'S REPORT

State law requires that this report be filed with the Director, Department of Water Resources within 30 days after the completion or abandonment of the well.

COPY*

1. WELL OWNER

Name PICKLE BUTTE FARMS

Address ROUTE 4 BOX 344 NAMPA, IDAHO

Owner's Permit No. 63-88-Z-046

2. NATURE OF WORK

☒ New well ☐ Deepened ☒ Replacement
☐ Well diameter increase
☐ Abandoned (describe abandonment procedures such as materials, plug depths, etc. in lithologic log)

3. PROPOSED USE

☐ Domestic ☒ Irrigation ☐ Test ☐ Municipal
☐ Industrial ☐ Stock ☐ Waste Disposal or Injection
☐ Other _____ (specify type)

4. METHOD DRILLED

☒ Rotary ☒ Air ☐ Hydraullc ☐ Reverse rotary
☐ Cable ☐ Dug ☐ Other _____

5. WELL CONSTRUCTION

Casing schedule: ☒ Steel ☐ Concrete ☐ Other _____

Thickness	Diameter	From	To
.250 inches	20 inches +	1 feet	79 feet
.250 inches	16 inches	1.5 feet	439 feet
.250 inches	10 inches	420 feet	618 feet
_____ inches	_____ inches	_____ feet	_____ feet

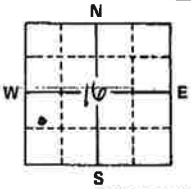
Was casing drive shoe used? ☒ Yes ☐ No
Was a packer or seal used? ☐ Yes ☒ No
Perforated? ☒ Yes ☐ No
How perforated? ☒ Factory ☐ Knife ☒ Torch ☐ Gun
Size of perforation 1/8 inches by 3 inches

Number		From	To
3200	perforations	230 feet	439 feet
1800	perforations	430 feet	610 feet
_____	perforations	_____ feet	_____ feet

Well screen installed? ☐ Yes ☒ No
Manufacturer's name _____
Type _____ Model No. _____
Diameter ___ Slot size ___ Set from _____ feet to _____ feet
Diameter ___ Slot size ___ Set from _____ feet to _____ feet
Gravel packed? ☒ Yes ☐ No ☒ Size of gravel 3/8MINUS
Placed from 430 feet to 610 feet
Surface seal depth 20 Material used in seal: ☐ Cement grout ☒ Bentonite ☒ Puddling clay ☐ _____
Sealing procedure used: ☒ Slurry pit ☒ Temp. surface casing ☒ Overbore to seal depth
Method of joining casing: ☐ Threaded ☒ Welded ☐ Solvent Weld ☐ Cemented between strata
Describe access port _____

6. LOCATION OF WELL

Sketch map location must agree with written location.



Subdivision Name _____
Lot No. _____ Block No. _____
County CANYON
NW ¼ SW ¼ Sec. 16, T. 2 ☒ N ☐ S, R. 3 ☐ E ☒ W

7. WATER LEVEL

Static water level 300 feet below land surface.
Flowing? ☐ Yes ☒ No G.P.M. flow _____
Artesian closed-in pressure _____ p.s.i.
Controlled by: ☐ Valve ☐ Cap ☐ Plug
Temperature _____ °F. Quality _____
Describe artesian or temperature zones below.

8. WELL TEST DATA

71245

☒ Pump ☐ Bailer ☐ Air ☐ Other _____

Discharge G.P.M.	Pumping Level	Hours Pumped
300	425	

9. LITHOLOGIC LOG

Bore Diam.	Depth From	Depth To	Material	Water Yes	Water No
24	0	20	Clay w/ Sand Layers		x
18.5	20	30	Sand w/ Clay Layers		x
"	30	60	Sand & Gravel		x
"	60	84	Clay w/ sand seams		x
"	84	115	Clay w/ Sand Layers		x
"	115	122	Sand		x
"	122	200	Clay w/ sand seams		x
"	200	240	Clay		x
"	240	270	Clay w/ sand seams		x
"	270	287	Clay		x
"	287	304	Sand		x
"	304	360	Clay		x
"	360	380	Sand & Clay layers		x
"	380	384	Clay		x
"	384	392	Sand W/ clay seams	x	
"	392	430	Clay		x
"	430	463	sandstone	x	
"	463	480	Clay		x
"	480	618	Clay w/ sand seams	x	

RECEIVED
OCT 23 1990
Department of Water Resources
Western Regional Office

RECEIVED
MAY 15 1991
Department of Water Resources

RECEIVED
MAY 13 1991
Department of Water Resources
Western Regional Office

RECEIVED
DEC 04 1991

10.

Work started 4/29/88 finished 10/11/90

11. DRILLERS CERTIFICATION

I/We certify that all minimum well construction standards were complied with at the time the rig was removed.

Firm Name BILL DOTY DRILLING CO., INC. Firm No. 42

Address 106 CALLOWAY Date 10-12-90
CALDWELL, ID 83605

Signed by (Firm Official) _____

and

(Operator) Bob Doty

USE ADDITIONAL SHEETS IF NECESSARY — FORWARD THE WHITE COPY TO THE DEPARTMENT

USE TYPEWRITER OR BALL POINT PEN

State of Idaho
Department of Water Administration

WELL DRILLER'S REPORT

State law requires that this report be filed with the State Reclamation Engineer within 30 days after completion or abandonment of the well.

Received 6-14-71

1. WELL OWNER

Name John R. Johnson

Address Rt 6 Box 75 Caldwell

Owner's Permit No. N.A.

2. NATURE OF WORK

☒ New well ☐ Deepened ☐ Replacement

☐ Abandoned (describe method of abandoning)

3. PROPOSED USE

☒ Domestic ☐ Irrigation ☐ Test

☐ Municipal ☐ Industrial ☐ Stock

4. METHOD DRILLED

☒ Cable ☐ Rotary ☐ Dug ☐ Other

5. WELL CONSTRUCTION

Diameter of hole 6 inches Total depth 575 feet

Casing schedule: ☐ Steel ☐ Concrete

Thickness	Diameter	From	To
.250 inches	6 inches	+1 feet	533 feet
_____ inches	_____ inches	_____ feet	_____ feet
_____ inches	_____ inches	_____ feet	_____ feet
_____ inches	_____ inches	_____ feet	_____ feet
_____ inches	_____ inches	_____ feet	_____ feet

Was a packer or seal used? ☐ Yes ☒ No

Perforated? ☐ Yes ☒ No

How perforated? ☐ Factory ☐ Knife ☐ Torch

Size of perforation _____ inches by _____ inches

Number	From	To
_____ perforations	_____ feet	_____ feet
_____ perforations	_____ feet	_____ feet
_____ perforations	_____ feet	_____ feet

Well screen installed? ☐ Yes ☒ No

Manufacturer's name _____

Type _____ Model No. _____

Diameter ___ Slot size ___ Set from _____ feet to _____ feet

Diameter ___ Slot size ___ Set from _____ feet to _____ feet

Gravel packed? ☐ Yes ☒ No Size of gravel _____

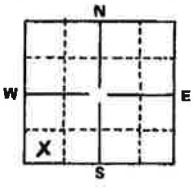
Placed from _____ feet to _____ feet

Surface seal? ☒ Yes ☐ No To what depth 42 feet

Material used in seal ☐ Cement grout ☒ Puddling clay

6. LOCATION OF WELL

Sketch map location must agree with written location.



County Canyon

SW ¼ SW ¼ Sec. 16, T. 2 N/S, R. 3 E/W

7. WATER LEVEL

Static water level 290 feet below land surface

Flowing? ☐ Yes ☒ No G.P.M. flow _____

Temperature _____ ° F. Quality _____

Artesian closed-in pressure _____ p.s.i.

Controlled by ☐ Valve ☐ Cap ☐ Plug

8. WELL TEST DATA

☒ Pump ☐ Bailer ☐ Other

Discharge G.P.M.	Draw Down	Hours Pumped
30		

31676

9. LITHOLOGIC LOG

Hole Diam.	Depth From	Depth To	Material	Water Yes	Water No
6"	0	10	Hardpan & gravel		X
	10	35	Sandy Clay		
	35	45	Clay		
	45	60	Sandy Clay		
	60	65	Gravel		
	65	105	Sandy Clay		
	105	112	Sand		
	112	165	Yellow Clay		
	165	170	Gravel		
	170	185	Clay		
	185	217	Sand		
	217	265	Yellow Clay		
	265	280	Blue Clay		
	280	295	Yellow Clay & Gravel		
	295	310	Yellow Clay		
	310	318	Brown Sandy Clay		
	318	325	Red Sandy Clay		
	325	380	White Clay		
	380	358	Yellow Sandy Clay		
	358	378	Sandy Clay		
	378	385	Yellow Clay		X
	385	405	Sand	X	
	405	440	Yellow Clay		X
	440	460	Gray Sandy Clay		
	460	480	Blue Shale		
	480	485	Blue Sand		
	485	500	Blue Shale		X
	500	515	Mucky Sand	X	
	515	520	Blue Shale		X
	520	530	Hard shale mixed with Sand		X
	530	570	Sticky Blue Shale		X
	570	575	Sand	X	

10.

Work started 10/28/70 finished 12/28/70

11. DRILLER'S CERTIFICATION

This well was drilled under my supervision and this report is true to the best of my knowledge.

Rex Engleman 47
Driller's or Firm's Name Number

1309 Rand Boise
Address

Rex A Engleman 6/13/70
Signed By Date

USE ADDITIONAL SHEETS IF NECESSARY

FORWARD THE WHITE, BLUE, AND PINK COPIES TO THE DEPARTMENT

USE TYPEWRITER OR BALL POINT PEN

State of Idaho
Department of Water Resources

WELL DRILLER'S REPORT

State law requires that this report be filed with the Director, **Department of Water Resources** within 30 days after the completion or abandonment of the well.

Received 3-3-76 3' D 3' R

1. WELL OWNER

Name LA MAR Penrod

Address Rt. 4 Caldwell, Idaho

Owner's Permit No. ____

2. NATURE OF WORK

[X] New well ☐ Deepened ☐ Replacement

☐ Abandoned (describe method of abandoning)

3. PROPOSED USE

[X] Domestic ☐ Irrigation ☐ Test ☐ Other (specify type)

☐ Municipal ☐ Industrial ☐ Stock ☐ Waste Disposal or Injection

4. METHOD DRILLED

[X] Cable ☐ Rotary ☐ Dug ☐ Other

5. WELL CONSTRUCTION

Diameter of hole 6 inches Total depth 405 feet

Casing schedule: [X] Steel ☐ Concrete

Thickness	Diameter	From	To
.250 inches	6 inches	+ 2 feet	210 feet
inches	inches	feet	feet
inches	inches	feet	feet
inches	inches	feet	feet
inches	inches	feet	feet

Was casing drive shoe used? [X] Yes ☐ No

Was a packer or seal used? ☐ Yes [X] No

Perforated? ☐ Yes [X] No

How perforated? ☐ Factory ☐ Knife ☐ Torch

Size of perforation ____ inches by ____ inches

Number	From	To
perforations	feet	feet
perforations	feet	feet
perforations	feet	feet

Well screen installed? ☐ Yes [X] No

Manufacturer's name ____

Type ____ Model No. ____

Diameter ___ Slot size ___ Set from ____ feet to ____ feet

Diameter ___ Slot size ___ Set from ____ feet to ____ feet

Gravel packed? ☐ Yes [X] No Size of gravel ____

Placed from ____ feet to ____ feet

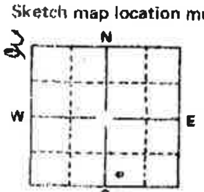
Surface seal depth 45' Material used in seal ☐ Cement grout ☐ Puddling clay [X] Well cuttings

Sealing procedure used ☐ Slurry pit ☐ Temporary surface casing ☐ Overbore to seal depth

6. LOCATION OF WELL

Sketch map location must agree with written location.

63



Subdivision Name ____

Lot No. ____ Block No. ____

County Canyon

SW ¼ SE ¼ Sec. 17, T. 2 N/S, R. 3 E/W

7. WATER LEVEL

Static water level 190 feet below land surface

Flowing? ☐ Yes [X] No G.P.M. flow ____

Temperature ____ °F. Quality ____

Artesian closed-in pressure ____ p.s.i.

Controlled by ☐ Valve ☐ Cap ☐ Plug

8. WELL TEST DATA

☐ Pump [X] Bailer ☐ Other

Discharge G.P.M.	Draw Down	Hours Pumped
15		

9. LITHOLOGIC LOG

41184

Hole Diam.	Depth From	Depth To	Material	Water Yes	Water No
8	0	3	Sand		X
8	3	15	Sand some Gravel		X
8	15	40	Sand and Clay layers		X
8	40	45	Gravel		X
6	45	50	Sand		X
6	50	110	Clay and Sand layers		X
6	110	210	Clay (Brown)		X
6	210	300	Blue Shale		X
6	300	305	Sand ~~and Clay~~	X	
6	305	400	Clay		X
6	400	405	Sand	X	
6	405	420	Clay		X

10.

Work started 9-18-75 finished 10-2-75

11. DRILLERS CERTIFICATION

Firm Name Bill Doty Well Drilling Firm No. 42

Address Route 7 Caldwell Date 3-3-76

Signed by (Firm Official) Bill Doty

and

(Operator) Bob Doty

USE ADDITIONAL SHEETS IF NECESSARY FORWARD THE WHITE COPY TO THE DEPARTMENT

Well Log Form 1
3M-3/63

RECEIVED
OCT 27 1965
Department of Reclamation

WELL LOG AND REPORT TO THE STATE RECLAMATION ENGINEER OF IDAHO

SUBMIT WITHIN 30 DAYS AFTER COMPLETION OF WELL: SEE IDAHO STATUTES 42-238

Permit No. ______ Well No. 174 County Canyon

Owner DR. JOHN PAUL FINCK

Address 701 N. Indiana Ave., Caldwell, Idaho

Driller B. & M. EQUIPMENT CO., INC.

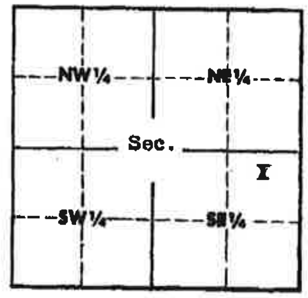
Address P.O. Box 973, Caldwell, Idaho

Well location NE ¼ SE ¼ Sec. 17, T. 2 N, R. 3 W

Size of drilled hole 12-1/4"

Total depth of well 100'

Locate well in section



Give depth to standing water from the ground 31' Water temp. ______ °Fahr.

Test delivery was ______ g.p.m. or ______ c.f.s. Drawdown was ______ feet. Pump? ______ Bail? ______

Size of pump and motor used to make test ______

Length of time of test ______ hours ______ minutes.

If flowing well, give flow ______ c.f.s. or ______ g.p.m. and of shut off pressure ______

If flowing well, described control works ______ (TYPE AND SIZE OF VALVE, ETC.)

Water will be used for Domestic Weight of casing per lineal foot 7.3

Thickness of casing 10 ga. Casing material Steel (STEEL, CONCRETE, WOOD, ETC.)

Diameter, length and location of casing 5" x 80' from ground, 6-5/8" x 20' from 80' to 100' from ground
(CASING 12" IN DIAMETER OR LESS, GIVE INSIDE DIAMETER; CASING OVER 12" IN DIAMETER, GIVE OUTSIDE DIAMETER)

CASING RECORD

Diam. Casing	From Feet	To Feet	Length	Remarks—seals, grouting, etc.
5"	0	80	80	Gravel packed from 40' to 100' from ground level. Four
6-5/8"	80	100	20	sack raw cement seal installed at 40'. Bentonite slurry,
				gravel, and dirt from seal to ground level.

Number and size of perforations 1440 1/8" x 2" located 80 feet to 100 feet from ground

Date of commencement of well June 15, 1965 Date of completion of well June 18, 1965

NE SE S.17 2N 3W

ubhl.

WELL LOG

From Feet	To Feet	Type of Material	Water-bearing Formation Ans. Yes or No	Casing Perforated Ans. Yes or No
0	1½	Soil-Brown	no	no
1½	5	Clay-hard	no	no
5	15	Sand-hard, white and brown, strips of rock	no	no
15	34	Sand-medium, with boulders	no	no
34	38	Gravel with boulders	no	no
38	42	" " "	no	no
42	47	Clay-yellow	no	no
47	52	Sand-yellow	no	no
52	65	Clay-yellow with narrow sand strips	no	no
65	71	Sand-white, medium	no	no
71	79	Clay-grey	no	no
79	83	Gravel-white, red and brown	yes	yes
83	91	Clay-grey	no	yes
91	95	Sand-coarse	yes	yes
95	108	Clay	no	yes
		If more space is required use Sheet No. 2		

WELL DRILLER'S STATEMENT

This well was drilled under my supervision and the above information is complete, true and correct to the best of my knowledge and belief.

Signed B. & M. EQUIPMENT CO., INC.

By Leo M. George

License No. 221

Dated Oct. 25, 1965.

Well Driller's Helper Glen Boxberger.

63

847849

Form 238-7
6/02

IDAHO DEPARTMENT OF WATER RESOURCES
WELL DRILLER'S REPORT

Office Use Only
Well ID No. 417825
Inspected by
Twp ____ Rge ____ Sec ____
____ 1/4 ____ 1/4 ____ 1/4
Lat: : : Long: : :

1. WELL TAG NO. D 0052060
DRILLING PERMIT NO. 900901-847849
Water Right or Injection Well No. 63-8232

2. OWNER:
Name BERNIE TEUNISSEN
Address 9166 PERCH
City CALDWELL State ID Zip 83607

3. LOCATION OF WELL by legal description:
You must provide address or Lot, Blk, Sub. or Directions to well.
Twp. 2 North ☒ or South ☐
Rge. 3 East ☐ or West ☒
Sec. 16, SE 1/4 (10 acres) NW 1/4 (40 acres) SW 1/4 (160 acres)
Gov't Lot ____ County CANYON
Lat: 43 : 30 :466 Long: 116: 42: 492
Address of Well Site PERCH Rd EAST SIDE ACROSS FROM DAIRY
(Give at least name of road + Distance to Road or Landmark) City CALDWELL
Lt. ____ Blk. ____ Sub. Name 9168 PERCH PER ARCVIEW

4. USE:
☐ Domestic ☐ Municipal ☐ Monitor ☒ Irrigation
☐ Thermal ☐ Injection ☐ Other ____

5. TYPE OF WORK check all that apply (Replacement etc.)
☐ New Well ☐ Modify ☐ Abandonment ☒ Other REPLACE

6. DRILL METHOD:
☐ Air Rotary ☐ Cable ☐ Mud Rotary ☒ Other REVERSE

7. SEALING PROCEDURES

Seal Material	From	To	Weight / Volume	Seal Placement Method
3/4 BENTONITE	0	488	60,000	DRY POUR

Was drive shoe used? ☐ Y ☒ N Shoe Depth(s) ____
Was drive shoe seal tested? ☐ Y ☒ N How? ____

8. CASING/LINER:

Diameter	From	To	Gauge	Material	Casing	Liner	Welded	Threaded
16	+2	520	.375	STEEL	☒	☐	☒	☐
					☐	☐	☐	☐
					☐	☐	☐	☐

Length of Headpipe ____ Length of Tailpipe 15
Packer ☐ Y ☒ N Type ____

9. PERFORATIONS/SCREENS PACKER TYPE
Perforation Method ____
Screen Type & Method of Installation JOHNSON WIRE WRAP

From	To	Slot Size	Number	Diameter	Material	Casing	Liner
520	640	.025		16	S.S.	☒	☐
						☐	☐
						☐	☐

10. FILTER PACK

Filter Material	From	To	Weight / Volume	Placement Method
#8-12 CSSI SAND	488	650	42,000	DRY POUR
CLAY FILL	650	680		

11. STATIC WATER LEVEL OR ARTESIAN PRESSURE:
398 ft. below ground Artesian pressure ____ lb.
Depth flow encountered ____ ft. Describe access port or control devices: ____
2" PIPE ON SIDE

12. WELL TESTS:
☒ Pump ☐ Bailer ☐ Air ☐ Flowing Artesian

Yield gal./min.	Drawdown	Pumping Level	Time
700 gpm	74	472	5 1/2 hrs

Water Temp. ____ Bottom hole temp. ____
Water Quality test or comments: ____
Depth first Water Encounter ____

13. LITHOLOGIC LOG: (Describe repairs or abandonment)

Bore Dia.	From	To	Remarks: Lithology, Water Quality & Temperature	Water Y	Water N
26	0	3	TOP SOIL		X
	3	5	CLECHY		X
	5	14	SANDY LOAM		X
	14	25	SAND, GRAVEL		X
	25	32	BLACK CINDERS		X
	32	46	BRN SANDSTONE, BURNT CLAY		X
	46	51	SAND, GRAVEL		X
	51	54	BURNT CLAY		X
	54	122	SAND, GRAVEL		X
	122	183	BRN CLAY, SM SAND LAYERS		X
	183	222	FINE BRN SAND		X
	222	232	BRN CLAY		X
	232	373	FINE SAND, SM CLAY LAYERS	X	
	373	405	BLUE CLAY		X
	405	433	FINE - COARSE SAND	X	
	433	441	BLUE CLAY		X
	441	450	BLUE SAND, SM CLAY LAYERS	X	
	450	476	BLUE CLAY		X
	476	520	FINE BLUE SAND, CLAY, YELLOW SHALE	X	
	520	644	FINE - COARSE SAND, SOME SHALE	X	
	644	645	HARD SANDSTONE		X
	645	659	FINE SAND	X	
	659	680	BLUE CLAY		X

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Completed Depth 655 (Measurable)
Date: Started 7-24-07 Completed 9-20-07

14. DRILLER'S CERTIFICATION
I/We certify that all minimum well construction standards were complied with at the time the rig was removed.

Company Name RIVERSIDE, INC Firm No. 333
Principal Driller [signature] Date 10-2-07
and
Driller or Operator II Kevin Chastain Date ____
Operator II [signature] Date ____
Principal Driller and Rig Operator *Required.*
Operator I must have signature of Driller/Operator II.

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Form 238-7
6/07

63

861400

IDAHO DEPARTMENT OF WATER RESOURCES
WELL DRILLER'S REPORT

1. WELL TAG NO. D 0060024
Drilling Permit No. 912768-861400
Water right or injection well # 63-2839,63-3329,63-3366,63-3396

2. OWNER: Bernie Teunissen 63-8232,63-8253,63-29025
Name Beranna Dairy
Address 9166 Perch
City Caldwell State ID Zip 83607

3.WELL LOCATION:
Twp. 02 North ☒ or South ☐ Rge. 03 East ☐ or West ☒
Sec. 16 NW 1/4 (10 acres) NW 1/4 (40 acres) SW 1/4 (160 acres)
Gov't Lot ____ County Canyon
Lat. N 43 ° 30.560 (Deg. and Decimal minutes)
Long. W116 ° 42.766 (Deg. and Decimal minutes)
Address of Well Site 500' to the East off of Perch, 9168 Perch Rd
(Give at least name of road + Distance to Road or Landmark) City Caldwell
Lot. ____ Blk. ____ Sub. Name ____

4. USE:
☐ Domestic ☐ Municipal ☐ Monitor ☒ Irrigation ☐ Thermal ☐ Injection
☒ Other Commercial, Stockwater

5. TYPE OF WORK:
☐ New well ☒ Replacement well ☐ Modify existing well
☐ Abandonment ☐ Other ____

6. DRILL METHOD:
☐ Air Rotary ☐ Mud Rotary ☐ Cable ☒ Other Reverse

7. SEALING PROCEDURES:

Seal material	From (ft)	To (ft)	Quantity (lbs or ft³)	Placement method/procedure
Bentonite chips	0	465	56,000	Dry pour

8. CASING/LINER:

Diameter (nominal)	From (ft)	To (ft)	Gauge/ Schedule	Material	Casing	Liner	Threaded	Welded
12	+2	482	.375	Steel	☒	☐	☐	☒
12	582	622	.375	Steel	☒	☐	☐	☒
12	627	632	.375	Steel	☒	☐	☐	☒
12	652	659	.375	Steel	☒	☐	☐	☒

Was drive shoe used? ☐ Y ☒ N Shoe Depth(s) ____

9. PERFORATIONS/SCREENS:
Perforations ☐ Y ☒ N Method ____
Manufactured screen ☒ Y ☐ N Type Johnson wire wrap
Method of installation Lower in

From (ft)	To (ft)	Slot size	Number/ft	Diameter (nominal)	Material	Gauge or Schedule
482	582	.025		12	S.S	
622	627	.025		12	S.S.	
632	652	.025		12	S.S.	

Length of Headpipe ____ Length of Tailpipe 5'
Packer ☐ Y ☒ N Type ____

10.FILTER PACK:

Filter Material	From (ft)	To (ft)	Quantity (lbs or ft³)	Placement method
#8-16 Sand	465	674	37,800	Dry pour

11. FLOWING ARTESIAN:
Flowing Artesian? ☐ Y ☒ N Artesian Pressure (PSIG) ____
Describe control device ____

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12. STATIC WATER LEVEL and WELL TESTS:
Depth first water encountered (ft) 424 Static water level (ft) 424
Water temp. (°F) 76° Bottom hole temp. (°F) 83° @ 740'
Describe access port Baker well cap

Well test:

Drawdown (feet)	Discharge or yield (gpm)	Test duration (minutes)	Test method: Pump	Bailer	Air	Flowing artesian
72	550	180	☒	☐	☐	☐
			☐	☐	☐	☐

Water quality test or comments: ____

13. LITHOLOGIC LOG and/or repairs or abandonment:

Bore Dia. (in)	From (ft)	To (ft)	Remarks, lithology or description of repairs or abandonment, water temp.	Water Y	Water N
20	0	4	Top soil		X
20	4	6	Caliche		X
20	6	10	Sand, gravel		X
20	10	19	Brown clay		X
20	19	25	Cemented sand, gravel		X
20	25	37	Black cinders, small white ash streak		X
20	37	104	Brown clay w/sand,gravel streaks		X
20	104	144	Fine-med sand some coarse gravel		X
20	144	271	Brown clay w/fine brn sand streaks		X
20	271	307	Fine - medium brown sand		X
20	307	321	Brown clay		X
20	321	355	Fine - medium brown sand		X
20	355	373	Brown clay		X
20	373	400	Blue clay		X
20	400	460	Fine - medium brown sand	X	
20	460	467	Blue clay		X
20	467	475	Fine blue sand	X	
20	475	488	Blue clay		X
20	488	581	Fine-med blue sand w/clay streaks	X	
20	581	621	Blue clay w/ fine blue sand streak		X
20	621	627	Fine blue sand	X	
20	627	632	Sandy blue clay		X
20	632	652	Fine blue sand w/cemented clay	X	
20	652	659	Blue clay w/ sandstone seams		X
20	659	664	Fine - medium sand	X	
20	664	673	Grey clay		X
20	673	677	Fine grey sand	X	
20	677	682	Sandy grey clay w/cemented layers		X
20	682	690	Grey clay		X
20	690	695	Grey sandstone		X
20	695	736	Grey clay		X
20	736	740	Sandy grey clay,grey sandstone		X

Completed Depth (Measurable): 669'
Date Started: Jun 28, 2011 Date Completed: Aug 26, 2011

14. DRILLER'S CERTIFICATION:
I/We certify that all minimum well construction standards were complied with at the time the rig was removed.
Company Name Riverside Inc Co. No. 333
*Principal Driller ____ Date 9-14-11
*Driller ____ Date 9/14/11
*Operator II ____ Date ____
Operator I ____ Date 9/14/11
*Signature of Principal Driller and rig operator are required.

Form 238-7
6/07

IDAHO DEPARTMENT OF WATER RESOURCES
WELL DRILLER'S REPORT

1. WELL TAG NO. D 0060024
Drilling Permit No. 912768-861400
Water right or injection well # 63-2839,63-3329,63-3366,63-3396
2. OWNER: Bernie Teunissen 63-8232,63-8253,63-29025
Name Beranna Dairy
Address 9166 Perch
City Caldwell State ID Zip 83607

3.WELL LOCATION:
Twp. 02 North ☒ or South ☐ Rge. 03 East ☐ or West ☒
Sec. 16 NW 10 acres 1/4 NW 40 acres 1/4 SW 160 acres 1/4
Gov't Lot ____ County Canyon
Lat. N 43 ° 30.560 (Deg. and Decimal minutes)
Long. W116 ° 42.766 (Deg. and Decimal minutes)
Address of Well Site 500' to the East off of Perch, 9168 Perch Rd City Caldwell
(Give at least name of road + Distance to Road or Landmark)
Lot. ____ Blk. ____ Sub. Name ____

4. USE:
☐ Domestic ☐ Municipal ☐ Monitor ☒ Irrigation ☐ Thermal ☐ Injection
☐ Other ____

5. TYPE OF WORK:
☐ New well ☒ Replacement well ☐ Modify existing well
☐ Abandonment ☐ Other ____

6. DRILL METHOD:
☐ Air Rotary ☐ Mud Rotary ☐ Cable ☒ Other Reverse

7. SEALING PROCEDURES:

Seal material	From (ft)	To (ft)	Quantity (lbs or ft³)	Placement method/procedure

8. CASING/LINER:

Diameter (nominal)	From (ft)	To (ft)	Gauge/ Schedule	Material	Casing	Liner	Threaded	Welded
					☐	☐	☐	☐
					☐	☐	☐	☐
					☐	☐	☐	☐
					☐	☐	☐	☐

Was drive shoe used? ☐ Y ☐ N Shoe Depth(s) ____

9. PERFORATIONS/SCREENS:
Perforations ☐ Y ☒ N Method ____
Manufactured screen ☒ Y ☐ N Type Johnson wire wrap
Method of installation ____

From (ft)	To (ft)	Slot size	Number/ft	Diameter (nominal)	Material	Gauge or Schedule
659	664	.025		12	S.S.	

Length of Headpipe ____ Length of Tailpipe ____
Packer ☐ Y ☐ N Type ____

10.FILTER PACK:

Filter Material	From (ft)	To (ft)	Quantity (lbs or ft³)	Placement method

11. FLOWING ARTESIAN:
Flowing Artesian? ☐ Y ☐ N Artesian Pressure (PSIG) ____
Describe control device ____

12. STATIC WATER LEVEL and WELL TESTS:
Depth first water encountered (ft) ____ Static water level (ft) ____
Water temp. (°F) ____ Bottom hole temp. (°F) ____
Describe access port ____

Well test:

Drawdown (feet)	Discharge or yield (gpm)	Test duration (minutes)

Test method:

Pump	Bailer	Air	Flowing artesian
☒	☐	☐	☐
☐	☐	☐	☐

Water quality test or comments: ____

13. LITHOLOGIC LOG and/or repairs or abandonment:

Bore Dia. (in)	From (ft)	To (ft)	Remarks, lithology or description of repairs or abandonment, water temp.	Water Y	Water N
			Bottom hole water temp. 83° @ 740'		
			taken with a Hobo temp logger		

Completed Depth (Measurable): 669'
Date Started: Jun 28, 2011 Date Completed: Aug 26, 2011

14. DRILLER'S CERTIFICATION:
I/We certify that all minimum well construction standards were complied with at the time the rig was removed.

Company Name Riverside Inc Co. No. 333
*Principal Driller ____ Date ____
*Driller ____ Date ____
*Operator II ____ Date ____
Operator I ____ Date ____

* Signature of Principal Driller and rig operator are required.

Form 238-7
11/97

IDAHO DEPARTMENT OF WATER RESOURCES
WELL DRILLER'S REPORT

065741

Office Use Only
Inspected by
Twp ____ Rge ____ Sec ____
____ 1/4 ____ 1/4 ____ 1/4
Lat: : : Long: : :

1. WELL TAG NO. D 0007372 pg 1
DRILLING PERMIT NO. 63-98-W051-000
Other IDWR No.

2. OWNER:
Name Leunissen Beranza Dairy
Address 16754 Hellman Ave
City Corona State CA Zip 91720

3. LOCATION OF WELL by legal description:
Sketch map location must agree with written location.

N / W / E / S

Twp. 2 North X or South ☐
Rge. 3 East ☐ or West X
Sec. 17 NE 1/4 NE 1/4 ____ 1/4
Gov't Lot ____ County Canyon
Lat: : : Long: : :
Address of Well Site Closest address to well
9168 Perch Ln
(Give at least name of road + Distance to Road or Landmark)
City Caldwell

Lt. ____ Blk. ____ Sub. Name ____

4. USE:
X Domestic ☐ Municipal ☐ Monitor ☐ Irrigation
☐ Thermal ☐ Injection ☐ Other ____

5. TYPE OF WORK check all that apply (Replacement etc.)
X New Well ☐ Modify ☐ Abandonment ☐ Other ____

6. DRILL METHOD
X Air Rotary ☐ Cable ☐ Mud Rotary ☐ Other ____

7. SEALING PROCEDURES

SEAL/FILTER PACK Material	From	To	AMOUNT Sacks or Pounds	METHOD
Bentonite	0	20	1250#	Overbore

Was drive shoe used? X Y ☐ N Shoe Depth(s) 140 & 505
Was drive shoe seal tested? ☐ Y X N How? ____

8. CASING/LINER:

Diameter	From	To	Gauge	Material	Casing	Liner	Welded	Threaded
8"	+2	506	250	Steel	X	☐	X	☐
12	+1	139	250	Steel	X	☐	X	☐
					☐	☐	☐	☐

Length of Headpipe ____ Length of Tailpipe ____

9. PERFORATIONS/SCREENS
Perforations Method ____
Screens Screen Type Nagaoka

From	To	Slot Size	Number	Diameter	Material	Casing	Liner
503	518	.016		5"	SS	☐	☐

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WATER RESOURCES
WESTERN REGION

10. STATIC WATER LEVEL OR ARTESIAN PRESSURE:
272 ft. below ground Artesian pressure ____ lb.
Depth flow encountered ____ ft. Describe access port or control devices: ____

11. WELL TESTS:
☐ Pump ☐ Bailer X Air ☐ Flowing Artesian

Yield gal./min.	Drawdown	Pumping Level	Time
150-200			1 hr

Water Temp. 72° Bottom hole temp. ____
Water Quality test or comments: Iron 2 PH 7.5 Grains 8
Depth first Water Encounter 354

12. LITHOLOGIC LOG: (Describe repairs or abandonment)

Bore Dia.	From	To	Remarks: Lithology, Water Quality & Temperature	Water Y	Water N
16"	0	15	Top soil		
16	15	20	Sand & gravel		
12	20	50	Sand & Gravel		
"	50	61	Sand, Gravel & clay		
"	61	105	Tan Clay		
"	105	133	Coarse Sand & clay		
"	133	275	Coarse Sand & more clay		
"	275	300	clay w/sand pockets		
8	300	305	Lt Blue Clay		
"	305	315	Crevasse w/ clay		
"	315	320	Darker Blue clay		
"	320	327	Lt Blue clay		
"	327	345	Blue & brown clay w/coarse sand		
"	345	348	clay		
"	348	349	Sand		
"	349	354	clay		
"	354	360	Sand w/short clay layers	X	
"	360	361	clay		
"	361	364	Sand		
"	364	368	clay		
"	368	380	Sand	X	
"	380	390	clay		
"	390	395	Brownish sand	X	
"	395	397	clay		
"	397	406	Brownish sand	X	
"	406	408	clay - blue		
"	408	419	Sand & sand stone pieces	X	
"	419	425	Clay - Blue		
"	425	429	sandy clay w/sand stone pieces		
"	429	438	clay w/ Crevasse	X	
"	438	445	clay - blue		
"	445	449	Blue clay w/short sand stratas		
			Continued on page 2		

MICROFILMED
NOV 04 1998

Completed Depth 518 (Measurable)
Date: Started 7-23-98 Completed 8-6-98

13. DRILLER'S CERTIFICATION
I/We certify that all minimum well construction standards were complied with at the time the rig was removed.

Company Name Adamson Pump & Drill Firm No. 0457
Firm Official Dave Adamson Date 8-13-98
and
Driller or Operator DAVE ADAMSON Date 8-13-98
(Sign once if Firm Official & Operator)

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Form 238-7
11/97

IDAHO DEPARTMENT OF WATER RESOURCES
WELL DRILLER'S REPORT

065742

Office Use Only
Inspected by _____
Twp ____ Rge ____ Sec ____
____ 1/4 ____ 1/4 ____ 1/4
Lat: : : Long: : :

1. WELL TAG NO. D 0007372 pg 2
DRILLING PERMIT NO. 63-98 to 0521-000
Other IDWR No. _____

2. OWNER:
Name Jeunisson Beranna Dairy
Address 14754 Hellman Ave.
City Corona State CA Zip 91720

3. LOCATION OF WELL by legal description:
Sketch map location must agree with written location.

N / W / E / S

Twp. 2 North X or South ☐
Rge. 3 East ☐ or West X
Sec. 17, NE 1/4 NE 1/4 ____ 1/4 (10 acres, 40 Acres, 160 acres)
Gov't Lot ____ County Canyon
Lat: : : Long: : :
Address of Well Site Closest address to Well is 9168 Perch Ln
(Give at least name of road + Distance to Road or Landmark)
City Caldwell

Lt. _____ Blk. _____ Sub. Name _____

4. USE:
X Domestic ☐ Municipal ☐ Monitor ☐ Irrigation
☐ Thermal ☐ Injection ☐ Other _____

5. TYPE OF WORK check all that apply (Replacement etc.)
X New Well ☐ Modify ☐ Abandonment ☐ Other _____

6. DRILL METHOD
X Air Rotary ☐ Cable ☐ Mud Rotary ☐ Other _____

7. SEALING PROCEDURES

SEAL/FILTER PACK Material	From	To	AMOUNT Sacks or Pounds	METHOD
Bentonite	0	20	250#	Overbore

Was drive shoe used? X Y ☐ N Shoe Depth(s) 140 & 505
Was drive shoe seal tested? ☐ Y ☐ N How? _____

8. CASING/LINER:

Diameter	From	To	Gauge	Material	Casing	Liner	Welded	Threaded
8"	+2	506	250	Steel	X	☐	X	☐
12"	+1	139	250	Steel	X	☐	X	☐
					☐	☐	☐	☐

Length of Headpipe _____ Length of Tailpipe _____

MICROFILMED NOV 04 1998

9. PERFORATIONS/SCREENS
Perforations Method _____
Screens Screen Type Nagaoka

From	To	Slot Size	Number	Diameter	Material	Casing	Liner
503	518	016		5"	SS	☐	☐
						☐	☐
						☐	☐

10. STATIC WATER LEVEL OR ARTESIAN PRESSURE:
272 ft. below ground Artesian pressure _____ lb.
Depth flow encountered _____ ft. Describe access port or control devices: _____

11. WELL TESTS:
☐ Pump ☐ Bailer X Air ☐ Flowing Artesian

Yield gal./min.	Drawdown	Pumping Level	Time
150-200			1hr

Water Temp. 72° Bottom hole temp. _____
Water Quality test or comments: Iron 2 PH 7.5 Grains 8
Depth first Water Encounter 354

12. LITHOLOGIC LOG: (Describe repairs or abandonment)

Bore Dia.	From	To	Remarks: Lithology, Water Quality & Temperature	Water Y	Water N
			Continued from page 1		
8	449	467	Clay-very hard silty Blue Clay		
"	467	485	Blue sand w clay layers	X	
"	485	487	Blue Clay		
"	487	490	Blue Sand		
"	490	492	Blue Clay		
"	492	494	Sand		
"	494	505	Clay		
"	505	518	Sand	X	

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Department of Water Resources

RECEIVED
AUG 17 1998
WATER RESOURCES
WESTERN REGION

Completed Depth 518 (Measurable)
Date: Started 7-23-98 Completed 8-6-98

13. DRILLER'S CERTIFICATION
I/We certify that all minimum well construction standards were complied with at the time the rig was removed.

Company Name Adamson Pump & Drill Firm No. 0457
Firm Official Dave Adamson Date 8-13-98
and
Driller or Operator DAVE ADAMSON Date 8-13-98
(Sign once if Firm Official & Operator)

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Form 238-7
11/97

IDAHO DEPARTMENT OF WATER RESOURCES
WELL DRILLER'S REPORT

59448

Office Use Only
Inspected by _____
Twp ____ Rge ____ Sec ____
____ 1/4 ____ 1/4 ____ 1/4
Lat: : : Long: : :

1. WELL TAG NO. D 0000294
DRILLING PERMIT NO. 63-97-C-0881 - 200
Other IDWR No. 63-033666

2. OWNER:
Name Teunissen - Beranna Dairy
Address 91666 Peach
City Caldwell State ID Zip 83607

3. LOCATION OF WELL by legal description:
Sketch map location must agree with written location.

N / W / E / S

Twp. 2 North ☒ or South ☐
Rge. 3 East ☐ or West ☒
Sec. 17, ____ 1/4 (10 acres) NE 1/4 (40 acres) NE 1/4 (160 acres)
Gov't Lot ____ County Canyon
Lat: ---- : ---- : ---- Long: ----
Address of Well Site Peach Lane
City Caldwell
(Give at least name of road + Distance to Road or Landmark)

Lt. _____ Blk. _____ Sub. Name _____

4. USE:
☐ Domestic ☐ Municipal ☐ Monitor ☒ Irrigation
☐ Thermal ☐ Injection ☐ Other _____

5. TYPE OF WORK check all that apply (Replacement etc.)
☐ New Well ☐ Modify ☐ Abandonment ☒ Other _____

6. DRILL METHOD
☐ Air Rotary ☐ Cable ☐ Mud Rotary ☐ Other Reverse

7. SEALING PROCEDURES

SEAL/FILTER PACK Material	From	To	AMOUNT Sacks or Pounds	METHOD
Bentonite 5/8" #8 # 16	0	350'	50,000#	overbore
Filter Sand	350'	650'	36,000#	overbore

Was drive shoe used? ☐Y ☒ N Shoe Depth(s) _____
Was drive shoe seal tested? ☐ Y ☐ N How? _____

8. CASING/LINER:

Diameter	From	To	Gauge	Material	Casing	Liner	Welded	Threaded
16"	+6'	535'	.375	Steel	☒	☐	☒	☐
16"	545'	590'	.375	Steel	☒	☐	☒	☐
16"	640'	650'	.375	steel	☒	☐	☒	☐

Length of Headpipe 541' Length of Tailpipe 10'

9. PERFORATIONS/SCREENS
Perforations
Screens
Method WIRE WRAP
Screen Type JOHNSON S.S.

From	To	Slot Size	Number	Diameter	Material	Casing	Liner
535'	545'	.035		16"	S.S.	☐	☐
590'	640'	.035		16"	S.S.	☐	☐
						☐	☐

10. STATIC WATER LEVEL OR ARTESIAN PRESSURE:
220 ft. below ground Artesian pressure _____ lb.
Depth flow encountered _____ ft. Describe access port or control devices: 2" Pipe & Cap

11. WELL TESTS:
☐ Pump ☐ Bailer ☐ Air ☐ Flowing Artesian

Yield gal./min.	Drawdown	Pumping Level	Time
	N/A		

Water Temp. _____ Bottom hole temp. _____
Water Quality test or comments: _____
Depth first Water Encounter _____

12. LITHOLOGIC LOG: (Describe repairs or abandonment)

Bore Dia.	From	To	Remarks: Lithology, Water Quality & Temperature	Water Y	Water N
26"	0	3	Top Soil		
	3	26	Hard Clay & Gravel		
	26	63	Sand & Gravel		
	63	113	Brn. Clay & Sand stks		
	113	145	Sand & Gravel stks clay		
	145	228	Sand & Clay Layers		
	228	330	Blue & Brn. Clay		
	330	334	Coarse Sand	X	
	334	384	Blue Clay		
	384	470	Blue clay stks Sand		
	470	482	Fine Sand	X	
	482	537	Clay & Sand stks		
	537	548	Sand & Sand Buttons	X	
	548	590	Blue Clay sand stks		
	590	640	Sand Fine & Medium	X	
	640	660	Blue Clay Stk. Sand		

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DEC 13 1999
Department of Water Resources

MICROFILMED

Completed Depth 650' (Measurable)
Date: Started 11/15/99 Completed 11/29/99

13. DRILLER'S CERTIFICATION
I/We certify that all minimum well construction standards were complied with at the time the rig was removed.

Company Name Riverside Inc. Firm No. 333
Firm Official _____ Date 12-9-99
and
Driller or Operator _____ Date _____
(Signature if Firm Official & Operator)

FORWARD WHITE COPY TO WATER RESOURCES

Form 238-7
/78

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES

USE TYPEWRITER OR BALLPOINT PEN

WELL DRILLER'S REPORT

State law requires that this report be filed with the Director, Department of Water Resources within 30 days after the completion or abandonment of the well.

1. WELL OWNER

Name JAMES KRAFT

Address 423 3rd Rd North Nampa

Owner's Permit No. _____

2. NATURE OF WORK

☑ New well ☐ Deepened ☐ Replacement
☐ Abandoned (describe method of abandoning) _____

3. PROPOSED USE

☑ Domestic ☐ Irrigation ☐ Test ☐ Municipal
☐ Industrial ☐ Stock ☐ Waste Disposal or Injection
☐ Other _____ (specify type)

4. METHOD DRILLED

☑ Rotary ☐ Air ☐ Hydraulic ☐ Reverse rotary
☐ Cable ☐ Dug ☐ Other _____

5. WELL CONSTRUCTION

Casing schedule: ☑ Steel ☐ Concrete ☐ Other _____

Thickness	Diameter	From	To
.250 inches	6 inches	+ 1 feet	500 feet
_____ inches	_____ inches	_____ feet	_____ feet
_____ inches	_____ inches	_____ feet	_____ feet
_____ inches	_____ inches	_____ feet	_____ feet

Was casing drive shoe used? ☐ Yes ☐ No
Was a packer or seal used? ☐ Yes ☑ No
Perforated? ☐ Yes ☑ No
How perforated? ☐ Factory ☐ Knife ☐ Torch
Size of perforation _____ inches by _____ inches

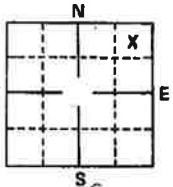
Number	From	To
_____ perforations	_____ feet	_____ feet
_____ perforations	_____ feet	_____ feet
_____ perforations	_____ feet	_____ feet

Well screen installed? ☐ Yes ☑ No
Manufacturer's name _____
Type _____ Model No. _____
Diameter ___ Slot size ___ Set from _____ feet to _____ feet
Diameter ___ Slot size ___ Set from _____ feet to _____ feet
Gravel packed? ☐ Yes ☑ No ☐ Size of gravel _____
Placed from _____ feet to _____ feet
Surface seal depth 19' Material used in seal: ☐ Cement grout ☑ Puddling clay ☑ Well cuttings
Sealing procedure used: ☐ Slurry pit ☐ Temp. surface casing ☑ Overbore to seal depth
Method of joining casing: ☐ Threaded ☑ Welded ☐ Solvent Weld ☐ Cemented between strata
Describe access port _____

6. LOCATION OF WELL

63

Sketch map location must agree with written location.



Subdivision Name _____

Lot No. _____ Block No. _____

County Canyon

NE ¼ NE ¼ Sec. 20, T. 2 N, R. 3 W.

7. WATER LEVEL

Static water level 200' feet below land surface.
Flowing? ☐ Yes ☑ No G.P.M. flow _____
Artesian closed-in pressure _____ p.s.i.
Controlled by: ☐ Valve ☐ Cap ☐ Plug
Temperature _____ °F. Quality _____

8. WELL TEST DATA

☐ Pump ☐ Bailer ☑ Air ☐ Other _____

Discharge G.P.M.	Pumping Level	Hours Pumped
3		2

9. LITHOLOGIC LOG

Hole Diam.	Depth From	Depth To	Material	Water Yes	Water No
8"	0'	19'	Sandy clay		
6"	19'	57'	Sandy clay		
6"	57'	60'	Hard brown clay		
6"	60'	116'	Clay-soft seams & sand		
6"	116'	134'	Seams of clay		
6"	134'	140'	Clay		
6"	140'	174'	Clay & sand seams		
6"	174'	177'	Clay		X
6"	177'	214'	Sand & clay layers	X	
6"	214'	217'	Clay		X
6"	217'	255'	Sand & clay layers	X	
6"	255'	288'	Sand- hard seam cly	X	
6"	288'	335'	Brown clay		X
6"	335'	524'	Shale		X

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JUN 30 1978
Department of Water Resources
Western Regional Office

JUL
Department of Water Resources
Western Regional Office

10.

Work started May 8-78 finished May 9-78

11. DRILLERS CERTIFICATION

I/We certify that all minimum well construction standards were complied with at the time the rig was removed.

Firm Name BILL DOTY WELL DRILLING Firm No. 42

Address Rt # 7 Caldwell Date 5/16/78

Signed by (Firm Official) Bill Doty

and

(Operator) Fred Doty

USE ADDITIONAL SHEETS IF NECESSARY — FORWARD THE WHITE COPY TO THE DEPARTMENT

RECEIVED
JAN 21 1976
Department of Water Resources

USE TYPEWRITER OR BALL POINT PEN

State of Idaho
Department of Water Administration

WELL DRILLER'S REPORT

State law requires that this report be filed with the Director, Department of Water Administration within 30 days after the completion or abandonment of the well.

1. WELL OWNER

Name John Johnson

Address

Owner's Permit No. 63-8232

2. NATURE OF WORK

Test ☒ New well ☐ Deepened ☐ Replacement

☒ Abandoned (describe method of abandoning)

Casing pulled backfilled with Puddling clay from 0 to 100'

3. PROPOSED USE

☐ Domestic ☒ Irrigation ☐ Test ☐ Other (specify type)

☐ Municipal ☐ Industrial ☐ Stock ☐ Waste Disposal or Injection

4. METHOD DRILLED

☐ Cable ☒ Reverse Rotory ☐ Dug ☐ Other

5. WELL CONSTRUCTION

Diameter of hole 28 inches Total depth 600 feet

Casing schedule: ☒ Steel ☐ Concrete

Thickness	Diameter	From	To
.250 inches	16 inches	+2 feet	172 feet
.250 inches	16 inches	202 feet	260 feet
.250 inches	16 inches	310 feet	318 feet
inches	inches	feet	feet
inches	inches	feet	feet

Was a packer or seal used? ☒ Yes ☐ No

Perforated? ☐ Yes ☐ No

How perforated? ☐ Factory ☐ Knife ☐ Torch

Size of perforation ____ inches by ____ inches

Number	From	To
perforations	feet	feet
perforations	feet	feet
perforations	feet	feet

Well screen installed? ☒ Yes ☐ No

Manufacturer's name Roscoe Moss

Type Full Flow Model No.

Diameter 16 Slot size ____ Set from 172 feet to 202 feet

Diameter 16 Slot size ____ Set from 260 feet to 310 feet

Gravel packed? ☒ Yes ☐ No Size of gravel

Placed from ____ feet to ____ feet

Surface seal depth 100' Material used in seal ☐ Cement grout ☒ Puddling clay ☐ Well cuttings

Sealing procedure used ☐ Slurry pit ☒ Temporary surface casing ☐ Overbore to seal depth

6. LOCATION OF WELL

Sketch map location must agree with written location.

63

N / W / E / S

Subdivision Name

Lot No. ____ Block No. ____

County Canyon

SE ¼ SW ¼ Sec. 17, T. 2 N/S, R. 3 E/W

7. WATER LEVEL

Static water level 161 feet below land surface

Flowing? ☐ Yes ☐ No G.P.M. flow

Temperature ____ °F. Quality

Artesian closed-in pressure ____ p.s.i.

Controlled by ☐ Valve ☐ Cap ☐ Plug

8. WELL TEST DATA

☐ Pump ☐ Bailer ☐ Other

Discharge G.P.M.	Draw Down	Hours Pumped

038235

9. LITHOLOGIC LOG

Hole Diam.	Depth From	Depth To	Material	Water Yes	Water No
	1	2	top soil		
	2	10	sand		
	10	60	fine brown sand		
	60	63	sand stone		
	63	80	gray clay		
	80	97	brown sand/streaks of sand stone		
	97	200	fine brown sand		
	200	212	brown clay		
	212	216	fine brown sand		
	216	232	brown clay		
	232	234	brown clay		
	234	236	sandstone		
	236	246	blue & brown clay		
	246	247	brown sand		
	247	249	blue & brown clay		
	249	256	brown & blue sand		
	256	262	blue clay		
	262	264	blue sand		
	264	266	blue clay		
	266	291	blue sand fine		
	291	305	blue clay		
	305	310	blue sand		
	310	600	blue clay		

10.

Work started 11/2/75 finished 11/6/75

11. DRILLERS CERTIFICATION

Firm Name PETE COPE DRILLING CO., INC. Firm No. 213

Address P.O. Box 561 Meridian, Idaho 83642 Date 11/10/75

Signed by (Firm Official) Pete Cope

and

(Operator) Ed Mahler

USE ADDITIONAL SHEETS IF NECESSARY   FORWARD THE WHITE COPY TO THE DEPARTMENT

USE TYPEWRITER OR BALL POINT PEN

State of Idaho
Department of Water Administration

WELL DRILLER'S REPORT

State law requires that this report be filed with the Director, Department of Water Administration within 30 days after the completion or abandonment of the well.

Received 12-19-72

1. WELL OWNER

Name John Johnson

Address Caldwell, Idaho 83605

Owner's Permit No. _____

2. NATURE OF WORK

☒ ~~New well~~ Redrill ☐ Deepened ☐ Replacement

☐ Abandoned (describe method of abandoning)

3. PROPOSED USE

☐ Domestic ☒ Irrigation ☐ Test

☐ Municipal ☐ Industrial ☐ Stock

4. METHOD DRILLED

☐ Cable ☒ Rotory (Reverse) ☐ Dug ☐ Other

5. WELL CONSTRUCTION

Diameter of hole 25 inches Total depth 591 feet

Casing schedule: ☒ Steel ☐ Concrete

Thickness	Diameter	From	To
.250 inches	16 inches	+ 18 feet	321 feet
.250 inches	16 inches	369 feet	423 feet
.250 inches	16 inches	474 feet	565 feet
.250 inches	16 inches	580 feet	590 feet
_____ inches	_____ inches	_____ feet	_____ feet

Was a packer or seal used? ☐ Yes ☐ No

Perforated? ☐ Yes ☐ No

How perforated? ☐ Factory ☐ Knife ☐ Torch

Size of perforation _____ inches by _____ inches

Number	From	To
_____ perforations	_____ feet	_____ feet
_____ perforations	_____ feet	_____ feet
_____ perforations	_____ feet	_____ feet

Well screen installed? ☒ Yes ☐ No

Manufacturer's name Roscow Mosa Free Flow

Type Free Flow 1/8 Perf Model No. _____

Diameter 16 Slot size ___ Set from 321 feet to 369 feet

Diameter 16 Slot size ___ Set from 423 feet to 474 feet
16 565 580

Gravel packed? ☒ Yes ☐ No Size of gravel 3/8-

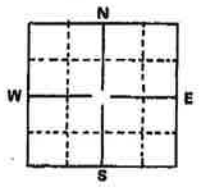
Placed from Top feet to Bottom feet

Surface seal? ☒ Yes ☐ No To what depth 18½ feet

Material used in seal ☒ Cement grout ☐ Puddling clay

6. LOCATION OF WELL

Sketch map location must agree with written location.



62

County Canyon

W ½ SW ¼ Sec. 16, T. 2 N/☒ R. 3 ☒W

7. WATER LEVEL

Static water level 335 feet below land surface

Flowing? ☐ Yes ☐ No G.P.M. flow _____

Temperature _____ ° F. Quality _____

Artesian closed-in pressure _____ p.s.i.

Controlled by ☐ Valve ☐ Cap ☐ Plug

8. WELL TEST DATA

☒ Pump ☐ Bailer ☐ Other

Discharge G.P.M.	Draw Down	Hours Pumped
2000	390	6

9. LITHOLOGIC LOG

038233

Hole Diam.	Depth From	Depth To	Material	Water Yes	Water No
	0	5	Top Soil		
	5	9	Hard Pan		
	9	19	Gravel, Clay & Cinders		
	19	21	Clay & Cinders		
	21	26	Gravel, Clay & Cinders		
	26	36	Cinders small gravel		
	36	38	Cemented gravel & Cinders		
	38	44	Semi Cemented Gravel		
	44	51	Hard Sandy Clay & Some Gravel		
	51	52	Cinders, sand & occ. rock		
	52	62	Coarse sand		
	62	70	Hard little sand stone		
	70	73	Lt. Green Clay		
	73	78	Sandy Clay		
	78	84	Fine dark sand		
	84	89	Silt stone (Hard) Lt. Green		
	89	104	Green Clay		
	104	130	Fine Gray Brown Sand		
	130	131	Clay		
	131	151	Brown Sand		
	151	152	Sand Small Gravel		
	152	155	Green clay		
	155	159	Fine Brown Sand		
	159	164	Medium Sand		
	164	166	Shaly hard green sandstone		
	166	172	Green Shaley Clay		
	172	173	Brown Clay		
	173	201	Lt. Green Clay		
	201	231	Shaley Green C lay		
	231	252	Clay (Softer)		
	252	254	Extra Fine Dark Brown Sand		
	254	268	Green Clay		
	268	271	Med. to Coarse Sand		
	271	296	Shaley Green Clay		
	296	300	Extra Fine Brown Sand		
	300	302	Green Clay		
	302	303	Extra Fine Brown Sand		

10.

Work started 11/22/72 finished 11/30/72

11. DRILLER'S CERTIFICATION

This well was drilled under my supervision and this report is true to the best of my knowledge.

Pete Cope Drilling Company 213
Driller's or Firm's Name Number

P.O. Box 561 - Meridian, Idaho 83642
Address

Pete Cope
Signed By Date

USE ADDITIONAL SHEETS IF NECESSARY

FORWARD THE WHITE, BLUE, AND PINK COPIES TO THE DEPARTMENT

USE TYPEWRITER OR BALL POINT PEN

State of Idaho
Department of Water Administration

WELL DRILLER'S REPORT

State law requires that this report be filed with the Director, Department of Water Administration within 30 days after the completion or abandonment of the well.

1. WELL OWNER

Name John Johnson

Address Payette

Owner's Permit No. _____

2. NATURE OF WORK

☐ New well ☐ Deepened ☐ Replacement

☐ Abandoned (describe method of abandoning)

_____

3. PROPOSED USE

☐ Domestic ☐ Irrigation ☐ Test

☐ Municipal ☐ Industrial ☐ Stock

4. METHOD DRILLED

☐ Cable ☐ Rotory ☐ Dug ☐ Other

5. WELL CONSTRUCTION

Diameter of hole _____ inches Total depth _____ feet

Casing schedule: ☐ Steel ☐ Concrete

Thickness	Diameter	From	To
_____ inches	2 inches	+ _____ feet	_____ feet
_____ inches	_____ inches	_____ feet	_____ feet
_____ inches	_____ inches	_____ feet	_____ feet
_____ inches	_____ inches	_____ feet	_____ feet
_____ inches	_____ inches	_____ feet	_____ feet

Was a packer or seal used? ☐ Yes ☐ No

Perforated? ☐ Yes ☐ No

How perforated? ☐ Factory ☐ Knife ☐ Torch

Size of perforation _____ inches by _____ inches

Number	From	To
_____ perforations	_____ feet	_____ feet
_____ perforations	_____ feet	_____ feet
_____ perforations	_____ feet	_____ feet

Well screen installed? ☐ Yes ☐ No

Manufacturer's name _____

Type _____ Model No. _____

Diameter ___ Slot size ___ Set from _____ feet to _____ feet

Diameter ___ Slot size ___ Set from _____ feet to _____ feet

Gravel packed? ☐ Yes ☐ No Size of gravel _____

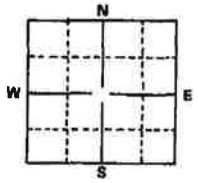
Placed from _____ feet to _____ feet

Surface seal? ☐ Yes ☐ No To what depth _____ feet

Material used in seal ☐ Cement grout ☐ Puddling clay

6. LOCATION OF WELL

Sketch map location must agree with written location.



County _____

W ½ SW ¼ Sec. 16, T. 5 N, R. 5 E/W

7. WATER LEVEL

Static water level _____ feet below land surface

Flowing? ☐ Yes ☐ No G.P.M. flow _____

Temperature _____ ° F. Quality _____

Artesian closed-in pressure _____ p.s.i.

Controlled by ☐ Valve ☐ Cap ☐ Plug

8. WELL TEST DATA

☐ Pump ☐ Bailer ☐ Other

Discharge G.P.M.	Draw Down	Hours Pumped

038234

9. LITHOLOGIC LOG

Hole Diam.	Depth From	Depth To	Material	Water Yes	Water No
	303	311	Clay		
	311	316	Alt. Lrg sand & Clay		
	316	319	Green Clay		
	319	332	Med. & Coarse Sand		
	332	333	Stroks of Clay		
	333	336	Fine Sand		
	336	336½	Dry Shaley Clay		
	336½	364	Med. Brown Sand		
	364	417	Blue Green Clay		
	417	474	Med. & Fine Sand		
	474	475	Blue Sandy Shell		
	475	481	Blue Clay		
	~~481~~	~~552~~	~~Fine Sand~~		
	552	553	Green Shaley Clay		
	553	577	Fine Black Sand		
	577	581	Sandstone Cinders & fine sand		
	581	582	Fine Black Sand		
	582	585	Lt. Gray Clay		
	585	591	Dark Gray Clay		
	481	486	Blue Clay		
	486	495	Fine Blue Black Sand		
	495	509	Blue Clay		
	509	511	Med. Blue Sand		
	511	536	Med. to Coarse Sand		
	536	538	Blue Clay		
	538	541	Blue Black Sand		
	541	543	Fine Sand		
	543	544	Silty Extra Fine Blue Black Sand		
	544	552	Fine Sand		

10.

Work started _____ finished _____

11. DRILLER'S CERTIFICATION

This well was drilled under my supervision and this report is true to the best of my knowledge.

_____

Driller's or Firm's Name Number

_____

Address

_____

Signed By Date

USE ADDITIONAL SHEETS IF NECESSARY FORWARD THE WHITE, BLUE, AND PINK COPIES TO THE DEPARTMENT

Form 238-7
11/97

IDAHO DEPARTMENT OF WATER RESOURCES
WELL DRILLER'S REPORT

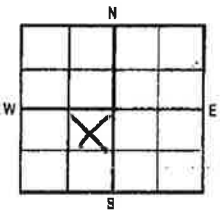
809901

Office Use Only
Inspected by _____
Twp ____ Rge ____ Sec ____
____ 1/4 ____ 1/4 ____ 1/4
Lat: : : Long: : :

1. WELL TAG NO. D 880802 · 809901
DRILLING PERMIT NO. ____ - ____ - ____ - ____ - ____
Other IDWR No. _____

2. OWNER:
Name TEUNISSEN-BERANNA DAIRY
Address 9166 PERCH RD
City CALDWELL State ID Zip 83607

3. LOCATION OF WELL by legal description:
Sketch map location must agree with written location.



Twp. 2 North ☒ or South ☐
Rge. 3 East ☐ or West ☒
Sec. 16, ____ 1/4 NE 1/4 SW 1/4
Gov't Lot ____ County CANYON
Lat: : : Long: : :
Address of Well Site PERCH RD
City CALDWELL
(Give at least name of road + Distance to Road or Landmark)

Lt. _____ Blk. _____ Sub. Name _____

4. USE:
☐ Domestic ☐ Municipal ☐ Monitor ☒ Irrigation
☐ Thermal ☐ Injection ☐ Other _____

5. TYPE OF WORK check all that apply (Replacement etc.)
☐ New Well ☐ Modify ☒ Abandonment ☐ Other _____

6. DRILL METHOD
☐ Air Rotary ☐ Cable ☐ Mud Rotary ☐ Other _____

7. SEALING PROCEDURES

SEAL/FILTER PACK Material	From	To	AMOUNT Sacks or Pounds	METHOD
CEMENT GROUT	388	222	11 YDS	POURED
CONCRETE	222	12	11 YDS	POURED
BENTONITE	12	0	1200 LBS	POURED

Was drive shoe used? ☐Y ☐ N Shoe Depth(s) _____
Was drive shoe seal tested? ☐ Y☐ N How? _____

8. CASING/LINER:

Diameter	From	To	Gauge	Material	Casing	Liner	Welded	Threaded
					☐	☐	☐	☐
					☐	☐	☐	☐
					☐	☐	☐	☐

Length of Headpipe _____ Length of Tailpipe _____

9. PERFORATIONS/SCREENS
Perforations Method _____
Screens Screen Type _____

From	To	Slot Size	Number	Diameter	Material	Casing	Liner
						☐	☐
						☐	☐
						☐	☐

10. STATIC WATER LEVEL OR ARTESIAN PRESSURE:
_____ ft. below ground Artesian pressure _____ lb.
Depth flow encountered _____ ft. Describe access port or control devices: _____

11. WELL TESTS:
☐ Pump ☐ Bailer ☐ Air ☐ Flowing Artesian

Yield gal./min.	Drawdown	Pumping Level	Time

Water Temp. _____ Bottom hole temp. _____
Water Quality test or comments: _____
Depth first Water Encounter _____

12. LITHOLOGIC LOG: (Describe repairs or abandonment)

Bore Dia.	From	To	Remarks: Lithology, Water Quality & Temperature	Water Y	Water N
	388	222	POURED 11 YDS OF CEMENT GROUT		
	222	12	POURED 1 YDS OF CONCRETE		
	12	0	POURED 1200 LBS OF BENTONITE		
			WELDED CAP ON		

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WATER RESOURCES
WESTERN REGION

Completed Depth 0 (Measurable)
Date: Started 12-22-03 Completed 12-24-03

13. DRILLER'S CERTIFICATION
I/We certify that all minimum well construction standards were complied with at the time the rig was removed.

Company Name HAGLESTON DRILLING - BOISE Firm No. 35

Firm Official _____ Date _____
and
Driller or Operator Randy Morrison Date 12-29-03
(Sign once if Firm Official & Operator)

FORWARD WHITE COPY TO WATER RESOURCES

WELL LOG AND REPORT OF THE STATE RECLAMATION ENGINEER OF IDAHO

034927

Permit No. 27733 Well No. _____ County Canyon

Owner John Johnson

Address Route 6 Caldwell Idaho

Driller Dana well Drilling (Leonard)

Address 273 Dana Ave Nampa Idaho

Well location W ½ SW ¼ Sec. 16, T. 2 N, R. 3 W

Size of drilled hole 16 in

Total depth of well 575 ft

Locate well in section

NW¼	NE¼
SW¼	SE¼

Give depth to standing water from the ground 250 ft Water temp. _____ °Fahr.

On "Pumping Test" delivery was _____ g.p.m. or _____ c.f.s. Drawdown was _____ feet.

Size of pump and motor used to make test I don't have the test report

Length of time of test _____ hours _____ minutes.

If flowing well, give flow _____ c.f.s. or _____ g.p.m. and of shut off pressure _____

If flowing well, described control works _____ (TYPE AND SIZE OF VALVE, ETC.)

Water will be used for Irrigation Weight of casing per lineal foot 23.8- 20.8

Thickness of casing 10 gauge Casing material steel (STEEL, CONCRETE, WOOD, ETC.)

Diameter, length and location of casing 400 ft 16 in - 102 ft 14 in
(CASING 12" IN DIAMETER OR LESS, GIVE INSIDE DIAMETER; CASING OVER 12" IN DIAMETER, GIVE OUTSIDE DIAMETER)

CASING RECORD

Diam. Casing	From Feet	To Feet	Length	Remarks—seals, grouting, etc.
16 in	Surface	400 ft	400 ft	
	383 ft	485	102 ft	
				used.

Number and size of perforations 8 rows 1" x 1¼" located 250 feet to 340 feet from ground

16 in 8 rows 1" x 1¼" 360 380

14" 12 rows 1" x 1¼" 415 480

Date of commencement of well Feb. 1963 Date of completion of well May 1963

W½SW 5.16 2N 3W

12

WELL LOG

From Feet	To Feet	Type of Material	Water-bearing Formation Ans. Yes or No	Casing Perforated Ans. Yes or No
Surface	4	Top soil		
4	12	Sandy loam		
12	21	Sandy soil		
21	72	Gravel & clay		
72	85	Hard yellow clay		
85	125	Sandy clay		
125	138	Dirty sand		
138	180	Coarse sand		
180	208	Sandy clay		
208	260	Hard yellow clay		
260	285	Sandy clay	Yes	
285	295	Fine & coarse sand	yes	
295	315	Sandy hard clay	yes	
315	325	Hard blue clay		
325	340	Sand & shale	yes	
340	360	Dirty sand	yes	
360	370	Coarse sand	yes	
		If more space is required use Sheet No. 2		

WELL DRILLER'S STATEMENT

This well was drilled under my supervision and the above information is true and correct to the best of my knowledge and belief.

Signed Davis Well Drilling

By Wilma Davis

License No. 100

Dated June 20, 1963.

SHEET NO. 2

Well Owner John Johnson
Well Driller Dana Well Drilling
Well Location 22 S 16 W SW

034928

WELL LOG

From Feet	To Feet	Type of Material	Water-bearing Formation Ans. Yes or No	Casing Perforated Ans. Yes or No
370	385	Hard blue Clay		
385	390	Coarse sand & shale	yes	
390	420	Dirty sand	yes	
420	508	Blue Clay sand shale	yes	
508	560	Sand & shale	yes	
560	575	Loose shale	yes	
		usss.		
		W ½ SW S.16 IN 34		

63

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DEC 19 1962
Department of Reclamation

WELL LOG AND REPORT OF THE STATE RECLAMATION ENGINEER OF IDAHO

034929

Permit No. 27209 Well No. _____ County Canyon

Owner George Johnson

Address Route 4, Caldwell, Idaho

Driller Dawn Well Drilling

Address 273 Dawn Ave, Tampa Idaho

Well location E½ NW¼ Sec. 16, T. 2 N/S R. 3 E/W

Locate well in section

NW¼	NE¼
SW¼	SE¼

Size of drilled hole 14 in

Total depth of well 345 ft

Give depth to standing water from the ground 112 ft Water temp. _____ °Fahr.

On "Pumping Test" delivery was 910 g.p.m. or 2 c.f.s. Drawdown was 113 feet.

Size of pump and motor used to make test 10" 200 HP Engine.

Length of time of test 29 hours 30 minutes.

If flowing well, give flow _____ c.f.s. or _____ g.p.m. and of shut off pressure _____

If flowing well, described control works _____ (TYPE AND SIZE OF VALVE, ETC.)

Water will be used for irrigation Weight of casing per lineal foot _____

Thickness of casing 10 gauge Casing material steel (STEEL, CONCRETE, WOOD, ETC.)

Diameter, length and location of casing 176 ft 14 in 128 ft 12 in (CASING 12" IN DIAMETER OR LESS, GIVE INSIDE DIAMETER; CASING OVER 12" IN DIAMETER, GIVE OUTSIDE DIAMETER)

CASING RECORD

Diam. Casing	From Feet	To Feet	Length	Remarks—seals, grouting, etc.
14 in	Surface	176 ft	176 ft	
12 in	155 ft	283 ft	128 ft	

Number and size of perforations 1" x ¼" located 112 feet to 120 feet from ground

1" x ¼" 135 150

2" x 1/16" 159 279

Date of commencement of well Nov 1962 Date of completion of well Dec 1962

E² NW S. 16 2N 3W

11

WELL LOG

From Feet	To Feet	Type of Material	Water-bearing Formation Ans. Yes or No	Casing Perforated Ans. Yes or No
Surface	4	Top soil		
4	20	Cement gravel		
20	42	Loose sand & gravel		
42	47	Coarse sand		
47	64	Sand & gravel		
64	78	Hard yellow clay		
78	95	Sandy clay		
95	107	Fine sand		
107	122	Sandy clay		
122	135	Fine & coarse sand & gravel	yes	
135	152	Coarse sand & joint clay	yes	
152	160	Hard yellow clay		
160	172	Joint clay & sand	yes	
172	220	Yellow clay		
220	240	Sand, joint clay & shale	yes	
240	245	Hard blue clay		
245	272	Sand & shale		
272	282	Hard sandstone		
		If more space is required use Sheet No. 2		

WELL DRILLER'S STATEMENT

This well was drilled under my supervision and the above information is true and correct to the best of my knowledge and belief.

Signed Dawes Well Drilling

By Wilma Dawes

License No. 100

Dated Dec 19, 1962

SHEET NO. 2

Well Owner *George Johnson*

Well Driller *Davis Well Drilling*

Well Location *~~2 3 N S 16~~ E½ 3 W*

WELL LOG

034930

From Feet	To Feet	Type of Material	Water-bearing Formation Ans. Yes or No	Casing Perforated Ans. Yes or No
283	312	Hard blue clay, shale & sand	yes	
312	316	Hard shale		
316	340	Hard blue clay		
340	345	Hard blue shale		
		usgs		
		E ½ NW S16 2N 3W		

G?

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APR 27 1962
Department of Reclamation

WELL LOG AND REPORT OF THE STATE RECLAMATION ENGINEER OF IDAHO

034924

Permit No. _____ Well No. _____ County Canyon

Owner Edwin & Shelton

Address Rt 4 Caldwell

Driller William L. Doty

Address Rt. 5 Nampa

Well location SW ¼ SW ¼ Sec. 17, T. 2 N/S R. 3 E/W

Size of drilled hole 6"

Total depth of well 215'

Locate well in section

Give depth to standing water from the ground even Water temp. _____ °Fahr.

On "Pumping Test" delivery was 240 g.p.M. or _____ c.f.s. Drawdown was 100 feet.

Size of pump and motor used to make test 2 ½ Cylinder

Length of time of test 4 hours 1 minutes.

If flowing well, give flow _____ c.f.s. or _____ g.p.m. and of shut off pressure _____

If flowing well, described control works _____
(TYPE AND SIZE OF VALVE, ETC.)

Water will be used for Domestic Weight of casing per lineal foot _____

Thickness of casing .188 Casing material Steel
(STEEL, CONCRETE, WOOD, ETC.)

Diameter, length and location of casing 6" - 133' 2' above grd. level To 131' below
(CASING 12" IN DIAMETER OR LESS, GIVE INSIDE DIAMETER; CASING OVER 12" IN DIAMETER, GIVE OUTSIDE DIAMETER)

CASING RECORD

Diam. Casing	From Feet	To Feet	Length	Remarks—seals, grouting, etc.
6"	2 ~~ft.~~ above	131 ~~ft.~~ Below	133	

Number and size of perforations _____ located _____ feet to _____ feet from ground

_____ _____ _____

_____ _____ _____

Date of commencement of well Nov 5, 1961 Date of completion of well Nov. 17, 1961

SW SW 5-17 2N 3W

USGS

6-2

WELL LOG

From Feet	To Feet	Type of Material	Water-bearing Formation Ans. Yes or No	Casing Perforated Ans. Yes or No
0	5	top soil		
5	25	clay		
25	50	sand & clay layers	yes	
50	63	clay		
63	80	sand & clay layers	yes	
80	98	sandy clay		
98	125	sand & clay layers	yes	
125	215	shale	yes	
		If more space is required use Sheet No. 2		

WELL DRILLER'S STATEMENT

This well was drilled under my supervision and the above information is true and correct to the best of my knowledge and belief.

Signed Jesse J Doty

By William L. Doty

License No. 159 + 40

Dated Nov. 23, 1961

Form 238-7
9/82

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES

USE TYPEWRITER OR BALLPOINT PEN

WELL DRILLER'S REPORT

W

State law requires that this report be filed with the Director, Department of Water Resources within 30 days after the completion or abandonment of the well.

98

1. WELL OWNER

Name Reese Nicholson

Address Nampa Id

Owner's Permit No. _____

2. NATURE OF WORK

☒ New well ☐ Deepened ☐ Replacement
☐ Abandoned (describe abandonment procedures such as materials, plug depths, etc. in lithologic log)

3. PROPOSED USE

☒ Domestic ☐ Irrigation ☐ Test ☐ Municipal
☐ Industrial ☐ Stock ☐ Waste Disposal or Injection
☐ Other _____ (specify type)

4. METHOD DRILLED

☒ Rotary ☒ Air ☐ Hydraulic ☐ Reverse rotary
☐ Cable ☐ Dug ☐ Other _____

5. WELL CONSTRUCTION

Casing schedule: ☒ Steel ☐ Concrete ☐ Other _____

Thickness		Diameter		From		To	
.250	inches	6	inches +	2	feet	30	feet
	inches		inches		feet		feet
	inches		inches		feet		feet
	inches		inches		feet		feet

Was casing drive shoe used? ☒ Yes ☐ No
Was a packer or seal used? ☐ Yes ☒ No
Perforated? ☐ Yes ☒ No
How perforated? ☐ Factory ☐ Knife ☐ Torch
Size of perforation _____ inches by _____ inches

Number		From		To	
_____	perforations	_____	feet	_____	feet
_____	perforations	_____	feet	_____	feet
_____	perforations	_____	feet	_____	feet

Well screen installed? ☐ Yes ☒ No
Manufacturer's name _____
Type _____ Model No. _____
Diameter ___ Slot size ___ Set from _____ feet to _____ feet
Diameter ___ Slot size ___ Set from _____ feet to _____ feet
Gravel packed? ☐ Yes ☒ No ☐ Size of gravel _____
Placed from _____ feet to _____ feet
Surface seal depth 30 Material used in seal: ☐ Cement grout ☐ Bentonite ☒ Puddling clay ☐ _____
Sealing procedure used: ☐ Slurry pit ☐ Temp. surface casing ☒ Overbore to seal depth
Method of joining casing: ☐ Threaded ☒ Welded ☐ Solvent Weld ☐ Cemented between strata
Describe access port _____

6. LOCATION OF WELL

Sketch map location must agree with written location.

N / W / E / S

Subdivision Name —

Lot No. _____ Block No. _____

County Canyon

NE ¼ NE ¼ Sec. 21, T. 2N N/S, R. 3W E/W.

MICROFILMED

7. WATER LEVEL

Static water level 45 feet below land surface.
Flowing? ☐ Yes ☒ No G.P.M. flow _____
Artesian closed-in pressure _____ p.s.i.
Controlled by: ☐ Valve ☐ Cap ☐ Plug
Temperature _____ °F. Quality _____
Describe artesian or temperature zones below.

8. WELL TEST DATA

☐ Pump ☐ Bailer ☒ Air ☐ Other _____

Discharge G.P.M.	Pumping Level	Hours Pumped
30	—	½

9. LITHOLOGIC LOG

87656

Bore Diam.	Depth From	Depth To	Material	Water Yes	Water No
8	0	10	Overburden		X
8	10	30	Rock Lava		X
6	30	160	Lava Rock	X	

RECEIVED
SEP 29 1986
Department of Water Resources
Western Regional Office

RECEIVED
SEP 26 1986
Department of Water Resources

10.

Work started 9/14/86 finished 9/18/86

11. DRILLERS CERTIFICATION

22

I/We certify that all minimum well construction standards were complied with at the time the rig was removed.

Firm Name Holder Drilling Firm No. 191

Address Caldwell Id Date 9/22/86

Signed by (Firm Official) Ed Holder

and

(Operator) Same

USE ADDITIONAL SHEETS IF NECESSARY — FORWARD THE WHITE COPY TO THE DEPARTMENT

Form 238-7
6/07

IDAHO DEPARTMENT OF WATER RESOURCES
WELL DRILLER'S REPORT

63

1. WELL TAG NO. D 0070180
Drilling Permit No. 9703148-8764725
Water right or injection well #

2. OWNER:
Name Juan Hulton
Address 205 E. Ustick Rd.
City Caldwell State Id Zip 83605

3. WELL LOCATION:
Twp. 02 North ☑ or South ☐ Rge. 03 East ☐ or West ☑
Sec. 21 ___ 1/4 NE 1/4 NE 1/4
(10 acres / 40 acres / 160 acres)
Gov't Lot ___ County Canyon
Lat. 43 30 ° 017 (Deg. and Decimal minutes)
Long 116 41 ° 821 (Deg. and Decimal minutes)
Address of Well Site 205 E. Ustick rd. City Caldwell
(Give at least name of road + Distance to Road or Landmark)
Lot. ___ Blk. ___ Sub. Name

4. USE:
☑ Domestic ☐ Municipal ☐ Monitor ☐ Irrigation ☐ Thermal ☐ Injection
☐ Other

5. TYPE OF WORK:
☑ New well ☐ Replacement well ☐ Modify existing well
☐ Abandonment ☐ Other

6. DRILL METHOD:
☑ Air Rotary ☐ Mud Rotary ☐ Cable ☐ Other

7. SEALING PROCEDURES:

Seal material	From (ft)	To (ft)	Quantity (lbs or ft³)	Placement method/procedure
3/8 Bentonite	0	38	1,000	dry pour

8. CASING/LINER:

Diameter (nominal)	From (ft)	To (ft)	Gauge/ Schedule	Material	Casing	Liner	Threaded	Welded
6"	+2	102	250	Steel	☑	☐	☐	☑
10"	0	38	250	steel	☑	☐	☐	☑
					☐	☐	☐	☐
					☐	☐	☐	☐

Was drive shoe used? ☑ Y ☐ N Shoe Depth(s) 102

9. PERFORATIONS/SCREENS:
Perforations ☐ Y ☑ N Method
Manufactured screen ☑ Y ☐ N Type Johnson S.S.
Method of installation Wash down

From (ft)	To (ft)	Slot size	Number/ft	Diameter (nominal)	Material	Gauge or Schedule
103	108	20th		5"	S.S.	

Length of Headpipe 6' Length of Tailpipe 0
Packer ☑ Y ☐ N Type 3 rib K-packer

10. FILTER PACK:

Filter Material	From (ft)	To (ft)	Quantity (lbs or ft³)	Placement method

11. FLOWING ARTESIAN:
Flowing Artesian? ☐ Y ☑ N Artesian Pressure (PSIG)
Describe control device

12. STATIC WATER LEVEL and WELL TESTS:
Depth first water encountered (ft) 5 Static water level (ft) 6
Water temp. (°F) 52 Bottom hole temp. (°F) 52
Describe access port 6" well cap

Well test:

Drawdown (feet)	Discharge or yield (gpm)	Test duration (minutes)
45	60	45

Test method: Pump ☐ Bailer ☐ Air ☑ Flowing artesian ☐

Water quality test or comments: Good water

13. LITHOLOGIC LOG and/or repairs or abandonment:

Bore Dia. (in)	From (ft)	To (ft)	Remarks, lithology or description of repairs or abandonment, water temp.	Water Y	Water N
10	0	5	Top soil		✓
	5	34	Big gravel	✓	
	34	38	Brown Clay		✓
6	38	42	Brown Clay		✓
	42	78	Sand	✓	
	78	81	Brown Clay		✓
	81	99	Sand	✓	
	99	103	Brown Clay		✓
	103	108	Sand	✓	

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MAY 16 2016
WATER RESOURCES
WESTERN REGION

Completed Depth (Measurable): 108'
Date Started: 8/22/2015 Date Completed: 8/28/2015

14. DRILLER'S CERTIFICATION:
I/We certify that all minimum well construction standards were complied with at the time the rig was removed.

Company Name Patriot Well Drilling Lic. No. 741
*Principal Driller [signature] Date 5/13/2016
*Driller ___ Date ___
*Operator II ___ Date ___
Operator I ___ Date ___

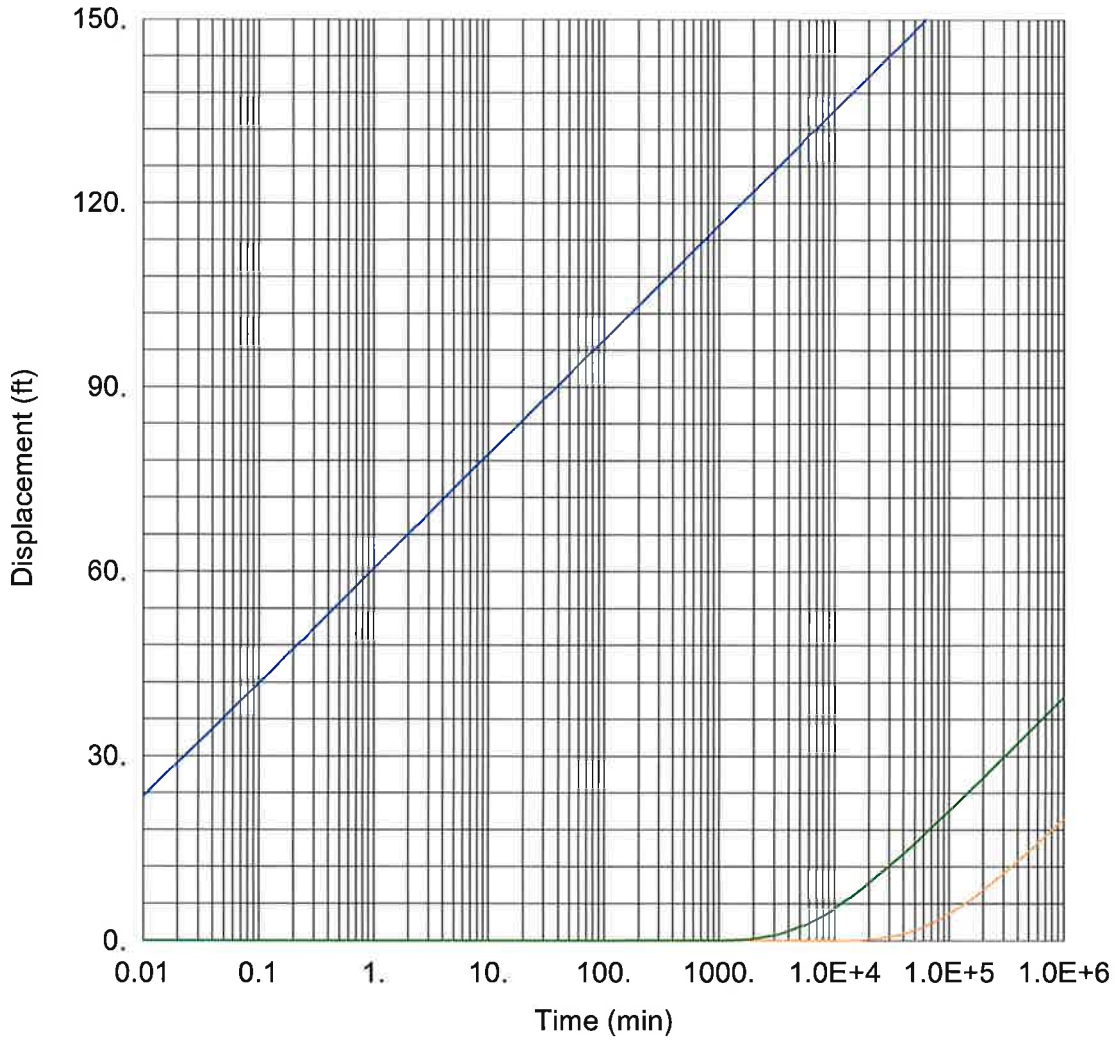
* Signature of Principal Driller and rig operator are required.

Attachment B: Theis Calculation of Transmissivity for Analysis

	Transmissivity		Notes
Low Estimate	70 ft^2/day		Based on specific capacity data from Helfrich domestic supply well (Well 297925) @ 20 gpm (60 ft) and 30 gpm (95 ft) and aquifer thickness of 48 ft.
High Estimates	2750 ft^2/day		Based on specific capacity data from Teunissen irrigation well (Well 417825) @ 700 gpm (74 ft) and aquifer thickness of 162 ft.
	2129 ft^2/day		Based on specific capacity data from Teunissen commercial/stock well (Well 430692) @ 550 gpm (72 ft) and aquifer thickness of 209 ft.
	620 ft^2/day		Based on specific capacity data from Pickle Butte Farm irrigation well (Well 306253) @ 300 gpm (125 ft) and aquifer thickness of 180 ft.
	1833 ft2/day	**90**	**ft mean thickness**

Permeability		Notes
1.5 ft/day	**5.20E-04 cm/sec**	Hydraulic conductivity (K) based on aquifer thickness of 48 ft (Helfrich well 297925) and transmissivity of specific capacity match of well at 20 and 30 gpm using Theis equation for confined flow
17.0 ft/day	6.00E-03 cm/sec	Hydraulic conductivity (K) based on aquifer thickness of 162 ft (Teunissen 417825 well) and transmissivity of specific capacity match of well at 700 gpm using Theis equation for confined flow
10.2 ft/day	3.60E-03 cm/sec	Hydraulic conductivity (K) based on aquifer thickness of 209 ft (Teunissen well 430692) and transmissivity of specific capacity match of well at 550 gpm using Theis equation for confined flow
3.4 ft/day	1.20E-03 cm/sec	Hydraulic conductivity (K) based on aquifer thickness of 180 ft (Pickle Butte Farm well 306253) and transmissivity of specific capacity match of well at 300 gpm using Theis equation for confined flow
10.2 ft/day	**3.60E-03 cm/sec**	mean

Attachment C: Aqtesolv V4 Pro Results



WELL TEST ANALYSIS

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
298341 Stuart	670296.9516	2368969.216

Observation Wells

Well Name	X (ft)	Y (ft)
▫ 298341 Stuart	670296.9516	2368969.216
+ 297925 Helfrich	670397.9918	2365799.78
+ 300419 Snell	670063.148	2368087.113

SOLUTION

Aquifer Model: Confined

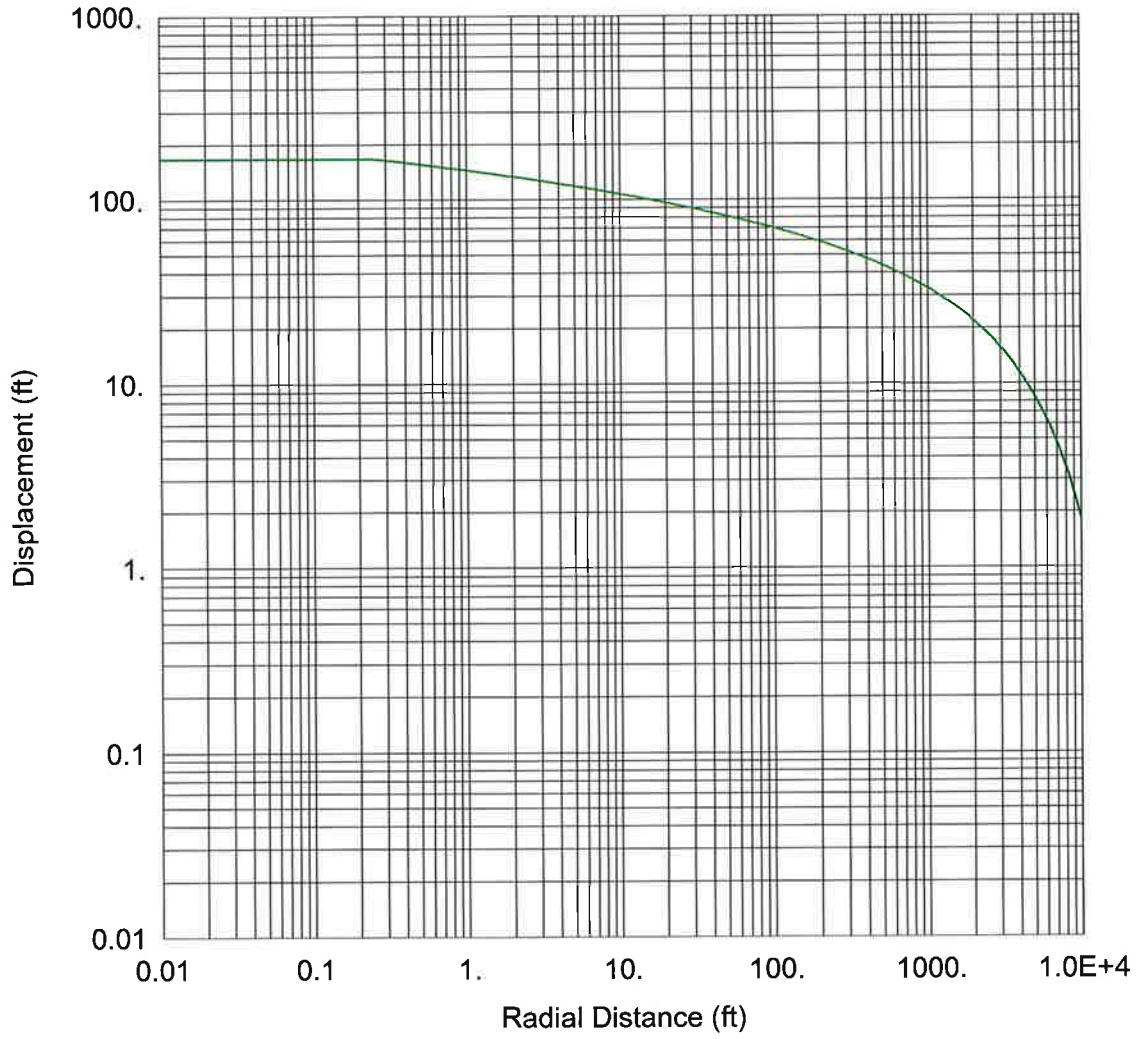
T = 70. ft^2/day

Kz/Kr = 0.1

Solution Method: Theis

S = 0.001

b = 48. ft



WELL TEST ANALYSIS

WELL DATA

Pumping Wells

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SOLUTION

Aquifer Model: Confined

T = 70. ft^2/day

Kz/Kr = 0.1

Solution Method: Theis

S = 0.001

b = 48. ft

Attachment 2.

Chris Yamamoto

Canyon County Clerk of the District Court
Ex-Officio Auditor and Recorder

"Serving all of Canyon County in an efficient, accurate and friendly manner"

February 21, 2020

Pickles Butte Landfill Operating Record
Pickles Butte Landfill
Canyon County
Caldwell, Idaho 83605

I hereby certify that Canyon County is in compliance with the requirements of the Environmental Protection Agency's rule *40 CFR Part 258 (Financial Assurance Mechanisms for Local Government Owners and Operators of Municipal Solid Waste Landfill Facilities*). The following paragraphs outline the test requirements and Canyon County's compliance with the rule.

1. **Local Government Financial Test** - (f) (1) (i)

To qualify for self-assurance, the County must either have a current bond rating of Aaa, Aa, A or Baa as issued by Moody's or AAA, AA, A or BBB as issued by Standard and Poor's or meet the financial ratio alternative. Canyon County meets the financial ratio requirements.

2. **Public Notice Component** - (f) (2)

To comply with the public notice component, the County must place reference to the closure and post-closure care costs assured through the financial test into its next Comprehensive Annual Financial Report (CAFR). Reference is made in the notes to the financial Statement and in the balance sheet of the solid waste landfill enterprise fund. (See attachment A) Canyon County is in compliance with GASB statement 18 and therefore complies with the public notice component. Reference will be placed in the operating record and has also been included in the 2019 CAFR.

3. **GAAP and Audit Requirements** - (f) (1) (ii)

The County must prepare its financial statements in conformity with Generally Accepted Accounting Principles for governments and have its financial statements audited by an independent certified public accountant. Canyon County prepared its 2019 Comprehensive Annual Financial Report (CAFR) in accordance with GAAP and the financial statements have been audited by Eide Bailly LLP.

1. **Other Eligibility Requirements** - (f) (1) (iii)

A local government is not eligible to assure its obligations under 258.74 (f) if it:

a. is currently in default on any outstanding general obligation bonds, or

111 N. 11th Ave. Ste. 320, Caldwell, ID 83605
Office: (208)454-7559 | Fax: (208)454-6888
Email: slarson@canyonco.org

b. has any outstanding general obligation bonds rated lower than Baa as issued by Moody's or BBB as issued by Standard and Poor's, or

c. operated at a deficit equal to five percent or more of total annual revenue in each of the past two fiscal years, or

d. received an adverse opinion, disclaimer of opinion, or other modified opinion from the independent certified public accountant (or appropriate State agency) auditing its financial statements required under paragraph (ii).

2. **Calculation of Costs to be Assured.** (f) (4)

If the County does not assure other obligations through a financial test, it may assure closure, post-closure and corrective action costs that equal up to 43 percent of the County's total annual revenue. As demonstrated on attachment B, our total closure and post-closure care costs do not exceed 43 percent of our total annual revenues. Therefore, we are able to provide assurance on the closure, post-closure and corrective action costs without obtaining a local government guarantee or alternate assurance.

Sincerely,

Chris Yamamoto

Chris Yamamoto
Canyon County Clerk, Auditor and Recorder

CC:
David Loper, Solid Waste Director
Board of County Commissioners
Kevin Ryan, DEQ Boise Regional Office

Attachment A

STATEMENT OF NET POSITION
PROPRIETARY FUNDS
September 30, 2019

	Business-type Activities - Enterprise Fund Solid Waste Management
ASSETS	
Current assets:	
Cash and investments	$ 18,736,551
Accounts receivable	374,025
Interest receivable	37,906
Prepaids	-
Total current assets	19,148,482
Noncurrent assets:	
Capital assets:	
Capital assets (net of accumulated depreciation)	9,513,600
Total assets	28,662,082
DEFERRED OUTFLOWS OF RESOURCES	
Deferred outflow - pensions	97,892
LIABILITIES	
Current liabilities:	
Accounts payable	176,472
Incurred claims payable	-
Compensated absences payable	48,540
Total current liabilities	225,012
Noncurrent liabilities:	
Compensated absences payable	16,180
Landfill closure/post-closure costs	9,315,374
Net pension liability	339,245
Total noncurrent liabilities	9,670,799
Total liabilities	9,895,811
DEFERRED INFLOWS OF RESOURCES	
Deferred inflow - pensions	150,302
NET POSITION	
Investment in capital assets	9,513,600
Unrestricted	9,200,261
Total net position	$ 18,713,861

The notes to the financial statements are an integral part of this statement.